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# An evaluation of pump-level service as a locational variable within Canada's retail gasoline industry

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by

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## Table of Contents

## List of Tables

## List of Figures

## List of Maps

## Chapter 1.0: Introduction

### 1.1: The Status of Retail Location and Network Analysis Within the Gasoline Industry

Marketers who are searching for prime retail locations for gasoline outlets, and other automobile-oriented activities, in today's market are faced with an increasingly complex process. As land and development costs escalate, competition increases and margins are tightened, there is a greater need for marketers within the retail gasoline industry to pinpoint sites that offer the best profit potential (Gilbart, 1994). In turn, large gasoline chains attempt to develop networks of stations that optimize market coverage and consumer convenience while minimizing costs.

In response to the evolution of an increasingly dynamic marketplace, experts within the retail gasoline industry have invested a great deal of time and money researching the key factors for station success. Traditional location analysis has involved the use of variables such as traffic volume and the number of trade area households to evaluate locations within the marketplace. While such variables are still essential, modern marketers must now consider a much wider range of locational factors which affect the success or failure of individual sites and/or aggregate networks.

### 1.2: The Role of the Service Variable within the Retail Gasoline Industry

As the locational pattern of gasoline stations is changing within Canada's urban markets so is the functional role and nature of service that is offered at each site. "The evolution of the retail petroleum site has been from neighborhood to key site and from auto service to fuel only and/or fuel plus ancillary use" (Webster, 1994). As profits from the sale of gasoline are falling marketers are struggling to find new ways to generate

revenues and minimize operational costs.

The functional role of the traditional retail gasoline station is changing as a new balance is sought between the sale of gasoline and the introduction of new ancillary functions. Traditional ancillary functions such as automobile maintenance and repair work began to suffer with the emergence of competition from specialty repair shops and large automotive parts retailers such as Canadian Tire and Sears. The impact of increased competition was magnified by a declining demand for regular maintenance and repair work in new automobiles.

The nature of 'service' at the pump-level has also changed significantly over the past twenty five years. Until the early 1970's most motorists had their gasoline pumped by a service attendant who also washed their windows and checked their oil. Self-service gasoline stations were one of the most significant marketing innovations introduced by the major Canadian oil companies in the early 1970's (Claus and Hardwick, 1972, Pg.167.). The self -service concept was first introduced in Sweden. By the early 1970's the customer-operated facilities in Sweden served a major portion of the country's retail gasoline market (Claus and Hardwick, 1972. Pg.167.). Shell led the introduction of the self-serve gasoline outlet to the Canadian market, followed by Imperial Oil (ESSO). By 1994 as much as 50% of Canada's urban gasoline volume was sold through self-serve pumps (Kent, 1994). Over the last several years retail marketers have also been experimenting with a split service super station, where both self and full-service is offered along with a mix of convenience items and services.

The most advanced locational research concerning gasoline retailing has been carried out by marketers and consultants within the petroleum industry. Market research

has identified many of the key variables necessary to predict station volumes at different locations. However, research related to consumer preference for pump-level service (full-serve vs. self-serve) has been less successful. Is the demand for full-service tied to locational differences associated with demographics, economics or regional social behaviors?

This thesis will focus on assessing the role and value of pump-level service (full-serve vs. self-serve) as a locational variable within the retail gasoline industry. From this point forward within this thesis the 'pump-level service' variable refers to the type of pump-level service available at a retail outlet; Full Service (a service attendant operates the pump) or Self Service (the customer operates the pump).

## 1.3: Research Questions

The purpose of this thesis is to analyze the role of pump-level service within Canada's retail gasoline industry. The fundamental questions being asked are;

1. "What is the current status of pump-level service within the Canadian Market?"
2. "What is the role of pump-level service within the retail gasoline industry?"
3. "How are gasoline volumes at different locations affected by service type?"
4. "What types of people prefer to have their gasoline pumped by service attendants?"
5. "What types of people prefer to pump their own gasoline?"
6. "Can gasoline retailers improve the efficiency of their networks by matching the type of service offered at any given outlet with the types of customers which make up the outlets trade area?"

By identifying the relationship between the types of consumers within market trade areas and the types of goods and services which they demand retailers can target their resources more efficiently. Shrinking profit margins coupled with the highly elastic nature of demand to competitive price fluctuations necessitates that gasoline retailers be sensitive

to the wants and needs of consumers within different regions. In other words, "how can the geography of supply be matched with the geography of demand?"

## 1.4: Research Objective

The primary goal of this paper is to develop a better understanding of pump-level service (full-service vs. self-service) as a locational variable within the retail gasoline industry. Improved understanding of how geographic location affects both the types and numbers of consumers that are attracted to the retail site will help real estate and marketing professionals within the gasoline industry make more informed choices.

In the process of analyzing pump-level service (full-service vs. self-service) consideration is also given to a wide range of other predictive factors which influence sales volumes at different sites. The evaluation of pump-level service as a locational variable also necessitates an extensive review of retail site evaluation and sales forecasting methods. As a result, this thesis offers a comprehensive review of the locational dynamics influencing retail gasoline sites and networks which extends beyond the main focus on the service variable.

The methodology used to delineate trade areas and analyze the role of pump-level service as a locational variable in this study is directly transferable to the analysis of other locational factors affecting gasoline retailers. This aspect of the thesis will be of interest to geographers and marketers who are studying other types of automobile-oriented retailing.

## 1.5 Thesis Organization

In order to present a comprehensive examination of pump-level service (self-service vs. full-service) within Canada's modern retail gasoline industry it is necessary to

put both the academic research and applied approaches to site evaluation and sales forecasting into perspective. Chapter Two focuses on the evolution of the literature concerning gasoline retailing and location analysis. This Chapter also provides a look at the most recent approaches to site and network analysis which are employed within the retail gasoline industry. This chapter highlights the evolution of methods for retail location analysis within the gasoline industry. Chapter Two also provides a general introduction to the locational dynamics of the retail gasoline outlet. In particular, this review of academic literature and applied industry methods identifies a void in the understanding of consumer behavior toward service at the retail gasoline outlet.

Chapter Three introduces the methodology of the thesis. The research concerning the service variable was divided into three separate, but related, sections. Chapter Four presents a macro examination of the service variables within Canada's retail gasoline industry. This macro examination reviews the changing trends in service offered in Canadian retail gasoline outlets between 1990 and 1994. Chapter Four also presents a profile of the service variable in 1994 which will be used in the following chapters as a basis for comparison with the results from the case study.

Chapter Five includes a micro analysis of the service variable within Canada's retail gasoline industry. Chapter Five has been designed to highlight the complex inter-relationships which exist between the variables which affect retail gasoline sales at different locations. No one variable can be examined in isolation from any of the other variables which influence the retail location. The chapter focuses specifically on the close inter-relationships which exist between the pump-level service variable and several other key locational variables, such as; consumer preference, other ancillary functions,

competition, economics and corporate strategy.

A case study of the retail gasoline market in Scarborough, Ontario is presented in Chapter Six in order to demonstrate a methodology for delineating trade areas and analyzing the relationship between customer typology and demand for service. This chapter includes a background introduction to Scarborough and discusses the database which was used to generate the study. Chapter Six provides a detailed look at a method for identifying trade areas for retail gasoline outlets and highlights the importance of accurate definition.

Chapter Seven describes a method for developing and comparing socioeconomic and demographic customer profiles between self-serve trade areas and full-serve trade areas. This profile comparison method is used to determine whether or not identifiable patterns exist between lifestyle and preference for service. Chapter Seven also discusses the future application of the trade area analysis approach to the evaluation of pump level service.

Chapter Eight presents a summary of the findings and conclusions.

## Chapter 2.0: Literature Review

### 2.1: The Status of Research Concerning Service within Canada's Retail Gasoline Industry

A significant range of literature exists concerning retailing and location analysis in general. However, very little contemporary literature exists that focuses specifically on the locational dynamics of the retail gasoline industry. The contemporary literature all but ignores any consideration of pump-level service (full-service vs. self-service) as a key aspect of outlet performance. The most useful and timely studies concerning the locational requirements for gasoline retailing have been generated by large corporations and consulting firms within the industry. Despite the many advancements that have been made in developing site evaluation and selection methods there remains an insufficient understanding of how pump-level service (full-service vs. self-service) influences sales volumes at different locations.

Several general publications offer necessary background material for this thesis. Jones and Simmons (1990,1993) have produced an overview of the North American retail environment in general and present an introductory look at modern approaches to location analysis. In their recent publication, Location, Location, Location (1993), Jones and Simmons successfully merge traditional academic literature with the modern approaches employed by professional practitioners. Other sources of general literature concerning retailing and location analysis that are relevant to this thesis include; Applebaum (1968), Berry (1988), Dorman (1989), Davies and Rogers (1984), Dawson (1980), Epstein and Schell (1982), and Ghosh and McLafferty (1987).

Literature that is concerned with gasoline retailing specifically is very limited. This paper has relied heavily on the concepts and theories presented in a 1972 publication

concerned with automobile-oriented retailing and site selection, "The Mobile Consumer". The publication, written by R.J. Claus and W.G. Hardwick, offers a comprehensive look at retail location phenomenon with a specific focus on gasoline service stations. Claus and Hardwick offer an excellent introductory look at the retail gasoline industry and present several classification and procedural methods for analyzing retail gasoline sites.

This thesis will also rely on several technical and statistical guides for model building and locational analysis. Lea (1989, 90, 91) provides an invaluable and practical overview of formal techniques and procedures for modern retail site evaluation and sales forecasting.

## 2.2: An Introduction to Canada's Retail Gasoline Industry

Prior to engaging in an in depth discussion of pump-level service (full-service vs. self-service) it is important to introduce the structure and operational dynamics of Canada's retail gasoline industry. Recent studies (Gilbart, 1994) have suggested that there has been a great deal of change within the retail gasoline industry over the last several decades. These market changes necessitate a re-evaluation of the older literature concerned with gasoline retailing, such as The Mobile Consumer (Claus and Hardwick, 1972).

### 2.2.1: The Structure of Canada's Retail Gasoline Market[1]

The geography of Canada's retail gasoline market is heavily influenced by the ownership structure of the industry. The retail gasoline industry in Canada may be described as an oligopoly because there are several dominant companies. However, regional refiners, private brands and independent retailers can and do compete.

In 1994 Imperial Oil (ESSO) maintained the largest retail gasoline network within Canada's urban market with approximately 1,452 stations. Petro Canada and Shell Canada operated national networks including approximately 1,249 and 1,038 stations respectively. Ultramar (497 stations), Suncor (309 stations) and Irving Oil (238 stations) are examples of major regional refiners within Canada's market. Canadian Tire Corporation, which maintains over 170 outlets across Canada, is the largest national non-refining private brand. Many of Canada's smaller corporations and independents are beginning to struggle.

Table 1 summarizes market share (by volume) and network effectiveness for Canada's retail gasoline industry in 1990 and 1994.[2] Market effectiveness provides a measure of the quality of a retail gasoline network. Marketers within the retail gasoline industry calculate network effectiveness by dividing a retailers market share by its outlet share. A market effectiveness ratio less than one indicates that that a network is operating from a position of weakness because it is not achieving one percent market share for every one percent of facilities in the market (Smith, 1989. Pg.6). Similarly, a retailer with a market effectiveness ratio greater than one is maintaining an efficient network, with greater than one percent market share for every one percent of facilities in the market.

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[1] Market share and outlet count information are presented in greater detail in Appendix 1.

[2] Station and volume information is based on Kent Marketing Data. The Kent Marketing Database represents the major urban markets in Canada. Kent Marketing covers approximately 70% of Canada's total retail gasoline network.

## Table 1[3]

### A Competitive Assessment of Canada's Retail Gasoline Industry 1990 - 1994 (Annual Volumes)

| Brand Classification and Company Name | Market Share by Volume (1990) | Market Share by Volume (1994) | Outlet Share (1990) | Outlet Share (1994) | Market Effectiveness (1990) | Market Effectiveness (1994) |
|---|---|---|---|---|---|---|
| **1. Major National Brands** | | | | | | |
| ESSO | 23% | 20% | 19% | 18% | 1.18 | 1.13 |
| PETROCANADA | 18% | 17% | 18% | 15% | 0.99 | 1.11 |
| SHELL | 14% | 15% | 14% | 13% | 1.02 | 1.13 |
| TOTAL | 55% | 52% | 51% | 46% | 1.07 | 1.12 |
| **2. Major Regional and Private Brands** | | | | | | |
| CANADIAN TIRE | 4% | 5% | 2% | 2% | 2.22 | 2.26 |
| CHEVRON | 3% | 3% | 2% | 2% | 1.40 | 1.63 |
| IRVING | 3% | 2% | 3% | 3% | 0.76 | 0.70 |
| SERGAZ | 1% | 1% | 1% | 1% | 0.62 | 0.66 |
| SUNOCO | 5% | 5% | 5% | 4% | 0.95 | 1.38 |
| ULTRAMAR | 5% | 5% | 6% | 6% | 0.79 | 0.81 |
| TOTAL | 20% | 21% | 19% | 18% | 1.01 | 1.16 |
| **3. Minor Regional and Private Brands** | | | | | | |
| 7-ELEVEN | 0% | 1% | 0% | 1% | 0.84 | 0.94 |
| BEAVER | 1% | 1% | 1% | 1% | 1.35 | 1.47 |
| CO-OP (WEST) | 1% | 1% | 1% | 1% | 1.42 | 1.29 |
| DOMO | 1% | 1% | 1% | 1% | 1.56 | 1.12 |
| HUSKY | 1% | 1% | 1% | 2% | 0.69 | 0.65 |
| MOHAWK | 1% | 2% | 2% | 2% | 0.94 | 1.02 |
| OLCO | 1% | 1% | 1% | 2% | 0.75 | 0.63 |
| PIONEER | 1% | 2% | 1% | 1% | 1.16 | 1.39 |
| SUNYS | 1% | 1% | 1% | 1% | 0.97 | 0.82 |
| SUPERSAVE | 1% | 1% | 1% | 1% | 0.81 | 0.83 |
| TURBO | 2% | 2% | 1% | 2% | 1.23 | 0.85 |
| TOTAL | 11% | 14% | 11% | 15% | 1.02 | 0.95 |
| **4. Independents and Minor Private Brands** | | | | | | |
| TOTAL | 12% | 10% | 15% | 15% | 0.82 | 0.66 |
| **5. Unbranded** | | | | | | |
| TOTAL | 2% | 3% | 3% | 5% | 0.57 | 0.47 |
| CANADIAN TOTAL: | 100% | 100% | 100% | 100% | | |

[3] "Major National Brands" includes Canada's 'Big Three' fully integrated national petroleum retailers. The station count and volume information in this category does not include any private brand offers which may be owned or associated with the "Major Retailers". For example, Beaver, which is owned by Shell Canada, is reported as an entity of it's own.

Within the retail gasoline industry market share is not necessarily a function of the number of stations. Measuring market share by sales volume is a more useful approach for location analysts because it takes into account network effectiveness and regional differences. Network effectiveness improves as the average sales per outlet increases. Network effectiveness can be influenced by the strength of the marketing strategy of particular brands, by the quality of the individual locations within the network and by variations in the socioeconomic and demographic characteristics of different regions. For example, in 1994 Canadian Tire operated Canada's most efficient network with a market effectiveness ratio of 2.26. The high level of efficiency which Canadian Tire maintains is related to the company's coupon offer and (in many cases) locational association with their large retail stores.

Suncor, a regional brand found primarily in Ontario, was able to cut 29 stations from it's network in 1992 and increased it's national market share by 1/10th to 5%. Irving Oil, a regional brand found primarily in Quebec and Atlantic Canada, operated over three times as many stations in 1992 but earned only 2% of the national market (Shiry, 1993. Pg.31). This proves that there is a significant need for corporations to establish locational strategies in order to maximize their sales while at the same time minimizing the number of outlets. The goal should be for high efficiency retailing through proper market networking.

Claus and Hardwick suggest that in order to be classified as a major company, an organization must be engaged in extraction, refining, transport and marketing of crude oil and petroleum products. Imperial Oil (ESSO), Petro Canada and Shell are Canada's three major companies by Claus and Hardwick's definition. Together, the 'big 3' major national retailers sold over half the total gasoline volume within Canada in 1994 (See Table 1). Several major regional retailers, such as Sunoco (Central), Chevron (Western) and Irving Oil (Eastern) also

operate fully integrated companies. Beyond their gasoline retailing interests, the large integrated corporations also rely on government gasoline contracts, aviation fuel, fuel oils, asphalt, lubrication oils and other petrochemical products. The depth of the revenue pool for the large integrated gasoline companies provides them with many advantages over smaller retailers. They not only have a guaranteed market for their product through their retail gasoline stations, they also have a more stable market because they operate many outlets. The high number of outlets reduces operating costs and allows the losses of unprofitable sites to be covered by more successful revenue-generating outlets. However, the tight competitive nature of the industry is forcing large corporate chains to streamline their retail networks by closing low quality sites. This focus on improving efficiency has led to the restructuring and rationalization of Canada's corporate retail network.

### 2.2.2: The Rationalization of Canada's Retail Gasoline Industry

The geography of Canada's urban retail gasoline network has changed dramatically over the last several years. Canada's retail gasoline industry is characterised by over capacity, heavy competition, tight margins, low revenues and declining demand. The response to this tightening of Canada's retail gasoline industry has been the creation of corporate rationalization and consolidation programs resulting in station closures throughout the country. In fact, according to the annual retail marketing survey recently published in Octane magazine, 1,104 retail gasoline outlets were closed in 1992. Petro Canada shut down or sold 498 stations, Shell 417 and Imperial Oil 193 (Shiry, 1993. Pg.31). Much of the need for the rationalization of the gasoline companies has been the result of losses in both refining and marketing operations associated with increased domestic competition. There has been an enormous gasoline surplus

over the last several years which has also forced retailers to improve the efficiency of their operations due to much tighter margins. Retailers have barely been able to cover their overheads let alone achieve attractive profits.

Part of the reason for excess capacity and heavy competition can be attributed to the fact that Canada's retail gasoline marketplace is over-saturated. In a recent article in the Globe and mail, James Pantelidis, Petro-Canada's executive vice-president, is quoted as saying that in Canada "..there are too many service stations built for the demand that is out there" (Jang, 1995).

The Canadian retail gasoline industry has evolved under very different market conditions than those of American retailers. John Webster, the Vice President of the Petroleum Client Services division at MPSI Oklahoma, suggests that the Canadian market is under greater control by major oil corporations.[4] The Canadian market is overbuilt and as a result, is under used. Low throughput levels provide evidence of the under use of many Canadian gasoline retailers.

> "In the United States there were 1,299 cars per outlet in 1990 versus 652 cars per Canadian station. The average U.S. outlet sold 3,758 cubic metres of gasoline in 1990, up from 2,407 a decade earlier. In Canada, the average was 1,754 cubic metres in 1990 versus 1,592 in 1980." (Shiry, 1993. Pg.31).

Canadian gasoline retailers have averaged less than half the sales volume per outlet than their counterparts in the United States. As a result, the retail gasoline industry in the United States has not needed to restructure because the network of outlets is more efficient and affords individual stations greater throughputs. Markets in Canada and the United States have

[4] MPSI is an international computer software and information services company which is based in Tulsa, Oklahoma. Since 1970, MPSI has specialized in retail site and network analysis within the petroleum industry and has provided consulting services for major gasoline companies.

both undergone restructuring in terms of cutting delivery costs and closing refineries (Webster, 1994).

Increasingly rigid environmental protection regulations have also contributed to the need for corporate rationalization and have caused many independent retailers to close their stations. The gasoline outlet has always been one of the most capital intensive retail forms which operates in Canada's marketplace (Claus and Hardwick, 1972. Pp50). The added cost of replacing old storage tanks to reduce seepage and adding primary and secondary recovery technologies to reduce the leakage of fumes into the atmosphere has made it impossible for many independents to survive. Many station upgrades that are related to environmental regulations can force stations to close for long periods of time and add hundreds of thousands of dollars to fixed capital costs. A recent survey in the United States by the Petroleum Marketers Association of America found that the average annual cost of compliance to new environmental regulations was about $133,000 (U.S.) per station (Salpukas, 1993. Pg.D3). For outlets in major metropolitan areas there were additional costs of about $40,000 (U.S.) per station for new hoses and nozzles.

As a result, along with the corporate rationalization that has characterized Canada's gasoline industry there has been an increased stress placed on the small scale retailer. While Table 1 indicates that minor private brands and unbranded outlets have maintained market share in terms of volume, it also indicates that the market effectiveness of the small scale retailers has declined.

Related to the network rationalization which has characterised Canada's retail gasoline marketplace over the last several years has been a move toward more efficient operations within each retail outlet. Gasoline retailers have focused much of their efforts on identifying

new ancillary functions, such as fast food and convenience goods, which will improve the utility of the gasoline outlet to passing motorists and increase sales. Retailers have struggled for many years to reach the perfect balance between gasoline sales and new ancillary functions in order to attract gasoline customers and to supplement the income generated through the sale of gasoline.

The search for more efficient operations at the store level has had a significant impact on the type of service that has been offered at the pump-level. It was not until the 1970's that the self-serve station began to emerge in the marketplace. Since it's introduction the self-serve alternative has been the fastest growing format for gasoline sales within urban areas of Canada. Despite the trend toward self-serve operations a significant portion of Canada's retail gasoline volume is still sold through full-service locations. In recent years retailers have introduced automated pumps and are experimenting with split service mega stations where a self-serve alternative caters to the consumer seeking value and a full-serve offer to the consumer seeking convenience.

## 2.3: The Evolution of Site Evaluation and Performance Prediction Within the Gasoline Industry

In order to evaluate the role of pump-level service (full-service vs. self-service) as a locational variable it is important to review traditional methods of retail site evaluation and sales forecasting. While the nature of service has changed within the industry there has not been any evaluation of the role of pump-level service as a key locational variable. Marketers within the retail gasoline industry are increasingly concerned about the effects that pump-level service (full-service vs. self-service) has on the ability of various locations to attract customers.

2.3.1: The Conceptual Framework Behind Site Evaluation and Performance Prediction Models

The primary goal of store location research is to identify a retail site at an economical cost, allowing for competitive market penetration, with an acceptable revenue return and allowing for long term growth (Richards, 1981. Pg1). Locational advantages can be gained and lost very quickly, as urban systems are dynamic and undergoing constant evolution. Location and network analysis is a never ending process because there is no way to guarantee the maintenance of the "optimal or ideal location in the face of exogenous changes unless a firm could move its facilities about in space at zero costs" (Pred, 1967. Pg21).

The central problem that location analysts are concerned with is "How well would a store, or set of stores, of a particular type likely perform when located at a particular site, or set of sites?" (Lea, 1989. Pg8.).

The conceptual framework around which site evaluation and performance prediction models are constructed is the idea that;

> "Underlying the methods is the idea that good predictions, or projections, are based on good explanations of differences in existing store revenues. If there is a good model, which explains why some existing stores do better than others, one can use this model to predict how a store will do on any particular site." (Lea, 1989. Pp9.)

Traditional methods of site evaluation and sales forecasting within the retail gasoline industry have focused on two key variables; traffic volume and the number of trade area households. However, marketers within the retail gasoline industry also focus heavily on the importance of advertising, competition, convenience and many other key variables which influence the success or failure of individual locations. In fact, many experienced real estate and marketing professionals within the petroleum industry have

achieved the right combination of knowledge, intuition and luck to be able to identify successful retail locations with acceptable levels of consistency. However, the modern retail gasoline industry is becoming increasingly more complex, competitive and capital intensive. The cost of closing and/or relocating stations is often too high to justify. As a result, decision makers within the industry are constantly searching for improved knowledge about their operations.

### 2.3.2: An Introduction to The Predictive Variables Which Influence Retail Gasoline Locations

The complexity and effectiveness of site evaluation and performance prediction methods employed within the retail gasoline industry have increased significantly over the last twenty years. Site evaluation has evolved from a simple checklist of variables to a complex surveying procedure requiring trained professionals. Performance prediction models have evolved from simple and ad hoc methods in the 50's, into simple regression equations in the 70's into a series of increasingly complex computer models based on hundreds of variables. Each of these approaches is built around a group of key variables which are essential to the success of the gasoline retailer.

> The fundamental approach taken when developing a volume predictor involves the identification of variables that have an important influence, determining the degree of their influence, and the fitting of the interaction of the various variables (Tod, 1972 Pg.13.2).

The following Table (Table 2) outlines Lea's (1989) general classification of key explanatory variables which are used in one form or another within most retail site evaluation models;

## Table 2[5]

**Types of Explanatory Variables for Retail Site Evaluation Models**

| Class of Variables | Description | Examples |
|---|---|---|
| 1. Socioeconomic and Demographic (SED) Variables | Usually census-based variables meant to capture the level of potential demand in the trade area or demand areas of a store. | • number of households<br>• average income<br>• percent university educated |
| 2. Situation Variables | Typically non-demographic attributes of the general area surrounding the store in count, numerical or categorical form. | • traffic volumes past the site<br>• percent land use within ½ mile of a site<br>• number of major 'traffic generators' within 300 metres |
| 3. Site Variables | Numerical or categorical descriptions of the relative attractiveness of the site itself and improvements to it. | • type of site<br>• size of site<br>• visibility of site<br>• index of attractiveness of entrance |
| 4. Competition Variables | Variables characterizing how much competition is associated with a particular site. | • number of primary competitors within 1km<br>• number of secondary competitors within 500 metres<br>• index of competitor marketing intensity within the trade area |
| 5. Other Instrument Variables | Attributes of the existing store which, for the new store, are under direct control of management. | • index of store management quality<br>• number of service staff<br>• index of stock depth |

Ghosh and McLafferty (1987) suggested a sixth class of explanatory variables; 'legal and cost factors'. Legal and cost factors include; zoning types, length of lease, local taxes, operations and maintenance costs, restrictive clauses in the lease and voluntary regulations by local merchants (Ghosh and McLafferty, 1987, Pg.49).

The use of such a classification procedure helps researchers to develop their methods in a logical and structured format. It is essential that experienced industry professionals be involved in the selection of the key variables which are built into such a classification typology.

Claus (1969) envisioned a similar variable classification method for identifying the

[5] Source: Lea, 1989. Pg10.

predictive variables that influence retail site location within the gasoline industry. Claus presented one of the first geographical examinations of the locational dynamics affecting the retail gasoline industry. He sought to highlight the importance of "the behavioral characteristics of the locational decision maker" as an explanatory variable influencing the "spatial dynamics of gasoline service stations" (Claus, 1969. Pg.11.). Claus developed an early conceptual model of the spatial dynamics of the gasoline outlet in which he separated the consumer variables from the producer variables. Figure 1 summarizes Claus's (1969) early model which suggests that the retail site selection procedure is based on an understanding of consumers buying behaviors and the strategy of decision makers within the organization (Claus, 1969. Pg.13.).

**Claus's (1969) Conceptual Paradigm:**
**Major Variables Influencing Site Characteristics for a Given Good**

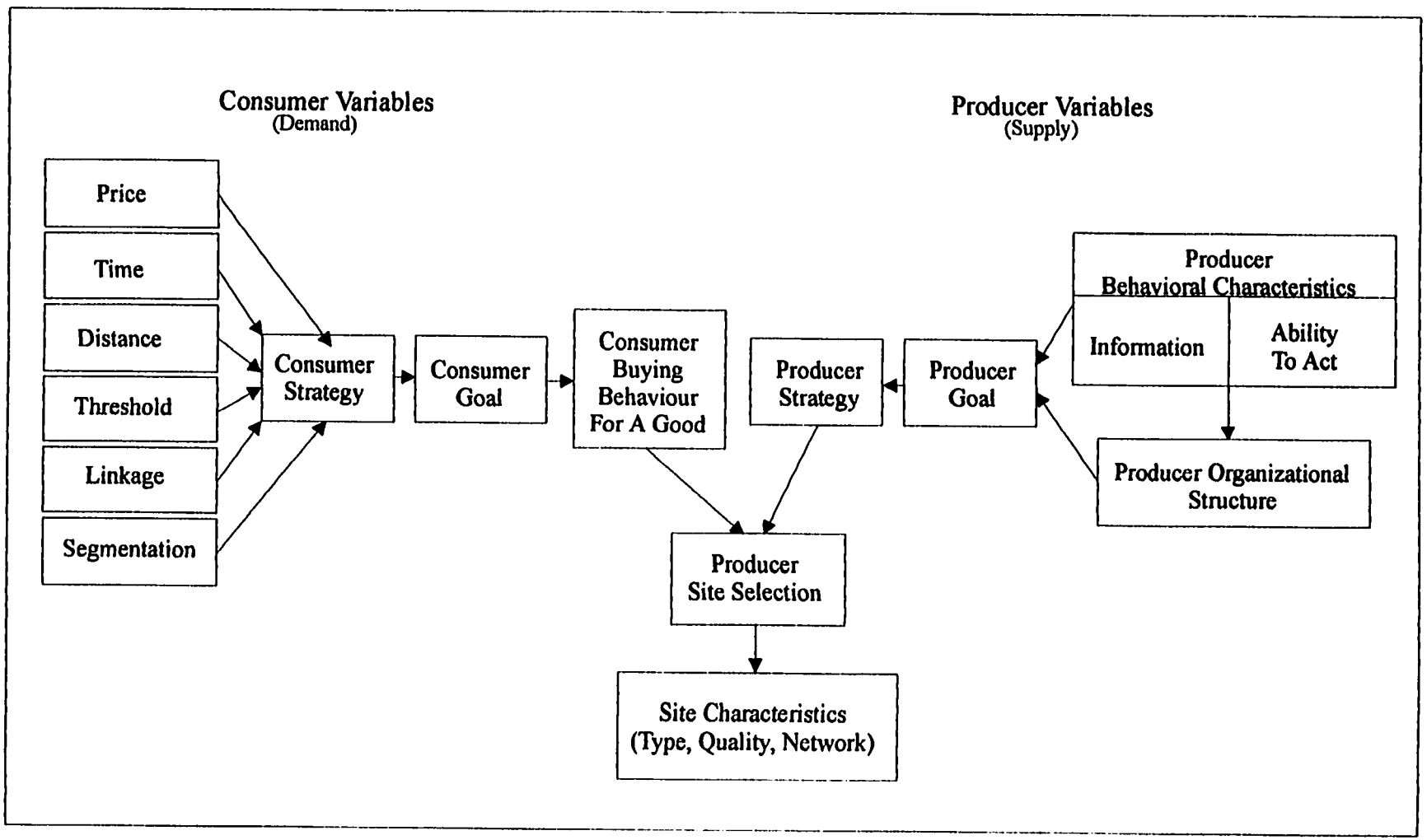


Figure 1[6]

[6] Source: Adapted from Claus, 1969.

From this conceptual model Claus and Hardwick (1972) derived a basic classification typology which grouped variables into two major categories: the internal site variables (INSV) and the external site variables (EXSV) (Claus and Hardwick, 1972. Pg.89-132). The following table summarizes Claus and Hardwick's variable classification by INSV (site variables) and EXSV (situation variables).

## Table 3[7]

**Claus and Hardwick's Internal Site and External Site Variable Classification**

| Class of Variables | Description | Examples |
|---|---|---|
| Internal Site Variables (INSV) | INSV refer to variables which are intrinsic to the retail site and which influence the economic performance of the location.<br><br>Similar to Lea's (1989) Site Variables. | • Type of Traffic Artery (neighborhood street, highway)<br>• Traffic Volume<br>• Average Speed<br>• Traffic Origin (local, transient)<br>• Size of Site, Frontage<br>• Sign Placement<br>• Visibility<br>• Layout (number of pumps, number of pump islands, driveways, building Placement, fences, lighting etc.)<br>• Placement in Relation to Traffic Flow (orientation) |
| External Site Variables (EXSV) | EXSV are those variables which are associated with the environment around the outlet which determine the economic viability of the location (Claus and Hardwick, Pg.90.).<br><br>Similar to Lea's (1989) Situation Variables. | • Trade Area Size<br>• Predominant land use type (residential, industrial etc.)<br>• Type of Housing (high rise, detached etc.)<br>• Household Density<br>• Average Income<br>• Potential for Development and Change in the Trade Area<br>• Price Sensitivity of the Area<br>• Number of Competitors in the Trade Area<br>• Brand and Station Preference<br>• Traffic Generators (complimentary activities, highway exits/entrances)<br>• Negative attract factors (congestion)<br>• Operating Constraints (hours, services) |

[7] Adapted From Claus and Hardwick (1972), Pg.89-132 and Jones and Simmons (1993), Pg.309.

Claus (1969) suggested that the internal site variables were indicators of the volume potential of the retail gasoline outlet while the external site variables were indicators of the sites economic viability over time.

Claus and Hardwick (1972) adapted the geographical concepts of site (INSV) and situation (EXSV) further into what they called "the critical factors in retail site location; trade area variables and trapping point variables"[8] (Claus and Hardwick, 1972. Pg.138.). Automobile traffic patterns were considered to be the dynamic force which controlled both the trade area and trapping point variables within the retail gasoline industry.

The trade area concept in general is well established within both geographical and marketing literature. "The accuracy of retail sales forecasts depends to a large extent on the accuracy with which the trade area of the outlet can be estimated" (Ghosh and McLafferty, 1987, Pg.62.). Claus and Hardwick (1972) defined a retail 'trade area' as that area from which a site's customers are generated (Claus and Hardwick, 1972. Pg.138.). In defining the size and shape of the retail trade area marketers are able to make inferences about who their customers are by identifying where they are coming from. With a better understanding of the trade area retailers can begin to identify relationships between the nature of their customers and the types of goods and services which they demand. It is in this way that retailers can formulate marketing strategies that will target their various product and service offers toward specific groups of people.

The purpose of this discussion is to introduce the concept of the 'retail trade area' and to highlight several important characteristics of the phenomenon as they relate to the

[8] Claus and Hardwick defined the 'trapping point' as that place at which the "obstacles to entrance to a particular site are minimized and the inducements to enter the site are maximized" (Claus and Hardwick, 1972. Pg.143.)

gasoline industry. Specific methods for delineating trade areas for retail gasoline outlets will be discussed in greater detail in a later section.

Claus and Hardwick stress that the retail trade area is not a static geographical area, but that;

> The retail trade area is created by the dynamic response patterns of aggregate individual behavior. Since retail transactions involve individual choices based upon preferences, trade area boundaries reflect the irregularity of numerous individual reactions to factors of attraction and resistance in interaction with traffic variables (Claus and Hardwick, 1972. Pg.140.).

As a result, the size and shape of trade areas are irregular and constantly evolving as traffic patterns and consumer preferences change. The concept of trade area is complicated within large urban retail gasoline markets where the trade areas of competing outlets are overlapped and inter-twined.

The size of a retail gasoline trade area is influenced by outlet type and geographical location. For example, self-service gasoline outlets generally have larger trade areas than full-service outlets which tend to rely more heavily on local repeat customers (Pattison, Imperial Oil, 1996). Similarly, outlets in suburban regions generally have larger trade areas than outlets which are located in highly developed urban areas. Station classifications by type and location will be examined further in the following chapter.

A number of variables were considered to be important in determining the boundaries and calculating the potential sales volume of a retail gasoline outlet's trade area. Table 4 summarizes Claus and Hardwick's (1972) 'trade area variables';

## Table 4[9]

**Trade Area Variables for the Retail Gasoline Outlet**

| Class of Variable | Examples |
|---|---|
| Population Density | Number of households, Number of persons |
| Income | Household income, Average per capita |
| Automobile Registrations | Area number, Average number of autos per household |
| Type of Area (land use) | Residential, Commercial, Industrial, Public, Vacant |
| Type of Housing | Zones and uses, detached, semi-detached, apartment |
| Growth Characteristics of Area | Potential |
| Number of Competitors in Area | |
| Sales Volume of Competitors in Trade Area | |
| Credit Representation in Trade Area | Number of bank cards, travel cards, gas cards |
| Areal Representation of Company | |

Claus and Hardwick defined the 'trapping point' as that place at which the "obstacles to entrance to a particular site are minimized and the inducements to enter the site are maximized" (Claus and Hardwick, 1972. Pg.143.). Trapping point determination is related to the ability of a retail site to attract customers. A retail location on a high-volume traffic artery may not provide a high volume of customer potential if such factors as "back-up traffic, position on the street and traffic problems interfere with entrance and egress" (Claus and Hardwick, 1972. Pg.144).

Table 5 summarizes Claus and Hardwick's (1972) trapping point variables.

[9] Claus and Hardwick (1972), Pg.138.

## Table 5[10]

**Trapping Point Variables within the Retail Gasoline Industry**

| Class of Variable | Examples and Descriptions |
|---|---|
| Primary Trapping Point Variables: Traffic | |
| Traffic Volume | Average Annual Daily Traffic (Municipal), Manually Count |
| Type of Artery | Main Street, Freeway, etc. |
| Speed of Traffic | Kilometers/hour |
| Type of Potential Customer | Residential, Shoppers, Commuters, Tourists etc. |
| Intersection Characteristics | Traffic control devices, Lane widths, Number of Lanes, On-Street Parking etc. |
| Secondary Trapping Point Variables: Site | |
| Visibility | Visibility of signs, buildings, property |
| Frontage | Length of frontage along the traffic artery |
| Access | Ease on ingress and egress |
| Position on Street | Corner (NW, NE, SW, SE etc.), inside property etc. |
| Operating Hours | 9am -5pm, 24 hours |
| Design and Layout | Number of pumps, Number of pump islands, lot size, layout etc. |
| Facilities and Services | Ancillary functions and services, washrooms, cleanliness |
| Retail Linkages | Shopping center, donut shop, restaurant, etc. |

Claus and Hardwick (1972) suggested that the trapping point concept emphasized the dynamic and variable nature of consumer behavior. They did this by relating traffic characteristics to the attractiveness of the retail site. Claus and Hardwick (1972) identified traffic characteristics as their primary trapping point variables. The total volume potential for a retail location was indicated by evaluating the traffic variables. A sites ability to attract customers from the traffic pool was then measured by assessing the internal site variables, such as visibility and accessibility. Claus and Hardwick (1972) did not evaluate the influence which pump-level service had in attracting customers to retail gasoline sites. However, because the concept of the self-service outlet was in it's infancy in the early seventies, Claus and Hardwick were dealing with an industry which was almost exclusively full-service. As a result, they could measure the quality of employee service at the site, but not the difference in the type of service offered (self-service vs. full-service). In today's retail gasoline industry the type of service offered at a site has a

[10] Claus and Hardwick (1972), Pg.144.

significant influence on the kind and number of customers who are attracted to the location. Many gasoline consumers prefer to have their gasoline pumped by a service attendant rather than filling their own tank. In such cases the type of service is the driving force behind the decision to buy at any given site. In other instances price may be the most important factor influencing the consumers decision to buy at any given location. However, the type of service (full or self) which is offered at a site generally has a significant impact on the price. Generally, the price at self-serve gasoline outlets is several points lower than full-service offers. These are only two examples of the influence that pump-level service (full-service vs. self-service) type may have on a sites ability to attract customers.

Claus and Hardwick (1972) argued that the trade area and trapping point variables constituted the most critical inputs for an analysis of a retail gasoline location. They stated that "with this information, it is also possible to estimate up to eighty percent of the expected sales volume. Other informational inputs may then increase estimating power by small increments" (Claus and Hardwick, 1972, Pg.145.). Later sections will indicate that Claus and Hardwick's (1972) interpretation of the key predictive variables within the retail gasoline market were very similar to the actual classifications employed by industry professionals in the early 1970's. The importance of Claus and Hardwick's work (1969, 70, 71, 72) was their focus on the quantitative testing of variables associated with the retail gasoline industry for a measure of their predictive value (Richards, 1981, Pg.12.). Their work represents an early stage in the evolution of site selection and performance prediction methods for the retail gasoline industry.

### 2.3.3 An Introduction to Station Classifications within the Retail Gasoline Industry

Generally, literature concerning retail site evaluation and sales forecasting supports the notion that all models should be 'store-type-specific' (Lea, 1989, Pg.9.). Within the retail gasoline industry it is necessary to construct separate models for different types of outlets and/or locational contexts. As a result, the predictive variables associated with the success of retail gasoline locations should be evaluated in the context of the outlets functional type or location.

While all retail gasoline sites are unique in some way, a method for generalization must be determined if a useful predictive model is to be developed. Claus and Hardwick (1972) identified a number of gasoline outlet classifications; by position on the street, by location, by function, by volume (gallonage) and by brand.

#### 2.3.3.1 Classification by Position on the Street

When retail gasoline outlets are classified by their position on the street they are generally categorized as either zone of conflux sites or linear sites. Claus and Hardwick (1972) defined a 'zone of conflux' as "the intersection of two major traffic-bearing arteries neither of which generates less than 25 percent of the total traffic volume" (Claus and Hardwick, 1972, Pg.63.). An outlet that is classified as a linear site if more than 75 per cent of the traffic flowing past the site is generated by one street. Table 6 summarizes Claus and Hardwick's (1972) classification by position on the street. While each site should be considered on it's own merits, the following table (Table 6) presents many of the common characteristics of zone-of conflux and linear sites. The classification of sites by street location remains a popular method for modern models applied within the retail gasoline industry (MPSI, 1991, Pg.1-9.).

Classifying stations by their position on the street does not provide any insight into the role of pump-level service (full-service vs. self-service). However, any comparative analysis between full-service and self-service gasoline outlets should be made between stations that have similar local geographies.

## Table 6[11]

### Classification Retail Gasoline Sites by Position on the Street

| Classification | Definition | Advantages | Disadvantages |
|---|---|---|---|
| Zone of Conflux | The intersection of two major traffic-bearing arteries neither of which generates less than 25 per cent of the total traffic volume for the site. | • Can potentially draw customers from two arteries. | • Where traffic congestion is heavy it may detract from the sites ability to draw customers.<br>• High degree of competition from other automobile oriented retailers to acquire such sites.<br>• Generally the most expensive sites. |
| 1. Near-corner | A near-corner site located at a conventional right-angle intersection which can be reached before crossing the intersection. | • The optimum scenario for a gasoline retailer located on a near-corner site occurs when a significant amount of the traffic from the major street turns right at the intersection. In such cases the gasoline retailer will draw customers from both the primary and secondary street; acting as both a near and far-corner site for the intersection. Claus and Hardwick (1972) referred to the optimum near-corner site as a turn-around corner. | • Ingress (entrance) can be difficult if the traffic light at the intersection has stopped and backed up traffic in front of the access point.<br>• Egress (exit) can be complicated by red lights and heavy traffic flows.<br>• Ingress and egress can be complicated if located on the left hand side of the major traffic flow.<br>• The sites visibility can be hindered by adjacent developments. |
| 2. Far-corner | When traffic must cross the intersection to reach the site. | • Generally, if located on the right hand side of the major traffic flow it provides a convenient turn in and out of the site.<br>• Ease of ingress and egress is assisted by the break offered by the traffic light.<br>• Traffic cannot get backed up at the lights and block the entrance as is the case for the inside-corner location.<br>• Visibility is high because the additional width of the secondary street makes the station visible from a grater distance. | • Potential is low if 'turn-around' traffic is heavy at the near corner site.<br>• The site will be vulnerable if a more attractive near corner site is developed.<br>• Ingress and egress can be complicated if located on the left hand side of the major traffic flow. |

[11] Adapted from Claus and Hardwick, 1972, Pgs. 65-73.

## Table 6 (Con't)[12]

| Classification | Definition | Advantages | Disadvantages |
|---|---|---|---|
| Linear | A site where more than 75 per cent of the traffic flowing into the site is generated by one street. | • Lower land values<br>• May lure customers before they reach zone-of-conflux sites further along the artery. | • Can usually be accessed from only one street. |
| 1. Corner | If the flow of traffic on the secondary street generates less than 25 per cent of the traffic volume then the site is often classified as a linear site. | • Low traffic secondary street may provide a low congestion access and exit point for local traffic. | • One main access point. |
| 2. Inside property | A property between intersections. | • In open areas on highways or streets, visibility can be good.<br>• The site offers easy ingress (entrance) and egress (exit) for a right hand turn into and out of the site.<br>• May lure customers before they reach zone-of-conflux sites further along the artery.<br>• Usually lower land values than comparable corner sites. | • Visibility can be inhibited when signs or buildings are blocked by adjacent developments.<br>• Difficult ingress and egress for a left turn into and out of the site.<br>• Vulnerable to competitors who may develop at an earlier position along the artery.<br>• Often highly dependent on nearby retail activities to generate traffic.<br>• Requires longer frontal development than a zone - of conflux site because traffic is constant and moving at higher speeds. |
| 3. One-way street | A property located on a one way street. | • Convenient ingress (entrance) and egress (exit)<br>• Potential for high visibility, particularly if the site is on a curve or high elevation. | • Traffic tends to flow more quickly on one way streets.<br>• Tend to have low volumes if located on the left side of the street. |

[12] Adapted from Claus and Hardwick, 1972, Pgs. 65-73.

2.3.3.2 Classification by Site Location

A second spatial classification involves consideration of the location of a retail gasoline outlet within the larger urban system. Claus and Hardwick (1972) suggested five spatial classifications; 1) Neighborhood, 2) Downtown, 3) Main Street, 4) Shopping Center and 5) Freeway (Claus and Hardwick, 1972, Pg.73). The classification of retail gasoline outlets by site location is standard within the industry today (MPSI, 1991, Pp.1-7). However, there has been a great deal of change in the nature of the operations of these station classifications; particularly in the case of the neighborhood station.

The 'neighborhood station' was located on a road near residential development and often associated with other retail activities. The location strategy behind the neighborhood station was to get the pumps close to the consumers home, or place of work so that maximum market penetration could be achieved. Traditionally, the neighborhood outlet operated as a full-service facility which relied primarily on automobile maintenance and repairs from local customers. As a result, the trade area of the neighborhood station was small and tended not to exceed .6 of a mile (Richards, 1981. Pp.18.). These outlets generated loyal repeat customers who bought their gas at the same place where they had there automobile serviced. The majority of customers frequenting neighborhood stations sought service rather than convenience and low prices (Gilbart, 1994).

By the early seventies the income earned by neighborhood stations from automobile maintenance and repairs began to decline. Competition for maintenance and repair work, tires, batteries, and other accessories increased with the emergence in the industry of specialty shops (Midas Muffler etc.) and other retail formats such as Canadian Tire and Sears. Increased competition coupled with a reduced need for regular automobile maintenance in new cars

ultimately led to a transformation of the traditional neighborhood station. In fact, the dominant role of the neighborhood station has all but disappeared.

Sites which were classified as neighborhood stations twenty-five years ago now rely less on personal service and more on convenience and price. In fact, the function of sites which were once neighborhood stations have changed so dramatically that modern retailers now refer to these locations as 'city street locations' (MPSI, 1991, Pp.1-7). The rapid success of the self-service gasoline outlets is evidence of the consumers willingness to trade off service for a lower price. Profits generated by traditionally neighborhood sites are now linked to high volume sales of gasoline along with a variety of convenience goods and services; including car washes, donut (Coffee) shops, convenience stores and fast food.

Today there are noticeably fewer, but larger, city street stations within Canada's urban regions. The trade areas of these locations have increased dramatically in size as customer loyalty toward the local outlet has decayed. The transformation of the neighborhood station has been particularly evident within the large corporate networks. In fact, most of the remaining neighborhood outlets are operated by private owners as service stations where gasoline is pumped as a secondary function. The 'city street outlets' have replaced the traditional 'neighborhood stations' as the most common retail format within the gasoline industry.

As the name suggests, the 'downtown outlet' is located within the core of the urban system. Claus and Hardwick (1972) suggested that downtown locations were usually unfeasible for gasoline retailers because of the high cost of land. However, many profitable stations have survived within downtown areas. In fact, one of Canada's top performing stations in 1993 was an unbranded downtown station located at Sherbourne and Richmond in

Toronto, with sales of over 19 million litres. Stations within the central business district are often reliant on traffic during peak business hours. On weekends and after five o'clock the stations may suffer from low traffic volumes (Claus and Hardwick, 1972, Pp.76.). The significance of pump-level service (self-serve vs. full-serve) may be important for downtown sites. Full-service outlets could have an advantage in commercial areas of the urban core where white collar business people may prefer to have a service attendant pump their gas.

Claus and Hardwick (1972) are unclear in their definition of the 'main-street site'. They suggested that the main street station "is located on a major traffic artery and derives its primary support from customers who stop on impulse in a trip made for other reasons, or who incorporate the stop into a multi-purpose shopping trip" (Claus and Hardwick, 1972, Pp. 76.). Convenience and accessibility are identified as the key factors for success for the main-street outlet. Claus and Hardwick's (1972) discussion on the main street suggests that there may have been a convergence between the traditional neighborhood station and the mainstreet station since the early 1970's.

Again, as the name suggests , 'shopping-center sites' exist where gasoline outlets are located in association with larger retail shopping-centers. Shopping center sites can benefit from the traffic generated by the adjacent retail facilities when they are positioned properly. More recent models break this category into shopping-center sites (large stores) and shopping mall sites (regional malls) (MPSI, 1991, Pp.1-7). The most important factor which should be considered with the shopping-center location is that the gasoline outlet will generally maintain longer business hours than the other retail facilities associated with it. As a result, the ideal site will have access to both the main traffic artery and the parking lot of the larger center (Claus and Hardwick, 1972, Pp.78). The relationship between pump-level service (self-service vs.

full-service) and multi-purpose consumers generated by the shopping facilities is not known. Does the multi-purpose shopper tend to prefer the convenience of full-service?

Claus and Hardwick (1972) identify the 'freeway site' as their final classification by site location. These outlets, which rely heavily on transient and commuter traffic, are often complimented by fast food outlets, truck stops, motels or rest stations. Freeway sites often offer both self-service and full-service (split service) along with a range of impulse and convenience items. The massive size of the trade areas for freeway sites can complicate trade area analysis. Identifying relationships between patterns of consumer behaviour and the socio-economic and demographic characteristics of the trade area becomes more complex for freeway sites.

#### 2.3.3.3 Classification by Function

Retail gasoline outlets can also be classified by the types of products and services which they offer. Claus and Hardwick (1972) classified retail gasoline outlets into five classes based on site function; 1) volume (gallonage) oriented stations, 2) balanced service stations, oriented toward a balance of back-room work and volume (gallonage) 3) garages, 4) garages and automotive dealerships and 5) specialized stations.

As was indicated in the discussion of neighbourhood gasoline outlets, there has been a trend toward volume oriented sites and away from automotive maintenance and repairs. The trend in ancillary functions has evolved from a focus on servicing automobiles to servicing the needs of the consumer. Rather than repairing automobiles and changing oil, gasoline outlets are selling coffee, convenience goods and fast food. By cross-merchandising gasoline along with other ancillary goods and services it is expected that each will enhance the sale of the

other. Claus and Hardwick (1972) suggested that cross-merchandising functioned in two ways;

> 1. A customer entering the facility to purchase one good or service will find it convenient to purchase the other as well.
> 2. The price of one good or service can be lowered sufficiently to entice the customer to purchase the other as well (Claus and Hardwick, 1972, Pp.169).

Like the development of self-service, the strategy of cross-merchandising gasoline with non-traditional goods and services has grown rapidly since the 1970's. The relationship between pump-level service type (self-service vs. full-service) and the sale of ancillary goods has not been examined. However, several hypothesis regarding the relationship between pump-level service and ancillary functions can be posited. Three examples may be;

1. Customers who prefer to pump their own gas (self-service) may be more inclined to purchase impulse or convenience items located near the point of payment in a store or kiosk,

   Similarly,

2. Customers who demand full-service may be less inclined to purchase ancillary convenience or impulse goods or services because they remain in their automobiles.

   Or

3. Customers who demand full-service may find it more time-efficient to have their gasoline pumped while they go to purchase fast food, milk, coffee, cigarettes etc. in an associated convenience facility.

Knowledge of the relationships between pump-level service (self-service vs. full-service) and customer buying behaviour toward ancillary goods could prove to be a useful asset in designing station layouts and marketing strategies.

In terms of today's marketplace Claus and Hardwick's (1972) classifications place too much emphasis on automobile service as a main function for retail gasoline outlets. As a result,

their classification of retail gasoline sites by function may require significant revision. Table 7 outlines a more modern classification of sites by function.

## Table 7

**Classification of Sites by Function**

| Classification | Description |
|---|---|
| Volume oriented | • Mainly concerned with high volume gasoline sales.<br>• Less emphasis on convenience ancillary functions.<br>• No maintenance or repair services.<br>• Full-service or self-service. |
| Balanced volume plus convenience ancillary functions | • Balance between high volume gasoline sales and the sale of convenience goods and services which are aimed at satisfying consumer needs which may not necessarily be associated with their automobile.<br>• No maintenance or repair services.<br>• Fastest growing format within the retail gasoline industry; particularly with the large corporate retailers such as ESSO and Petro Canada.<br>• Full-service and/or self-service. |
| Service stations plus gasoline as a secondary function | • Focused on automobile maintenance and repairs.<br>• Gasoline sold as a secondary function of the site.<br>• Tend to be privately owned outlets.<br>• Declining format within the retail gasoline industry<br>• Primarily full-service outlets. |
| Specialized outlets | • Gasoline sales with less common ancillary functions. |

2.3.3.4 Classification by Brand Ownership

The categorization of retail gasoline sites by brand ownership and operation is also common. Classification by brand ownership breaks retail gasoline outlets into; major brands, major subsidiary brands, major regional brands, major non-branded retailers and independent outlets. Table 8 summarizes the classification of outlets by brand ownership.

## Table 8[13]

**Outlet Classification by Brand Ownership**

| Classification | Description | Example(s) |
|---|---|---|
| Major Brands | • Companies controlling greater than 10 percent of Canada's market share based on volume.<br>• Favourably known brands<br>• Operating national retail networks<br>• Large sales volumes with substantial influence over prices<br>• Integration of production, refining, and distribution | Imperial Oil (ESSO), Petro Canada, Shell |
| Subsidiary Brands | • Owned by Major brand retailers<br>• Enable price-cutting without damaging the parent company's image | Beaver |
| Major Regional Brands | • Favourably known brands<br>• Operating regional retail networks<br>• Large sales volumes with substantial influence over prices<br>• Integration of production, refining, and distribution | Suncor (Sunoco), Ultramar, Chevron, Irving Oil |
| Major Non-Branded Retailers | • Favourably known brands<br>• Operating national or regional networks | Canadian Tire |
| Independent Retailers | • Local unknown brands or unbranded outlets | Unbranded outlets |

Claus and Hardwick (1972) argued that the domination of a small number of major brands within the retail gasoline industry caused site to take on a complex competitive role;

> In a perfectly competitive economic environment any disadvantages stemming from the inadequacy of site, causing a time loss or lack of representation within the travel range of the consumer, could be offset by a reduction in price. But in a mixed economic system where some of the actors are price competitive and others are part of an oligopoly, site fulfils a different competitive tool. For the corporations, retail price remains relatively consistent among all companies. Therefore, site is their most competitive tool. For the independent station, on the other hand, which operates in an environment dominated by the large corporations, price-cutting per unit volume of gasoline is their most competitive tool (Claus and Hardwick, 1972, Pp.150.).

This statement summarizes Claus and Hardwick's (1972) fundamental approach to the development of predictive models for the retail gasoline industry. While Claus and Hardwick (1972) identify several station classifications, they place the greatest emphasis on the significance of brand ownership. However, the explosion of the self-serve gasoline offer within

[13] Adapted from Claus and Hardwick, 1972, Pg.84.

the industry since the early 1970's has increased the complexity of brand and site competition. The emergence of self-serve, and even split serve, alternatives has resulted in an entirely new price structure within the industry. Table 9 presents an example of the new price structure which operates in today's retail gasoline marketplace.

#### 2.3.3.5 Classification by Brand and Pump-Level Service

The final classification to be discussed involves consideration of the type of pump-level service (self-service vs. full-service) which is offered at each location. Claus and Hardwick (1972) did not suggest the classification of retail gasoline outlets by pump-level service. The classification of sites by pump-level service provides a useful method for identifying the relationship between service-type, price, brand and trade area. Gasoline outlets can be grouped into five categories based on pump-level service and brand; branded self-serve, unbranded self-serve, branded full-serve, unbranded full-serve and branded split serves. Table 9 summarizes the classification of gasoline outlets by service.

## Table 9

### Classification by Pump-Level Service

| Classification | Definition | Characteristics | Sample Price Comparison[14] (Cents per Litre) |
|---|---|---|---|
| Branded Self-Serve | Self-serve outlet operated under a major national or regional brand (Imperial Oil (ESSO), Petro Canada, Shell, Sunoco, Chevron, Ultramar, Irving Oil etc.) | • Price is several points lower than branded full-serve sites.<br>• Large trade areas. | Self Price 50.0 |
| Unbranded Self-Serve | Unbranded self-serve stations. | • Price discounters.<br>• Price is several points lower than at branded self-serve outlets.<br>• Small local trade areas. | Self Price 49.8 |
| Branded Full-Serve | Full-serve outlet operated under a major national or regional brand (Imperial Oil (ESSO), Petro Canada, Shell, Suncor (Sunoco), Chevron, Ultramar, Irving Oil etc.). | • Highest price in market, except for full-serve offers at branded split serve outlets.<br>• Small local trade areas, but, brand name increases the potential to attract transient traffic. | Full Price 50.4 |
| Unbranded Full-Serve | Unbranded full-serve stations. | • Price discounters.<br>• Price is several points lower than at branded full-serve outlets.<br>• Small local trade areas. | Full Price 49.8 |
| Branded Split Serve | Outlets offering both self-service and full-service gasoline under a major brand. | • High volume oriented sites.<br>• Many ancillary services.<br>• Key locations.<br>• Self-serve price comparable to regular branded self-serve sites.<br>• Full-serve price is the highest in the marketplace; as much as three cents more than the self-serve at the site and several points higher than at regular branded full-serve sites.<br>• Largest trade areas in market.<br>• Tend to be branded, but, a small number of private split serve operate in Canada. | Self Price 50.0<br><br>Full Price 53.0 |

The classification of retail gasoline outlets by pump-level service suggests that gasoline has been highly differentiated by service, price and brand. As a result, the consumers decision to purchase gasoline is not simply based on nearest distance, best price or brand preference.

The purpose of this discussion about site classifications was to highlight the fact that a

[14] Coffin, Interview (1995).

variety of different retail gasoline formats exist within the marketplace. The variety and complexity of the relationships which have developed between pump-level service and other locational variables requires a re-evaluation of site evaluation and performance prediction within the retail gasoline industry.

### 2.3.4 From Claus and Hardwick (1972) to the Modern Applied Methods

Up until the early 1970's most sales volume and profitability predictions for retail gasoline outlets were based almost entirely on the intuitive judgment of experienced field representatives (Claus and Hardwick, 1972, Pp.220). In fact, even in today's marketplace it is often reasoned that "real estate and market research staffs are paid to make informed subjective decisions so that models are redundant" (Lea, 1989, Pp.9). However, the true value of systematic analysis procedures is that they can be replicated to suit various situations and can be used as a check against more subjective approaches.

> Post-audit analysis indicates that the ability to predict accurately in the past has been inconsistent. Some people have had a good track record, while others have been unsatisfactory. It is suggested that a volume predictor model is a valuable tool because it has the potential of improving performance in the future. Use of the volume prediction model enforces an automatic consideration of all the important factors that influence volume at a particular site The higher degree of thorough analysis resulting from this should improve the accuracy of forecasts (Tod, 1972, Pp.13.2).

Claus and Hardwick (1972) identified five general approaches to site evaluation and volume prediction which were used within the retail gasoline industry by the early 1970's: 1) trade area analysis, 2) scaling techniques, 3) traffic participation rates, 4) multiple regression, and 5) simulation models. Each of these methods employs a unique conceptual framework from which retail locations can be evaluated. The following table (Table 10) offers a brief summary of these five methods.

## Table 10[15]

### Traditional Site Evaluation and Performance Prediction Models

| Name of Method | Description | Key Variables | Predictive Abilities and Drawbacks |
|---|---|---|---|
| Trade Area Analysis | Key variables are analyzed to determine the need for gasoline within a defined trade area. Once the total demand is determined for the trade area the volume is distributed among the existing outlets based on an estimate of drawing power. | • income<br>• number of automobiles,<br>• land use | • Accuracy of the sales estimate is limited by the quality of the tool used to delineate trade area.<br>• Highly dependent on intuitive judgments made by the analyst.<br>• Successful for assessing location of regional shopping centers. |
| Scaling Techniques | Measures a set of site and trade area variables to determine site quality. Each site factor is placed on a percentage scale graded from very good to very poor. The weighting of variables is based on surveys or studies of existing sites. | • visibility<br>• layout<br>• competition | • No predictive ability.<br>• Produces crude estimates of retail site quality. |
| Traffic Participation Rates | Based on the estimated percentage of motorists from each lane of traffic who will stop at a site. Compares traffic characteristics to existing analogous sites. | • traffic volume<br>• traffic flow<br>• type of traffic<br>• street conditions<br>• traffic speed<br>• nature of trip<br>• time of day<br>• ignores site variables | • Complexity involved in determining traffic participation rates generally results in inaccurate estimates.<br>• Neglects important site and trade area variables. |
| Multiple Regression | Employs statistical procedures to discover relationships between various independent or "predictor" variables and gasoline volume. | • traffic volume<br>• site ratings<br>• trade area characteristics | • Primary drawback is the potential for human error.<br>• Limited by ability to delineate trade area properly.<br>• In a developmental stage within the retail gasoline industry in the early 1970's. |
| The Simulation Model | The development of a model which will accurately predict site volume within the total urban environment. Trade areas are defined and rules are dependent on traffic and street characteristics. Socio-economic factors are then analyzed to determine the most suitable marketing strategy for the area. | • traffic<br>• site characteristics<br>• trade area characteristics | • Main drawback is the considerable cost, in both time and capital, of developing the instrument.<br>• Limited by ability to delineate trade area properly.<br>• In an early developmental stage within the retail gasoline industry in the early 1970's. |

[15] Adapted from Claus and Hardwick, 1972, Pgs.221-223.

Claus and Hardwick (1972) offered a brief review of the above procedures and proceeded to develop two models which combined trade area analysis with multiple regression. A brief review of these two models represents an early look at the development of a systematic approach for analyzing the potential for retail gasoline outlets.

Their first model was tailored specifically toward stations which relied on price competition rather than brand identification for its primary competitive advantage. Claus and Hardwick (1972) argued that an estimate for the price competitive outlet required an evaluation of only four basic characteristics:

**Figure 2**[16]

**Elements of Claus and Hardwick's Price Competitive Outlet Model**

1. Extent of the trade area (% residential land use in a ½ mile by ½ mile square around the site.)
2. Population density (Number of households per block, ranked by density.)
3. Competition (In each of four directions from the proposed site the nearest competitor is assigned a value based on the number of blocks between the competitor and the proposed site.)
4. Traffic (Traffic volume, direction of traffic flow, type of traffic)

Their second model was tailored specifically toward the traditional neighborhood station, which was dependent on a high degree of brand identification. Claus and Hardwick (1972) considered three primary factors and five secondary factors in their evaluation of the neighborhood station:

[16] Claus and Hardwick, 1972, Pgs.224-228.

## Figure 3[17]

**Elements of Claus and Hardwick's Neighborhood Outlet Model**

| |
|---|
| Primary Factors:<br>1. Traffic (Adjusted daily volumes)<br>2. Trade Area (Dwelling unit value, business activity, average sales for the trade area, orientation to the Central Business District)<br>3. Trade area competition (In a six block radius around the proposed site) |
| Secondary Factors:<br>1. Discounts or bonuses<br>2. Operating hours<br>3. Dealer characteristics (Personality, experience)<br>4. Services available (automobile maintenance and repair facilities)<br>5. Sign (visibility, psycho-physical and socio-psychological characteristics) |

Claus and Hardwick (1972) emphasized the importance of the concept of trade area in estimating potential volume of a gasoline outlet. They also recognized the existence of detailed methods of trade area analysis during the early 1970's. However, they chose to employ an overly subjective procedure for delineating their trade areas and evaluating the associated customer characteristics. The lack of an accurate method for trade area delineation was one of the primary drawbacks of their procedures. Claus and Hardwick also failed to include several key factors into their models, such as: price competition and ease of site accessibility.

### 2.4 Applied Methods For Site Evaluation and Sales Forecasting

Section 2.3.4 offered a brief look at Claus and Hardwick's (1972) interpretation of the types of site evaluation and prediction models which were employed during the early 1970'2. This section summarizes two methods of site evaluation and performance prediction which have actually been employed within the retail gasoline industry; 1. A Modified Regression and Trade Area Analysis Model, 2. A Modern Site Evaluation

[17] Claus and Hardwick, 1972, Pgs.230-236.

and Computer Simulation Model.

"Because most retail and consulting firms consider the methods they use to be proprietary, there is not much literature on the details of methodology, and what there is is spread over a few articles in the journals of several disciplines" (Lea, 1989. Pp8.) As a result, the availability of information on the two following applied models offers a unique opportunity to assess how far the art and science of site evaluation and performance prediction has evolved within the retail gasoline industry. The sensitive proprietary nature of these methods necessitated that the following review maintain an element of confidentiality. As a result, the models are not discussed in great detail.

This review of applied methods identifies a lack of focus on pump-level service as a key locational variable. However, the methodological review provides several conceptual structures within which pump-level service (self-serve vs. full-serve) can be analyzed. Ultimately, this examination of applied methods indicates that improved understanding of pump-level service hinges on accurate trade area delineation. The need for proper trade area delineation results from the strong relationship which exists between pump-level service, trade area competition and trade area customer characteristics. Identification of the relationship between consumer typologies and pump-level service may also provide insight into the types of ancillary products and services which should be offered at different locations.

### 2.4.1: A Modified Regression and Trade Area Analysis Model

In 1972, the same year that Claus and Hardwick's "Mobile Consumer" was published, marketing researchers from Imperial Oil (ESSO) were in the process of

implementing a new volume prediction model. While Claus and Hardwick (1972) worked on the early stages of their manuscript with several individuals from Imperial Oil (ESSO) [18] their publication was not associated with the following model. However, review of the model employed by Imperial Oil (ESSO) indicates that Claus and Hardwick (1972) were remarkably accurate in their identification of key predictive variables and analysis procedures within the retail gasoline industry in the early 1970's.

Imperial Oil's Volume Prediction Model (VPM) was designed by the company's Marketing Division in order to assess the sales potential at single service station sites. The objective of the model was "...to encourage a uniform and thorough approach to the assessment of volume potential at service station sites" (Tod, 1972, Pp.13.2). Ultimately the goal was to create a systematic tool to help improve the degree of accuracy achieved by site analysts.

The construction of the VPM model was guided by several axioms (Tod, 1972. Pp. 13.2):

**Figure 4**[19]

**The Axioms of Imperial Oil's VPM model**

1. Formulas are developed using experience from the past. The rate and magnitude of change within the retail gasoline industry indicates that focusing on past performance imposes serious limitations on such models.
2. The model must be able to accurately identify both high potential sites and low potential sites.
3. The model should take into account variations among markets; in terms of price competition, government regulations, etc.
4. The model should be calibrated separately for different facility types. Like Claus and Hardwick (1972) researchers from Imperial Oil recognized the value in classifying sites by 'position on the street', by 'site location', by 'function' and 'brand'. In fact, unlike Claus and Hardwick (1972), researchers from Imperial Oil highlighted the need to calibrate separate models for 'conventional service stations' (full-service outlets) and self-service stations (Tod, 1972, Pp.13.10).
5. The most appropriate sample size for calibrating the model was twenty outlets.
6. The sample should include a full range of good performers, average performers and poor performers (Tod, 1972, 13.9).

[18] Claus and Hardwick identified Mr. Cliff Goddard and Mr. Hal Haran of Imperial Oil as being key contributors to their work.

[19] Source: Adapted from Tod, 1972.

Basically, a set of arithmetic formulas were designed to systematically duplicate the decision making process of successful development representatives. "It was found that an "expert" makes a prediction by first considering the amount of traffic at a location, and then estimating how successful a site would be in attracting that traffic" (Tod, 1972, Pp.13.3). Conceptually, this approach was almost identical to Claus and Hardwick's (1972) interpretation of trade area and trapping point variables which was discussed in section 2.3.2..

2.4.1.1: Step One: The Relationship Between Traffic and Volume

Imperial Oil's Market Researchers began their evaluation of traffic by comparing the average annual daily traffic (AADT) volume which passed a site to the volume of gasoline sold at the site. It was discovered that the correlation between the variables could be improved significantly by adjusting the gross traffic figure to account for declining participation rates resulting from congestion, traffic barriers and limited hours of operation (Tod, 1972, Pp.13.4).

For example, it was discovered that as the amount of traffic passing a site increased, it's influence on sales volume decreased. "An increase of traffic from five thousand AADT to ten thousand AADT was much more significant than the increase of traffic from thirty thousand AADT to thirty-five AADT" (Tod, 1972, Pp.13.4). Claus and Hardwick (1972) also identified the negative influence which excess traffic had on sales volumes. They suggested that excess traffic caused congestion and hindered station accessibility.

Researchers at Imperial Oil also adjusted traffic to include only the vehicles which passed a site during it's hours of operation. Similarly, where solid medians divided traffic

arteries the number of vehicles was divided in half (Tod, 1972, Pp.13.4). Ultimately, researchers developed an equation which adjusted 'gross traffic' into a 'net traffic figure'.

2.4.1.2: Step Two: The Development of the Attract Factor

After the relationship between net traffic and sales volume was calculated researchers proceeded to evaluate the ability of a site to attract consumers. "The expert establishes the attractibility of a particular site by considering the average and then adjusting the average according to the peculiarities at the site" (Tod, 1972, Pp.13.5). Researchers developed the attract factor criteria by analyzing plots of 'net traffic' and actual sales volumes. After identifying an average 'line of best-fit' to represent the linear relationship between traffic volume and sales volume, researchers attempted to explain why certain sites deviated from the average. For example;

**Figure 5**[20]

| |
|---|
| 1. Why did certain sites have a low sales volume relative to traffic? |
| 2. Why did certain sites have high sales volumes relative to traffic? |

Ultimately, a set of rules were developed to explain why the relationship between traffic volume and sales volume for certain sites deviated significantly from the average. Researchers identified six key variables which they used to explain why certain stations performed above or below the average. The following table (Table 11) offers a brief summary of the six variables which experts from Imperial Oil identified as being critical to the attractiveness of a retail gasoline location.

---

[20] Source: Tod, 1972, Pg.13.5.

## Table 11[21]

**The Attract Factor Adjustment Criteria Associated With Imperial Oil's VPM Model**

| Attract Factors | Description Components |
|---|---|
| 1. Price Competition | What was the nature of price competition within the trade area?<br>a) Where was the price compared to the deep-discount price in the trade area.<br>b) What degree of penetration had the discount marketer achieved within the trade area.<br>c) What was the severity of the price competition in the immediate proximity of the service station. |
| 2. Convenience | How easy was it for the customer to gain access to the site?<br>a) Visibility of the location.<br>b) The type of traffic control at the location.<br>c) Where the site is located at the intersection.<br>d) The size and shape of the property.<br>e) The number of access and egress points available. |
| 3. Dilution | How many automobiles were there per outlet within the trade area?<br>a) The number of service stations within the neighborhood.<br>b) The automobile population of the same neighborhood.<br>Dilution = a) divided by b) |
| 4. Socio-economic | How did the family income for the trade area compare with the average family income for the market? |
| 5. Traffic Generators | A determination of the ability of the site to attract traffic by virtue of it's being adjacent to a traffic generator.<br>a) Trip starting points (residential areas, other retail activities, institutions, highway on-ramps etc.)<br>b) Trip destination points (commercial areas, industrial areas, institutions, highway on-ramps etc.) |
| 6. Brand Familiarity | An evaluation of customer acceptance for certain brands. |

Once the six attract-factors were identified they had to be numerically measured so that they could be factored into a prediction formula. The numerical value of each attract factor was determined in two ways. Firstly, each of the attract-factors were ranked in order of importance and assigned a weighting value. Secondly, sites were evaluated and assigned values which represented how they rated in relation to each of the attract factors. Together, these values constituted the 'Attract Factor'. Without getting into too much detail, the 'net traffic figure' and the 'attract factor values' were ultimately built into an arithmetic equation.

The true value of the VPM model was that it provided a system for predicting gasoline sales volumes by forcing the consideration of the relationships between variables which were critical to the success of individual outlets. The VPM model merged scientific

[21] Source: Adapted from Tod, 1972, Pg.13.6.

procedure with intuitive and expert knowledge. The result was a model which was similar to, but far more flexible than, a traditional multiple regression procedure. While the VPM relied heavily on several subjective measures, the input of professional practitioners allowed the model to achieve an acceptable degree of accuracy. The VPM model was used as a trusted decision making tool by Imperial Oil for many years.

#### 2.4.1.3: The VPM model and Pump-Level Service

This discussion on Imperial Oil's VPM model has been included because it offers insight into how pump-level service might be analyzed within the retail gasoline industry. In fact, as was mentioned already in Figure 4, the role of pump-level service was considered within the VPM model. However, while it was recommended that models for traditional service stations (full-service) and self-service stations be calibrated separately the dynamic differences between such outlets were not examined.

The utility of the VPM model within the modern retail gasoline marketplace could probably be improved significantly by introducing new attract factor variables and updating the rules associated with the six original variables. In particular, the model would need to be updated to account for the complex relationships which have developed between consumer preferences for pump-level service, the new competitive price structure and new ancillary functions. However, the relationship between customer types and preference for pump-level service has not been analyzed adequately. Clearly, there is a need for improved trade area analysis techniques to help gasoline retailers analyze the relationship between customer lifestyles and preference for pump-level service.

2.4.2: Modern Site Evaluation and Computer Simulation Models

The process of site evaluation and sales forecasting within the retail gasoline industry is evolving into a highly specialized procedure. The emergence of new computer based information technologies, including database and geographic information system (GIS) software, is allowing retailers to evaluate their investments in ways which were not possible twenty-five years ago. One of the most advanced methods of site evaluation and performance prediction within the retail gasoline industry has been developed by MPSI Incorporated. MPSI is an international computer software and information services company which is based in Tulsa, Oklahoma. Since 1970, MPSI has specialized in retail site and network analysis within the petroleum industry and has provided consulting services for major gasoline companies. MPSI has developed a product which they call their "Retail Planning System" (RPS). MPSI's RPS provides a systematic procedure for collecting data, constructing a database and ultimately predicting station and network effectiveness through a computer simulation model. A brief review of MPSI's RPS for retail site evaluation and performance prediction will provide an example of the most advanced methods employed within the retail gasoline industry. Major petroleum companies within Canada have grown to trust and rely on MPSI's analysis and prediction tools.

> "The services of companies like MPSI, which specialize in market research, planning and site evaluation, are becoming much in demand in today's market. With the investment tab for some new sites soaring past the $1 - million (U.S.) mark, marketers find it advisable to know everything possible about a site or sites before taking the plunge" (Smith, 1989, Pg.5).

Conceptually MPSI's RPS is very similar to the VPM designed by marketing researchers at Imperial Oil (ESSO) in the early 1970's. Both the RPS and VMP provide

systematic methods for collecting and assigning values to key locational variables. As well, both models focus on identifying a potential demand and then proceed to evaluate the ability of individual locations to attract that demand with a mathematical model. However, MPSI's RPS has been adapted to account for many of the changes which have occurred within the retail gasoline industry since the early 1970's. As well, MPSI's RPS is based on a complex computer simulation model which has the ability to evaluate both individual sites and entire retail networks. The ability of the RPS to evaluate individual stations within the context of a larger retail network is it's greatest strength.

2.4.2.1: The Variables Associated With MPSI's RPS

One of the most impressive aspects of MPSI's RPS is the amount of retail outlet and demand data that is collected. Supply side information related to retail locations is collected through an extensive outlet survey form. MPSI's 'Outlet Data Form' includes 144 questions covering everything from physical site characteristics, appearance, operating and merchandising practices, hours, sales, prices to ancillary services (Smith, 1989, pg.5). Table 12 summarizes many of the outlet variables which MPSI collects.

## Table 12[22]

### A Sample of MPSI's Outlet Variables

| Variable Type | Details |
|---|---|
| Type Location Classification | Central Business District, City Street, Rural Road, Shopping Center, Shopping Mall, Interstate |
| Site Location Classification | Inside Corner, Corner, T-Intersection, etc. |
| Type of Operation | Company, Lessee, Contract Dealer, etc. |
| Services Offered | Auto repair, Convenience Store, Car Wash, Tires, Batteries and Accessories, etc. |
| Building Size | Frontage, Depth |
| Lot Size | Frontage, Depth |
| Number of Pump Cabinets | Full-service pumps, Self-service pumps, Automated pumps |
| Number of Fueling Positions | |
| Prices | Full-serve by grade, Self-serve by grade (regular, mid-grade, premium, super premium) |
| Type of Pumps | Mechanical, Electronic, etc. |
| Traffic Barriers | Medians, partial-medians, set of double lines, one-way streets |
| Traffic Volumes | Primary Traffic Volume, Secondary Traffic Volume |
| Traffic Speeds | Primary, Secondary |
| Number of Personnel | |
| Number of Service Bays | |
| Hours | |
| Method of Payment | |
| Payment Location | Pump Island, Sales Office, Kiosk etc. |
| Credit Cards | Company, Bank, etc. |
| Convenience Store Type | |
| Convenience Store Products | Video Tapes, Lottery Tickets etc. |
| Convenience Store Name | |
| Convenience Store Selling Space | |
| Type of Car Wash | Hand held, touchless, soft cloth, brush etc. |
| Car wash price | |
| Outlet Ratings | 1. Accessibility<br>2. Visibility<br>3. Appearance<br>4. Convenience Store Merchandising<br>5. External Merchandising<br>6. Interstate Awareness<br>7. Interstate Convenience |
| Monthly Sales Volumes | Purchased from Kent marketing or supplied by the Client |

Ultimately, the characteristics of each outlet are then reduced into seven variables which measure the strengths and weaknesses of each outlet. Table 13 describes the seven key variables employed within the RPS model. The higher the score for each variable, the stronger the outlet.

[22] Source: Adapted from the MPSI Canada Gasoline User Guide, 1991, Pgs.1-5 to 1-28.

## Table 13[23]

**MPSI's Key Site Variables**

| Variable Name | Description |
|---|---|
| Price | A comparison of each outlets price to the average market price by grade and type of service (full vs. self). The lower the price the higher the score. |
| Facilities | Represents the quality of the sites facilities, such as; the number of pumps, and the number of fueling positions etc. |
| Merchandising Practices | Represents how well the facility is merchandised. |
| Traffic | A measurement of the traffic volume associated with each site adjusted to account for traffic impediments and high levels of congestion. |
| Brand Acceptance | A measurement of the presence and acceptance of a brand within the market. Related to market share and market effectiveness (market share by volume divided by market share by the number outlets). |
| Operations | A measure of intangibles. |
| Location | A measurement of a locations ability to attract;<br>1. local residential demand, and<br>2. transient demand<br>Dependent on trade area size and distance measures between competing outlets and residential demand. |

The RPS also involves the collection and measurement of trade area demand information. MPSI distinguishes between two types of demand; residential demand and transient demand. Local trade area demand is made up of census information and new housing information. Transient demand is that demand coming from outside of the local trading area, generated by consumers traveling past the retail location (MPSI, 1991, Pg.2-11). Theoretically, traffic volumes account for both local trade area demand and transient demand.

2.4.2.2: The RPS database and model

Ultimately, the outlet and trade area variables are built into a computer database from which they can be analyzed in MPSI's volume prediction and simulation model. Obviously, the actual model(s) employed within MPSI's RPS has been carefully protected. Even MPSI's clients are left to wonder about how the model works. Beyond the results of the model itself, the extensive database is provided to the client in a MapInfo GIS.

[23] Source: MPSI Canada User Guide, 1991, Pgs.2-4 to 2-8.

With this database clients are able to visualize their networks and produce their own site and network evaluations.

Essentially, MPSI's RPS model establishes a 'Fit' between demand and supply variables. MPSI's model basically uses trade area and traffic variables to establish a total gasoline volume for a given region or intersection and then proceeds to distribute that volume to individual locations based on an evaluation of the site characteristics. Years of experience have allowed MPSI's researchers to quantify the complex relationships between demand variables and sales volumes. Traffic characteristics are considered to be the most important variables for establishing a volume prediction. Following are several examples of the many relationships that MPSI's researchers have identified between their demand variables and sales volume. It is suggested that in the United States;

> A 10,000-15,000 daily vehicle count is needed in a small town (under 10,000 population). In cities between 30,000-100,000 population, a good count would be in the 20,000 - 25,000 vehicle range. In larger metro areas, you need 30,000 cars or more per day, although this can be smaller in some cases (Smith, 1989, Pg.3).

Similarly, MPSI has quantified the relationship between housing counts and sales volumes. For example, if there is no competition, a trading area count of 1,388 households (in the United States) is needed to produce 100,000-gallons per month in gasoline sales (Smith, 1989, Pg.3). By factoring in the influence of income this projection can be refined further;

> 800-1,000 households are needed in a lower income range community, 1,000-1,200 households in a middle income area, 1,200-1,500 homes in an upper-middle income location and 1,500-plus in a upper income community.

By quantifying relationships such as these MPSI has been able to produce a predictive simulation model which has generally achieved a high degree of accuracy.

However, like the researchers from Imperial Oil (ESSO), experts at MPSI have had a difficult time solving the mysteries of consumer behavior as they relate to preferences for pump-level service (self-service vs. full-service). In fact, marketing and real-estate decision makers at Imperial Oil (ESSO) inspired this investigation of pump-level service because they were unsatisfied with MPSI's ability to adequately differentiate between service types.[24] Because the type of pump-level service which is offered at a location has such a dramatic impact on cost, both to the consumer and the retailer, it is important that the dynamics associated with it be fully understood.

The question is; 'how can consumer preferences for pump-level service (self-service vs. full-service) be determined'? And equally as important; 'how can this information be factored into existing methods for retail site evaluation and sales forecasting'?

## 2.5: Trade areas and Pump-Level Service

Retail marketing problems associated with determining consumer preferences are not new within, or unique to, the gasoline industry. Jones and Simmons (1993) referred to the frustrating complexities associated with determining retail consumer behavior;

> "The key to transforming several square miles of residential landscape and household requirements - neighborhoods, roads, houses, and income - into a map of stores and shopping centers of various kinds and sizes lies in the mysterious combination of travel patterns, information, preferences, and shopping decisions called consumer behavior" (Jones and Simmons, 1993, Pg.107).

There is no easy way to answer the questions related to the relationship between customer preferences for pump-level service and socioeconomic and demographic

[24] Interview with Roy and Pearson, February 1995.

characteristics. The consumers decision to patronize a particular gasoline outlet is based upon a 'sophisticated value equation' which consists of a blend of quality, price and service expectations' (Facts Plus Marketing). However, accurate trade area delineation is the key to identifying relationships between service preferences and customer lifestyles.

The importance of identifying relevant demographic characteristics in a trading area cannot be overemphasized (Smith, 1989, Pg.4). The competitive nature of the modern retail marketplace makes it particularly important to develop marketing strategies which cater specifically to the needs of a trade area's customer makeup. For gasoline retailers this includes, among other things, offering the type of pump-level service (self-service, full-service or both) which is most compatible with the preferences of surrounding customers.

The definition and conceptual framework behind the 'retail trade area' was introduced in Section 2.3.2. The purpose of this discussion is to identify the need for an improved method of trade area delineation within the retail gasoline industry.

The site evaluation and sales forecasting methods discussed so far have not provided an adequate means for identifying consumer characteristics. Each model has placed strong emphasis on traffic volumes and has included socioeconomic variables associated with trade areas. However, each of the models has shared two weaknesses in their ability to integrate consumer characteristics. Firstly, none of the models had the ability to factor in the characteristics of the people in the automobiles that made up the traffic volumes passing the site. Secondly, each of the sales forecasting models has employed overly simplistic 'rule-of-thumb' definitions for the retail gasoline trade area.

The prediction models from the 1970's used trade areas ranging from a half mile by half mile square (Claus and Hardwick, 1972) to a one mile radius (Tod, 1972). The use of such compact, standard trade area definitions was acceptable during the early 1970's because of the dominant position of the local neighborhood outlet. People generally purchased their gasoline close to home. However, the decline of the neighborhood outlet within the retail gasoline industry resulted in a general increase in the size of retail gasoline trade areas. MPSI's RPS model accounted for different trade area sizes by identifying three types of locations (Table 14).

**Table 14**[25]

**MPSI's RPS Trade Areas**

| Trade Area Type | Trade Area Size |
|---|---|
| Central Business District and Downtown Locations | .8 mile |
| Suburban Residential Locations | 2 miles |
| Fringe Locations | 3 miles |

MPSI's recognition of different trade area sizes improves the usefulness of variables related to customer types, such as; average family income, average home value and housing counts. However, these three trade area classifications are still overly simplistic. Researchers from Imperial Oil (ESSO) have found that the size and shape of outlet trade areas are highly variable, even between stations which share similar geographical locations and station typologies (Pattison, 1995).

In order to identify the locational, socioeconomic and demographic characteristics of the customers who frequent a gasoline outlet it is necessary to collect information at the

[25] Source: MPSI Canada Gasoline User Guide, Pg.2-8.

point of purchase. In the past, researchers have collected this type of information through personal surveys, contest forms, license plate surveys and credit cards. If an adequate sample of customers can be acquired the retailer can determine the size and makeup of the trade area by plotting the geographic locations of the consumer's homes.

The primary drawback of these methods has traditionally been related to the massive investment of time and money required to produce comprehensive examinations. Until recently, technology did not exist to allow gasoline retailers to efficiently examine entire networks of stations. However, by combining credit card[26] database information with modern 'Geographic Information System' (GIS) software gasoline retailers are developing powerful trade area delineation and analysis tools. The case study of this thesis will investigate the use of such tools in answering questions related to customer preference for pump-level-service.

[26] This reference to Credit Cards includes; company gas cards (ESSO card, Shell cards, Petro Canada Cards etc.), bank card and credit cards.

## Chapter 3.0: Methodology

In order to offer a comprehensive analysis of pump-level service within Canada's retail gasoline industry this study includes three major steps; a macro analysis of service in Canada, a micro analysis of the relationship between pump-level service and other key locational variables, and a case study of pump level service within the City of Scarborough, Ontario.

### 3.1: Macro Analysis of Service within Canada's Retail Gasoline Industry

A macro analysis of pump-level service on a national scale is presented in Chapter Four. The brief examination of pump-level service (full-service vs. self service) highlights changes within the Canadian retail gasoline industry between 1990 and 1994. The purpose of the macro analysis is to identify trends in pump-level service types and to establish a general background for the study. Chapter Four puts pump-level service into perspective and focuses on the dichotomy which has developed in gasoline retailing between full-service and self-service.

The data used to develop this chapter was supplied by Imperial Oil (ESSO). The database provided by Imperial Oil was collected by Kent Marketing and represents approximately 70% of all gasoline outlets in Canada. The database includes information on sales volumes, site characteristics, service-types and ancillary activities in 1990 and 1994.

### 3.2: Micro Analysis of Service within Canada's Retail Gasoline Industry

Experience has proven that the type of pump-level service which is offered at an outlet can have a profound impact on the economic viability of a location (Tod, 1995).

However, researchers within the petroleum industry have not been able to consistently determine the specific reasons why certain outlets perform better as self-serve outlets rather than full-serve outlets (and visa versa). The significance of the relationship between pump-level service and other key site and situation variables is evaluated in Chapter Five. Specifically, this micro analysis considers pump-level service in the context of consumer choice, trade area competition, operating costs, corporate strategy and ancillary site activities.

This analytical and descriptive analysis emphasizes the dynamic interrelationships which exist between the variables associated with retail gasoline locations. The information presented in Chapter Five was collected from several sources;

1. From the 1994 Kent Marketing database provided by Imperial Oil (ESSO),
2. From interviews with real-estate and marketing decision makers at Imperial Oil,
3. From the review of Claus and Hardwick's (1972) "The Mobile Consumer" and,
4. From industry journals and newspaper articles.

Together, Chapters Four and Five provide the general background necessary for the more specific evaluation of the relationship between pump-level service and consumer preference which is presented in Chapters Six and Seven.

### 3.3: Towards a Methodology for Analyzing Pump-Level Service: The Scarborough Case Study

Chapter Six analyzes the role of pump-level service at a local scale within the City of Scarborough, Ontario. This Chapter includes an analytical and descriptive examination of pump-level service based on an extensive outlet and socioeconomic and demographic database. The focus of the chapter is on a method of trade area delineation which will be

employed in Chapter Seven for evaluating the relationship between customer lifestyles and preference for pump-level service (full or self service).

Early sections introduce Scarborough's retail gasoline industry and discusses the development of the outlet database which was used to generate the analysis. This section of the thesis offers an example of the extensive amount of site and situation data which is available to researchers within the retail gasoline industry. The outlet database was created by merging Kent Marketing and MPSI data within MapInfo 3.0.

Chapter Seven discusses a method of trade area analysis which will be used to identify relationships between consumer typologies and preference for service. This section presents a step-by-step discussion of the tools used to compile customer information, compare trade area profiles and explain consumer preferences for pump-level service type. The method presented involves the use of software tools developed by Imperial Oil and Compusearch Micromarketing Data and Systems. However, the methodology proposed within this section of the thesis involves a new application of these tools to answer questions about consumer preferences for pump-level service. The tools employed within this study represent some of the most advanced trade area analysis technology available within the retail gasoline industry.

Essentially, the trade area methodology involves the comparison of customer profiles which were developed for self-serve and full-serve outlets within Scarborough. Due to limitations related to time restrictions and software availability the profile comparisons discussed are based on a small sample of stations within Scarborough. The future application of the technique on a larger scale is discussed at the end of Chapter Seven.

## Chapter 4.0: A Macro Examination of Service within Canada's Retail Gasoline Industry

The introduction of self-serve gasoline outlets to Canada's marketplace in the early 1970's led to a rapid transformation of the retail gasoline industry. The success of the self-service gasoline alternative has had a profound impact on both the price of gasoline to the consumer and the cost of operations for the retailer. For marketers and location analysts it has introduced a complicated new twist to the process of selecting and designing new sites and evaluating existing operations. The purpose of this chapter is to provide a current snapshot of pump-level service in Canada and to identify recent trends which have occurred between 1990 and 1994. This macro analysis identifies a significant shift in service type and highlights the pertinence of research regarding consumer preferences for the various pump-level service alternatives.

### 4.1 General Pump-Level Service Trends within Canada between 1990 and 1994

Over the last twenty-five years there has been a dramatic change in the economics of the retail gasoline industry. While gasoline retailers have struggled to add a new mix of ancillary services to their outlets they have cut back on the basic services which used to be routine at all outlets prior to the 1970's. "Full-service stations, where attendants pump gas, look under the hood and clean the windshield, are a dying breed.....the old person-to-person relationship has changed" (Salpukas, 1993 Pg.D3)

In recent years full-service operations have been hit the hardest by the continued corporate rationalization of Canada's retail gasoline industry. New growth in the industry over the last several years has come in the form of self-serve and split-serve outlets. Table 15 summarizes market share, outlet share and market effectiveness by pump-level service

type in Canada for 1990 and 1994. The following discussion of pump-level service is based on generalizations of service types (self, full and split) and brand classifications (major national brands, major regional brands, minor private brands, independents and unbranded retailers). The reader should be aware that the classifications are made up of individual owners and large corporations which employ unique marketing strategies and operate in unique regional environments. Details on pump-level service concerning individual corporations are available in Appendix I.

## Table 15[27]

**The Canadian Retail Gasoline Industry (1990, 1994): Summary by Pump-Level Service**

| (1) Type of Pump-Level Service | (2) Market Share by Volume (1990) | (3) Market Share by Volume (1994) | (4) Outlet Share (1990) | (5) Outlet Share (1994) | (6) Market Effectiveness (1990) | (7) Market Effectiveness (1994) |
|---|---|---|---|---|---|---|
| Self-Serve | 39% | 41% | 33% | 35% | 1.11 | 1.16 |
| Full-Serve | 45% | 37% | 54% | 49% | 0.92 | 0.77 |
| Split-Serve | 11% | 17% | 8% | 11% | 0.97 | 1.52 |
| N/A[28] | 6% | 5% | 6% | 5% | 1.09 | 0.97 |
| TOTALS: | 100% | 100% | 100% | 100% | | |

Columns 4 and 5 in Table 15 indicate that between 1990 and 1994 full-serve outlets remained the dominant retail gasoline form within the Canadian Market. However, the outlet share of the full-serve form declined significantly over the four year period. The drop in the outlet share of the full-serve form was the result of the closure or conversion of full-service facilities and the growth in the total number of self-serve and split-serve outlets within the marketplace. Clearly, the general trend has been away from full-service and toward self-serve and split-service facilities.

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27 Source: Summary of Kent Marketing 1990 and 1994 full reads. For more detail refer to Appendix II.

28 N/A refers to outlets included in the database for which no service type was identified. These outlets were included because they were significant to overall outlet counts. The percentage of N/A service types is relatively consistent between years and brand types.

While the full-serve outlet remained the most common retail gasoline form by 1994 the self-service facilities within Canada had come to dominate the industry with a market share of over 40%. The full-serve segment of Canada's market lost approximately 8% market share between 1990 and 1994 falling from 45% to 37% of the total. The split-serve format experienced the greatest jump in market share between 1990 and 1994 from 11% to 17%.

The market effectiveness ratios in column 6 and 7 highlight the disparity between market share and outlet share for each service-type within Canada's retail gasoline industry. The market effectiveness ratio is calculated by dividing market share by outlet share. As was mentioned in Chapter 2, marketers within the petroleum industry use the market effectiveness ratio as a measure of the quality of a retail gasoline network for a specific brand. Market effectiveness is used here to measure the efficiency of the retail networks associated with each pump-level service type in Canada; self-serve, full-serve and split serve.

Columns 6 and 7 in Table 15 indicate that Canada's self-serve and split-serve networks are far more efficient than it's full-serve network. Even more, the effectiveness ratios in Table 15 indicate that the efficiency of Canada's full-serve retail gasoline network has dropped significantly between 1990 and 1994 from .92 to .77. What this means is that in 1990 Canada's full-serve network of retail gasoline outlets was already operating from a point of weakness because it was achieving less than one percent of market share for every one percent of facilities in the market. By 1994 not only had the number of stations and market share of the full-serve network declined but the efficiency of the remaining outlets had deteriorated as well. Why was this the case?

The low market effectiveness ratio associated with full-serve outlets in 1994 is related to the types of full-serve stations which have been closed down. The majority of closures have been by the large corporate retailers who tend to have more efficient operations because of superior site quality and the association with recognized brand names. Together, the major national and regional retailers within Canada closed over 800 full-serve stations between 1990 and 1994 and decreased their combined outlet share of the full-serve market from 58 to 48%.[29] The corporate rationalization of the full-serve segment of the market resulted in significant losses in full-serve market share for Canada's major national brands (ESSO, Petro Canada and Shell). However, Canada's 'big three' were successful at improving their combined full-serve market effectiveness ratio from 1.01 to 1.07.

Many of the full-serve sites closed down by the majors were re-opened as private brands or unbranded outlets by independent retailers. The increase in the ratio of small scale retailers to majors in the full-serve market was the cause for the drop in overall market effectiveness in the full-serve segment. This ratio may begin to rise in the future as tight profit margins and increasing costs associated with environmental regulations continue to squeeze small scale retailers out of the market.

The rapid changes in the structure of Canada's retail gasoline marketplace over the last several years make it very difficult to measure trends in consumer preferences for the various pump-level service types. Clearly, many consumers have grown to accept, and possibly even prefer, the notion of pumping their own gas. However, is the growth in self-

[29] Source: Summary of Kent Marketing 1990 and 1994 full reads. For more detail refer to Appendix I. Major retailers includes; ESSO, Petro Canada, Shell, Canadian Tire, Sunoco, Ultramar, Chevron, Irving Oil and Sergaz (Brand classifications 1 and 2).

serve sales volumes related to changing consumer preferences or the result of the growth in the number of new self-serve facilities. Is the growth in split-serve sales volumes the result of the massive closure of full-serve facilities within the marketplace or are these outlets simply located in the most convenient locations? Should retailers recognize a specific group of consumers who will always demand full-service, or, does the trend toward self-service signal the eventual extinction of the full-serve gasoline outlet? The myriad of questions that emerge about relationships between station success, service-type, prices, ancillary activities and other factors makes the analysis of consumer preferences for pump-level service particularly difficult. However, several important trends can be identified which are associated with pump-level service in Canada. Table 16 highlights six of the most significant trends.

## Table 16[30]

**Modern Pump-Level Service Trends in Canada**

| |
|---|
| 1. There has been a 15% increase in total volume and a 5% drop in the total number of outlets in Canada's marketplace. Therefore, the industry is getting more efficient as more gasoline is being sold through fewer stations. This is a positive sign for the future. |
| 2. The total volume of gasoline sold through full-serve outlets in Canada dropped by 4% and the number of full-serve outlets dropped by 14%. The overall market effectiveness of the full-serve segment has declined significantly during that same period because of the growth in the self-serve and split-serve segments of the market. In general, the majors have increased the efficiency of their full-serve operations, while the market effectiveness of the minors has dropped significantly. This indicates improved future stability in the full-serve operations of the majors and further decline in the full-serve operations of the minors. |
| 3. The total volume of gasoline sold through self-serve outlets in Canada increased by 20% and the number of self-serve outlets increased by 2%. The overall market effectiveness of the self-serve segment increased during that same period. This is a positive sign for the future and indicates that there has been an increased acceptance of self-serve facilities. |
| 4. The total volume of gasoline sold through split-serve outlets in Canada increased by 79% and the number of split-serve outlets increased by 40%. The overall market effectiveness of the split-serve segment has increased significantly during that same period. This is a positive sign for the future and suggests that future growth in the industry will continue to focus on split-serve super-stations.<br><br>**Note: Information on the percentages of full-serve and self-serve gasoline sold through split-serve outlets was not available on a national scale.** |
| 5. As a group, the majors have lost market share, but, have improved overall market effectiveness. This indicates a general improvement in the efficiency of the major corporate retailers in all pump-level service segments. |
| 6. As a group, the minors have gained market share due to the cutbacks of the majors, but, at the cost of their efficiency. Minor retailers in Canada between 1990 and 1994 suffered losses in market efficiency in every pump-level service type. Suggesting that the future of the minors in all service types is in question. |

[30] Refer to Appendix I for a complete look at the database used to generate this analysis.

## 4.2 A Profile of Pump-Level Service by Region: Canada 1994

Section 4.1 identified national trends in service between 1990 and 1994. The purpose of this section is to provide a current snapshot of pump-level service on a regional level. To simplify the analysis Canada was divided into four major geographical regions: Western Canada (British Columbia, Alberta, Saskatchewan, Manitoba), Ontario, Quebec and Atlantic Canada (Newfoundland, Prince Edward Island, Nova Scotia and New Brunswick). This analysis suggests that the types of pump-level service offered across Canada varies significantly by region. These variations in the pump-level service profiles are a reflection of regional variations in demand, competitive structures and governmental regulations. Figure 6 provides graphical profiles of pump-level service for the four major regions of Canada. For comparative purposes Figure 6 also includes a national pump-level service profile and graphs identifying the distribution of total outlets and total volumes by region in Canada.[31]

Figure 6 identifies four very different regional profiles of pump-level service within Canada in 1994. The retail networks in all four regions were dominated by full-serve outlets. However, the full-serve alternative was most dominant within the Quebec market where 54% of all facilities were run by service attendants. Quebec also had proportionately lower percentages of self-serve and split-serve facilities. The above average percentage of full-serve facilities in Quebec's market probably accounts for the low level of efficiency identified by the ratio of total volume to total outlets shown in the two charts at the bottom of Figure 6. While 29% of Canada's outlets were found in Quebec the region only sold 22% of the total national volume.

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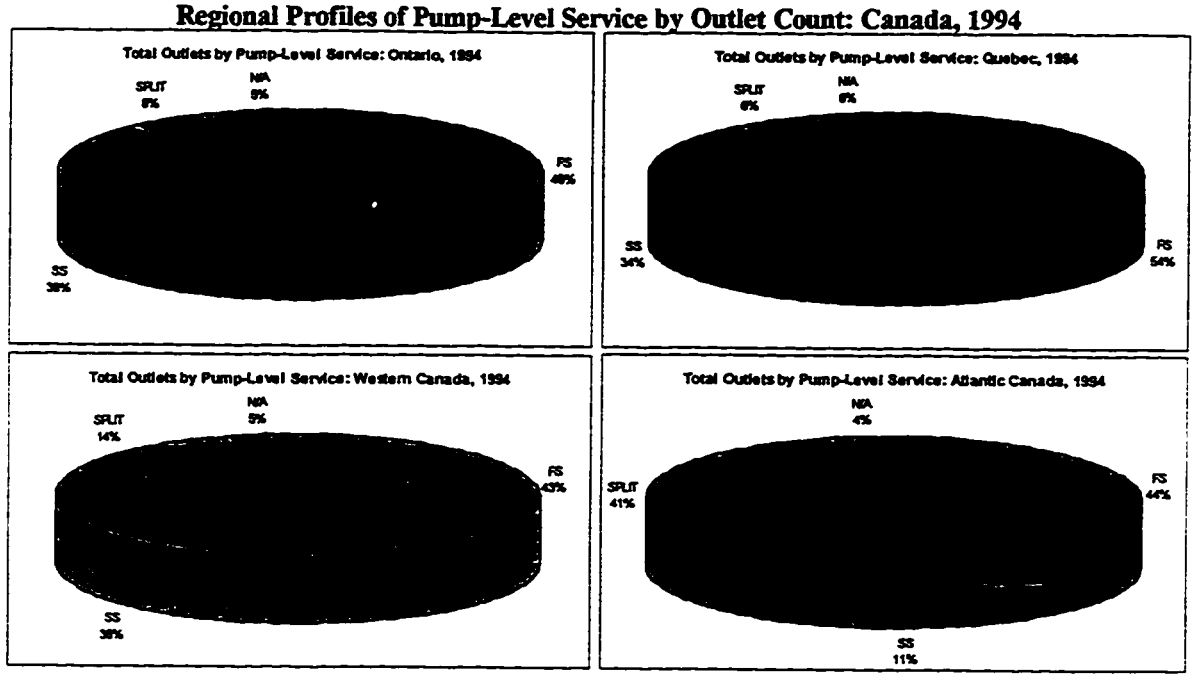
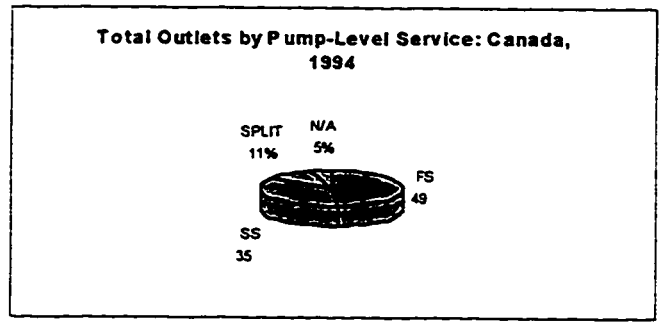
[31] Details related to Figure 6 are available in Appendix IIIa and IIIb.

# Figure 6

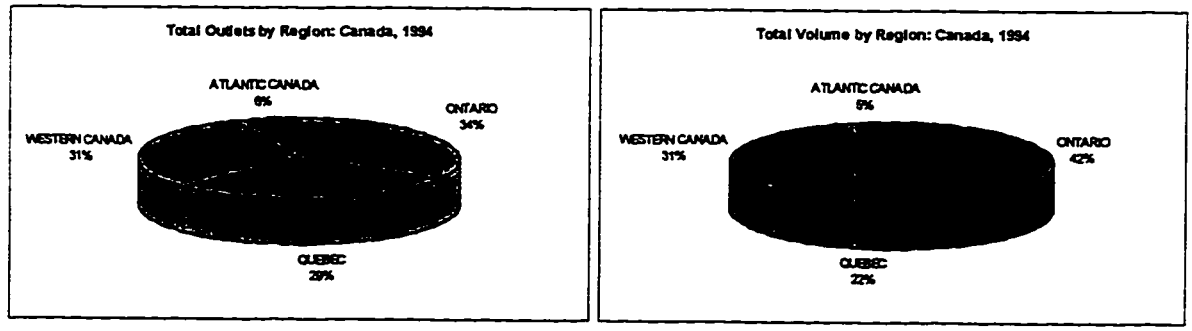
## Regional Profiles of Pump-Level Service by Outlet Count: Canada, 1994




## National Profile of Pump-Level Service by Outlet Count: Canada, 1994




## Regional Distribution of Outlets and Sales Volumes: Canada, 1994



The pump-level service profiles for Ontario and Western Canada were very similar to the national profile. However, Western Canada had 6% fewer full-serve facilities and a proportionately higher percentage of split-serves. Western Canada maintained a perfectly efficient market with 1% share of volume for every 1% of facilities within Canada; 31% of outlets and 31% of total volume. Ontario maintained Canada's most efficient regional network with greater than 1% share of volume for every 1% of facilities; with 34% of outlets and 42% of total volume.

Atlantic Canada is Canada's smallest and most unique retail gasoline market. The most unique aspect of the pump-level service profile for Atlantic Canada was the high percentage of split-serve facilities and the low percentage of self-serve outlets; 41% and 11% respectively. As a result, including split-service and full-serve facilities, 85% of Atlantic Canada's facilities offer a full-serve alternative.

This summary of pump-level service in Canada highlights the unique nature of markets across geographical regions. As has been mentioned already, these regional differences may be the result of variations in demand, competitive strategy and/or governmental regulations. Chapter Six and Seven will focus specifically on the significance of demand in shaping regional markets by identifying a method for assessing the relationship between customer types and demand for each pump-level service type.

## Chapter 5.0: A Micro Examination of Pump-Level Service

Retail gasoline sales are influenced by a complex set of demand and supply variables, including: price, convenience, competition, brand loyalty, service and location. The literature review in Chapter Two highlighted the fact that the wide variety of variables associated with retail gasoline locations should not be evaluated in isolation of each other. As a result, the purpose of this chapter is to identify the close interrelationships which exist between pump-level service and other key variables associated with the success of retail gasoline locations. In particular, this chapter looks at the influence which pump-level service has on price-cost factors, ancillary activities, trade area competition and marketing strategy.

### 5.1: The Price and Cost Factors Associated with Pump-Level Service;

#### 5.1.1: Price and the Elasticity of Demand within the Retail Gasoline Industry

This section offers an introduction to the general relationship between prices and the demand for gasoline. Claus and Hardwick (1972) suggested that the demand for gasoline for the industry as a whole was highly inelastic in terms of price. They summed up the general demand characteristics for gasoline in four ways;

1. Gasoline has only one major use, therefore consumers cannot put the product to other uses when it's price is low, and thereby expand consumption.
2. There are no practical substitutes for gasoline as a motor fuel, thus consumers cannot shift to other products when the price increases.
3. Gasoline is a product whose demand is derived (linked to the automobile industry), thus consumers are not likely to use more merely because the price is low.
4. Gasoline is jointly demanded with other products, so that its purchase accounts for only a part of the transportation expenses; thus a lower price is not likely to induce greater consumption (Claus and Hardwick, 1992. Pg.110).

The demand characteristics for individual outlets are more complicated. Claus and Hardwick (1972) argued that the demand for gasoline at an individual location was inelastic when the price was lowered, because the competition would react quickly by adjusting their

prices. They also argued that the demand for gasoline was highly elastic if an outlet raised it's price above the average within the retail trade area. Claus and Hardwick's (1972) discussion of the elasticity of demand within the retail gasoline industry provides a useful theoretical background to the discussion of prices and pump-level service. However, in reality the relationship between price and demand is much more complicated because consideration must be given to the variety of station typologies, the buying habits of the various market segments and differences between locations.

### 5.1.2: The Price-Convenience Trade-off Associated with Pump-Level Service

When all other things are held equal, the fundamental difference between the full-service and self-service alternatives is related to the trade-off between price and convenience. Generally, people tend to dislike purchasing gas because the transaction does not leave them with what they perceive to be a tangible product (Gilbart, 1994). As a result, it is important for gasoline retailers to make the transaction as convenient and pleasurable as possible. However, with the introduction of the self-serve and split-service alternatives consumers are given the opportunity to make a trade-off between the convenience of having an attendant service their needs and the lower price associated with pumping their own gas.

When brand classifications are introduced into the mix the price-convenience trade-off is complicated further by the notions of value, image and location quality. The consumer is often given a further choice between the high price associated with the quality image and convenient location of the major brand and the lower price associated with the less attractive and less convenient private. As was mentioned in Section 2.3.3.5, the segmenting of the marketplace by brand classification and pump-level service has resulted in a complicated

pricing structure within the retail gasoline industry. Table 17 identifies a sample of the pricing structure which is at work within the modern retail gasoline industry.

## Table 17

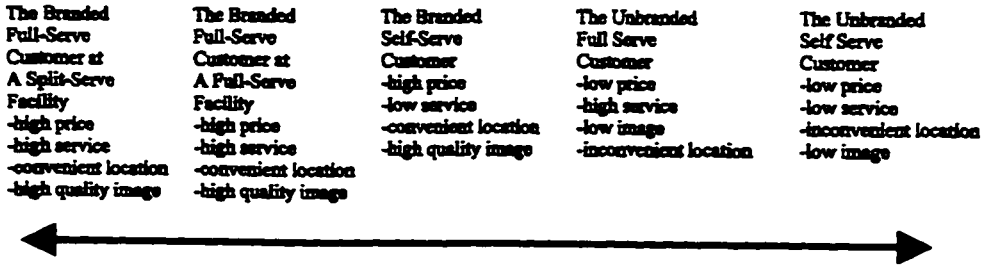
**The Relationship Between Prices, Pump-Level Service and Brand Classification**

| Classification | Definition | Sample Price Comparison[32] (Cents per Litre) |
|---|---|---|
| Branded Self-Serve | Self-serve outlet operated under a major national or regional brand (Imperial Oil (ESSO), Petro Canada, Shell, Sunoco, Chevron, Ultramar, Irving Oil etc.) | Self Price 50.0 |
| Unbranded Self-Serve | Unbranded self-serve stations. | Self Price 49.8 |
| Branded Full-Serve | Full-serve outlet operated under a major national or regional brand (Imperial Oil (ESSO), Petro Canada, Shell, Suncor (Sunoco), Chevron, Ultramar, Irving Oil etc.). | Full Price 50.4 |
| Unbranded Full-Serve | Unbranded full-serve stations. | Full Price 49.8 |
| Branded Split Serve | Outlets offering both self-service and full-service gasoline under a major brand. | Self Price 50.0<br><br>Full Price 53.0 |

This pricing structure suggests that consumers can be placed on continuum which is related to price sensitivity, pump-level service type and brand preference (Refer to Figure 7).

## Figure 7

**The Price, Service, Brand Continuum**




The majors have tried to pull consumers toward their end of this continuum by developing strategies to increase brand loyalty and improve the utility of their locations through the introduction of complimentary ancillary activities. "With the cost-cutting phase mostly

[32] Coffin, Interview (1995).

complete, the major players have turned their attention to boosting sales at their remaining stations through a variety of give-aways and other programs designed to draw regular customers" (Jang, 1995).

Three ways that major corporations in Canada have promoted brand loyalty are; through national advertising campaigns, through the advancement of their company cards and through bonus incentive plans, such as; Shell's 'Air Miles' travel reward program, Petro Canada's 'Petro-Points' program and Imperial Oil's 'Club Z Extra' program with Zellers. While brand loyalty is considered to be relatively weak in the petroleum industry it is expected that even the modest success of such programs could translate into significant gains. The small scale independents and unbranded retailers are expected to be hit the hardest by these programs aimed at increasing brand loyalty.

### 5.1.3: The Cost Factors Associated with Pump-Level Service

As the single largest marketing expense for a gasoline outlet, wages can account for more than fifty percent of the total marketing expenses. In Ontario the annual cost of staffing an outlet with a single attendant can reach upwards of $50,000 (Tod, 1995). Claus and Hardwick (1972) suggested that until the early 1970's the labour requirements for gasoline outlets were more closely related to non-gasoline income, such as automotive maintenance, than to station volumes. While the same pattern may be true today the non-gasoline income is probably more closely related to the operation of new ancillary functions such as car washes and fast food outlets.

However, the impact which pump-level service has on the operational costs of gasoline retailers is difficult to measure. The wage differential between full-serve outlets and a self-

serve outlets is not necessarily that great. In fact, safety regulations generally necessitate that a specific ratio of attendants to pumps be maintained whether the employees are pumping the gas or sitting in a kiosk. However, several important issues related to wages and pump-level service do exist.

Firstly, during peak business hours a full-serve facility may require more than one attendant in order to handle the extra volume of customers. Particularly if the retailer wants to minimize the inconvenience to the customer and keep the site free of congestion. In such cases the cost of staffing a self-serve facility would be far more reasonable.

Secondly, in situations where an outlet offers ancillary goods, such as impulse items, convenience goods or fast food, it is more efficient to operate a self-serve facility where one attendant can often manage the entire location. Full-serve facilities which include such ancillary activities would likely require more than one attendant in order to maximize the convenience for the customer and avoid security problems. In fact, as will be discussed in the following section, it is probably preferable to have consumers leave their cars and enter a kiosk or convenience store where they will be more inclined to pick-up non-gasoline related goods as they pay for their fuel.

The third issue related to labour costs and pump-level service arises in the case of the split-serve facility. Generally, the cost of staffing a split-serve outlet is greater than that of a purely self or full-serve facility. A minimum of two employees are required at all times at split-serve locations; one to attend the full-serve pumps and the other to operate the self-serve till and manage any associated ancillary activities. The excess cost associated with staffing a split-serve facility translates into a significantly higher price at the full-serve pumps. As was shown in Table 17, the price differential between branded self-serve outlets and branded full-serve

outlets is generally only several points per litre. However, the price differential between the self and full-serve alternatives at a split serve facility can be as much as three cents per litre. The price differential between a purely full-serve outlet and the full-serve alternative at a split-serve facility is often enough to discourage consumers who seek to have their gasoline pumped by an attendant.

## 5.2: The Relationship Between Pump-Level Service and Ancillary Activities

The recent trend of cross merchandising gasoline with non-traditional ancillary activities such as convenience stores and fast food outlets was introduced in Chapter Two. This section examines the relationship between ancillary activities and pump-level service more closely.

> "Change is sweeping the gas station industry with such intensity that station owners, oil company executives and local distributors seem to have lost their way. Struggling with shrinking profits in their core gas station business they are trying to mix and match their way to profitability, creating some odd hybrids: gas stations that sell flowers or offer dry cleaning services and stations where customers can get tacos but not a tire change" (Salpukas, 1993. Pg.D1).

Over the last several years retailers have been struggling to find a proper mix of gasoline and ancillary products and services to offer through their facilities. "The goal is to win customers who buy gas on Tuesday and come back and just buy milk on Saturday" (Salpukas, 1993. Pg.D3). This evolution of the retail gasoline outlet into a more diverse retail center has been long, slow and is on-going. There has been a period of experimentation in which marketers within the gasoline industry have had to learn the dynamics of retail activities which had previously been completely foreign to them.

Retailers are trying to identify ancillary functions which will improve the utility of their locations without diluting the main business of selling gas. At the same time, retailers may have to adapt their core business to ensure that it 'fits' with the new activities. One way that gasoline retailers will have to do this is by matching pump-level service types with compatible ancillary activities. If relationships between customer types and preference for service can be identified retailers will be able to package each service type with the types of ancillary goods traditionally associated with the various consumer groups.

For example, the latest advancement in pump-level service is the self-serve automatic payment machine. Customers who use this technology can pay with a credit card or bank card and never need to leave the vicinity of their automobile. Many marketing professionals within the industry are concerned that these automated machines will erode the revenues now being captured by convenience ancillary activities at many sites (Salpukas, 1993. Pg.D3). Concerns about lost ancillary revenues due to the automated payment machines is similar to that of full-serve operations; people may not leave their cars. As a result, retailers may chose to target full-serve facilities or automated self-serve offers towards locations which have a low potential for ancillary activities.

On the other hand, assume that retailers are able to conclude that older consumers earning high-incomes prefer full-service facilities over self-service facilities. If such a relationship were true, it might be preferable to package ancillary activities associated with high income customers with full-service facilities. However, it appears that the increasingly important role of ancillary activities in generating revenues at retail gasoline

locations may lead to the continued decline of the full-serve format which was identified in Chapter Four.

## 5.3: Trade Area Competition, Marketing Strategy and Pump-Level Service

The extent to which pump-level service influences the viability of a location depends heavily on the number and variety of pump-level service alternatives which exist within the outlets competitive trade area. Given the competitive pump-level service profile for a trade area a retailer can develop a marketing strategy to decide how to position itself in terms of the type of service to offer. For example, consider a retail trade area made up of five full-serve outlets. A new retailer entering the market would need to decide where to locate, how to develop and which type of pump-level service would be most appropriate. Should the retailer compete directly with the rival outlets by providing a full-serve offer? Or, should the retailer attempt to capture a niche within the market by becoming the only self-serve alternative within the region? Or, should the retailer try and do both by opening a split-serve outlet? While the aggregate trends identified in Chapter Four provide an indication of future industry wide developments they cannot help the decision maker who needs to design a strategy based on the local conditions of a given trade area. Each actor in the gasoline network may chose to move in any one of several directions.

Gasoline retailers have the information and tools they need to make many marketing decisions about where to locate, how large sites should be and how many pump islands to include. However, because they lack a firm understanding about the relationship between consumer types and preferences for specific pump-level service they are less sure

about which service types should be offered. If decision makers were able to identify such relationships they would be able to make more informed decisions regarding pump-level service. In the example given above, decision makers could identify the customer profile for their trade area and use information about preferences for pump-level service to support a strategy of confronting competition or seeking a market niche.

> "The Importance of identifying relevant demographic characteristics in a trading area cannot be overemphasized. Nor can the importance of developing a marketing strategy that caters to the needs of an area's customer makeup. Don't try to force-feed a particular type of operation in an area. Some companies think they can be successful anywhere with the same type of operation" (Smith, 1989. Pg.4).

The following chapters focus on a method which will help gasoline retailers to collect 'relevant' trade area information and assist in the targeting of pump-level service types to the appropriate locations.

## Chapter 6.0: Towards a Methodology for Analyzing Pump-Level Service

This chapter uses the background information and questions raised in earlier sections to develop a methodology for delineating more accurate trade areas for retail gasoline outlets. The first section of Chapter Six involves a case study of pump-level service in Scarborough, Ontario. This case study, and the database used to design it, was originally intended to be employed within a multiple regression model. However, failure of similar applications of multiple regression by industry professionals and preliminary experimentation within this thesis led to a search for a new approach to studying pump-level service. The case study has been included for two reasons. Firstly, it provides a unique descriptive and analytical approach to evaluating pump-level service within regional networks. Secondly, and more importantly, the Chapter addresses the limitations of the regression based approaches and demonstrates the development of an alternative methodology for delineating retail trade areas and analyzing the relationship between customer typology and demand for pump-level service. Chapter Seven extends the discussion of the trade area approach and discusses the development and comparison of customer profiles. Chapter Seven also discusses the potential future applications of the trade area delineation and analysis method to the study of the relationship between customer type and preference for pump-level service.

## 6.1: The Scarborough Case Study

### 6.1.1: Selection of the Study Area

The case study of Scarborough provided an opportunity to examine pump-level service at a local scale. The City of Scarborough was suggested as a study area by marketing professionals at Imperial Oil (ESSO) for several reasons:

1. The regional network included a full range of pump-level service types, with 70 full-serve sites, 87 self-serve sites and 10 split-serve sites.
2. The regional network included a good mix of ownership types; ranging from the major national brands to the unbranded independents.
3. The regional network included a mix of high volume, medium volume and low volume locations.
4. The region offered a large and diverse market in terms of the socioeconomic and demographic characteristics and urban land use development.

As the seventh largest city in Canada Scarborough is an excellent example of a dynamic urban center. However, because Scarborough is unique in terms of socioeconomic and demographic characteristics, traffic patterns, land use development and buying behavior the locational requirements of retailers will not necessarily be the same throughout the rest of the country. In fact, the recognition of the unique regional nature of retail gasoline networks is a central theme throughout this thesis.

### 6.1.2: The Database used to Generate the Case Study

The information used to generate the Scarborough case study was supplied by marketing and real estate professionals at Imperial Oil (ESSO). A national Kent Marketing database from 1994 was used as the source for volume information for the study. This database provided total annual volumes by service type and grade for all

outlets in Scarborough; including both Imperial Oil (ESSO) and all competitors. Kent Marketing is a company based in London, Ontario which, among other things, measures outlet volumes in major markets across Canada. Kent maintains an extensive outlet database which is sold to retailers across Canada as a means for measuring their operations in relation to their competition. As was mentioned already, the Kent database includes approximately 70% of Canada's retail network and is the best source of competitive volume information within the industry. The Kent database for Scarborough includes 100% of the region's outlets.

The majority of the volume information within the database is based on actual meter reads from station pumps. In the past, retailers used a variety of creative methods to measure the volumes of their competitors at great expense. Due to difficulties in controlling confidentiality most major retailers have given up on trying to protect their volume information and openly allow Kent to measure their pumps. However, the highly competitive nature of the industry leads many retailers, particularly private owners, to try and conceal their volume information. In such cases Kent produces volume estimates. The Kent database was made available in a Dbase format.

The Kent volume database for Scarborough was merged with the aforementioned outlet database produced by MPSI. While the MPSI database already included Kent volume information, it did not provide a breakdown by pump-level service type. This breakdown was particularly important for the evaluation of split-serve locations. By merging the Kent and MPSI databases both volume information and site characteristics were made available within a MapInfo GIS format. Within the GIS the outlet database was overlaid and integrated with socioeconomic and demographic information, street

network and traffic volume information. The following discussion provides several examples of the traditional use of this database information for the analysis of retail gasoline networks.

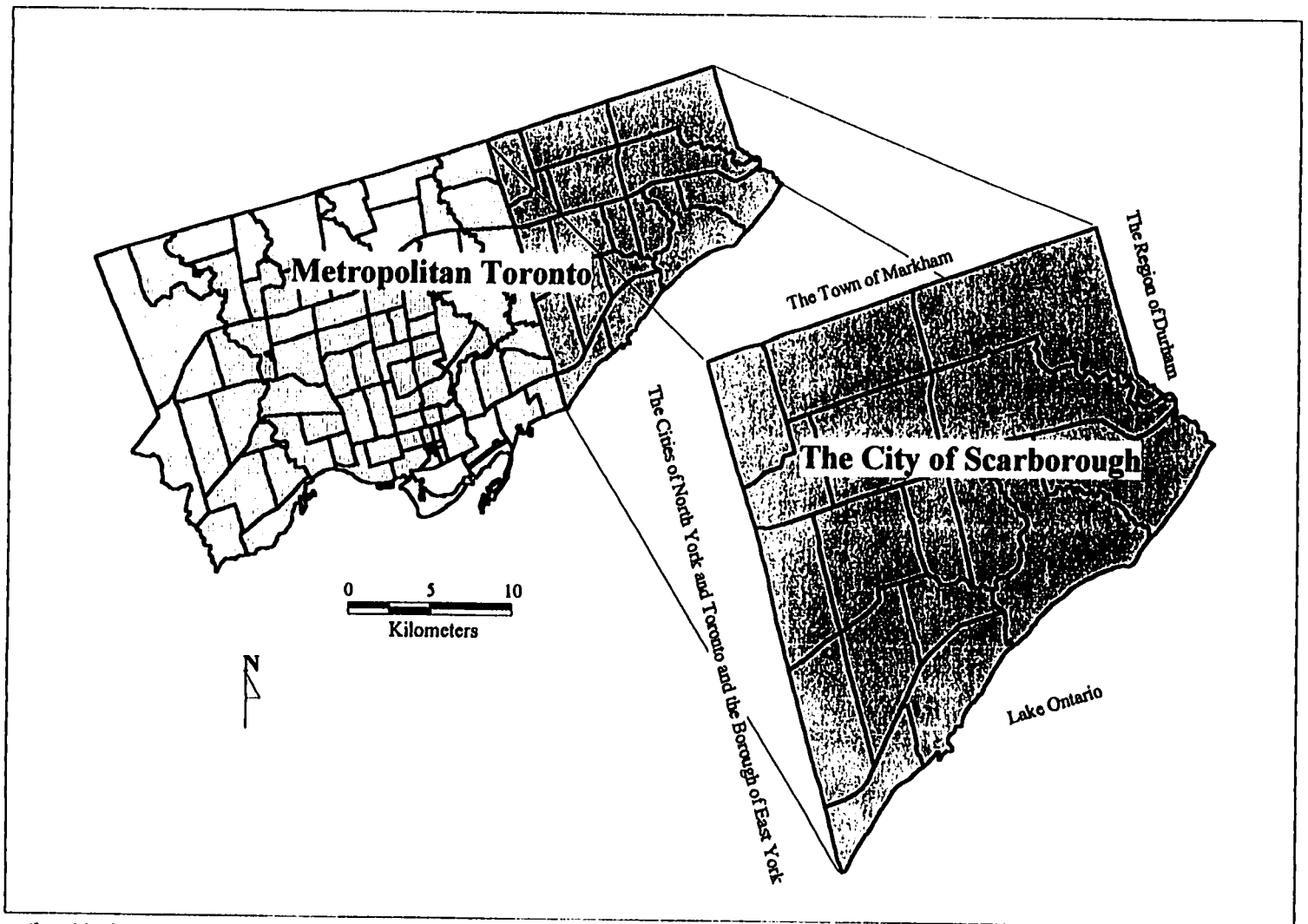
### 6.1.3: The City of Scarborough in Perspective

The City of Scarborough is located within the eastern portion of Metropolitan Toronto (Refer to Map 1). The City is bounded to the east by the Region of Durham, to the north by the Town of Markham, to the west by the Cities of North York, Toronto and the Borough of East York and to the south by Lake Ontario. As a result, Scarborough is strategically situated to benefit from links with the highly developed urban areas to the west and the fast growing suburbs to the north and east.

Through most of it's history Scarborough was a rural farming township, with a scattering of villages whose names are still preserved as the names of identifiable communities (Scarborough, Fact Sheet 1., 1995. Pg.1). Among them are Woburn, Agincourt, Malvern, Highland Creek and L'Amoreaux (Refer to Map 2). While suburban development began in the early 1900's in the Birchcliff area of the township, it was the post-war period that witnessed the most dramatic growth. Scarborough officially became a city in 1983.

**Map 1**

**Metropolitan Toronto, Scarboroungh, 1996**

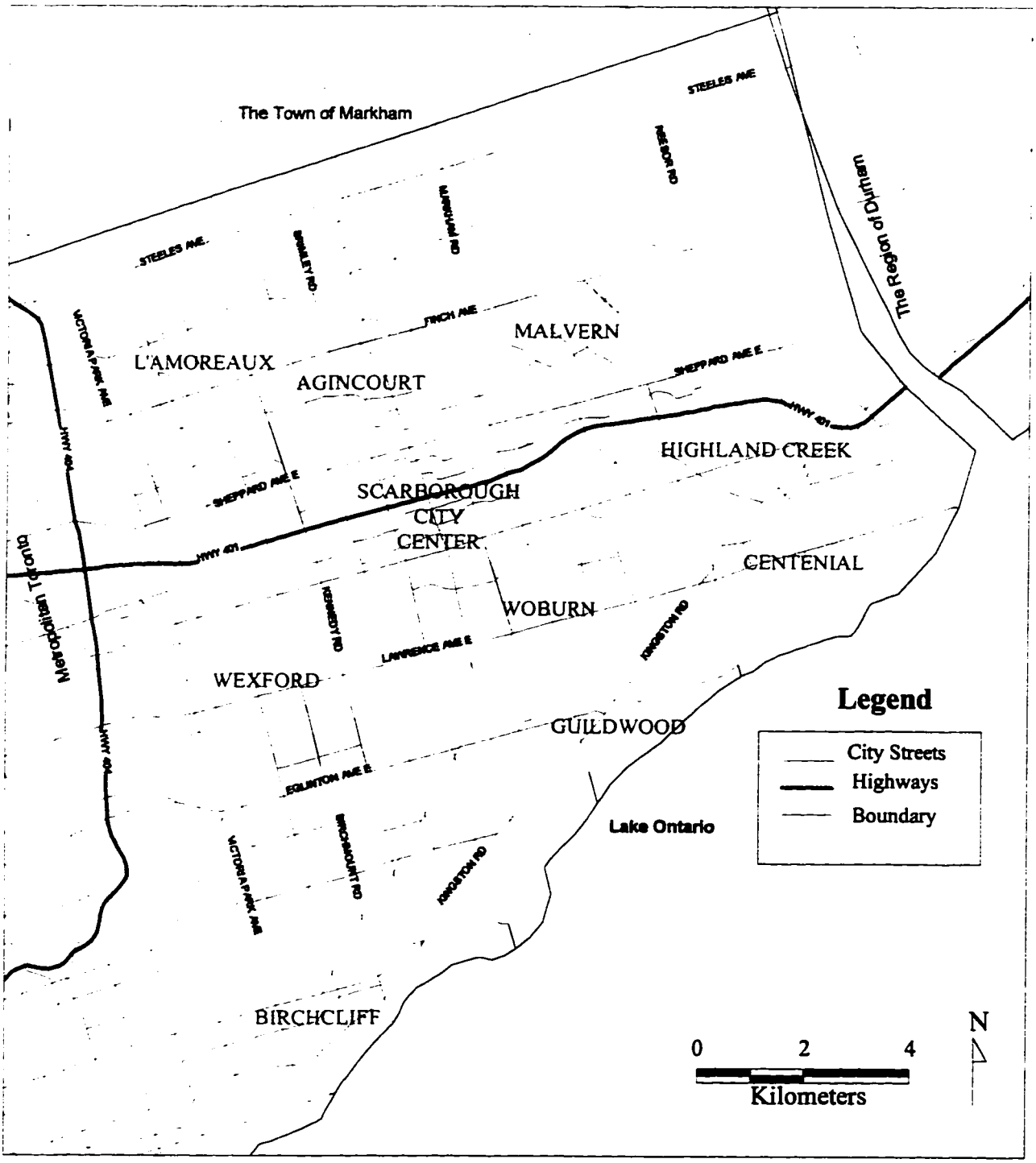



(Inset Map is not to Scale)

(Source: Imperial Oil, 1995)

## Map 2

**Scarborough Communities and Street System, 1994**




(Database Source: Imperial Oil, MPSI Database, 1994)

By 1993 the population of Scarborough was approximately 544,000 people. Between 1986 and 1992, the Census Metropolitan Area (CMA) population increased at a rate of 12.3 per cent per year (Imperial Oil, Market Attractiveness Report, 1993). This made Scarborough the fastest growing municipality in Metropolitan Toronto. During the same period both population growth and per capita income in Scarborough were also above the national average (Refer to Table 18).

**Table 18**[33]

**Population and Income Summary for Scarborough 1993**

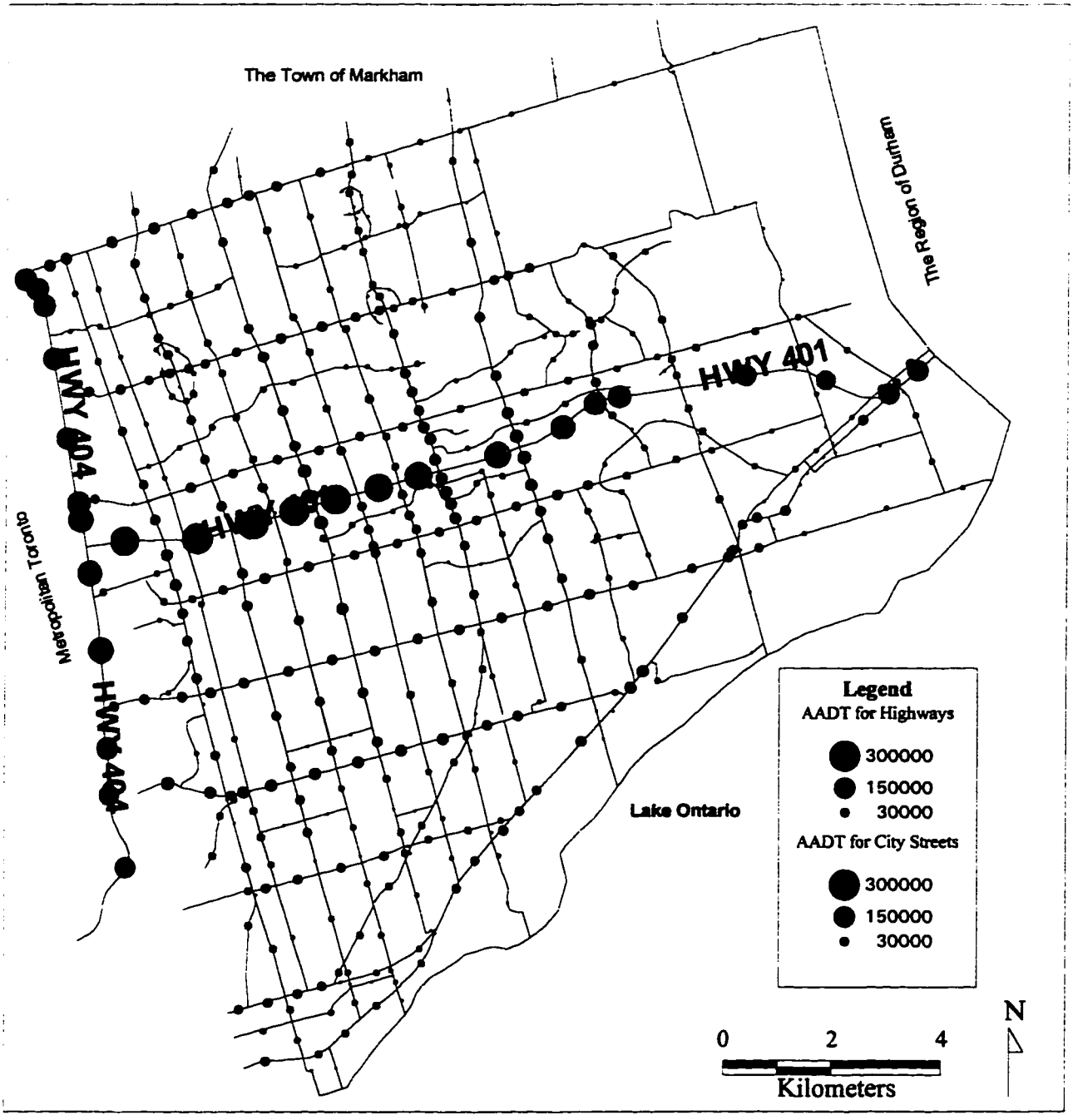
| | Scarborough CMA | National Average | Difference |
|---|---|---|---|
| Population | 544,000 | | |
| Population Growth 1986-1992 | 12.3% | 7.0% | 5.3% |
| Average per capita income (K$) | 24.9 | 19.2 | 29.7% |

Two variables which are of critical importance to location analysis within the retail gasoline industry are orientation to traffic and proximity to residential development. More specifically, gasoline retailers are concerned with orientation to traffic patterns, traffic volumes, housing counts and housing typologies. Map 3 identifies average annual daily traffic (AADT) for Scarborough in 1994 and highlights the major transportation arteries within the region. Traffic within Scarborough is heavily influenced by the westward pull of downtown Toronto and Highway 404. Highway 401 functions as the major east-west artery within the region. Highway 401 also acts as a commuter route through Scarborough from suburban areas in Durham to the east to the heart of Toronto in the west. Traffic along the city streets is dense and uniform throughout the region.

[33] Source: Imperial Oil, Market Attractiveness Report, 1993-1996.

## Map 3

**Scarborough Average Annual Daily Traffic (AADT) Volumes, 1994**



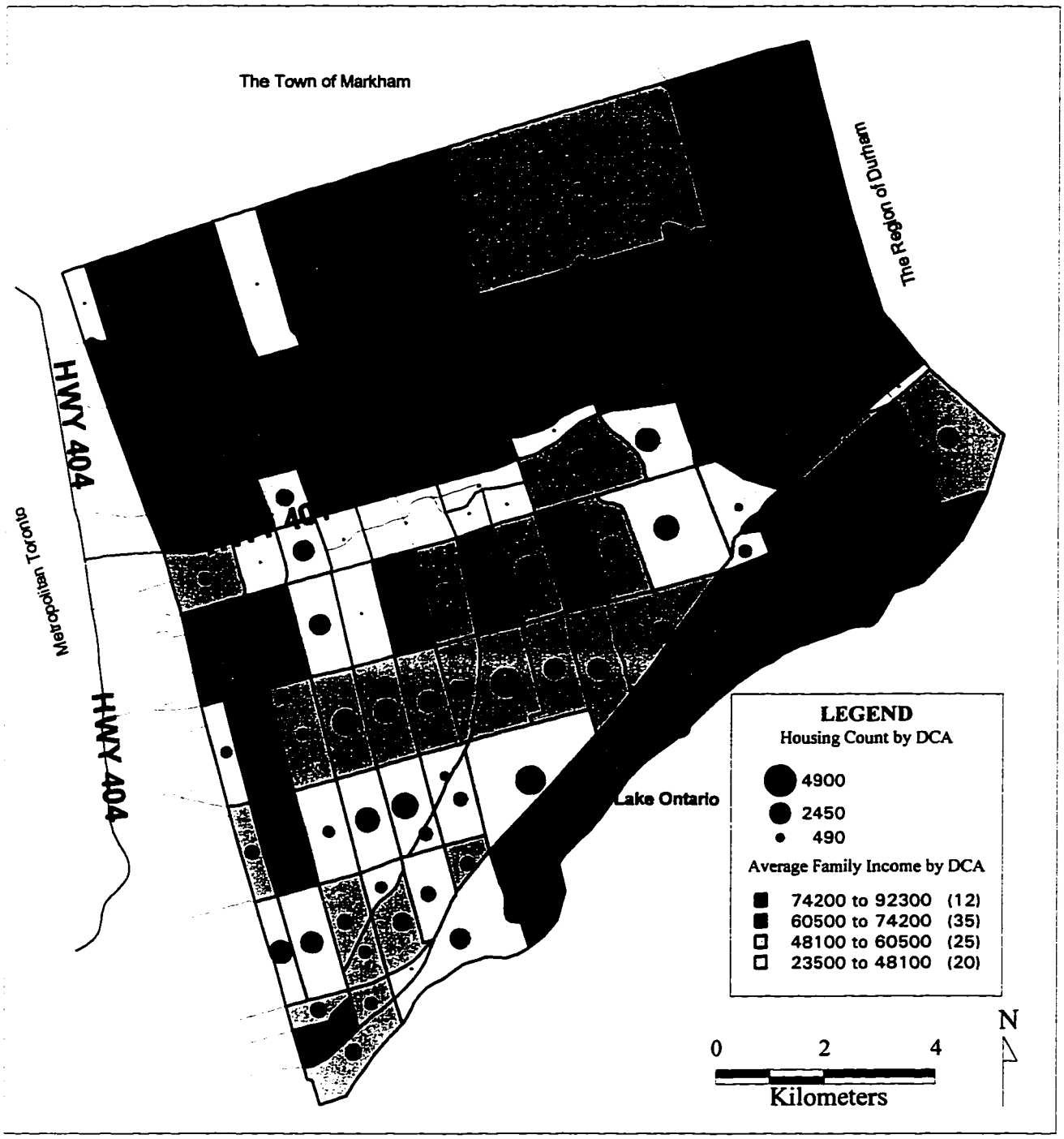

(Database Source: Imperial Oil, MPSI Database, 1994)

However, the north-eastern portion of Scarborough is undeveloped and maintains relatively low traffic volumes. The high density and dynamic nature of Scarborough's traffic system makes the analysis of the gasoline network a complicated task.

Scarborough had 179,318 housing units at the end of 1992 of which 52 per cent were single detached or semi-detached houses. Dwelling type and location have a very important influence on gasoline retailers. Generally, the large, single family, detached houses characteristic of suburban areas offer the best retail gasoline markets. Scarborough currently has zoning for 15,000 new residential units which will primarily be in the form of apartments. As a result, while the region is maturing it maintains greater growth potential than the rest of Metropolitan Toronto. Map 4 summarizes Scarborough's residential housing counts and average family incomes in 1994. Like traffic volume, residential development is relatively even across the region.

## Map 4

**Housing Counts and Average Family Income: Scarborough, 1994**




(Database Source: Imperial Oil, MPSI Database 1994)

6.1.4: Scarborough's Retail Gasoline Network in Perspective

In terms of monthly sales volumes Scarborough is the tenth largest gasoline market in Canada and the third largest in Ontario. While demand per person was below the national average in 1993 the number of outlets servicing the region was also below the average, resulting in a very efficient network and a 39% productivity index (Imperial Oil, Market Attractiveness Report, 1993). (Refer to Table 19)

**Table 19**[34]

**Market Attractiveness Summary for Scarborough 1993**

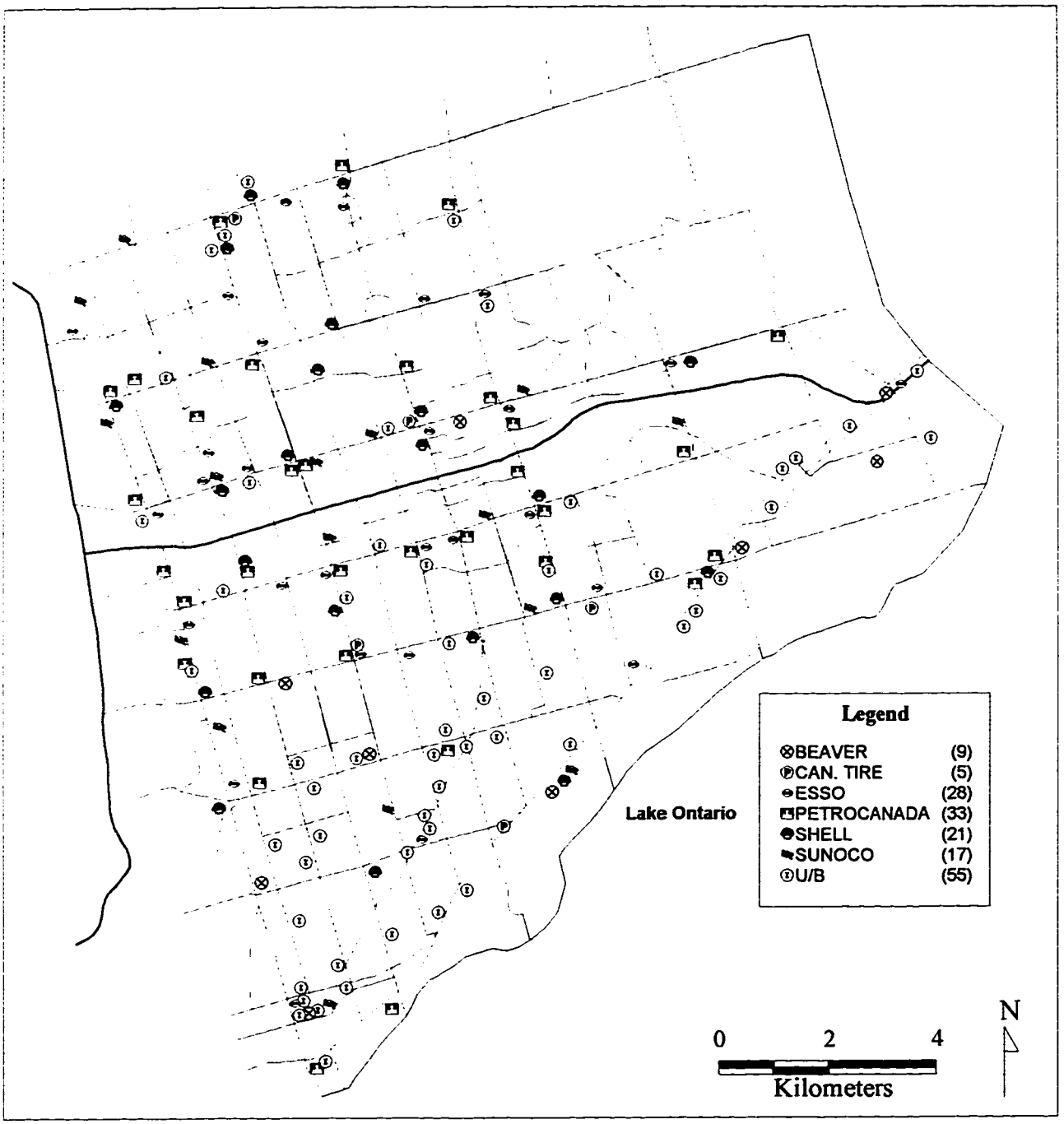
| | Scarborough CMA | National Average | Difference |
|---|---|---|---|
| Monthly Litres of Gasoline/Person/Year | 1040 | 1042 | -0.2% |
| Productivity (ml/yr) | 3.2 | 2.3 | 39.1% |

In 1994 Scarborough's retail network included 168 outlets and sold over 640,000,000 litres of gasoline (Refer to Map 5). Like the rest of Canada, Scarborough's market was dominated by the 'big three' major national brands; Petro Canada, Imperial Oil and Shell earned a combined market share greater than fifty per cent. However, regional brands, minor brands and unbranded retailers also maintained a strong presence within the regional marketplace.

While Petro Canada was the market share leader in Scarborough in 1994 with 19% of the total sales volume, it's market effectiveness ratio was less than one; indicting that the company's outlet network was slightly over-built. However, comparison of the 1994 summary with historical performance reports for the region indicate that Petro Canada managed to improve it's efficiency ratio significantly since 1992 through a number of

## Map 5

**Scarborough's Retail Gasoline Network, 1994**




(Database Source: Imperial Oil, MPSI Database 1994)

station closures (Imperial Oil, Historical Performance Report, 1993). Imperial Oil (ESSO) and Shell earned 17% and 15% market share respectively in 1994. While ESSO maintained an equal ratio of market share to outlet share in 1994 the company had suffered losses in both market share and market effectiveness since 1992. Shell managed to improve it's overall market share and market effectiveness ratio over the same period.

Sunoco, a major regional refiner, has been the biggest threat to the majors in Scarborough over the last several years. Sunoco earned 17% market share in Scarborough in 1994 with only 10% of the regions outlets. Sunoco experienced a 6% jump in market share between 1992 and 1993 and appears to be pressing Petro Canada for the overall lead in market share. Canadian Tire, a major national private brand, was also competing very well within Scarborough with a market share of 5% and a market effectiveness ratio of 1.71.

Beaver, a private brand owned by Shell Canada, earned 7% market share in 1994 and maintained a market effectiveness ratio of 1.3. Beaver had achieved growth in market share and effectiveness since 1990 through aggressive price behavior. However, since 1992 Beaver has experienced a decline in both market share and market effectiveness.

Scarborough's retail gasoline network also supported a large number of unbranded and independent retailers in 1994. Together, the fifty-five private retailers in Scarborough earned 20% of the regions sales volume. However, privates within the region suffered loses in both market share and market effectiveness since 1992. Many of these private brands are remnants of Scarborough's past retail gasoline market and continue to operate as traditional neighborhood outlets. Over the next several years, pressure from the major brands, increasing costs and tight revenues will translate into losses in market share and

outlet share for Scarborough's private retailers. Table 20 summarizes Scarborough's retail gasoline network by market share, outlet share and market effectiveness in 1994.

**Table 20**[35]

**Market Summary for Scarborough 1994**

| Brand Classification and Company Name | Outlet Count | Sales Volume | Market Share by Volume | Outlet Share | Market Effectiveness |
|---|---|---|---|---|---|
| **1. Major National Brands** | | | | | |
| PETROCANADA | 33 | 125,157,715 | 19% | 20% | 0.99 |
| ESSO | 28 | 107,149,398 | 17% | 17% | 1.00 |
| SHELL | 21 | 94,901,323 | 15% | 13% | 1.18 |
| TOTAL: | 82 | 327,208,436 | 51% | 49% | 1.04 |
| **2. Major Regional and Private Brands** | | | | | |
| SUNOCO | 17 | 111,055,460 | 17% | 10% | 1.71 |
| CAN. TIRE | 5 | 32,672,457 | 5% | 3% | 1.71 |
| TOTAL: | 22 | 143,727,917 | 22% | 13% | 1.71 |
| **3. Minor Regional and Private Brands** | | | | | |
| BEAVER | 9 | 44,749,396 | 7% | 5% | 1.30 |
| TOTAL: | 9 | 44,749,396 | 7% | 5% | 1.30 |
| **4. Unbranded** | | | | | |
| TOTAL: | 55 | 126,464,683 | 20% | 33% | 0.60 |
| SCARBOROUGH TOTAL: | 168 | 642,150,432 | 100% | 100% | |

6.1.5: A Description of Pump-Level Service in Scarborough

In 1994 Scarborough's retail gasoline industry was dominated by self-serve facilities in terms of both market share and outlet share, with 57% and 52% respectively. The ratio of market share to outlet share translated into a self-serve market effectiveness of 1.10. Scarborough's full-serve network achieved only a 0.75 market effectiveness with 42% of the total outlets selling only 31% of the total volume. With only eleven outlets

[35] Source: Imperial Oil, Merge of MPSI and Kent Database for 1994. Appendix IV a provides a more in depth summary. Appendix IV b provides information on individual outlets.

and 7% outlet share Scarborough's split-serve network earned 12% market share and a market effectiveness ratio of 1.79. Table 21 summarizes pump-level service for Scarborough in 1994.

**Table 21**[36]

**Pump-Level Service Summary for Scarborough 1994**

| Type of Pump-Level Service | # of Outlets 1994 COUNT | Total Volume 1994 | Market Share 1994 | Outlet Share 1994 | Market Effectiveness 1994 |
|---|---|---|---|---|---|
| Self Serve Outlets | 87 | 367,045,906 | 57% | 52% | 1.10 |
| Full Serve Outlets | 70 | 200,003,188 | 31% | 42% | 0.75 |
| Split Serve Outlets[37] | 11 | 75,101,338 | 12% | 7% | 1.79 |
| TOTAL: | 168 | 642,150,432 | 100% | 100% | |

Comparison of the Scarborough profile with the profiles for Ontario and Canada highlights the regional variation in pump-level service between markets. However, one important similarity also becomes apparent. As a group self-serve outlets are consistently more efficient than full-serve outlets. Furthermore, as a group split-serve outlets are consistently the most efficient facilities. These aggregate figures support the idea that future growth in the retail gasoline industry will come in the form of self-serve and split-serve developments. These aggregate figures also suggest that future closures will probably continue to occur within the full-serve segment.

Table 22 summarizes pump-level service within Scarborough by brand ownership.

[36] Source: Imperial Oil, Merge of MPSI and Kent Database for 1994. Appendix IV a provides a more in depth summary. Appendix Iv b provides information on individual outlets.

[37] While there are 11 split-serve outlets included in the Scarborough Case Study, only 10 sites are included when looking specifically at the split serve locations. Split volume information was not available for the Sunoco station located at Steeles Avenue and Acadia Road.

## Table 22[38]

**Pump-Level Service Summary by Brand for Scarborough 1994**

| Brand Classification | FS Outlet Count | SS Outlet Count | Split Outlet Count | Total Outlet Count | FS Volume Sold Through Regular FS Outlets | FS Volume Sold Trough Split-Serve Outlets | SS Volume Sold Trough Regular SS Outlets | SS Volume Sold Through Split-Serve Outlets | Total Volume Sold by All Service Types |
|---|---|---|---|---|---|---|---|---|---|
| 1. Major National Brands | | | | | | | | | |
| PETRO CANADA | 7 | 24 | 2 | 33 | 18,150,323 | 1,855,682 | 97,011,801 | 8,139,909 | 125,157,715 |
| ESSO | 2 | 22 | 4 | 28 | 4,212,631 | 4,348,590 | 83,984,978 | 14,603,200 | 107,149,398 |
| SHELL: | 2 | 16 | 3 | 21 | 5,055,554 | 2,823,890 | 69,724,991 | 17,296,889 | 94,901,323 |
| TOTAL: | 11 | 62 | 9 | 82 | 27,418,508 | 9,028,162 | 250,721,770 | 40,039,998 | 327,208,436 |
| 2. Major Regional and Private Brands | | | | | | | | | |
| SUNOCO | 8 | 8 | 1 | 17 | 37,491,552 | n/a | 55,995,348 | n/a | 111,055,460 |
| CANADIAN TIRE: | 1 | 3 | 1 | 5 | 4,175,687 | 623,909 | 20,032,150 | 7,840,711 | 32,672,457 |
| TOTAL: | 9 | 11 | 2 | 22 | 41,667,239 | 623,909 | 76,027,498 | 7,840,711 | 143,727,917 |
| 3. Minor Regional and Private Brands | | | | | | | | | |
| BEAVER | 8 | 1 | 0 | 9 | 40,639,467 | 0 | 4,109,929 | 0 | 44,749,396 |
| TOTAL: | 8 | 1 | 0 | 9 | 40,639,467 | 0 | 4,109,929 | 0 | 44,749,396 |
| 4. Unbranded | | | | | | | | | |
| UNBRANDED | 42 | 13 | 0 | 55 | 90,277,974 | 0 | 36,186,709 | 0 | 126,464,683 |
| TOTAL: | 42 | 13 | 0 | 55 | 90,277,974 | 0 | 36,186,709 | 0 | 126,464,683 |
| TOTAL: | 70 | 87 | 11 | 168 | 200,003,188 | 9,652,071 | 367,045,906 | 47,880,709 | 642,150,432 |

Table 22 highlights the variation in corporate policies toward pump-level service. Petro Canada, Sunoco and Beaver have achieved high levels of success in capturing market share within Scarborough with a high percentage of full serve facilities. Imperial Oil (ESSO) on the other hand, which has struggled in recent years within Scarborough, has all but abandoned the full-service market. However, do these variations in pump-level service strategies explain disparities in market share? Furthermore, is market share necessarily indicative of overall profitability? A company such as Imperial Oil (ESSO) may actually have lower costs and higher profits than it's competitors in Scarborough because it has fewer full-serve outlets.

Map 6 identifies pump-level service types within Scarborough for 1994. A brief observation of this 'birds eye' view of pump-level service within Scarborough highlights

[38] Source: Imperial Oil, Merge of MPSI and Kent Database for 1994. Appendix IV a provides a more in depth summary. Appendix IV b provides information on individual outlets. Appendix V provides a summary of the split-serve facilities in Scarborough.

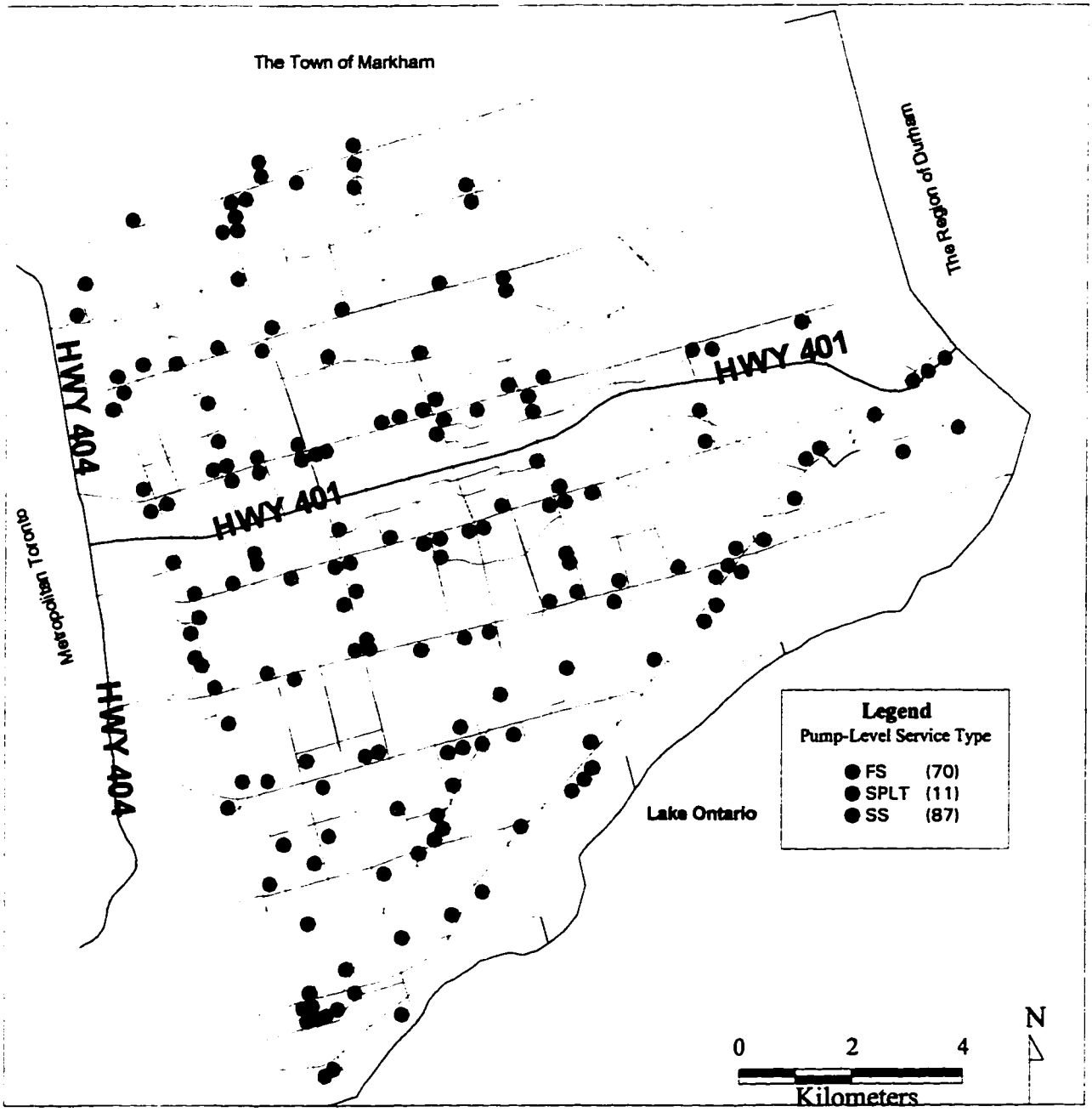
the complexity of the task facing the retail location analyst. In fact, if a small number of the other variables influencing retail gasoline sales were added to this map, such as residential density, traffic volume, competitive sales volumes, land use, outlet type, brand type, ancillary functions and traffic generators, we could hardly recognize any identifiable patterns.

In order to highlight the complexity of the network further, Maps 7, 8 and 9 identify stations by pump-level service and sales volume. Comparison of Map 7 and Map 8 show the domination of self-service facilities within the market. North of Highway 401 the network is almost exclusively made up of self-serve facilities.

Interestingly, Map 8 shows that the full-serve facilities within Scarborough are heavily concentrated south of Highway 401. This concentration of full-service facilities in the southern half of the region is directly related to the high proportion of unbranded retailers clustered there (Compare with Map 5). Furthermore, the concentration of unbranded retailers in the southern portion of the region is directly related to the age of the development in the region. These older full-serve stations are remnants of Scarborough's early retail gasoline network in which the traditional neighborhood station was the dominant station type. As a result, the expected closures within the region, which were noted above, will likely be focused in the southern portion of the region.

## Map 6

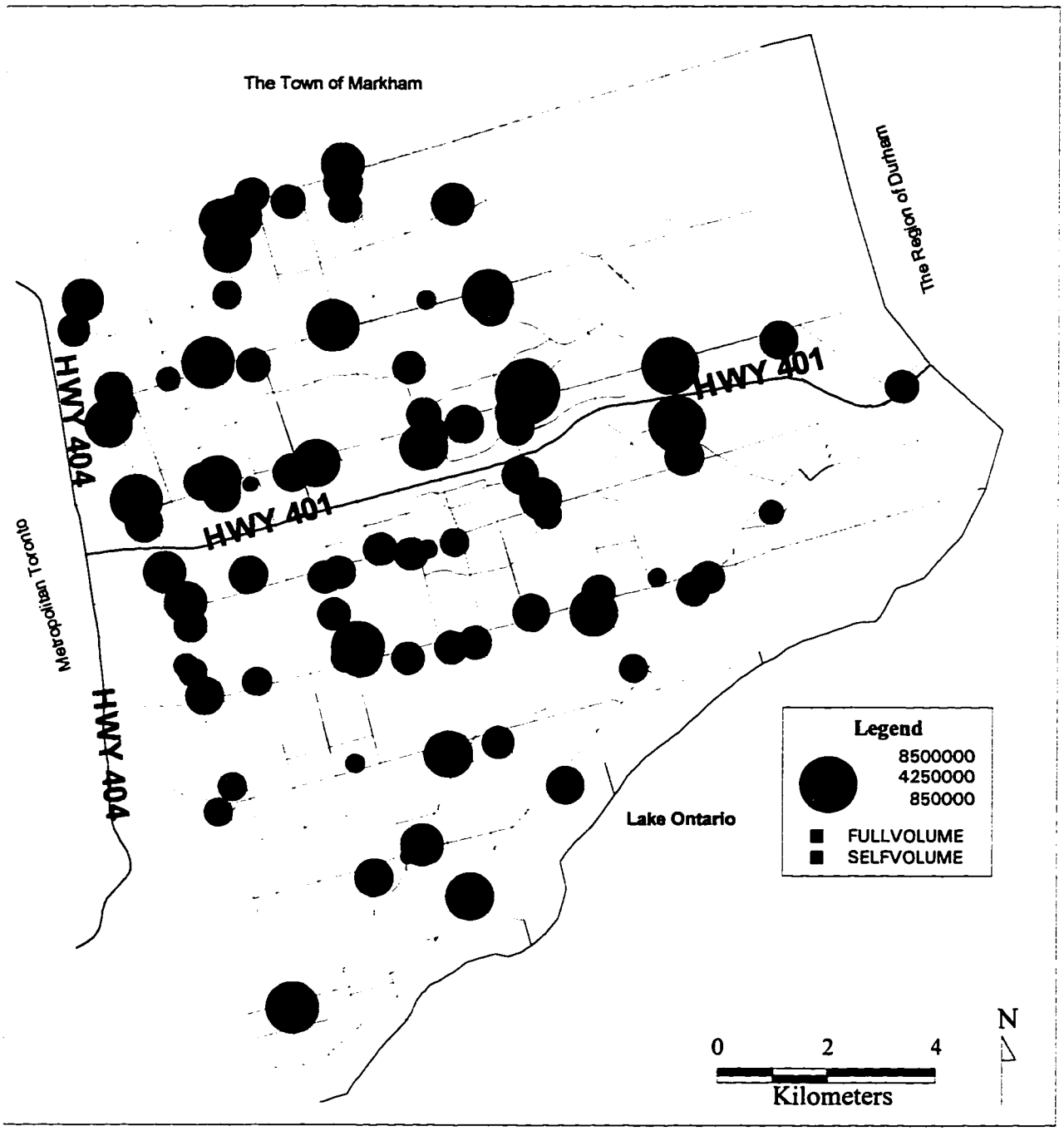
**Scarborough's Retail Gasoline Outlets by Pump-Level Service, 1994**




(Database Source: Imperial Oil, MPSI Database 1994)

## Map 7

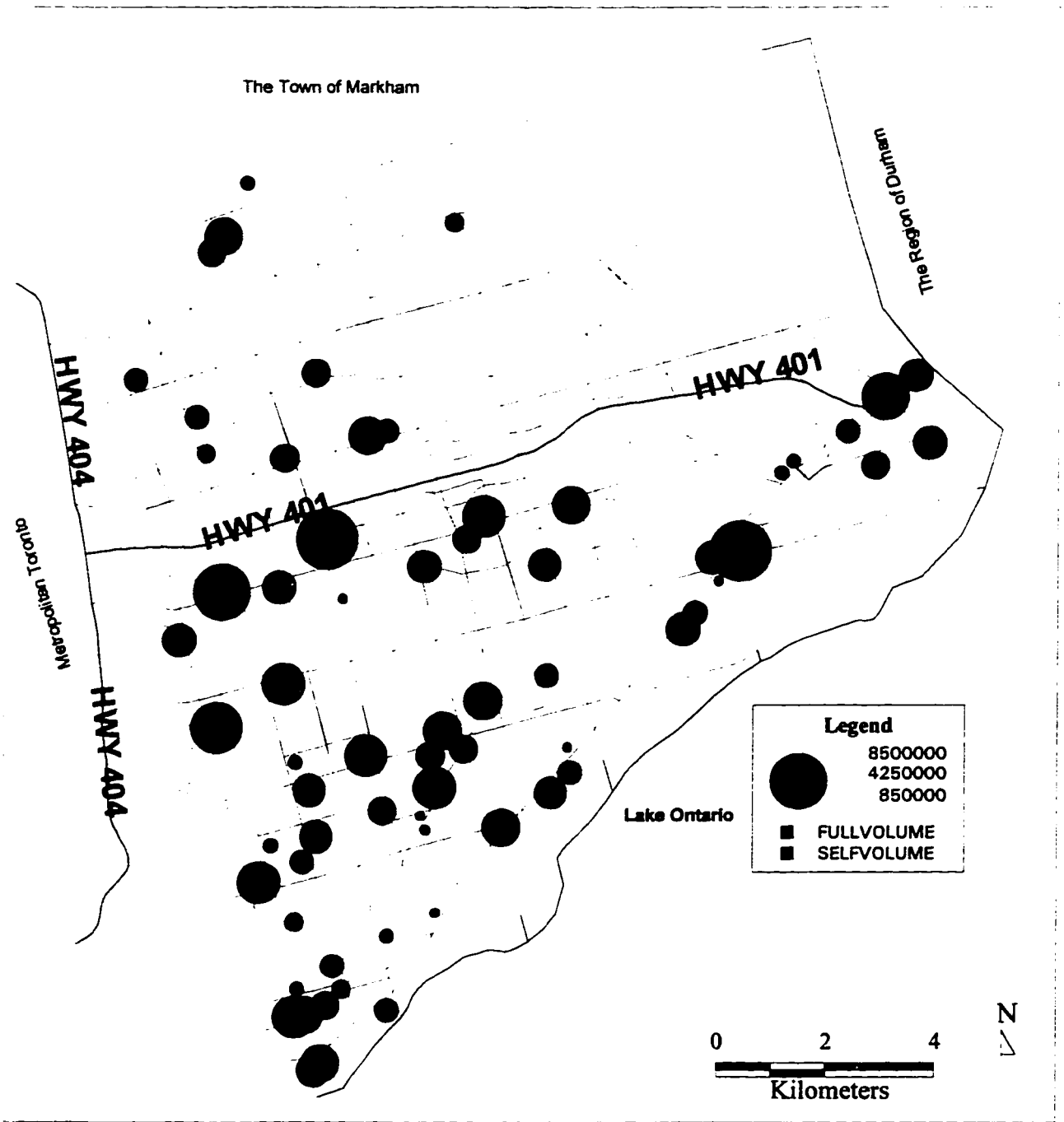
**Scarborough's Retail Gasoline Outlets; Self-Serve Locations, 1994**




(Database Source: Imperial Oil, MPSI Database 1994)

## Map 8

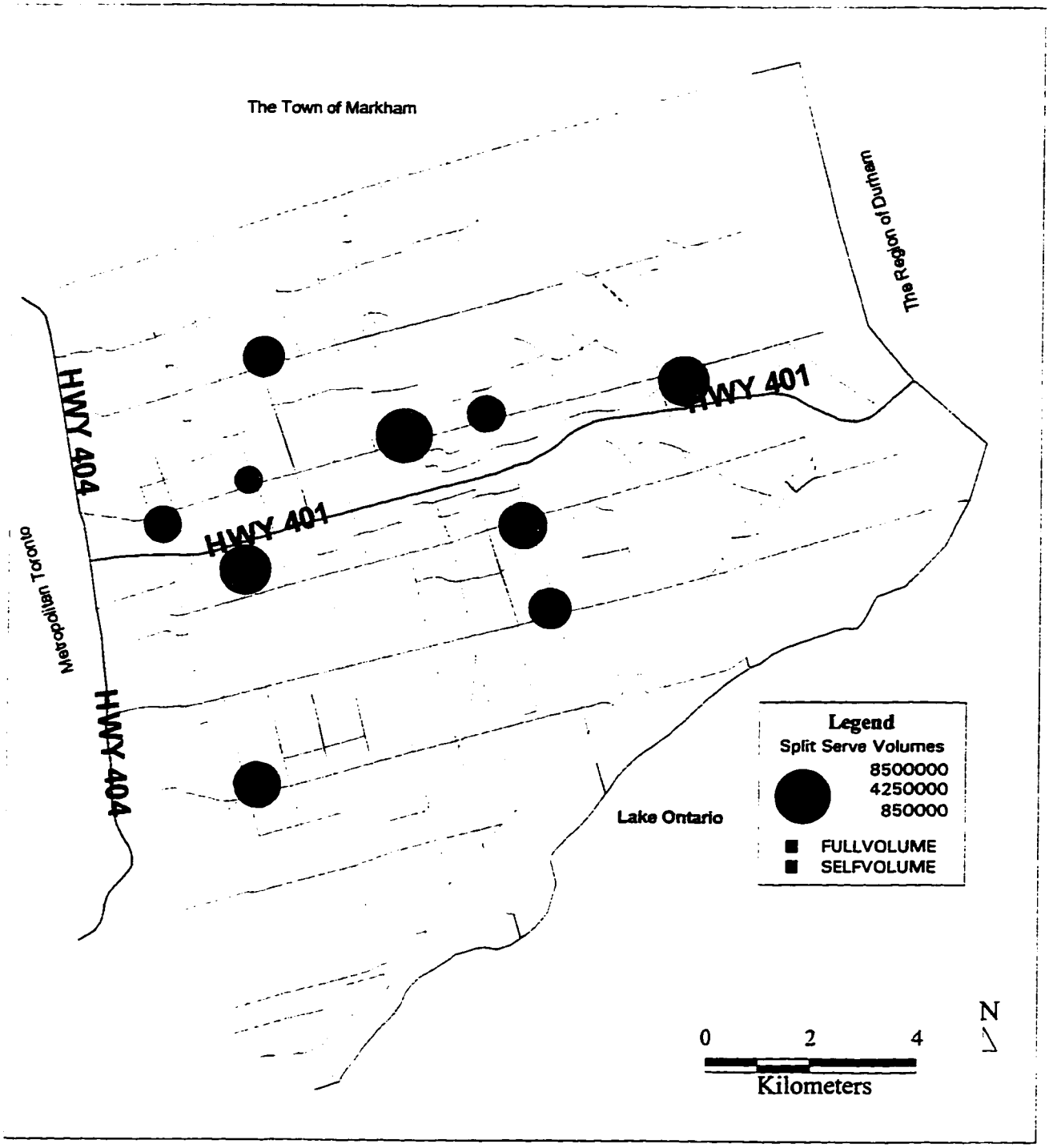
**Scarborough's Retail Gasoline Outlets; Full-Serve Locations, 1994**




(Database Source: Imperial Oil, MPSI Database 1994)

## Map 9

**Scarborough's Retail Gasoline Outlets; Split-Serve Locations, 1994**




(Database Source: Imperial Oil, MPSI Databse 1994)

The extreme variation in sales volumes from site to site, and between the different service types proves that certain locations, and certain facility types, are more successful than others. These maps help to identify the key sites at each intersection and retail cluster. However, simple observation of the retail gasoline network on a map cannot provide any answers about the importance of pump-level service types. Chapter Two identified traditional methods for analyzing relationships between sales volumes and certain locational variables associated with retail gasoline locations. Why have such methods not been used to analyze pump-level service?

## 6.2: Early Attempts at Analyzing Pump-Level Service in the Scarborough Case Study

Faced with the problem of identifying possible relationships between customer typology and preference for pump-level service a number of alternative approaches were considered. Two basic approaches were considered from the onset of the study; a customer survey and/or an analysis of past sales patterns.

Perhaps the most logical approach to identifying customer preferences for pump-level service would be to survey customers at the point-of-purchase. Simply ask people which type of pump-level service they prefer, and why. However, this approach was not used because the costs (in terms of both time and money) associated with conducting an adequate survey were beyond the resources of this thesis. In order to conduct an unbiased study customer surveys would be required at a wide variety of locations to ensure the inclusion of a variety of brand types, pump-level service types, facility types and locational types[39]. As well, such a study would have been limited to ESSO sites because retailers

[39] Locational type refers to both the geographic location of the site (CBD, Freeway, City Street) and the street location of the site (Zone of Conflux, Linear Sites etc.).

who were not involved in the study would not have permitted their customers to be surveyed. As a result, the survey approach was abandoned.

A reactive approach was considered in which past sales volumes would be analyzed and inferences made about the types of consumers who purchased gasoline from each of the pump-level service alternatives. In particular, the use of multiple regression was considered. It was hypothesized that if two volume predicting models were constructed, one for self-serve outlets and one for full-serve outlets, that two unique equations would result. The differences between the equations would provide insight into the variables influencing demand for each of the pump-level service types. The availability of an extensive outlet database, including sales volumes and outlet characteristics, supported the use of the multiple regression approach. As well, as was mentioned in Chapter Two, the use of volume predicting regression models is well established within the industry and the academic literature. However, in order to identify potential differences in the characteristics of self-serve and full-serve customers, a series of trade area variables needed to be factored into both of the regression equations.

The problem with the use of the regression based approach emerged as the socioeconomic and demographic characteristics of individual trade areas were built into the outlet database. Trade area information needed to be integrated into the two regression equations (one full-serve and one self-serve) in order to identify relationships between consumer type and demand for service. As has been mentioned already, Imperial Oil (ESSO) provided several extra MapInfo database layers along with the outlet information. The demographic database which was included was collected and developed by demographers at MPSI from various local and national sources, including; maps of the

study area, aerial photographs, traffic-count information, census information, new housing information and information on proposed roads from city and provincial authorities. Traffic information was stored on one database layer within MapInfo and linked to a street grid. Socioeconomic and demographic data was stored on another database layer and linked to Data Collection Areas (DCA's) on a map layer.[40]

In order to integrate the demographic data into the outlet database, trade areas needed to be created for each outlet in Scarborough. Based on the literature review and discussions with marketing professionals at Imperial Oil (ESSO) a standard trade area with a 2 kilometer radius was used for each outlet. Trade areas were created through the 'Buffer' command in MapInfo and the socioeconomic and demographic data was collected around each site. With the trade area data included, the outlet database was ready to be tested in the regression procedure.

Preliminary experimentation with several volume predicting multiple regression models indicated that there was a problem with the trade area variables. Variables such as income, housing type, home value and housing counts were not proving to be significant. Without the inclusion of the trade area variables in either of the regression equations there was no way to make inferences about customer types. These early difficulties led to the conclusion that either the socioeconomic and demographic characteristics of consumers did not have a significant influence on sales volumes or that the sizes of the trade areas were probably not correct. Experts from Imperial Oil (ESSO) who specialized in market and trade area analysis supported the notion that our trade area definition was incorrect. Dan Pattison, a Project Manager in Imperial Oil's Card Marketing Division suggested that

[40] DCA's are land units which are based on street grids. DCA's may in fact be Enumeration Areas, however, they are never referred to as

similar station types which share similar sales volumes generally share a similar trade area size. It was also suggested that self-serve outlets generally have larger trade areas than full-serve outlets and that self-serve sales volumes are generally higher than those of full-serve outlets. However, he also suggested that the size and shape of outlet trade areas and their sales volumes are highly variable, even between stations which share similar geographical locations and station typologies (Pattison, 1995). Basically, the standard 2 kilometer trade area was overly simplistic. As a result, a search for an improved method for delineating trade areas within the retail gasoline industry began. This search lead to the discovery of a much more powerful tool for analyzing the relationship between customer typology and demand for pump-level service. As a result, the regression based approach was also abandoned.

## 6.3: The Development of the Trade Area Analysis Method

A customer spotting technique, similar to early methods developed by Applebaum (1968), was considered as a method for determining trade area sizes for a sample of outlets within Scarborough. It was hoped that through a license plate survey or questionnaire that the homes of customers from a sample of outlets could be plotted around an outlet for a given time period. The trade area for each outlet could then be constructed based on the mapped information. With a better idea of each outlets real trade area it would then be possible to identify more accurate relationships between customer types and preferences for service.

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such within the Company's literature.

Fortunately, researchers at Imperial Oil (ESSO) were experienced with such methods and were willing to provide plots of customers at several outlets in Scarborough based on sales from ESSO card holders.[41] In fact, Imperial Oil (ESSO) shared powerful market analysis software and professional expertise which allowed the simple customer plotting procedure to develop into a new and powerful tool for analyzing the relationship between customer typology and demand for pump-level service. This trade area technology was the result of combined research between Imperial Oil (ESSO) and Compusearch Micromarketing. The software program employed within this analysis, called 'Market Math', was designed by Compusearch. This thesis represents the first known application of such technology to the analysis of pump-level service within the retail gasoline industry. The following sections provide a step-by-step description of the methodology and offer examples from the Scarborough Case Study.

### 6.3.1 Customer Spotting using ESSO card holders and Compusearch's Market Math Software

The customer plots used within this thesis are based on total sales to ESSO Card holders for the month of December, 1995. The use of ESSO credit cards and the surveying of only ESSO locations introduced certain limitations and biases to the study. Firstly, the information used to generate trade areas was based on the actions of loyal ESSO customers. Secondly, the study included only those ESSO customers who used credit card technology to purchase their gasoline. As a result, we were only able to consider the actions of a very particular group of individuals. However, the following discussion explains why the utility of the method out weighs it's limitations.

[41] To maintain the confidentiality of the individual customers the only information provided from the ESSO cards was a postal code.

Research has shown that ESSO card holders make up approximately 30% of the total sales at the average outlet. The rest of the sales are distributed between bank card holders and cash customers which make up 25% and 45% respectively. More importantly, it has been shown that the profiles of ESSO card holders mirror those of the other bank cards (Pattison, 1996). As a result, researchers at Imperial Oil (ESSO) are confident that the use of ESSO card holders provides a representative sample of approximately 55% of their total customer base. The majority of cash customers generally come from closer distances and will ultimately be included within the final trade area (Pattison, 1996).

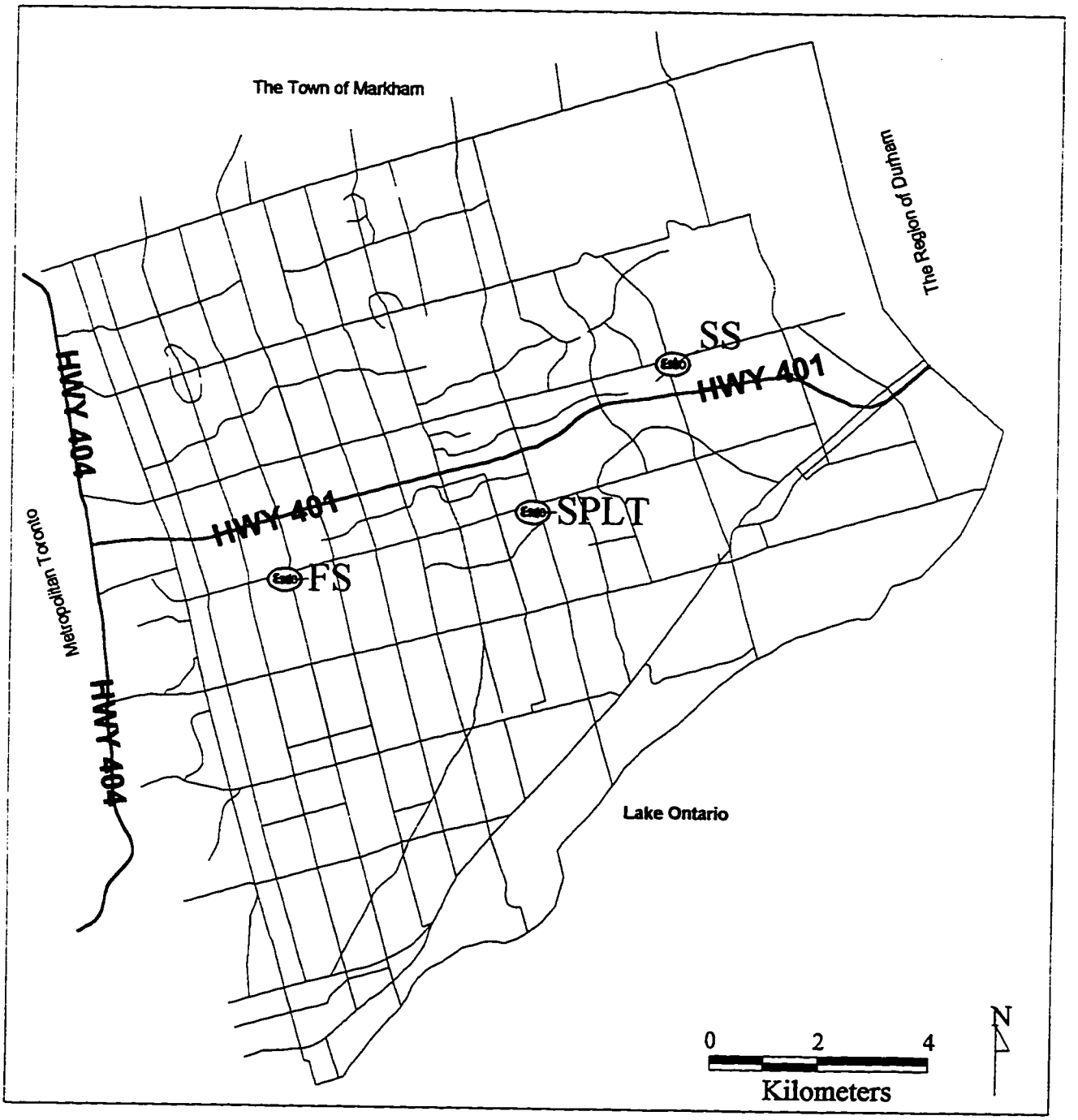
### 6.3.2 Establishing Trade Area Size with Distance Impact Reports

The first step in the process of analyzing pump-level service involved the plotting of the ESSO cardholders for the month of December, 1995 on a map. Ideally, this process would have been done for every station within Scarborough. However, due to time constraints and the limited software accessibility only a small number of outlets were included in the study. As a result, the value of this procedure lies in the identification of a methodology, rather than in answering all the questions related to pump-level service. To demonstrate the procedure the highest volume ESSO sites were selected from each of the three pump-level service categories within Scarborough; one self-serve site, one full-serve site and one split-serve site. The locations of the three sites are identified within Map 10. The self-serve site selected from Scarborough is located at the corner of Morningside Road and Sheppard Avenue and earned a total sales volume of 8,420,219 litres in 1994. The full-serve outlet selected from Scarborough is located at the corner of Ellesmere Road

and Birchmount Road and earned a total sales volume of 2,940,430 litres in 1994. The split-serve outlet selected from Scarborough is located at the corner of Markham Road and Ellesmere Road; earning full and self-serve volumes of 1,954,569 and 4,525,414 litres respectively and totaling 6,479,983 litres in 1994.

## Map 10

**Sample Outlets, Scarborough, 1994**




(Database Source: Imperial Oil, MPSI Database 1994)

A mapped example of one of these plots for the self-serve outlet, located at the corner of Morningside Road and Sheppard Avenue, is presented in Map 11. Each dot on the map represents the postal code location of every customer who frequented the outlet during the month of December, 1995. After the locations of the customers have been plotted on the map a series of circular bands are created around the outlet. These bands represent potential trade areas. In this example the bands around the outlet are drawn in 1 kilometer intervals to a maximum of 15 kilometers. This map shows that the majority of the consumers who frequent the Morningside and Sheppard outlet are clustered within a short distance of the site. However, the standard two kilometer radius for trade areas used within the aforementioned regression approach would not have been appropriate for this outlet. The map also identifies a significant number of consumers who travel longer distances to the site.

## Map 11[42]

**An Example of Customer Plots at the Self-Serve ESSO Outlet Located at Morningside Road and Sheppard Avenue by Census Tracts, Scarborough, December 1995**

**Customer Distribution - 15km View with 1km Bands**


[42] Source: Imperial Oil (ESSO) and CONQUEST: Compusearch Micromarketing Data and Systems (1996)

Figure 8 and 9 provide tabular and graphical representations of the customer plots from the above example and are summarized based on the distance bands drawn around the outlet. Figure 8 and 9 are called 'Distance Impact Reports' and highlight the impact which distance has on sales at the location. Figure 8 summarizes customer counts and sales volumes by 1 kilometer bands around the self-serve site at the corner of Morningside Road and Sheppard Avenue. Through a simple trial and error procedure these 'Distance Impact Reports' are used to identify trade areas for individual locations. The size of the bands are increased at 1 kilometer intervals until the distribution of customer volumes and sales volumes range from highest to lowest from the first band until the last band. In this case, the band widths were increased to 2 kilometers before such a pattern was achieved. The graphs of the distance impacts on customers and volume, shown in Figure 9, display the optimal pattern. The first several bands represent local residential customers and the most extreme distance category identifies the amount of transient traffic which the outlet attracted.

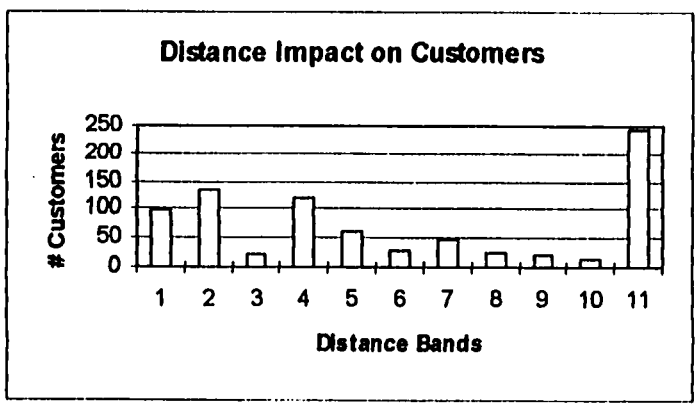
Market researchers at Imperial Oil consider the primary trade area for any given site to be the distance band within which at least 70% of the customers are contained (Pattison, 1996). In the example shown in Figure 9 the primary trade area would be band 5; the eight to ten kilometer band. Interestingly, this example shows that the ratio between customers and sales volume is highest within the bands closer to the outlet. As a result, local repeat customers tend to purchase gasoline in larger quantities than transient customers.

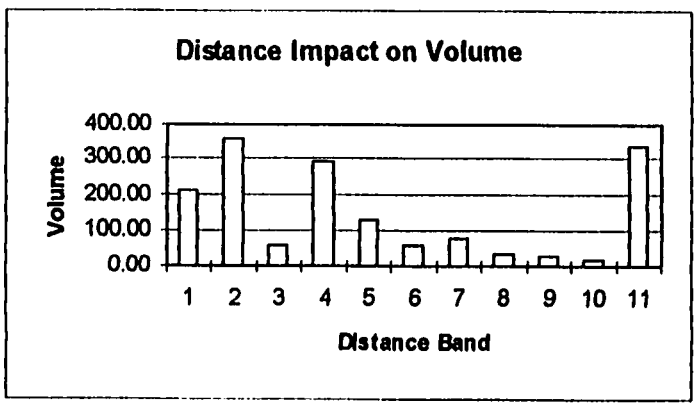
The 'Distance Impact Reports' for the full-serve and split-serve locations are included in Appendix VI. The distance impact on customers and volumes for these two

## Figure 8[43]

**The Distance Impact Report for the Self-Serve Example; 10 bands of 1km(Morningside and Sheppard), Scarborough, Dec 1995**

| Band # | Band Distance | # Customers | % | Customers (Cum) | % | Volume | % | Volume (Cum) | % |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0-1 | 98 | 12.02% | 98 | 12.02% | 211.00 | 13.16% | 211.00 | 13.16% |
| 2 | 1-2 | 135 | 16.56% | 233 | 28.59% | 358.00 | 22.33% | 569.00 | 35.50% |
| 3 | 2-3 | 20 | 2.45% | 253 | 31.04% | 59.00 | 3.68% | 628.00 | 39.18% |
| 4 | 3-4 | 118 | 14.48% | 371 | 45.52% | 290.00 | 18.09% | 918.00 | 57.27% |
| 5 | 4-5 | 62 | 7.61% | 433 | 53.13% | 127.00 | 7.92% | 1045.00 | 65.19% |
| 6 | 5-6 | 28 | 3.44% | 461 | 56.56% | 59.00 | 3.68% | 1104.00 | 68.87% |
| 7 | 6-7 | 48 | 5.89% | 509 | 62.45% | 76.00 | 4.74% | 1180.00 | 73.61% |
| 8 | 7-8 | 26 | 3.19% | 535 | 65.64% | 35.00 | 2.18% | 1215.00 | 75.80% |
| 9 | 8-9 | 21 | 2.58% | 556 | 68.22% | 30.00 | 1.87% | 1245.00 | 77.67% |
| 10 | 9-10 | 15 | 1.84% | 571 | 70.06% | 20.00 | 1.25% | 1265.00 | 78.91% |
| 11 | >10 | 244 | 29.94% | 815 | 100.00% | 338.00 | 21.09% | 1603.00 | 100.00% |
| | | 815 | 100.00% | | | 1603.00 | 100.00% | | |



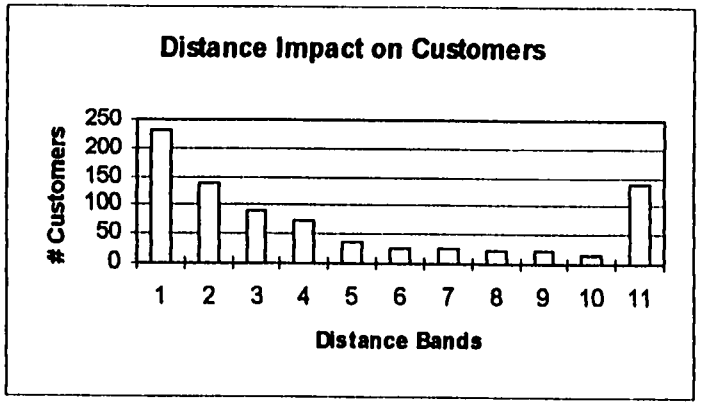



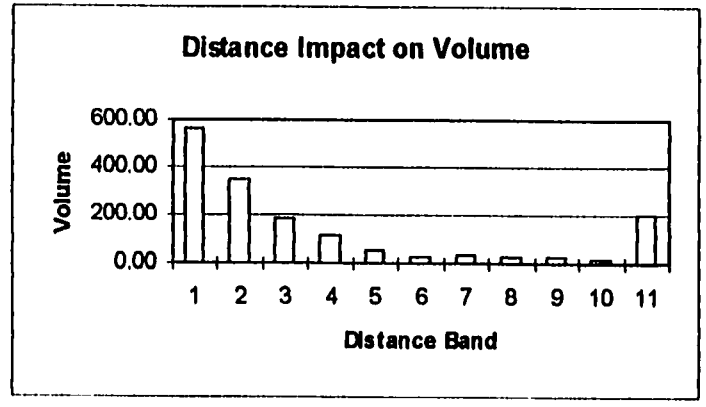

[43] Source: Imperial Oil (ESSO) and Compusearch, Market Math, 1996.

## Figure 9[44]

**The Distance Impact Report for the Self-Serve Example; 10 bands of 2km(Morningside and Sheppard), Scarborough, Dec 1995**

| Band # | Band Distance | # Customers | % | Customers (Cum) | % | Volume | % | Volume (Cum) | % |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0-2 | 233 | 28.59% | 233 | 28.59% | 569.00 | 35.50% | 569.00 | 35.50% |
| 2 | 2-4 | 138 | 16.93% | 371 | 45.52% | 349.00 | 21.77% | 918.00 | 57.27% |
| 3 | 4-6 | 90 | 11.04% | 461 | 56.56% | 186.00 | 11.60% | 1104.00 | 68.87% |
| 4 | 6-8 | 74 | 9.08% | 535 | 65.64% | 111.00 | 6.92% | 1215.00 | 75.80% |
| 5 | 8-10 | 36 | 4.42% | 571 | 70.06% | 50.00 | 3.12% | 1265.00 | 78.91% |
| 6 | 10-12 | 24 | 2.94% | 595 | 73.01% | 29.00 | 1.81% | 1294.00 | 80.72% |
| 7 | 12-14 | 24 | 2.94% | 619 | 75.95% | 39.00 | 2.43% | 1333.00 | 83.16% |
| 8 | 14-16 | 21 | 2.58% | 640 | 78.53% | 27.00 | 1.68% | 1360.00 | 84.84% |
| 9 | 16-18 | 22 | 2.70% | 662 | 81.23% | 30.00 | 1.87% | 1390.00 | 86.71% |
| 10 | 18-20 | 14 | 1.72% | 676 | 82.94% | 16.00 | 1.00% | 1406.00 | 87.71% |
| 11 | >20 | 139 | 17.06% | 815 | 100.00% | 197.00 | 12.29% | 1603.00 | 100.00% |
| | | 815 | 100.00% | | | 1603.00 | 100.00% | | |




[44] Source: Imperial Oil (ESSO) and Compusearch, Market Math, 1996.

sites is quite unique from the self-serve example. However, no significant comparisons can be made because of the limited sample size.

Through the use of Imperial Oil's ESSO cardholder database and Compusearch's Market Math software this process of trade area delineation could be quickly applied to all of the outlets within the company's Scarborough network. Ultimately, such a procedure would be required to produce an adequate analysis of pump-level service within Scarborough's retail gasoline network. The following chapter discusses how socioeconomic and demographic 'profiles' can be collected for these trade areas. Chapter Seven also discusses how the socioeconomic and demographic profiles can be used to analyze the relationship between customer typology and demand for pump-level service.

## Chapter 7: Creating and Analyzing Trade Area Profiles

### 7.1 Creating Trade Area Profiles

Chapter Six dealt with the process required for the construction of unique and individual trade areas for each ESSO outlet within the study area. This section discusses a method for collecting customer information within the newly defined trade areas. Through Compusearch's Market Math software the new trade areas are overlaid onto a demographic database and the relevant information is extracted. Compusearch has improved the utility of the socioeconomic and demographic information by classifying and clustering neighborhoods into lifestyle groups.

> "Each lifestyle has a specific social profile and spending patterns, and can be mapped in space. Lifestyle groups can thus be treated as distinctive types of consumers" (Jones and Simmons, 1993).

These lifestyle groups are classified into four main groups based on geographic location; Urban, Suburban, Towns and Rural areas. These four major classes are further subdivided into fifteen more specific sub-classifications and again into sixty detailed classifications based on customer types and buying behavior. Table 23 provides a detailed description of each classification.

# Table 23[45]

## Compusearch's Customer Profile Classification , 1995

| # | Class | Description | Ontario # | Ontario % | Canada # | Canada % |
|---|---|---|---|---|---|---|
| | | **RURAL COMFORTABLE FAMILIES (R1)** | | | | |
| 11 | R1 | NORTHERN LIGHTS: Communities of highly paid bureaucrats, technocrats, technicians, & mining engineers in remote northern towns. Dominant maintainer age under 45. Often 2 salaries. Younger children. Mixture of owned & rented newer detached dwellings. | 6,896 | 0.18 | 72,158.00 | 0.68 |
| 22 | R1 | THE NEW FRONTIER: Maintainers mainly under 45. College diplomas. High-paying, blue collar or natural resource extraction jobs. Mixed household types, families most common. Newer single-detached, other & mobile homes with 70% owned. Small mortgages. | 24,277 | 0.62 | 126,605.00 | 1.19 |
| 26 | R1 | RUSTIC PROSPERITY: Canada's most productive dairy, feedstock, vegetable farms & orchards. Many occupations are blue collar/non-farm. Middle aged & older. Families typically have many children. High school & college. Most women work outside home. | 140,086 | 3.58 | 195,627.00 | 1.84 |
| 34 | R1 | PICK-UPS & DIRT BIKES: Middle-income, middle aged & older maintainers of rural families. Largely poorly educated, blue collar natural resource industry workers & farmers. Single-detached dwellings, some mobile homes. Very low dwelling payments. | 9,863 | 0.25 | 114,361.00 | 1.08 |
| 37 | R1 | QUEBEC'S HEARTLAND: Poorly educated blue-collar workers & farmers doing reasonably well in productive farm areas of southern Quebec. Typically dairy farms. Maintainers mainly over 35. Families with children. Older owned dwellings. Low mobility. | 5,294 | 0.14 | 120,718.00 | 1.14 |
| 38 | R1 | THE GRAIN BELT: Productive prairie grain farming areas. Large families. Predominantly middle-aged & older maintainers. Poorly educated, very high labor force participation, including women. Mainly early immigrants from Eastern & Northern Europe. | 509 | 0.01 | 65,925.00 | 0.62 |
| | | Total: | 186,925 | 4.78 | 695,394.00 | 6.55 |
| | | **RURAL DOWNSCALE (R2)** | | | | |
| 43 | R2 | AGRARIAN BLUES: Predominantly older very poorly educated farm & blue collar workers. Living in less productive agricultural areas. Older children. Mostly paid-off houses & farmsteads. Low labor force participation especially for women | 6,011 | 0.15 | 32,275.00 | 0.3 |
| 47 | R2 | ROD & RIFLE: Non-agricultural areas of rural Canada, 52% Atlantic. Maintainers predominantly over 55 with typically older children. Blue collar & natural resource extraction occupations. High unemployment. Older owned dwellings, mostly paid-off. | 48,123 | 1.23 | 201,668.00 | 1.9 |
| 49 | R2 | DOWN, DOWN EAST: Highly concentrated in the Maritimes, best epitomized by fishing villages. Maintainers ages mixed, principally over 45. Most have children; many large families. Very low education. Very high unemployment & government transfer payment | 267 | 0.01 | 102,734.00 | 0.97 |
| 50 | R2 | BIG COUNTRY FAMILIES: More remote agricultural & natural resource areas. Older, very poorly educated maintainers of large families. Farm, blue collar, government occupations. Many children. Significant proportion native Canadians. High unemployment. | 22,471 | 0.57 | 208,209.00 | 1.96 |
| 52 | R2 | QUEBEC RURAL BLUES: Downscale rural Quebec & Atlantic Canada. Predominantly older, very poorly educated maintainers. Blue collar or natural resource extraction occupations, or unemployed. Significant government transfers. Large families, older childr | 5,521 | 0.14 | 201,417.00 | 1.89 |
| 55 | R2 | OLD CANADIAN RUSTICS: Poorly educated old & retired rural dwellers. Blue/grey collar occupations & subsistence farming. Low labor force participation, high government transfers. Few younger families. Significant out-migration. | 7,745 | 0.2 | 105,499.00 | 0.99 |
| | | Total: | 90,138 | 2.3 | 851,802.00 | 8.01 |
| | | **SUBURBAN AFFLUENT (S1)** | | | | |
| 3 | S1 | SUBURBAN EXECUTIVES: Well-educated executive & professional middle aged & older maintainers of large families. Lots of children. Typically new, large, single- detached dwellings found around larger cities. 16% immigrant; some Chinese & Jewish. | 102,883 | 2.63 | 177,258.00 | 1.67 |
| 6 | S1 | MORGAGED IN SUBURBIA: Upscale, predominantly younger (age under 45) large families living in new suburban subdivisions in large, heavily mortgaged houses. Occupations are managerial/professional & high-status white collar. Most have two incomes. | 151,243 | 3.86 | 198,688.00 | 1.87 |
| 7 | S1 | TECHNOCRATS & BUEROCRATS: Middle-aged maintainers of larger families living in large, new, single-detached dwellings in suburbs of large & medium sized cities. Very well-educated. Public sector & managerial occupations. Most have two incomes. | 119,192 | 3.04 | 290,356.00 | 2.73 |
| 9 | S1 | ASIAN HEIGHTS: Upscale, very large families with middle-aged, well educated maintainers. Managerial & white collar occupations. Large proportions of Asians, especially Chinese. Larger, newer, heavily mortgaged detached homes & townhouses in suburbs. | 61,790 | 1.58 | 75,695.00 | 0.71 |
| | | Total: | 435,108 | 11.11 | 741,997.00 | 6.98 |

[45] Source: Compusearch Data Supplied by Imperial Oil, Marketing Division, 1996.

| | | | | | |
|---|---|---|---|---|---|
| | **SUBURBAN UPSCALE FAMILIES (S2)** | | | | |
| 5 S2 | BOOMER & TEENS: Middle & late middle-aged, university & college-educated maintainers of large families with children over age 6, especially teens. Managerial & white collar occupations; commonly two incomes. Newer, larger owned single-detached homes. | 151,345 | 3.86 | 198,444.00 | 1.87 |
| 8 S2 | STABLE SUBURBAN FAMILIES: Maintainers strongly concentrated over in 45-65 age range. Small families with late teens & early 20s at home. University & college educated. Managerial & high-status white collar occupations. Owned single-detached '60's dwe | 76,467 | 1.95 | 144,954.00 | 1.36 |
| 15 S2 | SMALL CITY ELITE: Small, traditional families & older couples. Middle-aged, well-educated managerial/executive maintainers. Children typically over 6. Larger, single-detached post 1971 dwellings. Comfortable neighborhoods in small urban areas | 64,331 | 1.64 | 207,677.00 | 1.95 |
| 16 S2 | OLD BUNGALOW BURBS: Late middle-aged comfortable suburban households with older teenagers or empty nests. Moderately priced large '60's owned single-detached predominantly bungalow dwellings. Wide range of upscale occupations. | 97,710 | 2.49 | 182,872.00 | 1.72 |
| | **Total:** | **389,853** | **9.94** | **733,947.00** | **6.9** |
| | **SUBURBAN OLDER SINGLES AND COUPLES (S3)** | | | | |
| 10 S3 | SUBURBAN NESTERS: Predominantly maintainers over 50. Empty nests & small families. University or college education. Managerial & white collar occupations. Single-detached & other '50's dwellings. Small mortgages. High female labor force participati | 121,887 | 3.11 | 174,513.00 | 1.64 |
| 12 S3 | BRIE & CHABLIS: Upscale singles, couples & small families living in luxury condos & high-rise apartments. Very well-educated maintainers, tend to have executive, managerial & professional occupations. Dominant age 50+ years, a good proportion 20-34 yea | 67,991 | 1.74 | 86,833.00 | 0.82 |
| 17 S3 | AGING ERUDITES: Older, well-educated singles, couples & small families. Managerial & upscale white collar occupations. Single-detached & other predominantly '50's dwellings; 68% owned; 10% apartments. Small mortgages. | 64,835 | 1.65 | 181,752.00 | 1.71 |
| | **Total:** | **254,713** | **6.5** | **443,098.00** | **4.17** |
| | ***SUBURBAN YOUNGER FAMILIES (S4)*** | | | | |
| 14 S4 | SATELITE SUBURBS: Upper middle class middle-aged maintainers of large families. Typically college-educated. Grey collar, managerial occupations. Commonly 2 incomes. Mostly owned, heavily mortgaged newer single-detached & other dwellings. 16% ethnic. | 183,945 | 4.69 | 312,785.00 | 2.94 |
| 23 S4 | KINDERGARDEN BOOM: Younger families in newer suburban single & semi-detached housing. Many have 3+ children. Typical education levels are college diploma. Occupations are grey collar & white collar. Large mortgages. Significant ethnic presence. | 74,579 | 1.9 | 265,032.00 | 2.49 |
| | **Total:** | **258,524** | **6.59** | **577,817.00** | **5.43** |
| | **SUBURBAN QUEBEC (S5)** | | | | |
| 18 S5 | PARTICIPATION QUEBEC: Younger & middle-aged maintainers of large French Canadian families. College diplomas common. Occupations quite mixed but upscale. Often two incomes. Newer suburban single-detached & townhouses. Physically & socially very activ | 13,254 | 0.34 | 333,321.00 | 3.13 |
| 24 S5 | NEW QUEBEC ROWS: Middle income, young French Canadian yuppie families in modest new semi-detached & row housing outside Quebec towns & cities. About ½ dwellings owned. Managerial or medium/high status white collar occupations. University & college. | 894 | 0.02 | 154,199.00 | 1.45 |
| 30 S5 | QUEBEC MELANGE: Middle-class French Canadian neighborhoods in wide range of settlements, especially small cities & towns. Middle to late middle-aged. Mixed household types, not many children. College & high school diplomas. Mixed occupations. 60% ow | 8,477 | 0.22 | 303,882.00 | 2.86 |
| 32 S5 | TRADITIOANAL FRENCEH CANADIAN FAMILIES: Younger & middle-aged French Canadian small families. Newer single-detached owned dwellings in neighborhoods throughout Quebec. Mostly rural & non-big city environments. Relatively low education. Blue collar. | 6,689 | 0.17 | 288,529.00 | 2.71 |
| | **Total:** | **29,314** | **0.75** | **1,079,931.00** | **10.15** |
| | **TOWN UPSCALE (T1)** | | | | |
| 13 T1 | BLUE COLLAR WINNERS: Middle-aged & older, high school & college-educated, blue & grey collar maintainers. Upscale towns & ex-urban environs of large cities. 10% farming. Some management commuters. Older owned dwellings with some new subdivisions. | 186,432 | 4.76 | 251,617.00 | 2.37 |
| 19 T1 | TOWN BOOMERS: Comfortable, relatively well-off, younger & middle-aged smaller families in towns & small urban areas. Education levels modest but high for towns. Grey collar & white collar occupations. Dwellings typically newer owned single-detached. | 25,529 | 0.65 | 140,653.00 | 1.32 |
| 27 T1 | OLD TOWNS' NEW FRINGE: Younger & middle-aged high school & college educated, grey collar, blue collar & government workers. Predominantly small families. Towns & fringes of small cities outside Quebec. Mortgaged, moderately priced, newer dwellings. | 170,784 | 4.36 | 407,128.00 | 3.83 |
| | **Total:** | **382,745** | **9.77** | **799,398.00** | **7.52** |
| | **TOWN GREY COLLAR (T2)** | | | | |
| 31 T2 | OLD LEAFY TOWNS: Established stable neighborhoods of older single-detached owned dwellings in the nicer residential areas of towns & townships. Maintainer age strongly skewed to 55+. Education & occupation quite mixed. Younger families moving in. | 135,411 | 3.46 | 244,350.00 | 2.3 |
| 35 T2 | TOWN RENTERS: Young families, couples, lone parent families renting units in low-rise & row housing build largely in the 70s & 80s. Many young | 51,394 | 1.31 | 123,223.00 | 1.16 |

| | | | | | |
|---|---|---|---|---|---|
| | children. Large towns & small cities. High school & college educated grey collar workers. | | | | |
| 39 T2 | NESTERS & YOUNG HOMESTEADERS: Old singles & couples, some younger couples & small families. Older neighborhoods in towns & smaller cities outside Quebec. Mixed row housing, low-rise & single-detached. Mostly rented. High school & college education. | 124,953 | 3.19 | 252,327.00 | 2.37 |
| 44 T2 | YOUNG GREY COLLAR: Mixed young singles, small families, empty nesters in older neighborhoods of small cities & towns. Strong prairie representation College & high school education. Ranks #1 on grey collar occupations. Mixed dwelling types. | 15,745 | 0.4 | 119,715.00 | 1.13 |
| 46 T2 | QUIET TOWNS: Old neighborhoods of small towns with Atlantic & Western skew. Predominantly older, some younger single couples. Few children High school & college education. Grey collar & service occupations. Rented other, owned single-detached dwell | 51,652 | 1.32 | 184,105.00 | 1.73 |
| | **Total:** | **379,155** | **9.68** | **923,720.00** | **8.69** |
| | **URBAN ELITE (U1)** | | | | |
| 1 U1 | CANADIAN ESTABLISHMENT: Extremely wealthy middle-aged & older established families with teenagers in expensive, large, older dwellings. Business owners, executives & professionals. Found only in larger cities. | 14,943 | 0.38 | 21,940.00 | 0.21 |
| 2 U1 | THE AFFLUENCIALS: Very affluent & educated middle-aged executive & professional families. Expensive, large, lightly mortgaged houses in very stable, older, exclusive sections of large cities. Older children & teenagers. | 42,518 | 1.09 | 71,825.00 | 0.68 |
| 4 U1 | URBAN GENTRY: Affluent, well-educated & cultured older singles, couples & maintainers of relatively small families. Older private homes, condominiums & apartments. Executive occupations or retired. Some university students still at home. | 100,255 | 2.56 | 184,751.00 | 1.74 |
| | **Total:** | **157,716** | **4.03** | **278,516.00** | **2.63** |
| | **URBAN ETHNIC (U2)** | | | | |
| 21 U2 | EUROPA: Middle-aged & older families of European, particularly, Italian descent. Older dwellings, single-detached, low-rise row housing. Concentrated in a few cities, especially Toronto. Blue & grey collar occupations. Children are common. | 125,842 | 3.21 | 161,929.00 | 1.52 |
| 25 U2 | ASIAN MOSAIC: Inner city areas in which Chinese & other Asians are concentrated. Dwellings are older, a mixture of owned, single-detached, rented semis & low rises. Many families have children & typically these are teenagers, often at university. | 37,480 | 0.96 | 128,526.00 | 1.21 |
| 41 U2 | HIGH RISE MELTING POT: Big city apartment blocks. 47% immigrants, mainly from Eastern Europe. Ranks #1 for recent immigrants. Mixed household types. Few children. Mixed education levels but relatively high for the income. Mixed & white collar occup | 120,311 | 3.07 | 125,593.00 | 1.18 |
| | **Total:** | **283,633** | **7.24** | **416,048.00** | **3.91** |
| | ***URBAN OLDER SINGLES AND COUPLES (U3)*** | | | | |
| 28 U3 | CONSERVATIVE HOMEBODIES: Predominantly older singles, couples & small families. Middle income, middle status blue/grey collar occupations. Mainly lower education attainment. Dwellings are other, single-detached & dominated by 50s & 60s vintage. | 217,608 | 5.55 | 344,689.00 | 3.24 |
| 33 U3 | HIGH RISE SUNSETS: Empty nesters & retired, living in high-quality high rise apartments on arterial roads in large urban areas across Canada Many singles. Well-educated & hold/held executive & managerial positions. Significant Jewish concentration. | 76,168 | 1.94 | 158,512.00 | 1.49 |
| | **Total:** | **293,776** | **7.49** | **503,201.00** | **4.73** |
| | ***URBAN YOUNG SINGLES (U4)*** | | | | |
| 20 U4 | YOUNG URBAN PROFESSIONALS: Young singles, some couples, predominantly renting older other dwellings & apartments in in-town areas of big cities. Very well-educated. Professional, managerial & high-status white collar occupations. About 20% ethnic. | 80,215 | 2.05 | 193,365.00 | 1.82 |
| 29 U4 | YOUNG URBAN MIX: Predominantly younger singles, couples & small families in large cities. Mixed education levels. Middle status white & grey collar occupations. 65% rent. Mixed housing, predominantly 50s & 60s vintage. About 25% ethnic. | 183,657 | 4.69 | 268,765.00 | 2.53 |
| 36 U4 | YOUNG URBAN INTELLIGENTSIA: Very well-educated singles, some couples renting mainly newer apartments & other dwellings in central areas of large cities. Very few children. Mainly university students. White collar & executive/professional occupations. | 59,696 | 1.52 | 134,986.00 | 1.27 |
| 40 U4 | UNIVERSITY ENCLAVES: Neighborhood concentrations of urban university students, artists, musicians etc. Most rent high-rise/low-rise apartments or older subdivided houses. Very high education. White & grey collar occupations. Significant ethnic presen | 88,287 | 2.25 | 251,266.00 | 2.36 |
| 51 U4 | YOUNG CITY SINGLES: Very young singles, some couples. Rent predominantly newer downtown other dwellings & apartments. Mixed education levels Occupations strongly grey, some low-status white collar. High labor force participation. Above average unem | 67,447 | 1.72 | 240,357.00 | 2.26 |
| 56 U4 | URBAN BOHEMIA: Well-educated low income young singles, some couples in older parts of big cities. University students. White & some grey collar occupations. Low labor force participation. High unemployment. Rent other dwellings & high-rise apartment | 14,418 | 0.37 | 106,391.00 | 1 |
| | **Total:** | **493,720** | **12.6** | **1,195,130.00** | **11.24** |
| | **URBAN QUEBEC GREY COLLAR (U5)** | | | | |
| 42 U5 | EURO QUEBEC: Significant percentage of European especially Italian immigrants (largely in Montreal). Mixed housing types. Low education levels. | 735 | 0.02 | 111,631.00 | 1.05 |

| | | | | | |
|---|---|---|---|---|---|
| | Blue/grey collar occupations. Relatively high unemployment. 70% rent typical 50s & 60s other dwellings. | | | | |
| 45 U5 | OLD QUEBEC WALKUPS: Lower-middle-class single, couples & small families renting low-rise outside stairway walkup units in larger Quebec cities Bimodal age distribution. Predominantly middle status white collar. Education tends to be low or high | 1,500 | 0.04 | 199,130.00 | 1.87 |
| 53 U5 | QUEBEC TOWN ELDERS: Largely older poorly educated singles, couples & small families living in rented older dwellings in Quebec small cities & towns. 55% rent. Other dwellings & single detached. High unemployment & government transfers. | 9,831 | 0.25 | 240,916.00 | 2.27 |
| 54 U5 | AGING QUEBEC URBANITES: Predominantly older singles with some couples & small families in other dwellings & apartments in downtown neighborhoods of larger Quebec cities. Mixed education. White & grey collar occupations. Low labor force participation | 961 | 0.02 | 36,767.00 | 0.35 |
| 57 U5 | QUEBEC'S NEW URBAN MOSAIC: Very low income younger & older singles, couples & smaller families (many lone parent). Rent older, downtown, other dwellings. Very low education. Grey collar occupations. Significant unemployment. New immigrants | 4,563 | 0.12 | 194,984.00 | 1.83 |
| | Total: | 17,590 | 0.45 | 783,428.00 | 7.37 |
| | **URBAN DOWNSCALE *(U6)*** | | | | |
| 48 U6 | STRUGGLING DOWNTOWNS: Younger, some older, poorly educated residents of medium & small city downtowns. Singles, couples, some younger families (especially lone parent). Grey & blue collar occupations. Old, mixed housing, 55% home owners. 16% ethnic. | 153,901 | 3.93 | 283,932.00 | 2.67 |
| 58 U6 | AGED PENSIONERS: Very old singles, some couples, renting small apartments, flats & other dwellings in small & medium-sized Canadian cities. Very low education. High unemployment & government transfer rates. Low-status grey collar occupations. | 42,849 | 1.09 | 143,540.00 | 1.35 |
| 59 U6 | BIG CITY STRESS: Inner city urban neighborhoods. Predominant age skew is young. Almost everyone rents. Older, low-rise dwellings with some newer high-rise. Singles, couples & lone parent families. Significant ethnic presence. Very high unemployment | 41,401 | 1.06 | 126,026.00 | 1.19 |
| 60 U6 | OLD GREY TOWERS: 76% of households have maintainers over 65. Mostly 70s high-rise with some low-rise buildings. Very low labor force participation. Government transfers are a significant proportion of the low incomes here. Low mobility. | 27,280 | 0.7 | 55,572.00 | 0.52 |
| | Total: | 265,431 | 6.78 | 609,070.00 | 5.73 |
| | GRAND TOTALS: | 3,918,341 | 100 | 10,632,497.00 | 100 |

These lifestyle characteristics are collected and summarized based on the trade area bands determined through the 'Distance Impact Reports'. Through this procedure a 'Customer Profile' can be produced for each trade area; for the entire trade area or by each individual band on the distance impact report. Table 24 provides an example of one of these profiles.

## Table 24[46]

**An Example of Compusearch's Trade Area Profile, 1995**
**10 1km Bands for ESSO's Morningside and Sheppard Outlet**

(part 1)

| Description | Band 1 (0.0-1.0) # | Band 1 (0.0-1.0) % | Band 2 (1.0-2.0) # | Band 2 (1.0-2.0) % | Band 3 (2.0-3.0) # | Band 3 (2.0-3.0) % | Band 4 (3.0-4.0) # | Band 4 (3.0-4.0) % | Band 5 (4.0-5.0) # | Band 5 (4.0-5.0) % |
|---|---|---|---|---|---|---|---|---|---|---|
| SUBURBAN AFFLUENT (S1) | 1252 | 31.22 | 4075 | 41.34 | 4581 | 38.81 | 587 | 7.60 | 2824 | 16.21 |
| SUBURBAN UPSCALE FAMILIES (S2) | 0 | 0.00 | 1166 | 11.83 | 1920 | 16.27 | 4059 | 52.56 | 4968 | 28.52 |
| SUBURBAN OLDER SINGLES AND COUPLES (S3) | 0 | 0.00 | 490 | 4.97 | 749 | 6.34 | 0 | 0.00 | 1569 | 9.01 |
| SUBURBAN YOUNGER FAMILIES (S4) | 1460 | 36.41 | 3043 | 30.87 | 1788 | 15.14 | 106 | 1.37 | 1688 | 9.69 |
| SUBURBAN QUEBEC (S5) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| URBAN ELITE (U1) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| URBAN ETHNIC (U2) | 0 | 0.00 | 306 | 3.10 | 770 | 6.52 | 1307 | 16.92 | 1493 | 8.57 |
| URBAN OLDER SINGLES AND COUPLES (U3) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 427 | 5.53 | 229 | 1.31 |
| URBAN YOUNG SINGLES (U4) | 1298 | 32.37 | 777 | 7.89 | 1757 | 14.88 | 610 | 7.90 | 3119 | 17.90 |
| URBAN QUEBEC GREY COLLAR (U5) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| URBAN DOWNSCALE (U6) | 0 | 0.00 | 0 | 0.00 | 241 | 2.04 | 627 | 8.11 | 1533 | 8.79 |
| GRAND TOTALS: | 4010 | 100 | 9857 | 100 | 11806 | 100 | 7723 | 100 | 17423 | 100 |

(part 2)

| Description | Band 6 (5.0-6.0) # | Band 6 (5.0-6.0) % | Band 7 (6.0-7.0) # | Band 7 (6.0-7.0) % | Band 8 (7.0-8.0) # | Band 8 (7.0-8.0) % | Band 9 (8.0-9.0) # | Band 9 (8.0-9.0) % | Band 10 (9.0-10.0) # | Band 10 (9.0-10.0) % |
|---|---|---|---|---|---|---|---|---|---|---|
| SUBURBAN AFFLUENT (S1) | 8681 | 38.58 | 14547 | 53.54 | 6767 | 24.12 | 10212 | 36.53 | 10858 | 28.97 |
| SUBURBAN UPSCALE FAMILIES (S2) | 8416 | 37.40 | 4632 | 17.05 | 6818 | 24.31 | 5175 | 18.50 | 3064 | 8.17 |
| SUBURBAN OLDER SINGLES AND COUPLES (S3) | 621 | 2.76 | 3050 | 11.22 | 2355 | 8.39 | 2241 | 8.01 | 8924 | 23.81 |
| SUBURBAN YOUNGER FAMILIES (S4) | 1304 | 5.79 | 0 | 0.00 | 1462 | 5.21 | 0 | 0.00 | 1562 | 4.16 |
| SUBURBAN QUEBEC (S5) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| URBAN ELITE (U1) | 0 | 0.00 | 0 | 0.00 | 435 | 1.55 | 141 | 0.50 | 438 | 1.17 |
| URBAN ETHNIC (U2) | 1329 | 5.91 | 2419 | 8.91 | 5623 | 20.05 | 4593 | 16.42 | 4058 | 10.83 |
| URBAN OLDER SINGLES AND COUPLES (U3) | 0 | 0.00 | 579 | 2.13 | 591 | 2.11 | 1196 | 4.28 | 3129 | 8.35 |
| URBAN YOUNG SINGLES (U4) | 1863 | 8.28 | 1941 | 7.15 | 1613 | 5.75 | 3779 | 13.51 | 3966 | 10.58 |
| URBAN QUEBEC GREY COLLAR (U5) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| URBAN DOWNSCALE (U6) | 289 | 1.28 | 0 | 0.00 | 1662 | 5.93 | 626 | 2.24 | 1487 | 3.97 |
| GRAND TOTALS: | 22503 | 100 | 27168 | 100 | 28049 | 100 | 27963 | 100 | 37486 | 100 |

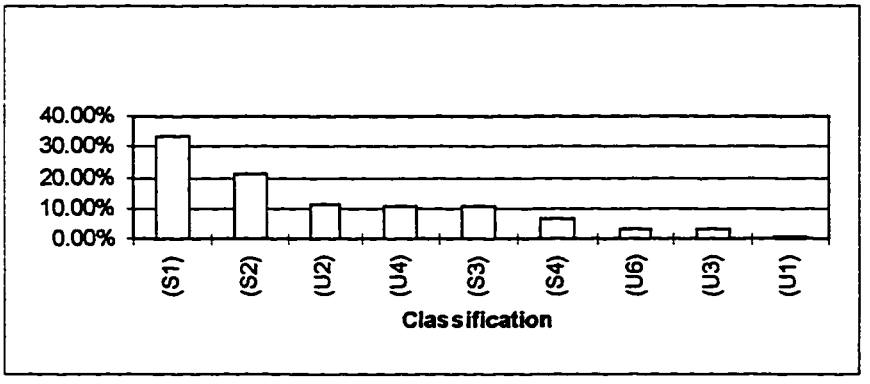
[46] Source: adapted from a Compusearch Summary Report supplied by Imperial Oil, Marketing Department.

Table 24 presents a summary of the trade area profile report for the self-serve example from Chapter Six. This profile for the Morningside and Sheppard outlet is broken down by ten 1 kilometer bands. The first column for each band counts the number of potential customers from each category which fall within each distance band. The second column identifies the percentage of each classification group making up each distance band. These individual profiles provide a snapshot of the types of potential customers which fall within each distance band. The complete profile is available in appendix VIII.

These individual band profiles can also be grouped into a single trade area to simplify the analysis. As was mentioned in Chapter Six, marketers at Imperial Oil consider the band containing 70% of the plotted customers to be the primary trade area. Figure 8 (page 112) indicates that the primary trade area for the Morningside and Sheppard example falls within the 9-10 km band. For demonstration purposes Figure 10 provides a graphical summary of the primary trade area profile for the self-serve example.

**Figure 10**[47]

**A Primary Trade Area Profile for the Morningside and Sheppard Example**




[47] Source: Adapted from a Compusearch Summary Report, Supplied by Imperial Oil's, Marketing Division

This sample profile highlights the amount of detail which can be achieved in identifying trade area characteristics. This profile indicates that the trade area for ESSO's self-serve outlet at Morningside and Sheppard is dominated by affluent and upscale suburban consumers; well over fifty percent of the total. This trade area also includes a strong mix of ethnic consumers, young urban singles and suburban older singles and couples. A large number of these profiles can be compiled quickly through Compusearch's Market Math software. As a result, this method for defining accurate trade areas (Chapter 6) and collecting relevant customer profiles has proven to be a valuable marketing tool within the retail gasoline industry.

This type of information is traditionally used within the gasoline industry to identify potential markets for ancillary goods and services at certain outlets. For example, this technology has been used to analyze which outlet trade area profiles are compatible with car wash facilities, Tim Horton's coffee and donut counters, or Black's photo stands. However, this technique has not been applied to an analysis of pump-level service.

The power of this technology in analyzing pump-level service lies in it's ability to rapidly collect and summarize large amounts of relevant trade area information. The following section discusses how these individual profiles can be employed in the analysis of relationships between customer typologies ands preference for pump level service.

## 7.2: Employing the Trade Area Profiles in an Analysis of Pump-Level Service

The purpose for constructing these trade areas and extracting the lifestyle information was to identify relationships between customer typologies and preferences for each pump-level service type. The underlying assumption is that consumers who use the different pump-level service types

are different from each other. The trade area profiles ultimately act as a surrogate for a customer survey. However, once the individual trade area profiles are compiled, how can they be used to make generalizations about the types of customers who prefer each pump-level service type?

Two different approaches to the use of this information have been considered within this thesis. Firstly, all of the profiles from each pump-level service type could be aggregated together; producing one self-serve profile, one full-serve profile, and perhaps even one split serve profile. Outlets may also be classified further based on trade area size, and possibly even by facility type and location type. Only outlets which share similar marketing strategies and operational environments should be compared. By comparing such profiles, retailers would be able to make generalizations about the types of people who purchase gasoline through each of the service types. For example, suppose a large percentage of the customers who purchased full-serve gasoline within a study region fell within Compusearch's Urban Elite, Suburban Affluent and Suburban Upscale Families lifestyle classifications. Such information would suggest that affluence has an impact on a customers willingness to purchase gasoline at a full-serve outlet. This information could then be used to support decisions about what types of service should be offered at new locations or to provide insight into how existing operations could be improved by altering the service offer. If no such patterns emerged through this process it may indicate that there are simply no identifiable relationships to be found. An example of this aggregation procedure is presented in Section Seven Point Three.

A second method for identifying relationships between customer type and preference for pump-level service involves a comparison of two adjacent outlets. Trade areas and customer profiles for two adjacent outlets, one full-serve and one self-serve, could be compared. This simple approach may also be useful for identifying differences between the types of customers which each site attracts. Any patterns that might be identified would be useful for developing strategies for the

outlets themselves or could provide support for decisions in other situations. However, this focus on individual locations has several limitations;

1. Only ESSO sites could be compared through the use of ESSO cards.
2. It may be difficult to identify a situation in which two ESSO sites are located next to one another and have different service offers. However, such cases do exist.
3. Finally, different locational factors, such as orientation to traffic, accessibility and other important factors would be influencing the two sites. As a result, any patterns which emerge may be related to factors other that pump-level service. For example, one site might be located such that is on the corner which is more accessible to an adjacent community which is made up of high income individuals. The other station may draw from a lower income area from another corner. As a result, the reasons for the differences in customer profiles would be the result of accessibility rather than preferences for a type of pump-level service.

The analysis of individual outlets will not provide a reliable measurement of the general characteristics of the types of customers who use each of the service types. Therefore, this thesis employs only the aforementioned profile aggregation method beyond this point. The following section provides an example of the profile aggregation procedure.

## 7.3: Analyzing Pump-Level Service by Aggregating Trade Area Profiles: Future Applications

### 7.3.1 An Example of the Profile Aggregation Procedure

This chapter provides an example of the profile aggregation method which was introduced in the previous section. This example has been included to demonstrate the logic behind the method and to provide a small sample of what could be done on a larger scale in the future.

Ten outlets with similar volumes were selected from Imperial Oil's Ontario network; five full-serve outlets and five self-serve outlets. Outlets with similar sales volumes, ranging from 2,300,000 litres to 2,500,000 litres, were deliberately selected. Ideally, custom trade area sizes would have been identified for each outlet based on a plot

of customers and the associated distance impact report. However, for demonstration purposes lifestyle profiles were constructed for each outlet based on a standard trade area with a three kilometer radius. The use of the standard trade area was acceptable because outlets which share similar sales volumes generally share similar trade area sizes (Pattison, 1996). Table 25 identifies the volumes of the ten sample outlets.

## Table 25[48]

**The Ten Sample Outlets Selected for the Profile Aggregation, 1995**

| ESSO #[49] | Description | Service | Volume |
|---|---|---|---|
| 550109 | Outlet 1 | FS | 2,400,000 |
| 550260 | Outlet 2 | FS | 2,300,000 |
| 550793 | Outlet 3 | FS | 2,400,000 |
| 553275 | Outlet 4 | FS | 2,400,000 |
| 555122 | Outlet 5 | FS | 2,400,000 |
| 550106 | Outlet 6 | SS | 2,500,000 |
| 550622 | Outlet 7 | SS | 2,400,000 |
| 550784 | Outlet 8 | SS | 2,500,000 |
| 552293 | Outlet 9 | SS | 2,400,000 |
| 555038 | Outlet 10 | SS | 2,500,000 |

A Compusearch Lifestyle profile was created for each outlet based on the standard 3 km trade area. The five full-serve and five self-serve profiles were aggregated through Compusearch's Market Math software into two larger profiles based only on pump level service; one full-serve profile and one self-serve profile. A summary of the profile comparison report for the aggregated full-serve and self-serve profiles is presented in Table 26.[50] This report compares the lifestyle characteristics of the full-serve profile to

[48] Source: Imperial Oil., 1996.

[49] This ESSO # is included so that the identities of the individual outlets can be determined in the future. The locations of these outlets have been kept confidential because most of the outlets fall outside the Scarborough Case Study.

[50] Refer to Appendix VIII for the individual profiles for each outlet.

those of the self-serve profile and the overall profile for Ontario. Table 26 is shown graphically in Figure 11.

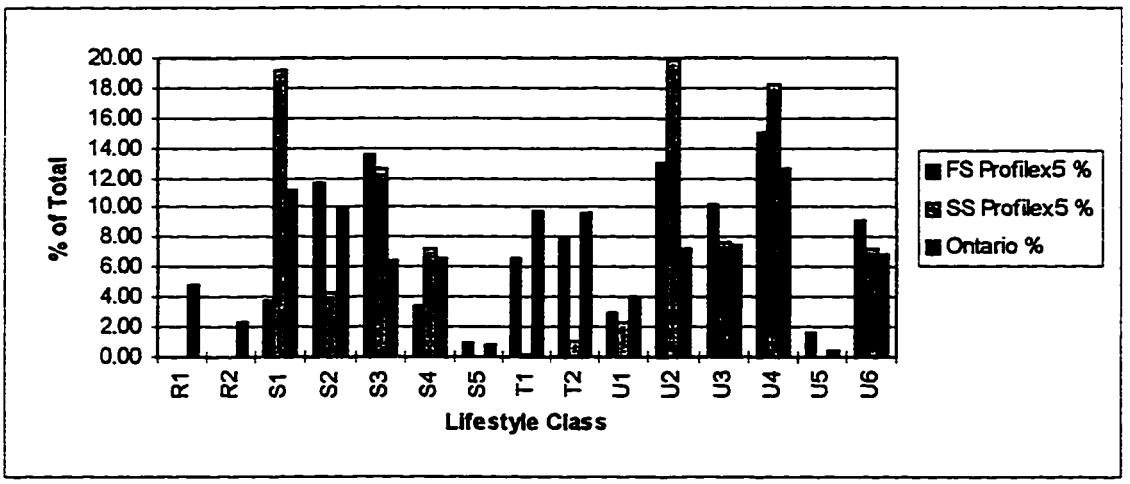
## Table 26[51]

**Profile Classification between the Five Full-Serve and Five Self Serve Examples , 1995**

| Description | FS Profilex5 # | FS Profilex5 % | SS Profilex5 # | SS Profilex5 % | Ontario # | Ontario % |
|---|---|---|---|---|---|---|
| RURAL COMFORTABLE FAMILIES (R1) | 0 | 0.00 | 0 | 0.00 | 186,925 | 4.78 |
| RURAL DOWNSCALE (R2) | 0 | 0.00 | 0 | 0.00 | 90,138 | 2.3 |
| SUBURBAN AFFLUENT (S1) | 2,544 | 3.81 | 1,707 | 19.25 | 435,108 | 11.11 |
| SUBURBAN UPSCALE FAMILIES (S2) | 7,809 | 11.67 | 5,808 | 4.30 | 389,853 | 9.94 |
| SUBURBAN OLDER SINGLES AND COUPLES (S3) | 9,075 | 13.57 | 4,497 | 12.66 | 254,713 | 6.5 |
| SUBURBAN YOUNGER FAMILIES (S4) | 2,283 | 3.41 | 8,855 | 7.31 | 258,524 | 6.59 |
| SUBURBAN QUEBEC (S5) | 610 | 0.91 | 0 | 0.00 | 29,314 | 0.75 |
| TOWN UPSCALE (T1) | 4,410 | 6.60 | 615 | 0.13 | 382,745 | 9.77 |
| TOWN GREY COLLAR (T2) | 5,337 | 7.99 | 4,983 | 1.08 | 379,155 | 9.68 |
| URBAN ELITE (U1) | 1,965 | 2.94 | 8,342 | 2.26 | 157,716 | 4.03 |
| URBAN ETHNIC (U2) | 8,683 | 12.98 | 0 | 19.83 | 283,633 | 7.24 |
| URBAN OLDER SINGLES AND COUPLES (U3) | 6,846 | 10.23 | 16,832 | 7.68 | 293,776 | 7.49 |
| URBAN YOUNG SINGLES (U4) | 10,091 | 15.09 | 33,033 | 18.24 | 493,720 | 12.6 |
| URBAN QUEBEC GREY COLLAR (U5) | 1,100 | 1.65 | 0 | 0.00 | 17,590 | 0.45 |
| URBAN DOWNSCALE (U6) | 6,114 | 9.14 | 17,361 | 7.24 | 265,431 | 6.78 |
| GRAND TOTALS: | 66,867 | 100 | 102,033 | 100 | 3,918,341 | 100 |

## Figure 11

**A Graphical Representation of the Profile Classification between the Five Full-Serve and Five Self Serve Examples , 1995**




[51] Source: Imperial Oil., 1996.

Through the use of summary tools such as these gasoline retailers can make generalizations about the types of customers who purchase each service type. This example does not provide any reliable conclusions because of it's limited scope. However, the example indicates the types of comparisons which can be made.

### 7.3.2 Limitations of the Example and Possible Future Applications

The purpose of including this profile comparison was simply to demonstrate the methodology and provide an example of the analysis that could be produced on a larger scale. This section explains the limitations of the example and discusses how the method could be developed in the future on a larger scale.

The small sample of outlets used within the example allows unique profiles from one or two outlets to adversely influence the aggregate profile; possibly leading to false conclusions (Refer to the individual profiles in Appendix VIII).

The ideal analysis of this type would include a large regional network of outlets; probably by province or even on a national scale. As well, the utility of the analysis would improve if the aggregate full-serve and self-serve profiles were subdivided further by volume, trade area size and facility type. In the very near future this method will be improved as Compusearch provides for the use of flexible trade area shapes, rather than just circles, to delineate trade areas. These shapes will be based on the plots of ESSO card customers.

While a national or provincial scale study was beyond the resources of this thesis, the Market Math software will support such large scale comparisons (Pattison, 1996). As

a result, there is significant potential for the future development of this methodology in analyzing customer preferences for pump-level service.

## Chapter 8: Summary and Conclusions

This thesis highlights a change in the functional role and nature of service that is offered at retail gasoline outlets in the Canadian Marketplace. The Canadian retail gasoline station has evolved from the traditional neighborhood outlet which relied primarily on the servicing of automobiles, to key sites which rely on high volume sales of gasoline and new ancillary activities. The way in which fuel is pumped has also evolved from a purely full-service marketplace to a marketplace in which consumers are given a choice between full-service and self-service alternatives.

The introduction of self-serve gasoline outlets to Canada's marketplace in the early 1970's resulted in a new competitive price structure. Retail gasoline sales have become highly differentiated by price, brand type and pump-level service type. As a result, the value equation which consumers use to determine where to purchase their gasoline has become more difficult to understand. For many consumers the decision about where to purchase is primarily driven by price. Such consumers may be willing to trade-off a convenient location for a better price. These consumers may also be willing to trade-off the higher price associated with branded sites for a discounted price at unbranded locations. Furthermore, such consumers may be willing to trade-off the convenience of having their fuel pumped by a service attendant for a lower price at a self-serve outlet. In fact, these consumers will likely be driven by a number of these factors at the same time. For other consumers, the value equation may be driven by a combination of preferences for a certain brand; for a certain type of pump-level service; for certain

ancillary conveniences; for a certain outlet; or simply for the most conveniently located site. Marketers who are searching for prime locations for retail gasoline outlets must focus on how to develop at the same time that they determine where to locate.

Marketing and real-estate professionals at Imperial Oil (ESSO) have recognized the need for an improved understanding of pump-level service within their operations. This thesis was inspired by an expressed interest from these marketing professionals in the development of a method to support decisions about which types of service should be offered at individual locations. Marketers want to know if there is a relationship between customer typologies and preferences for pump-level service. Existing methods of site evaluation and location analysis have not been able to determine the role that pump-level service plays in attracting customers to a retail site. As a result, the macro analysis established how significant the division between self-serve and full-serve outlets has become within Canada and suggests a method to assist retailers in deciding which type of pump-level service is most appropriate for any given location.

The trend over the last thirty years has been toward self-serve facilities. While the majority of outlets within Canada's urban marketplace in 1994 offered full-serve, the bulk of the gasoline volume sold was through self-serve facilities. Clearly, Canada's self-serve network is far more efficient than it's full-serve network. The success of the self-serve facilities is evidence of the consumer's willingness to pump their own fuel for an associated reduction in price. As the number of self-serve outlets increase and consumers become more comfortable

with pumping their own fuel, the full-serve segment will become much smaller and more exclusive.

Recent trends indicate a continued decline in the number of full-serve facilities within the market. The full-serve segment was the only service form which suffered losses in both outlet share and market share between 1990 and 1994. Most of the corporate rationalization which has occurred in recent years has been focused on the full-serve segment of the market. This rationalization has generally helped the large retailers to improve their full-serve market efficiency. The low market effectiveness ratios which characterize Canada's full-serve network can be attributed to the increased percentage of unbranded and independent retailers relative to the major brands.

The recent growth in the number and sales of split service outlets suggests that retailers have recognized that a certain percentage of their consumers continue to prefer full-service. The inconsistency in the breakdown of sales between the self-serve and full-serve alternatives at split serve sites is evidence of the fact that certain locations are more suited toward a specific service type (refer to map 9 on pg. 100). Sales through split-serve facilities are generally dominated by the self-serve alternative.

Significant regional variations exist between pump-level service profiles across Canada. The distribution of pump-level serve types is very different between Atlantic Canada, Quebec, Ontario and Western Canada. For example, Atlantic Canada has a very low percentage of self-serve facilities compared to the other regions of Canada. Furthermore, Atlantic Canada has a relatively high

proportion of split-serve facilities. These regional differences may be the result of variations in demand, competitive strategy and/or governmental regulations. These large scale variations warrant the investigation of potential variations at a smaller, local level.

The case study of Scarborough in 1994 demonstrated that existing methods for determining trade areas were overly simplistic. Traditional methods for predicting volume, such as multiple regression, could not factor in the role of trade area characteristics because there was no way in which to delineate trade areas accurately.

The use of customer plots of ESSO card holders provided a valuable tool for delineating each outlets trade area more accurately. Overlaying plots onto a demographic database provided for the creation of customized trade areas. Through the use of Compusearch's lifestyle database and Market Math software, trade areas can be created and lifestyle profiles collected. These trade area lifestyle profiles provided the key information which was necessary to identify relationships between customer types and demand for service. The underlying hypothesis is that customers who use the different pump-level service types are different from each other. These trade area profiles ultimately act as a surrogate for a customer survey.

If this hypothesis is true, then by aggregating the trade area profiles from a given study area into two separate groups, self-serves and full-serves, generalizations should be able to be made about the types of consumers who tend to use each service type. The example provided within Chapter Seven

demonstrates the type of study which could be done on a larger scale. Unfortunately, the example is too limited in scope to provide any reliable conclusions about the types of consumers who prefer self-service versus the types of consumers who prefer full-service.

The use of this trade area technology is well established within the retail gasoline industry. While the trade area delineation and profile comparison procedure has been used to study many aspects of the retail gasoline industry, there is no known application of this technology to the study of consumer preferences for pump-level service. The software and information necessary to produce a large scale study are already available within the industry for other marketing purposes. As a result, a study of this type could be produced relatively quickly and at a limited cost.

The utility of this method will increase in the near future when Compusearch introduces flexible trade area shapes within it's Market Math software package. The circular trade areas employed within this thesis are overly simplistic and may allow for the inclusion of certain lifestyle categories which are not characteristic of an outlets actual client base. Flexible trade area shapes will soon be able to be created based on the plot of ESSO card customers during a given period of time.

This thesis highlights the fact that pump-level service has an impact on a site's success or failure. Pump-level service type affects both the number and types of consumers who are attracted to a location. As well, pump-level service may have an impact on the viability of certain ancillary site activities such as

convenience stores and fast food outlets. As these ancillary activities become more important to the profitability of retail gasoline sites, retailers will be forced to make important decisions about the type of service which they choose to offer.

Self-service gasoline outlets have given corporate retailers a powerful tool for attracting price sensitive customers while maintaining their image of quality. Retailers will be able to target their investments more effectively if relationships can be identified between customer typologies and preferences for each service type. In an industry as competitive as the retail gasoline industry this type of information could provide a critical edge in satisfying the wants and needs of consumers.

# Appendix I

Outlet Count, Sales Volumes, Market Share,
Outlet Share and Market Effectiveness
for Canada (1990,1994)

SOURCE: Adapted from Kent Database, 1990, 1994.
Provided by Imperial Oil (ESSO) (1996)

| COMPANY NAME | TOTAL OUTLET COUNT (1990) | TOTAL OUTLET COUNT (1994) | FOUR YEAR CHANGE | TOTAL SALES VOLUME (1990) | TOTAL SALES VOLUME (1994) | FOUR YEAR CHANGE | TOTAL MARKET SHARE BY VOLUME (1990) | TOTAL MARKET SHARE BY VOLUME (1994) | TOTAL OUTLET SHARE (1990) | TOTAL OUTLET SHARE (1994) |
|---|---|---|---|---|---|---|---|---|---|---|
| **1. Major National Brands** | | | | | | | | | | |
| ESSO | 1,631 | 1,452 | -179 | 3,965,656,056 | 4,066,210,326 | 100,554,270 | 23% | 20% | 19% | 18% |
| PETROCANADA | 1,541 | 1,249 | -292 | 3,140,928,066 | 3,453,282,225 | 312,354,159 | 18% | 17% | 18% | 15% |
| SHELL | 1,162 | 1,038 | -124 | 2,432,125,535 | 2,905,744,369 | 473,618,834 | 14% | 15% | 14% | 13% |
| TOTAL | 4,334 | 3,739 | -595 | 9,538,709,657 | 10,425,236,920 | 886,527,263 | 55% | 52% | 51% | 46% |
| **2. Major Regional and Private Brands** | | | | | | | | | | |
| SUNOCO | 406 | 309 | -97 | 791,275,896 | 1,056,991,442 | 265,715,546 | 5% | 5% | 5% | 4% |
| ULTRAMAR | 540 | 497 | -43 | 872,982,456 | 1,004,203,729 | 131,221,273 | 5% | 5% | 6% | 6% |
| CANADIAN TIRE | 160 | 170 | 10 | 731,316,434 | 952,685,728 | 221,369,294 | 4% | 5% | 2% | 2% |
| CHEVRON | 168 | 155 | -13 | 483,997,456 | 627,778,471 | 143,781,015 | 3% | 3% | 2% | 2% |
| IRVING | 280 | 238 | -42 | 437,197,397 | 411,715,754 | -25,481,643 | 3% | 2% | 3% | 3% |
| SERGAZ | 94 | 98 | 4 | 120,380,616 | 160,926,643 | 40,546,027 | 1% | 1% | 1% | 1% |
| TOTAL | 1,648 | 1,467 | -181 | 3,437,150,255 | 4,214,301,767 | 777,151,512 | 20% | 21% | 19% | 18% |
| **3. Minor Regional and Private Brands** | | | | | | | | | | |
| MOHAWK | 134 | 170 | 36 | 260,387,362 | 432,441,278 | 172,053,916 | 1% | 2% | 2% | 2% |
| PIONEER | 78 | 113 | 35 | 186,894,417 | 389,050,159 | 202,155,742 | 1% | 2% | 1% | 1% |
| TURBO | 120 | 152 | 32 | 303,884,548 | 318,942,529 | 15,057,981 | 2% | 2% | 1% | 2% |
| BEAVER | 54 | 76 | 22 | 150,142,463 | 276,500,485 | 126,358,022 | 1% | 1% | 1% | 1% |
| OLCO | 115 | 170 | 55 | 177,539,989 | 267,370,876 | 89,830,887 | 1% | 1% | 1% | 2% |
| HUSKY | 114 | 142 | 28 | 161,684,186 | 229,089,796 | 67,405,610 | 1% | 1% | 1% | 2% |
| CO-OP (WEST) | 51 | 71 | 20 | 149,258,484 | 227,431,871 | 78,173,387 | 1% | 1% | 1% | 1% |
| DOMO | 63 | 74 | 11 | 201,659,246 | 205,968,403 | 4,309,157 | 1% | 1% | 1% | 1% |
| 7-ELEVEN | 37 | 81 | 44 | 63,782,405 | 188,070,552 | 124,288,147 | 0% | 1% | 0% | 1% |
| SUPERSAVE | 63 | 87 | 24 | 105,269,831 | 180,204,130 | 74,934,299 | 1% | 1% | 1% | 1% |
| SUNYS | 110 | 84 | -26 | 219,363,158 | 171,334,429 | -48,028,729 | 1% | 1% | 1% | 1% |
| TOTAL | 939 | 1,220 | 281 | 1,979,866,089 | 2,886,404,508 | 906,538,419 | 11% | 14% | 11% | 15% |
| **4. Independents and Minor Private Brands** | | | | | | | | | | |
| TOTAL | 1,275 | 1,204 | -71 | 2,142,126,595 | 1,978,679,593 | -163,447,002 | 12% | 10% | 15% | 15% |
| **5. Unbranded** | | | | | | | | | | |
| TOTAL | 262 | 432 | 170 | 310,051,352 | 507,491,044 | 197,439,692 | 2% | 3% | 3% | 5% |
| **CANADIAN TOTAL:** | **8,458** | **8,062** | **-396** | **17,407,903,948** | **20,012,113,832** | **2,604,209,884** | **100%** | **100%** | **100%** | **100%** |

| COMPANY NAME | TOTAL MARKET EFFECTIVENESS (1990) | TOTAL MARKET EFFECTIVENESS (1994) | FS OUTLET COUNT (1990) | FS OUTLET COUNT (1994) | SS OUTLET COUNT (1990) | SS OUTLET COUNT (1994) | SPLIT OUTLET COUNT (1990) | SPLIT OUTLET COUNT (1994) | N/A OUTLET COUNT (1990) | N/A OUTLET COUNT (1994) | FS SALES VOLUME (1990) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1. Major National Brands** | | | | | | | | | | | |
| ESSO | 1.18 | 1.13 | 636 | 445 | 807 | 744 | 153 | 243 | 35 | 20 | 1,159,106,493 |
| PETROCANADA | 0.99 | 1.11 | 728 | 460 | 637 | 549 | 99 | 180 | 77 | 60 | 1,192,678,403 |
| SHELL | 1.02 | 1.13 | 480 | 350 | 487 | 517 | 149 | 140 | 46 | 31 | 796,863,175 |
| TOTAL | 1.07 | 1.12 | 1844 | 1,255 | 1931 | 1,810 | 401 | 563 | 158 | 111 | 3,148,648,071 |
| **2. Major Regional and Private Brands** | | | | | | | | | | | |
| SUNOCO | 0.95 | 1.38 | 221 | 142 | 139 | 131 | 16 | 18 | 30 | 18 | 327,585,082 |
| ULTRAMAR | 0.79 | 0.81 | 319 | 250 | 144 | 158 | 40 | 61 | 37 | 28 | 471,372,325 |
| CANADIAN TIRE | 2.22 | 2.26 | 12 | 8 | 125 | 134 | 6 | 12 | 17 | 16 | 53,876,823 |
| CHEVRON | 1.40 | 1.63 | 46 | 24 | 79 | 74 | 29 | 43 | 14 | 14 | 107,341,626 |
| IRVING | 0.76 | 0.70 | 163 | 109 | 24 | 32 | 73 | 85 | 20 | 12 | 196,938,493 |
| SERGAZ | 0.62 | 0.66 | 73 | 85 | 6 | 6 | 0 | 7 | 15 | 0 | 98,533,227 |
| TOTAL | 1.01 | 1.16 | 834 | 618 | 517 | 535 | 164 | 226 | 133 | 88 | 1,255,647,576 |
| **3. Minor Regional and Private Brands** | | | | | | | | | | | |
| MOHAWK | 0.94 | 1.02 | 61 | 58 | 15 | 28 | 43 | 67 | 15 | 17 | 107,157,562 |
| PIONEER | 1.16 | 1.39 | 55 | 81 | 5 | 12 | 10 | 9 | 8 | 11 | 124,337,329 |
| TURBO | 1.23 | 0.85 | 108 | 135 | 0 | 0 | 0 | 2 | 12 | 15 | 271,832,610 |
| BEAVER | 1.35 | 1.47 | 44 | 68 | 3 | 2 | 0 | 2 | 7 | 4 | 118,776,310 |
| OLCO | 0.75 | 0.63 | 97 | 151 | 5 | 11 | 0 | 0 | 13 | 8 | 139,656,387 |
| HUSKY | 0.69 | 0.65 | 76 | 86 | 33 | 43 | 2 | 5 | 3 | 8 | 113,711,613 |
| CO-OP (WEST) | 1.42 | 1.29 | 42 | 63 | 8 | 3 | 0 | 0 | 1 | 5 | 134,188,165 |
| DOMO | 1.56 | 1.12 | 60 | 71 | 0 | 0 | 0 | 0 | 3 | 3 | 195,475,802 |
| 7-ELEVEN | 0.84 | 0.94 | 4 | 5 | 28 | 65 | 1 | 3 | 4 | 8 | 11,073,920 |
| SUPERSAVE | 0.81 | 0.83 | 55 | 79 | 1 | 3 | 0 | 0 | 7 | 5 | 90,464,886 |
| SUNYS | 0.97 | 0.82 | 86 | 70 | 16 | 8 | 0 | 1 | 8 | 5 | 160,268,764 |
| TOTAL | 1.02 | 0.95 | 688 | 867 | 114 | 175 | 56 | 89 | 81 | 89 | 1,466,943,348 |
| **4. Independents and Minor Private Brands** | | | | | | | | | | | |
| TOTAL | 0.82 | 0.66 | 1009 | 850 | 163 | 231 | 22 | 26 | 81 | 97 | 1,692,076,405 |
| **5. Unbranded** | | | | | | | | | | | |
| TOTAL | 0.57 | 0.47 | 212 | 334 | 24 | 65 | 4 | 10 | 22 | 23 | 210,432,250 |
| **CANADIAN TOTAL:** | | | 4,587 | 3,924 | 2,749 | 2,816 | 647 | 914 | 475 | 408 | 7,773,747,650 |

| COMPANY NAME | FS SALES VOLUME (1994) | SS SALES VOLUME (1990) | SS SALES VOLUME (1994) | SPLIT SALES VOLUME (1990) | SPLIT SALES VOLUME (1994) | N/A SALES VOLUME (1990) | N/A SALES VOLUME (1994) | FS MARKET SHARE BY VOLUME (1990) | FS MARKET SHARE BY VOLUME (1994) | SS MARKET SHARE BY VOLUME (1990) |
|---|---|---|---|---|---|---|---|---|---|---|
| **1. Major National Brands** | | | | | | | | | | |
| ESSO | 893,219,264 | 2,146,713,766 | 2,105,329,587 | 570,404,569 | 1,009,299,868 | 89,431,228 | 58,361,607 | 15% | 12% | 32% |
| PETROCANADA | 977,487,361 | 1,527,636,449 | 1,625,222,248 | 281,770,756 | 658,059,715 | 138,842,458 | 192,512,901 | 15% | 13% | 23% |
| SHELL | 685,121,694 | 1,102,581,524 | 1,528,811,780 | 427,831,592 | 603,076,538 | 104,849,244 | 88,734,357 | 10% | 9% | 16% |
| TOTAL | 2,555,828,319 | 4,776,931,739 | 5,259,363,615 | 1,280,006,917 | 2,270,436,121 | 333,122,930 | 339,608,865 | 41% | 34% | 71% |
| **2. Major Regional and Private Brands** | | | | | | | | | | |
| SUNOCO | 374,433,477 | 343,310,822 | 496,571,983 | 66,447,746 | 138,329,067 | 53,932,246 | 47,656,915 | 4% | 5% | 5% |
| ULTRAMAR | 420,771,417 | 262,905,644 | 374,255,261 | 78,104,060 | 155,490,828 | 60,600,427 | 53,686,223 | 6% | 6% | 4% |
| CANADIAN TIRE | 34,419,482 | 565,152,422 | 751,325,561 | 29,482,827 | 72,953,385 | 82,804,362 | 93,987,300 | 1% | 0% | 8% |
| CHEVRON | 74,315,965 | 249,728,382 | 310,654,585 | 90,140,891 | 190,338,319 | 36,786,557 | 52,469,602 | 1% | 1% | 4% |
| IRVING | 133,885,307 | 37,158,550 | 47,953,553 | 161,480,824 | 211,797,440 | 41,619,530 | 18,079,454 | 3% | 2% | 1% |
| SERGAZ | 132,562,978 | 3,679,823 | 5,981,719 | 0 | 22,381,946 | 18,167,566 | 0 | 1% | 2% | 0% |
| TOTAL | 1,170,388,626 | 1,461,935,643 | 1,986,742,662 | 425,656,348 | 791,290,985 | 293,910,688 | 265,879,494 | 16% | 16% | 22% |
| **3. Minor Regional and Private Brands** | | | | | | | | | | |
| MOHAWK | 124,090,695 | 15,888,417 | 43,013,848 | 109,462,560 | 210,581,857 | 27,878,823 | 54,754,878 | 1% | 2% | 0% |
| PIONEER | 270,975,437 | 6,635,630 | 34,401,376 | 31,540,566 | 44,283,656 | 24,380,892 | 39,389,690 | 2% | 4% | 0% |
| TURBO | 278,958,242 | 0 | 0 | 0 | 3,044,622 | 32,051,938 | 36,939,665 | 3% | 4% | 0% |
| BEAVER | 249,327,125 | 9,412,810 | 7,233,688 | 0 | 9,278,764 | 21,953,343 | 10,660,908 | 2% | 3% | 0% |
| OLCO | 235,822,699 | 12,378,352 | 19,918,634 | 0 | 0 | 25,505,250 | 11,629,543 | 2% | 3% | 0% |
| HUSKY | 155,901,792 | 37,046,924 | 49,396,696 | 3,745,678 | 10,998,751 | 7,179,971 | 12,792,557 | 1% | 2% | 1% |
| CO-OP (WEST) | 206,132,355 | 14,111,703 | 8,737,501 | 0 | 0 | 958,616 | 12,562,015 | 2% | 3% | 0% |
| DOMO | 199,347,182 | 0 | 0 | 0 | 0 | 6,183,444 | 6,621,221 | 3% | 3% | 0% |
| 7-ELEVEN | 15,348,428 | 45,733,490 | 141,782,659 | 2,460,782 | 6,320,129 | 4,514,213 | 24,619,336 | 0% | 0% | 1% |
| SUPERSAVE | 170,038,214 | 164,350 | 2,326,073 | 0 | 0 | 14,640,595 | 7,839,843 | 1% | 2% | 0% |
| SUNYS | 135,565,581 | 46,818,904 | 25,909,548 | 0 | 2,375,507 | 12,275,490 | 7,483,793 | 2% | 2% | 1% |
| TOTAL | 2,041,507,750 | 188,190,580 | 332,720,023 | 147,209,586 | 286,883,286 | 177,522,575 | 225,293,449 | 19% | 27% | 3% |
| **4. Independents and Minor Private Brands** | | | | | | | | | | |
| TOTAL | 1,377,928,604 | 278,572,996 | 414,602,276 | 48,427,842 | 50,371,075 | 123,049,352 | 135,777,638 | 22% | 18% | 4% |
| **5. Unbranded** | | | | | | | | | | |
| TOTAL | 333,384,264 | 47,208,521 | 114,249,878 | 15,814,294 | 39,142,169 | 36,596,287 | 20,714,733 | 3% | 4% | 1% |
| CANADIAN TOTAL: | 7,479,037,563 | 6,752,839,479 | 8,107,678,454 | 1,917,114,987 | 3,438,123,636 | 964,201,832 | 987,274,179 | 100% | 100% | 100% |

| COMPANY NAME | SS MARKET SHARE BY VOLUME (1994) | SPLIT MARKET SHARE BY VOLUME (1990) | SPLIT MARKET SHARE BY VOLUME (1994) | N/A MARKET SHARE BY VOLUME (1990) | N/A MARKET SHARE BY VOLUME (1994) | FS OUTLET SHARE BY VOLUME (1990) | FS OUTLET SHARE BY VOLUME (1994) | SS OUTLET SHARE BY VOLUME (1990) | SS OUTLET SHARE BY VOLUME (1994) | SPLIT OUTLET SHARE BY VOLUME (1990) | SPLIT OUTLET SHARE BY VOLUME (1994) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1. Major National Brands** | | | | | | | | | | | |
| ESSO | 26% | 30% | 29% | 9% | 6% | 14% | 11% | 29% | 26% | 24% | 27% |
| PETROCANADA | 20% | 15% | 19% | 14% | 19% | 16% | 12% | 23% | 19% | 15% | 20% |
| SHELL | 19% | 22% | 18% | 11% | 9% | 10% | 9% | 18% | 18% | 23% | 15% |
| TOTAL | 65% | 67% | 66% | 35% | 34% | 40% | 32% | 70% | 64% | 62% | 62% |
| **2. Major Regional and Private Brands** | | | | | | | | | | | |
| SUNOCO | 6% | 3% | 4% | 6% | 5% | 5% | 4% | 5% | 5% | 2% | 2% |
| ULTRAMAR | 5% | 4% | 5% | 6% | 5% | 7% | 6% | 5% | 6% | 6% | 7% |
| CANADIAN TIRE | 9% | 2% | 2% | 9% | 10% | 0% | 0% | 5% | 5% | 1% | 1% |
| CHEVRON | 4% | 5% | 6% | 4% | 5% | 1% | 1% | 3% | 3% | 4% | 5% |
| IRVING | 1% | 8% | 6% | 4% | 2% | 4% | 3% | 1% | 1% | 11% | 9% |
| SERGAZ | 0% | 0% | 1% | 2% | 0% | 2% | 2% | 0% | 0% | 0% | 1% |
| TOTAL | 25% | 22% | 23% | 30% | 27% | 18% | 16% | 19% | 19% | 25% | 25% |
| **3. Minor Regional and Private Brands** | | | | | | | | | | | |
| MOHAWK | 1% | 6% | 6% | 3% | 6% | 1% | 1% | 1% | 1% | 7% | 7% |
| PIONEER | 0% | 2% | 1% | 3% | 4% | 1% | 2% | 0% | 0% | 2% | 1% |
| TURBO | 0% | 0% | 0% | 3% | 4% | 2% | 3% | 0% | 0% | 0% | 0% |
| BEAVER | 0% | 0% | 0% | 2% | 1% | 1% | 2% | 0% | 0% | 0% | 0% |
| OLCO | 0% | 0% | 0% | 3% | 1% | 2% | 4% | 0% | 0% | 0% | 0% |
| HUSKY | 1% | 0% | 0% | 1% | 1% | 2% | 2% | 1% | 2% | 0% | 1% |
| CO-OP (WEST) | 0% | 0% | 0% | 0% | 1% | 1% | 2% | 0% | 0% | 0% | 0% |
| DOMO | 0% | 0% | 0% | 1% | 1% | 1% | 2% | 0% | 0% | 0% | 0% |
| 7-ELEVEN | 2% | 0% | 0% | 0% | 2% | 0% | 0% | 1% | 2% | 0% | 0% |
| SUPERSAVE | 0% | 0% | 0% | 2% | 1% | 1% | 2% | 0% | 0% | 0% | 0% |
| SUNYS | 0% | 0% | 0% | 1% | 1% | 2% | 2% | 1% | 0% | 0% | 0% |
| TOTAL | 4% | 8% | 8% | 18% | 23% | 15% | 22% | 4% | 6% | 9% | 10% |
| **4. Independents and Minor Private Brands** | | | | | | | | | | | |
| TOTAL | 5% | 3% | 1% | 13% | 14% | 22% | 22% | 6% | 8% | 3% | 3% |
| **5. Unbranded** | | | | | | | | | | | |
| TOTAL | 1% | 1% | 1% | 4% | 2% | 5% | 9% | 1% | 2% | 1% | 1% |
| CANADIAN TOTAL: | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

| COMPANY NAME | N/A OUTLET SHARE BY VOLUME (1990) | N/A OUTLET SHARE BY VOLUME (1994) | FS MARKET EFFECTIVENESS (1990) | FS MARKET EFFECTIVENESS (1994) | SS MARKET EFFECTIVENESS (1990) | SS MARKET EFFECTIVENESS (1994) | SPLIT MARKET EFFECTIVENESS (1990) | SPLIT MARKET EFFECTIVENESS (1994) |
|---|---|---|---|---|---|---|---|---|
| **1. Major National Brands** | | | | | | | | |
| ESSO | 7% | 5% | 1.08 | 1.05 | 1.08 | 0.98 | 1.26 | 1.10 |
| PETROCANADA | 16% | 15% | 0.97 | 1.11 | 0.98 | 1.03 | 0.96 | 0.97 |
| SHELL | 10% | 8% | 0.98 | 1.03 | 0.92 | 1.03 | 0.97 | 1.15 |
| TOTAL | 33% | 27% | 1.01 | 1.07 | 1.01 | 1.01 | 1.08 | 1.07 |
| **2. Major Regional and Private Brands** | | | | | | | | |
| SUNOCO | 6% | 4% | 0.87 | 1.38 | 1.01 | 1.32 | 1.40 | 2.04 |
| ULTRAMAR | 8% | 7% | 0.87 | 0.88 | 0.74 | 0.82 | 0.66 | 0.68 |
| CANADIAN TIRE | 4% | 4% | 2.65 | 2.26 | 1.84 | 1.95 | 1.66 | 1.62 |
| CHEVRON | 3% | 3% | 1.38 | 1.62 | 1.29 | 1.46 | 1.05 | 1.18 |
| IRVING | 4% | 3% | 0.71 | 0.64 | 0.63 | 0.52 | 0.75 | 0.66 |
| SERGAZ | 3% | 0% | 0.80 | 0.82 | 0.25 | 0.35 | 0.00 | 0.85 |
| TOTAL | 28% | 22% | 0.89 | 0.99 | 1.15 | 1.29 | 0.88 | 0.93 |
| **3. Minor Regional and Private Brands** | | | | | | | | |
| MOHAWK | 3% | 4% | 1.04 | 1.12 | 0.43 | 0.53 | 0.86 | 0.84 |
| PIONEER | 2% | 3% | 1.33 | 1.76 | 0.54 | 1.00 | 1.06 | 1.31 |
| TURBO | 3% | 4% | 1.49 | 1.08 | 0.00 | 0.00 | 0.00 | 0.40 |
| BEAVER | 1% | 1% | 1.59 | 1.92 | 1.28 | 1.26 | 0.00 | 1.23 |
| OLCO | 3% | 2% | 0.85 | 0.82 | 1.01 | 0.63 | 0.00 | 0.00 |
| HUSKY | 1% | 2% | 0.88 | 0.95 | 0.46 | 0.40 | 0.63 | 0.58 |
| CO-OP (WEST) | 0% | 1% | 1.89 | 1.72 | 0.72 | 1.01 | 0.00 | 0.00 |
| DOMO | 1% | 1% | 1.92 | 1.47 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7-ELEVEN | 1% | 2% | 1.63 | 1.61 | 0.66 | 0.76 | 0.83 | 0.56 |
| SUPERSAVE | 1% | 1% | 0.97 | 1.13 | 0.07 | 0.27 | 0.00 | 0.00 |
| SUNYS | 2% | 1% | 1.10 | 1.02 | 1.19 | 1.12 | 0.00 | 0.63 |
| TOTAL | 17% | 22% | 1.26 | 1.24 | 0.67 | 0.66 | 0.89 | 0.86 |
| **4. Independents and Minor Private Brands** | | | | | | | | |
| TOTAL | 17% | 24% | 0.99 | 0.85 | 0.70 | 0.62 | 0.74 | 0.52 |
| **5. Unbranded** | | | | | | | | |
| TOTAL | 5% | 6% | 0.59 | 0.52 | 0.80 | 0.61 | 1.33 | 1.04 |
| **CANADIAN TOTAL:** | 100% | 100% | | | | | | |

| COMPANY NAME | N/A MARKET EFFECTIVENESS (1990) | N/A MARKET EFFECTIVENESS (1994) |
|---|---|---|
| **1. Major National Brands** | | |
| ESSO | 1.26 | 1.21 |
| PETROCANADA | 0.89 | 1.33 |
| SHELL | 1.12 | 1.18 |
| TOTAL | 1.04 | 1.26 |
| **2. Major Regional and Private Brands** | | |
| SUNOCO | 0.89 | 1.09 |
| ULTRAMAR | 0.81 | 0.79 |
| CANADIAN TIRE | 2.40 | 2.43 |
| CHEVRON | 1.29 | 1.55 |
| IRVING | 1.03 | 0.62 |
| SERGAZ | 0.60 | 0.00 |
| TOTAL | 1.09 | 1.25 |
| **3. Minor Regional and Private Brands** | | |
| MOHAWK | 0.92 | 1.33 |
| PIONEER | 1.50 | 1.48 |
| TURBO | 1.32 | 1.02 |
| BEAVER | 1.54 | 1.10 |
| OLCO | 0.97 | 0.60 |
| HUSKY | 1.18 | 0.66 |
| CO-OP (WEST) | 0.47 | 1.04 |
| DOMO | 1.02 | 0.91 |
| 7-ELEVEN | 0.56 | 1.27 |
| SUPERSAVE | 1.03 | 0.65 |
| SUNYS | 0.76 | 0.62 |
| TOTAL | 1.08 | 1.05 |
| **4. Independents and Minor Private Brands** | | |
| TOTAL | 0.75 | 0.58 |
| **5. Unbranded** | | |
| TOTAL | 0.82 | 0.37 |

# Appendix II

Pump-Level Service Summary for Canada
for Canada (1990,1994)

SOURCE: Adapted from Kent Database, 1990, 1994.
Provided by Imperial Oil (ESSO) (1996)

| Type of Pump-Level Service | Total Volume 1990 | Total Volume 1994 | # of Outlets 1990 | # of Outlets 1994 | Market Share 1990 | Market Share 1994 | Outlet Share 1990 | Outlet Share 1994 | Market Effectiveness 1990 | Market Effectiveness 1994 |
|---|---|---|---|---|---|---|---|---|---|---|
| Self Serve Outlets | 6,752,839,479.00 | 8,107,678,454.00 | 2,749.00 | 2,816.00 | 39% | 41% | 33% | 35% | 1.11 | 1.16 |
| Full Serve Outlets | 7,773,747,650.00 | 7,479,037,563.00 | 4,587.00 | 3,924.00 | 45% | 37% | 54% | 49% | 0.92 | 0.77 |
| Split Serve Outlets | 1,917,114,987.00 | 3,438,123,636.00 | 647.00 | 914.00 | 11% | 17% | 8% | 11% | 0.97 | 1.52 |
| Unknown Service Types | 964,201,832.00 | 987,274,179.00 | 475.00 | 408.00 | 6% | 5% | 6% | 5% | 1.09 | 0.97 |
| TOTALS: | 17,407,903,948.00 | 20,012,113,832.00 | 8,458.00 | 8,062.00 | 100% | 100% | 100% | 100% | | |

# Appendix III part a

Pump Level Service Summary
for Canada (1994)

SOURCE: Adapted from Kent Database, 1994.
Provided by Imperial Oil (ESSO) (1996)

| (CLASSIFICATION) PROVINCE | 1994 OUTLETS FS | 1994 OUTLETS SS | 1994 OUTLETS SPLIT | 1994 OUTLETS N/A | 1994 TOTAL OUTLETS | 1994 VOLUME |
|---|---|---|---|---|---|---|
| ONTARIO | 1,326 | 1,014 | 213 | 129 | 2,682 | 8,404,547,874 |
| QUEBEC | 1,286 | 794 | 135 | 135 | 2,350 | 4,382,920,950 |
| WESTERN CANADA | 1,090 | 953 | 357 | 124 | 2,524 | 6,221,047,904 |
| ATLANTIC CANADA | 222 | 55 | 209 | 20 | 506 | 1,003,597,104 |
| Canadian Total: | 3924 | 2816 | 914 | 408 | 8062 | 20,012,113,832 |

# Appendix III part b

Pump Level Service Summary
by Region for Canada (1994)

SOURCE: Adapted from Kent Database, 1994.
Provided by Imperial Oil (ESSO) (1996)

| PROVINCE (CLASSIFICATION) | COMPANY NAME | TOTAL OUTLETS | FS OUTLETS | SS OUTLETS | SPLIT OUTLETS | N/A OUTLETS | 1,994 VOLUME |
|---|---|---|---|---|---|---|---|
| ALBERTA | | | | | | | |
| 1. Major National Brands | ESSO | 181 | 35 | 119 | 21 | 6 | 492,570,842 |
| | PETROCANADA | 121 | 38 | 51 | 27 | 5 | 313,701,661 |
| | SHELL | 121 | 16 | 82 | 17 | 6 | 354,213,246 |
| | TOTAL | 423 | 89 | 252 | 65 | 17 | 1,160,485,749 |
| 2. Major Regional and Private Brands | CANADIAN TIRE | 12 | 0 | 11 | 0 | 1 | 67,762,851 |
| | TOTAL | 12 | 0 | 11 | 0 | 1 | 67,762,851 |
| 3. Minor Regional and Private Brands | 7-ELEVEN | 17 | 0 | 15 | 1 | 1 | 30,804,967 |
| | CO-OP (WEST) | 27 | 23 | 1 | 0 | 3 | 108,357,876 |
| | DOMO | 29 | 29 | 0 | 0 | 0 | 75,129,178 |
| | HUSKY | 54 | 32 | 17 | 1 | 4 | 87,801,140 |
| | MOHAWK | 60 | 20 | 14 | 20 | 6 | 136,910,932 |
| | SUPERSAVE | 11 | 10 | 0 | 0 | 1 | 29,323,592 |
| | TURBO | 77 | 70 | 0 | 0 | 7 | 161,491,890 |
| | TOTAL | 275 | 184 | 47 | 22 | 22 | 629,819,575 |
| 4. Independents and Minor Private Brands | TOTAL | 139 | 72 | 61 | 2 | 4 | 265,660,005 |
| 5. Unbranded | TOTAL | 37 | 28 | 8 | 0 | 1 | 34,903,227 |
| | ALBERTA TOTAL | 886 | 373 | 379 | 89 | 45 | 2,158,631,407 |
| BRITISH COLUMBIA | | | | | | | |
| 1. Major National Brands | ESSO | 203 | 76 | 93 | 29 | 5 | 551,214,523 |
| | PETROCANADA | 172 | 61 | 67 | 36 | 8 | 453,744,031 |
| | SHELL | 126 | 28 | 68 | 27 | 3 | 362,624,358 |
| | TOTAL | 501 | 165 | 228 | 92 | 16 | 1,367,582,912 |
| 2. Major Regional and Private Brands | CANADIAN TIRE | 5 | 0 | 5 | 0 | 0 | 17,315,725 |
| | CHEVRON | 155 | 24 | 74 | 43 | 14 | 627,778,471 |
| | TOTAL | 160 | 24 | 79 | 43 | 14 | 645,094,196 |
| 3. Minor Regional and Private Brands | 7-ELEVEN | 19 | 5 | 12 | 1 | 1 | 43,799,712 |
| | CO-OP (WEST) | 8 | 5 | 1 | 0 | 2 | 25,054,732 |
| | DOMO | 12 | 12 | 0 | 0 | 0 | 32,344,562 |
| | HUSKY | 37 | 21 | 13 | 3 | 0 | 60,911,477 |
| | MOHAWK | 66 | 18 | 10 | 33 | 5 | 187,989,386 |
| | SUPERSAVE | 61 | 55 | 3 | 0 | 3 | 120,684,035 |
| | TURBO | 29 | 19 | 0 | 2 | 8 | 66,259,846 |
| | TOTAL | 232 | 135 | 39 | 39 | 19 | 537,043,750 |
| 4. Independents and Minor Private Brands | TOTAL | 77 | 54 | 13 | 8 | 2 | 121,598,521 |
| 5. Unbranded | TOTAL | 36 | 26 | 7 | 2 | 1 | 27,566,560 |
| | BRITISH COLUMBIA TOTAL | 1,006 | 404 | 366 | 184 | 52 | 2,698,885,939 |
| MANITOBA | | | | | | | |
| 1. Major National Brands | ESSO | 71 | 17 | 36 | 16 | 2 | 154,423,821 |
| | PETROCANADA | 47 | 16 | 17 | 11 | 3 | 110,106,013 |
| | SHELL | 54 | 12 | 28 | 11 | 3 | 137,733,020 |
| | TOTAL | 172 | 45 | 81 | 38 | 8 | 402,262,854 |
| 2. Major Regional and Private Brands | CANADIAN TIRE | 6 | 0 | 6 | 0 | 0 | 33,856,535 |
| | TOTAL | 6 | 0 | 6 | 0 | 0 | 33,856,535 |
| 3. Minor Regional and Private Brands | 7-ELEVEN | 6 | 0 | 6 | 0 | 0 | 8,990,031 |
| | CO-OP (WEST) | 13 | 13 | 0 | 0 | 0 | 30,185,418 |
| | DOMO | 26 | 23 | 0 | 0 | 3 | 87,519,939 |
| | HUSKY | 16 | 11 | 4 | 1 | 0 | 28,851,663 |
| | MOHAWK | 21 | 12 | 0 | 6 | 3 | 54,174,214 |
| | PIONEER | 3 | 3 | 0 | 0 | 0 | 3,113,312 |
| | SUPERSAVE | 3 | 3 | 0 | 0 | 0 | 10,669,071 |
| | TURBO | 22 | 22 | 0 | 0 | 0 | 39,402,567 |
| | TOTAL | 110 | 87 | 10 | 7 | 6 | 262,906,215 |
| 4. Independents and Minor Private Brands | TOTAL | 33 | 25 | 5 | 0 | 3 | 45,898,816 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5. Unbranded | TOTAL | 11 | 9 | 1 | 0 | 1 | 6,011,557 |
| | MANITOBA TOTAL | 332 | 166 | 103 | 45 | 18 | 750,935,977 |
| NEW BRUNSWICK | | | | | | | |
| 1. Major National Brands | ESSO | 19 | 7 | 3 | 9 | 0 | 35,411,875 |
| | PETROCANADA | 24 | 6 | 7 | 11 | 0 | 46,427,932 |
| | SHELL | 22 | 11 | 6 | 5 | 0 | 23,842,474 |
| | TOTAL | 65 | 24 | 16 | 25 | 0 | 105,682,281 |
| 2. Major Regional and Private Brands | CANADIAN TIRE | 5 | 0 | 3 | 1 | 1 | 23,830,549 |
| | IRVING | 61 | 24 | 4 | 27 | 6 | 118,887,587 |
| | ULTRAMAR | 23 | 7 | 8 | 4 | 4 | 32,488,424 |
| | TOTAL | 89 | 31 | 15 | 32 | 11 | 175,206,560 |
| 4. Independents and Minor Private Brands | TOTAL | 27 | 23 | 2 | 2 | 0 | 47,668,822 |
| 5. Unbranded | TOTAL | 7 | 4 | 3 | 0 | 0 | 3,184,662 |
| | NEW BRUNSWICK TOTAL | 188 | 82 | 36 | 59 | 11 | 331,742,325 |
| NOVA SCOTIA | | | | | | | |
| 1. Major National Brands | ESSO | 29 | 11 | 0 | 18 | 0 | 100,312,234 |
| | PETROCANADA | 23 | 7 | 0 | 14 | 2 | 67,019,391 |
| | SHELL | 30 | 23 | 0 | 7 | 0 | 56,831,732 |
| | TOTAL | 82 | 41 | 0 | 39 | 2 | 224,163,357 |
| 2. Major Regional and Private Brands | IRVING | 51 | 38 | 0 | 13 | 0 | 94,705,141 |
| | ULTRAMAR | 42 | 19 | 1 | 22 | 0 | 89,546,371 |
| | TOTAL | 93 | 57 | 1 | 35 | 0 | 184,251,512 |
| 4. Independents and Minor Private Brands | TOTAL | 9 | 4 | 0 | 2 | 3 | 13,950,761 |
| 5. Unbranded | TOTAL | 7 | 3 | 0 | 3 | 1 | 10,876,848 |
| | NOVA SCOTIA TOTAL | 191 | 105 | 1 | 79 | 6 | 433,242,478 |
| NEWFOUNDLAND | | | | | | | |
| 1. Major National Brands | ESSO | 21 | 5 | 7 | 9 | 0 | 46,182,035 |
| | PETROCANADA | 7 | 2 | 2 | 3 | 0 | 10,977,411 |
| | TOTAL | 28 | 7 | 9 | 12 | 0 | 57,159,446 |
| 2. Major Regional and Private Brands | CANADIAN TIRE | 3 | 0 | 0 | 0 | 3 | 12,520,102 |
| | IRVING | 23 | 3 | 3 | 17 | 0 | 37,940,053 |
| | ULTRAMAR | 30 | 8 | 2 | 20 | 0 | 54,901,661 |
| | TOTAL | 56 | 11 | 5 | 37 | 3 | 105,361,816 |
| 4. Independents and Minor Private Brands | TOTAL | 10 | 3 | 2 | 5 | 0 | 17,441,394 |
| | NEWFOUNDLAND TOTAL | 94 | 21 | 16 | 54 | 3 | 179,962,656 |
| ONTARIO | | | | | | | |
| 1. Major National Brands | ESSO | 486 | 139 | 269 | 76 | 2 | 1,690,115,939 |
| | PETROCANADA | 505 | 186 | 252 | 45 | 22 | 1,688,382,393 |
| | SHELL | 343 | 116 | 171 | 47 | 9 | 1,190,922,263 |
| | TOTAL | 1,334 | 441 | 692 | 168 | 33 | 4,569,420,595 |
| 2. Major Regional and Private Brands | CANADIAN TIRE | 100 | 4 | 81 | 7 | 8 | 609,913,291 |
| | IRVING | 1 | 0 | 1 | 0 | 0 | 1,543,997 |
| | SUNOCO | 204 | 90 | 90 | 15 | 9 | 834,294,499 |
| | ULTRAMAR | 50 | 27 | 15 | 3 | 5 | 144,773,885 |
| | TOTAL | 355 | 121 | 187 | 25 | 22 | 1,590,525,672 |
| 3. Minor Regional and Private Brands | 7-ELEVEN | 29 | 0 | 23 | 0 | 6 | 91,677,882 |
| | BEAVER | 76 | 68 | 2 | 2 | 4 | 276,500,485 |
| | HUSKY | 18 | 11 | 3 | 0 | 4 | 28,347,976 |
| | MOHAWK | 3 | 1 | 0 | 2 | 0 | 7,778,045 |
| | OLCO | 68 | 64 | 1 | 0 | 3 | 131,370,188 |
| | PIONEER | 110 | 78 | 12 | 9 | 11 | 385,936,847 |
| | SUNYS | 74 | 60 | 8 | 1 | 5 | 155,605,971 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | TOTAL | 378 | 282 | 49 | 14 | 33 | 1,077,217,394 |
| 4. Independents and Minor Private Brands | TOTAL | 380 | 292 | 55 | 3 | 30 | 845,864,796 |
| 5. Unbranded | TOTAL | 235 | 190 | 31 | 3 | 11 | 321,519,417 |
| | ONTARIO TOTAL | 2,682 | 1,326 | 1,014 | 213 | 129 | 8,404,547,874 |
| PRINCE EDWARD ISLAND | | | | | | | |
| 1. Major National Brands | ESSO | 4 | 0 | 1 | 3 | 0 | 13,856,697 |
| | PETROCANADA | 5 | 2 | 0 | 3 | 0 | 10,254,752 |
| | SHELL | 4 | 4 | 0 | 0 | 0 | 6,881,018 |
| | TOTAL | 13 | 6 | 1 | 6 | 0 | 30,992,467 |
| 2. Major Regional and Private Brands | IRVING | 11 | 6 | 0 | 5 | 0 | 15,992,242 |
| | ULTRAMAR | 8 | 1 | 1 | 6 | 0 | 10,387,698 |
| | TOTAL | 19 | 7 | 1 | 11 | 0 | 26,379,940 |
| 4. Independents and Minor Private Brands | TOTAL | 1 | 1 | 0 | 0 | 0 | 1,277,238 |
| | PRINCE EDWARD ISLAND TOTAL | 33 | 14 | 2 | 17 | 0 | 58,649,645 |
| QUEBEC | | | | | | | |
| 1. Major National Brands | ESSO | 370 | 138 | 176 | 51 | 5 | 839,792,181 |
| | PETROCANADA | 306 | 128 | 137 | 21 | 20 | 666,400,341 |
| | SHELL | 299 | 131 | 143 | 15 | 10 | 675,852,968 |
| | TOTAL | 975 | 397 | 456 | 87 | 35 | 2,182,045,490 |
| 2. Major Regional and Private Brands | CANADIAN TIRE | 36 | 3 | 26 | 4 | 3 | 175,124,066 |
| | IRVING | 91 | 38 | 24 | 23 | 6 | 142,646,734 |
| | SERGAZ | 98 | 85 | 6 | 7 | 0 | 160,926,643 |
| | SUNOCO | 105 | 52 | 41 | 3 | 9 | 222,696,943 |
| | ULTRAMAR | 344 | 188 | 131 | 6 | 19 | 672,105,690 |
| | TOTAL | 674 | 366 | 228 | 43 | 37 | 1,373,500,076 |
| 3. Minor Regional and Private Brands | OLCO | 102 | 87 | 10 | 0 | 5 | 136,000,688 |
| | SUNYS | 10 | 10 | 0 | 0 | 0 | 15,728,458 |
| | TOTAL | 112 | 97 | 10 | 0 | 5 | 151,729,146 |
| 4. Independents and Minor Private Brands | TOTAL | 500 | 357 | 87 | 4 | 52 | 579,407,520 |
| 5. Unbranded | TOTAL | 89 | 69 | 13 | 1 | 6 | 96,238,718 |
| | QUEBEC TOTAL | 2,350 | 1,286 | 794 | 135 | 135 | 4,382,920,950 |
| SASKATCHEWAN | | | | | | | |
| 1. Major National Brands | ESSO | 68 | 17 | 40 | 11 | 0 | 142,330,179 |
| | PETROCANADA | 39 | 14 | 16 | 9 | 0 | 86,268,300 |
| | SHELL | 39 | 9 | 19 | 11 | 0 | 96,843,290 |
| | TOTAL | 146 | 40 | 75 | 31 | 0 | 325,441,769 |
| 2. Major Regional and Private Brands | CANADIAN TIRE | 3 | 1 | 2 | 0 | 0 | 12,362,609 |
| | TOTAL | 3 | 1 | 2 | 0 | 0 | 12,362,609 |
| 3. Minor Regional and Private Brands | 7-ELEVEN | 10 | 0 | 9 | 1 | 0 | 12,797,960 |
| | CO-OP (WEST) | 23 | 22 | 1 | 0 | 0 | 63,833,845 |
| | DOMO | 7 | 7 | 0 | 0 | 0 | 10,974,724 |
| | HUSKY | 17 | 11 | 6 | 0 | 0 | 23,177,540 |
| | MOHAWK | 20 | 7 | 4 | 6 | 3 | 45,588,701 |
| | SUPERSAVE | 12 | 11 | 0 | 0 | 1 | 19,527,432 |
| | TURBO | 24 | 24 | 0 | 0 | 0 | 51,788,226 |
| | TOTAL | 113 | 82 | 20 | 7 | 4 | 227,688,428 |
| 4. Independents and Minor Private Brands | TOTAL | 28 | 19 | 6 | 0 | 3 | 39,911,720 |
| 5. Unbranded | TOTAL | 10 | 5 | 2 | 1 | 2 | 7,190,055 |
| | SASKATCHEWAN TOTAL | 300 | 147 | 105 | 39 | 9 | 612,594,581 |
| CANADIAN TOTAL: | | 8,062 | 3,924 | 2,816 | 914 | 408 | 20,012,113,832 |

# Appendix IV part a

Market Summary
for Scarborough (1994)

SOURCE: Adapted from Kent Database, 1994.
Provided by Imperial Oil (ESSO) (1996)

| Brand Classification | FS Outlet Count | SS Outlet Count | Split Outlet Count | Total Outlet Count | FS Volume Sold Through Regular FS Outlets | FS Volume Sold Trough Split-Serve Outlets | SS Volume Sold Trough Regular SS Outlets | SS Volume Sold Through Split-Serve Outlets | Total Volume Sold by All Service Types | Total Market Share | Total Outlet Share | Total Market Effectiveness |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Major National Brands | | | | | | | | | | | | |
| PETRO CANADA | 7 | 24 | 2 | 33 | 18,150,323 | 1,855,682 | 97,011,801 | 8,139,909 | 125,157,715 | 19% | 20% | 0.99 |
| ESSO | 2 | 22 | 4 | 28 | 4,212,631 | 4,348,590 | 83,984,978 | 14,603,200 | 107,149,398 | 17% | 17% | 1.00 |
| SHELL: | 2 | 16 | 3 | 21 | 5,055,554 | 2,823,890 | 69,724,991 | 17,296,889 | 94,901,323 | 15% | 13% | 1.18 |
| TOTAL: | 11 | 62 | 9 | 82 | 27,418,508 | 9,028,162 | 250,721,770 | 40,039,998 | 327,208,436 | 51% | 49% | 1.04 |
| 2. Major Regional and Private Brands | | | | | | | | | | | | |
| SUNOCO | 8 | 8 | 1 | 17 | 37,491,552 | n/a | 55,995,348 | n/a | 111,055,460 | 17% | 10% | 1.71 |
| CANADIAN TIRE: | 1 | 3 | 1 | 5 | 4,175,687 | 623,909 | 20,032,150 | 7,840,711 | 32,672,457 | 5% | 3% | 1.71 |
| TOTAL: | 9 | 11 | 2 | 22 | 41,667,239 | 623,909 | 76,027,498 | 7,840,711 | 143,727,917 | 22% | 13% | 1.71 |
| 3. Minor Regional and Private Brands | | | | | | | | | | | | |
| BEAVER | 8 | 1 | 0 | 9 | 40,639,467 | 0 | 4,109,929 | 0 | 44,749,396 | 7% | 5% | 1.30 |
| TOTAL: | 8 | 1 | 0 | 9 | 40,639,467 | 0 | 4,109,929 | 0 | 44,749,396 | 7% | 5% | 1.30 |
| 4. Unbranded | | | | | | | | | | | | |
| UNBRANDED | 42 | 13 | 0 | 55 | 90,277,974 | 0 | 36,186,709 | 0 | 126,464,683 | 20% | 33% | 0.60 |
| TOTAL: | 42 | 13 | 0 | 55 | 90,277,974 | 0 | 36,186,709 | 0 | 126,464,683 | 20% | 33% | 0.60 |
| TOTAL: | 70 | 87 | 11 | 168 | 200,003,188 | 9,652,071 | 367,045,906 | 47,880,709 | 642,150,432 | 100% | 100% | 1.00 |

# Appendix IV part b

Individual Outlets by Brand
for Scarborough (1994)

SOURCE: Adapted from Kent Database, 1994.
Provided by Imperial Oil (ESSO) (1996)

| Brand Classification | Company Name | Primary Street | Secondary Street | Service Type | FS Outlet Count | SS Outlet Count | Split Outlet Count | Total Outlet Count | FS Volume Sold Through Regular FS Outlets | FS Volume Sold Trough Split-Serve Outlets | SS Volume Sold Trough Regular SS Outlets | SS Volume Sold Through Split-Serve Outlets | Total Volume Sold by All Service Types |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IMPERIAL OIL (ESSO) | | | | | | | | | | | | | |
| 1. Major National Brands | ESSO | ELLESMERE RD | BIRCHMOUNT | FS | 1 | 0 | 0 | 1 | 2,940,430 | 0 | 0 | 0 | 2,940,430 |
| 1. Major National Brands | ESSO | WARDEN | HUNTINGTON DR | FS | 1 | 0 | 0 | 1 | 1,272,201 | 0 | 0 | 0 | 1,272,201 |
| 1. Major National Brands | ESSO | MARKHAM RD | ELLESMERE | SPLT | 0 | 0 | 1 | 1 | 0 | 1,954,569 | 0 | 4,525,414 | 6,479,983 |
| 1. Major National Brands | ESSO | SHEPPARD AV | VICTORIA PARK | SPLT | 0 | 0 | 1 | 1 | 0 | 1,825,568 | 0 | 2,670,249 | 4,495,817 |
| 1. Major National Brands | ESSO | FINCH AV | KENNEDY | SPLT | 0 | 0 | 1 | 1 | 0 | 450,724 | 0 | 4,800,812 | 5,251,536 |
| 1. Major National Brands | ESSO | SHEPPARD AV | BIRCHMOUNT | SPLT | 0 | 0 | 1 | 1 | 0 | 117,729 | 0 | 2,606,725 | 2,724,453 |
| 1. Major National Brands | ESSO | MORNINGSIDE RD | SHEPPARD | SS | 0 | 1 | 0 | 1 | 0 | 0 | 8,420,219 | 0 | 8,420,219 |
| 1. Major National Brands | ESSO | MARKHAM | FINCH AV | SS | 0 | 1 | 0 | 1 | 0 | 0 | 6,962,117 | 0 | 6,962,117 |
| 1. Major National Brands | ESSO | DANFORTH AV | VICTORIA PARK | SS | 0 | 1 | 0 | 1 | 0 | 0 | 6,913,664 | 0 | 6,913,664 |
| 1. Major National Brands | ESSO | KENNEDY RD | LAWRENCE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 5,193,475 | 0 | 5,193,475 |
| 1. Major National Brands | ESSO | DANFORTH AV | ST CLAIR | SS | 0 | 1 | 0 | 1 | 0 | 0 | 5,173,863 | 0 | 5,173,863 |
| 1. Major National Brands | ESSO | MARKHAM RD | SHEPPARD | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,599,757 | 0 | 4,599,757 |
| 1. Major National Brands | ESSO | WARDEN | SHEPPARD AV | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,781,528 | 0 | 3,781,528 |
| 1. Major National Brands | ESSO | LAWRENCE AV | MIDLAND | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,689,397 | 0 | 3,689,397 |
| 1. Major National Brands | ESSO | VICTORIA PARK AV | MC NICOLL | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,678,835 | 0 | 3,678,835 |
| 1. Major National Brands | ESSO | OLD KINGSTON RD | E/PORT UNION | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,536,227 | 0 | 3,536,227 |
| 1. Major National Brands | ESSO | MC COWEN RD | S/ALTON TOWER | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,505,479 | 0 | 3,505,479 |
| 1. Major National Brands | ESSO | STEELES AV E | ASHCOTT | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,468,500 | 0 | 3,468,500 |
| 1. Major National Brands | ESSO | MC COWAN RD | SHEPPARD AV | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,084,565 | 0 | 3,084,565 |
| 1. Major National Brands | ESSO | KENNEDY RD | ELLESMERE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,020,583 | 0 | 3,020,583 |
| 1. Major National Brands | ESSO | LAWRENCE AV | SCARBOROUGH GOLF | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,958,098 | 0 | 2,958,098 |
| 1. Major National Brands | ESSO | VICTORIA PARK AV | IVORDALE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,939,355 | 0 | 2,939,355 |
| 1. Major National Brands | ESSO | MC COWEN | ELLESMERE RD | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,748,820 | 0 | 2,748,820 |
| 1. Major National Brands | ESSO | KINGSTON RD | SAUNDERS | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,682,295 | 0 | 2,682,295 |
| 1. Major National Brands | ESSO | KENNEDY | McNICOLL | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,437,119 | 0 | 2,437,119 |
| 1. Major National Brands | ESSO | VICTORIA PARK AV | CRAIGTON | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,400,875 | 0 | 2,400,875 |
| 1. Major National Brands | ESSO | FINCH AV | E/MIDDLEFIELD | SS | 0 | 1 | 0 | 1 | 0 | 0 | 1,499,520 | 0 | 1,499,520 |
| 1. Major National Brands | ESSO | ELLESMERE RD | BRIMLEY | SS | 0 | 1 | 0 | 1 | 0 | 0 | 1,290,687 | 0 | 1,290,687 |
| ESSO TOTAL: | | | | | 2 | 22 | 4 | 28 | 4,212,631 | 4,348,590 | 83,984,978 | 14,603,200 | 107,149,398 |

| Brand Classification | Company Name | | | Service Type | FS Outlet Count | SS Outlet Count | Split Outlet Count | Total Outlet Count | FS Volume Sold Through Regular FS Outlets | FS Volume Sold Trough Split-Serve Outlets | SS Volume Sold Trough Regular SS Outlets | SS Volume Sold Through Split-Serve Outlets | Total Volume Sold by All Service Types |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PETRO CANADA | | | | | | | | | | | | | |
| 1. Major National Brands | PETROCANADA | KINGSTON RD | FALAISE | FS | 1 | 0 | 0 | 1 | 3,366,108 | 0 | 0 | 0 | 3,366,108 |
| 1. Major National Brands | PETROCANADA | MARKHAM RD | PAINTED POST | FS | 1 | 0 | 0 | 1 | 3,343,804 | 0 | 0 | 0 | 3,343,804 |
| 1. Major National Brands | PETROCANADA | KINGSTON RD | BLANTYRE | FS | 1 | 0 | 0 | 1 | 3,129,184 | 0 | 0 | 0 | 3,129,184 |
| 1. Major National Brands | PETROCANADA | MC COWEN RD | ELLESMERE | FS | 1 | 0 | 0 | 1 | 2,767,725 | 0 | 0 | 0 | 2,767,725 |
| 1. Major National Brands | PETROCANADA | KINGSTON RD | W AT BIRCHMOUNT | FS | 1 | 0 | 0 | 1 | 2,055,333 | 0 | 0 | 0 | 2,055,333 |
| 1. Major National Brands | PETROCANADA | PHARMACY AV | HUNTINGTON | FS | 1 | 0 | 0 | 1 | 1,937,913 | 0 | 0 | 0 | 1,937,913 |
| 1. Major National Brands | PETROCANADA | WARDEN AV | BRIDLETOWN CIRCL | FS | 1 | 0 | 0 | 1 | 1,550,256 | 0 | 0 | 0 | 1,550,256 |
| 1. Major National Brands | PETROCANADA | EGLINTON AV | PHARMACY AV | SPLT | 0 | 0 | 1 | 1 | 0 | 1,534,474 | 0 | 4,244,954 | 5,779,428 |
| 1. Major National Brands | PETROCANADA | MARKHAM | SHEPPARD AV | SPLT | 0 | 0 | 1 | 1 | 0 | 321,208 | 0 | 3,894,955 | 4,216,163 |
| 1. Major National Brands | PETROCANADA | VICTORIA PARK | SHEPPARD | SS | 0 | 1 | 0 | 1 | 0 | 0 | 7,322,822 | 0 | 7,322,822 |
| 1. Major National Brands | PETROCANADA | EGLINTON AV | FALMOUTH | SS | 0 | 1 | 0 | 1 | 0 | 0 | 6,188,656 | 0 | 6,188,656 |
| 1. Major National Brands | PETROCANADA | VICTORIA PARK AV | YORK MILLS | SS | 0 | 1 | 0 | 1 | 0 | 0 | 5,609,971 | 0 | 5,609,971 |
| 1. Major National Brands | PETROCANADA | VICTORIA PARK AV | ELLESMERE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 5,168,518 | 0 | 5,168,518 |
| 1. Major National Brands | PETROCANADA | MARKHAM RD | MC NICOLL | SS | 0 | 1 | 0 | 1 | 0 | 0 | 5,052,000 | 0 | 5,052,000 |
| 1. Major National Brands | PETROCANADA | STELES AV | MC COWEN | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,717,083 | 0 | 4,717,083 |
| 1. Major National Brands | PETROCANADA | STEELES AV E | KENNEDY | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,662,647 | 0 | 4,662,647 |
| 1. Major National Brands | PETROCANADA | MARKHAM RD | MILNER | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,623,289 | 0 | 4,623,289 |
| 1. Major National Brands | PETROCANADA | PROGRESS AV | ESTATE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,563,236 | 0 | 4,563,236 |
| 1. Major National Brands | PETROCANADA | WARDEN AV | S/401 | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,402,254 | 0 | 4,402,254 |
| 1. Major National Brands | PETROCANADA | SHEPPARD AV | MEADOWVALE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,372,259 | 0 | 4,372,259 |
| 1. Major National Brands | PETROCANADA | MORNINGSIDE | ELLESMERE RD | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,995,379 | 0 | 3,995,379 |
| 1. Major National Brands | PETROCANADA | FINCH AV | VICTORIA PARK | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,883,323 | 0 | 3,883,323 |
| 1. Major National Brands | PETROCANADA | KENNEDY | SHEPPARD AV | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,864,323 | 0 | 3,864,323 |
| 1. Major National Brands | PETROCANADA | MC COWEN | MIDDLEFIELD | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,677,394 | 0 | 3,677,394 |
| 1. Major National Brands | PETROCANADA | BRIMLEY | ELLESMERE RD | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,544,915 | 0 | 3,544,915 |
| 1. Major National Brands | PETROCANADA | KENNEDY RD | ELLESMERE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,197,449 | 0 | 3,197,449 |
| 1. Major National Brands | PETROCANADA | KINGSTON RD | E/GALLOWAY | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,162,982 | 0 | 3,162,982 |
| 1. Major National Brands | PETROCANADA | KENNEDY RD | FINCH | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,126,894 | 0 | 3,126,894 |
| 1. Major National Brands | PETROCANADA | LAWRENCE AV | WARDEN | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,853,646 | 0 | 2,853,646 |
| 1. Major National Brands | PETROCANADA | KENNEDY RD | LAWRENCE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,714,841 | 0 | 2,714,841 |
| 1. Major National Brands | PETROCANADA | MARKHAM RD | ELLESMERE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,479,700 | 0 | 2,479,700 |
| 1. Major National Brands | PETROCANADA | KENNEDY | SHEPPARD AV | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,216,252 | 0 | 2,216,252 |
| 1. Major National Brands | PETROCANADA | VICTORIA PARK AV | CURLEW | SS | 0 | 1 | 0 | 1 | 0 | 0 | 1,611,968 | 0 | 1,611,968 |
| PETRO CANADA TOTAL: | | | | | 7 | 24 | 2 | 33 | 18,150,323 | 1,855,682 | 97,011,801 | 8,139,909 | 125,157,715 |

| Brand Classification | Company Name | | | Service Type | FS Outlet Count | SS Outlet Count | Split Outlet Count | Total Outlet Count | FS Volume Sold Through Regular FS Outlets | FS Volume Sold Trough Split-Serve Outlets | SS Volume Sold Trough Regular SS Outlets | SS Volume Sold Through Split-Serve Outlets | Total Volume Sold by All Service Types |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SHELL | | | | | | | | | | | | | |
| 1. Major National Brands | SHELL | KENNEDY | SHEPPARD AV | FS | 1 | 0 | 0 | 1 | 2,730,993 | 0 | 0 | 0 | 2,730,993 |
| 1. Major National Brands | SHELL | MIDLAND AV | HUNTINGWOOD | FS | 1 | 0 | 0 | 1 | 2,324,561 | 0 | 0 | 0 | 2,324,561 |
| 1. Major National Brands | SHELL | SHEPPARD AV | E/GRAND MARSHELL | SPLT | 0 | 0 | 1 | 1 | 0 | 1,030,723 | 0 | 6,214,068 | 7,244,790 |
| 1. Major National Brands | SHELL | LAWRENCE AV | MARKHAM | SPLT | 0 | 0 | 1 | 1 | 0 | 989,204 | 0 | 4,643,157 | 5,632,361 |
| 1. Major National Brands | SHELL | WARDEN AV | S/401 | SPLT | 0 | 0 | 1 | 1 | 0 | 803,963 | 0 | 6,439,664 | 7,243,627 |
| 1. Major National Brands | SHELL | FINCH AV | BRIMLEY | SS | 0 | 1 | 0 | 1 | 0 | 0 | 7,643,179 | 0 | 7,643,179 |
| 1. Major National Brands | SHELL | KENNEDY RD | PASSMORE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 6,414,450 | 0 | 6,414,450 |
| 1. Major National Brands | SHELL | MC COWEN RD | PITFIELD | SS | 0 | 1 | 0 | 1 | 0 | 0 | 6,182,221 | 0 | 6,182,221 |
| 1. Major National Brands | SHELL | MARKHAM RD | ELLESMERE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 5,394,518 | 0 | 5,394,518 |
| 1. Major National Brands | SHELL | STEELES AV | MC COWEN | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,497,186 | 0 | 4,497,186 |
| 1. Major National Brands | SHELL | WARDEN | SHEPPARD AV | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,401,531 | 0 | 4,401,531 |
| 1. Major National Brands | SHELL | KINGSTON RD | PINE RIDGE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,386,909 | 0 | 4,386,909 |
| 1. Major National Brands | SHELL | FINCH AV | VICTORIA PARK | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,281,157 | 0 | 4,281,157 |
| 1. Major National Brands | SHELL | ST CLAIR AV | BIRCHMOUNT | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,987,764 | 0 | 3,987,764 |
| 1. Major National Brands | SHELL | VICTORIA PARK AV | LAWRENCE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,800,722 | 0 | 3,800,722 |
| 1. Major National Brands | SHELL | KINGSTON RD | LAWRENCE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,677,955 | 0 | 3,677,955 |
| 1. Major National Brands | SHELL | LAWRENCE AV | MC COWAN | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,217,735 | 0 | 3,217,735 |
| 1. Major National Brands | SHELL | STEELE AV | E/OLD KENNEDY | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,999,221 | 0 | 2,999,221 |
| 1. Major National Brands | SHELL | KENNEDY RD | S/MUNHAN | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,996,962 | 0 | 2,996,962 |
| 1. Major National Brands | SHELL | MC COWEN | S/NUGGET | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,986,993 | 0 | 2,986,993 |
| 1. Major National Brands | SHELL | VICTORIA PK | OCONNOR | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,856,488 | 0 | 2,856,488 |
| TOTAL SHELL: | | | | | 2 | 16 | 3 | 21 | 5,055,554 | 2,823,890 | 69,724,991 | 17,296,889 | 94,901,323 |

| Brand Classification | Company Name | | | Service Type | FS Outlet Count | SS Outlet Count | Split Outlet Count | Total Outlet Count | FS Volume Sold Through Regular FS Outlets | FS Volume Sold Trough Split-Serve Outlets | SS Volume Sold Trough Regular SS Outlets | SS Volume Sold Through Split-Serve Outlets | Total Volume Sold by All Service Types |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CANADIAN TIRE** | | | | | | | | | | | | | |
| 2. Major Regional and Private Brands | CAN. TIRE | KINGSTON RD | W AT ST CLAIR | FS | 1 | 0 | 0 | 1 | 4,175,687 | 0 | 0 | 0 | 4,175,687 |
| 2. Major Regional and Private Brands | CAN. TIRE | MC COWAN RD | SHEPPARD AV | SPLT | 0 | 0 | 1 | 1 | 0 | 623,909 | 0 | 7,840,711 | 8,464,620 |
| 2. Major Regional and Private Brands | CAN. TIRE | STEELES AV | E/KENNEDY | SS | 0 | 1 | 0 | 1 | 0 | 0 | 6,385,572 | 0 | 6,385,572 |
| 2. Major Regional and Private Brands | CAN. TIRE | KENNEDY RD | N/LAWRENCE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 6,929,874 | 0 | 6,929,874 |
| 2. Major Regional and Private Brands | CAN. TIRE | LAWRENCE AV | W/FORTUNE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 6,716,704 | 0 | 6,716,704 |
| TOTAL CANADIAN TIRE: | | | | | 1 | 3 | 1 | 5 | 4,175,687 | 623,909 | 20,032,150 | 7,840,711 | 32,672,457 |
| **SUNOCO** | | | | | | | | | | | | | |
| 2. Major Regional and Private Brands | SUNOCO | KENNEDY RD | PROGRES | FS | 1 | 0 | 0 | 1 | 9,971,399 | 0 | 0 | 0 | 9,971,399 |
| 2. Major Regional and Private Brands | SUNOCO | VICTORIA PARK | SURREY | FS | 1 | 0 | 0 | 1 | 7,419,551 | 0 | 0 | 0 | 7,419,551 |
| 2. Major Regional and Private Brands | SUNOCO | ELLESMERE RD | BELLAMY | FS | 1 | 0 | 0 | 1 | 5,383,571 | 0 | 0 | 0 | 5,383,571 |
| 2. Major Regional and Private Brands | SUNOCO | SHEPPARD AV | BRIMLEY | FS | 1 | 0 | 0 | 1 | 4,502,480 | 0 | 0 | 0 | 4,502,480 |
| 2. Major Regional and Private Brands | SUNOCO | VICTORIA PARK AV | OP IVORDALE | FS | 1 | 0 | 0 | 1 | 3,425,227 | 0 | 0 | 0 | 3,425,227 |
| 2. Major Regional and Private Brands | SUNOCO | CLONMORE DR | E/GERRARD | FS | 1 | 0 | 0 | 1 | 2,572,142 | 0 | 0 | 0 | 2,572,142 |
| 2. Major Regional and Private Brands | SUNOCO | KENNEDY RD | FOXRIDGE | FS | 1 | 0 | 0 | 1 | 2,359,752 | 0 | 0 | 0 | 2,359,752 |
| 2. Major Regional and Private Brands | SUNOCO | KINGSTON RD | RAVINE | FS | 1 | 0 | 0 | 1 | 1,857,430 | 0 | 0 | 0 | 1,857,430 |
| 2. Major Regional and Private Brands | SUNOCO | STEELES | ACADIA | SPLT | 0 | 0 | 1 | 1 | 0 | n/a | n/a | 0 | 17,568,560 |
| 2. Major Regional and Private Brands | SUNOCO | SHEPPARD AV | GATEFORTH | SS | 0 | 1 | 0 | 1 | 0 | 0 | 11,064,404 | 0 | 11,064,404 |
| 2. Major Regional and Private Brands | SUNOCO | MORNINGSIDE AV | MILITARY | SS | 0 | 1 | 0 | 1 | 0 | 0 | 8,599,452 | 0 | 8,599,452 |
| 2. Major Regional and Private Brands | SUNOCO | FINCH AV | W/BIRCHMOUNT | SS | 0 | 1 | 0 | 1 | 0 | 0 | 7,338,757 | 0 | 7,338,757 |
| 2. Major Regional and Private Brands | SUNOCO | VICTORIA PARK AV | VAN HORNE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 6,573,320 | 0 | 6,573,320 |
| 2. Major Regional and Private Brands | SUNOCO | SHEPPARD AV | OP RIEDMOUNT | SS | 0 | 1 | 0 | 1 | 0 | 0 | 6,253,249 | 0 | 6,253,249 |
| 2. Major Regional and Private Brands | SUNOCO | WARDEN | SHEPPARD AV | SS | 0 | 1 | 0 | 1 | 0 | 0 | 5,903,286 | 0 | 5,903,286 |
| 2. Major Regional and Private Brands | SUNOCO | VICTORIA PARK AV | GORDAN BAKER | SS | 0 | 1 | 0 | 1 | 0 | 0 | 5,635,124 | 0 | 5,635,124 |
| 2. Major Regional and Private Brands | SUNOCO | LAWRENCE AV | BELLAMY | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,627,756 | 0 | 4,627,756 |
| SUNOCO TOTAL: | | | | | 8 | 8 | 1 | 17 | 37,491,552 | n/a | 55,995,348 | n/a | 111,055,460 |
| **BEAVER** | | | | | | | | | | | | | |
| 3. Minor Regional and Private Brands | BEAVER | KINGSTON RD | MORNINGSIDE | FS | 1 | 0 | 0 | 1 | 9,627,325 | 0 | 0 | 0 | 9,627,325 |
| 3. Minor Regional and Private Brands | BEAVER | OLD KINGSTON RD | W/PORT UNION | FS | 1 | 0 | 0 | 1 | 6,135,462 | 0 | 0 | 0 | 6,135,462 |
| 3. Minor Regional and Private Brands | BEAVER | EGLINTON AV | KENNEDY | FS | 1 | 0 | 0 | 1 | 5,314,398 | 0 | 0 | 0 | 5,314,398 |
| 3. Minor Regional and Private Brands | BEAVER | LAWRENCE AV | CROCKFORD | FS | 1 | 0 | 0 | 1 | 4,923,841 | 0 | 0 | 0 | 4,923,841 |
| 3. Minor Regional and Private Brands | BEAVER | VICTORIA PARK AV | STAMPFORD | FS | 1 | 0 | 0 | 1 | 4,896,592 | 0 | 0 | 0 | 4,896,592 |
| 3. Minor Regional and Private Brands | BEAVER | GERRARD ST E | E/BLANTYRE | FS | 1 | 0 | 0 | 1 | 3,974,207 | 0 | 0 | 0 | 3,974,207 |
| 3. Minor Regional and Private Brands | BEAVER | KINGSTON RD | MCNAB | FS | 1 | 0 | 0 | 1 | 3,047,956 | 0 | 0 | 0 | 3,047,956 |
| 3. Minor Regional and Private Brands | BEAVER | LAWSON RD | CENTENNIAL | FS | 1 | 0 | 0 | 1 | 2,719,686 | 0 | 0 | 0 | 2,719,686 |
| 3. Minor Regional and Private Brands | BEAVER | SHEPPARD AV | E AT HAVENVIEW | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,109,929 | 0 | 4,109,929 |
| BEAVER TOTAL: | | | | | 8 | 1 | 0 | 9 | 40,639,467 | 0 | 4,109,929 | 0 | 44,749,396 |

| Brand Classification | Company Name | | | Service Type | FS Outlet Count | SS Outlet Count | Split Outlet Count | Total Outlet Count | FS Volume Sold Through Regular FS Outlets | FS Volume Sold Trough Split-Serve Outlets | SS Volume Sold Trough Regular SS Outlets | SS Volume Sold Through Split-Serve Outlets | Total Volume Sold by All Service Types |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNBRANDED OUTLETS | | | | | | | | | | | | | |
| 4. Unbranded | U/B | ELLESMERE RD | WHITE ABBEY | FS | 1 | 0 | 0 | 1 | 8,139,727 | 0 | 0 | 0 | 8,139,727 |
| 4. Unbranded | U/B | DANFORTH AV | MIDLAND | FS | 1 | 0 | 0 | 1 | 4,918,803 | 0 | 0 | 0 | 4,918,803 |
| 4. Unbranded | U/B | VICTORIA PARK AV | GERRARD | FS | 1 | 0 | 0 | 1 | 4,885,808 | 0 | 0 | 0 | 4,885,808 |
| 4. Unbranded | U/B | KINGSTON RD | COORCELETTE | FS | 1 | 0 | 0 | 1 | 4,570,764 | 0 | 0 | 0 | 4,570,764 |
| 4. Unbranded | U/B | DANFORTH AV | SAURIN | FS | 1 | 0 | 0 | 1 | 4,458,274 | 0 | 0 | 0 | 4,458,274 |
| 4. Unbranded | U/B | ELLESMERE RD | SCAR GOLF CLUB | FS | 1 | 0 | 0 | 1 | 4,382,296 | 0 | 0 | 0 | 4,382,296 |
| 4. Unbranded | U/B | EGLINTON AV | BIMBROK | FS | 1 | 0 | 0 | 1 | 4,093,511 | 0 | 0 | 0 | 4,093,511 |
| 4. Unbranded | U/B | KENNEDY RD | PASSMORE | FS | 1 | 0 | 0 | 1 | 3,871,041 | 0 | 0 | 0 | 3,871,041 |
| 4. Unbranded | U/B | BRIMLEY RD | BRIMORTON | FS | 1 | 0 | 0 | 1 | 3,711,286 | 0 | 0 | 0 | 3,711,286 |
| 4. Unbranded | U/B | EGLINTON AV | PRUDHAM | FS | 1 | 0 | 0 | 1 | 3,259,769 | 0 | 0 | 0 | 3,259,769 |
| 4. Unbranded | U/B | KINGSTON RD | PAYZAC | FS | 1 | 0 | 0 | 1 | 3,132,744 | 0 | 0 | 0 | 3,132,744 |
| 4. Unbranded | U/B | WARDEN AV | UPTON | FS | 1 | 0 | 0 | 1 | 2,957,985 | 0 | 0 | 0 | 2,957,985 |
| 4. Unbranded | U/B | OLD KINGSTON RD | E/RASPBERRY | FS | 1 | 0 | 0 | 1 | 2,926,084 | 0 | 0 | 0 | 2,926,084 |
| 4. Unbranded | U/B | PORT UNION RD | FANFARE | FS | 1 | 0 | 0 | 1 | 2,916,713 | 0 | 0 | 0 | 2,916,713 |
| 4. Unbranded | U/B | DANFORTH AV | BRIMLEY | FS | 1 | 0 | 0 | 1 | 2,888,336 | 0 | 0 | 0 | 2,888,336 |
| 4. Unbranded | U/B | EGLINTON AV | COMMONWEALTH | FS | 1 | 0 | 0 | 1 | 2,546,394 | 0 | 0 | 0 | 2,546,394 |
| 4. Unbranded | U/B | KENNEDY RD | PURCELL | FS | 1 | 0 | 0 | 1 | 2,406,860 | 0 | 0 | 0 | 2,406,860 |
| 4. Unbranded | U/B | WARDEN AV | FAIRFAX | FS | 1 | 0 | 0 | 1 | 2,042,868 | 0 | 0 | 0 | 2,042,868 |
| 4. Unbranded | U/B | WARDEN | DANFORTH RD | FS | 1 | 0 | 0 | 1 | 1,952,747 | 0 | 0 | 0 | 1,952,747 |
| 4. Unbranded | U/B | BELLAMY RD | NELSON | FS | 1 | 0 | 0 | 1 | 1,892,292 | 0 | 0 | 0 | 1,892,292 |
| 4. Unbranded | U/B | OLD KINGSTON RD | VALMOUNT | FS | 1 | 0 | 0 | 1 | 1,811,337 | 0 | 0 | 0 | 1,811,337 |
| 4. Unbranded | U/B | KINGSTON RD | GALLOWAY | FS | 1 | 0 | 0 | 1 | 1,709,339 | 0 | 0 | 0 | 1,709,339 |
| 4. Unbranded | U/B | SHEPPARD AV | E/BRIMLEY | FS | 1 | 0 | 0 | 1 | 1,565,951 | 0 | 0 | 0 | 1,565,951 |
| 4. Unbranded | U/B | MARKHAM RD | MC NICOLL | FS | 1 | 0 | 0 | 1 | 1,524,786 | 0 | 0 | 0 | 1,524,786 |
| 4. Unbranded | U/B | DANFORTH AV | WARDEN | FS | 1 | 0 | 0 | 1 | 1,124,811 | 0 | 0 | 0 | 1,124,811 |
| 4. Unbranded | U/B | PARMACY AV | FLORENS | FS | 1 | 0 | 0 | 1 | 1,058,134 | 0 | 0 | 0 | 1,058,134 |
| 4. Unbranded | U/B | WARDEN AV | S/BERTRAND | FS | 1 | 0 | 0 | 1 | 945,359 | 0 | 0 | 0 | 945,359 |
| 4. Unbranded | U/B | OLD KINGSTON RD | OP HIGHLAND OVER | FS | 1 | 0 | 0 | 1 | 891,121 | 0 | 0 | 0 | 891,121 |
| 4. Unbranded | U/B | DANFORTH AV | MADELAINE | FS | 1 | 0 | 0 | 1 | 882,489 | 0 | 0 | 0 | 882,489 |
| 4. Unbranded | U/B | OLD KINGSTON RD | WATSON | FS | 1 | 0 | 0 | 1 | 768,427 | 0 | 0 | 0 | 768,427 |
| 4. Unbranded | U/B | MARKHAM RD | PAINTED POST | FS | 1 | 0 | 0 | 1 | 700,150 | 0 | 0 | 0 | 700,150 |
| 4. Unbranded | U/B | OLD KENNEDY ROAD | N/STEELES | FS | 1 | 0 | 0 | 1 | 648,777 | 0 | 0 | 0 | 648,777 |
| 4. Unbranded | U/B | BIRCHMOUNT RD | RALEIGH | FS | 1 | 0 | 0 | 1 | 562,302 | 0 | 0 | 0 | 562,302 |
| 4. Unbranded | U/B | PHARMACY AV | LEAHURST | FS | 1 | 0 | 0 | 1 | 547,681 | 0 | 0 | 0 | 547,681 |

| Brand Classification | Company Name | | | Service Type | FS Outlet Count | SS Outlet Count | Split Outlet Count | Total Outlet Count | FS Volume Sold Through Regular FS Outlets | FS Volume Sold Trough Split-Serve Outlets | SS Volume Sold Trough Regular SS Outlets | SS Volume Sold Through Split-Serve Outlets | Total Volume Sold by All Service Types |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNBRANDED OUTLETS | | | | | | | | | | | | | |
| 4. Unbranded | U/B | DANFORTH AV | LINDEN | FS | 1 | 0 | 0 | 1 | 543,465 | 0 | 0 | 0 | 543,465 |
| 4. Unbranded | U/B | KENNEDY RD | MUNHAM | FS | 1 | 0 | 0 | 1 | 498,440 | 0 | 0 | 0 | 498,440 |
| 4. Unbranded | U/B | KINGSTON RD | W/MASON | FS | 1 | 0 | 0 | 1 | 481,339 | 0 | 0 | 0 | 481,339 |
| 4. Unbranded | U/B | GERRARD ST | E/COALPORT | FS | 1 | 0 | 0 | 1 | 454,753 | 0 | 0 | 0 | 454,753 |
| 4. Unbranded | U/B | DANFORTH AV | EMMOTT | FS | 1 | 0 | 0 | 1 | 437,582 | 0 | 0 | 0 | 437,582 |
| 4. Unbranded | U/B | KINGSTON RD | W/POPLAR | FS | 1 | 0 | 0 | 1 | 396,432 | 0 | 0 | 0 | 396,432 |
| 4. Unbranded | U/B | DANFORTH AV | SUMMER | FS | 1 | 0 | 0 | 1 | 388,412 | 0 | 0 | 0 | 388,412 |
| 4. Unbranded | U/B | KINGSTON RD | SHARPE | FS | 1 | 0 | 0 | 1 | 382,585 | 0 | 0 | 0 | 382,585 |
| 4. Unbranded | U/B | KINGSTON RD | MIDLAND | SS | 0 | 1 | 0 | 1 | 0 | 0 | 6,060,422 | 0 | 6,060,422 |
| 4. Unbranded | U/B | VICTORIA PARK AV | SHEPPARD | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,428,152 | 0 | 4,428,152 |
| 4. Unbranded | U/B | MARKHAM RD | S/FINCH | SS | 0 | 1 | 0 | 1 | 0 | 0 | 4,398,535 | 0 | 4,398,535 |
| 4. Unbranded | U/B | LAWRENCE AV | BRIMLEY | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,729,811 | 0 | 3,729,811 |
| 4. Unbranded | U/B | ELLESMERE RD | MIDLAND | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,640,695 | 0 | 3,640,695 |
| 4. Unbranded | U/B | EGLINTON AV | W/MC COWEN | SS | 0 | 1 | 0 | 1 | 0 | 0 | 3,550,383 | 0 | 3,550,383 |
| 4. Unbranded | U/B | VICTORIA PARK AV | CURLEW | SS | 0 | 1 | 0 | 1 | 0 | 0 | 2,681,571 | 0 | 2,681,571 |
| 4. Unbranded | U/B | FINCH AV | BRIDLETOWN | SS | 0 | 1 | 0 | 1 | 0 | 0 | 1,816,434 | 0 | 1,816,434 |
| 4. Unbranded | U/B | KINGSTON RD | W/BEECHGROVE | SS | 0 | 1 | 0 | 1 | 0 | 0 | 1,570,811 | 0 | 1,570,811 |
| 4. Unbranded | U/B | LAWRENCE AV | ORTON | SS | 0 | 1 | 0 | 1 | 0 | 0 | 1,465,304 | 0 | 1,465,304 |
| 4. Unbranded | U/B | EGLINTON AV | IONVIEW | SS | 0 | 1 | 0 | 1 | 0 | 0 | 1,218,416 | 0 | 1,218,416 |
| 4. Unbranded | U/B | SHEPPARD AV | AMETHYST | SS | 0 | 1 | 0 | 1 | 0 | 0 | 931,224 | 0 | 931,224 |
| 4. Unbranded | U/B | ST CLAIR | KENNEDY | SS | 0 | 1 | 0 | 1 | 0 | 0 | 694,951 | 0 | 694,951 |
| TOTAL UNBRANDED | | | | | 42 | 13 | 0 | 55 | 90,277,974 | 0 | 36,186,709 | 0 | 126,464,683 |
| TOTAL: | | | | | 70 | 87 | 11 | 168 | 200,003,188 | 9,652,071 | 367,045,906 | 47,880,709 | 642,150,432 |

**note the total volume column is not the same as the sume of FS vol, FS/SPLIT Vol, SS Vol and SS/SPLIT Vol because the Split-Serve Sunoco outlet is not included**

# Appendix V

Split-Serve Outlets by Volume
Scarborough (1994)

SOURCE: Adapted from Kent Database, 1994.
Provided by Imperial Oil (ESSO) (1996)

| Outlet Code | Company Name | Primary Street | Secondary Street | Full-Serve Volume | Self-Serve Volume | Percentage Full-Serve Share | Percentage Self-Serve Share | Total Volume | Total Market Share |
|---|---|---|---|---|---|---|---|---|---|
| 10001 | SUNOCO | STEELES | ACADIA | n/a | n/a | n/a | n/a | 17,568,560 | 31% |
| 10038 | ESSO | FINCH AV | KENNEDY | 450,724 | 4,800,812 | 9% | 91% | 5,251,536 | 9% |
| 10136 | SHELL | LAWRENCE AV | MARKHAM | 989,204 | 4,643,157 | 18% | 82% | 5,632,361 | 10% |
| 10050 | SHELL | WARDEN AV | S/401 | 803,963 | 6,439,664 | 11% | 89% | 7,243,627 | 13% |
| 10014 | ESSO | SHEPPARD AV | VICTORIA PARK | 1,825,568 | 2,670,249 | 41% | 59% | 4,495,817 | 8% |
| 10162 | SHELL | SHEPPARD AV | E/GRAND MARSHELL | 1,030,723 | 6,214,068 | 14% | 86% | 7,244,790 | 13% |
| 10141 | ESSO | MARKHAM RD | ELLESMERE | 1,954,569 | 4,525,414 | 30% | 70% | 6,479,983 | 11% |
| 10046 | ESSO | SHEPPARD AV | BIRCHMOUNT | 117,729 | 2,606,725 | 4% | 96% | 2,724,453 | 5% |
| 10032 | PETROCANADA | EGLINTON AV | PHARMACY AV | 1,534,474 | 4,244,954 | 27% | 73% | 5,779,428 | 10% |
| 10111 | CAN. TIRE | MC COWAN RD | SHEPPARD AV | 623,909 | 7,840,711 | 7% | 93% | 8,464,620 | 15% |
| 10144 | PETROCANADA | MARKHAM | SHEPPARD AV | 321,208 | 3,894,955 | 8% | 92% | 4,216,163 | 7% |
|  | Total: |  |  | 9,652,071 | 47,880,709 | 17% | 83% | 57,532,778 | 100% |

# Appendix VI

Distance Impact Reports for the Full-Serve and Split-Serve Examples
Scarborough (1994)

Full-serve: Ellesmere Road and Birchmount Road

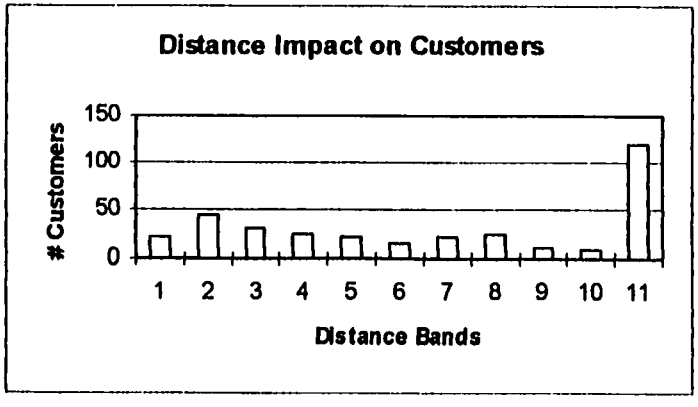
Split-Serve: Markham Road and Ellesmere Road

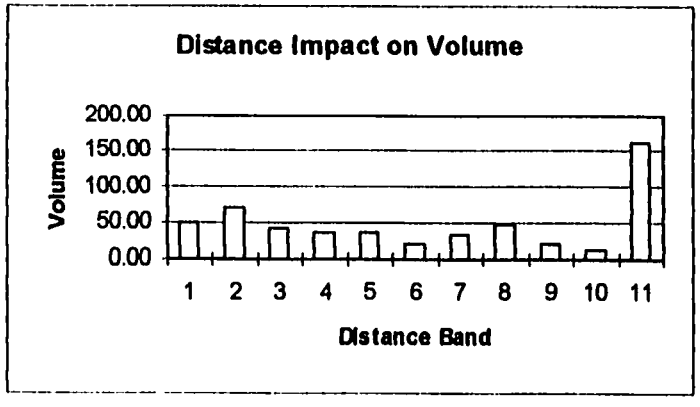
SOURCE: Provided by Imperial Oil (ESSO) (1996)

# Appendix VI[52]

**The Distance Impact Report for the Full-Serve Example; 10 bands of 1km(Birchmount & Ellesmere), Scarborough, Dec 1995**

| Band # | Band Distance | # Customers | % | Customers (Cum) | % | Volume | % | Volume (Cum) | % |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0-1 | 22 | 6.45% | 22 | 6.45% | 49.00 | 9.33% | 49.00 | 9.33% |
| 2 | 1-2 | 44 | 12.90% | 66 | 19.35% | 71.00 | 13.52% | 120.00 | 22.86% |
| 3 | 2-3 | 31 | 9.09% | 97 | 28.45% | 42.00 | 8.00% | 162.00 | 30.86% |
| 4 | 3-4 | 25 | 7.33% | 122 | 35.78% | 35.00 | 6.67% | 197.00 | 37.52% |
| 5 | 4-5 | 21 | 6.16% | 143 | 41.94% | 34.00 | 6.48% | 231.00 | 44.00% |
| 6 | 5-6 | 15 | 4.40% | 158 | 46.33% | 19.00 | 3.62% | 250.00 | 47.62% |
| 7 | 6-7 | 22 | 6.45% | 180 | 52.79% | 33.00 | 6.29% | 283.00 | 53.90% |
| 8 | 7-8 | 23 | 6.74% | 203 | 59.53% | 46.00 | 8.76% | 329.00 | 62.67% |
| 9 | 8-9 | 10 | 2.93% | 213 | 62.46% | 20.00 | 3.81% | 349.00 | 66.48% |
| 10 | 9-10 | 8 | 2.35% | 221 | 64.81% | 13.00 | 2.48% | 362.00 | 68.95% |
| 11 | >10 | 120 | 35.19% | 341 | 100.00% | 163.00 | 31.05% | 525.00 | 100.00% |
| | | 341 | 100.00% | | | 525.00 | 100.00% | | |



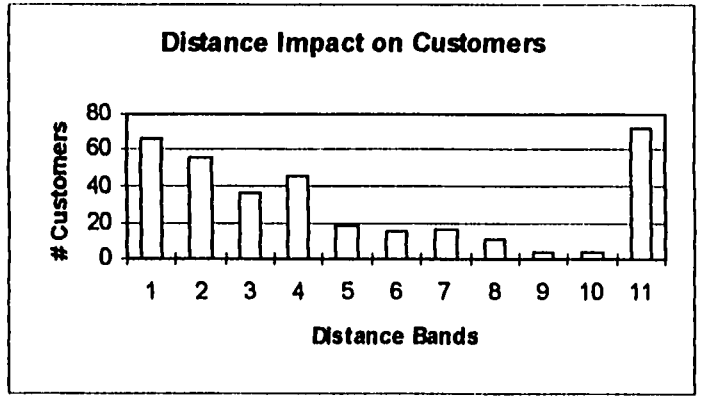



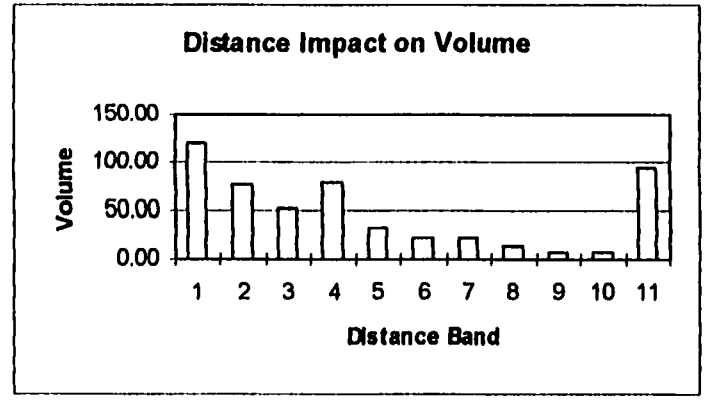

[52] Source: Imperial Oil (ESSO) and Compusearch, Market Math, 1996.

# Appendix VI[53]

**The Distance Impact Report for the Full-Serve Example; 10 bands of 2km(Birchmount & Ellesmere), Scarborough, Dec 1995**

| Band # | Band Distance | # Customers | % | Customers (Cum) | % | Volume | % | Volume (Cum) | % |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0-2 | 66 | 19.35% | 66 | 19.35% | 120.00 | 22.86% | 120.00 | 22.86% |
| 2 | 2-4 | 56 | 16.42% | 122 | 35.78% | 77.00 | 14.67% | 197.00 | 37.52% |
| 3 | 4-6 | 36 | 10.56% | 158 | 46.33% | 53.00 | 10.10% | 250.00 | 47.62% |
| 4 | 6-8 | 45 | 13.20% | 203 | 59.53% | 79.00 | 15.05% | 329.00 | 62.67% |
| 5 | 8-10 | 18 | 5.28% | 221 | 64.81% | 33.00 | 6.29% | 362.00 | 68.95% |
| 6 | 10-12 | 15 | 4.40% | 236 | 69.21% | 22.00 | 4.19% | 384.00 | 73.14% |
| 7 | 12-14 | 16 | 4.69% | 252 | 73.90% | 22.00 | 4.19% | 406.00 | 77.33% |
| 8 | 14-16 | 10 | 2.93% | 262 | 76.83% | 13.00 | 2.48% | 419.00 | 79.81% |
| 9 | 16-18 | 3 | 0.88% | 265 | 77.71% | 7.00 | 1.33% | 426.00 | 81.14% |
| 10 | 18-20 | 4 | 1.17% | 269 | 78.89% | 6.00 | 1.14% | 432.00 | 82.29% |
| 11 | >20 | 72 | 21.11% | 341 | 100.00% | 93.00 | 17.71% | 525.00 | 100.00% |
| | | 341 | 100.00% | | | 525.00 | 100.00% | | |



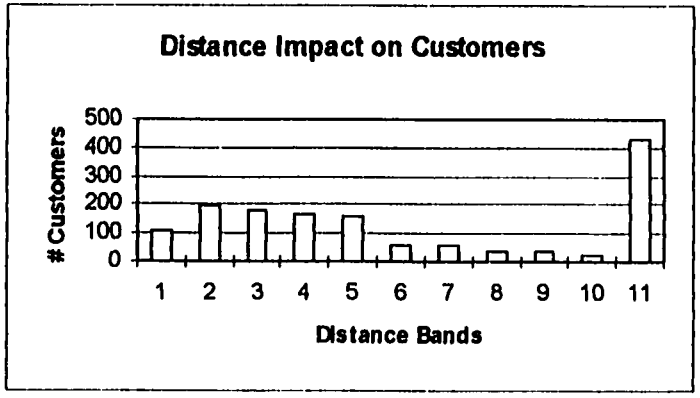



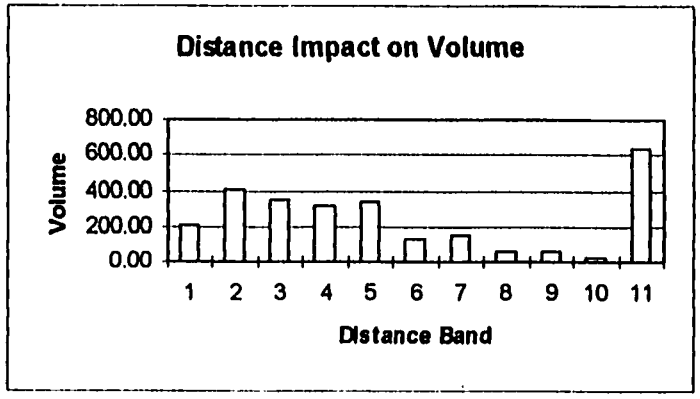

[53] Source: Imperial Oil (ESSO) and Compusearch, Market Math, 1996.

# Appendix VI[54]

**The Distance Impact Report for the Split-Serve Example; 10 bands of 1km(Markham & Ellesmere), Scarborough, Dec 1995**

| Band # | Band Distance | # Customers | % | Customers (Cum) | % | Volume | % | Volume (Cum) | % |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0-1 | 109 | 7.57% | 109 | 7.57% | 212.00 | 7.95% | 212.00 | 7.95% |
| 2 | 1-2 | 196 | 13.61% | 305 | 21.18% | 407.00 | 15.26% | 619.00 | 23.21% |
| 3 | 2-3 | 178 | 12.36% | 483 | 33.54% | 346.00 | 12.97% | 965.00 | 36.18% |
| 4 | 3-4 | 168 | 11.67% | 651 | 45.21% | 309.00 | 11.59% | 1274.00 | 47.77% |
| 5 | 4-5 | 158 | 10.97% | 809 | 56.18% | 338.00 | 12.67% | 1612.00 | 60.44% |
| 6 | 5-6 | 58 | 4.03% | 867 | 60.21% | 125.00 | 4.69% | 1737.00 | 65.13% |
| 7 | 6-7 | 59 | 4.10% | 926 | 64.31% | 145.00 | 5.44% | 1882.00 | 70.57% |
| 8 | 7-8 | 33 | 2.29% | 959 | 66.60% | 61.00 | 2.29% | 1943.00 | 72.85% |
| 9 | 8-9 | 33 | 2.29% | 992 | 68.89% | 63.00 | 2.36% | 2006.00 | 75.22% |
| 10 | 9-10 | 20 | 1.39% | 1012 | 70.28% | 25.00 | 0.94% | 2031.00 | 76.15% |
| 11 | >10 | 428 | 29.72% | 1440 | 100.00% | 636.00 | 23.85% | 2667.00 | 100.00% |
| | | 1440 | 100.00% | | | 2667.00 | 100.00% | | |



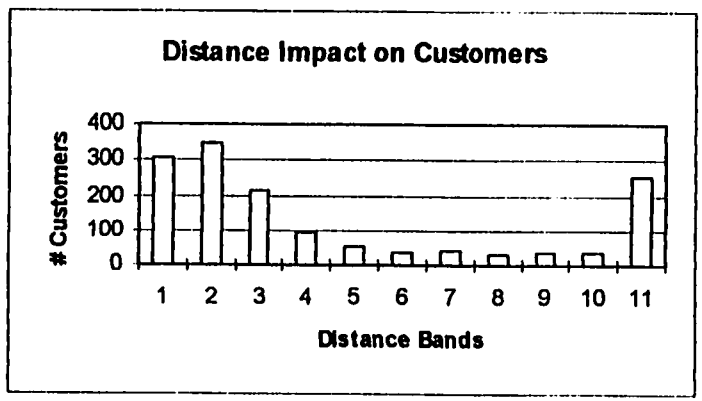



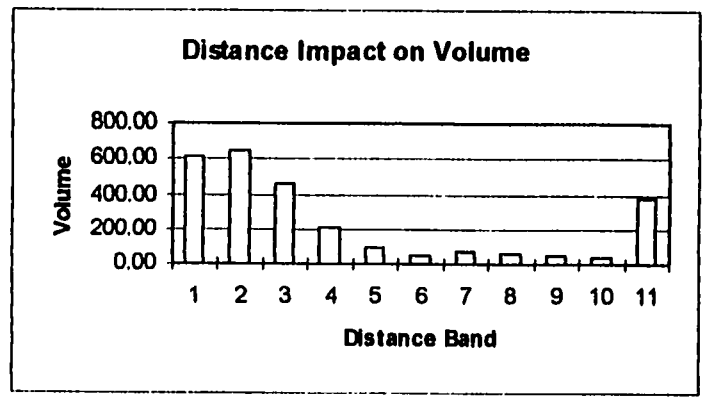

[54] Source: Imperial Oil (ESSO) and Compusearch, Market Math, 1996.

# Appendix VI[55]

**The Distance Impact Report for the Split-Serve Example; 10 bands of 2km (Markham & Ellesmere), Scarborough, Dec 1995**

| Band # | Band Distance | # Customers | % | Customers (Cum) | % | Volume | % | Volume (Cum) | % |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0-2 | 305 | 21.18% | 305 | 21.18% | 619.00 | 23.21% | 619.00 | 23.21% |
| 2 | 2-4 | 346 | 24.03% | 651 | 45.21% | 655.00 | 24.56% | 1274.00 | 47.77% |
| 3 | 4-6 | 216 | 15.00% | 867 | 60.21% | 463.00 | 17.36% | 1737.00 | 65.13% |
| 4 | 6-8 | 92 | 6.39% | 959 | 66.60% | 206.00 | 7.72% | 1943.00 | 72.85% |
| 5 | 8-10 | 53 | 3.68% | 1012 | 70.28% | 88.00 | 3.30% | 2031.00 | 76.15% |
| 6 | 10-12 | 32 | 2.22% | 1044 | 72.50% | 43.00 | 1.61% | 2074.00 | 77.77% |
| 7 | 12-14 | 41 | 2.85% | 1085 | 75.35% | 71.00 | 2.66% | 2145.00 | 80.43% |
| 8 | 14-16 | 30 | 2.08% | 1115 | 77.43% | 55.00 | 2.06% | 2200.00 | 82.49% |
| 9 | 16-18 | 37 | 2.57% | 1152 | 80.00% | 46.00 | 1.72% | 2246.00 | 84.21% |
| 10 | 18-20 | 33 | 2.29% | 1185 | 82.29% | 36.00 | 1.35% | 2282.00 | 85.56% |
| 11 | >20 | 255 | 17.71% | 1440 | 100.00% | 385.00 | 14.44% | 2667.00 | 100.00% |
| | | 1440 | 100.00% | | | 2667.00 | 100.00% | | |




[55] Source: Imperial Oil (ESSO) and Compusearch, Market Math, 1996.

# Appendix VII

Profile Comparison Reports for the Self-Serve Example
Scarborough (1994)

Ten 1 kilometer bands compared against each other and the total for Ontario

ESSO's Morningside Road and Sheppard Avenue Outlet

SOURCE: Provided by Imperial Oil (ESSO) (1996)

| # | Class | Description | 550703 Band 1 (0.0-1.0) # | 550703 Band 1 (0.0-1.0) % | 550703 Band 2 (1.0-2.0) # | 550703 Band 2 (1.0-2.0) % | 550703 Band 3 (2.0-3.0) # | 550703 Band 3 (2.0-3.0) % | 550703 Band 4 (3.0-4.0) # | 550703 Band 4 (3.0-4.0) % | 550703 Band 5 (4.0-5.0) # | 550703 Band 5 (4.0-5.0) % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **RURAL COMFORTABLE FAMILIES (R1)** | | | | | | | | | | |
| 11 | R1 | NORTHERN LIGHTS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 22 | R1 | THE NEW FRONTIER: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 26 | R1 | RUSTIC PROSPERITY: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 34 | R1 | PICK-UPS & DIRT BIKES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 37 | R1 | QUEBEC'S HEARTLAND: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 38 | R1 | THE GRAIN BELT: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | **RURAL COMFORTABLE FAMILIES (R1)** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** |
| | | **RURAL DOWNSCALE (R2)** | | | | | | | | | | |
| 43 | R2 | AGRARIAN BLUES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 47 | R2 | ROD & RIFLE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 49 | R2 | DOWN, DOWN EAST: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 50 | R2 | BIG COUNTRY FAMILIES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 52 | R2 | QUEBEC RURAL BLUES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 55 | R2 | OLD CANADIAN RUSTICS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | **RURAL DOWNSCALE (R2)** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** |
| | | **SUBURBAN AFFLUENT (S1)** | | | | | | | | | | |
| 3 | S1 | SUBURBAN EXECUTIVES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 505 | 2.90 |
| 6 | S1 | MORGAGED IN SUBURBIA: | 0 | 0.00 | 458 | 4.65 | 624 | 5.29 | 0 | 0.00 | 0 | 0.00 |
| 7 | S1 | TECHNOCRATS & BUEROCRATS: | 0 | 0.00 | 619 | 6.28 | 1771 | 15.00 | 0 | 0.00 | 0 | 0.00 |
| 9 | S1 | ASIAN HEIGHTS: | 1252 | 31.22 | 2998 | 30.41 | 2186 | 18.52 | 587 | 7.60 | 2319 | 13.31 |
| | | **SUBURBAN AFFLUENT (S1)** | **1252** | **31.22** | **4075** | **41.34** | **4581** | **38.81** | **587** | **7.60** | **2824** | **16.21** |
| | | **SUBURBAN UPSCALE FAMILIES (S2)** | | | | | | | | | | |
| 5 | S2 | BOOMER & TEENS: | 0 | 0.00 | 1166 | 11.83 | 637 | 5.40 | 1705 | 22.08 | 1981 | 11.37 |
| 8 | S2 | STABLE SUBURBAN FAMILIES: | 0 | 0.00 | 0 | 0.00 | 1283 | 10.87 | 1480 | 19.16 | 1749 | 10.04 |
| 15 | S2 | SMALL CITY ELITE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 S2 | OLD BUNGALOW BURBS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 874 | 11.32 | 1238 | 7.11 |
| | **SUBURBAN UPSCALE FAMILIES (S2)** | **0** | **0.00** | **1166** | **11.83** | **1920** | **16.27** | **4059** | **52.56** | **4968** | **28.52** |
| | **SUBURBAN OLDER SINGLES AND COUPLES (S3)** | | | | | | | | | | |
| 10 S3 | SUBURBAN NESTERS: | 0 | 0.00 | 231 | 2.34 | 0 | 0.00 | 0 | 0.00 | 850 | 4.88 |
| 12 S3 | BRIE & CHABLIS: | 0 | 0.00 | 259 | 2.63 | 749 | 6.34 | 0 | 0.00 | 719 | 4.13 |
| 17 S3 | AGING ERUDITES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **SUBURBAN OLDER SINGLES AND COUPLES (S3)** | **0** | **0.00** | **490** | **4.97** | **749** | **6.34** | **0** | **0.00** | **1569** | **9.01** |
| | **SUBURBAN YOUNGER FAMILIES (S4)** | | | | | | | | | | |
| 14 S4 | SATELITE SUBURBS: | 1460 | 36.41 | 1803 | 18.29 | 1788 | 15.14 | 106 | 1.37 | 1688 | 9.69 |
| 23 S4 | KINDERGARDEN BOOM: | 0 | 0.00 | 1240 | 12.58 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **SUBURBAN YOUNGER FAMILIES (S4)** | **1460** | **36.41** | **3043** | **30.87** | **1788** | **15.14** | **106** | **1.37** | **1688** | **9.69** |
| | **SUBURBAN QUEBEC (S5)** | | | | | | | | | | |
| 18 S5 | PARTICIPATION QUEBEC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 24 S5 | NEW QUEBEC ROWS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 30 S5 | QUEBEC MELANGE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 32 S5 | TRADITIOANAL FRENCEH CANADIAN FAMILIES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **SUBURBAN QUEBEC (S5)** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** |
| | **TOWN UPSCALE (T1)** | | | | | | | | | | |
| 13 T1 | BLUE COLLAR WINNERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 19 T1 | TOWN BOOMERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 27 T1 | OLD TOWNS' NEW FRINGE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **TOWN UPSCALE (T1)** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** |
| | **TOWN GREY COLLAR (T2)** | | | | | | | | | | |
| 31 T2 | OLD LEAFY TOWNS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 35 T2 | TOWN RENTERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 39 T2 | NESTERS & YOUNG HOMESTEADERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 44 T2 | YOUNG GREY COLLAR: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 46 T2 | QUIET TOWNS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **TOWN GREY COLLAR (T2)** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **URBAN ELITE (U1)** | | | | | | | | | | |
| 1 U1 | CANADIAN ESTABLISHMENT: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 2 U1 | THE AFFLUENCIALS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 4 U1 | URBAN GENTRY: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **URBAN ELITE (U1)** | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **URBAN ETHNIC (U2)** | | | | | | | | | | |
| 21 U2 | EUROPA: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 25 U2 | ASIAN MOSAIC: | 0 | 0.00 | 0 | 0.00 | 56 | 0.47 | 462 | 5.98 | 511 | 2.93 |
| 41 U2 | HIGH RISE MELTING POT: | 0 | 0.00 | 306 | 3.10 | 714 | 6.05 | 845 | 10.94 | 982 | 5.64 |
| | **URBAN ETHNIC (U2)** | 0 | 0.00 | 306 | 3.10 | 770 | 6.52 | 1307 | 16.92 | 1493 | 8.57 |
| | **URBAN OLDER SINGLES AND COUPLES (U3)** | | | | | | | | | | |
| 28 U3 | CONSERVATIVE HOMEBODIES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 314 | 4.07 | 0 | 0.00 |
| 33 U3 | HIGH RISE SUNSETS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 113 | 1.46 | 229 | 1.31 |
| | **URBAN OLDER SINGLES AND COUPLES (U3)** | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 427 | 5.53 | 229 | 1.31 |
| | **URBAN YOUNG SINGLES (U4)** | | | | | | | | | | |
| 20 U4 | YOUNG URBAN PROFESSIONALS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 29 U4 | YOUNG URBAN MIX: | 1298 | 32.37 | 588 | 5.97 | 1456 | 12.33 | 610 | 7.90 | 2832 | 16.25 |
| 36 U4 | YOUNG URBAN INTELLIGENTSIA: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 40 U4 | UNIVERSITY ENCLAVES: | 0 | 0.00 | 0 | 0.00 | 8 | 0.07 | 0 | 0.00 | 0 | 0.00 |
| 51 U4 | YOUNG CITY SINGLES: | 0 | 0.00 | 189 | 1.92 | 293 | 2.48 | 0 | 0.00 | 287 | 1.65 |
| 56 U4 | URBAN BOHEMIA: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **URBAN YOUNG SINGLES (U4)** | 1298 | 32.37 | 777 | 7.89 | 1757 | 14.88 | 610 | 7.90 | 3119 | 17.90 |
| | **URBAN QUEBEC GREY COLLAR (U5)** | | | | | | | | | | |
| 42 U5 | EURO QUEBEC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 45 U5 | OLD QUEBEC WALKUPS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 53 U5 | QUEBEC TOWN ELDERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 54 U5 | AGING QUEBEC URBANITES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 57 U5 | QUEBEC'S NEW URBAN MOSAIC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **URBAN QUEBEC GREY COLLAR (U5)** | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **URBAN DOWNSCALE (U6)** | | | | | | | | | | |
| 48 U6 | STRUGGLING DOWNTOWNS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 58 U6 | AGED PENSIONERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 59 U6 | BIG CITY STRESS: | 0 | 0.00 | 0 | 0.00 | 241 | 2.04 | 283 | 3.66 | 1006 | 5.77 |
| 60 U6 | OLD GREY TOWERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 344 | 4.45 | 527 | 3.02 |
| | **URBAN DOWNSCALE (U6)** | 0 | 0.00 | 0 | 0.00 | 241 | 2.04 | 627 | 8.11 | 1533 | 8.79 |
| | **GRAND TOTALS:** | 4010 | 100 | 9857 | 100 | 11806 | 100 | 7723 | 445 | 17423 | 100 |

| # | Class | Description | 550703 Band 6 (5.0-6.0) # | 550703 Band 6 (5.0-6.0) % | 550703 Band 7 (6.0-7.0) # | 550703 Band 7 (6.0-7.0) % | 550703 Band 8 (7.0-8.0) # | 550703 Band 8 (7.0-8.0) % | 550703 Band 9 (8.0-9.0) # | 550703 Band 9 (8.0-9.0) % | 550703 Band 10 (9.0-10.0) # | 550703 Band 10 (9.0-10.0) % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **RURAL COMFORTABLE FAMILIES (R1)** | | | | | | | | | | |
| 11 | R1 | NORTHERN LIGHTS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 22 | R1 | THE NEW FRONTIER: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 26 | R1 | RUSTIC PROSPERITY: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 34 | R1 | PICK-UPS & DIRT BIKES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 37 | R1 | QUEBEC'S HEARTLAND: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 38 | R1 | THE GRAIN BELT: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | **RURAL COMFORTABLE FAMILIES (R1)** | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | **RURAL DOWNSCALE (R2)** | | | | | | | | | | |
| 43 | R2 | AGRARIAN BLUES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 47 | R2 | ROD & RIFLE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 49 | R2 | DOWN, DOWN EAST: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 50 | R2 | BIG COUNTRY FAMILIES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 52 | R2 | QUEBEC RURAL BLUES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 55 | R2 | OLD CANADIAN RUSTICS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | **RURAL DOWNSCALE (R2)** | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | **SUBURBAN AFFLUENT (S1)** | | | | | | | | | | |
| 3 | S1 | SUBURBAN EXECUTIVES: | 1269 | 5.64 | 1071 | 3.94 | 0 | 0.00 | 2248 | 8.04 | 2409 | 6.43 |
| 6 | S1 | MORGAGED IN SUBURBIA: | 1029 | 4.57 | 2446 | 9.00 | 1223 | 4.36 | 1781 | 6.37 | 373 | 1.00 |
| 7 | S1 | TECHNOCRATS & BUEROCRATS: | 1114 | 4.95 | 1182 | 4.35 | 380 | 1.35 | 1481 | 5.30 | 1373 | 3.66 |
| 9 | S1 | ASIAN HEIGHTS: | 5269 | 23.42 | 9848 | 36.25 | 5164 | 18.41 | 4702 | 16.82 | 6703 | 17.88 |
| | | **SUBURBAN AFFLUENT (S1)** | 8681 | 38.58 | 14547 | 53.54 | 6767 | 24.12 | 10212 | 36.53 | 10858 | 28.97 |
| | | **SUBURBAN UPSCALE FAMILIES (S2)** | | | | | | | | | | |
| 5 | S2 | BOOMER & TEENS: | 3363 | 14.94 | 522 | 1.92 | 2642 | 9.42 | 951 | 3.40 | 850 | 2.27 |
| 8 | S2 | STABLE SUBURBAN FAMILIES: | 3472 | 15.43 | 2761 | 10.16 | 2500 | 8.91 | 2252 | 8.05 | 799 | 2.13 |
| 15 | S2 | SMALL CITY ELITE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 16 | S2 | OLD BUNGALOW BURBS: | 1581 | 7.03 | 1349 | 4.97 | 1676 | 5.98 | 1972 | 7.05 | 1415 | 3.77 |
| | | **SUBURBAN UPSCALE FAMILIES (S2)** | 8416 | 37.40 | 4632 | 17.05 | 6818 | 24.31 | 5175 | 18.50 | 3064 | 8.17 |
| | | **SUBURBAN OLDER SINGLES AND COUPLES (S3)** | | | | | | | | | | |
| 10 | S3 | SUBURBAN NESTERS: | 376 | 1.67 | 2223 | 8.18 | 1347 | 4.80 | 1936 | 6.92 | 6683 | 17.83 |
| 12 | S3 | BRIE & CHABLIS: | 245 | 1.09 | 827 | 3.04 | 1008 | 3.59 | 305 | 1.09 | 2008 | 5.36 |
| 17 | S3 | AGING ERUDITES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 233 | 0.62 |
| | | **SUBURBAN OLDER SINGLES AND COUPLES (S3)** | 621 | 2.76 | 3050 | 11.22 | 2355 | 8.39 | 2241 | 8.01 | 8924 | 23.81 |
| | | **SUBURBAN YOUNGER FAMILIES (S4)** | | | | | | | | | | |
| 14 | S4 | SATELITE SUBURBS: | 286 | 1.27 | 0 | 0.00 | 1462 | 5.21 | 0 | 0.00 | 1193 | 3.18 |
| 23 | S4 | KINDERGARDEN BOOM: | 1018 | 4.52 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 369 | 0.98 |
| | | **SUBURBAN YOUNGER FAMILIES (S4)** | 1304 | 5.79 | 0 | 0.00 | 1462 | 5.21 | 0 | 0.00 | 1562 | 4.16 |
| | | **SUBURBAN QUEBEC (S5)** | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 S5 | PARTICIPATION QUEBEC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 24 S5 | NEW QUEBEC ROWS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 30 S5 | QUEBEC MELANGE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 32 S5 | TRADITIOANAL FRENCEH CANADIAN FAMILIES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **SUBURBAN QUEBEC (S5)** | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **TOWN UPSCALE (T1)** | | | | | | | | | | |
| 13 T1 | BLUE COLLAR WINNERS: | 0 | 0.00 | 0 | 0.00 | 723 | 2.58 | 0 | 0.00 | 0 | 0.00 |
| 19 T1 | TOWN BOOMERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 27 T1 | OLD TOWNS' NEW FRINGE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **TOWN UPSCALE (T1)** | 0 | 0.00 | 0 | 0.00 | 723 | 2.58 | 0 | 0.00 | 0 | 0.00 |
| | **TOWN GREY COLLAR (T2)** | | | | | | | | | | |
| 31 T2 | OLD LEAFY TOWNS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 35 T2 | TOWN RENTERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 39 T2 | NESTERS & YOUNG HOMESTEADERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 44 T2 | YOUNG GREY COLLAR: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 46 T2 | QUIET TOWNS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **TOWN GREY COLLAR (T2)** | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **URBAN ELITE (U1)** | | | | | | | | | | |
| 1 U1 | CANADIAN ESTABLISHMENT: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 2 U1 | THE AFFLUENCIALS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 4 U1 | URBAN GENTRY: | 0 | 0.00 | 0 | 0.00 | 435 | 1.55 | 141 | 0.50 | 438 | 1.17 |
| | **URBAN ELITE (U1)** | 0 | 0.00 | 0 | 0.00 | 435 | 1.55 | 141 | 0.50 | 438 | 1.17 |
| | **URBAN ETHNIC (U2)** | | | | | | | | | | |
| 21 U2 | EUROPA: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 107 | 0.38 | 0 | 0.00 |
| 25 U2 | ASIAN MOSAIC: | 0 | 0.00 | 401 | 1.48 | 2010 | 7.17 | 1896 | 6.78 | 2079 | 5.55 |
| 41 U2 | HIGH RISE MELTING POT: | 1329 | 5.91 | 2018 | 7.43 | 3613 | 12.88 | 2590 | 9.26 | 1979 | 5.28 |
| | **URBAN ETHNIC (U2)** | 1329 | 5.91 | 2419 | 8.91 | 5623 | 20.05 | 4593 | 16.42 | 4058 | 10.83 |
| | **URBAN OLDER SINGLES AND COUPLES (U3)** | | | | | | | | | | |
| 28 U3 | CONSERVATIVE HOMEBODIES: | 0 | 0.00 | 0 | 0.00 | 292 | 1.04 | 1038 | 3.71 | 2148 | 5.73 |
| 33 U3 | HIGH RISE SUNSETS: | 0 | 0.00 | 579 | 2.13 | 299 | 1.07 | 158 | 0.57 | 981 | 2.62 |
| | **URBAN OLDER SINGLES AND COUPLES (U3)** | 0 | 0.00 | 579 | 2.13 | 591 | 2.11 | 1196 | 4.28 | 3129 | 8.35 |
| | **URBAN YOUNG SINGLES (U4)** | | | | | | | | | | |
| 20 U4 | YOUNG URBAN PROFESSIONALS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 29 U4 | YOUNG URBAN MIX: | 1759 | 7.82 | 1665 | 6.13 | 1613 | 5.75 | 3295 | 11.78 | 3313 | 8.84 |
| 36 U4 | YOUNG URBAN INTELLIGENTSIA: | 0 | 0.00 | 261 | 0.96 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 40 U4 | UNIVERSITY ENCLAVES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 51 U4 | YOUNG CITY SINGLES: | 104 | 0.46 | 15 | 0.06 | 0 | 0.00 | 484 | 1.73 | 653 | 1.74 |
| 56 U4 | URBAN BOHEMIA: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **URBAN YOUNG SINGLES (U4)** | 1863 | 8.28 | 1941 | 7.15 | 1613 | 5.75 | 3779 | 13.51 | 3966 | 10.58 |
| | **URBAN QUEBEC GREY COLLAR (U5)** | | | | | | | | | | |
| 42 U5 | EURO QUEBEC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 45 U5 | OLD QUEBEC WALKUPS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 53 U5 | QUEBEC TOWN ELDERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 54 U5 | AGING QUEBEC URBANITES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 57 U5 | QUEBEC'S NEW URBAN MOSAIC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **URBAN QUEBEC GREY COLLAR (U5)** | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **URBAN DOWNSCALE (U6)** | | | | | | | | | | |
| 48 U6 | STRUGGLING DOWNTOWNS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 58 U6 | AGED PENSIONERS: | 0 | 0.00 | 0 | 0.00 | 714 | 2.55 | 0 | 0.00 | 0 | 0.00 |
| 59 U6 | BIG CITY STRESS: | 0 | 0.00 | 0 | 0.00 | 539 | 1.92 | 626 | 2.24 | 1034 | 2.76 |
| 60 U6 | OLD GREY TOWERS: | 289 | 1.28 | 0 | 0.00 | 409 | 1.46 | 0 | 0.00 | 453 | 1.21 |
| | **URBAN DOWNSCALE (U6)** | 289 | | 0 | 0.00 | 1662 | 5.93 | 626 | 2.24 | 1487 | 3.97 |
| | **GRAND TOTALS:** | 22503 | 100 | 27168 | 100 | 28049 | 100 | 27963 | 100 | 37486 | 100 |

# Appendix VIII

Profile Comparison Reports
The Self-Serve vs. Full-Serve Example
Ontario, 1994

SOURCE: Provided by Imperial Oil (ESSO) (1996)

| # | Class | Description | FS1 # | FS1 % | FS2 # | FS2 % | FS3 # | FS3 % | FS4 # | FS4 % | FS5 # | FS5 % | FS Profilex5 # | FS Profilex5 % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **RURAL COMFORTABLE FAMILIES (R1)** | | | | | | | | | | | | |
| 11 | R1 | NORTHERN LIGHTS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 22 | R1 | THE NEW FRONTIER: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 26 | R1 | RUSTIC PROSPERITY: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 34 | R1 | PICK-UPS & DIRT BIKES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 37 | R1 | QUEBEC'S HEARTLAND: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 38 | R1 | THE GRAIN BELT: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | **RURAL COMFORTABLE FAMILIES (R1)** | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | **RURAL DOWNSCALE (R2)** | | | | | | | | | | | | |
| 43 | R2 | AGRARIAN BLUES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 47 | R2 | ROD & RIFLE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 49 | R2 | DOWN, DOWN EAST: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 50 | R2 | BIG COUNTRY FAMILIES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 52 | R2 | QUEBEC RURAL BLUES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 55 | R2 | OLD CANADIAN RUSTICS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | **RURAL DOWNSCALE (R2)** | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | **SUBURBAN AFFLUENT (S1)** | | | | | | | | | | | | |
| 3 | S1 | SUBURBAN EXECUTIVES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 6 | S1 | MORGAGED IN SUBURBIA: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 242 | 6.24 | 0 | 0.00 | 242 | 0.36 |
| 7 | S1 | TECHNOCRATS & BUEROCRATS: | 0 | 0.00 | 593 | 4.40 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 593 | 0.89 |
| 9 | S1 | ASIAN HEIGHTS: | 0 | 0.00 | 0 | 0.00 | 1709 | 4.75 | 0 | 0.00 | 0 | 0.00 | 1,709 | 2.56 |
| | | **SUBURBAN AFFLUENT (S1)** | 0 | 0.00 | 593 | 4.40 | 1709 | 4.75 | 242 | 6.24 | 0 | 0.00 | 2,544 | 3.81 |
| | | **SUBURBAN UPSCALE FAMILIES (S2)** | | | | | | | | | | | | |
| 5 | S2 | BOOMER & TEENS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 710 | 9.38 | 710 | 1.06 |
| 8 | S2 | STABLE SUBURBAN FAMILIES: | 0 | 0.00 | 460 | 3.42 | 2842 | 7.89 | 0 | 0.00 | 630 | 8.33 | 3,932 | 5.88 |
| 15 | S2 | SMALL CITY ELITE: | 177 | 2.92 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 177 | 0.26 |
| 16 | S2 | OLD BUNGALOW BURBS: | 0 | 0.00 | 0 | 0.00 | 2283 | 6.34 | 0 | 0.00 | 707 | 9.34 | 2,990 | 4.47 |
| | | **SUBURBAN UPSCALE FAMILIES (S2)** | 177 | 2.92 | 460 | 3.42 | 5125 | 14.23 | 0 | 0.00 | 2047 | 27.05 | 7,809 | 11.67 |
| | | **SUBURBAN OLDER SINGLES AND COUPLES (S3)** | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 S3 | SUBURBAN NESTERS: | 0 | 0.00 | 0 | 0.00 | 7322 | 20.34 | 0 | 0.00 | 0 | 0.00 | 7,322 | 10.95 |
| 12 S3 | BRIE & CHABLIS: | 0 | 0.00 | 0 | 0.00 | 1071 | 2.98 | 0 | 0.00 | 0 | 0.00 | 1,071 | 1.60 |
| 17 S3 | AGING ERUDITES: | 0 | 0.00 | 682 | 5.07 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 682 | 1.02 |
| | **SUBURBAN OLDER SINGLES AND COUPLES (S3)** | **0** | **0.00** | **682** | **5.07** | **8393** | **23.32** | **0** | **0.00** | **0** | **0.00** | **9,075** | **13.57** |
| | **SUBURBAN YOUNGER FAMILIES (S4)** | | | | | | | | | | | | |
| 14 S4 | SATELITE SUBURBS: | 0 | 0.00 | 185 | 1.37 | 0 | 0.00 | 0 | 0.00 | 1333 | 17.62 | 1,518 | 2.27 |
| 23 S4 | KINDERGARDEN BOOM: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 765 | 10.11 | 765 | 1.14 |
| | **SUBURBAN YOUNGER FAMILIES (S4)** | **0** | **0.00** | **185** | **1.37** | **0** | **0.00** | **0** | **0.00** | **2098** | **27.73** | **2,283** | **3.41** |
| | **SUBURBAN QUEBEC (S5)** | | | | | | | | | | | | |
| 18 S5 | PARTICIPATION QUEBEC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 24 S5 | NEW QUEBEC ROWS: | 0 | 0.00 | 175 | 1.30 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 175 | 0.26 |
| 30 S5 | QUEBEC MELANGE: | 0 | 0.00 | 435 | 3.23 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 435 | 0.65 |
| 32 S5 | TRADITIOANAL FRENCEH CANADIAN FAMILIES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **SUBURBAN QUEBEC (S5)** | **0** | **0.00** | **610** | **4.53** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **610** | **0.91** |
| | **TOWN UPSCALE (T1)** | | | | | | | | | | | | |
| 13 T1 | BLUE COLLAR WINNERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 594 | 15.31 | 0 | 0.00 | 594 | 0.89 |
| 19 T1 | TOWN BOOMERS: | 275 | 4.62 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 275 | 0.41 |
| 27 T1 | OLD TOWNS' NEW FRINGE: | 1612 | 27.06 | 0 | 0.00 | 0 | 0.00 | 1929 | 49.73 | 0 | 0.00 | 3,541 | 5.30 |
| | **TOWN UPSCALE (T1)** | **1887** | **31.68** | **0** | **0.00** | **0** | **0.00** | **2523** | **65.04** | **0** | **0.00** | **4,410** | **6.60** |
| | **TOWN GREY COLLAR (T2)** | | | | | | | | | | | | |
| 31 T2 | OLD LEAFY TOWNS: | 399 | 6.70 | 0 | 0.00 | 0 | 0.00 | 22 | 0.57 | 0 | 0.00 | 421 | 0.63 |
| 35 T2 | TOWN RENTERS: | 0 | 0.00 | 314 | 2.33 | 0 | 0.00 | 0 | 0.00 | 659 | 8.71 | 973 | 1.46 |
| 39 T2 | NESTERS & YOUNG HOMESTEADERS: | 3494 | 58.65 | 61 | 0.45 | 0 | 0.00 | 388 | 10.00 | 0 | 0.00 | 3,943 | 5.90 |
| 44 T2 | YOUNG GREY COLLAR: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 46 T2 | QUIET TOWNS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **TOWN GREY COLLAR (T2)** | **3893** | **65.35** | **375** | **2.78** | **0** | **0.00** | **410** | **10.57** | **659** | **8.71** | **5,337** | **7.99** |
| | **URBAN ELITE (U1)** | | | | | | | | | | | | |
| 1 U1 | CANADIAN ESTABLISHMENT: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 2 U1 | THE AFFLUENCIALS: | 0 | 0.00 | 0 | 0.00 | 468 | 1.30 | 0 | 0.00 | 0 | 0.00 | 468 | 0.70 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 U1 | URBAN GENTRY: | 0 | 0.00 | 0 | 0.00 | 1097 | 3.05 | 0 | 0.00 | 400 | 5.29 | 1,497 | 2.24 |
| | **URBAN ELITE (U1)** | 0 | 0.00 | 0 | 0.00 | 1565 | 4.35 | 0 | 0.00 | 400 | 5.29 | 1,965 | 2.94 |
| | **URBAN ETHNIC (U2)** | | | | | | | | | | | | |
| 21 U2 | EUROPA: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 25 U2 | ASIAN MOSAIC: | 0 | 0.00 | 0 | 0.00 | 2469 | 6.86 | 0 | 0.00 | 0 | 0.00 | 2,469 | 3.69 |
| 41 U2 | HIGH RISE MELTING POT: | 0 | 0.00 | 0 | 0.00 | 5175 | 14.38 | 0 | 0.00 | 1039 | 13.73 | 6,214 | 9.29 |
| | **URBAN ETHNIC (U2)** | 0 | 0.00 | 0 | 0.00 | 7644 | 21.24 | 0 | 0.00 | 1039 | 13.73 | 8,683 | 12.98 |
| | **URBAN OLDER SINGLES AND COUPLES (U3)** | | | | | | | | | | | | |
| 28 U3 | CONSERVATIVE HOMEBODIES: | 0 | 0.00 | 1891 | 14.04 | 2434 | 6.76 | 352 | 9.07 | 1050 | 13.88 | 5,727 | 8.56 |
| 33 U3 | HIGH RISE SUNSETS: | 0 | 0.00 | 321 | 2.38 | 446 | 1.24 | 352 | 9.07 | 0 | 0.00 | 1,119 | 1.67 |
| | **URBAN OLDER SINGLES AND COUPLES (U3)** | 0 | 0.00 | 2212 | 16.42 | 2880 | 8.00 | 704 | 18.14 | 1050 | 13.88 | 6,846 | 10.23 |
| | **URBAN YOUNG SINGLES (U4)** | | | | | | | | | | | | |
| 20 U4 | YOUNG URBAN PROFESSIONALS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 29 U4 | YOUNG URBAN MIX: | 0 | 0.00 | 425 | 3.16 | 7561 | 21.00 | 0 | 0.00 | 274 | 3.62 | 8,260 | 12.35 |
| 36 U4 | YOUNG URBAN INTELLIGENTSIA: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 40 U4 | UNIVERSITY ENCLAVES: | 0 | 0.00 | 1448 | 10.75 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 1,448 | 2.17 |
| 51 U4 | YOUNG CITY SINGLES: | 0 | 0.00 | 383 | 2.84 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 383 | 0.57 |
| 56 U4 | URBAN BOHEMIA: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **URBAN YOUNG SINGLES (U4)** | 0 | 0.00 | 2256 | 16.75 | 7561 | 21.00 | 0 | 0.00 | 274 | 3.62 | 10,091 | 15.09 |
| | **URBAN QUEBEC GREY COLLAR (U5)** | | | | | | | | | | | | |
| 42 U5 | EURO QUEBEC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 45 U5 | OLD QUEBEC WALKUPS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 53 U5 | QUEBEC TOWN ELDERS: | 0 | 0.00 | 265 | 1.97 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 265 | 0.40 |
| 54 U5 | AGING QUEBEC URBANITES: | 0 | 0.00 | 323 | 2.40 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 323 | 0.48 |
| 57 U5 | QUEBEC'S NEW URBAN MOSAIC: | 0 | 0.00 | 512 | 3.80 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 512 | 0.77 |
| | **URBAN QUEBEC GREY COLLAR (U5)** | 0 | 0.00 | 1100 | 8.17 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 1,100 | 1.65 |
| | ***URBAN DOWNSCALE (U6)*** | | | | | | | | | | | | |
| 48 U6 | STRUGGLING DOWNTOWNS: | 0 | 0.00 | 3400 | 25.25 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 3,400 | 5.08 |
| 58 U6 | AGED PENSIONERS: | 0 | 0.00 | 710 | 5.27 | 380 | 1.06 | 0 | 0.00 | 0 | 0.00 | 1,090 | 1.63 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 59 | U6 | BIG CITY STRESS: | 0 | 0.00 | 703 | 5.22 | 308 | 0.86 | 0 | 0.00 | 0 | 0.00 | 1,011 | 1.51 |
| 60 | U6 | OLD GREY TOWERS: | 0 | 0.00 | 178 | 1.32 | 435 | 1.21 | 0 | 0.00 | 0 | 0.00 | 613 | 0.92 |
| | | URBAN DOWNSCALE (U6) | 0 | 0.00 | 4991 | 37.06 | 1123 | 3.13 | 0 | 0.00 | 0 | 0.00 | 6,114 | 9.14 |
| | | GRAND TOTALS: | 5957 | 100 | 13464 | 100 | 36000 | 100 | 3879 | 100 | 7567 | 100 | 66,867 | 100 |

| # | Class | Description | SS6 # | SS6 % | SS7 # | SS7 % | SS8 # | SS8 % | SS9 # | SS9 % | SS10 # | SS10 % | SS Profilex5 # | SS Profilex5 % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RURAL COMFORTABLE FAMILIES (R1) | | | | | | | | | | | | |
| 11 | R1 | NORTHERN LIGHTS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 22 | R1 | THE NEW FRONTIER: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 26 | R1 | RUSTIC PROSPERITY: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 34 | R1 | PICK-UPS & DIRT BIKES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 37 | R1 | QUEBEC'S HEARTLAND: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 38 | R1 | THE GRAIN BELT: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | RURAL COMFORTABLE FAMILIES (R1) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | RURAL DOWNSCALE (R2) | | | | | | | | | | | | |
| 43 | R2 | AGRARIAN BLUES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 47 | R2 | ROD & RIFLE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 49 | R2 | DOWN, DOWN EAST: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 50 | R2 | BIG COUNTRY FAMILIES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 52 | R2 | QUEBEC RURAL BLUES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 55 | R2 | OLD CANADIAN RUSTICS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | RURAL DOWNSCALE (R2) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | | SUBURBAN AFFLUENT (S1) | | | | | | | | | | | | |
| 3 | S1 | SUBURBAN EXECUTIVES: | 0 | 0.00 | 475 | 2.24 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 475 | 3.30 |
| 6 | S1 | MORGAGED IN SUBURBIA: | 0 | 0.00 | 198 | 0.94 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 198 | 1.47 |
| 7 | S1 | TECHNOCRATS & BUEROCRATS: | 0 | 0.00 | 843 | 3.98 | 0 | 0.00 | 191 | 1.17 | 0 | 0.00 | 1,034 | 4.99 |
| 9 | S1 | ASIAN HEIGHTS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 9.49 |
| | | SUBURBAN AFFLUENT (S1) | 0 | 0.00 | 1516 | 7.16 | 0 | 0.00 | 191 | 1.17 | 0 | 0.00 | 1,707 | 19.25 |
| | | SUBURBAN UPSCALE FAMILIES (S2) | | | | | | | | | | | | |
| 5 | S2 | BOOMER & TEENS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 511 | 3.14 | 0 | 0.00 | 511 | 1.16 |
| 8 | S2 | STABLE SUBURBAN FAMILIES: | 0 | 0.00 | 1182 | 5.58 | 412 | 2.61 | 0 | 0.00 | 0 | 0.00 | 1,594 | 1.37 |
| 15 | S2 | SMALL CITY ELITE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.03 |
| 16 | S2 | OLD BUNGALOW BURBS: | 0 | 0.00 | 636 | 3.00 | 2619 | 16.62 | 448 | 2.75 | 0 | 0.00 | 3,703 | 1.74 |
| | | SUBURBAN UPSCALE FAMILIES (S2) | 0 | 0.00 | 1818 | 8.58 | 3031 | 19.23 | 959 | 5.89 | 0 | 0.00 | 5,808 | 4.30 |
| | | SUBURBAN OLDER SINGLES AND COUPLES (S3) | | | | | | | | | | | | |
| 10 | S3 | SUBURBAN NESTERS: | 0 | 0.00 | 170 | 0.80 | 381 | 2.42 | 634 | 3.89 | 342 | 0.96 | 1,527 | 7.20 |
| 12 | S3 | BRIE & CHABLIS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 684 | 1.93 | 684 | 4.07 |
| 17 | S3 | AGING ERUDITES: | 299 | 2.24 | 1139 | 5.38 | 0 | 0.00 | 0 | 0.00 | 848 | 2.39 | 2,286 | 1.39 |
| | | SUBURBAN OLDER SINGLES AND COUPLES (S3) | 299 | 2.24 | 1309 | 6.18 | 381 | 2.42 | 634 | 3.89 | 1874 | 5.28 | 4,497 | 12.66 |
| | | SUBURBAN YOUNGER FAMILIES (S4) | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 S4 | SATELITE SUBURBS: | 0 | 0.00 | 1100 | 5.20 | 318 | 2.42 | 3219 | 19.75 | 0 | 0.00 | 4,637 | 6.15 |
| 23 S4 | KINDERGARDEN BOOM: | 0 | 0.00 | 1401 | 6.62 | 591 | 3.75 | 2226 | 13.66 | 0 | 0.00 | 4,218 | 1.16 |
| | **SUBURBAN YOUNGER FAMILIES (S4)** | **0** | **0.00** | **2501** | **11.82** | **909** | **6.17** | **5445** | **33.41** | **0** | **0.00** | **8,855** | **7.31** |
| | **SUBURBAN QUEBEC (S5)** | | | | | | | | | | | | |
| 18 S5 | PARTICIPATION QUEBEC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 24 S5 | NEW QUEBEC ROWS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 30 S5 | QUEBEC MELANGE: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 32 S5 | TRADITIOANAL FRENCEH CANADIAN FAMILIES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **SUBURBAN QUEBEC (S5)** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** |
| | **TOWN UPSCALE (T1)** | | | | | | | | | | | | |
| 13 T1 | BLUE COLLAR WINNERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 19 T1 | TOWN BOOMERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 27 T1 | OLD TOWNS' NEW FRINGE: | 202 | 1.52 | 262 | 1.24 | 0 | 0.00 | 151 | 0.93 | 0 | 0.00 | 615 | 0.13 |
| | **TOWN UPSCALE (T1)** | **202** | **1.52** | **262** | **1.24** | **0** | **0.00** | **151** | **0.93** | **0** | **0.00** | **615** | **0.13** |
| | **TOWN GREY COLLAR (T2)** | | | | | | | | | | | | |
| 31 T2 | OLD LEAFY TOWNS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 35 T2 | TOWN RENTERS: | 0 | 0.00 | 707 | 3.34 | 1352 | 8.58 | 1991 | 12.22 | 0 | 0.00 | 4,050 | 0.90 |
| 39 T2 | NESTERS & YOUNG HOMESTEADERS: | 235 | 1.76 | 665 | 3.14 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 900 | 0.16 |
| 44 T2 | YOUNG GREY COLLAR: | 33 | 0.25 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 33 | 0.02 |
| 46 T2 | QUIET TOWNS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | **TOWN GREY COLLAR (T2)** | **268** | **2.01** | **1372** | **6.48** | **1352** | **8.58** | **1991** | **12.22** | **0** | **0.00** | **4,983** | **1.08** |
| | **URBAN ELITE (U1)** | | | | | | | | | | | | |
| 1 U1 | CANADIAN ESTABLISHMENT: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 2 U1 | THE AFFLUENCIALS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.92 |
| 4 U1 | URBAN GENTRY: | 661 | 4.96 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 7681 | 21.65 | 8,342 | 1.34 |
| | **URBAN ELITE (U1)** | **661** | **4.96** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **7681** | **21.65** | **8,342** | **2.26** |
| | **URBAN ETHNIC (U2)** | | | | | | | | | | | | |
| 21 U2 | EUROPA: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 1.88 |
| 25 U2 | ASIAN MOSAIC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 7.15 |
| 41 U2 | HIGH RISE MELTING POT: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 10.80 |
| | **URBAN ETHNIC (U2)** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **0.00** | **0** | **19.83** |
| | **URBAN OLDER SINGLES AND COUPLES (U3)** | | | | | | | | | | | | |
| 28 U3 | CONSERVATIVE HOMEBODIES: | 363 | 2.72 | 6075 | 28.69 | 4766 | 30.24 | 2709 | 16.62 | 202 | 0.57 | 14,115 | 5.68 |
| 33 U3 | HIGH RISE SUNSETS: | 514 | 3.86 | 1114 | 5.26 | 787 | 4.99 | 0 | 0.00 | 302 | 0.85 | 2,717 | 2.00 |
| | **URBAN OLDER SINGLES AND COUPLES (U3)** | **877** | **6.58** | **7189** | **33.95** | **5553** | **35.23** | **2709** | **16.62** | **504** | **1.42** | **16,832** | **7.68** |
| | **URBAN YOUNG SINGLES (U4)** | | | | | | | | | | | | |
| 20 U4 | YOUNG URBAN PROFESSIONALS: | 2688 | 20.17 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 8800 | 24.81 | 11,488 | 2.96 |
| 29 U4 | YOUNG URBAN MIX: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 350 | 2.15 | 567 | 1.60 | 917 | 9.57 |
| 36 U4 | YOUNG URBAN INTELLIGENTSIA: | 191 | 1.43 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 5543 | 15.63 | 5,734 | 1.05 |
| 40 U4 | UNIVERSITY ENCLAVES: | 2587 | 19.41 | 0 | 0.00 | 117 | 0.74 | 0 | 0.00 | 4085 | 11.52 | 6,789 | 2.11 |
| 51 U4 | YOUNG CITY SINGLES: | 1779 | 13.35 | 324 | 1.53 | 544 | 3.45 | 491 | 3.01 | 1450 | 4.09 | 4,588 | 1.97 |
| 56 U4 | URBAN BOHEMIA: | 656 | 4.92 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 2861 | 8.07 | 3,517 | 0.58 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | URBAN YOUNG SINGLES (U4) | 7901 | 59.28 | 324 | 1.53 | 661 | 4.19 | 841 | 5.16 | 23306 | 65.72 | 33,033 | 18.24 |
| | URBAN QUEBEC GREY COLLAR (U5) | | | | | | | | | | | | |
| 42 U5 | EURO QUEBEC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 45 U5 | OLD QUEBEC WALKUPS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 53 U5 | QUEBEC TOWN ELDERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 54 U5 | AGING QUEBEC URBANITES: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 57 U5 | QUEBEC'S NEW URBAN MOSAIC: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | URBAN QUEBEC GREY COLLAR (U5) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | URBAN DOWNSCALE (U6) | | | | | | | | | | | | |
| 48 U6 | STRUGGLING DOWNTOWNS: | 2318 | 17.39 | 3372 | 15.93 | 3202 | 20.32 | 3378 | 20.73 | 0 | 0.00 | 12,270 | 3.68 |
| 58 U6 | AGED PENSIONERS: | 800 | 6.00 | 1198 | 5.66 | 377 | 2.39 | 0 | 0.00 | 653 | 1.84 | 3,028 | 1.96 |
| 59 U6 | BIG CITY STRESS: | 0 | 0.00 | 313 | 1.48 | 295 | 1.87 | 0 | 0.00 | 854 | 2.41 | 1,462 | 1.13 |
| 60 U6 | OLD GREY TOWERS: | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 601 | 1.69 | 601 | 0.47 |
| | URBAN DOWNSCALE (U6) | 3118 | 23.39 | 4883 | 23.07 | 3874 | 24.58 | 3378 | 20.73 | 2108 | 5.94 | 17,361 | 7.24 |
| | GRAND TOTALS: | 13326 | 100 | 21174 | 100 | 15761 | 100 | 16299 | 100 | 35473 | 100 | 102,033 | 100 |

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* These interviews did not follow a structured format. Formal questions were not asked. Reference to comments made by these individuals has been included in the text to support the validity of the comments and to give proper credit to information supplied by each individual.