An Analysis of the Relative
Competitive Position of
Marketers of Motor Gasoline

MASTER

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AN ANALYSIS OF THE RELATIVE COMPETITIVE POSITION
OF MARKETERS OF MOTOR GASOLINE

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AN ANALYSIS OF THE RELATIVE COMPETITIVE POSITION
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EXECUTIVE SUMMARY

A number of changes have been taking place in the distribution and marketing of motor gasoline over the past few years. Individual gasoline marketers and representatives of classes of marketers have alleged that they have been adversely affected by these developments.

Much of the shift in market share is attributed to changes in the economics of petroleum production, refining and marketing, and to the advent of Federal regulatory intervention in the petroleum industry.

Attempts to fully analyze the causes of changes in motor gasoline marketing are hampered by two major factors. First, accurate data were not collected by the government prior to 1972. Secondly, data gathered by the Department of Energy (DOE) predecessor organizations on motor gasoline sales did not include complete information on sales by branded and nonbranded wholesale-resellers. Since this group purchased approximately 48.5 billion gallons of gasoline (or 43 percent of total domestic refiner gasoline sales) in 1976, this represents a significant gap in our data base.

FINDINGS

1. From January 1972 through December 1976:

- o Total domestic refiner motor gasoline sales increased by 10.8 billion gallons or 11 percent.
- o Motor gasoline sales through the salaried retail outlets of major and nonmajor refiners increased by 5.4 billion gallons or 69 percent.
- o Motor gasoline sales by major and nonmajor refiners to wholesale-resellers (including branded and nonbranded jobbers, independent marketers, terminal operators, cargo buyers and brokers) increased by 12.8 billion gallons or 36 percent. (DOE does not collect data on resales by wholesale-resellers.)
- o Major and nonmajor refiner motor gasoline sales to their open and lessee retail dealers declined 5.5 billion gallons or 11 percent.

2. Motor gasoline sales through salaried retail outlets of the three categories of refiners varied between 1972 and 1976. For example, large independent and large integrated (major) refiners increased sales through their salaried retail outlets by 53 percent and 62 percent, respectively, while small refiner salaried retail outlet sales were up 86 percent.

3. The total number of gasoline retail outlets in operation declined from 199,800 outlets in November 1974 to 180,273 units by November 1976, a decline of 19,527 units. During this period, however, the number of major and nonmajor refiner salaried retail outlets increased. For example, for the thirty refiners each with a refining capacity greater than 100,000 barrels per day, the number of salaried retail outlets increased from 8,945 for the year 1974 to 11,352 for the year 1976, an increase of 2,407 outlets or 27 percent. It should be noted that five of those refiners increased their salaried retail outlets by 2,170 outlets during the period, from 3,116 in 1974 to 5,286 in 1976. This represents a 70 percent increase in the number of outlets of these five refiners.

4. The number of branded independent retail outlets (open and lessee dealers) decreased during this period by 24,200 units (from 178,900 units in November 1974 to 154,700 units in November 1976, a 14 percent decrease).

Total refiner sales of motor gasoline by refiner category for the years 1972 to 1976 are contained in the Summary Table on page 5. The data contained in this paper are derived or taken directly from data collected or published by DOE as follows:

Form FEA-P305-S-O, "Refiner/Importer Historical Report of Petroleum Product Distribution;" 1972, 1973, 1974.

Form FEA-P306-M-O, "Refiner/Importer Monthly Report of Petroleum Product Distribution;" 1975, 1976, 1977.

"Market Shares - A Report on Sales of Refined Petroleum Products," Monthly, 1975, 1976, 1977.

"Market Shares - A Report on Sales of Retail Gasoline," Monthly, 1975, 1976, 1977.

"Monthly Energy Review;" January and February, 1978.

REFINER SALES OF MOTOR GASOLINE BY CATEGORY
1972 to 1976 (Billions of Gallons)

	1972	ALL REFINERS				LARGE INTEGRATED (MAJOR) REFINERS				
		1976	Change		1972	1976	Change			
			Gal.	%			Gal.	%		
Total Sales	100.6	111.4	+10.8	+10.7	74.0	79.1	+ 5.1	+ 6.9		
To Direct Bulk Sales	8.8	7.3	- 1.5	-17.0	8.2	6.7	- 1.5	-18.3		
To Refiner Salaried Retail Outlets	7.8	13.2	+ 5.4	+69.2	3.4	5.5	+ 2.1	+61.8		
To Independents	83.8	90.9	+ 7.1	+ 8.5	62.3	66.9	+ 4.6	+ 7.4		
Branded to open		11.2	+ .4	-11.5		9.3	+ .5	- 9.2		
Branded to lessee		36.8	- 5.9			32.2	- 4.3			
* Branded to jobbers		20.5	+ 6.3	+35.9		15.8	+ 5.5	+40.4		
* Nonbranded to jobbers		15.2	+ 6.5			5.0	+ 2.9			
	1972	LARGE INDEPENDENT REFINERS				1972	SMALL REFINERS			
		1976	Change		1976		Change			
			Gal.	%			Gal.	%		
Total Sales	8.3	8.9	+ .6	+ 7.2	18.2	23.3	+ 5.1	+28.0		
To Direct Bulk Sales	.4	.3	- .1	-25.0	.2	.3	+ .1	+50.0		
To Refiner Salaried Retail Outlets	1.5	2.3	+ .8	+53.3	2.9	5.4	+ 2.5	+86.2		
To Independents	6.4	6.3	- .1	- 1.6	15.1	17.7	+ 2.6	+17.2		
Branded to open		.3	- .2	-47.8		1.6	+ .1	-14.3		
Branded to lessee		2.0	- .9			2.6	- .7			
* Branded to jobbers		1.5	+ .5	+26.8		3.2	+ .3	+30.6		
* Nonbranded jobbers		2.6	+ .6			7.6	+ 3.0			

Totals may not agree due to rounding.

*Includes independent marketers, cargo buyers, terminal operators, and brokers.

Data may not agree with DOE previously published figures because of revision of preliminary data.

Source: DOE data collected on Forms FEA P-305-S-0 and FEA P-306-M-0.

SUMMARY TABLE

The primary factors affecting the relative market shares could be (1) changes in consumer buying patterns (e.g., self-service) and (2) shifts in marketing strategies in response to consumer preferences (e.g., high volume, low cost operations with competitive prices). Past and present Federal regulations may also have contributed to changes in market shares. Whether recent changes in market shares should be viewed as a potential threat to the continuing competitive viability of any marketing sector cannot be determined by examination of market share data alone; alternate data on the financial condition of businesses in each sector are also relevant but are not now available.

INTRODUCTION

The purpose of this paper is to present information available to the DOE on the relative competitive position of the various types of marketers of motor gasoline.

The paper will:

- o Describe the motor gasoline distribution and marketing system;
- o Analyze motor gasoline sales distribution;
- o Review price and margin trends;
- o Discuss retail outlet attrition;
- and,
- o Describe the data available to the DOE and their limitations.

For purposes of this paper, the motor gasoline marketing universe will be described in the following terms:

Refiners

The Emergency Petroleum Allocation Act (EPAA) of 1973 defined three types of refiners based on refining capacity and crude oil self-sufficiency. Fifteen large integrated (major) refiners have refining capacities in excess of 175,000 barrels per day and own or control directly more than 30 percent of the crude oil used in their refineries.^{1/}

^{1/} Amoco, Atlantic Richfield, Chevron, Cities Service, Continental, Exxon, Getty/Skelly, Gulf, Marathon, Mobil, Phillips, Shell, Sun, Texaco and Union.

Four large independent refiners^{2/} have refining capacities in excess of 175,000 barrels per day but own or control less than 30 percent of the crude oil used in their refineries. Approximately 120 small refiners have refining capacities of less than 175,000 barrels per day. Most small refiners also own or control less than 30 percent of the crude oil used in their refineries.

Wholesale-Resellers

This category of marketers includes independent wholesalers, terminal operators, consignees, and brokers, as well as traditional branded and unbranded jobbers. In the past, wholesale-resellers normally leased their stations to independent dealers. In recent years, however, many wholesale-resellers have been operating some of their own retail outlets on a salaried basis.

Branded Independent Retail Dealers

These are generally lessee dealers who rent outlets from their suppliers, either refiners or wholesale-resellers. This category also includes "open" dealers who own or lease outlets from third parties who are not their suppliers.

^{2/} Amerada Hess, American Petrofina, Ashland and Sohio. Since the enactment of the EPAA in December 1973, three additional firms (Coastal States, Kerr McGee and Tosco) have reached this category. For consistency of analysis, refiner market share data used in this paper include only the original four as large independent refiners.

CHAPTER I - THE DISTRIBUTION SYSTEM FOR MOTOR GASOLINE

In order to understand the shifts in motor gasoline marketing that have taken place in recent years, it is necessary to describe, in some detail, the distribution and marketing system for motor gasoline. Almost all the motor gasoline consumed in the U.S. is produced in domestic refineries; currently, less than 3 percent is imported.

Gasoline is distributed through a complex network of refiners, wholesalers, and retailers depicted in Table I-1. Refiners distribute gasoline to the following:

- o Terminal operators;
- o Branded and nonbranded jobbers;
- o Consignees and commission agents;
- o Large-volume retail consumers (e.g., truck fleets, automobile rental firms and other industry accounts);
- o Refiner salaried retail outlets, including secondary brands;
- o Branded retail dealers, both open (i.e., dealers who own or lease outlets from parties other than their suppliers) and lessee dealers (i.e., dealers who lease outlets from their suppliers); and,
- o Large independent marketers who usually sell their own brand through salaried retail outlets.

MOTOR GASOLINE DISTRIBUTION

I-1

It should be noted that wholesale-resellers (e.g., terminal operators, jobbers, large independent marketers, etc.), both branded and nonbranded, may perform both wholesale and retail functions. Wholesale-resellers store and distribute gasoline to retail outlets. These outlets may be either branded or unbranded lessee dealers, open dealers, or dealers who lease outlets from wholesale-resellers. A wholesale-reseller may also make direct sales to consumers, farm, commercial or industrial accounts. Some wholesale-resellers also own outlets that are operated by salaried employees. A consignee sells and delivers petroleum products at the wholesale level but this method of operation differs from that of a wholesale-reseller in that (a) for the most part, remuneration is on a commission basis, and (b) title to the product remains with the refiner and the refiner's invoice is used in the billing of the product. Under the normal arrangements in effect for consignees, sales can be made to branded retailers or directly to accounts of commercial and agricultural customers.

The types of businesses operated at the retail level of the gasoline marketing system include: (1) full-service outlets; (2) gas and go outlets (high volume, limited

or self-service); (3) combinations of the two (split island); and (4) businesses that sell gasoline only as a sideline to their primary business, such as a convenience store, a discount store, or a department store.

CHAPTER II - MOTOR GASOLINE SALES DISTRIBUTION

Total Sales By Refiners

Tables II-1 through II-5 show refiner sales, by refiner category, for the years 1972 through 1976. The large integrated (major) refiners increased their total gasoline sales from 74.0 billion gallons in 1972 to 79.1 billion gallons in 1976, an increase of 7 percent. Small refiners also increased their sales by approximately 5.1 billion gallons; however, this represented a 28 percent increase in sales for this refiner category. Large independent refiner sales increased 7 percent or 600 million gallons.

Table II-6 compares refiner sales to their share of the gasoline market. The table shows a decline in market share of nearly 3 percentage points by the large integrated (major) refiners and a corresponding rise of about 3 percentage points by small refiners. The market share of large independent refiners remained nearly constant.

TOTAL REFINER GASOLINE SALES BY CATEGORY, 1972
(Thousands of Gallons)

	1972	Large Integrated (Major) Refiners			Large Independent Refiners			Small Refiners		
		%	%	Gals.	%	%	Gals.	%	%	Gals.
(i)	All methods (total)	100.0		74,025,803	100.0		8,300,274	100.0		18,255,282
(ii)	Direct sales for consumption to bulk purchaser	11.1		8,244,404	4.7		393,448	1.3		242,758
(iii)	Refiner salaried retail outlets	4.6		3,439,225	18.2		1,513,046	16.1		2,942,442
(iv)	Independents, in total	84.0	100.0	62,342,094	77.0	100.0	6,393,780	82.6	100.0	15,070,082
(v)	Branded product to open dealers		14.9	9,258,357		4.6	294,321		10.5	1,586,209
(vi)	Branded product to lessee dealers		51.7	12,244,973		31.6	2,017,271		17.5	2,599,043
*(vii)	Branded product to jobbers		25.4	15,824,663		22.9	1,465,559		21.5	3,245,744
*(viii)	Nonbranded product to jobbers		8.0	5,014,101		40.9	2,616,629		50.6	7,639,681

* This category includes brokers, branded and unbranded jobbers, terminal operators, and independent marketers.

Source: DOE data collected on Form FEA P-305-S-0.

- Notes: 1) Percentages may not total 100 due to rounding.
 2) Data may not agree with DOE previously published figures because of revision of preliminary data.
 3) Column 2 of each table is a breakdown of sales to independents.

TOTAL REFINER GASOLINE SALES BY CATEGORY, 1973
(Thousands of Gallons)

1973		Large Integrated (Major) Refiners			Large Independent Refiners			Small Refiners		
		%	%	Gals.	%	%	Gals.	%	%	Gals.
(i)	All methods (total)	100.0		77,638,316	100.0		8,195,273	100.0		18,990,586
(ii)	Direct sales for consumption to bulk purchaser	10.5		8,159,243	4.9		399,113	1.2		219,336
(iii)	Refiner salaried retail outlets	5.1		3,946,795	21.1		1,742,959	18.3		3,466,028
(iv)	Independents, in total	84.4	100.0	65,532,278	74.0	100.0	6,054,201	80.6	100.0	15,305,222
(v)	Branded product to open dealers		15.5	10,170,999		5.1	308,070		11.4	1,743,038
(vi)	Branded product to lessee dealers		51.3	33,600,830		30.3	1,833,342		20.7	3,165,039
*(vii)	Branded product to jobbers		26.0	17,046,081		24.9	1,507,504		23.6	3,606,057
*(viii)	Nonbranded product to jobbers		71.9	4,714,368		39.7	2,405,285		44.4	6,790,288

* This category includes brokers, branded and unbranded jobbers, terminal operators, and independent marketers.
Source: DOE data collected on Form FEA P-305-S-0.

- Note: 1) Percentages may not total 100 due to rounding.
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3) Column 2 of each table is a breakdown of sales to independents.

TOTAL REFINER GASOLINE SALES BY CATEGORY, 1974
(Thousands of Gallons)

1974		Large Integrated (Major) Refiners			Large Independent Refiners			Small Refiners		
		%	%	Gals.	%	%	Gals.	%	%	Gals.
(i)	All methods (total)	100.0		75,461,121	100.0		7,762,676	100.0		19,649,449
(ii)	Direct sales for consumption to bulk purchaser	10.4		7,878,175	4.5		340,617	1.2		227,552
(iii)	Refiner salaried retail outlets	5.0		3,848,201	21.9		1,697,060	19.4		3,819,231
(iv)	Independents, in total	84.5	100.0	63,734,665	73.6	100.0	5,724,999	79.4	100.0	15,602,666
(v)	Branded product to open dealers		15.5	9,900,274		4.7	270,346		11.3	1,763,819
(vi)	Branded product to lessee dealers		48.5	30,804,131		23.8	1,363,302		16.2	2,525,015
*(vii)	Branded product to jobbers		26.4	16,857,159		26.3	1,504,035		22.7	3,546,144
*(viii)	Nonbranded product to jobbers		9.6	6,093,101		45.2	2,587,316		49.8	7,767,688

* This category includes brokers, branded and unbranded jobbers, terminal operators, and independent marketers.
Source: DOE data collected on Form FEA P-305-S-0.

- Note: 1) Percentages may not total 100 due to rounding.
2) Data may not agree with DOE previously published figures because of revision of preliminary data.
3) Column 2 of each table is a breakdown of sales to independents.

TOTAL REFINER GASOLINE SALES BY CATEGORY, 1975
(Thousands of Gallons)

1975		Large Integrated (Major) Refiners			Large Independent Refiners			Small Refiners		
		%	%	Gals.	%	%	Gals.	%	%	Gals.
(i)	All methods (total)	100.0		76,297,601	100.0		8,365,056	100.0		21,125,631
(ii)	Direct sales for consumption to bulk purchaser	9.9		7,572,678	3.9		323,753	1.0		195,204
(iii)	Refiner salaried retail outlets	6.0		4,599,399	23.9		2,002,528	22.1		4,606,644
(iv)	Independents, in total	84.0	100.0	64,125,664	72.2	100.0	6,038,775	76.9	100.0	16,243,703
(v)	Branded product to open dealers		15.1	9,679,463		2.7	163,255		9.7	1,579,699
(vi)	Branded product to lessee dealers		43.8	28,094,918		19.9	1,201,774		13.6	2,210,758
*(vii)	Branded product to jobbers		29.1	18,689,670		31.9	1,926,768		21.5	3,435,460
*(viii)	Nonbranded product to jobbers		11.9	7,661,613		45.5	2,746,978		55.2	8,967,766

* This category includes brokers, branded and unbranded jobbers, terminal operators, and independent marketers.

Source: DOE data collected on Form FEA P-306-M-0.

- Note: 1) Percentages may not total 100 due to rounding.
 2) Data may not agree with DOE previously published figures because of revision of preliminary data.
 3) Column 2 of each table is a breakdown of sales to independents.

TOTAL REFINER GASOLINE SALES BY CATEGORY, 1976
(Thousands of Gallons)

	1976	Large Integrated (Major) Refiners			Large Independent Refiners			Small Refiners		
		%	%	Gals.	%	%	Gals.	%	%	Gals.
(i)	All methods (total)	100.0		79,139,268	100.0		8,943,442	100.0		23,382,256
(ii)	Direct sales for consumption to bulk purchaser	8.5		6,719,334	3.4		301,893	1.1		255,727
(iii)	Refiner salaried retail outlets	7.0		5,507,970	25.8		2,310,612	23.1		5,402,815
(iv)	Independents, in total	84.6	100.0	66,911,964	70.8	100.0	6,330,977	75.8	100.0	17,723,714
(v)	Branded product to open dealers		14.7	9,809,142		1.4	85,497		9.7	1,715,787
(vi)	Branded product to lessee dealers		41.7	27,894,964		16.9	1,066,829		10.5	1,852,397
*(vii)	Branded product to jobbers		31.8	21,299,504		31.8	2,010,351		19.8	3,511,881
*(viii)	Nonbranded product to jobbers		11.8	7,908,354		50.6	3,168,300		60.0	10,643,649

* This category includes brokers, branded and unbranded jobbers, terminal operators, and independent marketers.

Source: DOE data collected on Form FEA P-306-M-0.

- Note: 1) Percentages may not total 100 due to rounding.
 2) Data may not agree with DOE previously published figures because of revision of preliminary data.
 3) Column 2 of each table is a breakdown of sales to independents.

TOTAL GASOLINE SALES (IN BILLIONS OF GALLONS)
AND REFINER CATEGORY SHARE OF DISTRIBUTION

REFINER TOTALS	1972	1976	CHANGE
TOTAL REFINER SALES	100.6 gals	111.4 gals	+10.7%
LARGE INTEGRATED (MAJOR) SALES	74.0 gals	79.1 gals	+ 6.9%
SHARES	73.6%	71.0%	- 2.6 pts*
LARGE INDEPENDENT REFINERS SALES	8.3 gals	8.9 gals	+ 7.2%
SHARES	8.3%	8.0%	- 0.3 pt *
SMALL REFINERS SALES	18.2 gals	23.3 gals	+28.0%
SHARES	18.1%	20.9%	+ 2.8 pts*

* Percentage point increase or decrease

Source: FEA Forms P-305-S-0 and FEA P-306-M-Q
(derived from table in Executive Summary)

Refiners' Sales to Marketing Categories

In 1976, the major and nonmajor refiners sold 90.9 billion gallons of gasoline to independent marketers, both wholesalers and retailers. This represents an increase of 7.1 billion gallons (8 percent) over 1972 figures. The remaining refiner sales were made to bulk purchasers and through refiner salaried retail outlets.

Salaried Retail Outlets

Major and nonmajor refiner sales through salaried retail outlets increased 5.4 billion gallons or 69 percent during the period January 1972 through December 1976. The large independent and large integrated (major) refiner categories increased sales by 800 million gallons (53 percent) and 2.1 billion gallons (62 percent), respectively. Small refiner salaried retail outlet sales were up 2.5 billion gallons or 86 percent. Salaried retail outlet sales of small refiners, as a percent of total refiner salaried retail sales, were 37 percent in 1972 and 41 percent in 1976. The large integrated (major) refiner salaried retail outlet sales as a percent of total refiner salaried retail outlet sales, however, declined from 44 percent in 1972 to 42 percent in 1976.

Branded Dealers

Branded dealers (open and lessee) purchased 41.5 billion gallons of gasoline directly from large integrated (major) refiners in 1972 and 37.7 billion gallons in 1976. This was a decline of 3.8 billion gallons, or 9 percent. This decline in volume sold to open and lessee dealers is less than the decline in volume sold to open and lessee dealers by all refiners (11 percent).

During the 1972 to 1976 period, small and large independent refiners decreased their sales of gasoline to their branded dealers 14 percent and 48 percent, respectively. These firms increased their sales through their salaried retail outlets as shown below.

INCREASE IN REFINER SALARIED RETAIL OUTLET SALES *

Large Independent	53%
Small Independent	86%

* Calculated from the Summary Table on page 5.

Wholesale-Resellers

This category (which includes branded and nonbranded jobbers, independent marketers, terminal operators, cargo buyers and brokers) purchased 12.8 billion gallons (36 percent) more in 1976 than 1972. Most of this increase was in the large integrated (major) refiner sales category

(8.4 billion gallons or a 40 percent increase). The large independent and small refiners together supplied 14.9 billion gallons to wholesale-resellers in 1972 and 19.3 billion gallons in 1976, an increase of 4.4 billion gallons or about 30 percent.

Present DOE regulations require prime suppliers to make an additional assignment of gasoline to a wholesale-reseller whenever an allocation for a retail outlet is approved. Since there is no requirement for a decrease in allocation if the wholesale-reseller supplied retail dealer goes out of business, the wholesale-resellers losing retail outlets have been able to redistribute an increased volume of gasoline among their customers and also among their own retail outlets. The branded independent dealers allege that this redistribution of gasoline by the wholesale-resellers places them in an unfair competitive position when competing at the retail level. This "upward certification" provision of the regulations may have created some market share distortions.

Since the DOE does not collect complete data on wholesale-resellers, it has no definitive information

on the total number of wholesale-resellers or the number of stations or other customers those wholesale-resellers supply. Industry sources estimate that wholesale-resellers number between 12,000-18,000 and that most of them own or control, through leases or supply agreements, several retail outlets.

CHAPTER III - RETAIL DEALER PRICE AND MARGIN TRENDS

While price controls on domestic crude oil are recognized as a major factor influencing the price of motor gasoline, other factors (including the increased cost of crude oil, supply disruptions, economic recessions, periods of inflation, seasonality, refined product allocation and pricing regulations, demand patterns, marketing strategies and consumer buying patterns) had an impact on prices, gross margins, and operating profits.

Retail dealer gross margin represents the difference between purchase price and subsequent selling price of gasoline. This difference is a measure of the amount of revenue available to cover operating costs and profit. As shown in Table III-1 and Charts III-2 and III-3 on the following pages, the average retail dealer margins for regular gasoline at full service retail outlets was 8.2 cents per gallon in November 1975. Average margins decreased in the summer of 1976 to 7.4 cents per gallon and gradually increased to 9.0 cents per gallon in December 1977. On the other hand, average retail dealer margins at self-service outlets have declined from 5.5 cents per gallon in November 1975 (the first available data on self-service margins) to 4.2 cents per gallon in December 1977.^{1/}

^{1/} See Appendix, page v.

MOTOR GASOLINE

Regular Gasoline at Retail Outlets
(Cents per gallon, including tax)*

		<u>Full Service</u>		<u>Self-Service</u>	
		<u>Average</u>	<u>Average</u>	<u>Average</u>	<u>Average</u>
		<u>Selling</u>	<u>Dealer Gross</u>	<u>Selling</u>	<u>Dealer Gross</u>
		<u>Price</u>	<u>Margin</u>	<u>Price</u>	<u>Margin</u>
1974	Average	52.8			
1975	January	52.4	9.0	—	—
	February	52.5	9.0	—	—
	March	52.6	8.8	—	—
	April	53.5	8.6	—	—
	May	54.3	8.3	—	—
	June	55.6	8.1	—	—
	July	58.7	8.4	—	—
	August	59.2	8.4	—	—
	September	59.3	8.2	—	—
	October	58.9	8.2	—	—
	November	58.4	8.2	55.4	5.5
	December	58.0	8.1	54.9	5.3
	Average	56.2		—	
1976	January	57.7	8.1	54.7	5.4
	February	57.1	8.3	53.8	5.4
	March	56.6	8.3	53.2	5.3
	April	56.6	8.0	53.2	4.9
	May	57.4	7.4	54.4	4.5
	June	59.0	7.4	56.3	4.8
	July	59.6	7.4	56.6	4.6
	August	60.1	7.4	56.7	4.4
	September	60.2	7.6	56.5	4.3
	October	60.2	7.6	56.5	4.4
	November	60.0	7.8	56.4	4.5
	December	59.9	7.9	56.1	4.5
	Average	58.7		55.4	
1977	January	59.9	7.9	56.2	4.5
	February	60.7	7.9	57.1	4.4
	March	61.3	7.8	57.7	4.4
	April	62.2	8.1	58.4	4.4
	May	62.9	7.9	58.9	4.2
	June	63.4	8.1	59.3	4.3
	July	63.4	8.3	59.2	4.4
	August	63.4	8.4	58.8	4.2
	September	63.3	8.6	58.5	4.2
	October	63.2	8.8	58.2	4.2
	November	63.1	8.7	58.1	4.0
	December	63.3	9.0	58.2	4.2
	Average	62.5		58.2	

* To derive prices excluding taxes, 12.2 cents per gallon may be deducted for 1974 and 1975, and 12.5 cents per gallon may be deducted for 1976 and 1977.

Sources: FEA for 1974; Lundberg Survey, Inc., for January 1975 forward.

NOTE: Data for self-service retail outlets unavailable for months prior to November 1975.

* Sales of leaded regular gasoline.

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* Leaded regular gasoline, including tax.

NOTE: Data for self-service retail outlets unavailable for months prior to November 1975.

CHAPTER IV - THE NUMBER OF RETAIL OUTLETS^{1/}

The total number of gasoline retail outlets in operation declined from approximately 199,800 outlets in November 1974 to 180,273 units by November 1976, a decline of 19,527 units or 10 percent. During this period, however, the total number of major and nonmajor refiner salaried retail outlets increased. For example, for the 30 refiners each with a refining capacity greater than 100,000 barrels per day, the number of refiner salaried retail outlets increased from 8,945 for the year 1974 to 11,352 for the year 1976. It should be noted that five of those refiners accounted for approximately 90 percent of the increase during the period.

The number of branded independent retail outlets decreased during this period by 24,200 units (from 178,900 units in November 1974 to 154,700 units in November 1976, a 14 percent decrease).

^{1/}

Data provided in this section were taken or derived from
1) data collected by the DOE on Form FEA P-306-M-0, or
2) estimates provided by the Bureau of the Census.

APPENDIX - DATA LIMITATIONS

Our ability to identify and interpret changes in the marketing of motor gasoline is hampered by the unavailability of comparable marketing data at all levels of the marketing and distribution chain. While the DOE collects certain data on market shares, prices, gross margins and net turnover by marketing category, it has no data on the financial condition of retail gasoline marketers. Any regulatory program faces the dilemma of not overburdening the regulated industry with reporting requirements, while at the same time collecting information in sufficient detail to allow the regulators to remain abreast of developments in the industry being regulated.

As shown in the schematic that follows, the DOE collects data on the first sale of all gasoline distributed by refiners in the U.S. This includes sales to bulk accounts, branded and nonbranded wholesale-resellers, refiner salaried retail outlets, and branded dealers. The DOE also collects data on the retail sales of branded and nonbranded gasoline retail outlets. The DOE does not, however, collect complete data on gasoline resold by branded and nonbranded wholesale-resellers to dealer-operated retail outlets.

DOE DATA COLLECTION

*Includes Large Independent Gasoline Marketers and Terminal Operators

These customers include branded and nonbranded lessee dealers, branded and nonbranded open dealers, and bulk purchasers. Wholesale-resellers purchased 43 percent of the gasoline sold by all refiners in 1976.

There are a number of factors that complicate the gathering of reliable motor gasoline marketing data. First is the large number of retail marketers of gasoline. Second, many marketers operate both wholesale and retail businesses. These facets of gasoline marketing give rise to multiple pricing and supply arrangements and make the task of describing the universe of marketers to be monitored extremely difficult. Moreover, prior to motor gasoline price and allocation controls, consistent definitions of types of marketers did not exist. The growth of self-service retail outlets and sales of gasoline by nontraditional gasoline outlets (e.g., convenience stores) further complicates data gathering and analysis.

The existing DOE gasoline data collection effort consists of two surveys, developed to satisfy gasoline market monitoring requirements of the Emergency Petroleum Allocation Act (EPAA) of 1973: 1) the survey of retail gasoline service stations which monitors the sale of gasoline by sampling the three major categories of marketers --

nonbranded, branded, and refiner salaried retail outlets; and, 2) the refiner survey which monitors distribution of refined petroleum products by domestic refiners.

The survey of retail gasoline outlets, conducted by the Bureau of the Census for the DOE, collects data monthly from a rotating sample of approximately 1,000 retail outlet operators representing 10,000 outlets nationwide. These outlets primarily sell gasoline and automotive lubricants. They may also sell tires, batteries, and accessories and perform minor repair work and services. Using this sample, data estimates of volume, price and number of outlets are developed by category of marketers. After analysis, a report describing price, volume, market share and number of retail outlets is published as the DOE's "Market Shares - A Report on Sales of Retail Gasoline."

The DOE refiner survey monitors monthly changes in the refiner sales distribution of motor gasoline. The survey collects data describing product sold to ultimate consumers and to independent marketers by the large integrated (major) refiners and by the "other" refiners (large independent and small refiners). The results of this survey are published in the DOE's "Report on Sales of Refined Petroleum Products."

There are some inherent limitations in these two surveys. First, the monthly motor gasoline survey (done for the DOE by the Census Bureau) only provides national estimates while more in-depth analysis would require data on regional and state markets.

Second, the refiner survey only collects information on the first sale of motor gasoline by refiners. As indicated earlier, data on gasoline resold by wholesale-resellers and independent marketers is required for an understanding and analysis of the distribution and marketing of this portion of gasoline sales.

Between January 1975 and December 1977, the DOE contracted with Lundberg Survey, Inc. to acquire information on gasoline prices. This source estimated national and regional average prices per gallon for regular gasoline by split-island and full-service outlets. However, under their data collection procedures, the data could not be broken out by marketing category such as lessee, open, refiner salaried retail outlet, or wholesale-reseller salaried outlet. Average gross margins based on the difference between average purchase price and average selling price were also provided by grade and type of gasoline, but again, these data could not be reconciled with data on sales by market category.

Another problem with respect to data comparability is the periods for which data are available. Data for retail establishments, by marketing category, were not collected before November 1974. Refiner distribution data, however, are available for the period from 1972 to the present. It should be noted that no gross dealer attrition data (i.e., entries and exits from the industry) are collected. Data on gasoline retail prices by marketing category have been collected only since January 1976.

In summary, the data limitations by all marketing categories, the differing timeframes for which data are available, and the inability to reconcile data from the various sources limit our ability to draw firm conclusions about changes in motor gasoline marketing.