A BRIEF HISTORY OF THE GASOLINE SERVICE STATION

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ABSTRACT

This paper traces the historical development of the gasoline service station as an institution from the turn of the century to the mid-1950's. It was written, but never published, in 1957 by the late Theodore N. Beckman. As presented herein, this paper comprises the first of two sections of the original manuscript. The second part, available on request, deals with changes in merchandise lines and services as well as the factors leading to those changes.

INTRODUCTION

The gasoline service station as it is known today is an institution of recent development and one which has passed through several distinct stages in its evolution. There is little resemblance between the modern, well-equipped station and its predecessor of fifty years ago. Today's service station is an expensive, specially designed type of retail outlet at which a motorist can satisfy his needs for a wide range of automotive goods and services; the early "filling station," in contrast, sold only gasoline and oil, offered few related products or services, was often poorly located, and was usually considered a blight to the surrounding neighborhood. The story of this development is an interesting one. It is a story of continuous improvement in physical facilities; of constant adaptation to a changing market; and of tremendous growth in the importance of service stations in the nation's economy.

The purpose of this study is to trace the historical development of the gasoline service station as an institution, in terms of the changing nature of the typical station and the major factors affecting historical change.

The study is divided into two major sections. The first is a summary of the origin and development of service stations, their quantitative importance, the principal types of stations in existence today, and the nature of competition in the business. The second part of the study deals with changes in merchandise lines and services offered by service stations over the years, including a detailed analysis of the factors leading to "TBA" marketing by such establishments.[1] For the most part the study is based on analyses of official information collected by the United States Bureau of the Census or other governmental agencies. Other important sources of information include the results of research studies made by economists, published materials in petroleum trade periodicals, and trade association data.

ORIGIN AND DEVELOPMENT OF THE GASOLINE SERVICE STATION

Since the principal function of the gasoline service station is to supply the needs of the automobile and truck owners, the history of the institution closely parallels that of the automobile industry. The first passenger cars were sold in 1895. For many years, however, the automobile remained a "rich man's toy"

[1] The original manuscript including both sections is 57 pages long. Because of page limitations only the first section is presented herein. The full manuscript is available on request.

and its production was limited by the inability of most consumers to buy cars at the prevailing prices. The origin of so-called mass production and relatively widespread ownership may be dated from 1908, when Henry Ford commenced the manufacture of his famous Model T.

Early Gasoline Outlets

In the early years of the automotive industry specialized outlets for gasoline and lubricants were unknown. Motorists purchased these products from a number of different kinds of retail stores and service establishments which handled petroleum products as side lines to other business activities. These included general stores, hardware stores, automobile dealers, farm implement dealers, grocery stores, drug stores, bicycle repair shops, and even peddling tank wagons which traveled from house to house (Partridge 1952, pp.151-52; Shuman 1940, pp.128-29). Gasoline was typically dispensed from barrels; customers filled their tanks from cans kept in the car for this purpose. The dispensing pump with an underground storage tank did not appear until about 1910, and even then most pumps were operated as curbstone adjuncts to other kinds of stores (James 1953, pp.28-29).

Beginnings of Specialized Gasoline Retail Outlets

Apparently the first specialized gasoline filling stations came into being between 1905 and 1910. Two features distinguished the filling station from previous gasoline outlets: (1) the fact that it specialized in the sale of motor fuel and lubricants, deriving the major part of its sales revenue from such products; and (2) its physical characteristics, including space for motorists to drive in and receive service off the street. The first large-scale development of "drive-in" stations by a major oil company was that of the Standard Oil Company of Indiana. Although the first such station was opened by this company in Chicago in 1913, there is reason to believe that it was preceeded by this type of station that was opened in Pittsburgh by the Atlantic Refining Company. Nevertheless, the growth of filling stations prior to World War I may be judged by the number of outlets operated by Standard of Indiana, which increased from 25 in 1914 to 153 in 1916 and 277 in 1917 (Giddens 1955, pp. 175-176). By 1920, the need for filling stations was firmly established and growth thereafter proceeded apace.

Task of Early Filling Stations

Until the mid-1920s, filling stations were designed quite literally to fill motorists' gasoline tanks. Few stations offered associated products or services for sale. Lubrication facilities were not available; this is explained by the fact that "Ford was the only large producer of cars, and since Fords were equipped with grease cups, an owner could do his own greasing" (Giddens 1955, p.281). In 1926, Sinclair erected three stations with lubrication equipment, known as "greasing palaces." Standard of Indiana followed suit in 1927 and other oil companies were quick to emulate these successful experiments (Giddens 1955, p.283). It is hardly coincidental that the establishment of lubrication facilities came almost at the same time that General Motors first surpassed Ford in sales volume. The change in the nature of filling stations was clearly a response to a change in motorists' needs and habits. The custom of servicing one's own Model T had given way to a demand for service by trained specialists.

Period of Rapid Growth in Number of Filling Stations

A rapid increase in the number of filling stations took place up to 1929. There are no authoritative figures on the number of stations prior to the first Census of Retail Distribution, made in 1930 but covering operations during the year 1929. At that time, there were 121,513 filling stations in the United States under the Bureau of Census definition, which covers only establishments primarily engaged in the sale of gasoline and other automotive petroleum products (Census of Business 1948, p.25.06). Because other kinds of retail and service establishments also sell gasoline and lubricants, there has been considerable confusion in trade literature about the number of stations in the United States. One writer placed the number of filling stations in 1929 at 202,000 which clearly exaggerated the increase in the number of stations (Coombs and Beeder 1935, p.78). In order to clarify the situation, Census data have been employed to determine the number of service stations and other retail outlets for petroleum products for selected years since 1929. These figures are presented in Table 1.

Changes in Number of Service Stations and Total Gasoline Outlets

Since 1929, there has been a long-term increase in the number of service stations, but the total number of retail outlets for petroleum products has grown much less rapidly. Between 1929 and the most recent Census of Retail Trade for 1954, the number of service stations increased 49.6%, from 121,513 to 181,747. These figures are not strictly comparable, however, due to changes in the coverage of the Census. For the 1954 enumeration, establishments with no paid employees were excluded from the data, resulting in a somewhat lower number of stations than if the same coverage had been given as for the previous Census years. Some idea of the effect of this change can be gotten by comparing the number of service stations based on the new Census standards with the number of stations under old standards for the year 1948. Both of these figures are shown in Table 1. If the same proportion of service stations had no paid employees in 1954 as in 1948, the total number of stations under old Census standards would have been 190,453 in 1954. This latter figure is, of course, only a rough estimate.

In addition to gasoline service stations, several other kinds of retail outlets are employed in the distribution of gasoline and oil. As indicated by Table 1, there were 182,270 "secondary outlets" for petroleum products in 1929, and 160,018 such outlets in 1948. Because certain kinds of data were not collected in 1954, no corresponding figure can be determined for that year. The total number of retail outlets for petroleum products increased from 303,783 in 1929 to 339,665 in 1948 (Table 1), for an overall change of 11.8% in the period of 20 years. This rate of expansion is much less than for gasoline service stations alone, and it indicates that some of the concern over "too many service stations" (see, for example, Lundy 1950, pp.321-33) may be based on an optical illusion, probably gained from an area-wise concentration of such stations and from their location at important cross road points constantly in the public eye. It may well be that much of the increase in the number of service stations has resulted from changes in classification, that is, outlets previously counted in some other kind of business group such as general stores may have become sufficiently specialized to be classified as service stations in the later Census years.

Effect of the Depression of the 1930's and of World War II

During the depression period of the early 1930's the number of gasoline service stations was temporarily increased above and beyond any long-term known trend. At that time retail and service trades generally attracted many unemployed industrial workers and others who could find no employment in other occupations. Some retail trades, like groceries and gasoline service stations, where entry into business required little capital and was otherwise relatively easy, were especially appealing to budding business men (Shuman 1940, p.153). Thus, the number of gasoline service stations increased 40% in 1933 over 1929, as shown by the data in Table 1, despite a decline of 14.3% in total dollar sales for the entire service station kind of business (see Table 2). This resulted in a precipitous decline in sales per station of no less than 39%, reckoned in current 1933 dollars (see last column of Table 2). Since, however, retail gasoline prices also declined substantially during that period, as shown by the data in Table 3, the physical volume of sales per station in 1933, after adjustment for price change, was only 13.2% below 1929.

The upward trend in the number of gasoline service stations continued until it reached the peak in 1939 with 241,858 such establishments. By that time, however, the physical volume of business done

Table 1

Gasoline Service Stations and Secondary Retail Outlets for Gasoline and Lubricants, Selected Years, 1939-1954

Year	Gasoline Service Stations[a]	Secondary Outlets	Total Retail Outlets for Gasoline and Lubricants
1929	121,513	182,270	303,783[b]
1933	170,404	n.a.	n.a.
1935	197,568	n.a.	n.a.
1939	241,858	89,580[c]	331,438[c]
1948	188,253*	151,412[d]	339,665[d]
	179,647**	151,412[d]	331,059[d]
1954	181,747	n.a.	374,495[e]

n.a. Data not available.

* On basis comparable with preceding Census years.

** On basis comparable with 1954, which excludes stations with no paid employees.

a. From the several reports for the years covered by the Census of Retail Trade, U.S. Department of Commerce, Bureau of the Census. In years prior to 1948, "Filling Stations"; in 1948 and 1954, "Gasoline Service Stations".

b. "A special trade report on the petroleum industry shows that filling stations constitute 40 per cent of the total number of retail outlets for gasoline," which would result in 182,270 secondary outlets and a total of 303,783. (Fifteenth Census of the United States: 1930, Distribution, Volume 1, Retail Distribution, Part I, (Washington, U.S. Government Printing Office, 1933), p. 49, footnote 3.

c. Computed from 1939 Census data as reported.

d. Computed from 1948 Census data, reporting 327,019 outlets which were adjusted for full coverage.

e. As of 1956, number of gasoline dealers computed on basis of 91 oil companies reporting. National Petroleum News Factbook Issue, Mid-May 1956, p. 175.

Table 2
Number and Sales of Gasoline Service Stations,
Selected Years, 1939-1954

Year	Number of Gasoline Service Stations[a]	Total Sales[a]	Average Sales per Service Station: Amount	Average Sales per Service Station: Per Cent of 1929
1929	121,513	$ 1,787,423,000	$14,710	100.0
1933	170,404	1,531,724,000	8,990	61.1
1935	197,568	1,967,714,000	9,960	67.7
1939	241,858	2,822,495,000	11,670	79.3
1948	188,253	6,483,301,000	34,440	234.1
1954	181,747[b]	10,743,812,000	59,110	401.8

a. Designated as "filling stations" prior to 1948.

b. Excludes establishments without paid employees, hence not strictly comparable with data for preceding years but approximately so especially in terms of sales volume.

Sources: Publications of the Bureau of the Census, U.S. Department of Commerce, for the several Census years.

Table 3

Average Sales per Gasoline Service Station, in Current Dollars
and in 1929 Dollars, Selected Years, 1929-1954

Year	Average Sales per Service Station[a]	Average Retail Gasoline Prices: Price per Gallon[b]	Average Retail Gasoline Prices: Index (1929 = 100)	Estimated Sales per Service Station in 1929 Dollars: Amount	Per Cent of 1929
1929	$14,710	$0.179	100.0	$14,710	100.0
1933	8,990	0.126	70.4	12,770	86.8
1935	9,960	0.136	76.0	13,110	89.1
1939	11,670	0.133	74.3	15,710	106.8
1948	34,440	0.196	109.6	31,450	213.8
1954	59,110	0.215	120.1	49,220	334.6

a. See Table 2.
b. Based on data from the American Petroleum Institute, reported in Business Statistics, 1955 edition, U.S. Department of Commerce, Office of Business Economics (Washington, U.S. Government Printing Office, 1955), p. 171. The prices reported are average retail prices in 50 cities, exclusive of taxes. While service stations sold merchandise other than gasoline (in varying proportions) throughout the period, the index is considered adequate for an approximation of sales per station in constant dollars, in view of the fact that sales of gasoline and lubricants exceeded three-fourths of the volume in each of the years involved.

per station caught up with and, in fact, exceeded the average recorded for 1929, as shown in the last column of Table 3. This means that practically all through the 1930's the growing number of stations, accompanied at first by a declining volume of total business and then by a relatively small increase in such volume, led to intense competition in that line of business. This was, no doubt, a major contributing factor in the changes effected in merchandise lines during that period, as discussed in some detail later in this presentation.

It is probable that the number of gasoline service stations was not greatly different in 1940 than in 1939, but it is definitely known that the number declined thereafter because of the influences of World War II. According to data published by the U.S. Department of Commerce, the number of firms operating "filling stations" was only 154,400 in 1944 and then increased to 196,800 by the end of 1946 (Churchill 1954, p.15). This number must have been much smaller during the early years of the war (1942 and 1943), when even the smaller number had difficulty in obtaining a satisfactory volume of sales on account of gasoline rationing and general shortages of supplies in the goods normally handled by the stations. All of this furthered the movement to add whatever lines of goods could be obtained and sold under such abnormal conditions. The increase noted for the period immediately following war's end may be explained in large part by the return of service men to civilian life, loss of deferred jobs in industry as war orders dropped off, and the renewed availability of petroleum products on a non-rationed basis.

A Smaller Number of Healthier Service Stations

Following the readjustment after World War II the number of gasoline service stations, as of 1948, was 22% less than at the peak in 1939, but the volume of business per station was about three times what it was in current dollars and twice as much in terms of 1939 dollars or in physical volume. In relation to 1929 - the first year used for our comparisons - the average gasoline service station in 1948 did over twice as much business as it experienced in 1929 whether figured in terms of current dollars or in 1929 dollars.

By 1954, the improvement in the business volume per station was most conspicuous when compared with either 1929 or 1939. As shown by the data in Table 2, it was four times the business done per station in 1929 in terms of current dollars and, according to the data in Table 3, substantially greater than three times (334%) the volume in 1929 dollars. In relation to the sales per station in 1939, the 1954 sales volume per station was over five times the volume in current dollars and over three times the volume in 1939 dollars. This means that in recent years the business health of service stations, in terms of sales volume, has been three to four times better than in 1929 and from three to five times better than in 1939.

Change in the 1930's to Independent Dealer Stations

During the 1930's there was a definite movement away from the operation of gasoline service stations by the major oil companies in favor of independent dealers. In the early years of the petroleum industry, most stations were owned by oil companies and were operated by their salaried employees. During the 1930's, however, the oil companies tended to lease their service station properties to independent dealers. This development was popularly referred to as the "Iowa Plan", because it was first tried on a large scale by the Standard Oil Company of Indiana in its Iowa marketing territory (Shuman 1940, p.166). The net result of the Iowa Plan was the divorcement of station operation from oil refining and the development of a system of independent dealers who usually sold the products of a single oil company supplier under some kind of contractual agreement.

The immediate impetus to the Iowa Plan was alleged to be the enactment of chain store tax laws by a number of states in the early 1930's. This imposed heavy burdens on the oil companies in those states where they applied to filling stations (Shuman 1940, p.166). Taxation was, however, only a contributing factor, since in most states filling stations were specifically exempted from such taxes (Hamilton 1954, p.36). Some of the other considerations which encouraged the use of independent stations were (McLean and Haigh 1954, pp.289-94):

1. The greater efficiency which is presumed to result from operation by an independent businessman rather than a salaried employee.
2. Greater flexibility in adjusting to local conditions through local rather than centralized control.
3. Enactment of legislation in the 1930's which would have imposed higher labor costs on the oil companies, particularly wage-and-hour regulations and Social Security.
4. The difficulty of administering retail prices which were sufficiently flexible to allow for differing competitive conditions and at the same time did not violate the "anti-discrimination" laws enacted by many states in the 1930s.

THE GASOLINE SERVICE STATION TODAY

Current Predominance of Independent Dealers

Most service stations today are operated by independent dealers who own their stations or lease the facilities of the station from the supplying oil company. Accordingly, service stations may be classified into three groups, on the basis of ownership and operation into: (1) company owned and operated stations, (2) lessee-dealer stations, and (3) contractor stations (McLean and Haigh 1954, pp.476-78). The company-operated stations are definitely in the minority today. No comprehensive data are available from the Census in terms of this classification, but a recent study of six major oil companies showed that of a total of 118,523 outlets in 1951, only 603 (about one-half of one per cent) were company-operated. Only one of the companies in the group, Standard Oil of Ohio, has retained a policy calling for extensive use of this type of outlet.

Lessee-dealer stations are operated by independent businessmen under a variety of arrangements with the supplying oil companies. In some cases the supplying oil company owns the land and building of the station, leasing it to the dealer at a rental proportional to the number of gallons of gasoline sold. In other cases the dealer owns the facilities, leases them to the oil company and then leases them back (McLean and Haigh 1954, p.477). A third situation involves ownership of the land and/or buildings by a third party, who leases them to the oil company, from which the dealer sub-leases them. Lessee-dealer outlets comprised about 32.5% of the total in 1951 for the six companies mentioned above.

The most numerous type of outlet is the "contractor station", which is owned and operated by the dealer. The great number of contractor stations reported by the six oil companies in the aforementioned study indicates that many of them are not service stations at all, but secondary gasoline outlets of one kind or another.

Service Station Business is Highly Competitive

The service station trade is characterized by intense competition. Competition exists between stations of different oil companies, between different types of stations, and between individual stations selling the same brand of gasoline.

In a recent study of retail competition in a single metropolitan market, it was found that "... there is little evidence of anything but vigorous competition..." among rival service stations (Cassady and Jones 1951, p.212). Indeed, the service station trade has probably been criticized more often for being "overly competitive" than for any supposed restraint of trade. The thesis often advanced that there are "too many" stations rests in part on the optical illusion previously referred to and in part on the unfounded theory that excessive competition has led to instability and economic waste in this area (Ryan 1935, p.42). That there may be such a tendency in the short run of too much competition is quite probable, although from a long-run viewpoint it would be difficult to find support for this kind of criticism in economic theory. If, as alleged, there are too many stations for the available gasoline business, competition itself will, again in the long run, tend to drive out marginal dealers and restore normal workable competition to the market. To some extent the decline in the number of stations between 1939 and 1954 may be attributed to such an adjustment, although other factors were no doubt involved as well, including a change in the coverage of the Census which apparently reduced the number by about 5%.

Keen Competition But Few Failures

Despite the intense competition in the gasoline service station business, the rate of business failures among such establishments has been relatively low. For this purpose, the term "failure" must not be confused with such terms as discontinuances, transfers, or other changes that do not involve loss to creditors. On this score there has been much misunderstanding. For the purpose of compiling failure statistics which are widely published by the government and in business periodicals, the term failure is used in the same sense in which it is applied in this discussion. A commercial failure has been defined in an official governmental publication as, "a concern that is involved in a court proceeding or a voluntary action that is likely to end in loss to creditors" (U.S. Department of Commerce 1955, p.202).

In another publication from an authoritative private source, the matter has been spelled out in greater detail, as follows:

> Business Failures include those businesses that ceased operations following assignment or bankruptcy; ceased with loss to creditors after such actions as execution, foreclosure, or attachment; voluntarily withdrew leaving unpaid obligations; were involved in court actions such as receivership, reorganization, or arrangement; or voluntarily compromised with creditors (Dun and Bradstreet 1955, p.4).

In this sense, which is the one universally used in connection with published failure statistics, and which must be adopted for comparision with failures in other lines of business (as shown by the data in Table 4), only 817 gasoline service station failures were recorded for the 8-year period 1947-1954 covered by the data, or an average of 102 per year.

Nor has there been any unusual increase in liabilities per failure. As shown in the last column of Table 4, in 1939 the liabilities per station failure averaged $5,135, compared with the highest average of $11,135 in 1953 and $11,145 in 1954. It must be remembered, however, that the dollar in the last two years was of quite different value than in 1939. As a matter of fact, the wholesale price index published by the U.S. Department of Labor (1947-49 = 100) stood at 50.1 in 1939, at 110.1 in 1953 and at 110.3 in 1954. When the liabilities per station in 1953 and 1954 were discounted for this change in the value of the dollar, or placed in terms of the 1939 dollar, they amount to $5,061 and $5,066, respectively, thus in both years being somewhat less than in 1939.

For a proper gauge of failure rates among gasoline service stations such rates should be compared with the failure rates for other kinds of retail business. This can be done by means of the data presented in Table 5, which shows the failure rate per 10,000 operating concerns in a number of specified lines of retail trade. From such data it will be noted that in only one line of business, Farm Equipment, was the failure rate as low as in the gasoline service station business, and that only for 1940, since in 1954 it was almost two and a half times as large and in only one other line, Packaged Liquor, was it as low or lower in 1953 or 1954. In all other kinds of business covered by the data, the failure

Table 4

Number and Dollar Liabilities of Failures Among Filling Stations, 1939-1954

Year	Number of Failures*	Liabilities of Failures Total	Per Failure
1939	185	$ 950,000	$ 5,135
1940	223	980,000	4,395
1941	205	834,000	4,068
1942	140	488,000	3,486
1943	36	181,000	5,028
1944	12	27,000	2,250
1945	14	114,000	8,143
1946	11	51,000	4,636
1947	35	303,000	8,657
1948	62	555,000	8,952
1949	94	999,000	10,628
1950	136	1,144,000	8,412
1951	91	856,000	9,407
1952	107	1,018,000	9,514
1953	126	1,403,000	11,135
1954	166	1,850,000	11,145

* Failure is defined as a discontinuance with loss to creditors. These data are presented on the same basis as those for other lines of trade, contained in Table 5, and hence are fully comparable.

Source: Dun & Bradstreet, Inc.

Table 5

Failure Rate per 10,000 Operating Concerns in Specified Lines of Retail Trade, 1940, 1953, and 1954

Kind of Business	1940	1953
GASOLINE SERVICE STATIONS*		
Infants' and Children's Wear	9	n.a.
Appliances, Radios & Television	576	103
Sporting Goods	73	80
Women's Ready-to-Wear	154	54
Men's Wear	192	61
Furniture & Furnishings	216	55
Bakeries	120	65
Shoes	98	54
Books & Stationery	143	46
Lumber & Building Materials	143	48
Jewelry	55	54
Women's Accessories	66	26
Cameras & Photographic Supplies	66	43
Gifts	54	30
Automobiles	62	36
Dry Goods and General Merchandise	36	34
Drugs	106	31
Eating and Drinking Places	90	23
Hardware	40	22
Farm Equipment	73	14
Auto Parts, Accessories & Tires	9	12
Groceries, Meats, Produce & Other Foods	44	15
Packaged Liquor	42	16
	42	9

* Computed from the data in Table 1 and in Table 4.
n.a. Not available

Source: Dun & Bradstreet, Inc., The Failure Record Through June, 1955, Table entitl Failure Rates in Specific Manufacturing and Retail lines .... 1940, 1953, 1954 rate was from two and one-half to over 17 times as high as among gasoline service stations. It is also interesting to note, parenthetically, that among dealers in auto parts, accessories and tires the failure rate was among the lowest in 1940 and by 1954 was reduced to less than one-half of what it was in the earlier year. Furthermore, in 1954 its failure rate was the third lowest among the 23 kinds of business other than gasoline service stations.

Failures to be Distinguished from Discontinuances

One source of misconception about supposedly high rates of business failure among service stations is confusion of the terms "failure" and "discontinuance". Failures, as defined above in line with common official and authoritative usage of the term, refer to businesses which cease operations with loss to creditors.

Statistics showing the total number of firms in operation at the beginning of each of the years 1945-1950 are presented in Table 6 and the number of discontinued businesses together with the discontinuance rate per 1,000 firms in operation are presented for the same years in Table 7. These data are given for all retail trade combined and for each of 17 kinds of business in retailing including "filling stations".

The discontinuance data for filling stations support the conclusion reached from the analysis of failure rates, namely, that the gasoline service station trade is a healthy one in comparison with most other lines of retail business. The rate of discontinuance in the trade, ranging from 38 per 1,000 in 1946 and 1948 to 76 in 1950 and averaging 49 per year for the 6-year period, compares very favorably with the figures for all retail trade combined, which ranged from 44 per 1,000 in 1945 to 65 in 1949 and an average of 54 per year for the same 6-year period. Furthermore, the filling station discontinuance rate, even at its highest in 1949 and 1950, was lower than for 5 kinds of retail trade in 1949 and for 3 kinds in 1950. Finally, on the average for the 6 years, the discontinuance rate was substantially lower than the rates in 9 of the 17 kinds of retail trade for which the data are shown in Table 7.

It is also interesting to note that the discontinuance rate for automotive parts and accessories dealers was slightly lower on the average (48 per 1,000) than even the relatively low rate for filling stations. Even at its highest point in 1948 (68 per 1,000) it was lower than in 4 other kinds of retail trade during that year.

From this analysis, it must be concluded that relatively few gasoline service stations fail and that but a normal number of them discontinue business. In fact, when compared with all retail trade combined or with certain specific kinds of retailing, the number of gasoline service stations actually discontinued, for whatever reason, may be said to be slightly less than normal.

Failures to be Distinguished from Transfers

At least part of the explanation for the unusually small number of real failures among gasoline service station owners and the relativley low or normal rate of discontinuances of service station businesses is to be found in the relatively high transfer rate among such enterprises. Data on the number of transferred businesses and the rate of transfer per 1,000 firms in operation are presented in Table 8 for all retail trade combined and for 17 kinds of retailing including filling stations. From these data, it will be observed that the highest rate of transfer (involving changes in ownership for whatever reason) took place generally in 1946, the first postwar year of readjustment when many returned veterans and others entered into some kind of retail business without previous experience. By 1950, the transfer rate for all retail trade combined was reduced by 44%. During the same time, the transfer rate for gasoline service stations was reduced by 46%. This rate for the latter was reduced from 484 per 1,000 firms or 48.4% to 263 per 1,000 or 26.3%.

Table 6

NUMBER OF FIRMS IN OPERATION AS OF JANUARY 1--RETAIL TRADE, BY KIND OF BUSINESS, 1945-1950

(All figures in Thousands of Firms)

Kind of Business	1945	1946	1947	1948	1949	1950
Retail trade, total	1,356.2	1,458.4	1,627.0	1,730.0	1,782.7	1,802.8
General merchandise	62.3	64.5	68.0	70.7	72.0	73.2
Grocery, with and without meats	275.6	290.6	316.3	333.9	338.9	340.3
Meat and seafood	27.9	29.5	32.5	33.8	33.6	33.9
Other food	66.1	68.9	74.9	80.1	82.4	83.7
Motor vehicles	42.9	46.2	56.2	62.6	66.4	62.3
<u>Filling stations</u>	<u>154.4</u>	<u>171.4</u>	<u>196.8</u>	<u>210.4</u>	<u>216.8</u>	<u>221.0</u>
Automotive parts and accessories	15.1	17.3	21.9	23.7	24.4	25.0
Apparel	71.4	74.7	79.1	81.8	85.0	86.8
Shoes	13.4	13.5	14.4	15.3	16.5	17.1
Lumber and building materials	18.3	19.3	22.5	24.2	25.2	26.2
Hardware and farm implements	40.5	45.5	52.5	56.2	59.9	61.8
Appliances and radios	12.7	21.4	34.4	38.6	40.1	40.4
Home furnishings	34.6	37.6	43.4	47.0	49.5	51.2
Eating and drinking places	287.3	303.5	329.0	349.9	362.0	364.6
Drugs	52.1	52.2	52.8	53.4	53.8	54.1
Liquor	17.3	21.5	26.7	29.5	30.5	32.6
Miscellaneous retail	164.5	180.7	205.5	218.7	225.6	228.5

Source: "Recent Business Population Movements", Survey of Current Business, U.S. Department of Commerce, January 1954, Table 4, p. 15. Underscoring added. These figures were based primarily on data from the U.S. Department of Health, Education and Welfare, Bureau of Old-Age and Survivors' Insurance.

Table 7

NUMBER OF DISCONTINUED BUSINESSES AND DISCONTINUANCE RATE--
RETAIL TRADE, BY KIND OF BUSINESS, 1945-1950

Kind of Business	Discontinued Businesses[1] (thousands) 1945	1946	1947	1948	1949	1950	Discontinuance Rates[2] 1945	1946	1947	1948	1949	1950
Retail trade,total	59.2	65.5	76.5	98.5	115.5	115.0	44	45	47	57	65	64
General merchandise	1.2	1.1	1.3	2.0	2.2	2.1	19	17	19	28	30	29
Grocery, with and without meats	10.1	8.8	10.0	15.5	17.3	16.1	37	30	32	46	51	47
Meat and seafood	1.2	1.1	1.7	2.5	2.0	1.9	43	37	52	74	58	56
Other food	3.6	4.3	4.7	5.6	5.8	6.3	55	62	63	70	70	75
Motor vehicles	2.3	2.6	3.8	5.4	9.4	6.2	54	56	68	86	141	100
Filling stations	6.2	6.5	7.8	10.8	13.4	16.8	40	38	40	38	62	76
Automotive parts and accessories	0.5	0.6	1.2	1.6	1.3	1.1	33	36	55	68	54	44
Apparel	2.7	3.6	4.1	4.1	5.1	5.0	38	48	52	50	60	58
Shoes	0.4	0.3	0.5	0.5	0.9	1.0	30	25	35	33	55	59
Lumber and building materials	0.6	0.7	1.1	1.3	1.4	1.2	33	38	50	54	54	79
Hardware and farm implements	0.7	0.7	0.7	0.7	1.2	1.8	17	15	13	12	20	29
Appliances and radios	0.5	0.7	1.7	2.6	3.1	2.8	39	34	49	67	77	69
Home furnishings	1.2	1.9	2.3	2.8	3.4	2.9	35	51	53	60	69	57
Eating and drinking places	19.5	23.3	23.7	28.1	32.9	33.3	68	77	72	80	91	91
Drugs	1.2	1.4	1.1	1.4	1.4	1.6	23	27	21	26	25	30
Liquor	0.6	0.8	0.8	1.2	1.5	1.2	35	36	30	41	49	37
Misc. retail	6.7	7.0	9.8	12.5	13.4	13.7	41	39	48	57	59	60

Source: 1. "Recent Business Population Movements", Survey of Current Business, U.S. Department of Commerce, January 1954, Table 5, p. 16. Underscoring added. Based primarily on data from U.S. Department of Health, Education and Welfare, Bureau of Old-Age and Survivors' Insurance.

2. Rate of discontinuance is the number of firms going out of business (for whatever reason) per 1,000 of firms in operation at beginning of year.

Table 8

NUMBER OF TRANSFERRED BUSINESSES AND RATE OF TRANSFER--RETAIL TRADE, BY KIND OF BUSINESS, 1945-50

Kind of Business	Transferred Businesses[1] (thousands)						Transfer Rate[2]					
	1945	1946	1947	1948	1949	1950	1945	1946	1947	1948	1949	1950
Retail trade, total	307.6	399.2	374.8	327.0	286.1	277.8	227	274	230	189	160	154
General Merchandise	6.7	8.6	6.6	5.5	5.3	5.2	108	134	97	78	74	71
Grocery, with and without meats	67.3	93.3	80.3	62.0	53.8	49.9	244	321	254	186	159	147
Meat and seafood	4.2	6.1	5.2	4.7	3.9	3.6	151	207	160	139	117	106
Other food	10.5	14.1	13.4	11.7	9.5	9.1	159	204	179	146	115	109
Motor vehicles	3.3	7.2	9.5	8.8	7.3	7.1	77	155	169	141	110	114
Filling stations	62.8	83.0	79.0	69.1	59.3	58.2	407	484	401	328	274	263
Automotive parts and accessories	1.9	3.5	3.6	2.6	2.1	2.4	126	201	164	110	88	96
Apparel	5.7	7.5	6.7	6.6	6.5	7.0	80	100	85	81	77	81
Shoes	0.9	1.3	1.2	1.3	1.4	1.3	67	96	83	85	84	76
Lumber and building materials	1.3	2.3	2.0	1.7	1.9	3.1	71	117	89	70	76	80
Hardware and farm implements	6.6	8.8	8.3	7.5	6.8	7.2	163	194	158	133	114	117
Appliances and radios	2.7	5.6	5.5	4.0	3.2	3.1	213	261	160	104	81	77
Home furnishings	3.3	5.0	4.7	4.4	4.1	4.1	95	133	108	94	82	80
Eating and drinking places	99.6	112.6	111.5	103.5	90.3	86.8	347	371	339	296	249	238
Drugs	5.3	6.1	5.0	4.9	4.6	4.9	102	117	95	92	86	91
Liquor	4.7	6.0	6.3	6.6	6.4	6.7	214	280	236	224	209	206
Misc. retail	20.9	28.2	25.8	22.2	19.5	19.3	127	156	126	102	86	85

Source: 1. "Recent Business Population Movements", Survey of Current Business, U.S. Department of Commerce, January 1954, Table 5, p. 16. Underscoring added. Based primarily on data from U.S. Department of Health, Education and Welfare, Bureau of Old-Age and Survivors' Insurance.

2. Transfer rate is the number of firms changing ownership (for whatever reason) during the year per 1,000 of firms in operation at beginning of the year.

The relatively high transfer rate among gasoline service stations is not to be unexpected. Moreover, some of the reasons for this transfer rate indicate that in some ways it is beneficial to station owners rather than evidence of economic weakness or distress. Among the more important factors involved in the high rate of transfer is the fact that entry into the trade is easy. Initial capital requirements are small, primarily because many of the more important assets of the business are supplied by the oil company. Furthermore, there are always new aspirants for any vacancy that occurs.

Ease of Entry Into the Gasoline Service Station Business

One of the basic and essential characteristics of a competitive system is ease of entry for new businesses. This has been expressed in the Report of the Attorney General's National Committee to Study the Antitrust Laws as follows:

> From the economic point of view, relative freedom of opportunity for entry of new rivals is a fundamental requisite for effective competition in the long run. Without this condition, it is idle to expect effective competition. The entry and withdrawal of firms,... is the basic mechanism of the market for achieving its economic results (U.S. Government Printing Office 1955, p.326).

Data on the number of new businesses and rate of entry per 1,000 firms in operation are presented in Table 9 for all retail trade combined and for 17 kinds of retail business including filling stations. These data provide further support for the conclusion that the gasoline service station business is characterized by free and open competition. They show that on the average for the 6-year period 1946-1950, the rate of entry for filling stations was higher than that for all retail trade combined, 115 as compared with 105 per year. Furthermore, in 1949 the rate of entry for filling stations (81) was as high as, or higher than, that in 9 other kinds of retail business as well as higher than for all retail trade combined. Finally, in 1950 the same was true of the filling station rate of entry with regard to all retail combined and with respect to 8 other kinds of retailing. In each of the 6 years, the rate of entry into the service station business was even substantially higher than that experienced for grocery stores, a kind of business which is most highly competitive.

These data certainly make it clear that rivalry among gasoline service stations does not seem to be impeded by any restraints. Since in many cases a new service station operator can lease the premises from the supplying oil company and commence operations with little capital investment, entry into the business is known to be unusually easy. Not only that, the liberal credit accommodations often obtained from suppliers of merchandise for resale make it also easy for a reasonably efficient operator to <u>stay in business</u>. As previously indicated, it is also relatively easy to sell one's station or discontinue operations altogether. All of this highly consistent with the free enterprise system and conducive to enhanced service station operating efficiency.

SUMMARY

The first gasoline filling stations came into existence between 1905 and 1910 with the emergence of widespread ownership of the automobile. Those early stations were literally only gasoline filling stations. However, as the automobile became more sophisticated and consumers' needs changed, gasoline stations added new products and services.

There was a rapid and significant growth in the number of stations up to 1939. This, combined with the effects of the depression and World War II, led to intense competition, an increase in the lines of merchandise carried by service stations, and ultimately a decline in the number of stations.

Table 9

NUMBER OF NEW BUSINESSES AND RATE OF ENTRY--RETAIL TRADE, BY KIND OF BUSINESS, 1945-1950

Kind of Business	New Firms[1] (thousands)						Rate of Entry[2]					
	1945	1946	1947	1948	1949	1950	1945	1946	1947	1948	1949	1950
Retail trade, total	161.4	234.1	179.5	151.2	135.5	133.0	119	161	110	87	76	74
General merchandise	3.4	4.6	4.0	3.3	3.3	3.2	55	71	59	47	45	44
Grocery, with and without meats	25.1	34.6	27.5	20.5	18.7	15.7	91	119	87	61	55	47
Meat and seafood	2.9	4.1	3.0	2.3	2.3	2.1	104	137	92	68	69	62
Other food	6.4	10.3	9.9	7.9	7.1	6.7	97	150	132	99	86	80
Motor vehicles	5.6	12.6	10.2	9.3	5.2	6.3	131	272	182	149	78	101
Filling stations	23.3	32.0	21.4	17.1	17.5	17.7	151	186	109	81	81	80
Automotive parts and accessories	2.7	5.2	3.0	2.3	1.9	2.2	179	302	137	97	78	88
Apparel	6.0	8.0	6.8	7.3	6.9	7.3	84	108	86	89	81	84
Shoes	0.5	1.2	1.5	1.7	1.5	1.4	37	87	104	111	91	82
Lumber and building materials	1.7	3.9	2.7	2.4	2.3	2.8	93	201	120	99	93	107
Hardware and farm implements	5.7	7.6	4.7	4.1	3.1	3.2	141	167	90	73	51	52
Appliances and radios	9.2	13.7	5.9	4.1	3.4	4.4	724	642	172	106	86	109
Home furnishings	4.3	7.6	6.0	5.3	5.2	5.5	124	203	138	113	104	107
Eating and drinking places	35.7	48.8	44.6	40.1	35.5	33.5	124	161	136	115	98	92
Drugs	1.3	2.0	1.7	1.8	1.7	1.6	25	38	32	34	31	30
Liquor	4.8	5.9	3.6	2.3	3.5	2.6	278	276	135	78	116	80
Misc. retail	22.9	31.9	23.1	19.3	16.3	16.5	139	176	113	88	72	72

Source: 1. "Recent Business Population Movements", Survey of Current Business, U.S. Department of Commerce, January 1954, Table 5, p. 16. Underscoring added. Based primarily on data from U.S. Department of Health, Education and Welfare, Bureau of Old-Age and Survivors' Insurance.

2. Rate of entry is the number of new firms per 1,000 of firms in operation at beginning of year.

The intense competition still exists today (1956) although the mortality rate is now relatively low. All of this is highly consistent with the free enterprise system and conducive to enhanced service station operating efficiency.

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