

**You Can Teach An Old Dog New Tricks:
Strategies For Including Older Consumers When
Selecting Media Vehicles***

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*Draft of an article that appeared in the Journal of Advertising Research, March 2007.

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Abstract

The present paper provides evidence to suggest that older consumers are just as likely as younger consumers to switch brands, and discusses specific guidelines and strategies for taking older consumers into account when selecting media vehicles.

Background & Overview

Typically, older consumers are not considered for targeting because most advertising agencies and media buying services assume that older people are less open to change and are more committed to their brands than younger people. They seem to believe the old adage that “you can’t teach an old dog new tricks”.

In an attempt to determine the validity of this adage, at least as it applies to people, the number of brands used in each of the 70 health and beauty categories was analyzed as a function of age. The health and beauty categories cover a wide range of products: from eyeliner to sleeping pills: from dental adhesives to hair lotion.

The rationale for conducting the current analysis was simple – “If young consumers are more amenable to advertising, then they will change brands more often. Consequently, the number of brands that they use in a category within a specific time period should be greater than the number of brands used by older consumers”. Or, stated differently “As people get older and more set in their ways, their brand switching should decrease and, as a consequence, the number of brands in their competitive set should also decrease”. Although one may try to refute the above statement by arguing that many (if not most) people maintain specific and large competitive sets over a very long period of time without ever choosing brands outside this set, such an argument is based on a very unlikely assumption. The unlikely assumption is that people who use one or only a few brands within a category for an extended period of time are as likely to switch brands and to be receptive to advertising as people who use multiple brands within this category. That is, in order to refute the above statement one must conclude that multiple brand usage is not related or inversely related to brand switching and advertising receptivity.

Source & Method

The source used for all analyses was MRI's (Mediamark Research Inc.) 2001 Doublebase Study that consisted of a demographically balanced sample of 52,824 adults (18+) drawn from the coterminous United States. For each of 70 health and beauty categories in this study, respondents were asked to check all the brands that they had used personally within the past six months.

Each of these 70 categories was analyzed separately in the following manner:

- First, MRI respondents were divided into six age groups, from the youngest (18-24) to the oldest (65+) and the number of category users was determined for each of these groups
- Second, the average number of different brands used by category users in each age group was calculated (See Table 2)
- Third, a multiple brand usage index was developed for each age group for the category under investigation. This was done by dividing the average number of brands used per user within the age group by the average number of brands used per user across all age groups, and then multiplying the result by 100. Thus, if a segment has an index of "100" for a given category, then it is average with respect the number of brands used within this category. In contrast, if a segment has an index of "50", then the number of brands used by the segment within the category is 50% less than average ($50 - 100 = 50$); and if a segment has an index of 200, then the number of brands used by the segment within the category is 100% ($200 - 100 = 100$) greater than average. (See table 3)

It should be noted that, in conducting each analysis, all brand styles for a given brand were combined. For example, in the cough drop category, if a respondent used Halls Plus, Halls Vitamin C, and Halls Regular he was counted as using a single brand (Halls). There were two reasons for doing this:

- First, it was felt that over a six-month time interval, respondents are more likely to remember the brands that they have used, as opposed to the brand styles.
- In general, advertisers do not improve their bottom lines by cannibalizing their existing brands. Rather, they increase their bottom lines by getting consumers to switch from competing brands to their brands.

Results

When summed across the 70 health and beauty categories, the results of the analysis revealed that, although the number of brands used per category decreased as a function of age, the differences among age groups were relatively small and, for many categories, the pattern was reversed. Specifically, as can be seen in Table 1, the mean number of brands used across the 70 categories by the 18-24 age group (1.32) was only 6.5% greater than the mean number of brands used by the 65+ age group (1.24). Moreover, for the following 17 categories, the mean number of brands used by the oldest age group was actually higher than that for the youngest age group: (Also see Tables 2 and 3)

- Asthma Relief Remedies-Non Rx (1.05 Vs. 1.02)
- Athlete's Foot Remedies (1.15 Vs. 1.13)
- Contact Lens Cleaning/Wetting Solutions (1.36 Vs. 1.19)
- Electric Shavers (1.05 Vs. 1.04)
- Groin Irritation Remedies (1.07 Vs. 1.00)
- Hair Growth Products (1.05 Vs. 1.01)
- Indigestion Aids & Upset Stomach Remedies (1.51 Vs. 1.48)
- Medicated Skin Ointments (1.43 Vs. 1.34)
- Pain Relieving Rubs & Liquids-Non Rx (1.39 Vs. 1.29)
- Razor Blades (1.14 Vs. 1.13)
- Vitamin And Dietary Supplements (1.20 Vs. 1.12)
- Wart & Corn Removers (1.08 Vs. 1.07)
- Women-Blusher (1.20 Vs. 1.19)
- Women-Deo-Colognes/Body Sprays (1.01 Vs. 1.00)
- Women-Eye Liner (1.31 Vs. 1.22)
- Women-Facial Moisturizers (1.36 Vs. 1.32)
- Women-Feminine Medicated Products (1.16 Vs. 1.15)

Taken collectively, the results do not support the selective targeting of younger age groups to the exclusion of older age groups. Even if younger consumers are more amenable to advertising messages, such a proclivity does not manifest itself to any great degree in terms of brand switching, as inferred by multiple brand usage within a six-month time period. Perhaps, factors such as “lower disposable income” and “more active life style” offset receptivity among younger consumers to advertising messages, with the net result being that younger consumers are, in most instances, no more likely than older consumers to switch brands.¹

¹ In some categories brands differ considerably in price. Consequently, a lower disposable income could limit the size of a person's competitive set because not all brands within a given category are equally affordable. Additionally, if a person has an active life style, his or her competitive set might decrease because of limited exposure to advertising messages.

Table 1
Mean Number of Brands Used Per Health and Beauty Category
-Averages of 70 Health & Beauty Categories-

	All	18-24	25-34	35-44	45-54	55-64	65+
Averages	1.28	1.32	1.3	1.29	1.27	1.27	1.24
Average Index	100	103	101	101	99	99	97

The first line of the table shows the number of brands used on average during a 6-month time frame across 70 health and beauty categories as a function of age. The second line of this table shows the relative propensity of each age group to use multiple brands across the 70 categories, expressed in terms of an index. Examination of this table reveals that the number of brands used is only slightly lower among the oldest age segment (Index = 97) than among the youngest age segment (Index=103).

Table 2
Mean Number of Brands Used Per Category User As A Function of Age

Source=MRI 2001 Doublebase

	All	18-24	25-34	35-44	45-54	55-64	65+
Adhesive Bandages	1.33	1.41	1.33	1.33	1.31	1.28	1.30
Asthma Relief Remedies (Non Rx)	1.06	1.02	1.04	1.05	1.09	1.11	1.05
Athlete's Foot Remedies	1.17	1.13	1.17	1.18	1.19	1.20	1.15
Body Powder	1.31	1.36	1.30	1.30	1.30	1.30	1.30
Body Shampoo/Shower Gel	1.23	1.22	1.24	1.24	1.21	1.25	1.20
Cold, Sinus And Allergy Remedies	1.81	1.93	1.88	1.86	1.78	1.70	1.60
Complexion Care Products	1.63	1.78	1.68	1.63	1.56	1.52	1.56
Contact Lens Cleaning/Wetting	1.25	1.19	1.24	1.27	1.26	1.28	1.36
Cough Drops (Non Rx)	1.41	1.51	1.43	1.46	1.41	1.34	1.31
Cough Syrup (Non Rx)	1.39	1.46	1.45	1.42	1.35	1.32	1.25
Dental Floss	1.13	1.11	1.15	1.15	1.14	1.13	1.10
Dental Rinse	1.06	1.07	1.05	1.06	1.06	1.06	1.05
Denture Adhesives & Fixatives	1.11	1.14	1.14	1.09	1.11	1.13	1.09
Denture Cleaners	1.10	1.11	1.13	1.11	1.08	1.09	1.10
Deodorants And Antiperspirants	1.42	1.52	1.44	1.46	1.39	1.36	1.33
Diarrhea Remedies	1.12	1.14	1.12	1.13	1.12	1.13	1.11
Diet Pills (Non Rx)	1.03	1.06	1.01	1.03	1.00	1.06	1.00
Disposable Razors	1.18	1.19	1.18	1.19	1.17	1.17	1.14
Electric Shavers	1.04	1.04	1.03	1.03	1.05	1.05	1.05
Eye Wash And Drops	1.22	1.26	1.23	1.20	1.20	1.21	1.21
Groin Irritation Remedies	1.03	1.00	1.02	1.01	1.06	1.01	1.07
Hair Coloring Products (For Use At	1.24	1.33	1.21	1.23	1.23	1.22	1.23
Hair Conditioners (For Use At Home)	1.54	1.70	1.61	1.59	1.50	1.44	1.33
Hair Conditioning Treatment (For Use	1.17	1.23	1.19	1.17	1.16	1.17	1.12
Hair Growth Products	1.03	1.01	1.01	1.04	1.02	1.06	1.05
Hair Mousse	1.00	1.03	1.00	1.00	1.00	1.00	1.00
Hair Sprays (For Use At Home)	1.23	1.32	1.24	1.25	1.21	1.22	1.17
Hair Styling Gels & Lotions	1.20	1.25	1.19	1.19	1.16	1.18	1.20
Hand & Body Cream, Lotion Or Oil	1.63	1.75	1.65	1.65	1.60	1.54	1.58
Headache Remedies And Pain	1.74	1.76	1.78	1.76	1.73	1.72	1.67
Hemorrhoid Remedies	1.12	1.13	1.16	1.14	1.11	1.11	1.08
Indigestion Aids & Upset Stomach	1.48	1.48	1.48	1.47	1.46	1.49	1.51
Laxatives	1.18	1.22	1.17	1.18	1.14	1.16	1.20
Lip Care	1.34	1.37	1.36	1.34	1.34	1.34	1.30
Medicated Skin Ointments	1.42	1.34	1.40	1.44	1.43	1.42	1.43
Medicated Throat Remedies	1.21	1.19	1.19	1.20	1.21	1.30	1.19
Mouthwash	1.20	1.24	1.19	1.20	1.20	1.19	1.16

Table 2 (Continued)

Mean Number of Brands Used Per Category User As A Function of Age

Source=MRI 2001 Doublebase

	All	18-24	25-34	35-44	45-54	55-64	65+
Nasal Sprays	1.09	1.08	1.10	1.08	1.11	1.08	1.06
Pain Relieving Rubs & Liquids (Non Rx)	1.35	1.29	1.33	1.35	1.33	1.39	1.39
Personal Care Soaps-Bar	1.68	1.79	1.70	1.71	1.64	1.65	1.61
Razor Blades	1.12	1.13	1.12	1.10	1.10	1.12	1.14
Shampoo (For Use At Home)	1.52	1.65	1.60	1.59	1.49	1.39	1.35
Shaving Creams Or Gels	1.22	1.27	1.22	1.23	1.19	1.18	1.20
Sleeping Tablets (Non Rx)	1.08	1.16	1.09	1.07	1.07	1.08	1.02
Stimulants (Non Rx)	1.11	1.21	1.07	1.06	1.09	1.05	1.05
Toothache, Gum & Canker Sore Remedies	1.27	1.31	1.32	1.27	1.23	1.27	1.22
Toothbrushes	1.28	1.33	1.32	1.31	1.28	1.23	1.17
Toothpaste	1.79	1.95	1.85	1.83	1.76	1.71	1.61
Vitamin And Dietary Supplements	1.15	1.12	1.11	1.12	1.15	1.20	1.20
Wart & Corn Removers	1.08	1.07	1.06	1.11	1.07	1.07	1.08
Women-Bath/Shower Additives (Women)	1.25	1.25	1.28	1.27	1.23	1.25	1.18
Women-Blusher (Women)	1.19	1.19	1.19	1.17	1.18	1.20	1.20
Women-Deo-Colognes/Body Sprays (Women)	1.02	1.00	1.01	1.01	1.08	1.01	1.01
Women-Eye Liner (Women)	1.24	1.22	1.24	1.27	1.20	1.23	1.31
Women-Eye Shadow (Women)	1.36	1.37	1.34	1.41	1.34	1.29	1.32
Women-Facial Moisturizers (Women)	1.33	1.32	1.28	1.33	1.35	1.36	1.36
Women-Feminine Hygiene Deodorant Sprays & Powders	1.65	1.70	1.68	1.60	1.69	1.66	1.60
Women-Feminine Medicated Products (Women)	1.17	1.15	1.20	1.13	1.20	1.21	1.16
Women-Foundation Makeup (Women)	1.30	1.35	1.29	1.30	1.27	1.33	1.32
Women-Hair Permanents (Women)	1.06	1.07	1.09	1.04	1.03	1.08	1.01
Women-Lipstick & Lip Gloss (Women)	1.57	1.66	1.66	1.65	1.56	1.52	1.40
Women-Loose Face Powder (Women)	1.17	1.21	1.15	1.18	1.17	1.21	1.15
Women-Mascara (Women)	1.26	1.32	1.26	1.28	1.22	1.24	1.28
Women-Nail Care Products & Polish (Women)	1.61	1.79	1.76	1.67	1.52	1.47	1.40
Women-Nail Polish Remover (Women)	1.13	1.21	1.14	1.13	1.12	1.12	1.09
Women-Perfume And Cologne For Women	2.15	2.32	2.23	2.20	2.13	2.14	1.89
Women-Pressed Powder (Women)	1.16	1.22	1.13	1.16	1.13	1.17	1.18
Men-Aftershave Lotion & Cologne For Men	1.69	1.84	1.75	1.70	1.69	1.64	1.45
Men-Hair Tonic Or Dressing (Men)	1.06	1.08	1.08	1.06	1.09	1.05	1.03
Men-Pre-Electric Shave Lotion (Men)	1.05	1.09	1.09	1.03	1.04	1.03	1.05
Averages	1.28	1.32	1.30	1.29	1.27	1.27	1.24

This table shows, for each of 70 health and beauty categories, the average number of different brands used by category users in a 6-month time frame as a function of age.

Table 3 Multiple Brand Usage Indices As A Function of Age Source=MRI 2001 Doublebase							
	All	18-24	25-34	35-44	45-54	55-64	65+
Adhesive Bandages	100	106	100	100	99	96	98
Asthma Relief Remedies (Non Rx)	100	97	99	99	103	105	99
Athlete's Foot Remedies	100	97	100	101	101	102	98
Body Powder	100	104	100	99	99	99	99
Body Shampoo/Shower Gel	100	100	101	101	99	102	97
Cold, Sinus And Allergy Remedies	100	107	104	103	99	94	88
Complexion Care Products	100	110	103	100	96	94	96
Contact Lens Cleaning/Wetting Solutions	100	96	99	101	101	102	109
Cough Drops (Non Rx)	100	107	101	104	100	95	93
Cough Syrup (Non Rx)	100	105	105	103	97	96	90
Dental Floss	100	98	101	102	101	99	97
Dental Rinse	100	101	99	100	101	100	99
Denture Adhesives & Fixatives	100	103	103	98	100	102	99
Denture Cleaners	100	101	103	101	98	99	100
Deodorants And Antiperspirants	100	107	101	103	98	96	94
Diarrhea Remedies	100	101	100	101	99	100	99
Diet Pills (Non Rx)	100	103	98	100	98	103	97
Disposable Razors	100	101	100	101	100	100	97
Electric Shavers	100	99	99	99	101	100	100
Eye Wash And Drops	100	103	101	99	99	99	100
Groin Irritation Remedies	100	97	99	98	103	98	104
Hair Coloring Products (For Use At Home)	100	108	98	99	100	98	100
Hair Conditioners (For Use At Home)	100	110	104	103	97	93	86
Hair Conditioning Treatment (For Use At Home)	100	105	101	99	99	100	95
Hair Growth Products	100	98	98	101	99	102	102
Hair Mousse	100	103	100	100	100	100	100
Hair Sprays (For Use At Home)	100	107	101	101	98	99	95
Hair Styling Gels & Lotions	100	105	100	100	97	99	100
Hand & Body Cream, Lotion Or Oil	100	107	102	101	98	94	97
Headache Remedies And Pain Relievers	100	101	102	101	99	99	96
Hemorrhoid Remedies	100	101	104	102	99	99	97
Indigestion Aids & Upset Stomach Remedies	100	100	100	99	99	101	102
Laxatives	100	104	99	100	97	98	102
Lip Care	100	102	101	100	100	100	96
Medicated Skin Ointments	100	95	99	102	101	100	101
Medicated Throat Remedies	100	98	98	99	100	108	99
Mouthwash	100	104	99	100	101	99	97

Table 3 Continued Multiple Brand Usage Indices As A Function of Age Source=MRI 2001 Doublebase							
	All	18-24	25-34	35-44	45-54	55-64	65+
Nasal Sprays	100	99	101	100	102	99	98
Pain Relieving Rubs & Liquids (NonRx)	100	95	98	100	99	103	103
Personal Care Soaps-Bar	100	106	101	102	97	98	96
Razor Blades	100	101	100	99	99	100	102
Shampoo (For Use At Home)	100	108	105	104	98	91	89
Shaving Creams Or Gels	100	104	100	101	98	96	98
Sleeping Tablets (NonRx)	100	107	101	99	99	100	95
Stimulants (NonRx)	100	109	96	95	98	95	94
Toothache, Gum & Canker Sore Remedies	100	103	104	100	97	100	96
Toothbrushes	100	104	103	102	100	96	92
Toothpaste	100	109	103	102	98	96	90
Vitamin And Dietary Supplements	100	97	96	97	99	104	104
Wart & Corn Removers	100	99	98	103	99	99	100
Women-Bath/Shower Additives (Women)	100	100	102	102	99	100	94
Women-Blusher (Women)	100	100	101	99	99	101	101
Women-Deo-Colognes/Body Sprays (Women)	100	98	99	99	106	99	99
Women-Eye Liner (Women)	100	99	100	102	97	99	105
Women-Eye Shadow (Women)	100	101	99	104	99	95	97
Women-Facial Moisturizers (Women)	100	99	96	100	101	102	102
Women-Feminine Hygiene Deodorant Sprays & Powders	100	103	102	97	102	101	97
Women-Feminine Medicated Products (Women)	100	98	102	96	103	103	99
Women-Foundation Make-Up (Women)	100	103	99	100	97	102	101
Women-Home Permanents (Women)	100	101	103	99	97	103	96
Women-Lipstick & Lip Gloss (Women)	100	105	105	105	99	96	89
Women-Loose Face Powder (Women)	100	103	98	101	100	103	98
Women-Mascara (Women)	100	104	99	101	97	98	101
Women-Nail Care Products & Polish (Women)	100	111	109	103	94	91	87
Women-Nail Polish Remover (Women)	100	107	101	99	99	99	96
Women-Perfume And Cologne For Women	100	108	104	102	99	99	88
Women-Pressed Powder (Women)	100	105	98	100	97	101	102
Men-Aftershave Lotion & Cologne For Men	100	109	104	101	100	97	86
Men-Hair Tonic Or Dressing (Men)	100	102	102	101	103	99	97
Men-Pre-Electric Shave Lotion (Men)	100	104	104	98	99	98	100
Averages	100	103	101	101	99	99	97

This table shows the relatively propensity (expressed as an index) to use multiple brands within a given category as a function of age. Examination of this table clearly shows that, with few exceptions, the differences among age groups in terms of using multiple brands within a six-month time frame are relatively small.

Additional Reasons For Not Excluding Older Consumers

Even if the findings for a given category showed that the brand-switching rate was higher among younger consumers, it would still be unwise to neglect the contribution of older consumers when selecting mass media vehicles (e.g., television programs, magazines, radio, newspapers). The reasons for this are two-fold:

- First, demography is generally a very poor predictor of behavior. In fact, in most instances, target audience membership accounts for less than 2% (out of a possible 100%) of the explained variance with respect to the consumer behavior (e.g., own a Ford, use antacids, buy spaghetti sauce) under investigation (D'Amico, 1999). Thus, when one uses demography as a surrogate for behavior in selecting media vehicles, huge inefficiencies can result. This problem is further exacerbated when the volume contribution of non-target members is fairly substantial. For example, in the beer category, men 21-34 are often selected as the demographic target audience because, based on MRI's 2006 Doublebase Study, the user and volume indices among this group are 148 and 201, respectively. Although such indices are high, further inspection of MRI's data reveals the following:
 - Men 21-34 account for only 20% of total beer users and 27% of total beer volume among adults 21 years of age and older, and
 - Knowing whether a person is a male 21-34 accounts for only 2.2% of the variance with respect to whether adults drink beer, and only 3.5% variance with respect to how much beer is consumed.

Given this sorry state of affairs, one can readily see that selecting media vehicles on the basis of their cost-efficiency of reaching men 21-34 can lead to substantial cost-inefficiencies, especially given the fact that 73% of the total beer volume among adults 21+ is not accounted for by this target.

- Second, by neglecting the contribution of older consumers, the variability associated with media estimates is often so great that selection of media vehicles on the basis of their reach or cost-efficiency with respect to this target becomes a "crap shoot". For example, if the sample size of the target is only 3% of the size of the total population, the relative error increases by a factor of 5.77.

Guidelines For Selecting Media Vehicles & Taking Into Account Older Consumers

Given the above preamble, the natural questions to ask are:

- a. How should mass media vehicles be selected?
- b. How do I take into account the contribution of older consumers?

Following are specific guidelines to help answer these questions.

1. Given that demography is generally an extremely poor predictor of consumer behavior, mass media vehicles should not be selected on the basis of their efficiency of reaching a demographically defined target audience. Rather, they should be selected on the basis of their efficiency of reaching a behaviorally defined target audience (e.g., users of the product category, users of the advertised brand, etc.).
2. As we have seen, brand switching happens to varying degrees in all age groups for each category. Rather than ignoring the potential volume contribution of a given age group because there is somewhat less brand switching, one should use weighting to accommodate these differences. Specifically, if one wants to take into account the relative propensity of older and younger consumers to switch brands within a category, then one can differentially weight consumers based on their switching propensity and then recalculate cost-efficiencies based on this differential weighting.

Table 4 shows, for each of six age groups, how this differential weighting is accomplished using data from MRI's non-prescription cough syrup category. As can be seen by examining this table, fictitious Magazine "A" reaches 2,100,000 adult cough syrup users at a cost of \$10,000; which translates into a CPM of \$4.76. To adjust this CPM to take into account the relative propensities of each age group to switch brands, follow these steps:

- First, determine the total number of brands used within a specific time frame (e.g., 6 months) for total adults, and for each age group²
- Second, for each age group, determine a multiple brand usage ratio by dividing the number for the age group by the average number for all adults
- Third, multiply the age group's multiple brand usage ratio by the number of category users reached within the age group

² The number of brands used within a specified time frame is being used as a surrogate measure to indicate the likelihood of switching from a competing brand to the advertised brand. Ideally, if this information were available by age, it would be used directly in Table 4.

- Fourth, sum the results of these multiplications across all age groups to arrive at an adjusted audience estimate
 - Fifth, divide the cost of the media vehicle by the adjusted audience estimate to arrive at an adjusted CPM estimate
3. Although the above approach takes into account brand switching dynamics (as inferred by multiple brand usage), it suffers from a serious flaw. This flaw is that the above approach assumes that a user is a user – i.e., it assumes that the consumption rate is the same for each age group. As can be seen in Table 5, all one has to do to eliminate this flaw is to:
- Determine the average consumption rate of category users by age group for the media vehicle under investigation
 - Multiply, for each age group, the number of adjusted users determined in the above step by the age group's average consumption rate
 - Sum the results of these multiplications across age groups
 - Divide the ad cost of the media vehicle by the result in Step #3 and multiply the result by 1,000 to determine the cost for every 1,000 units consumed by the vehicle's audience
4. If one has to use demography to select media vehicles, one should not select these vehicles based on their efficiency of reaching a specific demographic segment (e.g., men 21-34). Rather, one should determine the variable (e.g., age, sex, income, etc.) that best predicts the behavior under investigation (e.g., beer consumption). This can be done using chi-square statistics or regression. Once the best predictor is selected, the procedure outlined in Table 5 should be followed, with the following exceptions:
- Instead of using the number of category segment users, use the number of people reached within the segment (see Column D)
 - Instead of using the consumption rate of segment users for a given media vehicle, use the per capita consumption rate of segment members, independent of whether they are users or non-users (see Column F), and independent of the media vehicles used. For example, if one wanted to weight each age group based on beer consumption, one would divide the total beer volume consumed by each segment by the total number of members in each segment.

Future Directions

In order to further clarify the importance of older consumers, analyses similar to the analyses conducted in the present paper should be conducted using databases that enable one to analyze brand switching in the context of price and age. Additionally, if brand-switching data exists for people over an extended period of time, these data should be examined by category and age to determine the length of time people remain loyal to a brand. By doing the above, one can determine the degree to which price influences brand switching as a function of age, and estimate the relative short- and long-term profitability of converting younger and older consumers. Once each of these factors has been estimated, one can use these estimates to supplement or replace those made in the present paper on the basis of multiple brand usage.

Table 4
Calculation of Cost-Efficiencies By Differentially Weighting
Consumers Based On Likelihood of Switching Brands Within A Given Category

Note: Ad Cost For Magazine A = \$10,000

	Magazine A			
	Number of Brands Used Past 6 Months	Multiple Brand Usage Ratio	Number of Category Users (000)	Reach Times Multiple Brand Usage Index (000)
	(B)	(C)	(D)	(E)
Formula		(B/1.39)		(D x C)
All Adults	1.39	100	2100	2015
Age				
18-24	1.46	1.05	200	210
25-34	1.45	1.04	175	183
35-44	1.42	1.02	225	230
45-54	1.35	0.97	250	243
55-64	1.32	0.95	500	475
65+	1.25	0.90	750	674
CPM Calculations				
	Ad Cost	Audience	CPM	
Non-Adjusted Adult Data	\$10,000	2100	\$4.76	
Adjusted Adult Data	\$10,000	2015	\$4.96	

Table 5
Calculation of Cost-Efficiencies By Differentially Weighting
Consumers Based On Their Consumption Rate & Likelihood of Switching Brands

Note: Ad Cost For Magazine A = \$10,000

Magazine A						
	Number of Brands Used Past 6 Months	Multiple Brand Usage Ratio	Number of Category Users (000)	Adj. Users Times Multiple Brand Usage Index (000)	Consumption Rate Users	Adj. Users Times Consumption Rate
	(B)	(C)	(D)	(E)	(F)	(G)
Formula		(B/1.39)		(D x C)		(E x F)
All Adults	1.39	100	2100	2015	2.95	5942
Age						
18-24	1.46	1.05	200	210	4.07	855
25-34	1.45	1.04	175	183	4.13	754
35-44	1.42	1.02	225	230	4.46	1025
45-54	1.36	0.97	250	243	3.51	852
55-64	1.32	0.95	500	475	2.78	1321
65+	1.25	0.90	750	674	1.68	1134
CPM Calculations						
				Adj. Users Times Consumption Rate		Cost Per Unit
Adjusted Adult Data		Ad Cost \$10,000		5942		\$1.68

References

D'Amico, T. "Magazines' Secret Weapon: Media Selection on the Basis of Behavior, as Opposed to Demography." *Journal of Advertising Research* 39, 6 (1999); 53-60.