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Faculty Working Papers

A Deterministic Theory of Individual Saving and Portfolio Composition

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#52

College of Commerce and Business Administration
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An Exploratory Investigation of Achievement Motivation Effects on Consumer Behavior

David M. Gardner University of Illinois

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FACULTY WORKING PAPERS

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May 12, 1972

An Exploratory Investigation of Achievement Motivation Effects on Consumer Behavior

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> > **#53**

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McClelland's theory of achievement motivation suggests differing preferences for products for persons possessing high or low levels of achievement motivation. This study suggests probability of success (P_S) and incentive value (I_S) are so low that when combined multiplicatively with the tendency to achieve (N_S) little difference in preference is noticeable. "Outdoor sports" products are the major exception.

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Not too many years ago, "motivation research" was a widely used term and technique to explore certain aspects of consumer behavior. The term and technique are no longer in vogue because many researchers feel that the global claims of motivation research glossed over effects of many explanatory variables. The term "motivation" is now referred to by most researchers as an important construct in explaining consumer behavior, but only one of several, i.e., attitudes, learning. But while many writers recognize that theories of motivation can be used in the explanation of consumer behavior, the literature is deficient in relating motivation (especially learned motivation) variables to consumer behavior.

The purpose of the study reported in this paper is to explore the relationship of achievement motivation to the assortment of goods and services held and desired by consumers. Underlying this study is the basic question: Does need for achievement explain differences in purchasing behavior; and if so, does it deserve further research?

The study of motivation is concerned with the needs, wants and fears of man, and how he seeks to attain or avoid these things. Motivation is the study of activation and direction of behavior. The reason that there has been little actual research or application of motivation to consumer behavior stems in part from two problems. Motivation researchers are themselves divided on some basic issues. These differences are apt to be amplified when adapted by another discipline. Secondly, learning theories and motivational theories are highly intertwined with each other, which makes it difficult for the outsider to use and understand them.

The study of motivation is complicated by the existence of two major theories. The first is the well-known "Drive X Habit" theory, so often associated with Hull (1, pv. iii). In this conception of motivation, drive



(a non-specific energizer) is said to combine with learned habits to activate behavior when associated with a relevant stimulus situation. Drive is the product of some need, want, or fear, which results in the individual being energized to satisfy that need, want, or fear. Drive combines with habit strength, which is a product of the frequency of prior need reducing states. Individuals develop habits which become associated with stimulus situations. Drive is said to provide the activation in a stimulus situation, habit the direction of behavior.

We can say then, that when faced with a stimulus situation, a person will respond in a given manner, depending upon the habit associated with similar prior circumstances and the amount of drive present in the system. Therefore, a person presented with a well-prepared meal may not eat the meal, if his drive level is low, as a result of having eaten a large meal. On the other hand, if a person is almost completely satiated with foods, the habit strength of some foods may be so strong so as to result in eating of those foods, even though drive is quite low.

A major deficiency in the "Drive X Habit" theory is the lack of concern with the consequence of an act. The individual's motivation is not tempered or heightened by any type of expectations. The second major theory, "Expectancy X Value," avoids this problem. This theory, no matter who the advocate, suggests the "strength of the tendency to act in a certain way depends upon the strength of expectancy that the act will be followed by a given consequence (or goal), and the value of that consequence (or goal) to the individual." (1, p. 274)



A specific formulation of the "Expectancy X Value" theory is that of achievement motivation. This formulation suggests that: "strength of the tendency to act in a certain way to attain a particular goal in a particular situation is influenced by a relatively non-specific variable called motive (M), which is tentatively assumed to be a relatively stable characteristic of a person carried about from one life situation to another, and two relatively specific influences which refer to the particular act in question and which are defined by cues in the immediate environment: the strength of expectancy that the act will be followed by a particular consequence (E) and the incentive value of that particular consequence (I). (1, p. 276)

More specifically, this theory suggests that people develop at an early age (before the age of ten) a tendency to achieve. People with high levels of this tendency (High n Achievement) have been shown to be concerned about success, tend to engage in achievement-related activities, and to prefer tasks of intermediate difficulty. (1) People with low levels of this tendency (Low n Achievement) have been shown to be concerned about failure, tend to avoid achievement-related tasks, and prefer tasks which are too easy or too difficult in relation to the person's abilities. Atkinson (1, p. 242) has postulated that this tendency to achieve (Mg) combine multiplicatively with situation influences to produce a tendency to approach success. For Atkinson, the situational factors are: the strength of expectancy or probability of success (Pg) and the incentive value of success at a particular activity (Ig). The tendency to approach success (Tg) or the strength of the motive to achieve is represented by Atkinson as:

$$T_g = M_g \times P_g \times I_g$$



"The first variable, M_S is a relatively general and stable characteristic of the person which is present in any behavior situation. But, the values of the other two variables, P_S and I_S , depend upon the individual's past experience in specific situations that are similar to the one he now confronts. These variables change as the individual moves about from one life situation to another and so are treated as characteristics of particular situations or particular tasks." (1, p. 242)

RELATED RESEARCH

Since McClelland advanced the general theory of achievement motivation and its measurement (11), a number of studies have been conducted to identify the relationship between levels of n-achievement and other psychological and performance variables. While over one-hundred articles appear in the literature, several seem especially relevant as background for this study.

Atkinson suggests (4) that people with a high level of need for achievement desire to be in situations of moderate risk as opposed to situations of either low or high risk preferred by people with low levels of need for schievement. Littig (8) and Litwin (9) have demonstrated this preference, using game situations. McClelland and Liberman found that high need achievers recognized positive achievement words more quickly than middle and low need achievement groups. (13)

Knapp has shown that people with high levels of need for achievement prefer subdued bluish tartans, while a preference for red and bright tartan plaids is exhibited by people with low levels of need for achievement (7). Using the AO scale of the California Personality Inventory, Carney has shown that achievement motivation and smoking are positively correlated. (5)



In addition to these studies, there are consistent findings that males with high levels of need for achievement are more apt to come from the middle class than from either the lower or upper classes, have better memory for incompleted tasks, are more apt to volunteer as subjects for psychological experiments, are more active in college and community activities, choose experts over friends as working partners, are more resistant to social pressure and cannot give accurate reports of what their "inner concern" with achievement is. (11 and 2)

Finally, in a large cultural study, McClelland has found a strong relationship between high levels of need for achievement and an interest in enterprise which requires moderate or calculated risks, rather than safe or highly speculative undertakings: (10)

The implications of the theory of achievement motivation for the understanding of consumer behavior are great. Many aspects of purchase and consumption behavior are carried out in a manner that should allow an individual level of need for achievement tendency to operate as a determinate of behavior for example, it can be anticipated that there will be differential behavior in the selection of style and color of clothing, the degree of participation in a clothing fad, brand purchase behavior, and willingness to associate with various store images.

For the consumer in the market place, it is reasonable to suggest that not all purchase situations will be conducive to allowing n Achievement to operate as a behavioral determinate. This is due to the belief that when (P_s) and (I_g) are at relatively low levels and hence, when combined multiplicatively with (M_g) , result in low levels of the strength of the motive to



achieve (T_g) . However, at least two situations would seem to effect the magnitude of (P_g) and (I_g) and hence, allow n Achievement (M_g) to operate as a behavioral determinate. These two situations (of which there may be many more) are situations where reference group influence is operating and situations where there are elements of social and physical risk. These two situations would seem to allow n Achievement (M_g) to operate as a behavioral determinate due to the fact that the individual should perceive himself responsible for the outcome and there is some degree of risk concerning the possibility of success.

These two situations served as the basis for the questions to be explored in this study and the methodology.

The following questions are concerned with exploring the relationship between achievement motivation and the assortments of goods and services held and desired by consumers.

- 1. Do high need achievers, because of their preference for situations of moderate risk, prefer to shop for clothing in specialty stores and department stores as opposed to chain and "discount" stores?
- 2. Do high need achievers, because of high risk avoidance, tend to avoid products that would identify them with small, venturesome segments of the population?
- 3. Are high need achievers more apt to smoke cigarettes than people with lower levels of need for achievement as reported in earlier research?



4. In general, are brand names more important to high need achievers than for people with lower levels of need for achievement?

RESEARCH DESIGN

The sample for this study consisted of 100 male juniors and seniors enrolled in an introductory marketing course at the University of Illinois, Urbans. Females were excluded because of repeated and consistent reports of instability of standard measures for assessing need for achievement levels for females. (2) The data from thirteen subjects were incomplete leaving the actual sample of 87 subjects.

The first step in this study was the administration of a Consumer Preference Questionnaire. This questionnaire was developed especially for this study and was designed to reveal qualitative distinctions in the goods and services owned and desired by respondents. Questions were directed towards identifying types of goods owned, where purchased, and types of goods and services desired. For a question to be included in the questionnaire, it had to be related to a situation where reference group influence could operate or where varying levels of perceived risk could operate. The questionnaire was validated by extensive post-questionnaire interviews with individual respondents to ascertain that answers to individual questions were an accurate reflection of actual behavior. In its final form, the Consumer Preference Questionnaire was administered in a classroom situation.

The second step was to expose the same subjects used in the first step to a set of four TAT stimuli. The same four pictures have been used in many of McClelland's validation atudies. This is also the most widely used set

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of stimuli in studies of college groups. The procedure for administration was identical to that recommended by Atkinson (2, Appendix III). The second step was also administered in a classroom situation approximately two weeks after the administration of step one.

The protocols elicited by the use of the TAT stimuli were scored for achievement motivation using the manual developed by McClelland and others (2, Chapter IV). The scoring judge was trained by using the self-administered training procedure developed by Smith and Feld (14). Attempts to find another trained judge failed. However, the same judge had a scoring reliability of .85 when approximately ten percent of the protocols were rescored one month later.

The Consumer Preference Questionnaire was scored for individual responses.

These responses were then paired with the same individual's level of need for achievement as measured in step two.

RESULTS

In analyzing the results of this study, consistent patterns of behaviwere looked for rather than statistical differences between groups for one product or situation. As more is learned about the need for achievement as it relates to goods and services, studies with very specific hypotheses lending themselves to statistical analysis will be more useful.

For ease of interpretation, the data is reported in nine categories.

Each category is designed to give understanding to the influence of varying levels of need for achievement on purchase behavior. Only data for subjects with the highest and lowest levels of need for achievement is used in the following comparisons. If any differences do exist, this procedure should



allow the differences to emerge. From the total distribution of need for achievement scores, the top seventeen percent are compared with the lowest eighteen percent. These percents were chosen because of natural breaks in scores on n Achievement. The middle sixty-five percent of distribution is not used in the comparisons unless specifically noted.

Ownership of a Broad Range of Products

Ownership was established by asking if the product was already owned. If the product was not presently a part of the person's assortment of goods, he was asked to estimate how likely it was that he would own such a good if he could afford it. He could respond, "Very Likely," "Maybe," "Not at all Likely," or "Undecided."

No noticeable differences in ownership or anticipated ownership appeared for the following goods and services:

Color television
Model train set
Scotch whiskey
Subscription to the Wall Street Journal
The purchase of a new long play popular
record
Services of an interior decorator
Bridge lessons
Electric carving knife
Flower garden book

However, for a category of goods referred to as "outdoor sports," noticeable differences appear. Relationships seem to be suggested between the products listed in Table 1 and levels of need for achievement.

Except for the last two products, the products can be classified as "out-door sports." For these five "outdoor sports" products, there is a tendency for the person with High n Achievement to express higher levels of purchase intentions. The same is also true for the product category - "camping equipment."



The reverse is found for the category - "mod clothing." Subjects with High n Achievement expressed considerably less likelihood for the purchase of such clothing.

Clothing Brands and Place of Purchase

This category of information was obtained by asking questions designed to identify the last brand of clothing purchased and shopping patterns for clothing.

Subjects with High n Achievement expressed only a very slight difference from subjects with Low n Achievement in their dress shirt preferences. Van Heusen dress shirts were slightly more preferred by subjects with High n Achievement. No noticeable differences were observed for purchases of Arrow, Manhattan, J. C. Penney, Gant and Hathaway shirts.

There is a noticeable difference, however, between purchases of men's suits, depending on the level of n Achievement. The data reported in Table II indicate that subjects with High n Achievement have a clear preference for quality men's store brands which far exceeds that of subjects with low levels of need for achievement. There does not appear to be any indication of a clear preference for subjects with Low n Achievement.

There is a similar, but less clear-cut tendency in the reported purchase of the last sport coat. The data reported in Table II indicates that, while differences between subjects with High and Low n Achievement exist, these differences are not as pronounced as those differences reported for suit purchases.

When asked to describe how much money is spent on a suit, in relation to resources, no differences in behavior were noted. However, there was a slight tendency for subjects with High n Achievement to indicate that they preferred



to find a store they like and to go to it for all clothing accessory purchases, as opposed to subjects with Low n Achievement who expressed a higher tendency to compare between several stores for each purchase. No differences were noted in the type of service preferred when shopping for clothing, both groups preferring to have assistance available if needed. None of the subjects with Low n Achievement stated that their present best clothing was "old, but adequate." However, three out of fifteen subjects with High n Achievement did describe their best clothing this way.

Toothpaste Preferences

Toothpaste preferences were obtained by asking subjects which brand of toothpaste they purchased most often. Responses to this question are presented in Table III.

The data reported in Table III suggest that there is a very slight relative preference for Crest toothpaste for subjects with Low n Achievement, and a very slight relative preference for McLeans toothpaste for subjects with High n Achievement.

Cola and Beer Preferences

By asking what brand is preferred when drinking cola and drinking beer, no noticeable differences between subjects with High and Low n Achievement were noted. Their preferences were both distributed in approximately the same proportions.

Willingness to Try New Products

Subjects were asked to check a statement that best described their willingness to try entirely new products and then that statement which best
described their willingness to try a new brand of an established product.



Subjects with High n Achievement were only slightly more willing to try entirely new products and no differences were noted for willingness to try a new brand of an established product between subjects with High and Low n Achievement.

"Myself As A Customer"

A picture of the subject as a shopper was constructed by having subjects select descriptions of themselves in several different contexts. Nine out of fifteen subjects with High n Achievement described themselves as "rational," while only four out of fifteen with Low n Achievement described themselves as "rational." However, nine out of fifteen subjects with Low n Achievement described themselves as "conservative," while only three out of fifteen subjects with High n Achievement described themselves as "conservative."

One-half of the subjects with Low n Achievement believed that "you get exactly what you pay for," while only one subject with High n Achievement believed that statement. However, fourteen out of the fifteen subjects with High n Achievement believed "the relationship between price and quality is often misleading." Only one-half of the subjects with Low n Achievement believed that statement.

Given a choice of purchasing a RCA, 19 inch, black and white, portable television set from a well-known department store at \$139.95 or the same set from the local "discount" store at \$126.37, subjects with Low n Achievement expressed a very slight preference for making the purchase from the department store at \$139.95.

Importance of Brand Names

The importance of brand names was ascertained by first asking subjects to



choose a statement that indicated their feelings about the importance of brand names and then to indicate whether a brand name is important in the purchase of eighteen products.

Seven of the sixteen subjects with Low n Achievement felt that "brand names were very important to insure that they were buying the right product."

Only three of the fifteen subjects with High n Achievement felt brand names were that important.

Out of the eighteen products that were especially chosen with respect to the potential usefulness of brand names in purchase decisions, only four products show even the slightest difference between subjects with High and Low n Achievement. Three of the sixteen subjects with Low n Achievement felt that brand name was important in the purchase of aspirin. However, no subject with High n Achievement felt that brand name was important in the purchase of aspirin.

In the purchase of casual slacks, nine of the sixteen subjects with Low n Achievement felt that brand name was important, while four of the fifteen subjects with High n Achievement felt that way.

Limited differences are seen also in paint for a room and a coffee pot.

For both products, two of the sixteen subjects with Low n Achievement felt that brand name was important. However, we find contrary to slacks and aspirin, six of the fifteen subjects with High n Achievement feeling that brand name was important in the purchase of paint for a room and a coffee pot.

Automobile Preferences

When asked to rank order preferences for different types of automobiles, some differences were evident. The values in Table IV represent the mean rank value for each automobile.



Subjects with High n Achievement differed from subjects with Low n

Achievement on automobile preferences in two instances. Luxury automobiles

were ranked 7th by subjects with High n Achievement but 3rd by subjects with

Low n Achievement. A somewhat less dramatic difference is noted for Inter
mediate size automobiles with subjects with High n Achievement ranking them

2nd while subjects with Low n Achievement ranking them 5th.

Smoking Behavior

The smoking behavior of subjects with the very highest n Achievement and the very lowest n Achievement is almost identical. About one-third of each group reported that they regularly smoked cigarettes. However, when comparing two groups obtained by drawing a line at the median need achievement score, a different result is obtained. Forty percent (17/43) of subjects in the top fifty percent of n Achievement distribution reported that they regularly smoked cigarettes while only 16 percent (7/37) of subjects in the bottom fifty percent reported the regular smoking of cigarettes. The distribution of smokers is somewhat skewed with the greatest concentration falling between the upper 20 and 50 percent limits of the need for achievement distribution. The same type of distribution was also found for pipe smoking, although on a much more reduced scale.

DISCUSSION

The results of this study suggest that there is a relationship between levels of need for achievement and consumer behavior. This difference shows up as generally positive and consistent answers to three of the four questions posed earlier.



The first question dealt with the preference for shopping in specialty and department stores for clothing for subjects with High n Achievement. There is a consistent and strong pattern to indicate that subjects with High n Achievement have a preference for purchasing suits ans sport coats from specialty clothing stores. No such clear-cut preference was noted for the purchase of dress shirts. It appears that suits and sport coats purchased from a "quality" men's store represent a moderate amount of risk for subjects High n Achievement. This may be a localized phenomenon but is certainly consistent with the previous research of Atkinson reported earlier in this paper.

The second question suggested that subjects with High n Achievement would avoid products that identified them with small, venturesome segments of the population. The main question dealing with this issue was the ownership of "Mod" clothing. However, possibly because of high levels of perceived risk, subjects with Low n Achievement were much more apt to own or intend to purchase such clothing.

Closely related to this question is the finding that subjects with High n Achievement expressed a preference for ownership of goods that can be characterized as "active outdoor sports or recreation." Based on previous research, it appears that active outdoor sports are perceived as being of moderate risk. Subjects with Low n Achievement may perceive low probability of success and low incentive to succeed in such activities, and hence, be more apt to avoid them.

That subjects with High n Achievement almost uniformly put the lowest possible ranking on luxury cars is hard to explain. They may be seen as a high risk item or that luxury cars are not needed to prove something.



The third question suggested that subjects with High n Achievement would be more apt to smoke cigarettes. It is difficult to explain why the second quartile (subjects with moderately high n Achievement) should contain such a high number of cigarette smokers. While the evidence of this study supports the earlier work of Carney (5), the explanation must lie in the interaction between moderately High n Achievement and the perceived risk of smoking.

There is little evidence to support the suggestions of the fourth question that brand names would be more important to subjects with High n Achievement. No difference was noted between subjects with either High or Low n Achievement. If subjects with High n Achievement are more rational, this alone should cause more or less reliance on brand names. It appears, however, that brand names do not influence the amount of perceived risk and/or are not subject to reference group influence. Hence, n Achievement does not enter in as a behavioral determinate in this situation.

Related to the above questions is the finding that subjects with High n Achievement consider themselves as "rational" shoppers. In addition, subjects with High n Achievement appear to prefer to find a single store for all purchases rather than shopping around for each purchase. One of the more interesting findings of this study was the preference of subjects with Low n Achievement for purchasing a television set from a well-known department store, rather than for less money at a discount store.

Relating the evidence of this study to the formulation of Atkinson (1, p. 242), it appears that, for many of the products and situations, (P_s) and (I_s) are at low levels. Hence, when combined with (M_s) , no matter what its magnitude, results in finding no noticeable differences between groups with



High and Low n Achievement. However, the combination of (P_s) and (I_s) do appear to be at moderate levels for "active outdoor sports" products. In addition, it appears as if certain clothing stores are selected and certain shopping patterns followed because the combination of (P_s) and (I_s) associated with these stores and shopping patterns is moderate. Therefore, in these two later cases, when combined with High levels of (M_s) , a differential tendency to approach success is noted.

IMPLICATIONS

While not explaining a large portion of consumer behavior, the theory of achievement motivation does appear to have the potential for accounting for behavior in some situations. With the limited amount of evidence reported here, it would be appropriate for more studies to be conducted so that stores and manufacturers may better tailor their appeals, stores, and products to a specific group of customers.

Based on this study, the main group of stores who could profit from recognizing the existence of a group of customers with High n Achievement are men's clothing and the clothing departments of department stores. Based on what we know about people with High n Achievement, people with High n Achievement may be more apt to patronize an institution that uses appeals of excellence, just exciting enough to generate moderate amounts of perceived risk, liberal use of positive achievement words, and appropriate shades of color in stores and merchandise.



The main group of manufacturers who could profit are those making the active outdoor sports equipment. They are most likely to satisfy this group by generating just the right level of perceived risk, neither too high or too low. There is enough evidence in this study to suggest that a very large portion of people engaged in outdoor, active sports may be high in need for achievement. If so, this could seriously alter the promotion and distribution of these products.

While this study should be replicated on other groups and additional studies should be conducted on a variety of relationships between n Achievement and consumer behavior, it is unlikely that this area of interest will be heavily researched. The reason for this lack of research is the difficulty of administering and scoring projective tests. Unfortunately, there is no objective measure at present that has an acceptable correlation with the validated method reported and used in this study.



TABLE I

Ownership and Purchase Intentions for High and Low Need Achievers

					Not	Not at all	:		Alr	Already	
	very	Likely	Maybe	De	171	L1Ке 1 у	onde	Undecided	0	Own	
	High	High Low	High	Low	High	Low	High	Low	High	Low	
	n-ach	n-ach	n-ach	n-ach	n-ach	n-ach	n-ach	n-ach	n-ach	n-ach	
Scuba Diving											
Outfit	ຕ	1	4	2	9	13	2	0	0	0	Q
Motor Bike	7	2	7	2	9	11	0	0		prof	
Water Skis	3	0	7	5	ന	œ	0	0	2	n	· ·
Snow Skis	'n	7	9	9	7	7	0	0	Ö	2	
Camping Equipment		0	Ŋ	9	2	6	0	0	; - !	 !	
"Mod" Clothing	0	0	2	7	12	00	prof	rel	0	0	
Home Workshop	9	2	9	7	m	10	0	0	0	0	



TABLE II

Place of Purchase of Last
Suit and Sport Coat

•	Suit		Sport Coat	
	High n-ach	Low n-ach	High n-ach	
Hart-Schaffner & Marx	0	4	NA	NA
Botany 500	1	. 2	NA	NA
A quality men's store bran	1 13	3	11	7
A low-prices men's store brand	1	3	1	2
J. C. Penney , or Sears, Roebuck	0	1	2	2
Department Store Brand	0	0	0	0
Robert Hall	0	0	0	0
Other	0	1	0	1

NA = not applicable



TABLE III

Toothpaste Brand Preferences

High	Low		
n-ach	n-ach		
3	-		
2	3		
4.	9		
5	2		
1	1		

Colgate

Ultra-Bright

Crest

McLeans

Other



Table IV AUTOMOBILE RANK ORDER PREFERENCES

(High n Achievement)

Mean Rank Value*	Automobile Types
2.2 3.2 3.2 3.9 4.1 5.8 5.9	Small domestic sports (Mustang, Camero, Javlin, etc.) Intermediate (Chevelle, Fairlane, Belveder, etc.) Full Size - Big 3 (Chevrolet, Ford, Plymouth) Imports (all) Full Size (Buick, Chrysler, Mercury, Oldsmobile, Pontiac) Compact (Valiant, Chevy II, etc.) Luxury (Cadillac, Lincoln, Imperial, Thunderbird)

AUTOMOBILE RANK ORDER PREFERENCES

(Low n Achievement)

Mean Rank Value	Automobile Types
2.6	Small domestic sports (Mustang, Camero, Javlin, etc.)
3.3	Full Size (Buick, Chrysler, Mercury, Oldsmobile, Pontiac)
3.5	Luxury (Cadillac, Lincoln, Imperial, Thunderbird)
4.1	Full Size - Big 3 (Chevrolet, Ford, Plymouth)
4.3	Intermediate (Chevelle, Fairlane, Belveder, etc.)
4.5	Imports (all)
6.5	Compact (Valiant, Chevy II, etc.)

^{*1 =} most preferred 7 = least preferred



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