

Household Solvent Products
A National Usage Survey

Battelle Columbus Div., Washington, DC

Prepared for

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HOUSEHOLD SOLVENT PRODUCTS:
A NATIONAL USAGE SURVEY

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16. Abstract (Limit: 200 words)

This study was conducted to provide usage information on 32 categories of common household and automotive products which were thought to contain methylene chloride or its substitutes. Respondents were selected using a random digit dialing procedure, were contacted by telephone to get their consent and address, and were then sent a mail questionnaire which included product pictures. Nonrespondents were followed up with a telephone interview. The main objective was to acquire usage statistics for each product that can be used to calculate exposure assessments. These usage statistics included frequency, duration and amount of use, location of use, brand names used, and protective measures undertaken while using the product. Some major findings follow. Respondents used an average of seven of the 32 products in their lifetime and five during the last year. Contact cements, superglues and spray adhesives were used most frequently and brake quieters/cleaners, gasket removers and transmission cleaners were used least frequently. Duration of use was longest for paint removers/strippers, adhesive removers and wood stains, varnishes and finishes, and duration was shortest for ignition/wire dryers, spray shoe polish, and typewriter correction fluid. Most respondents reported having a window or door open but did not have a fan on while using products, and most reported that they read directions on the product labels before use. Finally, usage of the products decreases with increasing age.

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EXECUTIVE SUMMARY

On March 29, 1985, the National Toxicological Program¹ reported positive results for a bioassay that indicated that methylene chloride is an animal carcinogen. Subsequently, the Environmental Protection Agency, under Section 112 of the Clean Air Act, made a preliminary determination to list methylene chloride as a hazardous air pollutant and on May 14, 1985, under Section 4(f) of the Toxic Substances Control Act, announced its decision to initiate priority review for risks of human cancer from exposure to methylene chloride.²

There is potential for exposure to methylene chloride from environmental sources, occupational activities and from use of consumer products containing methylene chloride. The EPA found that there was inadequate information on consumer exposure to products containing methylene chloride. This report presents the results of a nationwide study of consumer usage of products thought to contain methylene chloride or five other chlorinated solvents used in combination with or as substitutes for methylene chloride.

The consumer is exposed to methylene chloride and its substitutes in an array of household cleaning, painting, lubricating and automotive products. The five other chlorinated solvents included in this study are: trichloroethane, trichloroethylene, carbon tetrachloride, perchloroethylene and 1,1,2-trichlorotrifluoroethane. Thirty such products and others of general interest are included in this survey.

These products were found to contain these solvents in an earlier EPA survey ("Household Solvent Products: A 'Shelf' Survey with Laboratory Analysis")³. Questions asked on usage characteristics include how often the products were used; when the product was last used; how much time was spent using the product and in the room after the product was used; how much of the product was used; and what protective measures were

¹National Toxicology Program (NTP). NTP Final Report, Technical Report on the Toxicology and Carcinogenesis Studies of Methylene Chloride (DCM) in F344-N Rats and B63F1 Mice, NTP-TR-306. National Institutes of Health (NIH) Publication 85-2562, USHHS, Public Health Service, NIH, 1985.

²Federal Register, May 14, 1985 (50 FR 20126).

³EPA #560/5-87-006, July, 1987. Available through the National Technical Information Service (NTIS), Springfield, Virginia.

undertaken during use. This information is used to calculate the exposure assessments.

The survey methodology had three parts. In Phase I - A Sample Generation Phase, respondents were contacted using a random digit dialing procedure and asked to participate and to give their address. During Phase II - A Mailout with Product Pictures, the questionnaire and product pictures were sent to each respondent 18 years and older who agreed to participate in Phase I. In Phase III - Telephone Followup to Nonrespondents, respondents who did not return the mailed questionnaire within four weeks were called and asked to complete the interview over the telephone.

A complete summary of findings for each product follows this narrative. Highlights of other findings for the 30 products thought to contain these solvents include the following:

- Respondents used an average of seven products in their lifetime and an average of five products during the last twelve months.
- The highest incidence of products "ever used" was for contact cements, superglues, and spray adhesives (60.6%); wood stains, varnishes, and finishes (42.9%); and spot removers (39.1%). The lowest incidence was for brake quieters/cleaners (2.6%); gasket removers (2.7%) and transmission cleaners (2.1%).
- The longest periods since last use (given in mean values) were for spray shoe polish (42.1 months ago); glass frostings, tints, and artificial snow (34.2 months ago); and paint removers/strippers (28.9 months ago). The shortest periods since last use were for spray automotive lubricants (6.3 months ago) and contact cements, superglues, and spray adhesives (5.2 months ago).
- The highest mean number of times a product was used during the last twelve months was for typewriter correction fluid (40.0 times); solvent cleaners (16.5); and spot removers (15.6). The lowest incidence of recent use was for gasket removers (2.5); transmission cleaners (2.3) and outdoor water repellents (2.1).
- The most time spent using products other than latex and oil paint, which are not thought to contain these particular solvents (given in mean values), was for paint removers/strippers (125.6

minutes); adhesive removers (121 minutes) and wood stains, varnishes, and finishes (117.2 minutes). The least time was for typewriter correction fluid (7.6 minutes); spray shoe polish (7.5 minutes); and ignition/wire dryers (7.2 minutes).

- The greatest amount used in units of ounces per year per user other than for latex and oil paint, which would otherwise be the highest (given in mean values), was for outdoor water repellents (148.7 ounces); auto spray primers (70.4 ounces); and paint thinners (69.5 ounces). The least amount used was for ignition/wire dryers (9.0 ounces); contact cement, super glues, spray adhesives (7.5 ounces) and typewriter correction fluid (4.1 ounces).
- Most respondents had a window or door open to the outside when using products for large jobs that were done on the inside; most respondents did not have an exhaust fan on when using these products; most respondents kept the door to the room open when using these products; and most people said that they read the directions on the label.
- In general, use of the products decreases with increasing age. Gender differences in use of the products are as might be expected with males using lubricants, specialized electronic cleaners, and automotive products more than females, and females using spot removers, solvent type cleaning fluids, wood and paneling cleaners, and typewriter correction fluids more than males.
- Finally, there were no significant differences in the usage variables between questionnaires completed by mail and those completed by telephone interview.

While comparisons across products and general patterns by age and sex can be made, the main purpose of the study is to provide usage statistics for each product that can be used to calculate exposure assessments of the U.S. population to methylene chloride and its substitutes. These usage statistics include the mean, median, and/or percentages for the following variables:

- frequency of use of the product;
- duration of use;

- brand names of product used;
- amount of the product used;
- location of use; and
- degree of ventilation and other protective measures undertaken when using the product.

All of the information presented in this report has been forwarded to the Office of Toxic Substances, Exposure Assessment Branch and incorporated into consumer exposure assessments for these solvents. The exposure assessments themselves are reported in the report entitled, Consumer Exposure Estimates for Solvents, Draft Report, Versar, Inc., April 30, 1987.

A summary of the usage statistics by product is now presented using the original questionnaire format.

CHLOROCARBON SUMMARY OF FINDINGS

HOUSEHOLD SURVEY OF SELECTED CONSUMER PRODUCTS

PRODUCT	1. Have you ever used (PRODUCT)? [IF NO, GO TO NEXT PRODUCT.]	2. When was the last time you used (PRODUCT)?	3. How many times did you use (PRODUCT) in the last 12 months?	4. How much time did you spend using (PRODUCT) the last time you used it?	5. How much time did you spend in the room immediately after use the last time you used (PRODUCT)?
EXAMPLE SPRAY SHOE POLISH	1 Yes 2 No	_____ days ago _____ months ago _____ years ago	Number of times used past 12 months	_____ Seconds _____ Minutes _____ Hours	_____ Hours _____ Minutes
1. SPRAY SHOE POLISH	Yes 12% No 88%	mean 42.1 mo. median 12.5 mo.	mean 10.3 times median 4.0 times	mean 7.5 minutes median 5.0 minutes	mean 31.5 minutes median 5.0 minutes
2. WATER REPELLENTS/ PROTECTORS (FOR SUEDE, LEATHER, AND CLOTH)	Yes 36% No 64%	mean 20.5 mo. median 9.0 mo.	mean 3.5 times median 2.0 times	mean 14.5 minutes median 10.0 minutes	mean 3.8 minutes median 3.0 minutes
3. SPOT REMOVERS	Yes 39% No 61%	mean 14.7 mo. median 3.0 mo.	mean 15.6 times median 3.0 times	mean 10.7 minutes median 5.0 minutes	mean 43.7 minutes median 5.0 minutes
4. SOLVENT-TYPE CLEANING FLUIDS OR DEGREASERS	Yes 28% No 72%	mean 9.9 mo. median 2.0 mo.	mean 16.5 times median 4.0 times	mean 29.5 minutes median 15.0 minutes	mean 33.3 minutes median 3.0 minutes
5. WOOD FLOOR AND PANELING CLEANERS	Yes 35% No 65%	mean 12.6 mo. median 3.0 mo.	mean 8.5 times median 2.0 times	mean 74.0 minutes median 30.0 minutes	mean 96.7 minutes median 30.0 minutes
6. TYPEWRITER CORRECTION FLUID	Yes 26% No 74%	mean 6.9 mo. median .9 mo.	mean 40.0 times median 12.0 times	mean 7.6 minutes median 1.0 minutes	mean 128.4 minutes median 60.0 minutes
7. CONTACT CEMENT, SUPER GLUES AND SPRAY ADHESIVES	Yes 61% No 39%	mean 5.2 mo. median 1.0 mo.	mean 8.9 times median 3.0 times	mean 15.6 minutes median 4.3 minutes	mean 68.9 minutes median 10.0 minutes
8. ADHESIVE REMOVERS (GENERAL PURPOSE, TILE, AND WALLPAPER)	Yes 6% No 94%	mean 21.6 mo. median 10.0 mo.	mean 4.2 times median 1.0 times	mean 121.0 minutes median 60.0 minutes	mean 119.3 minutes median 60.0 minutes
9. SILICONE LUBRICANTS (EXCLUDING AUTOMOTIVE)	Yes 18% No 82%	mean 6.5 mo. median 2.0 mo.	mean 10.3 times median 3.0 times	mean 10.4 minutes median 2.0 minutes	mean 65.8 minutes median 10.0 minutes
10. OTHER LUBRICANTS (EXCLUDING AUTOMOTIVE)	Yes 35% No 65%	mean 5.0 mo. median 1.0 mo.	mean 10.6 times median 4.0 times	mean 8.1 minutes median 2.0 minutes	mean 84.1 minutes median 30.0 minutes

*The categories of:

- Several inside rooms
- Garage & outside, have been omitted from this list.

7. What size of (PRODUCT) did you use the last time you used it? How much of a can or how many cans did you use during the past year? OUNCES PER YEAR	8. Where did you use (PRODUCT) the last time you used it?	9. When using (PRODUCT) the last time, did you . . .			
		Have a window open to the outside?	Have an exhaust fan on?	Keep the inside door to the room open?	Read the directions on the label?
Size used _____ ounces (1/4, 1/2, 1, 2, etc.) _____ Amount or number of cans used in year	1 Basement 2 Living room 3 Other inside room 4 Garage 5 Outside in open air	1 Yes 2 No	1 Yes 2 No	1 Yes 2 No	1 Yes 2 No
mean 9.9 ounces median 4.5 ounces	1 B 5.0% 2 LR 14.9% 3 OR 61.3% 4 G 3.4% 5 Outs. 13.4%	Yes. . 41% No . . 60%	Yes.. 11% No... 89%	Yes. . 76% No . . 24%	Yes. . 71% No . . 29%
mean 11.4 ounces median 6.0 ounces	1 B 10.5% 2 LR 13.5% 3 OR 44.7% 4 G 9.0% 5 Outs. 19.6%	Yes. . 40% No . . 60%	Yes.. 8% No... 92%	Yes. . 73% No . . 27%	Yes. . 83% No . . 17%
mean 26.3 ounces median 5.5 ounces	1 B 9.1% 2 LR 19.5% 3 OR 57.3% 4 G 4.0% 5 Outs. 5.4%	Yes. . 45% No . . 56%	Yes.. 9.7% No.. 90.8%	Yes. . 80% No . . 20%	Yes. . 77% No . . 23%
mean 58.1 ounces median 16.0 ounces	1 B 5.4% 2 LR 2.6% 3 OR 49.1% 4 G 12.2% 5 Outs. 28.0%	Yes. . 57% No . . 43%	Yes.. 15% No... 85%	Yes. . 74% No . . 26%	Yes. . 68% No . . 33%
mean 28.4 ounces median 14.0 ounces	1 B 3.1% 2 LR 26.8% 3 OR 49.3% 4 G 0.6% 5 Outs. 1.2%	Yes. . 59% No . . 41%	Yes.. 11% No... 89%	Yes. . 83% No . . 17%	Yes. . 72% No . . 28%
mean 4.1 ounces median .9 ounces	1 B 2.1% 2 LR 14.6% 3 OR 79.8% 4 G 0.6% 5 Outs. 0.4%	Yes. . 26% No . . 74%	Yes.. 8% No... 92%	Yes. . 74% No . . 26%	Yes. . 39% No . . 61%
mean 7.5 ounces median 1.0 ounces	1 B 5.6% 2 LR 11.9% 3 OR 61.1% 4 G 6.2% 5 Outs. 11.7%	Yes. . 41% No . . 59%	Yes.. 8% No... 92%	Yes. . 75% No . . 25%	Yes. . 70% No . . 30%
mean 34.5 ounces median 10.8 ounces	1 B 4.8% 2 LR 5.4% 3 OR 75.4% 4 G 4.2% 5 Outs. 6.6%	Yes. . 67% No . . 33%	Yes.. 23% No... 77%	Yes. . 79% No . . 21%	Yes. . 82% No . . 18%
mean 12.5 ounces median 4.5 ounces	1 B 4.2% 2 LR 4.7% 3 OR 28.2% 4 G 14.0% 5 Outs. 37.5%	Yes. . 52% No . . 48%	Yes.. 8% No... 92%	Yes. . 71% No . . 29%	Yes. . 61% No . . 39%
mean 9.9 ounces median 2.3 ounces	1 B 7.5% 2 LR 5.8% 3 OR 34.9% 4 G 13.5% 5 Outs. 29.6%	Yes. . 43% No . . 57%	Yes.. 6% No... 94%	Yes. . 70% No . . 30%	Yes. . 45% No . . 55%

Note: Question 6 has been deleted from the summary but it is reported in the text.

PRODUCT	1. Have you ever used (PRODUCT)? [IF NO, GO TO NEXT PRODUCT.]	2. When was the last time you used (PRODUCT)?	3. How many times did you use (PRODUCT) in the last 12 months?	4. How much time did you spend using (PRODUCT) the last time you used it?	5. How much time did you spend in the room immediately after use the last time you used (PRODUCT)?
11. SPECIALIZED ELECTRONIC CLEANERS (FOR TV, VCR, RAZOR, ETC.)	Yes. . . . 13% No 87%	mean 7.9 mo. median 2.0 mo.	mean 13.4 times median 3.0 times	mean 9.5 minutes median 2.0 minutes	mean 117.2 minutes median 60.0 minutes
12. LATEX PAINT	Yes. . . . 55% No 45%	mean 16.7 mo. median 8.0 mo.	mean 3.9 times median 2.0 times	mean 295.1 minutes median 180.0 minutes	mean 91.4 minutes median 5.0 minutes
13. OIL PAINT	Yes. . . . 30% No 70%	mean 30.4 mo. median 12.0 mo.	mean 5.7 times median 1.0 times	mean 194.1 minutes median 120.0 minutes	mean 100.5 minutes median 30.0 minutes
14. WOOD STAINS, VARNISHES AND FINISHES	Yes. . . . 43% No 57%	mean 23.2 mo. median 9.0 mo.	mean 4.2 times median 2.0 times	mean 117.2 minutes median 60.0 minutes	mean 93.4 minutes median 30.0 minutes
15. PAINT REMOVERS/ STRIPPERS	Yes. . . . 30% No 70%	mean 28.9 mo. median 12.0 mo.	mean 3.7 times median 2.0 times	mean 125.6 minutes median 60.0 minutes	mean 31.4 minutes median 0.0 minutes
16. PAINT THINNERS	Yes. . . . 36% No 64%	mean 21.5 mo. median 7.0 mo.	mean 6.8 times median 2.0 times	mean 39.4 minutes median 10.0 minutes	mean 32.9 minutes median 0.0 minutes
17. AEROSOL SPRAY PAINT (EXCLUDING AUTOMOTIVE)	Yes. . . . 35% No 65%	mean 17.2 mo. median 6.0 mo.	mean 4.2 times median 2.0 times	mean 39.5 minutes median 20.0 minutes	mean 12.7 minutes median 0.0 minutes
18. PRIMERS AND SPECIAL PRIMERS (EXCLUDING AUTOMOTIVE)	Yes. . . . 14% No 86%	mean 22.0 mo. median 10.0 mo.	mean 3.4 times median 1.0 times	mean 91.3 minutes median 30.0 minutes	mean 22.3 minutes median 0.0 minutes
19. AEROSOL RUST REMOVERS	Yes. . . . 8% No 92%	mean 15.1 mo. median 5.0 mo.	mean 6.2 times median 2.0 times	mean 18.6 minutes median 5.0 minutes	mean 15.1 minutes median 0.0 minutes
20. OUTDOOR WATER REPELLENTS (FOR WOOD OR CEMENT)	Yes. . . . 9% No 91%	mean 24.6 mo. median 12.0 mo.	mean 2.1 times median 1.0 times	mean 104.9 minutes median 60.0 minutes	mean 8.3 minutes median 0.0 minutes
21. GLASS FROSTINGS, WINDOW TINTS, AND ARTIFICIAL SNOW	Yes. . . . 10% No 90%	mean 34.2 mo. median 8.0 mo.	mean 2.8 times median 1.0 times	mean 29.5 minutes median 15.0 minutes	mean 137.9 minutes median 60.0 minutes

*The categories of:

- Several inside rooms
- Garage & outside, have been omitted from this list.

7. What size of (PRODUCT) did you use the last time you used it? How much of a can or how many cans did you use during the past year? OUNCES PER YEAR	* 6. Where did you use (PRODUCT) the last time you used it?	9. When using 'PRODUCT' the last time, did you . . .			
		Have a window open to the outside?	Have an exhaust fan on?	Keep the inside door to the room open?	Read the directions on the label?
mean 9.5 ounces median 2.0 ounces	1 B 5.6% 2 LR 47.5% 3 OR 36.0% 4 G 3.9% 5 Outs. 3.3%	Yes. . 33% No . . 68%	Yes.. 6% No... 94%	Yes. . 70% No . . 30%	Yes. . 74% No . . 26%
mean 371.3 ounces median 256.0 ounces	1 B 2.8% 2 LR 9.9% 3 OR 47.6% 4 G 2.0% 5 Outs. 24.4%	Yes. . 76% No . . 24%	Yes.. 16% No... 84%	Yes. . 85% No . . 15%	Yes. . 64% No . . 36%
mean 168.9 ounces median 64.0 ounces	1 B 5.9% 2 LR 5.9% 3 OR 35.4% 4 G 6.15% 5 Outs. 41.35%	Yes. . 70% No . . 31%	Yes.. 16% No... 84%	Yes. . 77% No . . 23%	Yes. . 69% No . . 31%
mean 65.1 ounces median 16.0 ounces	1 B 12.1% 2 LR 7.8% 3 OR 29.1% 4 G 13.9% 5 Outs. 31.8%	Yes. . 64% No . . 36%	Yes.. 15% No... 85%	Yes. . 74% No . . 26%	Yes. . 77% No . . 23%
mean 63.7 ounces median 32.0 ounces	1 B 11.0% 2 LR 3.2% 3 OR 23.6% 4 G 18.7% 5 Outs. 38.5%	Yes. . 71% No . . 29%	Yes.. 16% No... 84%	Yes. . 69% No . . 31%	Yes. . 80% No . . 21%
mean 69.5 ounces median 20.5 ounces	1 B 13.4% 2 LR 2.8% 3 OR 19.6% 4 G 19.4% 5 Outs. 39.9%	Yes. . 67% No . . 33%	Yes.. 11% No... 90%	Yes. . 68% No . . 32%	Yes. . 59% No . . 41%
mean 30.7 ounces median 13.0 ounces	1 B 7.3% 2 LR 0.8% 3 OR 9.2% 4 G 15.8% 5 Outs. 64.1%	Yes. . 63% No . . 37%	Yes.. 10% No... 90%	Yes. . 61% No . . 39%	Yes. . 73% No . . 27%
mean 68.4 ounces median 16.0 ounces	1 B 4.2% 2 LR 1.8% 3 OR 19.6% 4 G 15.7% 5 Outs. 52.5%	Yes. . 78% No . . 22%	Yes.. 16% No... 84%	Yes. . 68% No . . 32%	Yes. . 74% No . . 27%
mean 18.2 ounces median 8.0 ounces	1 B 6.7% 2 LR 0.7% 3 OR 10.6% 4 G 21.8% 5 Outs. 53.2%	Yes. . 61% No . . 39%	Yes.. 13% No... 87%	Yes. . 57% No . . 43%	Yes. . 68% No . . 32%
mean 148.7 ounces median 64.0 ounces	1 B 1.7% 2 LR 2.1% 3 OR 2.5% 4 G 6.2% 5 Outs. 83.9%	Yes. . 73% No . . 27%	Yes.. 7% No... 93%	Yes. . 65% No . . 35%	Yes. . 81% No . . 19%
mean 13.8 ounces median 12.0 ounces	1 B 1.1% 2 LR 58.2% 3 OR 13.5% 4 G 1.5% 5 Outs. 12.0%	Yes. . 24% No . . 76%	Yes.. 11% No... 89%	Yes. . 72% No . . 28%	Yes. . 71% No . . 29%

Note: Question 6 has been deleted from the summary but it is reported in the text.

PRODUCT	1. Have you ever used (PRODUCT)? [IF NO, GO TO NEXT PRODUCT.]	2. When was the last time you used (PRODUCT)?	3. How many times did you use (PRODUCT) in the last 12 months?	4. How much time did you spend using (PRODUCT) the last time you used it?	5. How much time did you spend in the room immediately after use the last time you used (PRODUCT)?
22. ENGINE DEGREASERS	Yes. . . . 17% No 83%	mean 16.5 mo. median 6.0 mo.	mean 4.2 times median 2.0 times	mean 29.8 minutes median 15.0 minutes	mean 4.5 minutes median 0.0 minutes
23. CARBURETOR CLEANERS	Yes. . . . 22% No 78%	mean 13.1 mo. median 4.0 mo.	mean 3.8 times median 2.0 times	mean 13.6 minutes median 7.0 minutes	mean 7.5 minutes median 0.0 minutes
24. AEROSOL SPRAY PAINT FOR CARS	Yes. . . . 12% No 88%	mean 20.8 mo. median 8.0 mo.	mean 4.5 times median 2.0 times	mean 42.8 minutes median 20.0 minutes	mean 10.7 minutes median 0.0 minutes
25. AUTO SPRAY PRIMERS	Yes. . . . 9% No 91%	mean 24.1 mo. median 11.0 mo.	mean 6.4 times median 2.0 times	mean 51.5 minutes median 27.5 minutes	mean 11.4 minutes median 0.0 minutes
26. SPRAY LUBRICANTS FOR CARS	Yes. . . . 18% No 82%	mean 6.3 mo. median 2.0 mo.	mean 10.3 times median 3.0 times	mean 9.9 minutes median 5.0 minutes	mean 4.5 minutes median 0.0 minutes
27. TRANSMISSION CLEANERS	Yes. . . . 2% No 98%	mean 16.7 mo. median 7.0 mo.	mean 2.3 times median 1.0 times	mean 27.9 minutes median 15.0 minutes	mean 6.2 minutes median 0.0 minutes
28. BATTERY TERMINAL PROTECTORS	Yes. . . . 7% No 93%	mean 14.0 mo. median 6.0 mo.	mean 3.9 times median 2.0 times	mean 9.6 minutes median 5.0 minutes	mean 3.2 minutes median 0.0 minutes
29. BRAKE QUIETTERS/ CLEANERS	Yes. . . . 3% No 97%	mean 13.3 mo. median 6.0 mo.	mean 3.0 times median 2.0 times	mean 23.4 minutes median 15.0 minutes	mean 10.3 minutes median 0.0 minutes
30. GASKET REMOVERS	Yes. . . . 3% No 97%	mean 22.4 mo. median 9.0 mo.	mean 2.5 times median 1.0 times	mean 23.6 minutes median 15.0 minutes	mean 27.6 minutes median 0.0 minutes
31. TIRE/HUBCAP CLEANERS	Yes. . . . 16% No 84%	mean 7.2 mo. median 1.0 mo.	mean 11.1 times median 4.0 times	mean 22.6 minutes median 15.0 minutes	mean 1.5 minutes median 0.0 minutes
32. IGNITION AND WIRE DRYERS	Yes. . . . 5% No 95%	mean 22.8 mo. median 8.0 mo.	mean 3.0 times median 2.0 times	mean 7.2 minutes median 5.0 minutes	mean 6.4 minutes median 0.0 minutes

7. What size of (PRODUCT) did you use the last time you used it? How much of a can or how many cans did you use during the past year? OUNCES PER YEAR	8. Where did you use (PRODUCT) the last time you used it?	9. When using (PRODUCT) the last time, did you . . .			
		Have a window open to the outside?	Have an exhaust fan on?	Keep the inside door to the room open?	Read the directions on the label?
mean 46.9 ounces median 16.0 ounces	1 B 0.2% 2 LR — 3 OR 1.2% 4 G 7.8% 5 Outs. 89.4%	NA	NA	NA	Yes. . 78% No . . 22%
mean 22.0 ounces median 12.0 ounces	1 B 0% 2 LR 0% 3 OR 1% 4 G 11% 5 Outs. 88%	NA	NA	NA	Yes. . 74% No . . 26%
mean 44.9 ounces median 16.0 ounces	1 B 0.6% 2 LR — 3 OR 1.1% 4 G 18.7% 5 Outs. 77.7%	NA	NA	NA	Yes. . 72% No . . 28%
mean 70.4 ounces median 16.0 ounces	1 B 0.8% 2 LR — 3 OR 0.8% 4 G 20.7% 5 Outs. 75.8%	NA	NA	NA	Yes. . 69% No . . 31%
mean 18.6 ounces median 6.0 ounces	1 B 0.4% 2 LR — 3 OR 1.2% 4 G 12.4% 5 Outs. 83.5%	NA	NA	NA	Yes. . 55% No . . 45%
mean 37.7 ounces median 15.0 ounces	1 B 0% 2 LR 0% 3 OR 1% 4 G 16% 5 Outs. 83%	NA	NA	NA	Yes. . 86% No . . 14%
mean 16.4 ounces median 4.0 ounces	1 B — 2 LR — 3 OR 1% 4 G 12% 5 Outs. 87%	NA	NA	NA	Yes. . 71% No . . 29%
mean 11.7 ounces median 8.0 ounces	1 B — 2 LR — 3 OR 2% 4 G 18% 5 Outs. 80%	NA	NA	NA	Yes. . 72% No . . 28%
mean 13.3 ounces median 7.8 ounces	1 B — 2 LR — 3 OR — 4 G 39% 5 Outs. 61%	NA	NA	NA	Yes. . 74% No . . 26%
mean 31.6 ounces median 12.0 ounces	1 B — 2 LR 0.3% 3 OR 0.1% 4 G 3.9% 5 Outs. 94.9%	NA	NA	NA	Yes. . 67% No . . 33%
mean 9.0 ounces median 6.0 ounces	1 B — 2 LR — 3 OR 1% 4 G 9% 5 Outs. 90%	NA	NA	NA	Yes. . 71% No . . 29%

Note: Question 6 has been deleted from the summary but it is reported in the text.

Section 1

INTRODUCTION

I. BACKGROUND

On March 29, 1985, the National Toxicological Program reported positive results for a bioassay that indicated that methylene chloride is an animal carcinogen. Subsequently, the Environmental Protection Agency, under Section 112 of the Clean Air Act, made a preliminary determination to list methylene chloride as a hazardous air pollutant and on May 14, 1985, under Section 4(f) of the Toxic Substances Control Act, announced its decision to initiate priority review for risks of human cancer from exposure to methylene chloride.

On October 17, 1985, in an Advance Notice of Proposed Rulemaking, EPA announced its intention to conduct a regulatory investigation of methylene chloride in consultation and cooperation with the Consumer Product Safety Commission, the Food and Drug Administration and the Occupational Safety and Health Administration. An inter-agency methylene chloride workgroup, chaired by the Office of Pesticides and Toxic Substances, was formed and charged with the responsibility of conducting the regulatory investigation, which had the objective to determine whether or not methylene chloride presents an unreasonable risk to human health or the environment, and to determine if regulatory controls are needed to eliminate or reduce exposure.

The investigation revealed that other chlorinated solvents can be used in combination with or as substitutes for methylene chloride and regulation of methylene chloride alone could lead to its substitution by these other solvents. On December 11, 1985, the inter-agency workgroup recommended broadening the regulatory investigation to include six major chlorinated solvents: methylene chloride, trichloroethane, trichloroethylene, carbon tetrachloride, perchloroethylene and 1,1,2-trichlorotrifluoroethane. The solvents were selected for study on the basis of their large production volumes, their interchangeability, and their known and potential adverse health and environmental effects.

There is potential for exposure to methylene chloride from environmental sources, occupational activities and from use of consumer products containing methylene chloride. The EPA found that there was inadequate information on consumer exposure to methylene chloride. The purpose of this study is to provide the interagency workgroup with information that would assist them in estimating the magnitude of exposure to methylene chloride in consumer products. The study is a nationwide consumer survey to

determine pertinent characteristics of consumer use of various household cleaning, painting, and automotive products which are thought to contain methylene chloride or one of its five chemical substitutes.

The primary role of methylene chloride and its substitutes is that of a solvent in most of these products. Methylene chloride is effective in removing all types of surface finishes, including synthetics and epoxies. Solvent cleaning, often referred to as degreasing, involves removal of grease, wax and other forms of dirt from a variety of materials including metal, plastic, glass and fabric. In addition to methylene chloride's excellent solvent properties, it is also nonflammable and has a rapid evaporation rate. The five potential substitute chemicals have similar physical chemical properties and may, therefore, be used for similar purposes. In fact, for certain chemical uses the chemical of choice is often determined by the going price at the time.

The consumer is exposed to methylene chloride and its substitutes in an array of household cleaning products, painting and lubricating products, and automotive products. Thirty such products are now included in this survey, and laboratory tests have shown that methylene chloride or one of its substitute chemicals is, in fact, present in these products. The 30 products plus two additional products included because of general interest are as follows:

Product List

1. Spray Shoe Polish
2. Water Repellents/Protectors
3. Spot Removers
4. Solvent-Type Cleaning Fluids and Degreasers
5. Wood Floor and Paneling Cleaners
6. Typewriter Correction Fluid
7. Adhesives (Glue)
8. Adhesive Removers
9. Silicone Lubricants
10. Other Lubricants

11. Specialized Electronic Cleaners (for TVs, VCRs, Records, Computers and Shavers)
12. Latex Paint*
13. Oil Paint*
14. Wood Stains and Varnishes
15. Paint Removers/Strippers
16. Paint Thinners
17. Aerosol Spray Paint
18. Primers and Special Primers
19. Rust Removers
20. Outdoor Water Repellents (for wood or cement)
21. Glass Frostings
22. Engine Degreasers
23. Carburetor Cleaners
24. Aerosol Spray Paint for Cars
25. Auto Spray Primers
26. Spray Lubricant for Cars
27. Transmission Cleaners
28. Battery Terminal Protectors
29. Brake Quieters/Cleaners
30. Gasket Removers
31. Tire/Hubcap Cleaners
32. Wire Dryers

*Do not contain methylene chloride but are of interest to EPA for other reasons.

Latex and oil paint are not thought to contain methylene chloride or its substitutes, but do contain other chemicals of interest to EPA and, therefore, are included as an economy measure since the design and sample size lend themselves to surveying these paint users. Personal care products were beyond the scope of this study and therefore were not included.

This household consumer survey was conducted in conjunction with a shelf survey and laboratory tests to measure the presence or absence of methylene chloride and its substitutes. The shelf survey involved collecting over 1200 household cleaning and polishing, painting and lubricating, and automotive products from six cities nationwide. These items were then laboratory tested. Laboratory tests on products collected from the first city (Washington, D.C.) reduced the original product list from over 59 product types (suspected to contain the solvents) to the 30 product types listed above.

II. SURVEY METHODOLOGY

The survey had a three-part methodology, namely: Part I - A Sample Generation Phase; Part II - A Mailout with Product Pictures; and Part III - Telephone Follow-up to Nonrespondents of the Mail Survey. In Part I the sample was generated using a random digit dialing procedure. Using this procedure, a random selection of blocks of numbers (including unpublished numbers) within a certain exchange were made available. The interviewer in Phase I made a determination whether a working residential number had been obtained and then introduced the study; sought the respondent's participation; asked for the mailing address; and asked for the names of all of the adults in the household 18 years of age and older.

In Part II a questionnaire and a color foldout of product pictures was sent to each respondent separately. A pretest finding indicated that each respondent should receive a package separately from other respondents in the same household as a measure to avoid one member filling out each questionnaire for all respondents in the household. The pretest also indicated that the product pictures effectively familiarized the respondents with the products and aided them in answering the questions. This finding was confirmed in the study, even if the respondent completed the questionnaire over the telephone.

Part III involved telephone followup to those who did not respond to the mailed questionnaire within a four-week period. Telephone followup at the end of the four-week period was thought to be more effective and efficient than doing a second mailing or prompting calls especially since time was an important factor.

The same questionnaire was administered by the interviewer and the interview took, on the average, twenty to thirty minutes. The mailed questionnaire with product pictures appeared to be a positive influence on the response rate even when the questionnaire was administered over the telephone.

III. USE OF THE DATA

Respondents were asked questions as to their usage of the products. Information included the following:

- Frequency of use of the product;
- Duration of use;
- Brand names of products used;
- Amount of the products used;
- Location of use; and
- Degree of ventilation and other protective measures undertaken when using the product.

This information was needed for the Environmental Protection Agency to determine whether the magnitude of exposure to methylene chloride and its substitutes in consumer products presents an "unreasonable risk."

Each question in the questionnaire has utility to the risk assessment for methylene chloride and its substitutes. The main exposure variables for performing assessments are as follows:

- For inhalation exposure of an individual reported as a dose (that is, as a quantity absorbed into the body):
 1. Frequency (events/year).
 2. Years of exposure per lifetime.
 3. Duration of exposure (hours/event).
 4. Chemical concentration in room air.
 5. Inhalation rate.
 6. Fraction of inhaled chemical which is absorbed.

- For dermal exposure (individual):
 1. Frequency.
 2. Years of exposure per lifetime.
 3. Skin surface area covered by product.
 4. Film thickness of layer of product on skin.
 5. Density of product.
 6. Weight fraction of chemical in product.
 7. Dermal absorption rate.

Assumptions can be made with relative certainty based on physical measurements for some variables. However, without this survey the frequency and duration of use, ventilation safeguards, and use of other protective measures would be left to guesswork.

IV. Overview to the Report

Section 1 has provided the background and description of the study and a description of the study methodology. The remainder of the report appears as follows:

Section 2 - Describes the quality assurance procedures including questionnaire validation, the sample quality and response rate, data collection methods, and data preparation and processing.

Section 3 - Discusses the sample design and selection, sampling error, and variance estimation procedures.

Section 4 - Presents findings for comparisons made between products. It includes statistics for the total number of products used, rank orderings of products from highest to lowest values on key usage variables, and information on automotive and paint product users, each as a group.

Section 5 - Discusses aspects of the data such as sources of sampling and nonsampling error in the product data, and presents the detailed findings for the usage questions on a product-by-product basis.

Section 6 - Describes a shelf study and laboratory testing done for products in conjunction with this household survey. It also presents a brand imputation model used to simulate laboratory data where a respondent named a brand not previously laboratory tested in the shelf survey.

A series of technical appendices include the following:

- Appendix A - Results of the variance estimation procedures;
- Appendix B - Results of a calculation for total minutes of use by product;
- Appendix C - Actual mean values of comparisons of brands by product for those with and without laboratory data and those found to be with and without the chemical;
- Appendix D - Summary of the findings for aerosol "only" products;
- Appendix E - Recommendations for lifetime frequency of use; and
- Appendix F - Product Brand Statistics.

Section 2

DESCRIPTION OF QUALITY ASSURANCE PROCEDURES

Systematic survey and quality assurance procedures were an important part of all aspects of this study. Quality assurance procedures related to questionnaire validation; sample quality and response rates; data collection and the telephone center procedures; data preparation and processing are discussed below.

I. QUESTIONNAIRE VALIDATION

This project involved the design of one questionnaire which addressed consumer use of chemicals contained in an array of products used around the home and in the automobile. Major quality assurance procedures were undertaken to assure that valid and reliable data were collected via the questionnaire format. These procedures included: the collection of background information relevant to questionnaire design; the formal pretesting of the questionnaire; and reliability checks of the information collected.

To assure valid results, relevant background information was collected in advance. For example, available market data were analyzed as to the incidence of use of these products by consumers. Where market data were not available, such as for aerosol spray paint and some other products, local store owners were interviewed prior to the questionnaire preparation. Store visits were made to become familiarized with the products in question. Finally, indepth meetings with relevant agencies were undertaken to assure the development of useful questions.

Once the questionnaire was drafted, formal pretests were scheduled. The pretest involved mailing out the questionnaire and doing telephone interviews with nonrespondents. Two different formats were pretested, some with and some without pictures of the products. The pretest revealed problems such as questionnaire length; ability and difficulty comprehending the two different formats; awkward wording of some questions; and the respondent's tolerance for a certain repetition of questions.

A formal pretest of the questionnaire was an indispensable means which led to a more meaningful development of the questionnaire. It also shed light on measures that needed to be considered in training the interviewers and, therefore, also influenced the quality of the information collected. Results of the pretest were used to choose the most effective format and to revise the questionnaire.

II. SAMPLE QUALITY AND RESPONSE RATE

Even though this study was a mailout survey with telephone followup, the sample itself was generated by using a "random digit dialing" procedure in which telephone numbers were selected utilizing an unbiased, equal probability method known as the "Waksberg Method."

The Waksberg sampling method provided relatively unbiased results while being cost-effective by reducing the number of unproductive calls. It takes advantage of the fact that a high proportion of nonworking and commercial numbers occur in consecutive sequences. The procedure essentially amounts to first identifying a sample of blocks of numbers which contain working residential telephone numbers and dialing random numbers within those blocks. There are 46,000 blocks or clusters within the United States. A random selection of 1093 clusters were selected for this study.

Every effort was made to maximize the response rate. The response rate for Phase I, the sample generation, was 80% and the response rate for Phase III, the telephone followup, was 84%. After taking into account the response rates for all phases, including the mailed in questionnaires, the overall response rate produced for the study was 73%. These response rates produced 4,920 completed questionnaires.

Other procedures assuring the quality of the sample and a high response rate included:

- Internal computer checks to determine and eliminate any duplication of clusters randomly selected;
- Monitoring of interviewers for the telephone initiation and followup to assure that the number randomly generated was the only one utilized;
- Attractive questionnaire design and easy to follow directions for the mailout, including a foldout of pictures of the products;
- A toll-free number that respondents could call to verify the legitimacy of the survey;
- Careful wording of the introduction making it as interesting as possible and attention to questionnaire wording and length;
- Scan edits to verify that interviews were, in fact, completed and ineligibles were, in fact, ineligible;

- Systematic callback procedures over an extended period of time to maximize the chances of interviewing the person at the number randomly generated; and
- Converting those who initially decline through systematic callback procedures.

III. DATA COLLECTION METHODS

Quality control was assured during data collection by substantial training of interviewers and receipt clerks, careful supervision and monitoring of the interviewers during the interviewing and the receipt clerks for the mail-ins, and careful handling and storing of the questionnaires. All receipt clerks on the questionnaire mail-in operation received training by the project director. Systematic procedures were developed in advance to carefully handle and store the questionnaires. All interviewers used in the telephone followups received general interviewing training and project specific training. The general training includes the learning of voice and diction techniques, active listening skills, how to establish rapport with the respondent, how to probe for answers, how to handle refusals or difficult clients, and how to edit the written work involved in the questionnaire. Project specific training involved background on the study and question-by-question specifications and instructions. In both cases, interactive lectures, audiovisual materials, and role plays were utilized.

All interviewers for this survey were assigned to a Telephone Center Supervisor. The supervisor participated in the training efforts and monitored the interviews once they began. Monitoring took place in separate rooms from the interview carrels. Interviewers were observed and heard on silent listening devices. Most of the interviews during the first week of the study were monitored. The supervisor identified problems and took corrective actions, such as retraining and tutoring, to assure consistent quality of the interviews.

Finally, all the questionnaires were securely stored. The security facilities included a vault where completed questionnaires and other materials will be kept at the close of the study. A computerized mail receipt system was designed so that every questionnaire received an interim and a final status.

IV. DATA PREPARATION AND PROCESSING

First, a visual edit of all questionnaire items (for omissions, incomplete data entries and inconsistencies) was

completed by the telephone interviewers; then by their supervisor; and again by the coding supervisor. Any omissions or errors were corrected prior to data entry. Each coder's initial day's work was also 100 percent verified by the coding supervisor. When an acceptable error level was attained, verification was cut back and performed on at least 15 percent of each coder's subsequent work.

Second, precoding and precolumning were used in the questionnaire, as well as a coding manual to instruct coders as to specifications and decision rules. The questionnaire format and the manual addressed the following:

- Question numbers and item descriptions for each codable item;
- Card and column locations of all codable items;
- Codes for all possible responses, including codes for no data responses such as "inapplicable";
- Clear delineation of skip patterns in the form of contingency boxes; and
- Editing instructions in the form of editing check lists and edit boxes. Editing check lists include instructions for edits which require an overview of a section of the questionnaire and edit boxes include instructions for editing particular boxes.

A third quality control measure related particularly to coding was the maintenance of a decision log to document two kinds of decisions. The first is a decision documentation related to inconsistencies or missing data in specific cases, and these decisions were recorded throughout the coding process. The second type of decision recording mechanism is that which involved the broader issues of study methodology from instrument design and sample selection to the form of the final data analysis reports. As these decisions affect the nature of the study, they were only made by the task leader.

After coding was completed, the coded forms were keyed and the keyed material edited in preparation of a clean data base necessary for data analysis. All data was 100 percent key verified. This means that a person other than the original data entry clerk re-keyed the data, and the two records were compared and inconsistencies resolved.

The following are examples of the types of other checks that were performed on the data:

- Range checks on fields where a limited range was known to be possible, such as the number of children in the household or the number of hours spent using a given product;
- A crosscheck of related fields, such as the number of people using the product in the last 12 months who also filled out questions 3 through 9;
- Checks for illegal characters, such as letters in numeric fields or special characters in alphabetic fields; and
- Validity checks on all codes such as the brand codes.

Wherever errors were detected, corrections were made or records deleted by way of a file-updating program.

V. CONCLUSION AND SUMMARY

In summary, EPA is firmly committed to the principles and procedures which facilitate quality assurance in its survey procedures. Quality assurance procedures discussed in this section are summarized on the next page.

SUMMARY OF QUALITY ASSURANCE PROCEDURES

<u>Quality Control Area</u>	<u>Methods to Be Used</u>
1. Questionnaire Validation	<ul style="list-style-type: none">- Collection of relevant background information regarding use of the relevant products- Formal pretesting by mail and in the Telephone Center- Respondent reliability checks through re-interviews
2. Sample Quality	<ul style="list-style-type: none">- Random Digit Dialing as a cost-effective and efficient method for generating the sample- Computer checks for duplication of clusters- Systematic callbacks over an extended period of time
3. Data Collection Procedures	<ul style="list-style-type: none">- Receipt clerk training- Interviewer training- Interviewer supervision- Systematic handling and storing of questionnaires
4. Data Preparation and Processing/Procedures	<ul style="list-style-type: none">- Visual edits of the questionnaire- Precoding and precolumning- Coding manual- Decision logs- 100 percent of coding verified by supervisor during first day and 15 percent thereafter- 100 percent of data keyed are key verified by a second data entry clerk- Machine edit of range and logic checks, as well as validity of codes and skip patterns

Section 3

SAMPLING DESIGN AND SELECTION

I. SAMPLING FRAME

Telephone surveys typically use telephone directories or numbers generated from random digit dialing (RDD) as the sampling frame. Telephone directories, however, have the disadvantage of excluding households with unlisted numbers and households that have recently moved. Moreover, most telephone companies are unwilling to release a list of all residential telephone numbers for sampling purposes since this may violate a commitment made to customers with unlisted numbers. Current and comprehensive lists of residential telephone numbers are generally not available for sampling purposes.

Random digit dialing methods, on the other hand, do not have these limitations. Although there are several methods of implementing random digit dialing (RDD), this survey used a procedure called the Waksberg Method. The Waksberg Method provides an unbiased sample of households with telephones, with most households having the same probability of selection. Moreover, the method is relatively efficient since it requires fewer telephone calls than the earlier procedures developed for RDD.

A small percentage of households, 2 to 3 percent, have multiple phone numbers. The vast majority of multiple phone number households will have only two phone numbers. Rather than introduce weights into the data set, the information collected on the number of homes within a household was ignored. Because of the very small number of households with multiple phones, the potential for biasing the results in a meaningful way is remote.

This method of sample selection for telephone interviewing via RDD, therefore, significantly reduced the cost of this survey, as compared to dialing numbers completely at random. The problem with dialing numbers completely at random is that most numbers dialed turn out to be nonworking numbers. An additional group represents business or other nonresidential units. Current estimates are that about 80 percent of the potential numbers within existing telephone exchanges are non-working and about 3 percent are businesses or institutions of some type. About 20 percent turn out to be residential.

Therefore, with numbers selected at random (within known telephone exchanges), calls to about five separate numbers are needed to produce a single residential unit. In many cases, the telephone companies do not provide a message that the number

dialed is not a working number; and additional checking is necessary to distinguish between not-at-home and nonworking numbers, adding further to the cost of producing completed interviews.

The sampling method used in this study was designed to reduce the number of nonproductive calls. It takes advantage of the fact that a high proportion of nonworking and commercial numbers occur in consecutive sequences. The procedure essentially amounts to first identifying and selecting a sample of blocks of numbers which contain working residential telephone numbers and then dialing numbers at random within the blocks. If the primary number in the block or cluster is residential the cluster has a greater probability of producing other residential numbers.

II. SELECTION OF THE SAMPLE

The sample was selected in two waves given a late decision to increase the sample size. Wave 1 consisted of 600 clusters with 500 of them with four households per cluster and 100 of them with five households per cluster. Wave 2 consisted of 493 clusters with two households per cluster. The decision to take four or five households per cluster in Wave 1 and the decision to place a cluster in Wave 1 or 2 were decided at random; this means that the unequal number of households per cluster would not have disturbed the equal probability of selection for households.

Every adult member (18 years of age or older) within a household was included in the survey. Five thousand six hundred and seventy-five (5,675) respondents of 6,700 contacted agreed to participate and therefore were sent a questionnaire. Four thousand nine hundred and twenty (4,920) respondents either sent the questionnaire in or completed the interview over the telephone.

III. SAMPLING ERROR AND STATISTICAL ACCURACY

Like all survey data, the resulting statistical estimates are subject to sampling error which is presented at the 95 percent confidence limit. The sampling error for four products each with a different incidence of use is presented in Table 3-1. This error is calculated by product because the analyses are done by product. The confidence bounds or level of statistical precision were deemed acceptable for the intended purposes. This precision was in fact achieved.

Table 3-1 has been prepared under the assumption of simple random sampling. The sample design actually used was a two-stage sample, with all adults over 18 years old in a selected household interviewed. Because this sample is made up of clusters of households in the same general vicinity, as well as multiple members of the same household, variance estimates made using the assumption of simple random sampling can either understate or overstate (this is a rare occurrence) variance. Comparisons are made in Appendix A which compare estimates of variance made under the assumption of simple random sampling, with estimates which take into account the complex sample design used. These comparisons indicate that the effect of the complex sample design was negligible. This being the case, estimates based upon simple random sampling can be used for reference in the absence of estimates of variance based upon the complex sample design.

Table 3-1: Chlorocarbon Household Survey
Sampling tolerance using a 95% level of confidence in
estimating a proportion

		True Value of Proportion estimated			
		p = 0.01 or 0.99	p = 0.1 or 0.9	p = 0.3 or 0.7	p = 0.5 or 0.5
Incidence of use of product:					
Highest (54%)	2680 respondents	± 0.004	± 0.012	± 0.018	± 0.019
Moderate (22%)	1104 respondents	± 0.006	± 0.018	± 0.028	± 0.030
Moderately rare (6%)	290 respondents	± 0.012	± 0.035	± 0.054	± 0.059
Rarest (1.4%)	69 respondents	± 0.024	± 0.072	± 0.110	± 0.120

IV. VARIANCE ESTIMATION

This survey consists of a two-stage cluster sample in which the first stage units consist of telephone clusters and the second stage units consist of households. The selected households are also made up of clusters of people, but no subsampling is performed within the household. All persons in the selected households over 18 years old are included in the survey.

Ratio Estimation

The vast majority of estimates produced from this survey are ratio estimates (i.e., both numerator and denominator are random variables) of the form:

$$\frac{\text{Total Use}}{\text{Total Number of Users}}$$

This ratio was calculated separately for the 32 product types. Because all respondents had approximately an equal probability of selection the two waves of the survey were simply added together to form the ratio:

$$\frac{\text{Wave 1 Total Use} + \text{Wave 2 Total Use}}{\text{Wave 1 Users} + \text{Wave 2 Users}}$$

If the numerator is represented by Y and the denominator by X then the estimates are of the form:

$$\hat{R} = \frac{Y}{X}$$

Variance of a Ratio

The variance of this ratio, V_R , can be estimated by the following:

$$V_R = \frac{[S_Y^2 + \hat{R}^2 S_X^2 - 2\hat{R}S_{YX}]}{X^2}$$

where S_Y^2 is the estimated variance of Y, S_X^2 is the estimated variance of X and S_{YX} is the estimated covariance of X and Y.

Because of the independence of the two waves the variance of Y can be estimated by:

$$S_Y^2 = S_{Y_1}^2 + S_{Y_2}^2$$

where Y_1 is the total for Wave 1 and Y_2 is the total for Wave 2. These totals are made up of the sums of n_1 and n_2 clusters, which have been selected with probability proportionate to size and essentially with replacement. For this situation an estimate of the variance of Y_1 , and similarly for Y_2 , is n_1 times the sample variance of the cluster totals, Y_i $i=1, \dots, n_1$:

$$S_{Y_1}^2 = n_1 \sum (Y_i - \bar{Y})^2 / (n_1 - 1)$$

The same types of estimates were used to estimate V_X^2 . To estimate the covariance of Y and X, S_{YX} , the estimates over the two waves were summed (due to independence):

$$S_{XY} = S_{X_1Y_1} + S_{X_2Y_2}$$

The covariance terms were estimated for each wave by finding the simple covariance between the cluster totals and the number of users in the cluster. For wave 1 this yields the following:

$$S_{X_1Y_1} = \frac{\sum (Y_i - \bar{Y})(X_i - \bar{X})}{n_1 - 1} n_1$$

Variance was estimated by product type for the following ratio estimates: percent recent users, months since last use, uses per year, minutes of use (last use), ounces used per year, and ounces per year/uses per year.

To investigate the effect of the sample design upon the estimated variance the variances for many of the variables listed above were calculated for nine product types as if the responses were from a simple random sample, ie., a standard statistical package was used to estimate variance. The ratios of the estimated standard error, using the previously described procedure, to the standard error based upon simple random sampling were formed. The maximum ratio found was 1.085 and the minimum was .936, with the vast majority between .96 and 1.04. This suggests that the clustering had a minimal impact on the precision of the survey.

Confidence Intervals

The estimated variance of the ratio mean discussed above was used to construct an approximate 95% confidence interval. This was done using the following formula:

$$\hat{R} \pm 1.96 \sqrt{\hat{V}_R}$$

These intervals can also be interpreted as giving the values of R that would be accepted based upon the following test:

$$\frac{|\hat{R} - R|}{\sqrt{\hat{V}_R}} < 1.96$$

It should be remembered that these intervals are based upon the normal distribution. The right skewed nature of the variables (primarily estimating amount used) will tend to make this approximation questionable for ratios based upon 50 respondents or fewer.

The actual results of the variance estimation for each product and each variable are presented in Appendix A.

Section 4

RESULTS:

COMPARISONS AND ANALYSES ACROSS PRODUCTS

I. TOTAL NUMBER OF PRODUCTS USED

A. Products "Ever Used"

Respondents have, on the average, used slightly fewer than seven products in their lifetime, to date. As can be seen in Table 4-1, the mean number of products "ever used" is 6.93 and the median number is 6.0.

Table 4-2 presents the frequency distribution for the total number of products ever used. Four and five products were the number most often used by respondents. Seventy-eight percent of the respondents used 10 or fewer products and less than 1 percent used 22 or more products.

As can be seen in Table 4-3, five percent of the respondents have never used any of the products. The percentiles increase steadily to 32 products at the maximum percentile.

B. Products Used Within the Last Twelve Months

During the last 12 months, respondents on the average, used almost five products. As can be seen in Table 4-4, the mean number of products used during this period is 4.94 and the median number is 4.00.

Table 4-5 presents the frequency distribution for the total number of products of the 32 which were used during the last 12 months. Most people used three or four products during the previous 12 months. Almost 90 percent used 10 or fewer products. Fewer than 1 percent used 18 or more products during this period.

As Table 4-6 shows, ten percent of the respondents did not use any of the products during the 12 months prior to the survey. These percentiles also increase steadily with 18 products being used at the 99th percentile and 32 being used at the maximum percentile.

II. RANK-ORDERINGS OF PRODUCTS BY QUESTION AND SELECTED CONTRIBUTIONS TO TOTAL EXPOSURE

For all key questions, tables are presented in which variables are rank-ordered from the highest to the lowest value.

Table 4-1: Descriptive statistics for total number of products ever used (N=4920)

Mean	6.93
Median	6.00
Standard deviation	5.08

Table 4-2: Frequency distribution of total products "ever used"

Number of products used	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	299	6.1	299	6.1
1	330	6.7	629	12.8
2	365	7.4	994	20.2
3	427	8.7	1421	28.9
4	432	8.8	1853	37.7
5	435	8.8	2288	46.5
6	371	7.5	2659	54.0
7	330	6.7	2989	60.8
8	316	6.4	3305	67.2
9	302	6.1	3607	73.3
10	227	4.6	3834	77.9
11	204	4.1	4038	82.1
12	180	3.7	4218	85.7
13	139	2.8	4357	88.6
14	120	2.4	4477	91.0
15	93	1.9	4570	92.9
16	83	1.7	4653	94.6
17	66	1.3	4719	95.9
18	61	1.2	4780	97.2
19	40	0.3	4820	98.0
20	35	0.7	4855	98.7
21	17	0.3	4872	99.0
22	15	0.3	4887	99.3
23	8	0.2	4895	99.5
24	9	0.2	4904	99.7
25	7	0.1	4911	99.8
26	1	0.0	4912	99.8
27	4	0.1	4916	99.9
28	1	0.0	4917	99.9
30	1	0.0	4918	100.0
32	2	0.0	4920	100.0

Table 4-3: Percentile rankings for total number of products ever used (N=4920)

Minimum	0	Median	6
1%	0	75%	10
5%	0	90%	14
10%	1	95%	17
25%	3	99%	21
		Maximum	32

Table 4-4: Descriptive statistics for total number of products used during last 12 months

Mean	4.94
Median	4.00
Standard deviation	4.18

Table 4-5: Frequency distribution of total products used during the last 12 months

Number of products used	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	528	10.7	525	10.7
1	533	10.8	1061	21.6
2	558	11.3	1619	32.9
3	614	12.5	2233	45.4
4	482	9.8	2715	55.2
5	414	8.4	3129	63.6
6	371	7.5	3500	71.1
7	305	6.2	3805	77.3
8	237	4.8	4042	82.2
9	221	4.5	4263	86.6
10	139	2.8	4402	89.5
11	123	2.5	4525	92.0
12	94	1.9	4619	93.9
13	89	1.8	4708	95.7
14	60	1.2	4768	96.9
15	42	0.9	4810	97.8
16	35	0.7	4845	98.5
17	19	0.4	4864	98.9
18	13	0.3	4877	99.1
19	12	0.2	4889	99.4
20	7	0.1	4896	99.5
21	5	0.1	4901	99.6
22	5	0.1	4906	99.7
23	3	0.1	4909	99.8
24	4	0.1	4913	99.9
25	1	0.0	4914	99.9
26	2	0.0	4916	99.9
27	1	0.0	4917	99.9
28	1	0.0	4918	100.0
32	2	0.0	4920	100.0

Table 4-6: Percentile rankings for total number of products used during the last 12 months

Minimum	0	Median	4
1%	0	75%	7
5%	0	90%	11
10%	0	95%	13
25%	2	99%	18
		Maximum	32

This gives some indication of how to summarize the data for the products relative to each other. Another column appears for minutes of use, minutes in the room after use, and ounces used per year. This column indicates the average percent of use due to each product type. This is calculated by adding up the minutes or ounces for all 32 products and then calculating the percentage of the total for each product. This allows for subtracting the percentage of minutes of use if it is eliminated for one or more products.

Table 4-7 presents the rank orderings of products for the variable "incidence of use". As can be seen, the highest incidence of "ever used" products is for contact cements, super glues, and spray adhesives, with 60.6 percent. This may be partially because some respondents included the more common white paste glues. The second two highest incidences of "ever used" products are for latex paint, with 55.2 percent and wood stains, varnishes, and finishes, with 42.9 percent.

The lowest incidence of "ever used" products is for automotive products. Transmission cleaners are lowest with only 2.1 percent of respondents ever using them. The next two lowest are gasket removers with 2.7 percent and brake quieters/cleaners with 2.6 percent.

Table 4-8 presents the rank orderings of products for the variable "last time the product was used, in months". Spray shoe polish was last used, on the average, 42.1 months ago. This is the longest period since last use and this may reflect the fact that many manufacturers are discontinuing its production. The glass frosting, tints, and artificial snow category is the next longest period, last used 34.2 months ago. Oil paint is the third longest period, last used 30.4 months ago.

The most recent last use falls to other lubricants (nonautomotive) with 5.0 months, on the average, since last use; contact cements, super glues, and spray adhesives with 5.2 months since last use; and spray lubricants (automotive) with 6.3 months since last use.

Table 4-9 presents the rank orderings for products for the variable "number of uses of the product within the last 12 months". By far, the product most used within the last 12 months is typewriter correction fluid with 40.0 uses. There is a drop to the next two highest products, solvent cleaners with 16.5 uses during the previous 12 months and spot removers with 15.6 uses.

The three products least used within the last 12 months are outdoor water repellents with 2.1 mean uses, transmission cleaners with 2.3 mean uses, and gasket removers with 2.5 mean uses.

Table 4-7: Rank orderings of incidence of use (ever used) for all products

Product	Q1 Yes %	Q1 Number of Respondents
Contact cement/Super glues/Spray adhesive	60.6	2982
Latex paint	55.2	2717
Wood stains/Varnishes/Finishes	42.9	2113
Spot removers	39.1	1924
Paint thinners	35.7	1756
Water repellents	35.8	1762
Aerosol spray paint (nonautomotive)	35.4	1743
Wood/Floor/Paneling cleaners	34.9	1719
Other lubricants (nonautomotive)	34.3	1695
Paint removers/Strippers	30.5	1498
Oil paint	29.9	1471
Solvent cleaners	28.1	1382
Typewriter correction fluids	25.9	1276
Carburetor cleaners	21.9	1075
Spray lubricants for cars	17.9	884
Silicone lubricants (nonautomotive)	17.7	870
Engine degreasers	17.2	847
Tire/Hubcap cleaners	15.9	783
Primers (nonautomotive)	13.9	684
Specialized electronic cleaners	13.1	645
Aerosol spray paint for cars	12.1	597
Spray shoe polish	11.7	575
Glass frostings/Tints/Artificial snow	10.3	509
Outdoor water repellent	9.2	454
Auto spray primers	8.7	429
Aerosol rust removers	8.2	403
Battery terminal protectors	6.7	330
Adhesive removers	5.7	284
Ignition/Wire dryers	4.8	237
Gasket removers	2.7	132
Brake quieters/Cleaners	2.6	130
Transmission cleaners	2.1	103

Table 4-8: Rank orderings of last time product was used in months for all products

Product	Q2 Mean months
Spray shoe polish	42.1
Glass frostings/Tints/Artificial snow	34.2
Oil paint	30.4
Paint removers/Strippers	28.9
Outdoor water repellents	24.6
Auto spray primers	24.1
Wood stains/Varnishes/Finishes	23.2
Ignition/Wire dryers	22.8
Gasket removers	22.4
Primers (nonautomotive)	22.0
Adhesive removers	21.6
Paint thinners	21.5
Aerosol spray paint for cars	20.8
Water repellents	20.5
Aerosol spray paint (nonautomotive)	17.2
Latex paint	16.7
Transmission cleaners	16.7
Engine degreasers	16.5
Aerosol rust removers	15.1
Spot removers	14.7
Battery terminal protectors	14.0
Brake quieters/Cleaners	13.3
Carburetor cleaners	13.1
Wood/Floor/Paneling cleaners	12.6
Solvent cleaners	9.9
Specialized electronic cleaners	7.9
Tire/Hubcap cleaners	7.2
Typewriter correction fluid	6.9
Silicone lubricants (nonautomotive)	6.5
Spray lubricants for cars	6.3
Contact cement/Super glues/Spray adhesives	5.2
Other lubricants (nonautomotive)	5.0

Table 4-9: Rank orderings of number of uses of the product within the last 12 months for all products

Product	Q3 Mean uses
Typewriter correction fluid	40.0
Solvent cleaners	16.5
Spot removers	15.6
Specialized electronic cleaners	13.4
Tire/Hubcap cleaners	11.1
Other lubricants (nonautomotive)	10.6
Silicone lubricants (nonautomotive)	10.3
Spray lubricants for cars	10.3
Spray shoe polish	10.3
Contact cement/Super glues/Spray adhesives	8.9
Wood/Floor/Panel cleaners	8.5
Paint thinners	6.8
Auto spray primers	6.4
Aerosol rust removers	6.2
Oil paint	5.7
Aerosol spray paint for cars	4.5
Aerosol spray paint (nonautomotive)	4.2
Engine degreasers	4.2
Adhesive removers	4.2
Wood stains/Varnishes/Finishes	4.2
Latex paint	3.9
Battery terminal protectors	3.9
Carburetor cleaners	3.8
Paint removers/Strippers	3.7
Water repellents	3.5
Primers (nonautomotive)	3.4
Brake quieters/Cleaners	3.0
Ignition/Wire dryers	3.0
Glass frostings/Tints/Artificial snow	2.8
Gasket removers	2.5
Transmission cleaners	2.3
Outdoor water repellents	2.1

Table 4-10 presents the rank orderings and the average percent of use for all products for the variable "time spent using the product". As might be expected, the most time was spent using latex paint (295.1 mean minutes) and oil paint (194.1 mean minutes). However, latex and oil paint do not contain the study solvents. Of the other products which are thought to contain the solvents the three highest number of minutes are: paint removers/strippers with 125.6 mean number of minutes; adhesive removers with 121.0 mean number of minutes; and wood stains, varnishes, and finishes with 117.2 mean number of minutes.

The least amount of time using a product is for ignition/wire dryers at 7.2 mean minutes, spray shoe polish at 7.5 mean minutes, and typewriter correction fluid at 7.6 mean minutes.

Column 2 indicates the average percentage of use (as minutes of use) due to each product type. Each amount shown is the percentage of minutes of use which would be eliminated if the use of any given product is eliminated.

Table 4-11 presents the rank orderings and the average percent of use for all products for the variable "time spent in the room after last use". The mean number of minutes spent in the room after use of the product is greatest for the glass frostings, tints, and artificial snow category, with 137.9 mean minutes; next highest for typewriter correction fluid with 128.4 mean minutes; and third highest for adhesive removers with 119.3 mean minutes.

The automotive products have the lowest amount of time spent in the room because most are used outside or briefly inside the garage.

Column 2 indicates the average percent of use (as minutes in the room after use) due to each product type. Each figure is the percentage of minutes in the room after use which would be eliminated if use of any given product is eliminated.

Table 4-12 presents the rank orderings and average percent of use for all products for the variable "amount of product used in ounces per year". As might be expected, products used for large jobs have the most ounces used per year. Latex and oil paint have the highest number of ounces used with 371.3 and 168.9 ounces, respectively. However, these two products do not contain the solvents of interest. Of the products with brands thought to contain chlorinated solvents, the top three number of ounces used per year are: outdoor water repellents with 148.7 ounces;

Table 4-11: Rank orderings and average percent of time spent in the room after last use for all products

Product	Q5 mean minutes in room	Average percent of use (as minutes in the room after use) due to each product type
Glass frostings/Tints/Artificial snow	137.9	9.3%
Typewriter correction fluids	128.4	8.6%
Adhesive removers	119.3	8.0%
Specialized electronic cleaners	117.2	7.9%
Oil paint	100.5	6.8%
Wood/Floor/Paneling cleaners	96.7	6.5%
Wood stains/Varnishes/Finishes	93.4	6.3%
Latex paint	91.4	6.1%
Contact cement/Super Glues/Spray Adhesives	88.9	6.0%
Other lubricants (nonautomotive)	84.1	5.7%
Silicone lubricants (nonautomotive)	65.8	4.4%
Spot removers	43.8	2.9%
Water repellents	38.2	2.6%
Solvent cleaners	33.3	2.2%
Paint thinners	32.9	2.2%
Spray shoe polish	31.5	2.1%
Paint removers/Strippers	31.4	2.1%
Gasket removers	27.6	1.9%
Primers (nonautomotive)	22.3	1.5%
Aerosol rust removers	15.1	1.0%
Aerosol spray paint (nonautomotive)	12.7	0.9%
Auto spray primers	11.4	0.8%
Aerosol spray paint for cars	10.7	0.7%
Brake quieters/Cleaners	10.3	0.7%
Outdoor water repellents	8.3	0.6%
Carburetor cleaners	7.5	0.5%
Ignition/Wire dryers	6.4	0.4%
Transmission cleaners	6.2	0.4%
Spray lubricants for cars	4.5	0.3%
Engine degreasers	4.5	0.3%
Battery terminal protectors	3.2	0.2%
Tire/Hubcap cleaners	1.5	0.1%

Table 4-12: Rank orderings and average percent of use for amount of product used in ounces per year for all products

Product	Q7 Mean ounces per year	Average percent of use (as ounces per year) due to each product type
Latex paint	371.3	23.9%
Oil paint	168.9	10.9%
Outdoor water repellents	148.7	9.6%
Auto spray primers	70.4	4.5%
Paint thinners	69.5	4.5%
Primers (nonautomotive)	68.4	4.4%
Wood stains/Varnishes/Finishes	65.1	4.2%
Paint removers/Strippers	63.7	4.1%
Solvent cleaners	58.1	3.7%
Engine degreasers	46.9	3.0%
Aerosol spray paint for cars	44.9	2.9%
Transmission cleaners	37.7	2.4%
Adhesive removers	34.5	2.2%
Tire/Hubcap cleaners	31.6	2.0%
Aerosol spray paint (nonautomotive)	30.7	2.0%
Wood/Floor/Paneling cleaners	28.4	1.8%
Spot removers	26.1	1.7%
Carburetor cleaners	22.0	1.4%
Spray lubricants for cars	18.6	1.2%
Aerosol rust removers	18.2	1.2%
Battery terminal protectors	16.4	1.1%
Glass frostings/Tints/Artificial snow	13.8	0.9%
Gasket removers	13.3	0.9%
Silicone lubricants (nonautomotive)	12.5	0.8%
Brake quieters/Cleaners	11.7	0.8%
Water repellents	11.3	0.7%
Spray shoe polish	9.9	0.6%
Other lubricants (nonautomotive)	9.9	0.6%
Specialized electronic cleaners	9.5	0.6%
Ignition/Wire dryers	9.0	0.6%
Contact cement/Super glues/Spray adhesives	7.5	0.5%
Typewriter correction fluid	4.1	0.3%

automotive spray primers with 70.4 ounces; and paint thinners with 69.5 ounces.

While typewriter correction fluid and contact cement, super glues, and spray adhesives are frequently used, only relatively small amounts were used, namely: 4.1 ounces per year for the former and 7.5 for the latter.

Column 2 indicates the average percent of use (as ounces per year) due to each product type. Ounces per year was a variable derived from determining the size of can used and the amount or number of cans used. Each number shows the percentage of ounces per year which would be eliminated if the use of any given product is eliminated.

Table 4-13 presents the rank orderings for all products for the variable "whether or not a door or window was open to the outside". The highest percentage of respondents kept a door or window open when using nonautomotive primers (78%), latex paint (76%), outdoor water repellents (73%), and paint removers/strippers (71%). Most of the automotive products were used on the outside so this question was irrelevant for these respondents.

Table 4-14 presents the rank orderings for all products for the variable "whether an exhaust fan was on during use". The highest percentages of respondents having an exhaust fan on are 25 percent for spot removers and 23 percent for adhesive removers. Four products with 16 percent of respondents having an exhaust fan on are: primers (nonautomotive); oil paint; paint removers/strippers; and latex paint. Most users of automotive products used them outside and, again, this question does not apply.

Table 4-15 presents the rank orderings for all products for the variable "whether the inside door to the room was kept open." For those respondents who used the product inside, the majority left the door to the room open while using the product. The highest percentages leaving the door open were for latex paint (85%), wood/floor/paneling cleaners (83%), and spot removers (80%). Once again, the majority of the automotive users used the product outside and, therefore, this question does not apply.

Table 4-16 presents the rank orderings for all products for the variable "whether directions on the label were read." The least used product, transmission cleaners, had the highest percentage (86%) of respondents who read the directions on the label. The majority of the respondents for most products said that they did read the directions on the label. Fewer than 50 percent read the directions on the label for only two products, nonautomotive "other" lubricants and typewriter correction fluid.

Table 4-13: Rank orderings of those saying they kept a door or window open to the outside for all products

Product	Q9a Yes %
Primers (nonautomotive)	78
Latex paint	76
Outdoor water repellents	73
Paint removers/Strippers	71
Oil paint	70
Adhesive removers	67
Paint thinners	67
Wood stains/Varnishes/Finishes	64
Aerosol spray paint (nonautomotive)	63
Aerosol rust removers	61
Wood/Floor/Paneling cleaners	59
Solvent cleaners	57
Silicone lubricants (nonautomotive)	52
Spot removers	45
Other lubricants (nonautomotive)	43
Spray shoe polish	41
Contact cement/Super glues/Spray adhesives	41
Water repellents	40
Specialized electronic cleaners	32
Typewriter correction fluid	26
Glass frostings/Tints/Artificial snow	24
Transmission cleaners	N/A
Battery terminal protectors	N/A
Carburetor cleaners	N/A
Brake quieters/Cleaners	N/A
Auto spray primers	N/A
Gasket removers	N/A
Engine degreasers	N/A
Spray lubricants for cars	N/A
Aerosol spray paint for cars	N/A
Tire/Hubcap cleaners	N/A
Ignition/Wire dryers	N/A

Table 4-14: Rank orderings of those saying they kept an exhaust fan on during use for all products

Product	Q9b Yes %
Spot removers	25
Adhesive removers	23
Primers (nonautomotive)	16
Oil paint	16
Paint removers/Strippers	16
Latex paint	16
Wood stains/Varnishes/Finishes	15
Solvent cleaners	15
Aerosol rust removers	13
Spray shoe polish	11
Glass frostings/Tints/Artificial snow	11
Wood/Floor/Paneling cleaners	11
Aerosol spray paint (nonautomotive)	10
Paint thinners	10
Contact cement/Super glues/Spray adhesives	8
Typewriter correction fluid	8
Silicone lubricants (nonautomotive)	8
Water repellents	8
Outdoor water repellents	7
Other lubricants (nonautomotive)	6
Specialized electronic cleaners	6
Carburetor cleaners	N/A
Battery terminal protectors	N/A
Engine degreasers	N/A
Brake quieters/Cleaners	N/A
Auto spray primers	N/A
Gasket removers	N/A
Transmission cleaners	N/A
Spray lubricants for cars	N/A
Aerosol spray paint for cars	N/A
Tire/Hubcap cleaners	N/A
Ignition/Wire dryers	N/A

Table 4-15: Rank orderings of those saying they kept the door to the room open during use

Product	Q9c Yes %
Latex paint	85
Wood/Floor/Paneling cleaners	83
Spot removers	80
Adhesive removers	79
Oil paint	77
Spray shoe polish	76
Contact cement/Super glues/Spray adhesives	75
Typewriter correction fluid	74
Wood stains/Varnishes/Finishes	74
Solvent cleaners	74
Water repellents	73
Glass frostings/Tints/Artificial snow	72
Silicone lubricants (nonautomotive)	71
Specialized electronic cleaners	70
Other lubricants (nonautomotive)	70
Paint removers/Strippers	69
Primers (nonautomotive)	68
Paint thinners	68
Outdoor water repellents	65
Aerosol spray paint (nonautomotive)	61
Aerosol rust removers	57
Transmission cleaners	N/A
Battery terminal protectors	N/A
Carburetor cleaners	N/A
Brake quieters/Cleaners	N/A
Auto spray primers	N/A
Gasket removers	N/A
Engine degreasers	N/A
Spray lubricants for cars	N/A
Aerosol spray paint for cars	N/A
Tire/Hubcap cleaners	N/A
Ignition/Wire dryers	N/A

Table 4-16: Rank orderings of those saying they read the directions on the label for last use of product

Product	Q9d Yes %
Transmission cleaners	86
Water repellents	83
Adhesive removers	82
Outdoor water repellents	81
Paint removers/Strippers	80
Engine degreasers	78
Wood stains/Varnishes/Finishes	77
Spot removers	77
Primers (nonautomotive)	74
Gasket removers	74
Specialized electronic cleaners	74
Carburetor cleaners	74
Aerosol spray paint (nonautomotive)	73
Wood/Floor/Paneling cleaners	72
Aerosol spray paint for cars	72
Brake quieters/Cleaners	72
Ignition/Wire dryers	71
Spray shoe polish	71
Battery terminal protectors	71
Glass frostings/Tints/Artificial snow	71
Contact cement/Super glues/Spray adhesives	70
Oil paint	69
Auto spray primers	69
Solvent cleaners	68
Aerosol rust removers	68
Tire/Hubcap cleaners	67
Latex paint	64
Silicone lubricants (nonautomotive)	61
Paint thinners	59
Spray lubricants for cars	55
Other lubricants (nonautomotive)	45
Typewriter correction fluid	39

III. CROSS USE OF PRODUCTS

A. Users of Aerosol Spray Paint Who Use Other Products

Table 4-17 presents the percentage of users who have "ever used" aerosol spray paint who have also "ever used" the other 31 products. Of particular interest is whether a user of one paint product also uses other paint products. As might be expected, the percentage of users of aerosol spray paint who also used other paint products is high. Almost 76 percent of aerosol spray paint users have also used latex paint; 45.3 percent have also used oil paint; 64.1 percent have also used wood stains, varnishes, and finishes; 49.6 percent have also used paint removers/strippers; and 54.9 percent have also used paint thinners. Please also note that the percentage of users of aerosol spray paint who use one of the other products may be low because overall use of the product is low. This is true for many automotive products.

Table 4-18 presents the percentage of aerosol spray paint users who used it in the last 12 months who also used the other 31 products during the last 12 months. Once again, a fairly high percentage of users of aerosol spray paint during the last 12 months also used other paint products during the last 12 months. Almost 58 percent of aerosol spray paint "recent" users also used latex paint; almost 28 percent also used oil paint; almost 45 percent also used wood stains, varnishes, or finishes; 29 percent also used paint removers/strippers; and 39 percent also used paint thinners.

B. Users of Carburetor Cleaners Who Use Other Products

Table 4-19 presents the percentage of users of carburetor cleaners who have "ever" used it who also have used the other 31 products. Of particular interest is whether a user of one automotive product also uses other automotive products. Fifty-four percent of users of carburetor cleaners also use engine degreasers; 34.4 percent also use aerosol spray paint for cars; 29.3 percent also use auto spray primers; 49.3 percent also use spray lubricants for cars; 7.2 percent also use transmission cleaners; 20.3 percent also use battery terminal protectors; 9.9 percent also use brake quieters/cleaners; 9.3 percent also use gasket removers; 32.1 percent also use tire/hubcap cleaners; and 15.9 percent also use ignition and wire dryers. Again, please note that the percentage of users of carburetor cleaners who use one of the other automotive products may seem low because overall

Table 4-17: Percentage of "Ever Users" of Aerosol Spray Paint who "Ever Used" other products (N=1746 users)

Other Products Used	Percentage "Ever Users" Using
1. Spray Shoe Polish	15.6%
2. Water Repellents/Protectors	47.6%
3. Spot Removers	48.8%
4. Solvent-type Cleaning Fluids	38.8%
5. Wood/Floor/Paneling Cleaners	45.7%
6. Typewriter Correction Fluid	36.4%
7. Contact Cement, Super Glues, and Spray Adhesives	79.3%
8. Adhesive Removers	96.8%
9. Silicone Lubricants (nonauto)	29.0%
10. Other Lubricants (nonauto)	52.3%
11. Specialized Electronic Cleaners	20.6%
12. Latex Paint	75.6%
13. Oil Paint	45.3%
14. Wood Stains, Varnishes, and Finishes	64.1%
15. Paint Removers/Strippers	49.6%
16. Paint Thinners	54.9%
17. Aerosol Spray Paint (nonauto)	100.0%
18. Primers and Special Primers (nonauto)	27.4%
19. Aerosol Rust Removers	15.1%
20. Outdoor Water Repellents	15.8%
21. Glass Frostings, Tints, and Artificial Snow	16.8%
22. Engine Degreasers	26.2%
23. Carburetor Cleaners	31.1%
24. Aerosol Spray Paint for Cars	19.2%
25. Auto Spray Primers	14.9%
26. Spray Lubricants for Cars	28.3%
27. Transmission Cleaners	3.1%
28. Battery Terminal Protectors	10.5%
29. Brake Quietters/Cleaners	4.6%
30. Gasket Removers	4.7%
31. Tire/Hubcap Cleaners	23.4%
32. Ignition and Wire Dryers	8.8%

Table 4-18: Percentage of Users in the Last Twelve Months of Aerosol Spray Paint Who Also Used Other Products "In the Last Twelve Months" (N=1190 recent users)

Other Products Used	Percentage of "Recent Users" Using
1. Spray Shoe Polish	7.6%
2. Water Repellents/Protectors	30.5%
3. Spot Removers	36.8%
4. Solvent-type Cleaning Fluids	35.4%
5. Wood/Floor/Paneling Cleaners	35.9%
6. Typewriter Correction Fluid	32.1%
7. Contact Cement, Super Glues, and Spray Adhesives	74.9%
8. Adhesive Removers	6.7%
9. Silicone Lubricants (nonauto)	29.3%
10. Other Lubricants (nonauto)	50.9%
11. Specialized Electronic Cleaners	18.1%
12. Latex Paint	57.9%
13. Oil Paint	27.5%
14. Wood Stains, Varnishes, and Finishes	44.5%
15. Paint Removers/Strippers	29.1%
16. Paint Thinners	39.2%
17. Aerosol Spray Paint (nonauto)	100.0%
18. Primers and Special Primers (nonauto)	21.5%
19. Aerosol Rust Removers	13.4%
20. Outdoor Water Repellents	11.0%
21. Glass Frostings, Tints, and Artificial Snow	9.7%
22. Engine Degreasers	21.5%
23. Carburetor Cleaners	26.5%
24. Aerosol Spray Paint for Cars	14.1%
25. Auto Spray Primers	9.6%
26. Spray Lubricants for Cars	26.0%
27. Transmission Cleaners	27.7%
28. Battery Terminal Protectors	8.7%
29. Brake Quietters/Cleaners	3.7%
30. Gasket Removers	3.4%
31. Tire/Hubcap Cleaners	22.7%
32. Ignition and Wire Dryers	6.1%

Table 4-19: Percentage of "Ever Users" of Carburetor Cleaners
Who "Ever Used" Other Products (N=1078 users)

Other Products Used	Percentage of "Ever Users" Using
1. Spray Shoe Polish	16.1%
2. Water Repellents/Protectors	44.8%
3. Spot Removers	36.9%
4. Solvent-type Cleaning Fluids	43.0%
5. Wood/Floor/Paneling Cleaners	33.8%
6. Typewriter Correction Fluid	26.5%
7. Contact Cement, Super Glues, and Spray Adhesives	79.3%
8. Adhesive Removers	9.2%
9. Silicone Lubricants (nonauto)	34.6%
10. Other Lubricants (nonauto)	55.4%
11. Specialized Electronic Cleaners	28.0%
12. Latex Paint	72.4%
13. Oil Paint	44.2%
14. Wood Stains, Varnishes, and Finishes	59.5%
15. Paint Removers/Strippers	44.9%
16. Paint Thinners	56.1%
17. Aerosol Spray Paint (nonauto)	50.5%
18. Primers and Special Primers (nonauto)	24.0%
19. Aerosol Rust Removers	18.0%
20. Outdoor Water Repellents	16.8%
21. Glass Frostings, Tints, and Artificial Snow	14.9%
22. Engine Degreasers	54.3%
23. Carburetor Cleaners	100.0%
24. Aerosol Spray Paint for Cars	34.4%
25. Auto Spray Primers	29.3%
26. Spray Lubricants for Cars	49.3%
27. Transmission Cleaners	7.2%
28. Battery Terminal Protectors	20.3%
29. Brake Quieters/Cleaners	9.9%
30. Gasket Removers	9.3%
31. Tire/Hubcap Cleaners	32.1%
32. Ignition and Wire Dryers	15.9%

use of the product is low. Actually, a sizable number of users of carburetor cleaners use other automotive products.

Table 4-20 presents the percentage of users of carburetor cleaners used within the last 12 months who also used the other 31 products during the last 12 months. Again, of particular interest is the percentage of recent users of carburetor cleaners who also used other automotive products. A relatively high percentage of recent carburetor cleaner users also used other automotive products, especially when the low usage of some of these products is taken into account. Almost 47 percent of carburetor cleaner users using it during the past 12 months also used engine degreasers; 26.5 percent also used aerosol spray paint for cars; 20.3 percent also used auto spray primers; 48.8 percent also used spray lubricants for cars; 6.5 percent also used transmission cleaners, the least used product in the survey; 16.4 percent used battery terminal protectors; 9.2 percent also used brake quieters/cleaners; 7.5 percent also used gasket removers; 31.0 percent also used tire/hubcap cleaners; and 11.3 percent also used ignition and wire dryers.

IV. SPECIALTY GROUP USERS

A. Automotive Users

Table 4-21 presents the statistics for four major usage variables for respondents using any one or more of the ten automotive products. These respondents are assessed as a group. The total minutes spent using these products (last use); the total minutes spent in the room after use (last use); the ounces used of products per year; and number of automotive products used during the past 12 months by those who used at least one automotive product are presented. The mean, median, standard deviation, and percentile rankings are given for each usage variable.

As can be seen in Table 4-21, the mean number of minutes spent by respondents using any of the ten automotive products is 49.82 minutes; the mean number of minutes spent in the room after use (in this case, probably a garage) is 14.04; and the mean number of ounces of automotive products used per year is 69.22. Of special interest, for those using an automotive product during the last 12 months, the mean number of other automotive products used during the same period is 2.31 products.

Table 4-20: Percentage of "Users in the Last Twelve Months" of Carburetor Cleaners Who Also Used" Other Products "In the Last Twelve Months" (N=812 recent users)

Other Products Used	Percentage of "Recent Users" Using
1. Spray Shoe Polish	8.1%
2. Water Repellents/Protectors	30.3%
3. Spot Removers	26.3%
4. Solvent-type Cleaning Fluids	40.4%
5. Wood/Floor/Paneling Cleaners	27.1%
6. Typewriter Correction Fluid	24.0%
7. Contact Cement, Super Glues, and Spray Adhesives	73.5%
8. Adhesive Removers	6.1%
9. Silicone Lubricants (nonauto)	31.4%
10. Other Lubricants (nonauto)	53.9%
11. Specialized Electronic Cleaners	26.0%
12. Latex Paint	52.1%
13. Oil Paint	25.4%
14. Wood Stains, Varnishes, and Finishes	38.8%
15. Paint Removers/Strippers	25.2%
16. Paint Thinners	39.8%
17. Aerosol Spray Paint (nonauto)	38.8%
18. Primers and Special Primers (nonauto)	15.9%
19. Aerosol Rust Removers	15.6%
20. Outdoor Water Repellents	10.6%
21. Glass Frostings, Tints, and Artificial Snow	9.1%
22. Engine Degreasers	46.9%
23. Carburetor Cleaners	100.0%
24. Aerosol Spray Paint for Cars	26.5%
25. Auto Spray Primers	20.3%
26. Spray Lubricants for Cars	48.8%
27. Transmission Cleaners	6.5%
28. Battery Terminal Protectors	16.4%
29. Brake Quietters/Cleaners	9.2%
30. Gasket Removers	7.5%
31. Tire/Hubcap Cleaners	31.0%
32. Ignition and Wire Dryers	11.3%

Table 4-21: Statistics for usage variables for automotive users
(respondents using any one or more of the ten
automotive products are assessed as a group)

A. Total Minutes of Use, Last Use

N = 1777	Minimum	.02	75%	57.16
Mean = 49.82	1%	.08	90%	122.20
Median = 20.00	5%	.75	95%	197.80
Standard	10%	2.00	99%	405.89
Deviation = 91.02	25%	6.00	100%	1130.00

B. Total Minutes in Room After Use, Last Use
(includes zeros for nonexposure)*

N = 1775	Minimum		75%	0.00
Mean = 14.04	1%	0.00	90%	10.00
Median = 0.00	5%	0.00	95%	60.00
Standard	10%	0.00	99%	281.00
Deviation = 97.54	25%	0.00	100%	234.00

*most automotive use is outside

C. Ounces of Automotive Products Used Per Year

N = 1701	Minimum	.12	75%	52.00
Mean = 69.22	1%	.52	90%	150.80
Median = 20.00	5%	1.56	95%	265.97
Standard	10%	3.00	99%	862.80
Deviation = 214.65	25%	8.00	100%	5628.00

D. Number of Automotive Products Used by Those Who Used at Least
One Automotive Product*

N = 1794	Minimum	1.00	75%	3.00
Mean = 2.31	1%	1.00	90%	5.00
Median = 2.00	5%	1.00	95%	6.00
Standard	10%	1.00	99%	8.00
Deviation = 1.66	25%	1.00	100%	11.00

*used during the last twelve months

B. Paint Users

Table 4-22 presents the statistics for four major usage variables for respondents using one or more of the four paint products assessed as a group. The four paint products included are wood stains, varnishes, and finishes; paint removers/strippers; paint thinners; and nonautomotive aerosol spray paint. Latex and oil paint are excluded from this assessment because they are not thought to contain methylene chloride or its substitutes.

As can be seen in Table 4-22, the mean number of minutes spent using any or all of the four paint products is 154.75 minutes; the mean number of minutes spent in the room after use is 60.71 minutes; and the mean number of ounces of these paint products used per year is 112.08. Again of special interest, for those using one of these paint products during the last 12 months, the mean number of other paint products used during the same period is 1.99 products. Therefore, users of one of these four paint products also use on the average another two of these products, indicating paint products are used as a group.

Table 4-22: Statistics for usage variables for Paint Users
(respondents using one or more of four paint
products)

A. Total Minutes of Use, Last Use

N = 2353	Minimum	.02	75%	180.00
Mean = 154.75	1%	.25	90%	360.00
Median = 60.00	5%	3.00	95%	541.50
Standard	10%	5.37	99%	1440.00
Deviation = 311.80	25%	20.00	100%	7220.00

B. Total Minutes in Room After Use, Last Use
(includes zeros for nonexposure)

N = 2343	Minimum	0.00	75%	30.00
Mean = 60.71	1%	0.00	90%	150.00
Median = 1.00	5%	0.00	95%	314.00
Standard	10%	0.00	99%	813.60
Deviation = 193.85	25%	0.00	100%	4325.00

C. Ounces of Paint Products Used Per Year

N = 2310	Minimum	.03	75%	109.78
Mean = 112.08	1%	1.00	90%	259.00
Median = 35.00	5%	3.25	95%	448.00
Standard	10%	6.50	99%	1020.48
Deviation = 263.02	25%	16.00	100%	5248.00

D. Number of Paint Products Used by Those Who Used at Least
One Paint Product*

N = 2380	Minimum	1.00	75%	3.00
Mean = 1.99	1%	1.00	90%	4.00
Median = 2.00	5%	1.00	95%	4.00
Standard	10%	1.00	99%	5.00
Deviation = 1.13	25%	1.00	100%	5.00

*used during the last twelve months

V. GENDER AND AGE DIFFERENCES IN PRODUCT USE, BY PRODUCT

A. Gender Differences

Table 4-23 summarizes gender differences for three product use variables, by product. The three variables are uses per year (i.e., number of uses during the last 12 months), minutes spent using the product during the last use, and ounces of the product used per year. There is also a column indicating the percentages of users who are male and female.

There are no significant differences at a "p-value" or "p" (i.e., level of significance) equal to or less than .05 for any of the three variables for the following products:

- Spray shoe polish,
- Adhesive removers,
- Oil paint,
- Paint thinners,
- Primers and special primers,
- Battery terminal protectors, and
- Ignition and wire dryers.

Fifty-six percent of the users of water repellents are female, and there is no significant difference for uses per year; there is a significant difference at $p = .010$ for minutes of last use, with males spending more time than females; and there is a significant difference ($p = .007$) for ounces per year, again with males using more than females. Sixty-eight percent of the users of spot removers are female, and there is a significant difference ($p = .000$) for uses per year with females using spot removers more often; there is a significant difference ($p = .051$) for minutes of use with males spending more time; and there is a significant difference ($p = .000$) for ounces per year with females using more of the product. Males spend more time using spot removers, and females use more of the product.

Fifty-three percent of the users of solvent type cleaning fluids are male, and there is a significant difference ($p = .002$) for uses per year with females using more of the product. Similarly, 70 percent of the users of wood floor and paneling cleaners are female, and there is a significant difference ($p = .050$) for uses per year with females using the product more often. Sixty-two percent of the users of typewriter correction fluid are female, and there is a significant difference ($p = .050$) for uses per year with females using it more often than males.

Fifty-one percent of the users of contact cement, super glues and spray adhesives are female, and there is a significant

Table 4-23: Gender differences in product use by product

(P-value for significant differences in product use are in parentheses for the last three columns)

KEY

Blank - Not Significant
M - Significant
Male Higher
F - Significant
Female Higher

(The probability for significant differences is only approximate for subgroups with less than 50 respondents)

PRODUCT	% MALE/FEMALE	USES PER YEAR	MINUTES LAST USE	OUNCES PER YEAR
1. SPRAY SHOE POLISH	47/53 (127)/(143)			
2. WATER REPELLENTS/PROTECTORS (FOR SUEDE, LEATHER, AND CLOTH)	44/56 (461)/(586)		M (.010)	M (.007)
3. SPOT REMOVERS	32/68 (447)/(951)	F (.000)	M (.051)	F (.000)
4. SOLVENT-TYPE CLEANING FLUIDS OR DEGREASERS	53/47 (591)/(524)	F (.002)		
5. WOOD FLOOR AND PANELING CLEANERS	30/70 (394)/(919)	F (.050)		
6. TYPEWRITER CORRECTION FLUID	38/62 (435)/(711)	F (.050)		
7. CONTACT CEMENT, SUPER GLUES AND SPRAY ADHESIVES	49/51 (1322)/(1375)			M (.011)
8. ADHESIVE REMOVERS (GENERAL PURPOSE, TILE, AND WALLPAPER)	53/47 (93)/(82)			
9. SILICONE LUBRICANTS (EXCLUDING AUTOMOTIVE)	70/30 (531)/(228)	M (.000)		M (.000)
10. OTHER LUBRICANTS (EXCLUDING AUTOMOTIVE)	61/39 (941)/(593)	M (.000)		M (.000)
11. SPECIALIZED ELECTRONIC CLEANERS FOR TV, VCR, RAZOR, ETC.)	69/31 (382)/(171)	M (.001)		
12. LATEX PAINT	51/49 (916)/(880)			M (.000)
13. OIL PAINT	57/43 (424)/(319)			
14. WOOD STAINS, VARNISHES AND FINISHES	51/49 (647)/(621)		F (.015)	M (.018)
15. PAINT REMOVERS/STRIPPERS	52/48 (399)/(368)		F (.044)	

Table 4-23 (Continued)

PRODUCT	% MALE/FEMALE	USES PER YEAR	MINUTES LAST USE	OUNCES PER YEAR
16. PAINT THINNERS	61/39 (671)/(433)			
17. AEROSOL SPRAY PAINT (EXCLUDING AUTOMOTIVE)	54/46 (642)/(547)	M (.002)		M (.019)
18. PRIMERS AND SPECIAL PRIMERS (EXCLUDING AUTOMOTIVE)	66/34 (268)/(138)			
19. AEROSOL RUST REMOVERS	74/26 (217)/(76)	M (.000)		
20. OUTDOOR WATER REPELLENTS (FOR WOOD OR CEMENT)	65/35 (161)/(86)			
21. GLASS FROSTINGS, WINDOW TINTS, AND ARTIFICIAL SNOW	38/62 (107)/(175)			M (.004)
22. ENGINE DEGREASERS	90/10 (529)/(59)	M (.035)		
23. CARBURETOR CLEANERS	88/12 (714)/(97)	M (.000)		M (.000)
24. AEROSOL SPRAY PAINT FOR CARS	88/12 (326)/(44)	M (.000)		M (.001)
25. AUTO SPRAY PRIMERS	88/12 (231)/(31)			
26. SPRAY LUBRICANTS FOR CARS	85/15 (661)/(117)	M (.000)	M (.003)	M (.000)
27. TRANSMISSION CLEANERS	69/31 (52)/(23)	M (.019)		M (.007)
28. BATTERY TERMINAL PROTECTORS	88/12 (204)/(28)			
29. BRAKE QUIETERS/CLEANERS	94/6 (92)/(6)	M (.031)	M (.017)	
30. GASKET REMOVERS	89/11 (70)/(9)	M (.017)		
31. TIRE/HUBCAP CLEANERS	64/36 (445)/(251)	M (.002)		
32. IGNITION AND WIRE DRYERS	84/16 (123)/(24)			

difference ($p = .011$) for ounces per year with males using more of the product. Seventy percent of the users of silicone lubricants (excluding automotive) are male, and there is a significant difference ($p = .000$) for uses per year with males using it more often; and there is also a significant difference ($p = .000$) for ounces per year with males using more of it. Similarly, 61 percent of the users of other lubricants (excluding automotive) are male, and there is a significant difference ($p = .000$) for uses per year with males using it more often; and there is a significant difference ($p = .000$) for ounces per year with males using more of it.

Sixty-nine percent of the users of specialized electronic cleaners are male, and there is a significant difference ($p = .001$) for uses per year with males using them more often. Only a slight majority (51%) of the users of latex paint are male, and there is only a significant difference ($p = .000$) for ounces per year with males using more of it. Fifty-one percent of the users of wood stains, varnishes and finishes are male, and there is a significant difference ($p = .015$) for minutes of last use with females spending more time; and there is a significant difference ($p = .018$) for ounces per year with males using more of the product. Females spend more time using latex paint while males use more of it, indicating that males are perhaps faster painters.

Fifty-two percent of the users of paint removers/strippers are male, and the only significant difference ($p = .044$) is for minutes of last use with females spending more time using the product. Fifty-four percent of the users of aerosol spray paint (excluding automotive) are male, and there is a significant difference ($p = .002$) for uses per year with males using the product more often; and there is a significant difference ($p = .019$) for ounces per year with males using more of the product. Seventy-four percent of the users of aerosol rust removers are male, and there is a significant difference ($p = .000$) for uses per year with males using the product more often. Sixty-two percent of the users of glass frostings, window tints and artificial snow are female, and there is a significant difference ($p = .004$) for ounces per year with males using more of it.

Ninety percent of the users of engine degreasers are male, and there is a significant difference ($p = .035$) for uses per year with males using it more often. Eighty-eight percent of the users of carburetor cleaners are male, and there is a significant difference for uses per year with males using it more often; and there is also a significant difference for ounces per year with males using more of it. Eighty-eight percent of the users of aerosol spray paint for cars are male, and again there is a significant difference ($p = .000$) for uses per year with males

using it more often; and there is a significant difference for ounces per year with males using more of it.

Eighty-five percent of the users of spray lubricants for cars are male, and there are significant differences for all three variables with males using the product more often, spending more time using it, and using more of the product. Sixty-nine percent of the users of transmission cleaners are male, and there is a significant difference ($p = .019$) for uses per year with males using it more often; and there is a significant difference ($p = .007$) for ounces per year with males using more of it.

Ninety-four percent of the users of brake quieters/cleaners are male, and there is a significant difference for uses per year with males using it more often; and there is a significant difference for minutes of last use with males spending more time using it. Eighty-nine percent of the users of gasket removers are male, and there is a significant difference ($p = .017$) for uses per year with males using it more often. Finally, 64 percent of the users of tire/hubcap cleaners are male, and there is a significant difference for uses per year with males using it more often.

It should be noted that the probability of significant differences is only approximate where a subgroup has fewer than 50. This is the case for female users of aerosol spray paint, auto spray primers, transmission cleaners, battery terminal protectors, brake quieters/cleaners, gasket removers, and ignition and wire dryers.

In summary, there are gender differences for product usage for a number of products. The most pronounced differences are for lubricants and automotive products with males being higher where there are significant differences.

B. Age Differences

Table 4-24 summarizes age differences for three product use variables, by product. Additional, more detailed comments to Table 4-24 are provided in the narrative description of each product. The three variables are the same as those analyzed for gender, namely: uses per year (i.e., number of uses during the last 12 months), minutes spent using the product during the last use, and ounces of the product used per year. There are five age groups, namely: 18-30 years, 31-40 years, 41-50 years, 51-60 years, and 61-96 years.

A few products had no significant differences for any of the three product usage variables. These are: other lubricants (excluding automotive); specialized electronic cleaners; wood

Table 4-24:

KEY

Rank	- Age Differences Not Significant
	- Significant Age Differences, No Pattern Discernible
Decreasing	- Significant Age Differences, Generally Decreasing Use With Age
Increasing	- Significant Age Differences, Increasing Use With Age

Age differences in product use
by product(P-value for significant differences
in product use are in parentheses)(The probability for significant differences
is only approximate for subgroups
with less than 50 respondents)

PRODUCT	USES PER YEAR	MINUTES LAST USE	OUNCES PER YEAR
1. SPRAY SHOE POLISH		* (.020)	*Decreasing (.041)
2. WATER REPELLENTS/PROTECTORS (FOR SUEDE, LEATHER, AND CLOTH)	* (.030)	Decreasing (.005)	
3. SPOT REMOVERS	Decreasing (.039)	Decreasing (.023)	Decreasing <(.000)
4. SOLVENT-TYPE CLEANING FLUIDS OR DEGREASERS		Decreasing <(.001)	
5. WOOD FLOOR AND PANELING CLEANERS	Decreasing <(.001)		Decreasing <(.001)
6. TYPEWRITER CORRECTION FLUID		Decreasing <(.001)	
7. CONTACT CEMENT, SUPER GLUES AND SPRAY ADHESIVES		Decreasing (.005)	* (.031)
8. ADHESIVE REMOVERS (GENERAL PURPOSE, TILE, AND WALLPAPER)	* (.050)	* (.011)	
9. SILICONE LUBRICANTS (EXCLUDING AUTOMOTIVE)		Decreasing (.010)	Decreasing (.035)
10. OTHER LUBRICANTS (EXCLUDING AUTOMOTIVE)			
11. SPECIALIZED ELECTRONIC CLEANERS FOR TV, VCR, RAZOR, ETC.)			
12. LATEX PAINT	* (.037)		*Decreasing <(.001)
13. OIL PAINT	* (.029)		
14. WOOD STAINS, VARNISHES AND FINISHES			
15. PAINT REMOVERS/STRIPPERS		* (0.40)	Decreasing (.004)

Table 4-24 (Continued)

PRODUCT	USES PER YEAR	MINUTES LAST USE	OUNCES PER YEAR
16. PAINT THINNERS	• (.029)		
17. AEROSOL SPRAY PAINT (EXCLUDING AUTOMOTIVE)			
18. PRIMERS AND SPECIAL PRIMERS (EXCLUDING AUTOMOTIVE)		• (.038)	
19. AEROSOL RUST REMOVERS			
20. OUTDOOR WATER REPELLENTS (FOR WOOD OR CEMENT)			
21. GLASS FROSTINGS, WINDOW TINTS, AND ARTIFICIAL SNOW		*Decreasing (.032)	
22. ENGINE DEGREASERS		Decreasing <(.001)	Decreasing <(.001)
23. CARBURETOR CLEANERS	*Decreasing <(.001)	Decreasing (.004)	Decreasing <(.001)
24. AEROSOL SPRAY PAINT FOR CARS	Decreasing <(.001)	Decreasing <(.001)	Decreasing <(.001)
25. AUTO SPRAY PRIMERS		Decreasing <(.001)	Decreasing (.002)
26. SPRAY LUBRICANTS FOR CARS	Decreasing <(.001)	Decreasing <(.021)	Decreasing <(.001)
27. TRANSMISSION CLEANERS	*Decreasing (.003)	*Decreasing (.032)	
28. BATTERY TERMINAL PROTECTORS			• (.035)
29. BRAKE QUIETERS/CLEANERS			• (.014)
30. GASKET REMOVERS		Decreasing <(.001)	• <(.001)
31. TIRE/HUBCAP CLEANERS	Decreasing (.003)		*Decreasing (.046)
32. IGNITION AND WIRE DRYERS			

stains, varnishes and finishes; aerosol spray paint (excluding automotive); aerosol rust removers; outdoor water repellents; and ignition and wire dryers.

Detailed comments which elaborate the summary table follow for each of the products.

Spray Shoe Polish -- The differences for uses per year by age are not significant. There are significant differences for minutes of use by age. Respondents from 18 through 30 years used spray shoe polish for more time than for those from 31 through 60 years. There are significant differences in the ounces used per year, by age. Although the mean ounces used per year for the 51 through 60 year age group is greater than for other age groups, the variance of the data in this age group is greater also. As a result, the data are consistent with the interpretation that the ounces used per year decreases with increasing age.

Water Repellents/Protectors -- There are significant differences in the number of uses per year by age. The number of uses per year increases slightly from age groups 18 through 30 to 41 through 50. The number of uses per year decreases from age groups 41 through 50 and 61 through 96 years. There are significant differences for minutes of use by age. Respondents up to 40 years old used water repellents for more time on their last use than respondents 41 or older. Minutes of use decreased with increasing age. The differences for ounces used per year by age are not significant.

Spot Removers -- There are significant differences for uses per year by age. The uses per year decrease with age with respondents in age group 18 through 30 using the product more often than in age group 61 through 96. There are significant differences for minutes of use by age. The minutes of use decrease with increasing age. There are very significant differences between ounces used per year by age. The ounces used per year decrease with increasing age.

Solvent Type Cleaning Fluids -- The differences for uses per year by age are not significant. There are very significant differences for minutes of use by age. Although the mean minutes per use for the 51 through 60 year age group is greater than for other age groups, the variance of the data in this age group is greater also. As a result, the data are consistent with the interpretation that the minutes per use decrease with

increasing age. The differences for ounces used per year by age are not significant.

Wood Floor and Panel Cleaners -- There are very significant differences for uses per year by age. Respondents in age group 18 through 30 use wood floor and panel cleaners more often than age groups 31 through 60 which in turn use the product more often than respondents 61 through 96 years old. The differences for minutes of use by age are not significant. There are very significant differences for ounces used per year by age. Respondents in age group 18 through 30 used more wood floor and panel cleaner per year than age groups 31 through 60 which in turn use more product than respondents 61 through 96 years old.

Typewriter Correction Fluid -- The differences for uses per year by age are not significant. There are very significant differences for minutes of use by age. The minutes per use decreases with increasing age. The differences for ounces used per year by age are not significant.

Contact Cement, Super Glues and Spray Adhesives -- The difference for uses per year by age are not significant. There are significant differences for minutes of use by age. The minutes per use decreases with increasing age. There are significant differences for ounces used per year by age. Respondents in the oldest age group (61 through 96 years) used less contact cements and glues than younger respondents.

Adhesive Removers -- Due to the small number of respondents in each age group, the statistical tests are only approximate. There are significant differences in the number of uses per year by age. The 41 through 50 age group has the lowest number of uses per year while the 18 through 30 age group has the highest mean uses per year. There are significant differences for minutes of use by age. The minutes of use increase slightly from age group 18 through 30 to age group 31 through 40. The minutes of use decreases from age group 31 through 40 to age group 61 through 96. The differences for ounces used per year by age are not significant.

Silicone Lubricants -- The differences for uses per year by age are not significant. There are significant differences for minutes of use by age. The minutes per use decreases with increasing age. There are significant differences for ounces used per year. The ounces used per year decreases with increasing age.

Other Lubricants -- The differences for uses per year by age are not significant. The differences for minutes of use by age are not significant. The differences for ounces used per year by age are not significant.

Specialized Electronic Cleaners -- The differences for uses per year by age are not significant. The differences for minutes of use by age are not significant. The differences for ounces used per year by age are not significant.

Latex Paint -- There are significant differences in the number of uses per year by age. The 51 through 60 age group has the lowest number of uses per year while the 18 through 30 age group has the highest mean uses per year. The differences for minutes of use by age are not significant. There are very significant differences for ounces used per year by age. The 41 through 50 age group uses the largest quantity of product per year while the 61 through 96 age group uses the least amount of product per year.

Oil Paint -- There are significant differences in the number of uses per year by age. The 51 through 60 age group has a lower number of uses per year than other age groups. The differences for minutes of use by age are not significant. The differences for ounces used per year by age are not significant.

Wood Stains, Varnishes, and Cleaners -- The differences for uses per year by age are not significant. The differences for minutes of use by age are not significant. The differences for minutes of use by age are not significant. The differences for ounces used per year by age are not significant.

Paint Removers/Strippers -- The differences for uses per year by age are not significant. There are significant differences for minutes of use by age. Respondents ages 18 through 30 had the smallest minutes of use while those in the 41 through 50 year age group had the largest mean minutes of use. There are significant differences for the ounces used per year by age. The 61 through 96 age group has the smallest quantity usage of paint removers/strippers while the 41 through 50 year age group has the largest mean product usage.

Paint Thinners -- There are significant differences for uses per year by age. The 51 through 60 year age group has the smallest mean number of uses per year. The 18

through 30 age group has the largest mean number of uses per year. The differences for minutes of use by age are not significant. The differences for ounces used per year by age are not significant.

Aerosol Spray Paint -- The differences for uses per year by age are not significant. The differences for minutes of use by age are not significant. The differences for ounces used per year by age are not significant.

Primers and Special Primers -- The differences for uses per year by age are not significant. There are significant differences for minutes of use by age. Respondents aged 41 through 50 have the smallest minutes of use while those in the 51 through 60 age group had the largest mean minutes of use. The differences for ounces used per year by age are not significant.

Aerosol Rust Removers -- The differences for uses per year by age are not significant. The differences for minutes of use by age are not significant. The differences for ounces used per year by age are not significant.

Outdoor Water Repellents -- The differences for uses per year by age are not significant. The differences for minutes of use by age are not significant. The differences for ounces used per year by age are not significant.

Glass Frostings, Window Tints, Artificial Snow -- Due to the small number of respondents in each age group, the statistical tests are only approximate. The differences for uses per year by age are not significant. There are significant differences for minutes of use by age. The minutes per use decrease with increasing age. The differences for ounces used per year by age are not significant.

Engine Degreasers -- The differences for uses per year by age are not significant. There are very significant differences for minutes of use by age. The minutes per use decreases with increasing age. There are very significant differences for ounces used per year. The ounces used per year decrease with increasing age.

Carburetor Cleaners -- There are very significant differences for uses per year by age. Respondents in age group 51 through 60 use the product less often than in other age groups. The 18 through 30 age group has the highest mean number of uses per year. There are

significant differences for minutes of use by age. The minutes of use decrease with increasing age. There are very significant differences between ounces used per year by age. The ounces used per year decrease with increasing age.

Aerosol Spray Paint for Cars -- Due to the small number of respondents in each age group the statistical tests are only approximate. There are very significant differences for uses per year by age. The number of uses per year decrease with increasing age. There are very significant differences for minutes of use by age. The minutes of use decrease with increasing age. There are very significant differences between ounces used per year by age. The ounces used per year decreases with increasing age.

Auto Spray Primers -- Due to the small number of respondents in each age group, the statistical tests are only approximate. The differences for uses per year by age are not significant. There are very significant differences for minutes of use by age. The minutes of use decrease with increasing age. There are significant differences between ounces used per year by age. In general, the ounces used per year decreases with increasing age. Respondents from the 61 through 96 year age group use the smallest quantity of product while those in the 18 through 30 age group use the most product per year.

Spray Lubricants for Cars -- There are very significant differences for uses per year by age. The number of uses per year decrease with increasing age. There are significant differences for minutes of use by age. Respondents ages 61 through 96 have the smallest minutes of use while those in the 41 through 50 age group had the largest mean minutes of use. There are very significant differences between ounces used per year by age. The ounces used per year decreases with increasing age.

Transmission Cleaners -- Due to the very small number of respondents in each age group, the statistical tests are at best approximate. The statistical tests indicate that there are significant differences for uses per year by age. Note that all five respondents in the 51 through 60 age group reported one use per year; thus there is no variability in this group. The statistical test indicates that respondents ages 18 through 30 and 61 through 96 have mean responses greater than 1, the mean for ages 51 through 60. There

are significant differences for minutes of use by age. In general, the minutes of use decrease with increasing age. The differences for ounces used per year by age are not significant.

Battery Terminal Protectors -- Due to the small number of respondents in each age group, the statistical tests are only approximate. The differences for uses per year by age are not significant. The differences for minutes of use by age are not significant. There are significant differences for ounces used per year by age. The 41 through 50 age group uses the smallest quantity of product per year while the 31 through 40 age group has the largest mean ounces used per year.

Brake Quieters/Cleaners -- Due to the very small number of respondents in each age group, the statistical tests are at best approximate. The differences for uses per year by age are not significant. The differences for minutes of use by age are not significant. The statistical tests indicate that there are significant differences for ounces used per year by age. The 61 through 96 age group has the smallest mean ounces used per year. The 51 through 60 age group has the largest mean ounces used per year.

Gasket Removers -- Due to the very small number of respondents in each age group, the statistical tests are at best approximate. The differences for uses per year by age group are not significant. There are very significant differences for minutes of use by age. The minutes of use decrease with increasing age. There are very significant differences for ounces used per year by age. The 51 through 60 age group has the smallest mean ounces used per year. The 41 through 50 age group has the largest mean ounces used per year.

Tire/Hubcap Cleaners -- There are significant differences for uses per year by age. The number of uses per year decrease with increasing age. The differences for minutes of use by age are not significant. There are significant differences between ounces used per year by age. The ounces used per year decrease with increasing age.

Ignition and Wire Dryers -- The differences for uses per year by age are not significant. The differences for minutes of use by age are not significant. The differences for ounces used per year by age are not significant.

In summary, where there is a discernible pattern of usage by age it is generally one of decreasing use with increasing age.

VI. DIFFERENCES BETWEEN MAIL AND TELEPHONE COMPLETED QUESTIONNAIRES

The differences between mail completed questionnaires and telephone completed questionnaires for this study were analyzed for the following variables:

- Uses per year of the product;
- Minutes of use for the last use of the product; and
- Ounces of the product used per year.

Of the total of 4920 respondents with completed questionnaires, 1628 were completed by mail, 3281 were completed by telephone and the records for completion of 11 questionnaires are unresolved due to differences between the data file and the receipt control file. This analysis covers the 4909 questionnaires for which the method of completion is known at this time.

The summary statistics provided for each completion method, by product and question, are:

- Number of responses analyzed;
- Mean of the responses;
- Standard error of the mean; and
- A Chi-square statistic and associated probability for testing for differences between the responses from the two methods of completing the questionnaire.

For the data being analyzed, the statistical methods used work well if there are many respondents in each group. The standard error, chi-square and significance probability are only approximate when some groups have few respondents (in this case, say fewer than 40 respondents).

After reviewing the statistical results, there is no statistical support for the hypothesis that the two groups, mail and telephone, have different responses. Seven of the 96 statistical tests are significant at the 5 percent level. This is close to the level of significance one would expect by chance. Only one test was significant at the .1 percent level (minutes of last use for Ignition and Wire Dryers). Since there was no corresponding significant difference in the ounces used per year for this product, this result may also be due to chance. The distribution of the significance probabilities suggests that there are no differences between the groups that cannot be easily explained by chance.

Section 5

RESULTS:

STATISTICAL ANALYSIS AND FINDINGS Product-by-Product Analysis

I. SOURCES OF SAMPLING AND NONSAMPLING ERROR IN THE DATA

The data presented in this report are based on a sample survey. As with all sample survey data, they are subject to both sampling and nonsampling error. Sampling error is the difference between what was obtained in the sample actually drawn and what would have been obtained had a complete census of the frame been conducted using the exact same methodology. The confidence intervals and standard errors presented in this report measure the sampling errors only.

Nonsampling errors are those errors which are attributable to sources other than the statistical sampling procedures. There are various potential sources of sampling errors in any survey including this one. Although the impact of the errors on the estimates is generally not quantifiable, it is important to acknowledge these sources so that users of the data may be aware of their possible effects. Potential sources of nonsampling error include: nonresponse bias; misunderstood questions; and self reporting bias. These sources of nonsampling error are discussed below.

Of the original 6700 respondents contacted for the survey, 5675 agreed to participate and 4920 actually sent the questionnaire in or completed the questionnaire as a followup telephone interview. The nonresponse bias is the difference between the data collected and that which would have been collected if all respondents originally sampled had completed the questionnaire. The nonresponse bias will be small if the decisions to complete the questionnaire or not are unrelated to the questionnaire responses, or equivalently if those who answered the questionnaire are representative of those who did not. Since the overall response rate was good (73%), the source of nonresponse bias should be small. In addition, we have no apparent reason to suspect that the two populations are necessarily different. Not all of the 4920 respondents answered all of the questions on the questionnaire. Some additional nonresponse bias might have been introduced on individual questions.

Another source of nonsampling error results if the respondent misunderstands a question (e.g., responds with the quantity of product used when last used rather than for the entire last year, or reports use at work and home instead of just home use). Followup phone calls to verify unusual data values or

fill in missing data were made whenever an answer appeared to be the result of any misunderstanding or skipped. In fact, this was done in 80 percent of mailed questionnaires. For example, if the person said that they used 600 ounces of typewriter correction fluid in the past year, this would have been recalled to question the obvious suspicion that they were including use at work rather than restricting their answer to use in the home.

The data are user reported responses, not actual use measurements. This distinction should be made when interpreting the data, for example, user responses are subject to apparent rounding. Responses to quantitative questions appear to be rounded by the respondent to their closest convenient unit, i.e., responses are usually one week, two weeks, one month, two months, three months, six months, one year, two years, etc. and not four months and 11 days. Actual use would be expected to be spread evenly over time. The effect of rounding is to reduce the variance estimate. The unrounded data are not available for comparison. The effect of the rounding is expected to be small.

In addition, user responses as opposed to use measurements may reflect influences such as social desirability. For example, respondents may have said they read and used the amount specified on the label more than they actually did. Finally, because the data are for the last use of the product, and not the typical (or average) use, the mean of the derived variables may be biased on the high side although the amount of bias is expected to be quite small. Pretesting showed that people feel that they can more accurately answer for the last use as opposed to generalizing over several nonroutine uses of the product and for this reason, the last use may be more accurate.

II. DESCRIPTIVE STATISTICAL ASPECTS AND OVERVIEW OF THE DATA

The subsections in Part III contain summaries of the data by product. Each summary presents a basic description of the data for each question. When reading the summary, please note that the number of data values being summarized for each question will differ because:

- Not all questions were to be answered by all respondents, e.g., respondents who had not used the product in the last year were not to answer Questions 4 through 9.
- The number of "Don't Know and "Not Ascertained" responses may be different for each question.

Where respondent answers were inconsistent and the problem could not be resolved by a followup telephone call, a decision

was made for the purposes of the analysis. Some of the decision rules to eliminate inconsistent responses were:

- If the answer to Question 1 (Have you ever used the product?) was "Don't Know" or "Not Ascertained" and any Questions 4 through 9 were answered, the respondent was assumed to be a recent user of the product.
- The respondent was assumed to have used the product in the last year if the stated number of uses in the last year (Question 3) was greater than 0. The answers to Questions 2 and 3 were sometimes inconsistent.
- If the product was last used either outside or both outside and in the garage, the answer to Question 5 (time spent in room after last use) was set to zero and the answers to Questions 9 a, b, and c, if present, were not used since they are not relevant for outside use.

For the qualitative questions (e.g., Have you ever used the product? or Where did you use the product the last time you used it?) summary tables show the percent of the responses in each category. For quantitative questions (Questions 2, 3, 4, 5, and 7) summary tables show the mean, median, standard deviation, and selected percentiles of the distribution of the data. These values are a close approximation to the standard deviation and percentiles of the population; however, because the data are not from a simple random sample a better estimate of the variance (and standard deviation) is discussed under variance estimation and these results are found in Appendix A.

The data for all the quantitative questions are positively skewed, with many small values and a few large values. A histogram of the data has a long tail on the high side of the distribution. A histogram of the logarithm of the nonzero data values is roughly bell shaped. The median of the data is the value for which half of the observations are smaller and half are larger. The median corresponds to the 50th percentile of the distribution. Because the data are positively skewed, the mean will be larger than the median. For the quantitative data in this survey the mean roughly corresponds to the 75th percentile of the distribution, i.e., roughly three-quarters of the data values are smaller than the mean of the data.

The median is unaffected by the extreme observations in the data, and thus provides a measure of location of the data which is unaffected by the skewness. The mean and standard deviation are sensitive to the extreme data values. Thus errors in extreme data values will affect the mean and standard deviation more readily.

As mentioned previously, respondents rounded their responses to the nearest convenient unit, i.e., 5, 10, 15 years rather than five years and two months. The respondent rounding of the data might have the following results on the reported statistics:

- The effect on the mean will be small and will decrease as the sample size increases.
- Standard deviations and confidence intervals will tend to be smaller than if the unrounded data had been available.

The results of two derived variables (ounces used per year, and ounces per use) are reported. Ounces used per year is a variable derived from ascertaining the size of the can used in ounces times the amount or number of cans used. Ounces per use is then derived by dividing ounces used per year by Question 3, the number of times the product was used during the last 12 months. Assuming the data used to calculate these variables are unbiased:

- The mean of the derived variables will tend to be greater than the true mean of the derived variables.
- The standard deviation will tend to be greater than the true standard deviation.
- The median will be close to the true median.

This discussion was intended to realistically present various sources of nonsampling error that should be taken into account when interpreting the data. These sources of error are inherent in a survey of this type and efforts were made to minimize their effects by wording questions in the most understandable way possible and by putting them in the time framework which best facilitated what was needed but also what the respondent could reasonably answer. The best way to take these sources of error into account when using the following sample statistics for the products is to remember that these statistics are only the best approximate measures of the statistics for the population as a whole and, therefore, the data should not be used as precise measures free of nonsampling error.

III. FINDINGS FOR PRODUCTS

The statistical findings for each of the 32 product types surveyed follow. The presentation of the findings will follow a question and answer format. There are nine major questions and some derived variables for each product which will be presented. The statistics to be presented will include the mean, median, and

percentile rankings (100%, 95%, 90%, 50%, etc.) for each question or derived variable.

The percentile rankings are presented for use in developing profiles of heavy, moderate, and light users of the products. All of the usage statistics will be used to calculate exposure assessments to the chemicals in these products.

A few additional comments are necessary to clarify the presentation of the findings for each product. For each product, the findings for Question 1 and Question 2 address whether the respondent has "ever" used the product and when the last use occurred regardless of how long ago. Findings for Question 3 through Question 9 include only answers provided by respondents who used the product during the last 12 months. These respondents will be referred to as recent users. Furthermore, the answers to the first three parts to Question 9 entitled "protective measures" include only users who used the product on the inside of the home or garage since these questions are only relevant in that context. These respondents will be referred to as recent inside users. Due to the wide range of responses two decimal places are used for all data so that the precision of the smaller values is not lost. Finally, if there are few responses for a question, the extreme percentiles (e.g., 1% and 99%) cannot be estimated from the data and are shown as "--" in the tables.

PRODUCT-BY-PRODUCT ANALYSIS

SPRAY SHOE POLISH

A. Product 1: Spray Shoe Polish

Q1: Have you ever used spray shoe polish?

Table A-1: Numbers and % of respondents ever using
Spray Shoe Polish

	Numbers	Percent
Yes	575	11.7
No	<u>4342</u>	<u>88.3</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table A-1 shows that 11.7% of the total respondents have "ever" used spray shoe polish. This is a relatively low percentage when compared to this incidence for other products.

Q2: When was the last time you used spray shoe polish?

Table A-2: Last time Spray Shoe Polish was used in months
(N=574 users)

Mean # of months	42.10
Median # of months	12.50
Standard Deviation	61.60

As Table A-2 shows, the mean number of months since last use of spray shoe polish is 42.10 months. This is the longest period of time since last use for any of the thirty-two products. This may reflect that spray shoe polish has been discontinued by many manufacturers over the last few years. The median number of months is 12.50.

The percentile rankings for time since last use are shown below:

Table A-3: Percentile rankings for Spray Shoe Polish--
months since last use (N=574 users)

	Months
Minimum	0.03
1%	0.03
5%	0.10
10%	0.33
25%	2.00
Median	12.50
75%	60.00
90%	120.00
95%	180.00
99%	270.00
Maximum	360.00

Table A-3 shows that 10th percentile users and below last used the product less than a month ago. The 75th percentile through the 100th percentile respondents report that they last used the product 5 years ago through 30 years ago and appears to be subject to rounding which was discussed earlier under aspects of the data (ie. 5, 10, 15 years rather than 5 years 3 months). The data is still usable for indicating the approximate last use.

Q3: How many times have you used spray shoe polish in the last 12 months?

Table A-4: Number of uses of Spray Shoe Polish within the last 12 months (N=266 recent users)

Mean # of uses	10.28
Median # of uses	4.00
Standard deviation	20.10

The mean number of uses of the product in the last twelve months among users of the product in the last twelve months, was 10.28 and the median 4.0. Almost 49% of these users used the spray shoe polish three times or less in the last twelve months with 17.7% using it once; 19.5% using it twice; and 11.7% using it three times.

Table A-5: Percentile rankings of number of uses of Spray Shoe Polish within the last 12 months (N=266 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	2.00
Median	4.00
75%	8.00
90%	24.30
95%	52.00
99%	111.26
Maximum	156.00

Q4: How much time did you spend using spray shoe polish the last time you used it?

Table A-6: Time spent using the Spray Shoe Polish, last time used (N=263 recent users)

Mean # of minutes	7.49
Median # of minutes	5.00
Standard deviation	9.60

The mean and median number of minutes for using spray shoe polish are relatively low as would be expected for the time used polishing shoes.

Table A-7: Percentile rankings for time spent using the Spray Shoe Polish last time used (N=263 recent users)

	Minutes
Minimum	0.02
1%	0.03
5%	0.25
10%	0.50
25%	2.00
Median	5.00
75%	10.00
90%	18.00
95%	30.00
99%	60.00
Maximum	60.00

The minimum percentile is .02 and the maximum percentile is 60 minutes. For higher percentiles, it may be that these respondents are polishing more than one pair of shoes at one time and, thus, spending more time.

Q5: How much time did you spend in the room immediately after use the last time you used spray shoe polish?

Table A-8: Time spent in the room after last use of Spray Shoe Polish (N=255 recent users)

Mean # minutes in room	31.40
Median # minutes in room	5.00
Standard deviation	80.50

The mean number of minutes spent in the room after last use is 31.4 minutes as opposed to the median of five minutes.

Table A-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room but used Spray Shoe Polish (N=255 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	5.00
75%	20.00
90%	120.00
95%	120.00
99%	480.00
Maximum	720.00

Respondents at the 25th percentile or less did not spend any time in the room after using spray shoe polish. Respondents at the higher percentile rankings spent from two to twelve hours.

Table A-10: Percentile rankings for Spray Shoe Polish for time spent in the room after last use including only those who spent time in the room (N=189 who stayed in room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	3.00
Median	10.00
75%	30.00
90%	120.00
95%	180.00
99%	504.00
Maximum	720.00

Table A-10 is similar to Table A-9 except it includes only users who did in fact stay in the room, therefore, all percentiles have values.

Q6A: Which brand of spray shoe polish did you use the last time you used it?

Table A-11: Brand distribution for Spray Shoe Polish

Brand category	Frequency	Percent
Top brand	83	30.7
Second highest brand	40	14.8
Third highest brand	10	3.7
Don't Knows and Not Ascertained	67	24.8
All other named brands	<u>70</u>	<u>26.0</u>
Total	270	100.0

Seventy-five percent (75.2%) of the users of the product specified a brand. The top three brands of spray shoe polish were used by 30.7%, 14.8% and 3.7% of the users, respectively. All other brands have a relatively low number of users.

Q6B: Was the product in aerosol form?

Table A-12: Percent of respondents saying Spray Shoe Polish is aerosol (N=265 recent users)

Yes, product is aerosol	97.7%
No, product is nonaerosol	2.3%

The product was spray shoe polish so all items should be aerosol. Respondents said that the product was aerosol in 97.7% of the cases. The 2.3% saying it was nonaerosol either forgot to check the box indicating it was aerosol or perhaps used a spray pump and thought this was to be included under spray shoe polish.

Q7: What size of spray shoe polish did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table A-13: Amount of Spray Shoe Polish used in ounces (N=247 recent users)

Mean ounces per year	9.90
Median ounces per year	4.50
Standard deviation	17.90

As might be expected, the mean ounces used per year for spray shoe polish is one of lowest amounts compared to the amount used of other products. Only the product categories of typewriter correction fluid, other lubricants, specialized electronic cleaners, and ignition and wire cleaners are as low.

Table A-14: Percentile rankings for amount of Spray Shoe Polish used in ounces (N=247 recent users)

	Ounces
Minimum	0.04
1%	0.20
5%	0.63
10%	1.00
25%	2.00
Median	4.50
75%	10.00
90%	24.00
95%	36.00
99%	99.36
Maximum	180.00

The range between the minimum and maximum values in Table A-14 is quite substantial with the minimum ounces per year at .04 and the maximum ounces per year at 180.0.

Q8: Where did you use spray shoe polish the last time you used it?

Table A-15: Location of last use of the product (N=261 recent users)

Basement	5.0%
Living room	14.9%
Other inside room	61.3%
Several inside rooms	0.9%
Garage	3.4%
Outside	13.4%
Garage & outside	1.1%
Total	<hr/> 100.0%

Most people (61.3%) used spray shoe polish in an "other inside room" such as the bedroom or den. Almost equal numbers used it in the living room (14.9%) and in the outside air (13.4%). The remainder used it in the basement (5.0%); in the garage (3.4%); in both the garage and the outside (1.1%); and in several inside rooms (.9%).

Table A-16: Protective measures undertaken while using
Spray Shoe Polish

	Yes	No
1. Door or window open to the outside (N=222 recent inside users)	40.5%	59.5%
2. Exhaust fan on during use (N=224 recent inside users)	10.7%	89.3%
3. Whether inside door to room was open (N=225 recent inside users)	76.0%	24.0%
4. Whether directions on label were read (N=262 all recent users)	71.4%	28.6%

The majority of the spray shoe polish users did not have a door or window open to the outside (59.5%); did not have an exhaust fan on during use (89.3%); had the inside door to the room opened (76.0%); and had read the directions on the label (71.4%).

Table A-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table A-17: Ounces per use of Spray Shoe Polish (N=246 recent users)

Mean # of ounces per use	2.39
Median # of ounces per use	1.00
Standard deviation	4.20

The mean ounces per use of spray shoe polish is 2.39, the median is 1.0.

Table A-18: Percentile rankings of ounces per use of Spray Shoe Polish (N=246 recent users)

	Ounces/Use
Minimum	0.01
1%	0.01
5%	0.11
10%	0.19
25%	0.50
Median	1.02
75%	2.50
90%	5.74
95%	10.00
99%	24.53
Maximum	35.00

Table A-18 indicates that there is a large jump between the 95th percentile of 10.0 and the 99th percentile of 24.53 and the 100th percentile of 35.0.

Table A-19: Respondent characteristics of Spray Shoe Polish users

1. Respondent age (N=269 recent users)	Mean = 44.40 years
2. Respondent gender (N=270 recent users)	Male = 47.0% Female = 53.0%
3. Number of household members (N=268 recent users)	Mean = 3.10 members
4. Number of bedrooms (N=269 recent users)	Mean = 2.90 bedrooms

Table A-19 presents the respondent characteristics of spray shoe polish users. The mean age of these respondents is 44.40 years; 53% of the respondents are female and 47% are male; the mean number of household members is 3.10; and the mean number of bedrooms is 2.90. The statistics for the respondent characteristics of spray shoe polish users is almost identical to the characteristics of the total sample of respondents.

**WATER
REPELLENTS/
PROTECTORS
(FOR SUEDE, LEATHER,
AND CLOTH)**

B. Product 2: Water Repellents

Q1: Have you ever used water repellents?

Table B-1: Numbers and % of respondents every using Water Repellents

	Numbers	Percent
Yes	1762	35.8
No	<u>3155</u>	<u>64.2</u>
Total	4917*	100.0

* 3 cases where information was not ascertained.

Table B-1 shows that 35.8% of the total respondents have "ever" used water repellents. This is a moderately high number when compared to the incidence of other products. It is comparable to spot removers (39%); wood floor and paneling cleaners (35%); other lubricants (35%); and aerosol spray paint excluding automotive (35%).

Q2: When was the last time you used water repellents:

Table B-2: Last time a Water Repellent was used in months (N=1757 users)

Mean # of months	20.50
Median # of months	9.00
Standard deviation	3.60

As Table B-2 shows, the mean number of months water repellents were last used is 20.50 months. The median number of months water repellents were last used is 9.0 months.

The percentile rankings for this question will now be presented.

Table B-3: Percentile rankings for Water Repellents-months since last use (N=1757 users)

	Months
Minimum	0.03
1%	0.07
5%	0.46
10%	1.00
25%	4.00
Median	9.00
75%	24.00
90%	60.00
95%	84.00
99%	156.00
Maximum	240.00

The percentile rankings for months since last use of water repellents range from a minimum of .03 to a maximum of 240.0. The increase from one percentile to another is sizable and steady.

Q3: How many times have you used water repellents in the last 12 months?

Table B-4: Number of uses of Water Repellents within the last 12 Months (N=1042 recent users)

Mean # of uses	3.50
Median # of uses	2.00
Standard deviation	11.70

The mean number of uses of water repellents were used within the last 12 months is 3.50 and the median is 2.0. The majority (81.3%) used it three times or less with 38.4% using it once; 29.8% using it twice; and 13.1% using it three times.

Table B-5: Percentile rankings of number of uses of Water Repellents within the last 12 months (N=1042 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	3.00
90%	6.00
95%	10.00
99%	35.70
Maximum	300.00

The percentile rankings for number of uses of water repellents within the last 12 months ranges from a minimum of one time to a maximum of 300.0 uses. There is a large jump from the 99th percentile of 35.70 to the maximum of 300.0. The maximum percentile value suggests that this person used water repellent almost daily.

Q4: How much time did you spend using water repellents the last time you used it?

Table B-6: Time spent using Water Repellents last time used (N=1035 recent users)

Mean # of minutes	14.46
Median # of minutes	10.00
Standard deviation	24.10

The mean number of minutes spent using water repellents is 14.46 and the median number of minutes is 10.0.

Table B-7: Percentile rankings for time spent using Water Repellents last time used (N=1035 recent users)

	Minutes
Minimum	0.02
1%	0.08
5%	0.50
10%	1.40-
25%	3.00
Median	10.00-
75%	15.00
90%	30.00-
95%	60.00
99%	120.00
Maximum	480.00

The percentile rankings for minutes spent using the product range from a minimum of .02 to a maximum of 480.0. These results seem to be subject to respondent rounding.

Q5: How much time did you spend in the room immediately after use the last time you used water repellents?

Table B-8: Time spent in the room after use of Water Repellents (N=1025 recent users)

Mean # of minutes	37.95
Median # of minutes	3.00
Standard deviation	111.40

The time spent in the room after use includes those respondents who said they did not spend any time in the room after using water repellents. The mean number of minutes spent in the room is 37.95 and the median number of minutes spent in the room is 3.0.

Table B-9 shows that the 25th percentile and less had respondents who did not spend any time in the room after use.

Table B-9: Percentile rankings for time spent in the room after use including those who did not spend any time in room but used Water Repellents (N=1025 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	3.00
75%	20.00
90%	120.00
95%	240.00
99%	480.00
Maximum	1800.00

The range of percentile rankings depicted in Table B-9 goes from a minimum of zero minutes to a maximum value suggests that this user may be overestimating or using water repellents for large jobs.

Table B-10: Percentile rankings for Water Repellents for time spent in the room after use including only those who spent time in room (N=659 recent users who stayed in room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	5.00
Median	10.00
75%	60.00
90%	180.00
95%	240.00
99%	600.00
Maximum	1800.00

Table B-10 presents the percentile rankings for the time spent in the room after use for only those respondents who did actually spend some time in the room (zeros are excluded). As can be seen, the 10th percentile and less are values of one minute and the remainder of the percentiles are higher in Table B-10 than in Table B-9 as can be expected.

Q6A: Which brand of water repellents did you use the last time you used it?

Table B-11: Brand Distribution for Water Repellents

Brand category	Frequency	Percent
Top brand	330	31.5
Second highest brand	25	2.4
Third highest brand	18	1.7
Don't Knows and Not Ascertained	382	36.4
All other named brands	<u>296</u>	<u>28.0</u>
Total	1051	100.0

Almost sixty-four percent of the users of water repellents in the last twelve months specified a brand. The most popular brand was used by 31.5% of the respondents using the product. The next two highest brands were used by 2.4% and 1.7% of users, respectively.

Q6B: Was the product in aerosol form?

Table B-12: Percent of respondents saying the Water Repellent is aerosol (N=1039 recent users)

Yes, product is aerosol	72.1%
No, product is nonaerosol	27.9%

Seventy-two percent said the water repellent used was aerosol.

Q7: What size of water repellent did you use the last time you used it? How much of a can or how many cans did you use during the past year.

These two questions above were used to derive the variable called ounces per year.

Table B-13: Amount of Water Repellent used in ounces per year (N=976 recent users)

Mean # of ounces per year	11.38
Median # of ounces per year	6.00
Standard deviation	22.00

The mean ounces of water repellent used per year is 11.38 and the median is 6.0.

Table B-14: Percentile rankings for amount of Water Repellents used in ounces per year (N=976 recent users)

	Ounces
Minimum	0.04
1%	0.47
5%	0.98
10%	1.43
25%	2.75
Median	6.00
75%	12.00
90%	24.00
95%	33.00
99%	121.84
Maximum	450.00

The range between the minimum and maximum values in Table B-14 is quite substantial with the minimum ounces per year at .04 and the maximum ounces per year at 450.0.

Q8: Where did you use a water repellent the last time you use it?

Table B-15: Location of where Water Repellents used last time (N=1034 recent users)

Basement	10.5%
Living room	13.5%
Other inside room	44.7%
Several inside rooms	1.5%
Garage	9.0%
Outside	19.6%
Garage & outside	1.2%

Most people used water repellents in an "other inside room" such as a bedroom or den while 19.6% used it outside; 13.5% used it in a living room; 10.5% used it in the basement; 9.0% used it in a garage; 1.5% used it in several inside rooms; and 1.2% used it both in the garage and outside. The relatively large number who said they used it in the garage, outside, or both in the garage and outside may suggest that some people mixed up the water repellent for cloth with outdoor water repellents although the latter is also asked in the questionnaire.

Table B-16: Protective measures undertaken while using Water Repellents

	Yes	No
1. Door or window open to the outside (N=816 recent inside users)	39.8%	60.2%
2. Exhaust fan on during use (N=822 recent inside users)	7.7%	92.3%
3. Whether inside door to room was open (N=810 recent users)	72.8%	27.2%
4. Whether directions on label was read (N=1034 all recent user)	82.6%	17.4%

The majority of users in the last twelve months did not have a door or window open to the outside (60.2%); did not have an exhaust fan on during user (92.3%) kept the inside door to the room opened (72.8%); and did say they read the directions on the label (82.6%).

Table B-17 indicates that the mean ounces per use is 6.2 ounces and the median is 2.8 ounces.

Table B-17: Ounces per use of Water Repellents (N=974 recent users)

Mean # of ounces per use	6.23
Median # of ounces per use	2.80
Standard deviation	12.80

Table B-18 presents the percentile rankings for this variable. The range is from a minimum of .01 to a maximum of 160 ounces.

Table B-18: Percentile rankings of ounces per use of Water Repellents (N=974 recent users)

	Ounces/use
Minimum	0.01
1%	0.10
5%	0.38
10%	0.63
25%	1.33
Median	2.75
75%	6.56
90%	13.00
95%	18.00
99%	61.00
Maximum	160.00

Table B-19: Respondent characteristics for users of Water Repellents

1. Respondent age (N=1046 recent users)	Mean = 38.24 years
2. Respondent gender (N=1047 recent users)	Male = 44.1% Female = 55.9%
3. Number of household members (N=1048 recent users)	Mean = 3.19
4. Number of bedrooms (N=1048 recent users)	Mean = 3.00

Table B-19 presents the respondent characteristics of those using water repellents in the last 12 months. The mean age of these respondents is 38.24 years; slightly more (55.9%) are female; the mean number of household members is 3.19; and the mean number of bedrooms is 3.0. When these characteristics are compared to those for the sample as a whole user of water repellents are slightly younger (38.24 compared to 44.3); about the same on the distribution of male and female; and about the same on the mean number of household members and number of bedrooms.

SPOT REMOVERS

C. Product 3: Spot Removers

Q1: Have you ever used spot removers?

Table C-1: Numbers and % of respondents ever using
Spot Removers

	Numbers	Percent
Yes	1924	39.1
No	<u>2993</u>	<u>60.9</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table C-1 shows that 39.1% of the respondents have "ever" used spot removers.

Q2: When was the last time you used spot removers?

Table C-2: Last time a Spot Remover was used in months
(N=1912 users)

Mean # of months	14.70
Median # of months	3.00
Standard Deviation	31.20

As Table C-2 shows, the mean number of months since last use of spot removers is 14.70 months and the median is 3.0 months.

The percentile rankings for time since last use are shown below:

Table C-3: Percentile rankings for Spot Removers - -
months since last use (N=1912 users)

	Months
Minimum	0.03
1%	0.03
5%	0.03
10%	0.10
25%	0.46
Median	3.00
75%	12.00
90%	36.00
95%	60.00
99%	180.00
Maximum	360.00

Table C-3 shows that 25th percentile users and below last used the product less than a month ago. Respondents at the 75th percentile through the 100th percentile report that they "last used" the product 1 year ago through 30 years ago. It appears that their answers are subject to rounding which was discussed earlier. The data are still usable for indicating the approximate last use.

Q3: How many times have you used spot removers in the last 12 months?

Table C-4: Number of uses of Spot Removers within the last 12 months (N=1390 recent users)

Mean # of uses	15.59
Median # of uses	3.00
Standard deviation	43.34

The mean number of times spot removers were used in the last twelve months is 15.59 and the median 3.0. Almost 51% of the respondents used a spot remover three times or less with 21.2% using it once; 18.7% using it twice; and 10.7% using it three times.

Table C-5: Percentile rankings of number of uses of Spot Removers within the last 12 months (N=1390 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	2.00
Median	3.00
75%	10.00
90%	40.00
95%	52.00
99%	300.00
Maximum	365.00

The percentile rankings for the number of uses of spot removers within the last 12 months range from a minimum of 1 time to a maximum of 365 times.

Q4: How much time did you spend using spot removers the last time you used it?

Table C-6: Time spent using a Spot Remover last time used (N=1385 recent users)

Mean # of minutes	10.68
Median # of minutes	5.00
Standard deviation	22.36

The mean number of minutes using a spot remover the last time it was used by the respondent is 10.68 minutes and the median is 5.0 minutes.

Table C-7: Percentile rankings for time spent using a Spot Remover the last time used (N=1385 recent users)

	Minutes
Minimum	0.02
1%	0.03
5%	0.08
10%	0.25
25%	2.00
Median	5.00
75%	10.00
90%	30.00
95%	30.00
99%	120.00
Maximum	360.00

The percentile rankings for the time spent using a spot remover the last time used range from a minimum of .02 minutes to a maximum of 360 minutes (6 hours). The higher values may reflect respondents who reported using laundry presoaks as spot removers such as Spray'n Wash when doing their laundry.

Q5: How much time did you spend in the room immediately after use the last time you used spot removers?

Table C-8: Time spent in the room after last use of Spot Removers (N=1362 recent users)

Mean # minutes in room	43.65
Median # minutes in room	5.00
Standard deviation	106.97

The mean number of minutes spent in the room after last using spot removers is 43.65 minutes and the median is 5.0.

Table C-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room but used Spot Removers (N=1362 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	1.00
Median	5.00
75%	30.00
90%	120.00
95%	240.00
99%	480.00
Maximum	1440.00

The percentiles in Table C-9 include users of spot removers who spent no time in the room afterward. The respondents at the tenth percentile and less did not spend any time in the room after use. The range in the percentiles is from a minimum of zero to a maximum of 1440 minutes (24 hours). The responses seem to be subject to rounding, but can be used as approximate indicators of time spent in the room afterwards.

Table C-10: Percentile rankings for Spot Removers for time spent in the room after last use including only those who spent time in the room (N=1105 recent users)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	3.00
Median	10.00
75%	52.00
90%	180.00
95%	300.00
99%	480.00
Maximum	1440.00

The percentile rankings in Table C-10 for time spent in the room afterwards includes only those respondents who used the product and did say that they spent some time in the room. These percentiles range from a minimum of one minute to a maximum of 1440 minutes (24 hours).

Q6A: Which brand of spot removers did you use the last time you used it?

Table C-11: Brand distribution for Spot Removers

Brand category	Frequency	Percent
Top brand	357	25.5
Second highest brand	114	8.1
Third highest brand	80	5.7
Don't Knows and Not Ascertained	304	21.7
All other named brands	<u>546</u>	<u>39.0</u>
Total	1401	100.0

The top three brands of spot removers were used by 25.5%, 8.1% and 5.7% of users, respectively. These three brands together account for 39.3% of the use. One of the brands is a laundry presoak, an example of a laundry presoak named by respondents as spot removers.

Q6B: Was the product in aerosol form?

Table C-12: Percent of respondents saying Spot Remover is aerosol (N=1388 recent users)

Yes, product is aerosol	43.9%
No, product is nonaerosol	56.1%

Almost 44.0% of the spot removers were aerosol.

Q7: What size of spot remover did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table C-13: Amount of product used per year in ounces
(N=1281 recent users)

Mean ounces per year	26.32
Median ounces per year	5.50
Standard deviation	90.10

The mean number of ounces of spot removers used per year is 26.32 and the median is 5.5. Once again this large amount is influenced by the respondents who listed laundry presoaks as spot removers.

Table C-14: Percentile rankings for amount of Spot Removers used per year in ounces (N=1281 recent users)

	Ounces
Minimum	0.01
1%	0.24
5%	0.60
10%	1.00
25%	2.00
Median	5.50
75%	16.00
90%	48.00
95%	119.20
99%	384.00
Maximum	1600.00

The range in the percentile rankings is quite substantial with a minimum of .01 ounces and a maximum of 1600.0 ounces used per year.

Q8: Where did you use spot removers the last time you used it?

Table C-15: Location of last use of the product
(N=1381 recent users)

Basement	9.1%
Living room	19.5%
Other inside room	57.3%
Several inside rooms	3.6%
Garage	4.0%
Outside	5.4%
Garage & outside	1.2%
Total	<hr/> 100.0%

Most people (57.3%) used the spot remover in an "other inside room" such as the bedroom or den. Of the remainder, 19.5% said they used it in the living room; 9.1% used it in the basement; 5.4% used it outside; 4.0% used it in the garage; and 1.2% used it both in the garage and outside.

Table C-16: Protective measures undertaken while using Spot Removers

	Yes	No
1. Door or window open to the Outside (N=1281 recent inside users)	44.5%	55.5%
2. Exhaust fan on during use (N=1289 recent inside users)	9.2%	90.8%
3. Whether inside door to room was open (N=1277 recent inside users)	80.2%	19.8%
4. Whether directions on label were read (N=1376 all recent users)	77.1%	22.9%

The majority of the spot remover users (55.5%) did not have a door or window open to the outside; 90.8% did not have an exhaust fan on; 80.2% of indoor users kept the inside door to the room opened; and the majority (77.1%) read the directions on the label.

Table C-17 depicts a derived variable ounces per use. Ounces per use is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used during the last twelve months).

Table C-17: Ounces per use of Spot Remover (N=1275 recent users)

Mean # of ounces per use	3.49
Median # of ounces per use	1.30
Standard deviation	10.18

The mean ounces per use is 3.49 and the median is 1.30. Table C-18 describes the percentile rankings for this variable.

Table C-18: Percentile rankings of ounces per use of Spot Remover (N=1275 recent users)

	Ounces/Use
Minimum	0.01
1%	0.03
5%	0.17
10%	0.25
25%	0.52
Median	1.33
75%	3.00
90%	7.50
95%	11.13
99%	41.92
Maximum	128.00

Table C-19: Respondent characteristics of Spot Remover users

1. Respondent age (N=1395 recent users)	Mean = 43.02 years
2. Respondent gender (N=1398 recent users)	Male = 32.0% Female = 68.0%
3. Number of household members (N=1392 recent users)	Mean = 3.10
4. Number of bedrooms (N=1397 recent users)	Mean = 3.00 bedrooms

Table C-19 presents the respondent characteristics of users of spot removers. The characteristics of the spot removers are almost identical to that of the sample as a whole with the exception of the sex of the user. Sixty-eight percent of the users of spot removers were female compared to 53.0% who were female in the sample as a whole.

SOLVENT-TYPE CLEANING FLUIDS OR DEGREASERS

D. Product 4: Solvent-type Cleaning Fluids or Degreasers

Q1: Have you ever used solvent-type cleaning fluids?

Table D-1: Numbers and % of respondents ever using
Solvent-type Cleaning Fluids

	Numbers	Percent
Yes	1382	28.1
No	<u>3535</u>	<u>71.9</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table D-1 shows that 28.1% of the respondents have "ever" used solvent-type cleaning fluids. This is about average when compared to the incidence for other products.

Q2: When was the last time you used solvent-type cleaning fluids?

Table D-2: Last time Solvent-type Cleaning Fluids were used
in months (N=1378 users)

Mean # of months	10.00
Median # of months	2.00
Standard deviation	26.26

The mean number of months since last use of a solvent-type cleaning fluid is 10.0 months. The median number of months is 2.0.

The percentile rankings for time since last use are shown below:

Table D-3: Percentile rankings for Solvent-type Cleaning Fluids -- months since last use (N=1378 users)

	Months
Minimum	0.03
1%	0.03
5%	0.03
10%	0.07
25%	0.23
Median	2.00
75%	7.00
90%	24.00
95%	48.00
99%	144.00
Maximum	300.00

Table D-3 shows that 25th percentile users and below last used the product less than a month ago. The range in percentile rankings goes from a minimum of .03 months to a maximum of 300.

Q3: How many times have you used solvent-type cleaning fluids in the last 12 months?

Table D-4: Number of uses of a Solvent-type Cleaning Fluid within the last 12 months (N=1104 recent users)

Mean # of uses	16.46
Median # of uses	4.00
Standard deviation	44.12

The mean number of uses of solvent-type cleaning fluids in the last twelve months is 16.46. This is one of the highest mean times used being second only to typewriter correction fluid which is the highest. The median number of times used in the last 12 months is 4.0 times.

Table D-5: Percentile rankings of number of uses of Solvent-type Cleaning Fluids within the last 12 months (N=1104 recent users)

	Uses
Minimum	1.0
1%	1.0
5%	1.0
10%	1.0
25%	2.0
Median	4.0
75%	12.0
90%	46.0
95%	52.0
99%	300.0
Maximum	365.0

Fifty percent of the users of solvent-type cleaning fluids used it four times or less. Twenty percent used it once; 18.7% used it twice; 9.3% used it 3 times; and 2.% used it four times during the previous twelve months.

Q4: How much time did you spend using a solvent-type cleaning fluid the last time you used it?

Table D-6: Time spent using the Solvent-type Cleaning Fluid last time used (N=1093 recent users)

Mean # of minutes	29.48
Median # of minutes	15.00
Standard deviation	97.49

The mean number of minutes using a solvent-type cleaning fluid the last time used is 29.48 minutes and the median is 15.0 minutes. This is about an average amount of time when compared to other products.

Table D-7: Percentile rankings for time spent using the Solvent-type Cleaning Fluid last time used (N=1093 recent users)

	Minutes
Minimum	0.02
1%	0.03
5%	1.00
10%	2.00
25%	5.00
Median	15.00
75%	30.00
90%	60.00
95%	120.00
99%	300.00
Maximum	1800.00

The percentile rankings for time spent using solvent-type cleaning fluids the last time used ranges from a minimum of .02 minutes to a maximum of 1800 minutes (30 hours).

Table D-10: Percentile rankings for Solvent-type cleaning fluids for time spent in the room after last use including only those who spent time in the room (N=649 recent users who stayed in room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	2.00
25%	5.00
Median	15.00
75%	60.00
90%	150.00
95%	240.00
99%	480.00
Maximum	1440.00

Table D-10 is similar to Table D-9 except it includes only users who did in fact stay in the room after use, therefore, all percentiles have values greater than zero.

Q5: How much time did you spend in the room immediately after use the last time you used solvent-type cleaning fluids?

Table D-8: Time spent in the room after last use of Solvent-type Cleaning Fluids (N=1084 recent users)

Mean # minutes in room	33.29
Median # minutes in room	3.00
Standard deviation	90.39

The mean number of minutes spent in the room after last use of a solvent-type cleaning fluid is 33.29 minutes and the median is 3.0 minutes.

Table D-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room but used Solvent-type Cleaning Fluids (N=1084 recent users)

	Minutes
Minimum	0.00
1%	0.0
5%	0.00
10%	0.00
25%	0.00
Median	3.00
75%	28.75
90%	60.00
95%	180.00
99%	480.00
Maximum	1440.00

Respondents at the 25th percentile and less did not spend any time in the room after using solvent-type cleaning fluids. 75th to 100th percentile users ranged from 28.75 minutes spent in the room to 1440 minutes (24 hours).

Q6A: Which brand of solvent-type cleaning fluid did you use the last time you used it?

Table D-11: Brand distribution for Solvent-type Cleaning Fluids

Brand category	Frequency	Percent
Top brand	91	8.1
Second highest brand	87	7.8
Third highest brand	57	5.1
Don't Knows and Not Ascertained	412	36.9
All other named brands	<u>470</u>	<u>42.1</u>
Total	1117	100.0

Sixty-three percent of the users of solvent-type cleaning fluids specified a brand. The top three brands were used by 8.1%, 7.8% and 5.1% of the users, respectively. These top three brands represent 21.0% of the use.

Q6B: Was the product in aerosol form?

Table D-12: Percent of respondents saying the Solvent-type Cleaning Fluid is aerosol (N=1096 recent users)

Yes, product is aerosol	25.6%
No, product is nonaerosol	74.4%

Almost twenty six percent of the solvent-type cleaning fluids used were aerosol.

Q7: What size of solvent-type cleaning fluids did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table D-13: Amount of Solvent-type Cleaning Fluids used per year in ounces (N=1028 recent users)

Mean ounces per year	58.30
Median ounces per year	16.00
Standard deviation	226.97

The mean number of ounces used of solvent-type cleaning fluids is 58.30 and the median is 16.0.

Table D-14: Percentile rankings for amount of Solvent-type Cleaning Fluids used in ounces (N=1028 recent users)

	Ounces
Minimum	0.04
1%	0.50
5%	2.00
10%	3.00
25%	6.50
Median	16.00
75%	32.00
90%	96.00
95%	192.00
99%	845.00
Maximum	5120.00

The range between the minimum and maximum values in Table D-14 is quite substantial with a minimum of .04 ounces and a maximum of 5120.0 ounces.

Q8: Where did you use solvent-type cleaning fluids the last time you used it?

Table D-15: Location of last use of the product (N=1095 recent users)

Basement	5.4%
Living room	2.6%
Other inside room	49.1%
Several inside rooms	1.5%
Garage	12.2%
Outside	28.0%
Garage & outside	1.2%
Total	<hr/> 100.0%

Most respondents used the solvent-type cleaning fluid in an other inside room such as the kitchen, bedroom, or den. Twenty-eight percent used it outside; 12.2% used it in the garage; and 5.4% used it in the basement; 2.6% used it in a living room; and 1.2% used it both in the garage and outside.

Table D-16: Protective measures undertaken while using Solvent-type Cleaning Fluids

	Yes	No
1. Door or window open to the outside (N=772 recent inside users)	57.0%	43.0%
2. Exhaust fan on during use (N=772 recent inside users)	14.8%	85.2%
3. Whether inside door to room was open (N=767 recent inside users)	74.4%	25.6%
4. Whether directions on label were read (N=1087 all recent users)	67.5%	32.5%

The majority (57.0%) of users of solvent-type cleaning fluids did have a door or window open to the outside when using it; 85.2% did not have an exhaust fan on during use; 74.4% did have the inside door to the room opened during use; and 67.5% said they did read the label before using the product.

Table D-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table D-17: Ounces per use of Solvent-type Cleaning Fluids

Mean # of ounces per use	9.45
Median # of ounces per use	3.30
Standard deviation	33.19

The mean number of ounces per use is 9.45 and the median is 3.30. The mean ounces per use is about average when compared to other products.

Table D-18: Percentile rankings of ounces per use of Solvent-type Cleaning Fluids

	Ounces/Use
Minimum	0.01
1%	0.05
5%	0.28
10%	0.56
25%	1.33
Median	3.25
75%	8.00
90%	16.00
95%	32.00
99%	80.42
Maximum	640.00

The percentile rankings for ounces per use range from a minimum of .01 to a maximum of 640.0 ounces.

Table D-19: Respondent characteristics of Solvent-type Cleaning Fluid users

1. Respondent age (N=1113 recent users)	Mean = 41.50 years
2. Respondent gender (N=1115 recent users)	Male = 52.6% Female = 47.4%
3. Number of household members (N=1113 recent users)	Mean = 3.20 members
4. Number of bedrooms (N=1114 recent users)	Mean = 3.00 bedrooms

Respondents using solvent-type cleaning fluids are slightly younger than the sample as a whole. Respondent ages range from 18 years old to 86 years old. Slightly more males (52.6%) used solvent-type cleaning fluids than the percentage of males in the sample as a whole (47.0%). Other characteristics of these users are identical to the respondent characteristics in the sample as a whole.

WOOD FLOOR AND PANELING CLEANERS

E. Product 5: Wood Floor Panel Cleaners

Q1: Have you ever used a wood floor panel cleaner?

Table E-1: Numbers and % of respondents ever using Wood Floor Panel Cleaner

	Numbers	Percent
Yes	1721	35.0
No	<u>3196</u>	<u>65.0</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table E-1 shows that 35.0% of the total respondents have "ever" used a wood floor panel cleaner.

Q2: When was the last time you used a wood floor panel cleaner?

Table E-2: Last time Wood Floor Panel Cleaner was used in months (N=1715 users)

Mean # of months	12.60
Median # of months	3.00
Standard Deviation	26.50

Table E-2 shows that the mean number of months since the last use of wood floor panel cleaners is 12.60 months and the median is 3.0 months. There is a difference of approximately 9 months between the mean and median and this is because of a few extreme responses to the question.

The percentile rankings for time since last use are shown below:

Table E-3: Percentile rankings for Wood Floor Panel Cleaners -- months since last use (N=1715 users)

	Months
Minimum	0.03
1%	0.03
5%	0.10
10%	0.20
25%	0.69
Median	3.00
75%	12.00
90%	36.00
95%	60.00
99%	144.00
Maximum	252.00

Table E-3 shows that 50% of the product users last used wood floor panel cleaners 3 months ago or less. The minimum amount of time since the last use of the product is 0.03 months and the 100th percentile is 252 months. The 75th percentile through the 100th percentile respondents reported last using the product 12 months ago through 252 months (21 years) ago. The data appear to be subject to rounding which was discussed earlier under aspects of the data. The data is still usable for indicating the approximate last use.

Q3: How many times have you used wood floor panel cleaners in the last 12 months?

Table E-4: Number of uses of Wood Floor Panel Cleaner within the last 12 months (N=1312 recent users)

Mean # of uses	8.48
Median # of uses	2.00
Standard deviation	20.89

The average number of uses of the wood floor panel cleaner in the last 12 months was 8.48 and the median 2.0. Of the 1312 users who answered this question, 29.1% used it once, 25.1% used it twice and 8.5% used it three times in the last year. Table E-5 which follows presents the percentile rankings for this variable. Ninety-nine percent of the respondents used the product 56 times or less in the last year. At the 100th percentile the times the product was used in the last year increased sharply to 350 times.

Table E-5: Percentile rankings of number of uses of Wood Floor Panel Cleaner within the last 12 months (N=1312 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
Median	2.00
75%	6.00
90%	24.00
95%	50.00
99%	56.00
Maximum	350.00

Q4: How much time did you spend using wood floor panel cleaner the last time you used it?

Table E-6: Time spent using Wood Floor Panel Cleaner last time used (N=1301 recent users)

Mean # of minutes	74.04
Median # of minutes	30.00
Standard deviation	128.43

The average time spent using the product is 74.04 minutes and the median is 30 minutes. There is a difference of approximately 44 minutes between the mean and median. Table E-7 which follows shows that the responses range from a minimum of .02 minutes to a maximum of 45 hours. There is a sharp increase in the amount of time spent using the product at the 100th percentile which is 45 hours compared to the 99th percentile which is just 8 hours. This is because of a few extreme responses.

Table E-7: Percentile rankings for time spent using Wood Floor Panel Cleaner last time used (N=1301 recent users)

	Minutes
Minimum	0.02
1%	1.00
5%	5.00
10%	10.00
25%	20.00
Median	30.00
75%	90.00
90%	147.00
95%	240.00
99%	480.00
Maximum	2700.00

Q5: How much time did you spend in the room immediately after use the last time you used the wood floor panel cleaner?

Table E-8: Time spent in the room after last use of Wood Floor Panel Cleaner (N=1269 recent users)

Mean # minutes in room	96.75
Median # minutes in room	30.00
Standard deviation	192.88

The mean number of minutes spent in the room after last use is 96.75 minutes as opposed to the median of 30 minutes.

Table E-9: Percentile rankings for time spent in the room after last use of Wood Floor Panel Cleaners including those who did not spend any time in room (N=1269 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	5.00
Median	30.00
75%	120.00
90%	240.00
95%	480.00
99%	1062.00
Maximum	1440.00

Fifty percent of the respondents spent 30 minutes or less in the room after using the product. From the 75th percentile through the 95th percentile the time spent in the room increased from 2 hours to 8 hours. A few respondents spent a much greater time in the room after using the product. Their responses are reflected in the 99th percentile and 100th percentile where time spent in the room is 1062 minutes (17.7 hours) and 1440 minutes (24 hours) respectively.

Table E-10: Percentile rankings for Wood Floor Panel Cleaners for time spent in the room after last use including only those who spent time in the room (N=1071 recent users)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	3.00
25%	10.00
Median	30.00
75%	120.00
90%	300.00
95%	480.00
99%	1440.00
Maximum	1440.00

Table E-10 is similar to Table E-9 except it includes only users who did spend some time in the room after using the product. Of the 1071 respondents who spent time in the room, 50% spent 30 minutes or less in the room after using the product. As seen in Table E-7, this is also the median time spent using the product.

Q6A: Which brand of wood floor panel cleaner did you use the last time you used it?

Table E-11: Brand distribution for Wood Floor Panel Cleaners

Brand category	Frequency	Percent
Top brand	575	43.7
Second highest brand	89	6.8
Third highest brand	59	4.5
Don't know and not ascertained	185	14.1
All other named brands	<u>407</u>	<u>30.9</u>
Total	1315	100.0

Eighty-six percent (85.9%) of the users of the product specified a brand. The top three brands of wood floor panel cleaners named were used by 43.7%, 6.8% and 4.5% of users, respectively.

Q6B: Was the product in aerosol form?

Table E-12: Percent of respondents saying the Wood Floor Panel Cleaner used is in aerosol or non-aerosol form (N=1306 recent users)

Yes, product is aerosol	48.9%
No, product is nonaerosol	51.1%

Forty-nine percent (48.9%) of the respondents said the brand of wood floor panel cleaner that they used was in aerosol form. Approximately the same number, 51.1%, said the brand they used was in nonaerosol form.

Q7: What size of wood floor panel cleaner did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table E-13: Amount of Wood Floor Panel Cleaner used in ounces (N=1229 recent users)

Mean ounces per year	28.41
Median ounces per year	14.00
Standard deviation	57.23

The mean amount of wood floor panel cleaner used per year is 28.41 ounces and the median is 14.0 ounces.

Table E-14: Percentile rankings for amount of Wood Floor Panel Cleaners used in ounces per year (N=1229 recent users)

	Ounces
Minimum	0.03
1%	0.80
5%	2.45
10%	3.50
25%	7.00
Median	14.00
75%	30.00
90%	64.00
95%	96.00
99%	204.40
Maximum	1144.00

The minimum amount of product used is 0.03 ounces and the maximum 1144.0 ounces. Ninety-five percent of the respondents used 96.0 ounces or less in the last year. This amount increased sharply at the 99th (204.4 ounces) and the 100th (1144.0 ounces) percentile.

Q8: Where did you use wood floor panel cleaner the last time you used it?

Table E-15: Location of last use of the product
(N=1295 recent users)

Basement	3.1%
Living room	26.8%
Other inside room	49.3%
Several inside rooms	18.7%
Garage	0.6%
Outside	1.2%
Garage & outside	0.3%
Total	<hr/> 100.0%

Most people (49.3%) used wood floor panel cleaners in an "other inside room" such as a bedroom, kitchen or den. The next two locations used most often were "living room" by 26.8% of the users and "several inside rooms" used by 18.7%. Only 1.2% of the users used the product outside. Of the 32 products surveyed, the only other product used less outside is typewriter correction fluid which is used by only 0.5% of the users.

Table E-16: Protective measures undertaken while using
Wood Floor Panel Cleaner

	Yes	No
1. Door or window open to the outside (N=1269 recent inside users)	58.9%	41.1%
2. Exhaust fan on during use (N=1272 recent inside users)	11.3%	88.7
3. Whether inside door to room was open (N=1268 recent inside users)	82.5%	17.5%
4. Whether directions on label were read (N=1294 recent users)	72.2%	27.8%

The majority of wood floor panel cleaner users (72.2%) had read the directions on the label. Also, more than half the users had a door or window open to the outside (58.9%) and an inside door to the room open (82.5%).

An additional variable ounces used per use of the product was created by dividing Question 7 by Question 3 and is presented in Table E-17 which follows.

Table E-17: Ounces per use of Wood Floor Panel Cleaner
(N=1228 recent users)

Mean # of ounces per use	9.50
Median # of ounces per use	4.33
Standard deviation	18.62

The mean ounces used per use of wood floor panel cleaner is 9.50 ounces and the median is 4.33 ounces. Table E-18 which follows presents the percentile rankings for this variable. Of the 1228 respondents who answered this question, 95.0% used 32.0 ounces or less of the product per use. The 100th percentile is 256.0 ounces.

Table E-18: Percentile rankings of ounces per use of Wood Floor Panel Cleaner (N=1228 recent users)

	Ounces/Use
Minimum	0.02
1%	0.11
5%	0.48
10%	0.88
25%	2.00
Median	4.33
75%	10.50
90%	16.85
95%	32.00
99%	82.84
Maximum	256.00

Table E-19: Respondent characteristics of Wood Floor Panel Cleaner users

1. Respondent age (N=1308 recent users)	Mean = 41.97 years
2. Respondent gender (N=1313 recent users)	Male = 29.9% Female = 70.1%
3. Number of household members (N=1311 recent users)	Mean = 3.09 members
4. Number of bedrooms (N=1312 recent users)	Mean = 2.97 bedrooms

Table E-19 presents the respondent characteristics of wood floor panel cleaner users. The average age of these respondents is 41.97 years. There are a greater number of female respondents (70.1%) compared to the number of male respondents (29.9%). The respondent gender characteristics for this product differed from the characteristics for the total sample of respondents which had nearly an equal number of male (47.0%) and female (53.0%) respondents. The other respondent characteristics are almost identical to the characteristics for the total sample of respondents.

TYPEWRITER CORRECTION FLUID

F. Product 6: Typewriter Correction Fluid

Q1: Have you ever used typewriter correction fluid?

Table F-1: Numbers and % of respondents ever using
Typewriter Correction Fluid

	Numbers	Percent
Yes	1278	26.0
No	<u>3639</u>	<u>74.0</u>
Total	4917*	100.0

* 3 cases where information was not ascertained.

Table F-1 shows that 26% of the total respondents have "ever" used typewriter correction fluid.

Q2: When was the last time you used typewriter correction fluid?

Table F-2: Last time Typewriter Correction Fluid was
used in months (N=1273 users)

Mean # of months	7.00
Median # of months	0.99
Standard deviation	26.93

As Table F-2 shows, the mean number of months since last use of typewriter correction fluid is 7.0 months. The median number of months is 0.99 and this adjusts for any extreme values given as answers to this question.

The percentile rankings for this question will now be presented.

Table F-3: Percentile rankings for Typewriter
Correction Fluid -- months since
last use (N=1273 users)

	Months
Minimum	0.03
1%	0.03
5%	0.03
10%	0.03
25%	0.10
Median	0.99
75%	3.00
90%	12.00
95%	24.00
99%	120.00
Maximum	480.00

Table F-3 shows that 25% of the users used the product less than a month ago. The 90th percentile through the 100th percentile have last used the product 12 months through 480 months ago. The data appear to be subject to rounding, discussed earlier under aspects of the data. The data are useful in indicating the approximate last use.

Q3: How many times have you used typewriter correction fluid in the last 12 months?

Table F-4: Number of uses of Typewriter Correction Fluid in the last 12 months (N=1137 recent users)

Mean # of uses	40.00
Median # of uses	12.00
Standard deviation	74.78

Users of the product used it on the average of 40.0 times in the last 12 months. The median was 12.0 uses.

Table F-5: Percentile rankings of number of uses of Typewriter Correction Fluid within the last 12 months (N=1137 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	2.00
25%	4.00
Median	12.00
75%	40.00
90%	100.00
95%	200.00
99%	365.00
Maximum	520.00

Q4: How much time did you spend using typewriter correction fluid the last time you used it?

Table F-6: Time spent using Typewriter Correction Fluid last time used (N=1131 recent users)

Mean # of minutes	7.62
Median # of minutes	1.00
Standard deviation	29.66

The median is 1 minute. The mean of approximately 8 minutes is higher and could be explained by the highly skewed distribution.

Table F-7: Percentile rankings for time spent using Typewriter Correction Fluid last time used (N=1131 recent users)

	Minutes
Minimum	0.02
1%	0.02
5%	0.03
10%	0.03
25%	0.17
Median	1.00
75%	2.00
90%	10.00
95%	32.00
99%	120.00
Maximum	480.00

Users at the 25th percentile and below used the product for 15 seconds or less. The 99th percentile on the other hand is 120 minutes and the 100th percentile is 480 minutes.

Q5: How much time did you spend in the room immediately after use the last time you used Typewriter Correction Fluid?

Table F-8. Time spent in the room after last use of Typewriter Correction Fluid (N=1114 recent users)

Mean # of minutes	124.70
Median # of minutes	60.00
Standard deviation	153.46

The mean number of minutes spent in the room after last use is 124.70 minutes and the median is 60 minutes. Here again the difference could be explained on account of the skewed distribution.

Table F-9: Percentile rankings for time spent in the room after last use of Typewriter Correction Fluid including those who did not spend any time in the room (N=1114 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	1.00
10%	5.00
25%	30.00
Median	60.00
75%	180.00
90%	360.00
95%	480.00
99%	600.00
Maximum	1800.00

Above the 5th percentile all respondents spent time in the room after using the product. Except for the 75th percentile through the 100th percentile, all other respondents spent 3 hours or less in the room.

Table F-10. Percentile rankings for Typewriter Correction Fluid for time spent in the room after last use including only those who spent time in the room (N=1082 recent users who stayed in room)

	Minutes
Minimum	1.00
1%	1.00
5%	3.00
10%	10.00
25%	30.00
Median	60.00
75%	180.00
90%	360.00
95%	480.00
99%	600.00
Maximum	1800.00

Table F-10 is similar to Table F-9 except it includes only users who did stay in the room after use, therefore, all percentiles have values greater than zero.

Q6A: Which brand of typewriter correction fluid did you use the last time you used it?

Table F-11: Brand distribution for Typewriter Correction Fluid

Brand category	Frequency	Percent
Top brand	477	41.6
Second highest brand	374	32.6
Third highest brand	29	2.5
Don't Knows and Not Ascertained	185	16.1
All other named brands	82	7.2
Total	1147	100.0

Of those who used the product in the last 12 months, 962 respondents (83.9%) specified a brand. The two major brands were used by 41.6% and 32.6% of the users, respectively. These two together account for 74.2% of users of the named brands.

Q6B: Was the product in aerosol form?

Table F-12: Percent of respondents saying Typewriter Correction Fluid is in aerosol or non-aerosol form (N=1131 recent users)

Yes, product is aerosol	0.1%
No, product is nonaerosol	99.9%

Nearly a hundred percent of the respondents said the typewriter correction fluid they used was in nonaerosol form.

Q7: What size of typewriter correction fluid did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table F-13: Amount of Typewriter Correction Fluid used in ounces (N=1037 recent users)

Mean ounces per year	4.14
Median ounces per year	0.94
Standard deviation	13.72

Of all the products surveyed, typewriter correction fluid has the lowest mean and median for ounces per year used.

Table F-14: Percentile rankings for ounces per year used of Typewriter Correction Fluid (N=1037 recent users)

	Ounces
Minimum	0.01
1%	0.02
5%	0.06
10%	0.12
25%	0.30
Median	0.94
75%	2.40
90%	8.00
95%	18.00
99%	67.44
Maximum	181.80

The ounces used increased sharply at the 99th percentile.

Q8: Where did you use typewriter correction fluid the last time you used it?

Table F-15: Location of last use of Typewriter Correction Fluid (N=1130 recent users)

Basement	2.1%
Living room	14.6%
Other inside room	79.8%
Several inside rooms	2.0%
Garage	0.4%
Outside	0.4%
Garage & outside	0.5%

Most respondents (79.8%) used the product in an "other inside room". If the questionnaire instructions were misunderstood this could be a room at their place of work. Only 0.4% of the respondents used the product outside.

Table F-16: Protective measures undertaken while using Typewriter Correction Fluid

	Yes	No
1. Door or window open to the outside (N=1113 recent users)	25.8%	74.2%
2. Exhaust fan on during use (N=1116 recent inside users)	8.2%	91.8%
3. Whether inside door to room was open (N=1107 recent inside users)	74%	26%
4. Whether directions on label were read (N=1129 all recent users)	39.3%	60.7%

The majority of the respondents did not open a door or window (74.2%), did not have an exhaust on (91.8%), had the inside door to the room closed (74%) and had not read the label (60.7%).

Table F-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table F-17: Ounces per use of Typewriter Correction Fluid (N=971 recent users)

Mean # of ounces per use	0.43
Median # of ounces per use	0.08
Standard deviation	2.28

The median ounces per use is 0.08 minutes. The mean is higher on account of some extreme values.

Table F-18: Percentile rankings of ounces per use of Typewriter Correction Fluid (N=971 recent users)

	Ounces/Use
Minimum	0.01
1%	0.01
5%	0.01
10%	0.01
25%	0.03
Median	0.08
75%	0.20
90%	0.75
95%	1.50
99%	6.42
Maximum	60.00

The ounces per use range from a minimum of 0.01 ounces to a maximum of 60.0 ounces at the 100th percentile. Ninety-nine percent of the respondents used 6.42 ounces or less of the product per use. The amount increased sharply at the 100th percentile to 60.0 ounces per use.

Table F-19: Respondent characteristics of Typewriter Correction Fluid users

1. Respondent age (N=1145 recent users)	Mean = 37.80 years
2. Respondent gender (N=1146 recent users)	Male = 38.1% Female = 61.9%
3. Number of household members (N=1143 recent users)	Mean = 3.14 members
4. Number of bedrooms (N=1142 recent users)	Mean = 2.96 bedrooms

The average age of the respondents is 37.80 years. The majority of the respondents, 61.9% are female. Respondent characteristics for typewriter correction fluid users differ from the characteristics of the total sample of respondents in respondent age and gender. The average age for the total sample of respondents is 44.2 years and the percent of male and female respondents is 47% and 53% respectively.

CONTACT CEMENT, SUPER GLUES AND SPRAY ADHESIVES

G. Product 7: Contact Cements, Super Glues, and Spray Adhesives

Three types of adhesives thought to contain methylene chloride or its substitutes are included here, and they are: contact cements, super glues, and spray adhesives.

Q1: Have you ever used contact cements, super glues, or spray adhesives?

Table G-1: Numbers and % of respondents ever using Contact Cements, Super Glues, or Spray Adhesives

	Numbers	Percent
Yes	2982	60.6
No	<u>1935</u>	<u>39.4</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table G-1 shows that 60.6% of the total respondents have "ever" used contact cements, super glues, and spray adhesives. This is the highest incidence of use of any of the products.

Q2: When was the last time you used contact cements, super glues, or spray adhesives?

Table G-2: Last time Contact Cements, Super Glues, or Spray Adhesives were used in months (N=2973 users)

Mean # of months	5.20
Median # of months	1.00
Standard deviation	13.30

As Table G-2 shows, the mean number of months contact cements, super glues, or spray adhesives was last used is 5.20 months. This is almost the shortest period of time since last use for any of the thirty-two products. The median number of months is 1.0.

The percentile rankings for time since last use are shown below:

Table G-3: Percentile rankings for Contact Cements, Super Glues and Spray Adhesives -- months since last use (N=2973 users)

	Months
Minimum	0.03
1%	0.03
5%	0.03
10%	0.10
25%	0.33
Median	1.00
75%	5.00
90%	12.00
95%	24.00
99%	60.00
Maximum	180.00

Table G-3 shows that 25th percentile users and below used the product last less than a month ago. The 75th percentile through the 100th percentile respondents report that they last used the product 5 months ago through 180 months ago. The data appear to be subject to rounding which was discussed earlier under aspects of the data. The data is still usable for indicating the approximate last use.

Q3: How many times have you used contact cements, super glues, and spray adhesives within the last 12 months?

Table G-4: Number of uses of the Contact Cements, Super Glues, and Spray Adhesives within the last 12 months (N=2681 recent users)

Mean # of uses	8.89
Median # of uses	3.00
Standard deviation	26.20

The mean number of uses of the product in the last twelve months among users of the product in the last twelve months, was 8.89 and the median 3.0. Fifty-one percent of these users used these adhesives three times or less in the last twelve months with 19.1% using it once; 18.1% using it twice; and 14.3% using it three times.

Table G-5: Percentile rankings of number of uses of Contact Cements, Super Glues, and Spray Adhesives within the last 12 months (N=2681 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	2.00
Median	3.00
75%	6.00
90%	15.00
95%	28.00
99%	100.00
Maximum	500.00

The percentile rankings for the number of times used in the last twelve months range from a minimum of one time to a maximum of 500 times.

Q4: How much time did you spend using contact cements, super glues, and spray adhesives the last time you used it?

Table G-6: Time spent using Contact Cements, Super Glues, and Spray Adhesives last time used (N=2676 recent users)

Mean # of minutes	15.58
Median # of minutes	4.30
Standard deviation	81.80

The mean number of minutes for using these adhesives is 15.58 and the median is 4.3.

Table G-7: Percentile rankings for time spent using the Contact Cements, Super Glues, and Spray Adhesives last time used (N=2676 recent users)

	Minutes
Minimum	0.02
1%	0.03
5%	0.08
10%	0.33
25%	1.00
Median	4.25
75%	10.00
90%	30.00
95%	60.00
99%	180.00
Maximum	2880.00

The minimum percentile is .02 and the maximum percentile 2880 minutes (48 hours).

Q5: How much time did you spend in the room immediately after use the last time you used contact cements, super glues, and spray adhesives?

Table G-8: Time spent in the room after last use of Contact Cements, Super Glues, and Spray Adhesives (N=2599 recent users)

Mean # minutes in room	68.88
Median # minutes in room	10.00
Standard deviation	163.72

The mean number of minutes spent in the room after use is 68.88 minutes as opposed to the median of ten minutes.

Table G-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room but used Contact Cement, Super Glues, and Spray Adhesives (N=2599 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	1.00
Median	10.00
75%	60.00
90%	180.00
95%	360.00
99%	720.00
Maximum	2100.00

Respondents at the 10th percentile or less did not spend any time in the room after using contact cement, super glues, or spray adhesives.

Table G-10: Percentile rankings for Contact Cement, Super Glues, and Spray Adhesives for time spent in the room after last use including only those who spent time in the room (N=2013 recent users who stayed in room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	2.00
25%	5.00
Median	20.00
75%	105.00
90%	240.00
95%	420.00
99%	840.00
Maximum	2100.00

Table G-10 is similar to Table G-9 except it includes only users who did in fact stay in the room, therefore, all percentiles have non-zero values.

Q6A: Which brand of contact cement, super glues, or spray adhesive did you use the last time you used it?

Table G-11: Brand distribution for Contact Cement, Super Glues, or Spray Adhesive

Brand category	Frequency	Percent
Top brand	491	18.2
Second highest brand	454	16.8
Third highest brand	305	11.3
Don't Knows & Not Ascertained	398	14.7
All other named brands	<u>1052</u>	<u>39.0</u>
Total	2700	100.0

Eighty-five percent (85.3%) of the users of the product specified a brand. The top three brands of contact cement, super glues, and spray adhesives were used by 18.2%, 16.8% and 11.3% of the users, respectively.

Q6B: Was the product in aerosol form?

Table G-12: Percent of respondents saying Contact Cement, Super Glues, and Spray Adhesives were aerosol (N=2686 recent users)

Yes, product is aerosol	2.9%
No, product is nonaerosol	97.1%

Respondents said that the product was aerosol in only 2.9% of the cases. The product was nonaerosol in 97.1% of the cases.

Q7: What size of contact cement, super glue, or spray adhesive did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table G-13: Amount of Contact Cement, Super Glue, or Spray Adhesive used in ounces per year (N=2275 recent users)

Mean ounces per year	7.49
Median ounces per year	1.00
Standard deviation	55.90

The mean ounces used per year is 7.49 and the median ounces is 1.0. While this product is one of the ones used most often the amount used is one of the smallest amounts.

Table G-14: Percentile rankings for amount of Contact Cement, Super Glues, and Spray Adhesives used in ounces per year (N=2275 recent users)

	Ounces
Minimum	0.01
1%	0.02
5%	0.05
10%	0.12
25%	0.35
Median	1.00
75%	3.00
90%	8.00
95%	20.00
99%	128.00
Maximum	1280.00

The range between the minimum and maximum values in Table G-14 is quite substantial with the minimum ounces per year at .01 and the maximum ounces per year at 1280.0. There is quite a jump between the 95th percentile and the 99th and 100th.

Q8: Where did you use contact cement, super glue, and spray adhesive the last time you used it?

Table G-15: Location of last use of the product
(N=2657 recent users)

Basement	5.6%
Living room	11.9%
Other inside room	61.1%
Several inside rooms	1.9%
Garage	6.2%
Outside	11.7%
Garage & outside	1.6%
Total	<hr/> 100.0%

Most people (61.1%) used contact cement, super glue, and spray adhesives in an "other inside room" such as the kitchen, bedroom, or den. Almost equal numbers used it in a living room (11.9%) and in the outside air (11.7%). The remainder used it in the basement (5.6%); in the garage (6.2%); in both the garage and the outside (1.6%) and in several inside rooms (1.9%).

Table G-16: Protective measures undertaken while using Contact Cement, Super Glues, or Spray Adhesives

	Yes	No
1. Door or window open to the outside (N=2296 recent inside users)	41.0%	59.0%
2. Exhaust fan on during use (N=2304 recent inside users)	8.1%	91.9%
3. Whether inside door to room was open (N=2286 recent inside users)	75.1%	24.9%
4. Whether directions on label were read (N=2664 recent users)	70.1%	29.9%

The majority (59.0%) of the users did not have a door or window open to the outside; did not have an exhaust fan on (91.9%); did have the inside door to the room opened (75.1%); and did read the directions on the label (70.1%) before using the product.

Table G-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table G-17: Ounces per use of Contact Cement, Super Glue, and Spray Adhesives (N=2230 recent users)

Mean # of ounces per use	2.98
Median # of ounces per use	0.25
Standard deviation	35.50

The mean number of ounces per use is 2.98 and the median ounces per use is .25.

Table G-18: Percentile rankings of ounces per use of Contact Cement, Super Glues, and Spray Adhesives (N=2230 recent users)

	Ounces/Use
Minimum	0.01
1%	0.01
5%	0.01
10%	0.03
25%	0.09
Median	0.25
75%	0.75
90%	2.00
95%	4.32
99%	42.54
Maximum	1280.00

The range of percentile rankings is from a minimum of .01 to a maximum of 1280.0 ounces.

Table G-19: Respondent characteristics of Contact Cement Super Glue, and Spray Adhesives users

1. Respondent age (N=2692 recent users)	Mean = 41.10 years
2. Respondent gender (N=2697 recent users)	Male = 49.2% Female = 50.8%
3. Number of household members (N=2690 recent users)	Mean = 3.20 members
4. Number of bedrooms (N=2693 recent users)	Mean = 2.90 bedrooms

Table G-19 presents the respondent characteristics of contact cement, super glue, and spray adhesive users. These respondents were slightly younger than respondents as a whole 41.10 compared to 44.3 years of age; there were about the same number of males 49.2% to 47.0%; the number of household members was the same 3.20; and the number of bedrooms was the same 2.9 compared to mean age of these respondents is 44.4 years; 53.0% of the respondents are female and 47.0% are male; the mean number of household members is 3.10; and the mean number of bedrooms is 2.90.

**ADHESIVE
REMOVERS
(GENERAL PURPOSE,
TILE, AND WALLPAPER)**

H. Product 8: Adhesive Removers

Q1: Have you ever used adhesive removers?

Table H-1: Numbers and % of respondents ever using Adhesive Removers

	Numbers	Percent
Yes	286	5.8
No	<u>4630</u>	<u>94.2</u>
Total	4916*	100.0

*4 cases where information was not ascertained

Table H-1 shows that only 5.8% of the respondents had "ever" used adhesive removers. This is a relatively low percentage when compared to this incidence for other products. Only four other products--transmission cleaners, brake quieters/cleaners, gasket removers, and ignition & wire dryers have incidences below 5.8%.

Q2: When was the last time you used adhesive removers?

Table H-2: Last time the Adhesive Remover was used in months (N=283 users)

Mean # of months	21.70
Median # of months	10.00
Standard deviation	38.01

As Table H-2 shows, the mean number of months adhesive removers were last used is 21.70 months. The median number of months is 10.0.

The percentile rankings for time since last use are shown below:

Table H-3: Percentile rankings for Adhesive Removers--
months since last use (N=283 users)

	Months
Minimum	0.03
1%	0.03
5%	0.11
10%	0.38
25%	2.00
Median	10.00
75%	24.00
90%	60.00
95%	84.00
99%	240.00
Maximum	360.00

Table H-3 shows that users at the 10th percentile and below used the product last less than a month ago. From the 75th percentile through the 100th percentile respondents report that they last used the product 24 months ago (2 years) through 360 months ago (30 years). The data appear to be subject to rounding which was discussed earlier under aspects of the data (i.e. 2, 5, 30 years rather than 2 years & 4 months). The data are usable for indicating the approximate last use.

Q3: How many times have you used adhesive removers in the last 12 months?

Table H-4: Number of uses of Adhesive Removers within the last 12 months (N=167 recent users)

Mean # of uses	4.22
Median # of uses	1.00
Standard deviation	12.30

In the last 12 months, the average number of times the product was used was 4.22 and the median was 1 time. Of the 167 respondents who had used the product in the last twelve months, 53.3% used it once, 20.4% used it twice and 10.8% used it three times. Table H-5 which follows shows the percentile rankings for the variable. One finds that at the 99th percentile there is a sharp increase in the number of times the product is used in the last year.

Table H-5: Percentile rankings of number of uses of Adhesive Removers within the last 12 months (N=167 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	1.00
75%	3.00
90%	6.00
95%	16.80
99%	100.00
Maximum	100.00

Q4: How much time did you spend using the adhesive remover the last time you used it?

Table H-6: Time spent using Adhesive Remover last time used (N=168 recent users)

Mean # of minutes	121.20
Median # of minutes	60.00
Standard deviation	171.63

When last used, the mean and median number of minutes spent using adhesive removers are relatively high at 121.20 and 60 minutes respectively. Only three other products -- latex paints, oil paints, and paint removers/strippers have higher average times spent when the products were last used.

Table H-7: Percentile rankings for time spent using Adhesive Remover last time used (N=168 recent users)

	Minutes
Minimum	0.03
1%	0.03
5%	1.45
10%	3.00
25%	15.00
Median	60.00
75%	120.00
90%	246.00
95%	480.00
99%	960.00
Maximum	960.00

Twenty-five percent of the respondents spent 15 minutes or less using the adhesive remover the last time they used it. Fifty percent of the respondents spent one hour or less, the maximum time spent using the product was 960 minutes (16 hours).

Q5: How much time did you spend in the room immediately after use the last time you used adhesive removers?

Table H-8: Time spent in the room after last use of Adhesive Removers (N=166 recent users)

Mean # minutes in room	94.12
Median # minutes in room	20.00
Standard deviation	157.69

The average time spent in the room after use is 94.12 minutes. The median is 20 minutes. The difference between the mean and median can be explained by a few extreme responses to the question.

Table H-9: Percentile rankings for time spent in the room after last use of Adhesive Removers including those who did not spend any time in the room (N=166 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	1.75
Median	20.00
75%	120.00
90%	360.00
95%	480.00
99%	720.00
Maximum	720.00

Fifty percent of the respondents spent 20 minutes or less in the room after use. The amount of time spent in the room increases sharply at the 75th percentile where time spent is 120 minutes (2 hours) through the 100th percentile where time spent in the room after use is 720 minutes (12 hours).

Table H-10: Percentile rankings for Adhesive Removers for time spent in the room after last use including only those who spent time in the room (N=131 recent users who stayed in room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.60
10%	4.00
25%	10.00
Median	60.00
75%	120.00
90%	420.00
95%	504.00
99%	720.00
Maximum	720.00

Table H-10 is similar to Table H-9 except it includes only users who did in fact stay in the room after using the product. The mean now changes to 119.3 minutes and the median is now 60 minutes. The difference between the mean and median has lessened to 59.3 minutes from 74.12 minutes in Table H-8.

Q6A: Which brand of adhesive remover did you use the last time you used it?

Table H-11: Brand distribution for Adhesive Removers

Brand category	Frequency	Percent
Top brand	11	6.3
Second highest brand	8	4.6
Third highest brand	5	2.9
Don't Knows or Not ascertained	106	60.6
All other named brands	<u>45</u>	<u>25.6</u>
Total	175	100.0

Thirty-nine percent (39.4%) of the users specified a brand. The top three brands named were used by 6.3%, 4.6% and 2.9%, respectively of the users of the named brands.

Q6B: Was the product in aerosol form?

Table H-12: Percent of respondents saying the Adhesive Remover used is in aerosol or non-aerosol form (N=167 recent users)

Yes, product is aerosol	15.0%
No, product is nonaerosol	85.0%

Of the 167 recent users who answered this question, 85.0% said the adhesive remover used was nonaerosol whereas 15.0% said it was an aerosol.

Q7: What size of adhesive remover did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table H-13: Amount of Adhesive Remover used in ounces (N=155 recent users)

Mean ounces per year	34.46
Median ounces per year	10.88
Standard deviation	96.60

The average amount of adhesive remover used in the last year was 34.46 ounces and the median 10.88 ounces.

Table H-14: Percentile rankings for amount of Adhesive Remover used in ounces per year (N=155 recent users)

	Ounces
Minimum	0.25
1%	0.29
5%	1.22
10%	2.80
25%	6.00
Median	10.88
75%	32.00
90%	64.00
95%	138.70
99%	665.60
Maximum	1024.00

As shown in Table H-14 the responses for ounces used in the last year is widely spread out and range from a minimum of 0.25 ounces to 1024.0 ounces at the 100th percentile. Ninety percent of users used 64.0 ounces or less during the year. This amount increased sharply at the 99th percentile to 665.60 ounces.

Q8: Where did you use the adhesive remover the last time you used it?

Table H-15: Location of last use of the product (N=167 recent users)

Basement	4.8%
Living room	5.4%
Other inside room	75.4%
Several inside rooms	2.4%
Garage	4.2%
Outside	6.6%
Garage & outside	1.2%
Total	100.0%

Most of the users (75.4%) used the Adhesive Remover in an "other inside room". It could be either a bedroom, kitchen or den or some other room. A total of 6.6% used the product outside. Only four other products Typewriter Correction Fluid, Wood Floor and Panel Cleaners, Specialised Electronic Cleaners and Spot Removers were used to a lesser degree outdoors.

Table H-16: Protective measures undertaken while using Adhesive Removers

	Yes	No
1. Door or window open to the outside (N=154 recent inside users)	66.9%	33.1%
2. Exhaust fan on during use (N=156 recent inside users)	23.1%	76.9%
3. Whether inside door to room was open (N=154 recent inside users)	78.6%	21.4%
4. Whether directions on label were read (N=169 all recent users)	82.2%	17.8%

The majority of respondents (82.2%) had read the directions on the label. This could account for 66.9% of the respondents having a door or window open to the outside and 78.6% having an inside door to the room open.

An additional variable ounces used per use of the product was created by dividing Question 7 by Question 3 and is presented in Table H-17 which follows.

Table H-17: Ounces per use of Adhesive Removers (N=153 recent users)

Mean # of ounces per use	22.04
Median # of ounces per use	8.00
Standard deviation	85.44

The mean ounces used up per use of adhesive remover is 22.04 ounces and the median is 8 ounces. Table H-18 which follows presents the percentile rankings for this variable. The ounces used per use range from a minimum of .04 ounces to 1024 ounces at the 100th percentile. Ninety-five percent of the respondents used 64 ounces or less of the product for each use.

Table H-18: Percentile rankings of ounces per use of Adhesive Remover (N=153 recent users)

	Ounces/Use
Minimum	0.04
1%	0.06
5%	0.33
10%	0.67
25%	3.00
Median	8.00
75%	16.00
90%	32.00
95%	64.00
99%	574.72
Maximum	1024.00

Table H-19: Respondent characteristics of Adhesive Remover users

1. Respondent age (N=174 recent users)	Mean = 39.93 years
2. Respondent gender (N=175 recent users)	Male = 52.6% Female = 47.4%
3. Number of household members (N=175 recent users)	Mean = 3.29 members
4. Number of bedrooms (N=175 recent users)	Mean = 3.07 bedrooms

Table H-19 presents the respondent characteristics of adhesive remover users. The mean age of these respondents is 39.93 years. There does not seem to be a major difference in the number of respondents of each sex answering the question. The respondent characteristics for adhesive remover users is approximately the same as the characteristics for the total sample of respondents.

SILICONE LUBRICANTS (EXCLUDING AUTOMOTIVE)

I. Product 9: Silicone Lubricants (excluding automotive)

Q1: Have you ever used silicone lubricants?

Table I-1: Numbers and % of respondents ever using Silicone Lubricants

	Numbers	Percent
Yes	870	17.7
No	<u>4047</u>	<u>82.3</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table I-1 shows that 17.7% of the total respondents have "ever" used silicone lubricants.

Q2: When was the last time you used silicone lubricants?

Table I-2: Last time Silicone Lubricant was used in months (N=863 users)

Mean # of months	6.50
Median # of months	2.00
Standard Deviation	15.43

On the average silicone lubricants were last used 6.50 months ago. This is a very short period of time compared to this incidence for most of the other 32 products surveyed. The median number of months is 2.0.

The percentile rankings for time since last use are shown below:

Table I-3: Percentile rankings for Silicone Lubricants -- months since last use (N=863 users)

	Months
Minimum	0.03
1%	0.03
5%	0.03
10%	0.10
25%	0.33
Median	2.00
75%	6.00
90%	18.00
95%	24.00
99%	84.00
Maximum	180.00

Table I-3 shows that time since the product was last used ranges from a minimum of 0.03 months to a maximum of 180.0 months. Twenty-five percent of the respondents last used the product less than a month ago whereas 95% of the respondents used the product 24.0 months or less ago. The months since last use may be subject to rounding discussed earlier under aspects of the data (i.e., 2, 7, 15 years rather than 7 years 3 months). The data is usable for indicating the approximate last use.

Q3: How many times have you used silicone lubricants in the last 12 months?

Table I-4: Number of uses of Silicone Lubricant within the last 12 months (N=750 recent users)

Mean # of uses	10.32
Median # of uses	3.00
Standard deviation	25.44

The mean number of uses of silicone lubricants in the last year is 10.32 times and the median is 3.0 times. Of the 750 respondents who used the product in the last year, 21.1% used it once, 18.3% used it twice and 11.6% used it three times. Table I-5 which follows presents the percentile rankings for this variable. The times the product was used ranges from 1 time to 300 times at the 100th percentile. Ninety-five percent of the respondents used the product 46.35 times or less in the last year.

Table I-5: Percentile rankings of number of uses of Silicone Lubricants within the last 12 months (N=750 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	2.00
Median	3.00
75%	10.00
90%	20.00
95%	46.35
99%	150.00
Maximum	300.00

Q4: How much time did you spend using the silicone lubricant the last time you used it?

Table I-6: Time spent using the Silicone Lubricant last time used (N=747 recent users)

Mean # of minutes	10.42
Median # of minutes	2.00
Standard deviation	29.47

The mean and median number of minutes for using silicone lubricants are 10.42 and 2.0 minutes respectively.

Table I-7: Percentile rankings for time spent using the Silicone Lubricant last time used (N=747 recent users)

	Minutes
Minimum	0.02
1%	0.03
5%	0.08
10%	0.17
25%	0.50
Median	2.00
75%	10.00
90%	20.00
95%	45.00
99%	180.00
Maximum	360.00

The time spent using silicone lubricants ranges from 0.02 minutes to 6 hours at the 100th percentile. Twenty-five percent of the respondents used the product for less than a minute, 50% used it for 2 minutes or less, and 95% used it for 45 minutes or less.

Q5: How much time did you spend in the room immediately after use the last time you used silicone lubricants?

Table I-8: Time spent in the room after last use of Silicone Lubricants (N=734 recent users)

Mean # minutes in room	30.77
Median # minutes in room	0.00
Standard deviation	107.39

The mean number of minutes spent in the room after use is 30.77 minutes. The median is 0 as at least 50% of the respondents did not spend any time in the room after using the silicone lubricant.

Table I-9: Percentile rankings for time spent in the room after use of Silicone Lubricants including those who did not spend any time in the room (N=734 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	10.00
90%	60.00
95%	180.00
99%	480.00
Maximum	1440.00

Respondents at the 75th percentile through the 100th percentile did spend some time in the room after using the product.

Table I-10: Percentile rankings for Silicone Lubricants for time spent in the room after last use including only those who spent time in the room (N=343 recent users who stayed in the room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	5.00
Median	10.00
75%	60.00
90%	216.00
95%	300.00
99%	787.00
Maximum	1440.00

Table I-10 is similar to Table I-9 except it includes only users who did in fact stay in the room. The mean time spent in the room after use is 65.9 minutes and the median is 10. The maximum time spent in the room after using the product is 24 hours.

Q6A: Which brand of silicone lubricant did you use the last time you used it?

Table I-11: Brand distribution for Silicone Lubricant

Brand category	Frequency	Percent
Top brand	203	26.7
Second highest brand	36	4.7
Third highest brand	35	7.2
Don't Knows and Not Ascertained	243	31.9
All other named brands	<u>224</u>	<u>29.5</u>
Total	741	100.0

Sixty-eight percent (68.1%) of the users of the product specified a brand. The top three brands of silicone lubricants named were used by 26.7%, 4.7% and 7.2% of the respondents, respectively.

Q6B: Was the product in aerosol form?

Table I-12: Percent of respondents saying Silicone Lubricant is in aerosol or nonaerosol form (N=751 recent users)

Yes, product is aerosol	79.9%
No, product is nonaerosol	20.1%

The majority of the respondents (79.9%) used a silicone lubricant in aerosol form.

Q7: What size of silicone lubricant did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table I-13: Amount of Silicone Lubricants used in ounces (N=687 recent users)

Mean ounces per year	12.50
Median ounces per year	4.50
Standard deviation	27.85

The average amount of silicone lubricants used per year is 12.50 ounces and the median is 4.50 ounces.

Table I-14: Percentile rankings for amount of Silicone Lubricants used in ounces per year (N=687 recent users)

	Ounces
Minimum	0.02
1%	0.20
5%	0.69
10%	1.00
25%	2.25
Median	4.50
75%	12.00
90%	24.00
95%	41.20
99%	192.00
Maximum	312.00

The minimum amount of product used is 0.02 ounces and the maximum is 312.0 ounces. In the last year, 95% of the respondents used 41.20 ounces or less of the product. The amount used increased sharply at the 99th and 100th percentile to 192.0 and 312.0 ounces respectively.

Q8: Where did you use silicone lubricants the last time you used it?

Table I-15: Location of last use of the product (N=742 recent users)

Basement	4.2%
Living room	4.7%
Other inside room	28.2%
Several inside rooms	3.3%
Garage	14.0%
Outside	37.5%
Garage & outside	8.1%
Total	<hr/> 100.0%

The majority of the respondents (37.5%) used the product outside. The room where the product is used most indoors is the "other inside room" by 28.2% of the respondents. 14% of the respondents used the product in the garage.

Table I-16: Protective measures undertaken while using Silicone Lubricants

	Yes	No
1. Door or window open to the outside (N=404 recent inside users)	52.0%	48.0%
2. Exhaust fan on during use (N=402 recent inside users)	8.2%	91.8%
3. Whether inside door to room was open (N=394 recent inside users)	70.8%	29.2%
4. Whether directions on label were read (N=741 all recent users)	60.6%	39.4%

Sixty-one percent (60.6%) of the respondents had read the label. Approximately half the number of respondents (52.0%) had a door or window open to the outside. The majority of the respondents had an exhaust fan off (91.8%) and an inside door to the room open (70.8%).

Table I-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table I-17: Ounces per use of Silicone Lubricants (N=682 recent users)

Mean # of ounces per use	3.26
Median # of ounces per use	1.13
Standard deviation	8.23

The average amount of silicone lubricant used per use of the product is 3.26 ounces and the median is 1.13 ounces. Table I-18 which follows presents the percentile rankings for this variable. The ounces used per use of the product range from a minimum of 0.01 ounces to a maximum of 90.0 ounces. Ninety-five percent of the respondents used 11.21 ounces or less of the product per use.

Table I-18: Percentile rankings of ounces per use of
Silicone Lubricants (N=682 recent users)

	Ounces/Use
Minimum	0.01
1%	0.05
5%	0.16
10%	0.23
25%	0.50
Median	1.13
75%	2.83
90%	6.62
95%	11.21
99%	62.17
Maximum	90.00

Table I-19: Respondent characteristics of Silicone
Lubricant users

1. Respondent age (N=756 recent users)	Mean = 45.10 years
2. Respondent gender (N=759 recent users)	Male = 69.7% Female = 30.3%
3. Number of household members (N=754 recent users)	Mean = 3.01 members
4. Number of bedrooms (N=758 recent users)	Mean = 2.99 bedrooms

Table I-19 presents the respondent characteristics of silicone lubricant users. The mean age of these respondents is 45.10 years. The number of male respondents (69.7%) is more than twice the number of female respondents (30.3%). The statistics for the respondent characteristics of silicone lubricant users is approximately the same as those for the total sample of respondents with the exception of respondent gender where the number of male and female respondents is approximately equal for the total sample of respondents.

**OTHER
LUBRICANTS
(EXCLUDING
AUTOMOTIVE)**

J. Product 10: Other Lubricants (excluding automotive)

Q1: Have you ever used other lubricants?

Table J-1: Numbers and % of respondents ever using Other Lubricants

	Numbers	Percent
Yes	1696	34.5
No	<u>3221</u>	<u>65.5</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table J-1 shows that 34.5% of the total respondents have "ever" used other lubricants.

Q2: When was the last time you used another lubricant?

Table J-2: Last time Other Lubricant was used in months (N=1690 users)

Mean # of months	5.10
Median # of months	1.00
Standard deviation	13.37

As Table J-2 shows, the mean number of months since last use of other lubricants is 5.10 months. This is the shortest period of time since last use for any of the 32 products surveyed. The median number of months is 1 month.

The percentile rankings for time since last use are shown below:

Table J-3: Percentile rankings for Other Lubricants
months since last use (N=1690 users)

	Months
Minimum	0.03
1%	0.03
5%	0.03
10%	0.10
25%	0.33
Median	1.00
75%	5.00
90%	12.00
95%	24.00
99%	60.00
Maximum	240.00

Table J-3 shows that the time since last use of the product ranges from a minimum of 0.03 months to a maximum of 240 months. Twenty-five percent of the respondents used the product last less than a month ago. Ninety-nine percent used it 60.0 months (5 years) or less ago. The time since last use increased sharply at the 100th percentile to 240.0 months (20 years).

Q3: How many times have you used other lubricants in the last 12 months?

Table J-4: Number of uses of Other Lubricant within the last 12 months (N=1531 recent users)

Mean # of uses	10.66
Median # of uses	4.00
Standard deviation	25.46

The mean number of uses of other lubricants in the last year is 10.66 times. Of the 1531 respondents who used the product in the last year, 16.3% used it once, 18% used it twice and 13.5% used it thrice. Table J-5 which follows presents the percentile rankings for this variable. Ninety-five percent of the respondents used the product 50 times or less in the last year. The maximum number of times the product is used is 420 times.

Table J-5: Percentile rankings of number of uses of Other Lubricants within the last 12 months (N=1531 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	2.00
Median	4.00
75%	10.00
90%	20.00
95%	50.00
99%	100.00
Maximum	420.00

Q4: How much time did you spend using other lubricants the last time you used it?

Table J-6: Time spent using the Other Lubricants last time used (N=1518 recent users)

Mean # of minutes	8.12
Median # of minutes	2.00
Standard deviation	32.20

The mean and median number of minutes for using other lubricants are relatively low as compared to the time spent using the other products surveyed.

Table J-7: Percentile rankings for time spent using the Other Lubricants last time used (N=1518 recent users)

	Minutes
Minimum	0.02
1%	0.03
5%	0.05
10%	0.08
25%	0.50
Median	2.00
75%	5.00
90%	15.00
95%	30.00
99%	90.00
Maximum	900.00

The minimum time spent using other lubricants is 0.02 minutes and the maximum time spent is 15 hours. Twenty-five percent of the respondents spent less than 1 minute using the product and 95% of the respondents spent half an hour or less using the product.

Q5: How much time did you spend in the room immediately after use the last time you used other lubricants?

Table J-8. Time spent in the room after last use of Other Lubricants (N=1490 recent users)

Mean # minutes in room	47.45
Median # minutes in room	2.00
Standard deviation	127.11

The mean number of minutes spent in the room after last use is 47.45 minutes and the median is 2 minutes. There is a big difference between the mean and median because of the large proportional of respondents who did not spray in the room after the last use of other lubricants. Table J-9 which follows presents the percentile rankings for this variable. It shows that 25% of the respondents did not spend any time in the room after using the product. Ninety-five percent of the respondents spent 240.0 minutes (4 hours) or less in the room. The time spent in the room after use increased sharply at the 100th percentile to 1440.0 minutes (24 hours).

Table J-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in the room but used Other Lubricants (N=1490 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	2.00
75%	30.00
90%	120.00
95%	240.00
99%	485.40
Maximum	1440.00

Table J-10: Percentile rankings for Other Lubricants for time spent in the room after last use including only those who spent time in the room (N=841 users who stayed in room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	2.00
25%	5.00
Median	30.00
75%	120.00
90%	180.00
95%	360.00
99%	720.00
Maximum	1440.00

Table J-10 is similar to Table J-9 except it includes only users who did in fact stay in the room. The mean time spent in the room has increased to 84.10 minutes compared to 47.45 minutes in Table J-8 as respondents spending no time in room after use have been excluded. Ninety-five percent of the respondents spent 360 minutes (6 hours) or less in the room after using the product.

Q6A: Which brand of other lubricants did you use the last time you used it?

Table J-11: Brand distribution for Other Lubricants

Brand category	Frequency	Percent
Top brand	780	50.5
Second highest brand	448	29.0
Third highest brand	34	2.2
Don't Knows and Not Ascertained	134	8.7
All other named brands	<u>149</u>	<u>9.6</u>
Total	1545	100.0

The majority of respondents, 91.3%, specified a brand of other lubricants that they used. The top three brands of other lubricants named were used by 50.5%, 29.0% and 2.2% of the respondents, respectively.

Q6B: Was the product in aerosol form?

Table J-12: Percent of respondents saying Other Lubricants are in aerosol or nonaerosol form (N=1524 recent users)

Yes, product is aerosol	32.5%
No, product is nonaerosol	67.5%

Table J-12 shows that number of respondents using a non-aerosol form of other lubricant is about twice the number of those using an aerosol form of the product.

Q7: What size of other lubricants did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table J-13: Amount of Other Lubricants used in ounces
(N=1407 recent users)

Mean ounces per year	9.93
Median ounces per year	2.25
Standard deviation	44.18

The mean ounces used per year of other lubricants is 9.93 ounces. This is comparatively low compared to the ounces used per year for most of the other products surveyed.

Table J-14: Percentile rankings for amount of Other Lubricants used in ounces per year (N=1407 recent users)

	Ounces
Minimum	0.01
1%	0.18
5%	0.30
10%	0.52
25%	1.00
Median	2.25
75%	8.00
90%	18.00
95%	32.00
99%	128.00
Maximum	1280.00

The range between the minimum and maximum values in Table J-14 is quite substantial with the minimum ounces per year at 0.01 and the maximum ounces per year at 1280.0. Twenty-five percent of the respondents used 1 ounce or less of the product whereas 95.0% of the respondents used 32 ounces or less of the product per year. The amount used increased sharply at the 100th percentile to 1280.0 ounces.

Q8: Where did you use other lubricants the last time you used it?

Table J-15: Location of last use of the product used last time (N=1514 recent users)

Basement	7.5%
Living room	5.9%
Other inside room	34.9%
Several inside rooms	2.6%
Garage	13.5%
Outside	29.6%
Garage & outside	6.0%
Total	<hr/> 100.0%

As Table J-15 shows, most people (29.6%) used other lubricants outside. Approximately the same number (34.9%) used the product in an "other inside room". A total of 13.5% used the product in the garage.

Table J-16. Protective measures undertaken while using
Other Lubricants

	Yes	No
1. Door or window open to the outside (N=968 recent inside users)	42.6%	57.4%
2. Exhaust fan on during use (N=969 recent inside users)	6.4%	93.6%
3. Whether inside door to room was open (N=959 recent inside users)	70.0%	30.0%
4. Whether directions on label were read (N=1508 all recent users)	45.0%	55.0%

Less than half the number of respondents (45.0%) had read the directions on the label. The majority of the users did not have an exhaust fan on during use (93.6%) but had the inside door to the room opened (70.0%). Only 42.6% of the respondents had a door or window open to the outside.

Table J-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table J-17: Ounces per use of Other Lubricants (N=1400 recent users)

Mean # of ounces per use	1.61
Median # of ounces per use	0.55
Standard deviation	6.38

The mean ounces per use of other lubricant is 1.61 which is one of the lowest amounts used when compared to this incidence for other products. Only the product typewriter correction fluid had a lower amount used per use of the product (0.43 ounces). Table J-18 which follows presents the percentile rankings for ounces used per use. Ninety-five percent of the respondents used 5.0 ounces or less of the product per use. At the 100th percentile the amount used per use increased sharply to 192.0 ounces.

Table J-18: Percentile rankings of ounces per use of Other Lubricants (N=1400 recent users)

	Ounces/Use
Minimum	0.01
1%	0.02
5%	0.05
10%	0.10
25%	0.25
Median	0.55
75%	1.33
90%	3.00
95%	5.00
99%	17.98
Maximum	192.00

Table J-19: Respondent characteristics of Other Lubricant users

1. Respondent age (N=1537 recent users)	Mean = 43.98 years
2. Respondent gender (N=1542 recent users)	Male = 61.1% Female = 38.9%
3. Number of household members (N=1534 recent users)	Mean = 3.07 members
4. Number of bedrooms (N=1539 recent users)	Mean = 2.97 bedrooms

Table J-19 presents the respondent characteristics of other lubricant users. The mean age of these respondents is 43.98 years; the number of household members is 3.07 and the number of bedrooms 2.97. A greater number of the respondents is male (61.1%) compared to the number of female respondents (38.9%). The statistics for the respondent characteristics of other lubricant users is approximately the same as the characteristics of the total sample of respondents with the exception of respondent gender where in the case of the total sample of respondents the percentage of male and female respondents is 47.0% and 53.0% respectively.

**SPECIALIZED
ELECTRONIC
CLEANERS
(FOR TV, VCR, RAZOR,
ETC.)**

K. Product 11: Specialized Electronic Cleaners

This product group consists of electronic cleaners for TV's VCRs, cassette players, razors and other electronic equipment.

Q1: Have you ever used specialized electronic cleaners?

Table K-1: Numbers and % of respondents ever using
Specialized Electronic Cleaners

	Numbers	Percent
Yes	645	13.1
No	<u>4272</u>	<u>86.9</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table K-1 shows that 13.1% of the total respondents have "ever" used specialized electronic cleaners. This is a relatively low incidence for a nonautomotive product.

Q2: When was the last time you used specialized electronic products?

Table K-2: Last time Specialized Electronic Cleaners were
used in months (N=642 users)

Mean # of months	7.90
Median # of months	2.00
Standard deviation	18.26

As Table K-2 shows, the mean number of months since last use of specialized electronic cleaners is 7.90 months. This is a fairly short period of time suggesting a relatively frequently used product. The median number of months is 2.0.

The percentile rankings for time since last use are shown below:

Table K-3: Percentile rankings for Specialized Electronic Cleaners -- months since last use (N=642 users)

	Months
Minimum	0.03
1%	0.03
5%	0.03
10%	0.10
25%	0.46
Median	2.00
75%	6.00
90%	24.00
95%	36.00
99%	96.00
Maximum	180.00

Table K-3 shows that 25th percentile users and below used the product less than a month ago. The 75th percentile through the 100th percentile respondents report that they last used the product 6 months ago through 180 months (15 years) ago. The data appears to be subject to rounding which was discussed earlier under aspects of the data (ie. 2, 3, 15 years rather than 2 years 3 months). The data are still usable for indicating the approximate last use.

Q3: How many times have you used specialized electronic cleaners in the last 12 months?

Table K-4: Number of uses of Specialized Electronic Cleaners within the last 12 months (N=550 recent users)

Mean # of uses	13.41
Median # of times	3.00
Standard deviation	38.16

The mean number of uses of the product in the last twelve months among users of the product in the last twelve months, was 13.41 and the median 3.0. Fifty-four percent of these users used the specialized electronic cleaners three times or less in the last twelve months with 24.5% using it once; 20.4% using it twice; and 9.3% using it three times.

Table K-5: Percentile rankings of number of uses of Specialized Electronic Cleaners within the last 12 months (N=550 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	2.00
Median	3.00
75%	10.00
90%	24.00
95%	52.00
99%	224.50
Maximum	400.00

Q4: How much time did you spend using specialized electronic cleaners the last time you used it?

Table K-6: Time spent using the Specialized Electronic Cleaners last time used (N=543 recent users)

Mean # of minutes	9.47
Median # of minutes	2.00
Standard deviation	45.35

The mean and median number of minutes spent using specialized electronic cleaners are relatively low as would be expected for the time spent using this product.

Table K-7: Percentile rankings for time spent using the Specialized Electronic Cleaners last time used (N=543 recent users)

	Minutes
Minimum	0.02
1%	0.03
5%	0.08
10%	0.17
25%	0.50
Median	2.00
75%	5.00
90%	20.00
95%	30.00
99%	93.60
Maximum	900.00

The range in values for the percentile rankings is substantial with a minimum of .02 and a maximum of 900 minutes (15 hours).

Q5: How much time did you spend in the room immediately after use the last time you used specialized electronic cleaners?

Table K-8: Time spent in the room after last use of Specialized Electronic Cleaners (N=533 recent users)

Mean # minutes in room	117.24
Median # minutes in room	60.00
Standard deviation	154.38

The mean number of minutes spent in the room after last use is 117.24 minutes as opposed to the median of sixty minutes. The minutes spent in the room after last use is one of the highest of all the products.

Table K-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room but used Specialized Electronic Cleaners (N=533 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	1.00
25%	10.00
Median	60.00
75%	180.00
90%	300.00
95%	480.00
99%	720.00
Maximum	1440.00

Respondents at the 5th percentile or less did not spend any time in the room after using Specialized Electronic Cleaners. Respondents at the higher percentile rankings spent between two to twenty-four hours.

Table K-10: Percentile rankings for Specialized Electronic Cleaners for time spent in the room after last use including only those who spent time in the room (N=484 recent users)

	Minutes
Minimum	1.00
1%	1.00
5%	2.00
10%	4.00
25%	20.00
Median	60.00
75%	180.00
90%	300.00
95%	480.00
99%	720.00
Maximum	1440.00

Table K-10 is similar to Table K-9 except it includes only users who did in fact stay in the room, therefore, all percentiles have non-zero values.

Q6A: Which brand of specialized electronic cleaners did you use the last time you used it?

Table K-11: Brand distribution for Specialized Electronic Cleaners

Brand category	Frequency	Percent
Top brand	67	12.1
Second highest brand	22	4.0
Third highest brand	13	2.4
Don't Knows and Not Ascertained	251	45.4
All other named brands	<u>200</u>	<u>36.1</u>
Total	553	100.0

About fifty-five percent (54.6%) of the users of the product specified a brand. This is a relatively low percentage. The top three brands of specialized electronic cleaners were used by 12.1%, 4.0% and 2.4% of the users, respectively.

Q6B: Was the product in aerosol form?

Table K-12: Percent of respondents saying Specialized Electronic Cleaners are aerosol (N=541 recent users)

Yes, product is aerosol	34.0%
No, product is nonaerosol	66.0%

Respondents said that the product was aerosol in 34.0% of the cases. Electronic cleaners come in many forms including cassette tapes.

Q7: What size of specialized electronic cleaners did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table K-13: Amount of Specialized Electronic Cleaners used per year in ounces (N=456 recent users)

Mean ounces per year	9.48
Median ounces per year	2.00
Standard deviation	55.26

As might be expected, the mean ounces used per year for specialized electronic cleaners is one of lowest amounts compared to the amount used of other products. Only the categories of typewriter correction fluid, adhesives, and ignition and wire cleaners are as low.

Table K-14: Percentile rankings for amount of Specialized Electronic Cleaners used in ounces per year (N=456 recent users)

	Ounces
Minimum	0.01
1%	0.05
5%	0.13
10%	0.25
25%	0.52
Median	2.00
75%	6.00
90%	12.65
95%	24.00
99%	109.84
Maximum	1024.00

The range between the minimum and maximum values in Table K-14 is quite substantial with minimum ounces per year at .01 and the maximum ounces per year at 1024.0. There is quite a difference between percentile points with the 95th percentile at 24.0 ounces per year and the 99th percentile at 109.84.

Q8: Where did you use specialized electronic cleaners the last time you used them?

Table K-15: Location of last use of the product
(N=539 recent users)

Basement	5.6%
Living room	47.5%
Other inside room	36.0%
Several inside rooms	2.0%
Garage	3.9%
Outside	3.3%
Garage & outside	1.7%
Total	<hr/> 100.0%

Most people (47.5%) used specialized electronic cleaners in the living room and 36.0% used it in an "other inside room". Of the remainder, 5.6% used it in the basement, 3.9% used it in the garage, 3.3% used it in the outside air, and 1.7% used it both in the garage and outside.

Table K-16: Protective measures undertaken while using
Specialized Electronic Cleaners

	Yes	No
1. Door or window open to the Outside (N=511 recent inside users)	32.5%	67.5%
2. Exhaust fan on during use (N=512 recent inside users)	6.4%	93.6%
3. Whether inside door to room was open (N=510 recent inside users)	70.4%	29.6%
4. Whether directions on label were read (N=539 all recent users)	73.8%	26.2%

The majority of the specialized electronic cleaner users did not have a door or window open to the outside (67.5%); did not have an exhaust fan on during use (93.6%); had the inside door to the room opened (70.4%); and had read the directions on the label (73.8%).

Table K-17 covers derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table K-17: Ounces per use of Specialized Electronic
Cleaners (N=452 recent users)

Mean # of ounces per use	1.83
Median # of ounces per use	.50
Standard deviation	5.31

The mean ounces per use is 1.83. The median ounces per use is .50.

Table K-18: Percentile rankings of ounces per use of
Specialized Electronic Cleaners (N=452 recent
users)

	Ounces/Use
Minimum	0.01
1%	0.01
5%	0.02
10%	0.04
25%	0.13
Median	0.50
75%	1.50
90%	3.49
95%	7.50
99%	24.70
Maximum	80.00

The percentile rankings for ounces per use range from a minimum of .01 to a maximum of 80 ounces.

Table K-19: Respondent characteristics of Specialized
Electronic Cleaners users

1. Respondent age (N=553 recent users)	Mean = 37.70 years
2. Respondent gender (N=553 recent users)	Male = 68.9% Female = 31.1%
3. Number of household members (N=551 recent users)	Mean = 3.00 members
4. Number of bedrooms (N=552 recent users)	Mean = 2.90 bedrooms

Table K-19 presents the respondent characteristics of specialized electronic cleaners users. The mean age of these respondents is 37.70 years; 68.9% of the respondents are male; the mean number of household members is 3.00; and the mean number of bedrooms is 2.90. The statistics for the respondent characteristics of specialized electronic cleaners users are similar to the characteristics of the total sample of respondents except they are a little younger and a higher percentage of males used the product (68.9%) compared to the sample for males at large (47.0%).

LATEX PAINT

L. Product 12: Latex Paint

Latex paint is included as a paint product of interest; however, it is not thought to contain methylene chloride or its five substitute chemicals.

Q1: Have you ever used latex paint?

Table L-1: Numbers and % of respondents ever using Latex Paint

	Numbers	Percent
Yes	2717	55.2
No	<u>2201</u>	<u>44.8</u>
Total	4918*	100.0

*2 cases where information was not ascertained

Table L-1 shows that 55.2% of the total respondents have "ever" used latex paint. This incidence of use is second only to contact cements and super glues.

Q2: When was the last time you used latex paint?

Table L-2: Last time Latex Paint was used in months (N=2710 users)

Mean # of months	16.70
Median # of months	8.00
Standard deviation	28.20

As Table L-2 shows, the mean number of months since last use of latex paint is 16.70 months. The median number of months is 8.0.

The percentile rankings for time since last use are shown below:

Table L-3: Percentile rankings for Latex Paint--months since last use (N=2710 users)

	Months
Minimum	0.03
1%	0.03
5%	0.13
10%	0.46
25%	2.00
Median	8.00
75%	24.00
90%	36.00
95%	60.00
99%	144.00
Maximum	300.00

Table L-3 shows that 10th percentile users and below used the product last less than a month ago. The 75th percentile through the 100th percentile respondents report that they last used the product 24 months (2 years) ago through 300 months (25 years) ago.

Q3: How many times have you used latex paint in the last 12 months?

Table L-4: Number of uses of Latex Paint within the last 12 months (N=1794 recent users)

Mean # of uses	3.93
Median # of uses	2.00
Standard deviation	20.81

The mean number of uses of the product in the last twelve months among users of the product in the last twelve months was 3.93 and the median 2.0. Almost seventy-five percent (74.7%) of these users used latex paint three times or less in the last twelve months with 44.6% using it once; 20.1% using it twice; and 10.0% using it three times.

Table L-5: Percentile rankings of number of uses of Latex Paint within the last 12 months (N=1794 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00 ✓
25%	1.00
Median	2.00 ✓
75%	4.00
90%	6.00
95%	10.00 ✓
99%	30.00
Maximum	800.00

Q4: How much time did you spend using latex paint the last time you used it?

Table L-6: Time spent using Latex Paint last time used (N=1769 recent users)

Mean # of minutes	295.08
Median # of minutes	180.00
Standard deviation	476.11

The mean and median number of minutes for using latex paint are the highest of all the products. This might be expected as latex is usually used for large jobs such as painting a room.

Table L-7: Percentile rankings for time spent using Latex Paint last time used (N=1769 recent users)

	Minutes
Minimum	0.02
1%	1.00
5%	22.50
10%	30.00 -
25%	90.00
Median	180.00 -
75%	360.00
90%	480.00 -
95%	810.00
99%	2880.00
Maximum	5760.00

The minimum percentile is .02 and the maximum is 5760 minutes (96 hours).

Q5: How much time did you spend in the room immediately after use the last time you used latex paint?

Table L-8: Time spent in the room after last use of Latex Paint (N=1765 recent users)

Mean # minutes in room	91.38
Median # minutes in room	5.00
Standard deviation	254.61

The mean number of minutes spent in the room after last use is 91.38 minutes as opposed to the median of five minutes.

Table L-9: Percentile Rankings for time spent in the room after last use including those who did not spend any time in room but used Latex Paint (N=1765 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	5.00
75%	60.00
90%	240.00
95%	480.00
99%	1440.00
Maximum	2880.00

Respondents at the 25th percentile or less did not spend any time in the room after using latex paint. Respondents at the higher percentile rankings spent from 60 minutes (1 hour) to 2880 minutes (48 hours).

Table L-10: Percentile rankings for Latex Paint for time spent in the room after last use including only those who spent time in the room (N=1005 recent users who stayed in room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	2.60
25%	10.00
Median	30.00
75%	180.00
90%	480.00
95%	600.00
99%	1440.00
Maximum	2880.00

Table L-10 is similar to Table L-9 except it includes only users who did, in fact, stay in the room. Therefore, all percentiles have non-zero values.

Q6A: Which brand of latex paint did you use the last time you used it?

Table L-11: Brand distribution for Latex Paint

Brand category	Frequency	Percent
Top brand	369	20.5
Second highest brand	168	9.3
Third highest brand	124	6.9
Don't Knows and Not Ascertained	385	21.4
All other named brands	<u>755</u>	<u>41.9</u>
Total	1801	100.0

Seventy-eight percent (78.6%) of latex paint users specified a brand. The top three brands were used by 20.5%, 9.3% and 6.9% of the users, respectively.

Q6B: Was the product in aerosol form?

Table L-12: Percent of respondents saying Latex Paint is aerosol (N=1781 recent users)

Yes, product is aerosol	1.3%
No, product is nonaerosol	98.7%

Respondents said that the product was nonaerosol in 98.7% of the cases.

Q7: What size of latex paint did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table L-13: Amount of Latex Paint used per year in ounces (N=1762 recent users)

Mean ounces per year	371.27
Median ounces per year	256.00
Standard deviation	543.86

As might be expected, the mean ounces per year for latex paint is the highest amount compared to the amount used of other products.

Table L-14: Percentile rankings for amount of Latex Paint used in ounces per year (N=1762 recent users)

	Ounces
Minimum	0.03
1%	4.00
5%	12.92
10%	32.00
25%	64.00
Median	256.00
75%	384.00
90%	857.60
95%	1280.00
99%	2560.00
Maximum	6400.00

The range between the minimum and maximum values in Table L-14 is substantial, with the minimum ounces per year at .03 and the maximum at 6400.0.

Q8: Where did you use latex paint the last time you used it?

Table L-15: Location of last use of the product (N=1770 recent users)

Basement	2.8%
Living room	9.9%
Other inside room	47.6%
Several inside rooms	11.6%
Garage	2.0%
Outside	24.4%
Garage & outside	1.7%
Total	<hr/> 100.0%

Most people (47.6%) used latex paint in an "other inside room" such as the bedroom or den. Of the remainder, 24.4% used it outside; 11.6% used it in several inside rooms; 9.9% used it in the living room; 2.8% used it in the basement; 2.0% used it in the garage; and 1.7% used it both outside and in the garage.

Table L-16: Protective measures undertaken while using Latex Paint

	Yes	No
1. Door or window open to the outside (N=1309 recent inside users)	75.8%	24.2%
2. Exhaust fan on during use (N=1303 recent inside users)	15.6%	84.4%
3. Whether inside door to room was open (N=1303 recent inside users)	84.7%	15.3%
4. Whether directions on label were read (N=1766 all recent users)	64.2%	35.8%

The majority of latex paint users did have a door or window open to the outside (75.8%); did not have an exhaust fan on during use (84.4%); had the inside door to the room opened (84.7%); and had read the directions on the label (64.2%).

Table L-17 is a derived variable, ounces per use, and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table L-17: Ounces per use of Latex Paint (N=1759 recent users)

Mean # of ounces per use	193.00
Median # of ounces per use	128.00
Standard deviation	310.40

Table L-17 indicates that the mean ounces per use is 193.0 and the median is 128.0.

Table L-18: Percentile rankings of ounces per use of Latex Paint (N=1795 recent users)

	Ounces/Use
Minimum	0.02
1%	1.49
5%	5.12
10%	10.67
25%	32.00
Median	128.00
75%	240.00
90%	448.00
95%	704.00
99%	1561.60
Maximum	3840.00

The range of the percentile rankings goes from a minimum of .02 ounces per use to a maximum of 3840.0.

Table L-19: Respondent characteristics of Latex Paint users

1. Respondent age (N=1795 recent users)	Mean = 42.20 years
2. Respondent gender (N=1796 recent users)	Male = 51.3% Female = 48.7%
3. Number of household members (N=1792 recent users)	Mean = 3.20 members
4. Number of bedrooms (N=1796 recent users)	Mean = 3.00 bedrooms

Table L-19 presents the respondent characteristics of latex paint users. The mean age of these respondents is 42.20 years; 51.3% of the respondents are male; the mean number of household members is 3.20; and the mean number of bedrooms is 3.00. The statistics for the respondent characteristics of latex paint users are almost identical to the characteristics of the total sample of respondents.

OIL PAINT

M. Product 13: Oil Paint

Q1: Have you ever used oil paint?

Table M-1: Numbers and % of respondents ever using Oil Paint

	Numbers	Percent
Yes	1471	29.9
No	<u>3447</u>	<u>70.1</u>
Total	4918*	100.0

*2 cases where information was not ascertained

Table M-1 shows that 29.9% of the total respondents have "ever" used oil paint.

Q2: When was the last time you used oil paint?

Table M-2: Last time Oil Paint was used in months (N=1465 users)

Mean # of months	30.40
Median # of months	12.00
Standard deviation	48.20

As Table M-2 shows, the mean number of months since last use of oil paint is 30.40 months. This is the third longest period of time since last use following only spray shoe polish and glass frostings. The median number of months is 12.0.

The percentile rankings for time since last use are shown below:

Table M-3: Percentage rankings for Oil Paint--months since last use (N=1465 users)

	Months
Minimum	0.03
1%	0.03
5%	0.23
10%	0.69
25%	3.00
Median	12.00
75%	36.00
90%	72.00
95%	120.00
99%	240.00
Maximum	480.00

Table M-3 shows that 10th percentile users and below used the product last less than a month ago. The 75th percentile through the 100th percentile respondents report that they last used the product 36 months (3 years) ago through 480 months (40 years) ago. The data appear to be subject to rounding which was discussed earlier under aspects of the data (i.e., 5, 10, 15 years rather than 5 years 3 months). The data is still usable for indicating the approximate last use.

Q3: How many times have you used oil paint in the last 12 months?

Table M-4: Number of uses of Oil Paint within the last 12 months (N=735 recent users)

Mean # of uses	5.66
Median # of uses	1.00
Standard deviation	23.10

The mean number of times using the product in the last twelve months among users of the product in the last twelve months, was 5.7 and the median 1.0. Eighty and five-tenths of these users used the oil paint three times or less in the last twelve months with 50.9% using it once; 20.7% using it twice; and 9.0% using it three times.

Table M-5: Percentile rankings of number of uses of Oil Paint within the last 12 months (N=735 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	1.00
75%	3.00
90%	6.00
95%	12.00
99%	139.20
Maximum	300.00

Q4: How much time did you spend using oil paint the last time you used it?

Table M-6: Time spent using Oil Paint last time used
(N=726 recent users)

Mean # of minutes	194.12
Median # of minutes	120.00
Standard deviation	345.68

The mean and median number of minutes for using oil paint are the second highest only to latex paint.

Table M-7: Percentile rankings for time spent using the Oil Paint last time used (N=726 recent users)

	Minutes
Minimum	0.02
1%	0.51
5%	15.00
10%	30.00
25%	60.00
Median	120.00
75%	240.00
90%	480.00
95%	579.00
99%	1702.80
Maximum	5760.00

The minimum percentile is .02 and the maximum is 5760 minutes (96 hours).

Q5: How much time did you spend in the room immediately after use the last time you used oil paint?

Table M-8: Time spent in the room after last use of Oil Paint (N=724 recent users)

Mean # minutes in room	44.56
Median # minutes in room	0.00
Standard deviation	155.19

The mean number of minutes spent in the room after last use is 44.56 minutes as opposed to the median of zero minutes.

Table M-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room but used Oil Paint (N=724 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	30.00
90%	120.00
95%	240.00
99%	480.00
Maximum	2880.00

Respondents at the 50th percentile or less did not spend any time in the room after using oil paint. Respondents at the higher percentile rankings spent from thirty minutes to 2880 minutes (forty-eight hours).

Table M-10: Percentage Rankings for Oil Paint for time spent in the room after last use including only those who spent time in the room (N=321 recent users who stayed in room)

	Minutes
Minimum	1.00
1%	1.00
5%	2.00
10%	3.00
25%	10.00
Median	30.00
75%	120.00
90%	300.00
95%	480.00
99%	860.40
Maximum	2880.00

Table M-10 is similar to Table M-9 except it includes only users who did in fact stay in the room, therefore, all percentiles have non-zero values.

Q6A: Which brand of oil paint did you use the last time you used it?

Table M-11: Brand distribution for Oil Paint

Brand category	Frequency	Percent
Top brand	69	9.3
Second highest brand	39	5.2
Third highest brand	37	5.0
Don't Knows and Not Ascertained	228	30.6
All other named brands	<u>371</u>	<u>49.9</u>
Total	744	100.0

Sixty-nine percent (69.4%) of the users of the product specified a brand. The top three brands of oil paint were used by 9.3%, 5.2% and 5.0% of the users, respectively.

Q6B: Was the product in aerosol form?

Table M-12: Percent of respondents saying Oil Paint is aerosol (N=727 recent users)

Yes, product is aerosol	3.6%
No, product is nonaerosol	96.4%

Respondents said that the product was aerosol in only 3.6% of the cases.

Q7: What size of oil paint did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table M-13: Amount of Oil Paint used in ounces (N=702 recent users)

Mean ounces per year	168.92
Median ounces per year	64.00
Standard deviation	367.82

As might be expected, the mean ounces used per year for oil paint is one of highest amounts second only to latex paint.

Table M-14: Percentile rankings for amount of Oil paint used in ounces per year (N=702 recent users)

	Ounces
Minimum	0.02
1%	0.33
5%	4.00
10%	8.00
25%	25.20
Median	64.00
75%	148.48
90%	384.00
95%	640.00
99%	1532.16
Maximum	5120.00

The range between the minimum and maximum values in Table M-14 is quite substantial with the minimum ounces per year at .02 and the maximum ounces per year at 5120.0.

Q8: Where did you use oil paint the last time you used it?

Table M-15: Location of last use of the product (N=726 recent users)

Basement	5.9%
Living Room	5.9%
Other inside room	35.4%
Several inside rooms	3.3%
Garage	6.15
Outside	41.35
Garage & outside	2.1%
Total	<u>100.0%</u>

Forty and three-tenths % used oil paint on the outside and 35.4% used it in an "other inside room". Six and one-tenth % used it in the garage; 5.9% used it in the basement and another 5.9% used it in the living room; 3.3% used it in several inside rooms; and 2.1% used it in both the garage and outside.

Table M-16: Protective measures undertaken while using Oil Paint

	Yes	No
1. Door or window open to the outside (N=407 recent inside users)	69.5%	30.5%
2. Exhaust fan on during use (N=403 recent inside users)	16.4%	83.6%
3. Whether inside door to room was open (N=401 recent inside users)	76.8%	23.2%
4. Whether directions on label were read (N=716 all recent users)	68.6%	31.4%

The majority of the oil paint users did have a door or window open to the outside (69.5%); did not have an exhaust fan on during use (83.4%); had the inside door to the room opened (76.8%); and had read the directions on the label (68.6%).

Table M-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table M-17: Ounces per use of Oil Paint (N=698 recent users)

Mean # of ounces per use	107.69
Median # of ounces per use	32.00
Standard deviation	303.35

Table M-18 indicates that the mean ounces per use is 107.69 and the median is 32.0.

Table M-18: Percentile rankings of ounces per use of Oil Paint (N=698 recent users)

	Ounces/Use
Minimum	0.01
1%	0.03
5%	1.32
10%	4.00
25%	12.00
Median	32.00
75%	128.00
90%	256.00
95%	384.00
99%	1281.28
Maximum	5120.00

Table M-19: Respondent characteristics of Oil Paint users

1. Respondent age (N=741 recent users)	Mean = 43.10 years
2. Respondent gender (N=743 recent users)	Male = 56.8% Female = 43.2%
3. Number of household members (N=739 recent users)	Mean = 3.20 members
4. Number of bedrooms (N=742 recent users)	Mean = 3.00 bedrooms

Table M-19 presents the respondent characteristics of oil paint users. The mean age of these respondents is 43.10 years; 56.8% of the respondents are male; the mean number of household members is 3.20; and the mean number of bedrooms is 3.00. The statistics for the respondent characteristics of oil paint users are almost identical to the characteristics of the total sample of respondents except there are slightly more males as users of oil paint (56.8%) compared to 47.0% of males in the sample.

WOOD STAINS, VARNISHES AND FINISHES

N. Product 14: Wood Stains, Varnishes and Finishes

Q1: Have you ever used wood stains, varnishes or finishes?

Table N-1: Numbers and % of respondents ever using
Wood Stains, Varnishes and Finishes

	Numbers	Percent
Yes	2114	43
No	<u>2803</u>	<u>57</u>
Total	4917*	100

*3 cases where information was not ascertained

Table N-1 shows that 43% of the total respondents have "ever" used wood stains, varnishes and finishes. This is a relatively high percentage when compared to this incidence for other products.

Q2: When was the last time you used wood stains, varnishes or finishes?

Table N-2: Last time Wood Stains, Varnishes and Finishes
were used in months (N=2103 users)

Mean # of months	23.20
Median # of months	9.00
Standard deviation	38.91

As Table N-2 shows, the mean number of months wood stains, varnishes and finishes were last used is 23.20 months. The median number of months is 9.0 and this adjusts for any extreme values given as answers to this questions.

The percentile rankings for time since last use are shown below:

Table N-3: Percentile rankings for Wood Stains, Varnishes and Finishes--months since last use (N=2103 users)

	Months
Minimum	0.03
1%	0.03
5%	0.16
10%	0.46
25%	2.00
Median	9.00
75%	24.00
90%	60.00
95%	108.00
99%	180.00
Maximum	360.00

The number of months since the product was last used ranges from a minimum of 0.03 months to a maximum of 360 months (30 years). Ninety-five percent of the respondents last used the product 108 months (9 years) ago or less. From the 75th percentile through the 100th percentile respondents report that they last used the product 24 months ago (2 years) through 360 months (30 years) ago. The data appear to be subject to rounding which was discussed earlier under aspects of the data (i.e., 5, 9, 30 years rather than 5 years 3 months). The data are usable for indicating the approximate last use.

Q3: How many times have you used wood stains, varnishes or finishes in the last 12 months?

Table N-4: Number of uses of Wood Stains, Varnishes and Finishes within the last 12 months (N=1259 recent users)

Mean # of uses	4.21
Median # of uses	2.00
Standard deviation	12.19

The mean number of times the product was used in the last twelve months is 4.21 uses and the median is 2.0 uses. Of the 1,259 respondents who used the product in the last year, 47.6% used it once, 18.3% twice and 9% used it three times. Table N-5 which follows shows the percentile rankings for this variable which range from a minimum of 1 time to a maximum of 250 times. Ninety-five percent of the respondents used the product 12 times or less in the last year.

Table N-5: Percentile rankings of times used the Wood Stains, Varnishes and Finishes within the last 12 months (N=1259 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	4.00
90%	7.00
95%	12.00
99%	50.80
Maximum	250.00

Q4: How much time did you spend using wood stains, varnishes or finishes the last time you used it?

Table N-6: Time spent using the Wood Stains, Varnishes and Finishes last time used (N=1247 recent users)

Mean # of minutes	117.17
Median # of minutes	60.00
Standard deviation	193.05

The mean and median number of minutes for using wood stains, varnishes and finishes is 117.17 and 60 minutes respectively and is relatively high when compared to the time spent using most of the other 32 products surveyed.

Table N-7: Percentile rankings for time spent using Wood Stains, Varnishes and Finishes last time used (N=1247 recent users)

	Minutes
Minimum	0.02
1%	0.74
5%	5.00
10%	10.00
25%	30.00
Median	60.00
75%	120.00
90%	140.00
95%	360.00
99%	720.00
Maximum	280.00

Time spent using the product ranges from a minimum of 0.02 minutes to a maximum of 280 minutes (48 hours). Fifty percent of the respondents used the product for one hour or less. Ninety-nine percent of the respondents spent 720 minutes (12 hours) or less using the product. Time spent increased sharply at the 100th percentile to 280 minutes (48 hours).

Q5: How much time did you spend in the room immediately after use the last time you used wood stains, varnishes or finishes?

Table N-8: Time spent in the room after use of Wood Stains, Varnishes and Finishes (N=1241 recent users)

Mean # minutes in room	48.33
Median # minutes in room	1.00
Standard deviation	156.44

The mean number of minutes spent in the room after use is 48.33 minutes and the median is 1.0 minute.

Table N-9: Percentile rankings for time spent in the room after use of Wood Stains, Varnishes and Finishes including those who did not spend any time in the room (N=1241 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	1.00
75%	30.00
90%	120.00
95%	240.00
99%	694.80
Maximum	2880.00

Respondents at the 25th percentile and below did not spend any time in the room after using wood stains, varnishes or finishes. The maximum time spent in the room after use of the product is 2880 minutes (48 hours) which is the same as the maximum time spent using the product as seen in Table N-7.

Table N-10: Percentile rankings for Wood Stains, Varnishes and Finishes for time spent in the room after use including only those who spent time in the room (N=642 recent users staying in room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	3.00
25%	10.00
Median	30.00
75%	60.00
90%	240.00
95%	480.00
99%	1182.00
Maximum	2880.00

Table N-10 is similar to Table N-9 except it includes only users who did in fact stay in the room after use of the product. A total of 51.7% of the users who used the product in the last year did stay in the room after using the product. The mean time spent in the room after use is 93.40 minutes. This differs from the mean of 48.33 in Table N-8 as respondents who did not spend any time in the room after using the product have been excluded. Fifty percent of the respondents spent 30.0 minutes or less in the room after using the product.

Q6A: Which brand of wood stain, varnish or finish did you use the last time you used it?

Table N-11: Brand distribution for Wood Stains, Varnishes and Finishes

Brand category	Frequency	Percent
Top brand	179	14.1
Second highest brand	115	9.1
Third highest brand	29	2.3
Don't Knows and Not Ascertained	465	36.7
All other named brands	<u>480</u>	<u>37.8</u>
Total	1268	100.0

Sixty-three percent (63.3%) of the users who used the product in the last year specified a brand. The top three brands named were used by 14.1%, 9.1% and 2.3% of the respondents, respectively.

Q6B: Was the product in aerosol form?

Table N-12: Percent of respondents saying the Wood Stains, Varnishes and Finishes are in aerosol or non-aerosol form (N=1252 recent users)

Yes, product is aerosol	7.5%
No, product is nonaerosol	92.5%

The majority of the respondents (92.5%) used a wood stain, varnish or finish which was in nonaerosol form.

Q7: What size of wood stains, varnishes or finishes did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table N-13: Amount of Wood Stains, Varnishes and Finishes used in ounces (N=1221 recent users)

Mean ounces per year	65.06
Median ounces per year	16.00
Standard deviation	174.01

The mean ounces of the product used is 65.06 ounces and the median is 16.0. There is a big difference between the two statistics. This is because of a few extreme responses. The median adjusts for these extreme responses.

Table N-14: Percentile rankings for amount of Wood Stains, Varnishes and Finishes used in ounces (N=1221 recent users)

	Ounces
Minimum	0.12
1%	1.09
5%	4.00
10%	4.00
25%	8.00
Median	16.00
75%	64.00
90%	128.00
95%	256.00
99%	768.00
Maximum	3840.00

The range between the minimum and maximum values in Table N-14 is quite substantial with the minimum ounces per year at 0.12 and the maximum ounces per year at 3,840.0. Ninety-five percent of the respondents used 256.0 ounces or less of the product during the year. This amount tripled at the 99th percentile. The ounces used at the 100th percentile is five times that at the 99th percentile and shows that a few of the respondents used a very large amount of the product.

Q8: Where did you use wood stains, varnishes and finishes the last time you used it?

Table N-15: Location of where product used last time
(N=1247 recent users)

Basement	12.1%
Living room	7.8%
Other inside room	29.1%
Several inside rooms	3.2%
Garage	13.9%
Outside	31.8%
Garage & outside	2.1%
Total	<hr/> 100.0%

The majority of the respondents, approximately 31.8%, used the product outside. A total of 29.1% used the product in an "other inside room", 13.9% used it in the garage, and 12.1% used it in the basement.

Table N-16: Protective measures undertaken while using
Wood Stains, Varnishes and Finishes

	Yes	No
1. Door or window open to the outside (N=822 recent inside users)	64.2%	35.8%
2. Exhaust fan on during use (N=819 recent inside users)	14.8%	85.2%
3. Whether inside door to room was open (N=810 recent inside users)	74.3%	25.7%
4. Whether directions on label were read (N=1238 all recent users)	76.7%	23.3%

The majority of the users of wood stains, varnishes or finishes did read the directions on the label (76.7%). A total of 64.2% did have a door or window open to the outside, 14.8% did have an exhaust fan on during use and 74.3% had the inside door to the room open.

Table N-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table N-17: Ounces per use of Wood Stains, Varnishes and
Finishes (N=1217 recent users)

Mean # of ounces per use	33.72
Median # of ounces per use	12.00
Standard deviation	78.51

The mean ounces used per use of the product is 33.72 and the median is 12.0. Table N-18 which follows shows the percentile rankings for this variable and shows the ounces used per use ranges from a minimum of 0.02 ounces to a maximum of 960.0 ounces. Ninety-five percent of the users used 128.0 ounces or less of the product per use.

Table N-18: Percentile rankings of ounces per use of Wood Stains, Varnishes and Finishes (N=1217 recent users)

	Ounces/Use
Minimum	0.02
1%	0.16
5%	1.00
10%	2.00
25%	4.00
Median	12.00
75%	32.00
90%	64.00
95%	128.00
99%	384.00
Maximum	960.00

Table N-19: Respondent characteristics of Wood Stains, Varnishes and Finishes users

1. Respondent age (N=1267 recent users)	Mean = 41.14 years
2. Respondent gender (N=1268 recent users)	Male = 51.1% Female = 48.9%
3. Number of household members (N=1265 recent users)	Mean = 3.20 members
4. Number of bedrooms (N=1267 recent users)	Mean = 3.04 bedrooms

Table N-19 presents the respondent characteristics of wood stains, varnishes and finishes users. The mean age of these respondents is 41.14 years. The number of male respondents (51.1%) is approximately equal to the number of female respondents (48.9%). The statistics for the respondent characteristics of wood stains, varnishes and finishes users is approximately the same as the characteristics of the total sample of respondents.

PAINT REMOVERS/ STRIPPERS

O. Product 15: Paint Removers/Strippers

Q1: Have you ever used paint removers/stripers?

Table O-1: Numbers and % of respondents ever using
Paint Removers/Strippers

	Numbers	Percent
Yes	1498	30.5
No	<u>3418</u>	<u>69.5</u>
Total	4916*	100.0

*4 cases where information was not ascertained

Table O-1 shows that 30.5% of the total respondents have "ever" used paint removers/stripers. This is a slightly higher incidence than the average incidence for all products.

Q2: When was the last time you used paint removers/stripers?

Table O-2: Last time Paint Removers/Strippers was used
in months (N=1493 users)

Mean # of months	29.00
Median # of months	12.00
Standard deviation	43.69

As Table O-2 shows, the mean number of months paint removers/stripers were last used is 29.0 months. This is the fourth longest period of time since last use for any of the thirty-two products. This may reflect that the activity of removing paint is not engaged in frequently. The median number of months is 12.0.

The percentile rankings for time since last use are shown below:

Table O-3: Percentile rankings for Paint Removers/Strippers--months since last use (N=1493 users)

	Months
Minimum	0.03
1%	0.03
5%	0.23
10%	0.69
25%	4.00
Median	12.00
75%	36.00
90%	72.00
95%	120.00
99%	240.00
Maximum	420.00

Table O-3 shows that 10th percentile users and below last used the product less than a month ago. The 75th percentile through the 100th percentile respondents report that they last used the product 36 months (3 years) ago through 420 months (35 years) ago and appears to be subject to rounding which was discussed earlier under aspects of the data (i.e. 5, 10, 15 years rather than 5 years 3 months). The data are still usable for indicating the approximate last use.

Q3: How many times have you used paint removers/strippers in the last 12 months?

Table O-4: Number of uses of Paint Removers/Strippers within the last 12 months (N=761 recent users)

Mean # of uses	3.68
Median # of uses	2.00
Standard deviation	9.10

The mean number of uses of the product in the last twelve months, was 3.68 and the median is 2.0 uses. Almost 77% of these users used the paint removers/strippers three times or less in the last twelve months with 49.3% using it once; 18.4% using it twice; and 9.5% using it three times.

Table O-5: Percentile rankings of times used Paint Removers/Strippers within the last 12 months (N=761 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	4.00
Median	2.00
75%	3.00
90%	6.00
95%	11.80
99%	44.56
Maximum	100.00

Q4: How much time did you spend using paint
removers/strippers the last time you used it?

Table O-6: Time spent using Paint Removers/Strippers
last time used (N=752 recent users)

Mean # of minutes	125.57
Median # of minutes	60.00
Standard deviation	286.59

The mean and median number of minutes using for using paint
removers/strippers are relatively high as would be expected for
the time spent using a paint remover usually involves large jobs.

Table O-7: Percentile rankings for time spent using the
Paint Removers/Strippers last time used (N=752
recent users)

	Minutes
Minimum	0.02
1%	0.38
5%	5.00
10%	5.00
25%	20.00
Median	60.00
75%	120.00
90%	240.00
95%	420.00
99%	1200.00
Maximum	4320.00

The minimum percentile is .02 and the maximum is 4320.0
minutes (72 hours).

Q5: How much time did you spend in the room immediately after use the last time you used removers/strippers?

Table O-8: Time spent in the room after use of Paint Removers/Strippers (N=748 recent users)

Mean # minutes in room	31.38
Median # minutes in room	0.00
Standard deviation	103.07

The mean number of minutes spent in the room after use is 31.38 minutes as opposed to the median of zero indicating that no time was spent in the room after use.

Table O-9: Percentile rankings for time spent in the room after use including those who did not spend any time in room but used Paint Removers/Strippers (N=748 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	20.00
90%	60.00
95%	180.00
99%	541.20
Maximum	1440.00

Respondents at the 50th percentile or less did not spend any time in the room after using paint removers/strippers. Respondents at the higher percentile rankings spent between 20 minutes to 1440 minutes (24 hours).

Table O-10: Percentile rankings for Paint Removers/Strippers for time spent in the room after use including only those who spent time in the room (N=340 recent users staying in the room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	3.10
25%	10.00
Median	30.00
75%	60.00
90%	180.00
95%	240.00
99%	826.20
Maximum	1440.00

Table O-10 is similar to Table O-9 except it includes only users who did in fact stay in the room, therefore, all percentiles have values.

Q6A: Which brand of paint removers/strippers did you use the last time you used it?

Table O-11: Brand distribution for Paint Removers/Strippers

Brand category	Frequency	Percent
Top brand	98	12.7
Second highest brand	46	6.0
Third highest brand	44	5.7
Don't Knows and Not Ascertained	321	41.7
All other named brands	<u>260</u>	<u>33.9</u>
Total	769	100.0

Fifty-eight percent (58.3%) of the users of the product specified a brand. The top three brands of paint removers/strippers were used by 12.7%, 6.0%, and 5.7% of the users, respectively.

Q6B: Was the product in aerosol form?

Table O-12: Percent of respondents saying Paint Removers/Strippers are aerosol (N=752 recent users)

Yes, product is aerosol	6.8%
No, product is nonaerosol	93.2%

Respondents said that the product was aerosol in only 6.8% of the cases.

Q7: What size of paint removers/strippers did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table O-13: Amount of Paint Removers/Strippers used per year in ounces (N=737 recent users)

Mean ounces per year	63.73
Median ounces per year	32.00
Standard deviation	144.33

As might be expected, the mean ounces used per year for paint removers/strippers is one of the highest amounts similar to the other products.

Table O-14: Percentile rankings for amount of Paint Removers/Strippers used in ounces (N=737 recent users)

	Ounces
Minimum	0.64
1%	1.50
5%	4.00
10%	8.00
25%	16.00
Median	32.00
75%	64.00
90%	128.00
95%	256.00
99%	512.00
Maximum	2560.00

The range between the minimum and maximum values in Table O-14 is substantial with a minimum ounces per year at .64 and the maximum ounces per year at 2560.0

Q8: Where did you use paint removers/strippers the last time you used them?

Table O-15: Location of where product used last time
(N=754 recent users)

Basement	11.0%
Living room	3.2%
Other inside room	23.6%
Several inside rooms	1.6%
Garage	18.7%
Outside	38.5%
Garage & outside	3.4%
Total	<hr/> 100.0%

Most people (38.5%) used paint removers/strippers on the outside and 23.6% used it in an "other inside room" such as the bedroom or den. The remainder used it in the garage (18.7%); in the basement (11.0%); in both the garage and outside (3.4%); in the living room (3.2%); and in several inside rooms (1.6%).

Table O-16: Protective measures undertaken while using Paint Removers/Strippers

	Yes	No
1. Door or window open to the outside (N=433 recent inside users)	70.7%	29.3%
2. Exhaust fan on during use (N=429 recent inside users)	15.6%	84.4%
3. Whether inside door to room was open (N=424 recent inside users)	68.6%	31.4%
4. Whether directions on label were read (N=748 all recent users)	79.5%	20.5%

The majority of the users did have a door or window open to the outside (70.7%); did not have an exhaust fan on during use (84.4%); had the inside door to the room opened (68.6%); and had read the directions on the label (79.5%). Paint remover/strippers users have one of the highest percentages of respondents who kept a door or window opened to the outside.

Table O-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table O-17: Ounces per use of Paint Removers/Strippers (N=735 recent users)

Mean # of ounces per use	29.84
Median # of ounces per use	16.00
Standard deviation	50.28

The mean number of ounces used per use is 29.8 and the median is 16.0.

Table O-18 indicates that there is a substantial range from a minimum of .23 to a maximum of 512.0 ounces per use.

Table O-18: Percentile rankings of ounces per use of Paint Removers/Strippers (N=735 recent users)

	Ounces/Use
Minimum	0.23
1%	0.65
5%	1.60
10%	2.67
25%	7.15
Median	16.00
75%	32.00
90%	64.00
95%	128.00
99%	256.00
Maximum	512.00

Table O-19: Respondent characteristics of Paint Removers/Strippers

1. Respondent age (N=768 recent users)	Mean = 40.20 years
2. Respondent gender (N=767 recent users)	Male = 51.9% Female = 48.1%
3. Number of household members (N=766 recent users)	Mean = 3.10 members
4. Number of bedrooms (N=768 recent users)	Mean = 3.00 bedrooms

Table O-19 presents the respondent characteristics of paint removers/strippers users. The mean age of these respondents is 40.20 years; 51.9% of the respondents are male; the mean number of household members is 3.10; and the mean number of bedrooms is 3.00. The statistics for the respondent characteristics of paint remover/strippers users is almost identical to the characteristics of the total sample of respondents except the population is slightly younger and slightly more users are male.

PAINT THINNERS

P. Product 16: Paint Thinners

Q1: Have you ever used paint thinners?

Table P-1: Numbers and % of respondents ever using
Paint Thinners

	Numbers	Percent
Yes	1755	35.7
No	<u>3162</u>	<u>64.3</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table P-1 shows that 35.7% of the total respondents have "ever" used paint thinners. This is a relatively high percentage when compared to this incidence for other products.

Q2: When was the last time you used paint thinners?

Table P-2: Last time Paint Thinners were used in months
(N=1747 users)

Mean # of months	21.50
Median # of months	7.00
Standard deviation	38.89

As Table P-2 shows, the mean number of months since last use of paint thinners is 21.50 months. The median number of months is 7.0.

The percentile rankings for time since last use are shown below:

Table P-3: Percentile rankings for Paint Thinners--months since last use (N=1747 users)

	Months
Minimum	0.03
1%	0.03
5%	0.10
10%	0.23
25%	1.00
Median	7.00
75%	24.00
90%	60.00
95%	96.00
99%	240.00
Maximum	360.00

Table P-3 shows that 10th percentile users and below last used the product less than a month ago. The 75th percentile through the 100th percentile respondents report that they last used the product 24 months (2 years) ago through 360 months (30 years) ago. The data appear to be subject to rounding which was discussed earlier under aspects of the data (i.e. 5, 10, 15 years rather than 5 years 3 months). The data is still usable for indicating the approximate last use.

Q3: How many times have you used paint thinners in the last 12 months?

Table P-4: Number of uses of Paint Thinners within the last 12 months (N=1104 recent users)

Mean # of times	6.78
Median # of times	2.00
Standard deviation	22.10

The mean number of uses of the product in the last twelve months among users of the product in the last twelve months was 6.8 and the median 2.0. Almost 68% of these users used the paint thinners three times or less in the last twelve months with 37.4% using it once; 19.7% using it twice; and 10.7% using it three times.

Table P-5: Percentile rankings of number of uses of Paint Thinners within the last 12 months (N=1104 recent users)

	Uses
Minimum	.03
1%	.03
5%	.10
10%	.23
25%	1.00
Median	2.00
75%	4.00
90%	12.00
95%	23.00
99%	100.00
Maximum	352.00

Q4: How much time did you spend using paint thinners the last time you used it?

Table P-6: Time spent using the Paint Thinners last time used (N=1087 recent users)

Mean # of minutes	39.43
Median # of minutes	10.00
Standard deviation	114.85

The mean number of minutes is 39.43 and median number of minutes for using paint thinners is 10.0.

Table P-7: Percentile rankings for time spent using the Paint Thinners last time used (N=1087 recent users)

	Minutes
Minimum	0.02
1%	0.08
5%	1.00
10%	2.00
25%	5.00
Median	10.00
75%	30.00
90%	60.00
95%	180.00
99%	480.00
Maximum	2400.00

The minimum percentile is .02 and the maximum is 2400 minutes (40 hours).

Q5: How much time did you spend in the room immediately after use the last time you used paint thinners?

Table P-8: Time spent in the room after last use of Paint Thinners (N=1079 recent users)

Mean # minutes in room	32.86
Median # minutes in room	0.00
Standard deviation	105.62

The mean number of minutes spent in the room after last use is 32.86 minutes as opposed to the median of zero where no time was spent in the room after use.

Table P-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room but used Paint Thinners (N=1079 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	15.00
90%	60.00
95%	180.00
99%	480.00
Maximum	1440.00

Respondents at the 50th percentile or less did not spend any time in the room after using paint thinners. Respondents at the higher percentile rankings spent from 15 minutes to 1440 minutes (24 hours).

Table P-10: Percentile rankings for Paint Thinners for time spent in the room after last use including only those who spent time in the room (N=486 recent users who stayed in room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	2.00
25%	5.00
Median	20.00
75%	60.00
90%	180.00
95%	360.00
99%	720.00
Maximum	1440.00

Table P-10 is similar to Table P-9 except it includes only users who did in fact stay in the room, therefore, all percentiles have values.

Q6A: Which brand of paint thinners did you use the last time you used it?

Table P-11: Brand distribution for Paint Thinners

Brand category	Frequency	Percent
Top brand	70	6.3
Second highest brand	36	3.2
Third highest brand	22	2.0
Don't Knows and Not Ascertained	646	58.0
All other named brands	<u>339</u>	<u>30.5</u>
Total	1113	100.0

Forty-two percent (42.0%) of the users of the product specified a brand. The top three brands of paint thinners were used by 6.3%, 3.2% and 2.0% of the users, respectively.

Q6B: Was the product in aerosol form?

Table P-12: Percent of respondents saying Paint Thinners are aerosol (N=1090 recent users)

Yes, product is aerosol	2.5%
No, product is nonaerosol	97.5%

Essentially most paint thinners come in nonaerosol form. 97.5% were nonaerosol.

Q7: What size of paint thinner did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table P-13. Amount of Paint Thinner used per year in ounces (N=1053 recent users)

Mean ounces per year	69.45
Median ounces per year	20.50
Standard deviation	190.55

Paint thinners are one of the highest ounces per year used at 69.45. Only the categories of latex paint, oil paint, outdoor water repellent, and auto primers are higher.

Table P-14: Percentile rankings for amount of Paint Thinners used in ounces (N=1053 recent users)

	Ounces
Minimum	0.03
1%	0.45
5%	3.10
10%	4.00
25%	8.00
Median	20.48
75%	64.00
90%	128.00
95%	256.00
99%	640.00
Maximum	3200.00

The range between the minimum and maximum values in Table P-14 is quite substantial with the minimum ounces per year at .03 and the maximum ounces per year at 3200.0.

Q8: Where did you use paint thinners the last time you used them?

Table P-15: Location of where product used last time
(N=1087 recent users)

Basement	13.4%
Living room	2.8%
Other inside room	19.6%
Several inside rooms	1.7%
Garage	19.4%
Outside	39.9%
Garage & outside	3.1%
Total	<hr/> 100.0%

Most people (39.9%) used paint thinners outside; 19.6% used it in another inside room; 19.4% used it in the garage; 13.4% used it in the basement; 3.1% used it in the garage and outside; 2.8% used it in the living room; and 1.7% used it in several inside rooms.

Table P-16: Protective measures undertaken while using Paint Thinners

	Yes	No
1. Door or window open to the outside (N=614 recent inside users)	67.3%	32.7%
2. Exhaust fan on during use (N=612 recent inside users)	10.5%	89.5%
3. Whether inside door to room was open (N=599 recent inside users)	67.8%	32.2%
4. Whether directions on label were read (N=1071 all recent users)	59.4%	40.6%

The majority of users of paint thinners did have a door or window open to the outside (67.3%); did not have an exhaust fan on during use (89.5%); had the inside door to the room opened (67.8%); and had read the directions on the label (59.4%).

Table P-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table P-17: Ounces per use of Paint Thinners (N=1050 recent users)

Mean # of ounces per use	23.67
Median # of ounces per use	9.40
Standard deviation	52.35

Table P-17 indicates that the mean ounces per use is 23.67 and the median is 9.40.

Table P-18: Percentile rankings of ounces per use of
Paint Thinners (N=1050 recent users)

	Ounces/Use
Minimum	0.03
1%	0.10
5%	0.66
10%	1.33
25%	4.00
Median	9.37
75%	21.33
90%	64.00
95%	96.00
99%	223.36
Maximum	1024.00

The percentiles range from a minimum of .03 ounces per use to a maximum of 1024.0 ounces per use.

Table P-19: Respondent characteristics of Paint Thinner users

1. Respondent age (N=1108 recent users)	Mean = 42.50 years
2. Respondent gender (N=1110 recent users)	Male = 61.3% Female = 38.7%
3. Number of household members (N=1106 recent users)	Mean = 3.10 members
4. Number of bedrooms (N=1109 recent users)	Mean = 3.00 bedrooms

Table P-19 presents the respondent characteristics of paint thinner users. The mean age of these respondents is 42.50 years; 61.3% of the respondents are male; the mean number of household members is 3.10; and the mean number of bedrooms is 3.00. The statistics for the respondent characteristics of paint thinner users are almost identical to the characteristics of the total sample of respondents except the respondents are slightly younger and there are more male users 61.3% compared to 47.0% for the sample as a whole.

AEROSOL SPRAY PAINT

WHAT WE KNOW ABOUT AEROSOL SPRAY PAINT USAGE

FREQUENCY AND DURATION OF USE -												Based on		
	Minimum	1%	5%	10%	25%	Median	75%	90%	95%	99%	Maximum	Mean	s.d.	N =
MONTHS SINCE LAST USE	0.03	0.03	0.10	0.23	1.00	6.00	18.00	48.00	72.00	180.00	240.00	17.20	31.10	1737
USE WITHIN THE LAST 12 MONTHS	1.00	1.00	1.00	1.00	1.00	2.00	4.00	6.10	12.00	31.05	365.00	4.22	15.59	1178
TIME SPENT DURING LAST USE (minutes)	0.02	0.17	2.00	5.00	10.00	20.00	45.00	60.00	120.00	300.00	1800.00	39.54	87.79	1737
TIME SPENT IN ROOM AFTER LAST USE (minutes)	0.00	0.00	0.00	0.00	0.00	0.00	1.00	30.00	60.00	260.50	1440.00	12.70	62.80	1158
	1.00	1.00	1.00	2.00	5.00	15.00	60.00	120.00	222.00	480.00	1440.00			305
AMOUNT OF SPRAY PAINT USED PER YEAR (ozs)	0.02	0.75	2.01	3.25	7.00	13.00	32.00	65.00	104.00	240.00	1053.00	30.75	52.84	1121
AMOUNT OF PAINT USED PER APPLICATION (ozs)	0.01	0.19	0.80	1.50	3.50	8.00	16.00	26.00	39.00	96.00	526.50	13.80	24.40	1118

LOCATION OF USE (N = 1160) -			SUMMARY DATA FOR SPRAY PAINT COMPONENTS -			
	%		CONCENTRATION RANGE		NO. PRODUCTS	
BASEMENT	7.3		CHEMICAL NAME	(% by weight)		
LIVING ROOM	0.8		ACETONE	0.1	100	91
OTHER INSIDE ROOM	9.2		METHYL ETHYL KETONE	0.3	54	78
SEVERAL INSIDE ROOMS	0.5		CYCLOHEXANE	0.1	1.2	13
GARAGE	15.8		ETHYLBENZENE	0.1	22.6	85
OUTSIDE	64.1		HEXANE	0.3	30	14
GARAGE & OUTSIDE	2.3		METHYL CYCLOHEXANE	0.1	10	38
			METHYL CYCLOPENTANE	0.1	2.9	14
			METHYLENE CHLORIDE	0.1	100	134
			METHYLISOBUTYL KETONE	0.1	31	24
			OCTANE	0.1	3.2	32
			alpha-PINENE	0.2	-	1
			PROPYLENE OXIDE	0.1	0.6	15
			TETRACHLOROETHYLENE	0.1	0.2	2
			TETRAHYDROFURAN	0.1	-	1
			TOLUENE	0.1	100	163
			1,1,1-TRICHLOROETHANE	0.2	1	6
			1,1,2-TRICHLOROETHANE	0.3	-	1
			TRICHLOROETHYLENE	0.3	-	1
			m-XYLENE	0.1	45	54
			o,p-XYLENE	0.1	28	48

PROTECTIVE MEASURES -		
	%	N =
DOOR OR WINDOW OPEN TO THE OUTSIDE	62.9	385
EXHAUST FAN ON DURING USE	9.9	382
INSIDE DOOR TO ROOM WAS OPEN	61.1	375
DIRECTIONS ON LABEL WAS READ	73.2	1138

USER CHARACTERISTICS -		
		N =
AGE (mean years)	41.8	1189
GENDER (%) MALE	54.2	1189
FEMALE	45.8	1189
NUMBER OF HOUSEHOLD MEMBERS (mean)	3.1	1178
NUMBER OF BEDROOMS (mean)	3	1188

Q. Product 17: Aerosol Spray Paint (nonautomotive)

Q1: Have you ever used aerosol spray paint?

Table Q-1: Numbers and % of respondents ever using Aerosol Spray Paint

	Numbers	Percent
Yes	1743	35.4
No	<u>3174</u>	<u>64.6</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table Q-1 shows that 35.4% of the total respondents have "ever" used aerosol spray paint. This is a relatively high percentage with only six products having a higher incidence.

Q2: When was the last time you used aerosol spray paint?

Table Q-2: Last time Aerosol Spray Paint was used in months (N=1737 users)

Mean # of months	17.20
Median # of months	6.00
Standard deviation	31.10

As Table Q-2 shows, the mean number of months since last use of aerosol spray paint is 17.20 months. This is about an average period of time since last use for any of the thirty-two products. The median number of months is 6.0.

The percentile rankings for time since last use are shown below:

Table Q-3: Percentile rankings for Aerosol Spray Paint-- months since last use (N=1737 users)

	Months
Minimum	0.03
1%	0.03
5%	.10
10%	.23
25%	1.00
Median	6.00
75%	18.00
90%	48.00
95%	72.00
99%	180.00
Maximum	240.00

Table Q-3 shows that 10th percentile users and below last used the product less than a month ago. The 75th percentile through the 100th percentile respondents report that they last used the product 18 months ago through 240 months (20 years) ago. This appears to be subject to rounding which was discussed earlier under aspects of the data (i.e., 5, 10, 15 years rather than 5 years 3 months). The data are still usable for indicating the approximate last use.

Q3: How many times have you used aerosol spray paint in the last 12 months?

Table Q-4: Number of uses of Aerosol Spray Paint within the last 12 months (N=1178 recent users)

Mean # of times	4.22
Median # of times	2.00
Standard deviation	15.59

The mean number of times using the product in the last twelve months among users of the product in the last twelve months, was 4.22 and the median 2.0. A total of 74.6% of these users used aerosol spray paint three times or less in the last twelve months with 43.8% using it once; 20.5% using it twice; and 10.4% using it three times.

Table Q-5: Percentile rankings of number of uses of Aerosol Spray Paint within the last 12 months (N=1178 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	4.00
90%	6.10
95%	12.00
99%	31.05
Maximum	365.00

Q4: How much time did you spend using aerosol spray paint the last time you used it?

Table Q-6: Time spent using Aerosol Spray Paint last time used

Mean # of minutes	39.54
Mean # of minutes	20.00
Standard deviation	87.79

The mean number of minutes for using aerosol spray paint is 39.54 minutes and the median is 20.0.

Table Q-7: Percentile rankings for time spent using the aerosol spray paint last time used

	Minutes
Minimum	.02
1%	0.17
5%	2.00
10%	5.00
25%	10.00
Median	20.00
75%	45.00
90%	60.00
95%	120.00
99%	300.00
Maximum	1800.00

The minimum percentile is .02 and the maximum percentile is 1800.0 minutes (30 hours). Respondents appear to be giving the total time the job took rather than the amount for the last occasion.

Q5: How much time did you spend in the room immediately after use the last time you used aerosol spray paint?

Table Q-8: Time spent in the room after last use of Aerosol Spray Paint (N=1158 recent users)

Mean # minutes in room	12.70
Mean # minutes in room	0.00
Standard deviation	62.80

The mean number of minutes spent in the room after last use is 12.70 minutes as opposed to the median of zero minutes.

Table Q-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room but used Aerosol Spray Paint (N=1158 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	1.00
90%	30.00
95%	60.00
99%	260.50
Maximum	1440.00

Respondents at the 50th percentile or less did not spend any time in the room after using aerosol spray paint. Respondents at the higher percentile rankings spent from 1 minute to 1440.0 minutes (24 hours).

Table Q-10: Percentile rankings for aerosol spray paint for time spent in the room after last use including only those who spent time in the room (N=305 recent users who stayed in room afterwards)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	2.00
25%	5.00
Median	15.00
75%	60.00
90%	120.00
95%	222.00
99%	480.00
Maximum	1440.00

Table Q-10 is similar to Table Q-9 except it includes only users who did in fact stay in the room, therefore, all percentiles have values.

Q6A: Which brand of aerosol spray paint did you use the last time you used it?

Table Q-11: Brand distribution for Aerosol Spray Paint

Brand category	Frequency	Percent
Top brand	269	22.6
Second highest brand	152	12.8
Third highest brand	37	.1
Don't Knows and Not Ascertained	439	36.9
All other named brands	<u>293</u>	<u>27.6</u>
Total	1190	100.0

Sixty-three percent (63.1%) of the users of the product specified a brand. The top three brands of aerosol spray paint were used by 22.6%, 12.8% and 3.1% of the users, respectively.

Q6B: Was the product in aerosol form?

Table Q-12: Percent of respondents saying Aerosol Spray Paint is aerosol (N=1164 recent users)

Yes, product is aerosol	99.2%
No, product is nonaerosol	0.8%

The product was aerosol spray paint so all items should be aerosol. Respondents said that the product was aerosol in 99.2% of the cases. The 0.8% saying it was nonaerosol either forgot to check the box indicating it was aerosol or perhaps used a spray pump and thought this was to be included.

Q7: What size of aerosol spray paint did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table Q-13: Amount of Aerosol Spray Paint used in ounces (N=1121 recent users)

Mean ounces per year	30.75
Median ounces per year	13.00
Standard deviation	52.84

The mean number of ounces user per year is 30.75 and the median is 13.0.

Table Q-14: Percentile rankings for amount of Aerosol Spray Paint used in ounces (N=1121 recent users)

	Ounces
Minimum	0.02
1%	0.75
5%	2.01
10%	3.25
25%	7.00
Median	13.00
75%	32.00
90%	65.00
95%	104.00
99%	240.00
Maximum	1053.00

The range between the minimum and maximum values in Table Q-14 is quite substantial with the minimum ounces per year at .02 and the maximum ounces per year at 1053.0.

Q8: Where did you use Aerosol Spray Paint the last time you used it?

Table Q-15: Location of where product used last time
(N=1160 recent users)

Basement	7.3%
Living room	0.8%
Other inside room	9.2%
Several inside rooms	0.5%
Garage	15.8%
Outside	64.1%
Garage & Outside	2.3%
<hr/>	
Total	100.0%

Most people (64.1%) used aerosol spray paint in the outside air. Of the remainder, 15.8% used it in the garage; 9.2% used it in another inside room; 7.3% used it in the basement; 2.3% used it both in the garage and in the outside; .8% used it in the living room; and 5% used it in several inside rooms.

Table Q-16: Protective measures undertaken while using Aerosol Spray Paint

	Yes	No
1. Door or window open to the outside (N=385 recent inside users)	62.9%	37.1%
2. Exhaust fan on during use (N=382 recent inside users)	9.9%	90.1%
3. Whether inside door to room was open (N=375 recent inside users)	61.1%	38.9%
4. Whether directions on label were read (N=1138 all recent users)	73.2%	26.8%

The majority of the aerosol spray paint users did have a door or window open to the outside (62.9%); did not have an exhaust fan on during use (90.1%); had the inside door to the room opened (61.1%); and had read the directions on the label (73.2%).

Table Q-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table Q-17: Ounces per use of aerosol spray paint (N=1118 recent users)

Mean # of ounces per use	13.80
Median # of ounces per use	8.00
Standard deviation	24.40

Table Q-17 indicates a mean minutes per use of 13.80 and a median of 8.0.

Table Q-18: Percentile rankings of ounces per use of
Aerosol Spray Paint (N=1118 recent users)

	Ounces/Use
Minimum	0.01
1%	0.19
5%	0.80
10%	1.50
25%	3.50
Median	8.00
75%	16.00
90%	26.00
95%	39.00
99%	96.00
Maximum	526.50

Table Q-19: Respondent characteristics of Aerosol Spray
Paint users

1. Respondent age (N=1189 recent users)	Mean = 41.80 years
2. Respondent gender (N=1189 recent users)	Male = 54.2% Female = 45.8%
3. Number of household members (N=1178 recent users)	Mean = 3.10 members
4. Number of bedrooms (N=1188 recent users)	Mean = 3.00 bedrooms

Table Q-19 presents the respondent characteristics of Aerosol Spray Paint users. The mean age of these respondents is 41.80 years; 54.2% of the respondents are male; the mean number of household members is 3.10; and the mean number of bedrooms is 3.00. The statistics for the respondent characteristics of aerosol spray paint users is almost identical to the characteristics of the total sample of respondents. Slightly more males use this product than are in the sample as a whole.

**PRIMERS
AND
SPECIAL PRIMERS
(EXCLUDING
AUTOMOTIVE)**

R. Product 18: Primers and Special Primers
(nonautomotive)

Q1: Have you ever used primers?

Table R-1: Numbers and % of respondents ever using
Primers

	Numbers	Percent
Yes	684	13.9
No	<u>4232</u>	<u>86.1</u>
Total	4916*	100.0

*4 cases where information was not ascertained

Table R-1 shows that 13.9% of the total respondents have "ever" used primers. This is an average incidence when compared to this incidence for other products.

Q2: When was the last time you used primers?

Table R-2: Last time Primers were used in months
(N=682 users)

Mean # of months	22.00
Median # of months	10.00
Standard deviation	36.42

As Table R-2 shows, the mean number of months since last use of primers is 22.0 months. The median number of months is 10.0.

The percentile rankings for time since last use are shown below:

Table R-3: Percentile rankings for Primers--months since last use (N=682 users)

	Months
Minimum	0.03
1%	0.03
5%	0.20
10%	0.46
25%	2.00
Median	10.00
75%	24.00
90%	60.00
95%	84.00
99%	206.04
Maximum	360.00

Table R-3 shows that 10th percentile users and below since last used the product less than a month ago. The 75th percentile through the 100th percentile respondents report that they last used the product 24 months (2 years) ago through 360 months (30 years) ago. This appears to be subject to rounding which was discussed earlier under aspects of the data (i.e. 5, 10, 15 years rather than 5 years 3 months). The data are still usable for indicating the approximate last use.

Q3: How many times have you used primers in the last 12 months?

Table R-4: Number of uses of Primers within the last 12 months (N=396 recent users)

Mean # of uses	3.43
Median # of times	1.00
Standard deviation	8.76

The mean number of uses of the product in the last twelve months among users of the product in the last twelve months, is 3.43 and the median 1.0. A total of 80.3% of these users used primers three times or less in the last twelve months with 53.3% using it once; 18.9% using it twice; and 8.1% using it three times.

Table R-5: Percentile rankings of number of uses of Primers within the last 12 months (N=396 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	1.00
75%	3.00
90%	6.00
95%	10.00
99%	50.06
Maximum	104.00

Q4: How much time did you spend using primers the last time you used it?

Table R-6: Time spent using Primers the last time used (N=381 recent users)

Mean # of minutes	91.29
Median # of minutes	30.00
Standard deviation	175.05

The mean and median number of minutes for using primers is relatively high; only six products are higher.

Table R-7: Percentile rankings for time spent using the Primers last time used (N=381 recent users)

	Minutes
Minimum	0.05
1%	0.24
5%	3.00
10%	5.00
25%	15.00
Median	30.00
75%	120.00
90%	240.00
95%	360.00
99%	981.60
Maximum	1920.00

The minimum percentile is .05 and the maximum is 1920.0 minutes (32 hours).

Q5: How much time did you spend in the room immediately after use the last time you used primers?

Table R-8: Time spent in the room after last use of Primers (N=383 recent users)

Mean # minutes in room	22.28
Median # minutes in room	0.00
Standard deviation	65.57

The mean number of minutes spent in the room after last use is 22.28 minutes as opposed to the median of zero minutes.

Table R-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room but used Primers (N=383 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	10.00
90%	60.00
95%	120.00
99%	319.20
Maximum	720.00

Respondents at the 50th percentile or less did not spend any time in the room after using primers. Respondents at the higher percentile rankings spent from ten to twelve hours.

Table R-10: Percentile rankings for Primers for time spent in the room after last use including only those who spent time in the room (N=129 recent users who stayed in the room)

	Minutes
Minimum	1.00
1%	1.00
5%	1.50
10%	5.00
25%	10.00
Median	30.00
75%	60.00
90%	180.00
95%	240.00
99%	648.00
Maximum	720.00

Table R-10 is similar to Table R-9 except it includes only users who did in fact stay in the room, therefore, all percentiles have values.

Q6A: Which brand of primers did you use the last time you used it?

Table R-11: Brand distribution for Primers

Brand category	Frequency	Percent
Top brand	64	15.8
Second highest brand	28	6.9
Third highest brand	19	4.7
Don't Knows and Not Ascertained	156	38.4
All other named brands	139	34.2
Total	406	100.0

Sixty-two percent (61.6%) of the users of the product specified a brand. The top three brands of primers were used by 15.8%, 6.9% and 4.7% of the users, respectively.

Q6B: Was the product in aerosol form?

Table R-12: Percent of respondents saying Primers are aerosol (N=383 recent users)

Yes, product is aerosol	42.0%
No, product is nonaerosol	51.2%

The product was aerosol in 42.0% of the cases.

Q7: What size of primers did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table R-13: Amount of Primers used per year in ounces
(N=364 recent users)

Mean ounces per year	68.39
Median ounces per year	16.00
Standard deviation	171.21

As might be expected, the mean ounces per year for primers is one of the highest amounts compared to the amount used of other products. Only five products have higher amounts.

Table R-14: Percentile rankings for amount of Primers used in ounces (N=364 recent users)

	Ounces
Minimum	0.01
1%	0.09
5%	1.30
10%	3.23
25%	8.00
Median	16.00
75%	60.00
90%	128.00
95%	256.00
99%	867.75
Maximum	1920.00

The range between the minimum and maximum values in Table R-14 is quite substantial with the minimum ounces per year at .01 and the maximum ounces per year at 1920.0. There is quite a difference between percentile points with the 75th percentile at 60.0 ounces per year and the 100th percentile at 1920.0.

Q8: Where did you use primers the last time you used them?

Table R-15: Location of last use of the product (N=383 recent users)

Basement	4.2%
Living room	1.8%
Other inside room	19.6%
Several inside rooms	2.9%
Garage	15.7%
Outside	52.5%
Garage & outside	3.4%
Total	<hr/> 100.0%

Most people (52.5%) used primers outside; 19.6% used it in an other inside room; 15.7% used it in the garage; 4.2% used it in the basement; 3.4% used it in both the garage and outside; 2.9% used it in several inside rooms; and 1.8% used it in the living room.

Table R-16: Protective measures undertaken while using Primers

	Yes	No
1. Door or window open to the outside (N=166 recent inside users)	77.7%	22.3%
2. Exhaust fan on during use (N=165 recent inside users)	16.4%	83.6%
3. Whether inside door to room was open (N=164 recent inside users)	67.7%	32.3%
4. Whether directions on label were read (N=377 all recent users)	73.5%	26.5%

The majority of users of primers did have a door or window open to the outside (77.7%); did not have an exhaust fan on during use (83.6%); had the inside door to the room opened (67.7%); and had read the directions on the label (73.5%).

Table R-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table R-17: Ounces per use of Primers (N=363 recent users)

Mean # of ounces per use	42.14
Median # of ounces per use	11.00
Standard deviation	110.47

Table R-18 indicates that the minimum percentile is 0.1 and the maximum is 1053.0.

Table R-18: Percentile rankings of ounces per use of Primers (N=363 recent users)

	Ounces/Use
Minimum	0.01
1%	0.02
5%	0.65
10%	1.29
25%	4.33
Median	11.00
75%	32.00
90%	94.00
95%	230.80
99%	604.16
Maximum	1053.00

Table R-19: Respondent characteristics of users of Primers

1. Respondent age (N=405 recent users)	Mean = 43.60 years
2. Respondent gender (N=406 recent users)	Male = 65.8% Female = 34.2%
3. Number of household members (N=405 recent users)	Mean = 3.00 members
4. Number of bedrooms (N=406 recent users)	Mean = 3.00 bedrooms

Table R-19 presents the respondent characteristics of users of primers. The mean age of these respondents is 43.60 years; 65.8% of the respondents are male; the mean number of household members is 3.00; and the mean number of bedrooms is 3.00. The statistics for the respondent characteristics of users of primers are almost identical to the characteristics of the total sample of respondents except more males use the product than are in the sample at large.

AEROSOL RUST REMOVERS

S. Product 19: Aerosol Rust Removers

Q1: Have you ever used an aerosol rust remover?

Table S-1: Numbers and % of respondents ever using Aerosol Rust Removers

	Numbers	Percent
Yes	403	8.2
No	<u>4514</u>	<u>91.8</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table S-1 shows that only 8.2% of the total respondents have "ever" used aerosol rust removers. This is a relatively low percentage when compared to this incidence for other products.

Q2: When was the last time you used aerosol rust removers?

Table S-2: Last time Aerosol Rust Remover was used in months (N=400 users)

Mean # of months	15.10
Median # of months	5.00
Standard deviation	30.79

As Table S-2 shows, the mean number of months since last use of aerosol rust remover is 15.10 months and the median is 5.0 months. The mean is approximately three times the size of the median. This difference is on account of a few extreme responses to this question.

The percentile rankings for time since last use are shown below:

Table S-3: Percentile rankings for Aerosol Rust Removers--
months since last use (N=400 users)

	Months
Minimum	0.03
1%	0.03
5%	0.07
10%	0.16
25%	1.00
Median	5.00
75%	12.00
90%	36.00
95%	60.00
99%	180.00
Maximum	240.00

Table S-3 shows that the months since the product was last used range from a minimum of 0.03 months to a maximum of 240.0 months (20 years). Twenty-five percent of the respondents used the product one month or less ago and 95% of the users used the product last 60.0 months (4 years) or less ago. The number of months reported may be subject to rounding discussed earlier under aspects of the data (i.e. 3, 5, 15 years rather than 5 years 3 months). The data are usable for indicating the approximate last use.

Q3: How many times have you used aerosol rust removers in the last 12 months?

Table S-4: Number of uses of Aerosol Rust Remover within the last 12 months (N=290 recent users)

Mean # of uses	6.17
Median # of times	2.00
Standard deviation	9.82

The mean number of uses aerosol rust removers were used in the last 12 months is 6.17 times and the median is 2.0 times. Of the 290 respondents to this question, 33.8% used it once, 17.6% used it twice and 11% used it three times in the last year. As shown in Table S-5 which follows, 99% of the respondents used the product 50.90 times or less in the last year. The maximum number of times the product is used is 80.0.

Table S-5: Percentile rankings of number of uses of Aerosol Rust Removers within the last 12 months (N=290 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	6.00
90%	15.00
95%	24.45
99%	50.90
Maximum	80.00

Q4: How much time did you spend using aerosol rust remover the last time you used it?

Table S-6: Time spent using the Aerosol Rust Remover last time used (N=282 recent users)

Mean # of minutes	18.57
Median # of minutes	5.00
Standard deviation	48.54

The mean and median number of minutes for using aerosol rust removers are 18.57 and 5.0 minutes respectively.

Table S-7: Percentile rankings for time spent using the Aerosol Rust Remover last time used (N=282 recent users)

	Minutes
Minimum	0.02
1%	0.05
5%	0.17
10%	0.25
25%	2.00
Median	5.00
75%	20.00
90%	60.00
95%	60.00
99%	130.20
Maximum	720.00

The time spent using the aerosol rust remover ranges from a minimum of 0.02 minutes to 720 minutes (12 hours) at the 100th percentile. Ninety-five percent of the respondents spent one hour or less using the product.

Q5: How much time did you spend in the room immediately after use the last time you used aerosol rust removers?

Table S-8: Time spent in the room after use of Aerosol Rust Removers (N=282 recent users)

Mean # minutes in room	15.06
Median # minutes in room	0.00
Standard deviation	47.58

The mean number of minutes spent in the room after use is 15.06 minutes and the median is 0.0 minutes. The median is zero as 50% of the respondents did not spend any time in the room after using the product.

Table S-9: Percentile rankings for time spent in the room after use of Aerosol Rust Removers including those who did not spend any time in the room (N=282 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	5.00
90%	60.00
95%	60.00
99%	190.20
Maximum	600.00

Ninety-five percent of the respondents spent 1 hour or less in the room after using aerosol rust removers. Time spent increased sharply at the 100th percentile to 600 minutes (10 hours).

Table S-10: Percentile rankings for Aerosol Rust Removers for time spent in the room after last use including only those who spent time in the room (N=282 recent users)

	Minutes
Minimum	1.00
1%	1.00
5%	1.00
10%	2.00
25%	5.00
Median	20.00
75%	60.00
90%	120.00
95%	174.00
99%	592.80
Maximum	600.00

Table S-10 is similar to Table S-9 except it includes only users who did in fact stay in the room after using the product. The mean time spent in the room is 42 minutes. Fifty percent of the respondents spent 20.0 minutes or less in the room. The maximum time spent in the room after using the product is 10.0 hours.

Q6A: Which brand of aerosol rust remover did you use the last time you used it?

Table S-11: Brand distribution for Aerosol Rust Remover

Brand category	Frequency	Percent
Top brand	103	34.9
Second highest brand	41	13.9
Third highest brand	24	8.1
Don't Knows and Not Ascertained	84	28.5
All other named brands	<u>43</u>	<u>14.6</u>
Total	295	100.0

Seventy-two percent (71.5%) of the users of the product specified a brand. The top three brands of aerosol rust remover named were used by 34.9%, 13.9% and 8.1% of respondents, respectively.

Q6B: Was the product in aerosol form?

Table S-12: Percent of respondents saying the Aerosol Rust Remover used is in aerosol or nonaerosol form (N=286 recent users)

Yes, product is aerosol	98.3%
No, product is nonaerosol	1.7%

Given the product is aerosol rust remover, one would expect the respondents to say the product is in aerosol form and 98.3% of the respondents did say it was. Only 1.7% answered the question specifying the product they used was in nonaerosol form. This is obviously respondent error in answering the question.

Q7: What size of aerosol rust remover did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table S-13: Amount of Aerosol Rust Remover used in ounces (N=266 recent users)

Mean ounces per year	18.21
Median ounces per year	8.00
Standard deviation	81.37

The mean ounces used per year for aerosol rust removers is 18.21 ounces and the median is 8.0 ounces.

Table S-14: Percentile rankings for amount of Aerosol Rust Remover used in ounces (N=266 recent users)

	Ounces
Minimum	0.09
1%	0.25
5%	1.00
10%	1.43
25%	2.75
Median	8.00
75%	13.00
90%	32.00
95%	42.60
99%	199.80
Maximum	1280.00

The range between the minimum and maximum ounces used is quite substantial with the minimum ounces per year at 0.09 and the maximum ounces per year at 1280.0. Ninety-five percent of the respondents used 42.60 ounces or less per year. There is a increase in ounces used at the 99th percentile (199.80 ounces) and the 100th percentile (1280.0 ounces). This shows that a few respondents used a much greater amount of the product.

Q8: Where did you use aerosol rust remover the last time you used it?

Table S-15: Location of last use of the product (N=284 recent users)

Basement	6.7%
Living room	0.7%
Other inside room	10.6%
Several inside rooms	1.4%
Garage	21.8%
Outside	53.2%
Garage & outside	5.6%
Total	<hr/> 100.0%

Most of the respondents (53.2%) used the product outside. A total of 21.8% used it in the garage and 10.6% in an other inside room.

Table S-16: Protective measures undertaken while using
Aerosol Rust Removers

	Yes	No
1. Door or window open to the outside (N=113 recent inside users)	61.1%	38.9%
2. Exhaust fan on during use (N=114 recent inside users)	13.2%	86.8%
3. Whether inside door to room was open (N=110 recent inside users)	57.3%	42.7%
4. Whether directions on label were read (N=280 all recent users)	68.2%	31.8%

The majority of the aerosol rust remover users had read the directions on the label (68.2%); had a door or window open to the outside (61.1%); did not have an exhaust fan on during use (86.8%) and had an inside door to the room open (57.3%).

Table S-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table S-17: Ounces per use of Aerosol Rust Remover
(N=265 recent users)

Mean # of ounces per use	9.24
Median # of ounces per use	2.17
Standard deviation	78.62

The mean ounces per use of the product is 9.24 and the median is 2.17. Table S-18 which follows presents the percentile rankings for this variable. Twenty-five percent of the respondents use less than an ounce of the product per use whereas 99% of the respondents use 39.46 ounces or less per use. There is a sharp increase at the 100th percentile to 1280.0 ounces per use.

Table S-18: Percentile rankings of ounces per use of
Aerosol Rust Removers (N=265 recent users)

	Ounces/Use
Minimum	0.03
1%	0.07
5%	0.24
10%	0.45
25%	0.92
Median	2.17
75%	5.50
90%	12.00
95%	14.70
99%	39.46
Maximum	1280.00

Table S-19: Respondent characteristics of Aerosol Rust
Removers users

1. Respondent age (N=292 recent users)	Mean = 46.07 years
2. Respondent gender (N=293 recent users)	Male = 74.1% Female = 25.9%
3. Number of household members (N=291 recent users)	Mean = 3.03 members
4. Number of bedrooms (N=291 recent users)	Mean = 2.92 bedrooms

Table S-19 presents the respondent characteristics of aerosol rust removers. The mean age of these respondents is 46.07 years. The number of male respondents (74.1%) is nearly three times the number of female respondents (25.9%). Except for respondent gender, the other characteristics are similar to the characteristics for the total sample of respondents. The total sample has nearly an equal number of male and female respondents.

**OUTDOOR
WATER
REPELLENTS
(FOR WOOD OR CEMENT)**

T. Product 20: Outdoor Water Repellents (for Wood/Cement)

Q1: Have you ever used an outdoor water repellent?

Table T-1: Numbers and % of respondents ever using
Outdoor Water Repellents

	Numbers	Percent
Yes	428	8.7
No	<u>4489</u>	<u>91.3</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table T-1 shows that only 8.7% of the total respondents have "ever" used outdoor water repellents. This is a relatively low percentage when compared to this incidence for other products.

Q2: When was the last time you used outdoor water repellents?

Table T-2: Last time Outdoor Water Repellent was used in
months (N=425 users)

Mean # of months	24.70
Median # of months	12.00
Standard deviation	38.56

As Table T-2 shows, the mean number of months since last use of outdoor water repellent is 24.70 months and the median is 12.0 months. The mean is approximately twice the size of the median. This difference is on account of a few extreme responses to this question.

The percentile rankings for time since last use are shown below:

Table T-3: Percentile rankings for Outdoor Water Repellents--months since last use (N=425 users)

	Months
Minimum	0.03
1%	0.03
5%	0.23
10%	1.00
25%	4.00
Median	12.00
75%	24.00
90%	60.00
95%	96.00
99%	224.40
Maximum	360.00

Table T-3 shows that the months since the product was last used range from a minimum of 0.03 months to a maximum of 360 months (30 years). Ninety-five per cent of the users last used the product 96.0 months (8 years) or less ago. The number of months since last use increased sharply at the 99th percentile (224.40 months). The number of months reported may be subject to rounding discussed earlier under aspects of the data (i.e. 2, 5, 8 years rather than 5 years 3 months). The data are usable for indicating the approximate last use.

Q3: How many times have you used outdoor water repellent in the last 12 months?

Table T-4: Number of uses of Outdoor Water Repellent within the last 12 months (N=241 recent users)

Mean # of uses	2.07
Median # of uses	1.00
Standard deviation	3.71

The mean number of times outdoor water repellents were used in the last 12 months is 2.07 times and the median is 1.0 time. Of the 32 products surveyed, this is the least number of times a product has been used in the last year. Of the 241 responses to this question, 60.2% used it once, 24.5% used it twice and 7.1% used it three times in the last year. As shown in Table T-5 which follows, 99% of the respondents used the product 12.0 times or less in the last year. The maximum number of times the product is used is 52.0.

Table T-5: Percentile rankings of times used Outdoor Water Repellent within the last 12 months (N=241 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	1.00
75%	2.00
90%	3.00
95%	5.90
99%	12.00
Maximum	52.00

Q4: How much time did you spend using outdoor water repellent the last time you used it?

Table T-6: Time spent using the Outdoor Water Repellent last time used (N=239 recent users)

Mean # of minutes	104.94
Median # of minutes	60.00
Standard deviation	115.36

The mean and median number of minutes for using outdoor water repellent are 104.94 and 60.0 minutes respectively.

Table T-7: Percentile rankings for time spent using the Outdoor Water Repellent last time used (N=239 recent users)

	Minutes
Minimum	0.02
1%	0.05
5%	5.00
10%	15.00
25%	30.00
Median	60.00
75%	120.00
90%	240.00
95%	300.00
99%	480.00
Maximum	960.00

The time spent using the outdoor water repellent ranges from a minimum of 0.02 minutes to 960.0 minutes at the 100th percentile. Fifty percent of the respondents used the product for 60.0 minutes or less. At the 75th percentile through the 99th percentile, time spent is 120 minutes (2 hours) through 480 minutes (16 hours).

Q5: How much time did you spend in the room immediately after use the last time you used outdoor water repellents?

Table T-8: Time spent in the room after last use of Outdoor Water Repellents (N=241 recent users)

Mean # minutes in room	8.33
Median # minutes in room	0.00
Standard deviation	43.25

The mean number of minutes spent in the room after last use is 8.33 minutes and the median is 0.0 minutes. The median is zero as 75% of the respondents did not spend any time in the room after use of the product.

Table T-9: Percentile rankings for time spent in the room after last use of Outdoor Water Repellents including those who did not spend any time in the room (N=241 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	0.00
90%	5.00
95%	58.50
99%	309.60
Maximum	420.00

Ninety percent of the respondents spent 5.0 minutes or less in the room after using outdoor water repellents. Time spent increased sharply at the 99th percentile to approximately 309 minutes (5 hours).

Table T-10: Percentile rankings for Outdoor Water Repellents for time spent in the room after last use including only those who spent time in the room (N=28 recent users who stayed in room afterwards)

	Minutes
Minimum	1.00
1%	---
5%	1.45
10%	4.70
25%	10.00
Median	30.00
75%	60.00
90%	252.00
95%	393.00
99%	----
Maximum	420.00

Table T-10 is similar to Table T-9 except it includes only users who did in fact stay in the room after using the product. Of the 241 respondents who used the product in the last year only 28 did spend some time in the room after use. Since the number spending time in the room is small it was not possible to calculate the 1st and the 99th percentile which are therefore left blank. The mean time now spent in the room is 71.70 minutes and the median is 30.0. This differs considerably from the mean and median in Table T-8 as respondents who did not spend any time in the room have now been excluded.

Q6A: Which brand of outdoor water repellent did you use the last time you used it?

Table T-11: Brand distribution for Outdoor Water Repellents

Brand category	Frequency	Percent
Top brand	68	27.5
Second highest brand	20	8.1
Third highest brand	10	4.0
Don't Knows and Not Ascertained	78	31.6
All other named brands	<u>71</u>	<u>28.8</u>
Total	247	100.0

Sixty-eight percent (68.4%) of the users of the product specified a brand. The top three brands of outdoor water repellent named were used by 27.5%, 8.1% and 4.0% of respondents, respectively.

Q6B: Was the product in aerosol form?

Table T-12: Percent of respondents saying the Outdoor Water Repellent used is in aerosol or nonaerosol form (N=243 recent users)

Yes, product is aerosol	11.5%
No, product is nonaerosol	88.5%

The majority of respondents (88.5%) said the outdoor water repellent they used was in nonaerosol form.

Q7: What size of outdoor water repellent did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table T-13: Amount of Outdoor Water Repellent used in ounces (N=234 recent users)

Mean ounces per year	148.71
Median ounces per year	64.00
Standard deviation	280.65

The mean ounces used per year for outdoor water repellents is 148.71 ounces. Only two other products Latex Paint and Oil Paint have more ounces used.

Table T-14: Percentile rankings for amount of Outdoor Water Repellent used in ounces (N=234 recent users)

	Ounces
Minimum	0.01
1%	0.37
5%	3.63
10%	8.00
25%	16.00
Median	64.00
75%	128.00
90%	448.00
95%	640.00
99%	979.20
Maximum	3200.00

The range between the minimum and maximum ounces used is quite substantial with the minimum ounces per year at 0.01 and the maximum ounces per year at 3200.0. Ninety-five percent of the respondents used 640.0 ounces or less per year. The 99th percentile is 979.20 ounces. This jumps to 3200.0 at the 100th percentile.

Q8: Where did you use outdoor water repellent the last time you used it?

Table T-15: Location of last use of the product (N=242 recent users)

Basement	1.7%
Living room	2.1%
Other inside room	2.5%
Several inside rooms	0.8%
Garage	6.2%
Outside	83.9%
Garage & outside	2.8%
Total	<hr/> 100.0%

As expected the majority of the respondents, approximately 83.9%, used the product outside. A total of 6.2% of the respondents used the product in the garage. The remaining 7.1% of the respondents used the product inside in a room other than the garage.

Table T-16: Protective measures undertaken while using Outdoor Water Repellents

	Yes	No
1. Door or window open to the outside (N=33 recent inside users)	72.7%	27.3%
2. Exhaust fan on during use (N=31 recent inside users)	6.5%	93.5%
3. Whether inside door to room was open (N=31 recent inside users)	64.5%	35.5%
4. Whether directions on label were read (N=233 all recent users)	81.1%	18.9%

The majority of the outdoor water repellent users did have a door or window open to the outside (72.7%); did not have an exhaust fan on during use (93.5%); had the inside door to the room opened (64.5%) and had read the directions on the label (81.1%).

Table T-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table T-17: Ounces per use of Outdoor Water Repellent (N=230 recent users)

Mean # of ounces per use	99.53
Median # of ounces per use	32.00
Standard deviation	158.70

The mean ounces per use of the product is 99.53 and the median is 32.0. Table T-18 which follows presents the percentile rankings for this variable. Twenty-five percent of the respondents used 12.80 ounces or less. The ounces used range from a minimum of 0.01 ounces to a maximum of 896.0 ounces at the 100th percentile. The 95th percentile is 512.0 ounces.

Table T-18: Percentile rankings of ounces per use of
Outdoor Water Repellent (N=230 recent users)

	Ounces/Use
Minimum	0.01
1%	0.43
5%	2.04
10%	3.86
25%	12.80
Median	32.00
75%	128.00
90%	256.00
95%	512.00
99%	812.16
Maximum	896.00

Table T-19: Respondent characteristics of Outdoor Water
Repellent users

1. Respondent age (N=247 recent users)	Mean = 43.89 years
2. Respondent gender (N=247 recent users)	Male = 65.2% Female = 34.8%
3. Number of household members (N=246 recent users)	Mean = 3.13 members
4. Number of bedrooms (N=247 recent users)	Mean = 3.04 bedrooms

Table T-19 presents the respondent characteristics of outdoor water repellents. The mean age of these respondents is 43.89 years. The number of male respondents (65.2%) is nearly twice the number of female respondents (34.8%). Except for respondent gender, the other characteristics are similar to the characteristics for the total sample of respondents. The total sample has nearly an equal number of male and female respondents.

GLASS FROSTINGS, WINDOW TINTS, AND ARTIFICIAL SNOW

U. Product 21: Glass Frostings, Window Tints and Artificial Snow

Q1: Have you ever used glass frostings, window tints or artificial snow?

Table U-1: Numbers and % of respondents ever using Glass Frostings, Window Tints and Artificial Snow

	Numbers	Percent
Yes	511	10.4
No	<u>4406</u>	<u>89.6</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table U-1 shows that only 10.4% of the total respondents have "ever" used glass frostings, window tints and artificial snow.

Q2: When was the last time you used a glass frosting, window tint or artificial snow?

Table U-2: Last time Glass Frosting, Window Tint and Artificial Snow was used in months (N=506 users)

Mean # of months	34.20
Median # of months	8.00
Standard deviation	55.23

As Table U-2 shows, the mean number of months since last use of the products is 34.20 months. Other than spray shoe polish which was last used 42.10 months ago, this product has the longest period of time since last use. The median number of months is 8.0 and this adjusts for any extreme values given as answers to this question.

The percentile rankings for time since last use are shown below:

Table U-3: Percentile rankings for Glass Frostings, Window Tints and Artificial Snow--months since last use (N=506 users)

	Months
Minimum	0.03
1%	0.07
5%	3.35
10%	5.00
25%	6.00
Median	8.00
75%	36.00
90%	108.00
95%	151.80
99%	240.00
Maximum	360.00

Table U-3 shows that the minimum time since last use is 0.03 months and the maximum is 360 months (30 years).

Q3: How many times have you used glass frostings, window tints or artificial snow in the last 12 months?

Table U-4: Number of uses of a Glass Frosting, Window Tint and Artificial Snow within the last 12 months (N=279 recent users)

Mean # of uses	2.78
Median # of uses	1.00
Standard deviation	21.96

The mean number of times the product was used in the last year is 2.78 times. Of the 279 respondents who used the product in the last year, the majority (90%) used it once, 5.4% used it twice and only 1.1% used it three times. Table U-5 which follows presents the percentile rankings for this variable. Ninety-five percent of the respondents used the product 2 times or less in the last year. The number of times the product is used increased sharply to 365.0 times at 100th percentile.

Table U-5: Percentile rankings of times used Glass Frostings, Window Tints and Artificial Snow within the last 12 months (N=279 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	1.00
75%	1.00
90%	2.00
95%	2.00
99%	27.20
Maximum	365.00

Q4: How much time did you spend using glass frosting, window tint or artificial snow the last time you used it?

Table U-6: Time spent using Glass Frostings, Window Tints and Artificial Snow last time used (N=275 recent users)

Mean # of minutes	29.45
Median # of minutes	15.00
Standard deviation	48.16

The mean and median number of minutes for using the product is 29.45 and 15.0 minutes respectively. The mean is approximately twice the median. This difference is because of some extreme responses to the question.

Table U-7: Percentile rankings for time spent using Glass Frosting, Window Tint and Artificial Snow last time used (N=275 recent users)

	Minutes
Minimum	0.03
1%	0.14
5%	2.00
10%	3.00
25%	5.00
Median	15.00
75%	30.00
90%	60.00
95%	96.00
99%	268.80
Maximum	360.00

The minimum time spent using glass frostings, window tints and artificial snow is 0.03 minutes and the maximum time spent is 360 minutes (6 hours). Ninety percent of the respondents spent one hour or less. Time spent increased substantially at the 99th and 100th percentile to 268.8 minutes (4.48 hours) and 360.0 minutes (6.0 hours).

Q5: How much time did you spend in the room immediately after use the last time you used glass frostings, window tints or artificial snow?

Table U-8: Time spent in the room after last use of Glass Frostings, Window Tints and Artificial Snow (N=269 recent users)

Mean # minutes in room	137.87
Median # minutes in room	60.00
Standard deviation	243.21

The mean number of minutes spent in the room after last use is 137.87 minutes which is the longest period of time spent in the room after use when compared to this incidence for any of the other 32 products surveyed. The median is 60.0 minutes. There is a big difference between the mean and median because of some extreme responses. Table U-9 which follows presents the percentile rankings for this variable. It shows that 10% of the respondents did not spend any time in the room after using the product. Ninety-five percent of the respondents spent 8.0 hours or less in the room. The time spent in the room after use increased sharply at the 99th and 100th percentile to 1440 minutes (24.0 hours) and 1800 minutes (30.0 hours).

Table U-9: Percentile rankings for time spent in the room after use of Glass Frostings, Window Tints and Artificial Snow including those who did not spend any time in room (N=269 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	3.00
Median	60.00
75%	180.00
90%	360.00
95%	480.00
99%	1440.00
Maximum	1800.00

Table U-10: Percentile rankings for Glass Frosting, Window Tint and Artificial Snow for time spent in the room after last use including only those who spent time in the room (N=216 recent users who stayed in room afterwards)

	Minutes
Minimum	1.00
1%	1.00
5%	2.00
10%	5.00
25%	22.50
Median	90.00
75%	240.00
90%	480.00
95%	591.50
99%	1440.00
Maximum	1800.00

Table U-10 is similar to Table U-9 except it includes only users who did in fact stay in the room. A total of 80.3% of the respondents who used the product in the last year, did spend some time in the room after use. The mean time spent in the room has increased to 171.70 minutes compared to 137.87 minutes in Table U-8 as respondents spending no time in room after use have been excluded. Ninety-five percent of the respondents spent approximately 10.0 hours or less in the room after using the product. The maximum time spent in the room was 1800 minutes (30 hours).

Q6A: Which brand of glass frosting, window tint or artificial snow did you use the last time you used it?

Table U-11: Brand distribution for Glass Frostings, Window Tints and Artificial Snows

Brand category	Frequency	Percent
Top brand	25	8.8
Second highest brand	16	5.7
Third highest brand	8	2.8
Don't Knows and Not Ascertained	187	66.1
All other named brands	<u>47</u>	<u>16.6</u>
Total	283	100.0

Thirty-four percent (33.9%) of the respondents specified a brand of glass frosting, window tint or artificial snow that they had used. The top three brands named were used by 8.8%, 5.7% and 2.8% of the respondents, respectively.

Q6B: Was the product in aerosol form?

Table U-12: Percent of respondents saying Glass Frosting, Window Tint and Artificial Snow is in aerosol or nonaerosol form (N=276 recent users)

Yes, product is aerosol	90.2%
No, product is nonaerosol	9.8%

Table U-12 shows that the majority of the respondents (90.2%) used an aerosol form of the product.

Q7: What size of glass frosting, window tint or artificial snow did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table U-13: Amount of Glass Frosting, Window Tint and Artificial Snow used in ounces (N=259 recent users)

Mean ounces per year	13.82
Median ounces per year	12.00
Standard deviation	14.91

The mean ounces used per year of glass frosting, window tint and artificial snow is 13.82 ounces and the median is 12.0 ounces.

Table U-14: Percentile rankings for amount of Glass Frosting, Window Tint and Artificial Snow used in ounces (N=259 recent users)

	Ounces
Minimum	1.00
1%	1.40
5%	2.38
10%	3.25
25%	6.00
Median	12.00
75%	14.00
90%	28.00
95%	33.00
99%	98.40
Maximum	120.00

The ounces used per year range from a minimum of 1.0 ounce to a maximum of 120.0 ounces at the 100th percentile. Twenty-five percent of the respondents used 6.0 ounces or less of the product whereas 95% of the respondents used 33.0 ounces or less of the product per year.

Q8: Where did you use glass frosting, window tint or artificial snow the last time you used it?

Table U-15: Location of last use of the product (N=275 recent users)

Basement	1.0%
Living room	58.2%
Other inside room	13.5%
Several inside rooms	12.7%
Garage	1.5%
Outside	12.0%
Garage & outside	1.1%
Total	<u>100.0%</u>

As Table U-15 shows, most respondents (58.2%) used glass frosting, window tint or artificial snow in the living room. 13.5% used the product in an "other inside room". Approximately an equal number used the product in "several inside rooms" (12.7%) and outside (12.0%).

Table U-16: Protective measures undertaken while using Glass Frosting, Window Tint and Artificial Snow

	Yes	No
1. Door or window open to the outside (N=238 recent inside users)	24.4%	75.6%
2. Exhaust fan on during use (N=238 recent inside users)	10.5%	89.5%
3. Whether inside door to room was open (N=237 recent inside users)	71.7%	28.3%
4. Whether directions on label were read (N=273 all recent users)	88.8%	11.1%
	71.1%	28.9%

Most of the respondents had read the directions on the label (71.1%) and had an inside door to the room open (71.7%). Only 24.4% had a door or window open to the outside and 10.5% had an exhaust fan on during use of the product.

Table U-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table U-17: Ounces per use of Glass Frosting, Window Tint and Artificial Snow

Mean # of ounces per use	12.51
Median # of ounces per use	9.00
Standard deviation	14.01

The ounces used per use of glass frosting, window tint and artificial snow is 12.51 and the median is 9.0 ounces. Table U-18 which follows presents the percentile rankings for ounces used per use. Ninety-five percent of the respondents used 32.0 ounces or less of the product per use. The 99th and 100th percentile are 86.96 and 120.0 ounces respectively.

Table U-18: Percentile rankings of ounces per use of Glass Frosting, Window Tint and Artificial Snow (N=258 recent users)

	Ounces/Use
Minimum	0.23
1%	0.49
5%	1.68
10%	3.00
25%	6.00
Median	9.00
75%	13.00
90%	26.00
95%	32.00
99%	86.96
Maximum	120.00

Table U-19 presents the respondent characteristics of glass frosting, window tint and artificial snow users. The mean age of these respondents is 37.87 years; the number of household members is 3.36 and the number of bedrooms 2.94. A greater number of the respondents are female (62.4%) compared to the number of male respondents (37.6%). The statistics for the respondent characteristics of glass frosting, window tint and artificial snow users are approximately the same as the characteristics of the total sample of respondents except in the cases of respondent age and respondent gender. For the total sample of respondents the mean age is 44.30 years and the percentage of male and female respondents is 47.0% and 53.0% respectively.

Table U-19: Respondent characteristics of Glass Frosting, Window Tint and Artificial Snow users

1. Respondent age (N=278 recent users)	Mean = 37.87 years
2. Respondent gender (N=282 recent users)	Male = 37.6% Female = 62.4%
3. Number of household members (N=279 recent users)	Mean = 3.36 members
4. Number of bedrooms (N=282 recent users)	Mean = 2.94 bedrooms

ENGINE DEGREASERS

V. Product 22: Engine Degreasers

Q1: Have you ever used engine degreasers?

Table V-1: Numbers and % of respondents ever using Engine Degreasers

	Numbers	Percent
Yes	847	17.2
No	<u>4069</u>	<u>82.8</u>
Total	4916*	100.0

*4 cases where information was not ascertained

Table V-1 shows that 17.2% of the total respondents have "ever" used engine degreasers.

Q2: When was the last time you used engine degreasers?

Table V-2: Last time Engine Degreasers were used in months (N=846 users)

Mean # of months	16.60
Median # of months	6.00
Standard deviation	29.80

As Table V-2 shows, the mean number of months since last use of engine degreasers is 16.60 months. This is about an average period of time since last use when compared to the other products. The median number of months is 6.0.

The percentile rankings for time since last use are shown below:

Table V-3: Percentile rankings for Engine Degreasers -- months since last use (N=846 users)

	Months
Minimum	0.03
1%	0.03
5%	0.16
10%	0.23
25%	1.00
Median	6.00
75%	18.00
90%	48.00
95%	72.00
99%	180.00
Maximum	240.00

Table V-3 shows that 10th percentile users and below last used the product less than a month ago. The 75th percentile through the 100th percentile respondents report that they last used the product eighteen months ago through 240 months (20 years) ago and appears to be subject to rounding which was discussed earlier under aspects of the data (i.e. 5, 10, 15 years rather than 5 years 3 months). The data are still usable for indicating the approximate last use.

Q3: How many times have you used engine degreasers in the last 12 months?

Table V-4: Number of uses of the Engine Degreasers within the last 12 months (N=582 recent users)

Mean # of uses	4.18
Median # of uses	2.00
Standard deviation	13.72

The mean number of uses of the product in the last twelve months among users of the product, is 4.18 and the median 2.0. A total of 75.1% of these users used engine degreasers three times or less in the last twelve months with 40.5% using it once; 25.8% using it twice; and 8.8% using it three times.

Table V-5: Percentile rankings of number of uses of Engine Degreasers within the last 12 months (N=582 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	3.25
90%	6.70
95%	12.00
99%	41.70
Maximum	300.00

Q4: How much time did you spend using engine degreasers the last time you used it?

Table V-6: Time spent using Engine Degreasers the last time used (N=578 recent users)

Mean # of minutes	29.29
Median # of minutes	15.00
Standard deviation	48.14

The mean number of minutes for using engine degreasers is 29.29 and the median is 15.0.

Table V-7: Percentile rankings for time spent using the Engine Degreasers last time used (N=578 recent users)

	Minutes
Minimum	0.02
1%	0.95
5%	2.00
10%	5.00
25%	10.00
Median	15.00
75%	30.00
90%	60.00
95%	120.00
99%	180.00
Maximum	900.00

The minimum percentile is .02 minutes and the maximum is 900 minutes (15 hours).

Q5: How much time did you spend in the room immediately after use the last time you used engine degreasers?

Table V-8: Time spent in the room after use of Engine Degreasers (N=577 recent users)

Mean # minutes in room	4.52
Median # minutes in room	0.00
Standard deviation	24.39

The mean number of minutes spent in the room after use is 4.52 minutes as opposed to the median of zero minutes. This is one of the lowest times spent in the room of all the products and probably reflects the large majority of users using the product outside.

Table V-9: Percentile rankings for time spent in the room after use including those who did not spend any time in room but used Engine Degreasers (N=577 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	0.00
90%	0.00
95%	15.50
99%	120.00
Maximum	360.00

Respondents at the 90th percentile or less did not spend any time in the room after using engine degreasers.

Table V-10: Percentile rankings for Engine Degreasers for time spent in the room after last use including only those who spent time in the room (N=41 recent users who stayed in room)

	Minutes
Minimum	2.00
1%	2.00
5%	5.00
10%	5.00
25%	12.50
Median	60.00
75%	120.00
90%	120.00
95%	180.00
99%	----
Maximum	360.00

Table V-10 is similar to Table V-9 except it includes only users who did in fact stay in the room, therefore, all percentiles have values.

Q6A: Which brand of engine degreasers did you use the last time you used it?

Table V-11: Brand distribution for Engine Degreasers

Brand category	Frequency	Percent
Top brand	292	49.7
Second highest brand	46	7.8
Third highest brand	37	6.3
Don't Knows and Not Ascertained	94	16.0
All other named brands	<u>119</u>	<u>20.2</u>
Total	588	100.0

Eighty-four percent (84.0%) of the users of the product specified a brand. The top three brands of engine degreasers were used by 49.7%, 7.8% and 6.3% of the users, respectively.

Q6B: Was the product in aerosol form?

Table V-12: Percent of respondents saying Engine Degreasers are aerosol (N=577 recent users)

Yes, product is aerosol	78.9%
No, product is nonaerosol	21.1%

Almost seventy-nine percent of the respondents said the engine degreaser was aerosol.

Q7: What size of engine degreasers did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table V-13: Amount of Engine Degreasers used per year in ounces (N=555 recent users)

Mean ounces per year	46.95
Median ounces per year	16.00
Standard deviation	135.17

The mean ounces per year is 46.95 and the median is 16.0.

Table V-14: Percentile rankings for amount of Engine Degreasers used in ounces (N=555 recent users)

	Ounces
Minimum	0.04
1%	1.56
5%	4.00
10%	6.00
25%	12.00
Median	16.00
75%	36.00
90%	80.00
95%	160.00
99%	480.00
Maximum	2560.00

The range between the minimum and maximum values in Table V-14 is quite substantial with the minimum ounces per year at .04 and the maximum ounces per year at 2560.0. There is quite a difference between percentile points with the 75th percentile at 36.0 ounces per year and the 100th percentile at 2560.0.

Q8: Where did you use engine degreasers the last time you used them?

Table V-15: Location of last use of the product (N=577 recent users)

Basement	0.2%
Living room	0.0%
Other inside room	1.2%
Several inside rooms	0.0%
Garage	7.8%
Outside	89.4%
Garage & outside	1.4%
Total	<hr/> 100.0%

Most people (89.4%) used engine degreasers outside as might be expected given the fact that they are working on their car. Of the remainder, 7.8% used it in their garage; 1.4% used it in both the garage and open air; 1.2% said that they used it in an other inside room; and .2% said they used it in their basement.

Table V-16: Protective measures undertaken while using Engine Degreasers

	Yes	No
1. Door or window open to the outside (N=50 recent inside users)	80.0%	20.0%
2. Exhaust fan on during use (N=49 recent inside users)	12.2%	87.8%
3. Whether inside door to room was open (N=47 recent inside users)	63.8%	36.2%
4. Whether directions on label were read (N=563 all recent users)	77.6%	22.4%

The majority of users of engine degreasers did have a door or window open to the outside (80.0%) especially since most worked on the outside; did not have an exhaust fan on during use (87.8%); had the inside door to the room opened (63.8%); and had read the directions on the label (77.6%).

Table V-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table V-17: Ounces per use of Engine Degreasers (N=554 recent users)

Mean # of ounces per use	18.72
Median # of ounces per use	11.60
Standard deviation	59.00

Table V-17 indicates that the mean is 18.72 and the median is 11.60 ounces per use.

Table V-18: Percentile rankings of ounces per use of Engine Degreasers (N=554 recent users)

	Ounces/Use
Minimum	0.02
1%	0.24
5%	1.78
10%	2.91
25%	6.00
Median	11.60
75%	16.00
90%	32.00
95%	48.00
99%	128.00
Maximum	1024.00

The range of percentile rankings goes from a minimum of .02 to a maximum of 1024.0 ounces per use.

Table V-19: Respondent characteristics of Engine Degreasers users

1. Respondent age (N=587 recent users)	Mean = 38.70 years
2. Respondent gender (N=588 recent users)	Male = 90.5% Female = 9.5%
3. Number of household members (N=587 recent users)	Mean = 3.20 members
4. Number of bedrooms (N=587 recent users)	Mean = 2.90 bedrooms

Table V-19 presents the respondent characteristics of users of engine degreasers. The mean age of these respondents is 38.70 years; 90.5% of the respondents are male; the mean number of household members is 3.20; and the mean number of bedrooms is 2.90. The users of this product have a higher percentage of males than the general sample and these users are slightly younger as well.

CARBURETOR CLEANERS

W. Product 23: Carburetor Cleaner

Q1: Have you ever used carburetor cleaners?

Table W-1: Numbers and % of respondents ever using Carburetor Cleaners

	Numbers	Percent
Yes	1075	21.9
No	<u>3842</u>	<u>78.1</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table W-1 shows that 21.9% of the total respondents have "ever" used carburetor cleaners. This is an average incidence when compared to the incidence for other products.

Q2: When was the last time you used carburetor cleaners?

Table W-2: Last time Carburetor Cleaners were used in months (N=1071 users)

Mean # of months	13.00
Median # of months	4.00
Standard deviation	27.00

As Table W-2 shows, the mean number of months since last use of carburetor cleaners is 13.0 months. The median number of months is 4.0.

The percentile rankings for time since last use are shown below:

Table W-3: Percentile rankings for Carburetor Cleaners--
months since last use (N=1071 users)

	Months
Minimum	0.03
1%	0.03
5%	0.10
10%	0.23
25%	1.00
Median	4.00
75%	12.00
90%	36.00
95%	60.00
99%	171.36
Maximum	240.00

Table W-3 shows that 10th percentile users and below last used the product less than a month ago. The 75th percentile through the 100th percentile respondents report that they last used the product 1 year ago through 240 months (20 years) ago.

Q3: How many times have you used carburetor cleaners in the last 12 months?

Table W-4: Number of uses of Carburetor Cleaners within the last 12 months (N=803 recent users)

Mean # of uses	3.77
Median # of uses	2.00
Standard deviation	7.10

The mean number of uses of the product in the last twelve months is 3.77 and the median 2.0. Seventy-six percent (76.1%) of these users used carburetor cleaners three times or less in the last twelve months with 36.0% using it once; 27.8% using it twice; and 12.3% using it three times.

Table W-5: Percentile rankings of number of uses of Carburetor Cleaners within the last 12 months (N=803 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	3.00
90%	6.00
95%	12.00
99%	47.28
Maximum	100.00

Q4: How much time did you spend using carburetor cleaners the last time you used it?

Table W-6: Time spent using Carburetor Cleaners the last time used (N=800 recent users)

Mean # of minutes	13.57
Median # of minutes	7.00
Standard deviation	23.00

The mean number of minutes for using carburetor cleaners is 13.57 and the median is 7.0.

Table W-7: Percentile rankings for time spent using the Carburetor Cleaners last time used (N=800 recent users)

	Minutes
Minimum	0.02
1%	0.08
5%	0.33
10%	1.00
25%	3.00
Median	7.00
75%	15.00
90%	30.00
95%	45.00
99%	120.00
Maximum	300.00

The minimum percentile is .02 and the maximum is 300.0 minutes.

Q5: How much time did you spend in the room immediately after use the last time you used carburetor cleaners?

Table W-8: Time spent in the room after use of Carburetor Cleaners (N=798 recent users)

Mean # minutes in room	7.51
Median # minutes in room	0.00
Standard deviation	68.50

The mean number of minutes spent in the room after last use is 7.51 minutes as opposed to the median of zero minutes. These averages are influenced by the large number of users that used the product outside and, therefore, did not spend any time in the room.

Table W-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room but used Carburetor Cleaners (N=798 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	0.00
90%	0.10
95%	30.00
99%	120.60
Maximum	1800.00

Respondents at the 75th percentile or less did not spend any time in the room after using carburetor cleaners, again due to the large number of users who used it outside.

Table W-10: Percentile rankings for Carburetor Cleaners for time spent in the room after last use including only those who spent time in the room (N=79 recent users who stayed in room afterwards)

	Minutes
Minimum	1.00
1%	1.00
5%	2.00
10%	5.00
25%	10.00
Median	30.00
75%	60.00
90%	120.00
95%	240.00
99%	----
Maximum	1800.00

Table W-10 is similar to Table W-9 except it includes only users who did in fact stay in the room, therefore, all percentiles have values.

Q6A: Which brand of carburetor cleaners did you use the last time you used it?

Table W-11: Brand distribution for Carburetor Cleaners

Brand category	Frequency	Percent
Top brand	158	19.5
Second highest brand	151	18.6
Third highest brand	64	7.9
Don't Knows and Not Ascertained	225	27.7
All other named brands	<u>214</u>	<u>26.3</u>
Total	812	100.0

Seventy-two percent (72.3%) of the users of the product specified a brand. The top three brands of carburetor cleaners were used by 19.5%, 18.6%, and 7.9% of the users, respectively.

Q6B: Was the product in aerosol form?

Table W-12: Percent of respondents saying Carburetor Cleaners are aerosol (N=797 recent users)

Yes, product is aerosol	84.9%
No, product is nonaerosol	15.1%

Respondents said that the product was aerosol in 84.9% of the cases.

Q7: What size of carburetor cleaners did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table W-13: Amount of Carburetor Cleaners used per year in ounces (N=769 recent users)

Mean ounces per year	22.00
Median ounces per year	12.00
Standard deviation	50.60

The mean ounces used per year for carburetor cleaners is 22.0 which is about average compared to the other products. The median is 12.0.

Table W-14: Percentile rankings for amount of Carburetor Cleaners used in ounces (N=769 recent users)

	Ounces
Minimum	0.10
1%	0.50
5%	1.50
10%	3.00
25%	5.22
Median	12.00
75%	16.00
90%	39.00
95%	75.00
99%	212.00
Maximum	672.00

The minimum ounces per year is 22.0 and maximum value is 672.0 ounces.

Q8: Where did you use carburetor cleaners the last time you used them?

Table W-15: Location of last use of the product (N=797 recent users)

Basement	0.1%
Living room	0.1%
Other inside room	1.0%
Several inside rooms	0.0%
Garage	10.3%
Outside	86.4%
Garage & outside	2.0%
Total	<hr/> 100.0%

Most people (86.4%) used carburetor cleaners outside. Of the remainder, 10.3% used it in their garage; 2.0% used it in both the garage and outside; 1.0% used it in other inside rooms; 0.1% used it in the basement; and 0.1% used it in the living room.

Table W-16: Protective measures undertaken while using Carburetor Cleaners

	Yes	No
1. Door or window open to the outside (N=88 recent inside users)	73.9%	26.1%
2. Exhaust fan on during use (N=87 recent inside users)	6.9%	93.1%
3. Whether inside door to room was open (N=84 recent inside users)	51.2%	48.8%
4. Whether directions on label were read (N=780 all recent users)	51.2%	48.8%

The majority of users of carburetor cleaners did have a door or window open to the outside (73.9%); did not have an exhaust fan on during use (93.1%); had the inside door to the room opened (51.2%); and had read the directions on the label (51.2%).

Table W-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table W-17: Ounces per use of Carburetor Cleaners (N=766 recent users)

Mean # of ounces per use	7.59
Median # of ounces per use	5.00
Standard deviation	9.40

Table W-17 indicates that the mean is 7.59 ounces per use and the median is 5.0.

Table W-18: Percentile rankings of ounces per use of
Carburetor Cleaners (N=766 recent users)

	Ounces/Use
Minimum	0.03
1%	0.15
5%	0.70
10%	1.25
25%	2.41
Median	5.00
75%	9.75
90%	16.00
95%	19.30
99%	48.66
Max	128.00

Table W-19: Respondent characteristics of Carburetor
Cleaner users

1. Respondent age (N=811 recent users)	Mean = 39.70 years
2. Respondent gender (N=811 recent users)	Male = 87.5% Female = 12.5%
3. Number of household members (N=811 recent users)	Mean = 3.30 members
4. Number of bedrooms (N=810 recent users)	Mean = 2.90 bedrooms

Table W-19 presents the respondent characteristics of users of carburetor cleaners. The mean age of these respondents is 39.70 years; 87.5% of the respondents are male; the mean number of household members is 3.30; and the mean number of bedrooms is 2.90. The users of carburetor cleaners are more often male and slightly younger than the sample at large.

AEROSOL SPRAY PAINT FOR CARS

X. Product 24: Spray Paint for Cars

Q1: Have you ever used an auto spray paint?

Table X-1: Numbers and % of respondents ever using Auto Spray Paints

	Numbers	Percent
Yes	595	12.1
No	<u>4321</u>	<u>87.9</u>
Total	4916*	100.0

*4 cases where information was not ascertained

Table X-1 shows that 12.1% of the total respondents have "ever" used Auto Spray Paints.

Q2: When was the last time you used Auto Spray Paints?

Table X-2: Last time Auto Spray Paint was used in months (N=596 users)

Mean # of months	20.90
Median # of months	8.00
Standard deviation	33.41

As Table X-2 shows, the mean number of months since last use of auto spray paint is 20.90 months and the median is 8.0 months. The mean is more than twice the size of the median. This difference is on account of a few extreme responses to this question. The median adjusts for these extreme responses.

The percentile rankings for time since last use are shown below:

Table X-3: Percentile rankings for Auto Spray Paints the months ago last used (N=596 users)

	Months
Minimum	0.03
1%	0.03
5%	0.16
10%	0.23
25%	2.00
Median	8.00
75%	24.00
90%	60.00
95%	96.00
99%	180.00
Maximum	240.00

Table X-3 shows that the months since the product was last used range from a minimum of 0.03 months to a maximum of 240.0 months. Twenty-five percent of the respondents used the product 2 months or less ago and 95% of the users used the product last 8 years or less ago. The number of months reported may be subject to rounding discussed earlier under aspects of the data (i.e. 2, 8, 20 years rather than 8 years 3 months). The data is usable for indicating the approximate last use.

Q3: How many times have you used auto spray paints in the last 12 months?

Table X-4: Number of uses of the Auto Spray Paint within the last 12 months (N=367 recent users)

Mean # of uses	4.50
Median # of times	2.00
Standard deviation	9.71

The mean number of uses of Auto Spray Paints in the last 12 months is 4.50 times and the median is 2.0 times. Of the 367 respondents who used the product in the last year, 37.9% used it once, 22.6% used it twice and 11.4% used it three times. As shown in Table X-5 which follows, 95% of the respondents used the product 15 times or less in the last year. The maximum number of uses is 100.0.

Table X-5: Percentile rankings of number of uses of Auto Spray Paints within the last 12 months (N=367 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	4.00
90%	10.00
95%	15.00
99%	60.00
Maximum	100.00

Q4: How much time did you spend using Auto Spray Paint the last time you used it?

Table X-6: Time spent using the Auto Spray Paint last time used (N=362 recent users)

Mean # of minutes	42.77
Median # of minutes	20.00
Standard deviation	71.39

The mean and median number of minutes for using auto spray paints are 42.77 and 20.0 minutes respectively.

Table X-7: Percentile rankings for time spent using the Auto Spray Paint last time used (N=362 recent users)

	Minutes
Minimum	0.03
1%	0.19
5%	1.00
10%	3.00
25%	10.00
Median	20.00
75%	60.00
90%	120.00
95%	145.50
99%	360.00
Maximum	900.00

The time spent using the auto spray paint ranges from a minimum of 0.03 minutes to 900.0 minutes (15 hours) at the 100th percentile. Seventy-five percent of the respondents spent one hour or less using the product. A few respondents spent a much greater time using the product. This is reflected in the 99th and 100th percentile which are 360 minutes (6 hours) and 900.0 (15 hours).

Q5: How much time did you spend in the room immediately after use the last time you used auto spray paints?

Table X-8: Time spent in the room after use of Auto Spray Paints (N=364 recent users)

Mean # minutes in room	10.71
Median # minutes in room	0.00
Standard deviation	45.53

The mean number of minutes spent in the room after last use is 10.71 minutes and the median is 0.0 minutes. The median is zero as 75% of the respondents did not spend any time in the room after using the product.

Table X-9: Percentile rankings for time spent in the room after last use of Auto Spray Paints including those who did not spend any time in the room (N=364 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	0.00
90%	17.50
95%	60.00
99%	282.00
Maximum	480.00

Seventy-five percent of the respondents did not spend any time in the room after using the product. This is because most respondents used the product outside as it's a spray paint for cars. Ninety-five percent of the respondents spent 1 hour or less in the room after using auto spray paints. Time spent increased sharply at the 100th percentile to 480 minutes (8 hours).

Table X-10: Percentile rankings for Auto Spray Paints for time spent in the room after last use including only those who spent time in the room (N=57 recent users who stayed in room afterwards)

	Minutes
Minimum	1.00
1%	--
5%	1.90
10%	4.60
25%	7.50
Median	35.00
75%	60.00
90%	192.00
95%	360.00
99%	---
Maximum	480.00

Table X-10 is similar to Table X-9 except it includes only users who did in fact stay in the room after using the product. The mean time spent in the room is 68.40 minutes. Fifty percent of the respondents spent 35.0 minutes or less in the room. The maximum time spent in the room after using the product is 480 minutes (8 hours). Only 57 respondents stayed in the room after using auto spray paints. Since this number is less than a 100, the 1st and 99th percentiles have not been determined.

Q6A: Which brand of auto spray paint did you use the last time you used it?

Table X-11: Brand distribution for Auto Spray Paints

Brand category	Frequency	Percent
Top brand	34	9.1
Second highest brand	33	8.9
Third highest brand	12	3.2
Don't Knows and Not Ascertained	168	45.2
All other named brands	<u>125</u>	<u>33.6</u>
Total	372	100.0

Fifty-five percent (54.8%) of the users of the product specified a brand. The top three brands of auto spray paint named were used by 9.1%, 8.9% and 3.2% of respondents, respectively.

Q6B: Was the product in aerosol form?

Table X-12: Percent of respondents saying the Auto Spray Paint used is in aerosol or nonaerosol form (N=364 recent users)

Yes, product is aerosol	99.5%
No, product is nonaerosol	0.5%

Given the product is auto spray paint, one would expect the respondents to say the product is in aerosol form and 99.5% of the respondents did say it was. Only 0.5% answered the question specifying the product they used was in nonaerosol form. This could be attributed to respondent error in answering the question.

Q7: What size of auto spray paint did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table X-13: Amount of Auto Spray Paint used in ounces
(N=347 recent users)

Mean ounces per year	44.95
Median ounces per year	16.00
Standard deviation	89.78

The mean ounces used per year for auto spray paints is 44.95 ounces and the median is 16.0 ounces. The mean is over two times the size of the median showing that there are some extreme responses to this question.

Table X-14: Percentile rankings for amount of Auto Spray
Paints used in ounces (N=347 recent users)

	Ounces
Minimum	0.04
1%	0.14
5%	1.50
10%	3.00
25%	6.12
Median	16.00
75%	48.00
90%	100.80
95%	156.00
99%	557.76
Maximum	900.00

The minimum amount of auto spray paint used is 0.04 ounces and the maximum is 900.0 ounces. Ninety-five percent of the respondents used 156.0 ounces or less per year. There is an increase in ounces used at the 99th (557.76 ounces) to the 100th percentile (900.0 ounces).

Q8: Where did you use auto spray paint the last time you used it?

Table X-15: Location of last use of the product (N=363 recent users)

Basement	0.6%
Living Room	0.0%
Other inside room	1.1%
Several inside rooms	0.0%
Garage	18.7%
Outside	77.7%
Garage & outside	1.9%
Total	<u>100.0%</u>

Most of the respondents 77.7% used the product outside. A total of 18.7% used it in the garage. The remaining 1.7% used it either in the basement or an other inside room.

Table X-16: Protective measures undertaken while using Auto Spray Paints

	Yes	No
1. Door or window open to the outside (N=71 recent inside users)	70.4%	29.6%
2. Exhaust fan on during use (N=71 recent inside users)	19.7%	80.3%
3. Whether inside door to room was open (N=68 recent inside users)	47.1%	52.9%
4. Whether directions on label were read (N=357 all recent users)	72.0%	28.0%

The majority of the respondents had read the directions on the label (72.0%); had a door or window open to the outside (70.4%) and did not have an exhaust fan on (80.3%). A total of 47.1% had the inside door to the room open while using the product.

Table X-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table X-17: Ounces per use of Auto Spray Paint (N=347 recent users)

Mean # of ounces per use	13.76
Median # of ounces per use	8.00
Standard deviation	19.31

The mean ounces per use of the product is 13.76 ounces and the median is 8.0. Table X-18 which follows presents the percentile rankings for this variable. Ninety-five percent of the respondents used 48.0 ounces or less of the product per use. There is a sharp increase at the 100th percentile to 192.0 ounces per use.

Table X-18: Percentile rankings of ounces per use of Auto Spray Paints (N=3347 recent users)

	Ounces/Use
Minimum	0.04
1%	0.08
5%	0.77
10%	1.50
25%	3.90
Median	8.00
75%	16.00
90%	32.00
95%	48.00
99%	103.23
Maximum	192.00

Table X-19 presents the respondent characteristics of auto spray paints. The mean age of these respondents is 39.48 years. The majority of the respondents are male (88.4%) compared to the female respondents (11.6%). Except for respondent age and gender, the other characteristics are approximately similar to the characteristics for the total sample of respondents. The total sample has a respondent age of 44.30 years and nearly an equal number of male and female respondents.

Table X-19: Respondent characteristics of Auto Spray Paint users

1. Respondent age (N=371 recent users)	Mean = 39.48 years
2. Respondent gender (N=370 recent users)	Male = 88.4% Female = 11.6%
3. Number of household members (N=371 recent users)	Mean = 3.20 members
4. Number of bedrooms (N=371 recent users)	Mean = 3.00 bedrooms

AUTO SPRAY PRIMERS

Y. Product 25: Auto Spray Primers

Q1: Have you ever used auto spray primers?

Table Y-1: Numbers and % of respondents ever using Auto Spray Primers

	Numbers	Percent
Yes	452	9.2
No	<u>4465</u>	<u>90.8</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table Y-1 shows that only 9.2% of the total respondents have "ever" used auto spray primers.

Q2: When was the last time you used auto spray primers?

Table Y-2: Last time Auto Spray Primer was used in months (N=453 users)

Mean # of months	24.00
Median # of months	11.00
Standard deviation	40.91

On the average auto spray primers were last used 24.0 months ago. The median number of months is a little less than half the mean at 11.0 months and adjusts for any extreme values given as answers to this question.

The percentile rankings for time since last use are shown below:

Table Y-3: Percentile rankings for Auto Spray Primers--
months since last use (N=453 users)

	Months
Minimum	0.03
1%	0.03
5%	0.16
10%	0.40
25%	3.00
Median	11.00
75%	24.00
90%	60.00
95%	120.00
99%	185.52
Maximum	420.00

Table Y-3 shows that time since the product was last used ranges from a minimum of 0.03 months to a maximum of 420 months (35 years) at the 100th percentile. Twenty-five percent of the respondents last used the product 3 months or less ago whereas 95% of the respondents last used the product 120 months (10 years) or less ago. The months since last use may be subject to rounding discussed earlier under aspects of the data (i.e. 2, 10, 35 years rather than 10 years 3 months). The data are usable for indicating the approximate last use.

Q3: How many times have you used auto spray primers in the last 12 months?

Table Y-4: Number of uses of Auto Spray Primers within the last 12 months (N=260 recent users)

Mean # of uses	6.42
Median # of uses	2.00
Standard deviation	33.89

The mean number of times auto spray primers were used in the last year is 6.42 uses and the median is 2.0 uses. Of the 260 respondents who used the product in the last year, 44.6% used it once, 21.9% used it twice and 8.5% used it three times. Table Y-5 which follows presents the percentile rankings for this variable. The times the product was used range from a minimum of 1 time to a maximum of 500.0 times. Ninety-five percent of the respondents used the product 15 times or less in the last year. The times the product was used in the last year increased substantially at the 99th and 100th percentile to 139.0 and 500.0 times respectively.

Table Y-5: Percentile rankings of number of uses of Auto Spray Primers within the last 12 months (N=260 recent users)

	Times
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	3.75
90%	10.00
95%	15.00
99%	139.00
Maximum	500.00

Q4: How much time did you spend using the auto spray primer the last time you used it?

Table Y-6: Time spent using the Auto Spray Primer last time used (N=258 recent users)

Mean # of minutes	51.45
Median # of minutes	27.50
Standard deviation	86.11

The mean and median number of minutes for using auto spray primers are 51.45 and 27.50 minutes respectively.

Table Y-7: Percentile rankings for time spent using the Auto Spray Primer last time used (N=258 recent users)

	Minutes
Minimum	0.05
1%	0.22
5%	2.00
10%	5.00
25%	10.00
Median	27.50
75%	60.00
90%	120.00
95%	180.00
99%	529.20
Maximum	600.00

The time spent using auto spray primers ranges from 0.05 minutes to 10.0 hours at the 100th percentile. Twenty-five percent of the respondents used the product for 10.0 minutes or less; 50% used it for 27.50 minutes or less and 95% used it for 3 hours or less. A few respondents used the product for a much longer period of time. This is reflected in the sharp increase at the 99th percentile where the product is used for approximately 9 hours and the 100th percentile where it is used for 600 minutes (10 hours).

Q5: How much time did you spend in the room immediately after use the last time you used auto spray primers?

Table Y-8: Time spent in the room after use of Auto Spray Primers (N=258 recent users)

Mean # minutes in room	11.37
Median # minutes in room	0.00
Standard deviation	45.08

The mean number of minutes spent in the room after last use is 11.37 minutes. The median is 0.0 as 75% of the respondents did not spend any time in the room after using the product.

Table Y-9: Percentile rankings for time spent in the room after last use of Auto Spray Primers including those who did not spend any time in the room (N=258 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	0.00
90%	20.00
95%	77.25
99%	360.00
Maximum	360.00

Respondents at the 90th percentile through the 100th percentile did spend some time in the room after using the product. The maximum time spent in the room after using the product is 360 minutes (6 hours).

Table Y-10: Percentile rankings for Auto Spray Primers for time spent in the room after use including only those who spent time in the room (N=44 recent users who stayed in the room afterwards)

	Minutes
Minimum	1.00
1%	--
5%	1.00
10%	2.50
25%	5.00
Median	30.00
75%	120.00
90%	120.00
95%	360.00
99%	---
Maximum	360.00

Table Y-10 is similar to Table Y-9 except it includes only users who did in fact stay in the room. For the 44 respondents who stayed in the room after using the product, the mean time spent in the room after use is 66.70 minutes and the median is 30.0 minutes. Time spent in the room after using the product cannot be ascertained at the 1st and 99th percentile as the number of respondents in the room is less than a 100.

Q6A: Which brand of auto spray primer did you use the last time you used it?

Table Y-11: Brand distribution for Auto Spray Primers

Brand category	Frequency	Percent
Top brand	29	11.0
Second highest brand	21	8.0
Third highest brand	12	4.5
Don't Knows and Not Ascertained	111	42.0
All other named brands	<u>91</u>	<u>34.5</u>
Total	264	100.0

Fifty-eight percent of the users of the product specified a brand. The top three brands of auto spray primer named were used by 11.0%, 8.0% and 4.5% of the respondents, respectively.

Q6B: Was the product in aerosol form?

Table Y-12: Percent of respondents saying Auto Spray Primer is in aerosol or nonaerosol form (N=258 recent users)

Yes, product is aerosol	98.8%
No, product is nonaerosol	1.2%

The majority of the respondents (98.8%) said the product was in aerosol form. Given the primer is in spray form none of the respondents should have said the product is nonaerosol. The 1.2% in Table Y-12 can be attributed to respondent error.

Q7: What size of auto spray primer did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table Y-13: Amount of Auto Spray Primer used in ounces (N=247 recent users)

Mean ounces per year	70.37
Median ounces per year	16.00
Standard deviation	274.56

The average amount of auto spray primer used per year is 70.37 ounces and the median is 16.0 ounces. There is a large difference between the mean and median as a few respondents used a much greater quantity of the product.

Table Y-14: Percentile rankings for amount of Auto Spray Primers used in ounces (N=247 recent users)

	Ounces
Minimum	0.12
1%	0.77
5%	3.00
10%	4.00
25%	9.00
Median	16.00
75%	48.00
90%	128.00
95%	222.00
99%	1167.36
Maximum	3840.00

The minimum amount of product used is 0.12 ounces and the maximum is 3840.0 ounces. Ninety-five percent of the respondents used 222.0 ounces or less of the product in the last year. The amount used increased sharply at the 99th and 100th percentile to 1167.36 and 3840.0 ounces respectively showing a few respondents used a much greater quantity of the product.

Q8: Where did you use auto spray primers the last time you used it?

Table Y-15: Location of last use of the product (N=256 recent users)

Basement	0.7%
Living room	---
Other inside room	0.8%
Several inside rooms	---%
Garage	20.7%
Outside	75.8%
Garage & outside	2.0%
Total	<hr/> 100.0%

The majority of the respondents (75.8%) used the product outside. A total of 20.7% of the respondents used the product in the garage.

Table Y-16: Protective measures undertaken while using Auto Spray Primers

	Yes	No
1. Door or window open to the outside (N=56 recent inside users)	71.4%	28.6%
2. Exhaust fan on during use (N=56 recent inside users)	30.4%	69.6%
3. Whether inside door to room was open (N=54 recent inside users)	46.3%	53.7%
4. Whether directions on label were read (N=252 all recent users)	69.0%	31.0%

Sixty-nine percent of the respondents had read the label. The majority of the respondents had a door or window open to the outside (71.4%) and had an exhaust fan off (69.6%) while using the product. A total of 46.3% had an inside door to the room open.

Table Y-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table Y-17: Ounces per use of Auto Spray Primers
(N=247 recent users)

Mean # of ounces per use	20.54
Median # of ounces per use	12.00
Standard deviation	43.72

The average amount of auto spray primer used per use of the product is 20.54 ounces and the median is 12.0 ounces. Table Y-18 which follows presents the percentile rankings for this variable. The ounces used per use of the product range from a minimum of 0.04 ounces to a maximum of 512.0 ounces at the 100th percentile. Ninety-five percent of the respondents used 64.0 ounces or less of the product per use.

Table Y-18: Percentile rankings of ounces per use of Auto Spray Primers (N=247 recent users)

	Ounces/Use
Minimum	0.04
1%	0.28
5%	1.50
10%	2.00
25%	4.02
Median	12.00
75%	18.00
90%	38.72
95%	64.00
99%	241.92
Maximum	512.00

Table Y-19 presents the respondent characteristics of auto spray primer users. The mean age of these respondents is 37.76 years. The majority of the respondents are male (87.8%). The statistics for the respondent characteristics of auto spray primer users is approximately the same as those for the total sample of respondents with the exception of respondent age and gender. The average age for the total sample of respondents is 44.30 years and the number of male and female respondents is 47.0% and 53.0% respectively.

Table Y-19: Respondent characteristics of Auto Spray Primer users

1. Respondent age (N=263 recent users)	Mean = 37.76 years
2. Respondent gender (N=262 recent users)	Male = 87.8% Female = 12.2%
3. Number of household members (N=263 recent users)	Mean = 3.45 members
4. Number of bedrooms (N=263 recent users)	Mean = 3.00 bedrooms

SPRAY LUBRICANT FOR CARS

Z. Product 26: Spray Lubricants for Cars

Q1: Have you ever used spray lubricants?

Table Z-1: Numbers and % of respondents ever using Spray Lubricants

	Numbers	Percent
Yes	885	18
No	<u>4032</u>	<u>82</u>
Total	4917*	100

*3 cases where information was not ascertained

Table Z-1 shows that 18% of the total respondents have "ever" used spray lubricants.

Q2: When was the last time you used spray lubricants?

Table Z-2: Last time Spray Lubricant was used in months (N=880 users)

Mean # of months	6.30
Median # of months	2.00
Standard deviation	17.31

As Table Z-2 shows, the mean number of months since last use of spray lubricant is 6.30 months and the median is 2.0 months. The mean is approximately three times the size of the median. This difference is the result of few extreme responses to this question.

The percentile rankings for time since last use are shown below:

Table Z-3: Percentile rankings for Spray Lubricants--months since last use (N=880 users)

	Months
Minimum	0.03
1%	0.03
5%	0.07
10%	0.13
25%	0.46
Median	2.00
75%	6.00
90%	12.00
95%	24.00
99%	60.00
Maximum	300.00

Table Z-3 shows that the months since the product was last used range from a minimum of 0.03 months to a maximum of 300 months. Twenty-five percent of the respondents used the product less than one month ago and 95% of the users used the product last 24.0 months or less ago. The number of months reported may be subject to rounding discussed earlier under aspects of the data (i.e. 2, 5, 25 years rather than 5 years 3 months). The data are usable for indicating the approximate last use.

Q3: How many times have you used spray lubricants in the last 12 months?

Table Z-4: Number of uses of Spray Lubricant within the last 12 months (N=771 recent users)

Mean # of uses	10.31
Median # of uses	3.00
Standard deviation	30.71

The mean number of uses of spray lubricants that were used in the last 12 months is 10.31 times and the median is 3.0 times. Of the 771 respondents who used the product in the last year, 18.4% used it once, 20.8% used it twice and 11.8% used it three times. As shown in Table Z-5 which follows, 95% of the respondents used the product 40 times or less in the last year. The maximum number of times the product is used is 365.0.

Table Z-5: Percentile rankings of times used Spray Lubricants within the last 12 months (N=771 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	2.00
Median	3.00
75%	6.00
90%	20.00
95%	40.00
99%	105.60
Maximum	365.00

Q4: How much time did you spend using spray lubricants the last time you used it?

Table Z-6: Time spent using the Spray Lubricant last time used (N=762 recent users)

Mean # of minutes	9.90
Median # of minutes	5.00
Standard deviation	35.62

The mean and median number of minutes for using spray lubricants are 9.90 and 5.0 minutes respectively.

Table Z-7: Percentile rankings for time spent using the Spray Lubricant last time used (N=762 recent users)

	Minutes
Minimum	0.02
1%	0.03
5%	0.08
10%	0.17
25%	1.00
Median	5.00
75%	10.00
90%	15.00
95%	30.00
99%	120.00
Maximum	720.00

The time spent using the spray lubricant ranges from a minimum of 0.02 minutes to 720 minutes (12 hours) at the 100th percentile. Ninety-five percent of the respondents spent a half hour or less using the product. A few respondents spent a much greater time using the product. This is reflected in the 99th and 100th percentile which are 120 minutes (2 hours) and 720.0 minutes (12 hours).

Q5: How much time did you spend in the room immediately after use the last time you used spray lubricants?

Table Z-8: Time spent in the room after use of Spray Lubricants (N=765 recent users)

Mean # minutes in room	4.54
Median # minutes in room	0.00
Standard deviation	30.67

The mean number of minutes spent in the room after last use is 4.54 minutes and the median is 0.0 minutes. The median is zero as 75% of the respondents did not spend any time in the room after using the product.

Table Z-9: Percentile rankings for time spent in the room after last use of Spray Lubricants including those who did not spend any time in the room (N=765 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	0.00
90%	2.00
95%	15.00
99%	70.20
Maximum	420.00

Seventy-five percent of the respondents did not spend any time in the room after using the product. This is because most respondents used the product outside as it's a lubricant for cars. Ninety-five percent of the respondents spent 15.0 minutes or less in the room after using spray lubricants. Time spent increased at the 100th percentile to 420.0 minutes.

Table Z-10: Percentile rankings for Spray Lubricants for time spent in the room after last use including only those who spent time in the room (N=84 recent users who stayed in the room afterwards)

	Minutes
Minimum	1.00
1%	--
5%	1.00
10%	2.00
25%	5.00
Median	10.00
75%	30.00
90%	60.00
95%	300.00
99%	---
Maximum	420.00

Table Z-10 is similar to Table Z-9 except it includes only users who did in fact stay in the room after using the product. The mean time spent in the room is 41.40 minutes. Fifty percent of the respondents spent 10.0 minutes or less in the room. The maximum time spent in the room after using the product is 7.0 hours. Only 84 respondents stayed in the room after using spray lubricants. Since this number is less than a 100, the 1st and 99th percentiles have not been determined.

Q6A: Which brand of spray lubricant did you use the last time you used it?

Table Z-11: Brand distribution for Spray Lubricants

Brand category	Frequency	Percent
Top brand	369	47.2
Second highest brand	30	3.8
Third highest brand	15	1.9
Don't Knows and Not Ascertained	203	26.0
All other named brands	<u>164</u>	<u>21.1</u>
Total	781	100.0

Seventy-four percent (74%) of the users of the product specified a brand. The top three brands of spray lubricant named were used by 47.2%, 3.8% and 1.9% of respondents, respectively.

Q6B: Was the product in aerosol form?

Table Z-12: Percent of respondents saying the Spray Lubricant used is in aerosol or nonaerosol form (N=768 recent users)

Yes, product is aerosol	99.2%
No, product is nonaerosol	0.8%

Given the product is spray lubricant, one would expect the respondents to say the product is in aerosol form and 99.2% of the respondents did say it was. Only 0.8% answered the question specifying the product they used was in nonaerosol form. This could be attributed to respondent error in answering the question.

Q7: What size of spray lubricant did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table Z-13: Amount of Spray Lubricant used in ounces
(N=705 recent users)

Mean ounces per year	18.63
Median ounces per year	6.00
Standard deviation	54.74

The mean ounces used per year for spray lubricants is 18.63 ounces and the median is 6.0 ounces. The mean is over three times the size of the median showing that there are some extreme responses to this question.

Table Z-14: Percentile rankings for amount of Spray
Lubricant used in ounces (N=705 recent users)

	Ounces
Minimum	0.08
1%	0.40
5%	0.96
10%	1.00
25%	2.75
Median	6.00
75%	15.50
90%	36.00
95%	64.00
99%	240.00
Maximum	864.00

The minimum amount of spray lubricant used is 0.08 ounces and the maximum is 864.0 ounces. Ninety-five percent of the respondents used 64.0 ounces or less per year. There is then an increase in ounces used at the 99th (240.0 ounces) and the 100th percentile (864.0 ounces).

Q8: Where did you use spray lubricants the last time you used it?

Table Z-15: Location of where product used last time
(N=765 recent users)

Basement	0.4%
Living room	0.0%
Other inside room	1.2%
Several inside rooms	0.0%
Garage	12.4%
Outside	83.5%
Garage & outside	2.5%
Total	<hr/> 100.0%

Most of the respondents (83.5%) used the product outside. A total of 12.4% used it in the garage. The remaining 1.6% used it either in the basement or other inside room.

Table Z-16: Protective measures undertaken while using Spray Lubricants

	Yes	No
1. Door or window open to the outside (N=104 recent inside users)	66.3%	33.7%
2. Exhaust fan on during use (N=103 recent inside users)	6.8%	93.2%
3. Whether inside door to room was open (N=100 recent inside users)	53.0%	47.0%
4. Whether directions on label were read (N=752 all recent users)	55.1%	44.9%

A little more than half the respondents had read the directions on the label (55.1%) and had an inside door to the room open (53.0%). The majority of the respondents had an exhaust fan off (93.2%). A total of 66.3% had a door or window open to the outside.

Table Z-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table Z-17: Ounces per use of Spray Lubricants (N=704 recent users)

Mean # of ounces per use	3.39
Median # of ounces per use	1.58
Standard deviation	7.60

The mean ounces per use of the product is only 3.39 ounces and the median is 1.58. Table Z-18 which follows presents the percentile rankings for this variable. Twenty-five percent of the respondents use less than an ounce of the product per use whereas 95% of the respondents use 12.0 ounces or less per use. There is a sharp increase at the 100th percentile to 128.0 ounces per use.

Table Z-18: Percentile rankings of ounces per use of Spray Lubricants (N=704 recent users)

	Ounces/Use
Minimum	0.04
1%	0.08
5%	0.22
10%	0.33
25%	0.75
Median	1.58
75%	3.20
90%	8.00
95%	12.00
99%	27.43
Maximum	128.00

Table Z-19 presents the respondent characteristics of spray lubricants. The mean age of these respondents is 40.26 years. The majority of the respondents are male (85.2%) compared to the female respondents (14.8%). Except for respondent gender, the other characteristics are approximately similar to the characteristics for the total sample of respondents. The total sample has nearly an equal number of male and female respondents.

Table Z-19: Respondent characteristics of Spray Lubricant users

1. Respondent age (N=779 recent users)	Mean = 40.26 years
2. Respondent gender (N=778 recent users)	Male = 85.2% Female = 14.8%
3. Number of household members (N=778 recent users)	Mean = 3.20 members
4. Number of bedrooms (N=779 recent users)	Mean = 2.94 bedrooms

TRANSMISSION CLEANERS

AA. Product 27: Transmission Cleaner

Q1: Have you ever used transmission cleaner?

Table AA-1: Numbers and % of Respondents Ever Using Transmission Cleaner

	Numbers	Percent
Yes	107	2.1
No	<u>4809</u>	<u>97.9</u>
Total	4916*	100.0

*4 cases where information was not ascertained

Table AA-1 shows that 2.1% of the total respondents have "ever" used transmission cleaner. This is the lowest usage rate of any product evaluated.

Q2: When was the last time you used transmission cleaner?

Table AA-2: Last time Transmission Cleaner was used in months (N=103 users)

Mean # of months	16.70
Median # of months	7.00
Standard deviation	30.63

As Table AA-2 shows, the mean number of months since last use of transmission cleaner is 16.70 months. Compared to other products studied, this is a moderate amount of time since last use.

The percentile rankings for time since last use are shown below:

Table AA-3: Percentile rankings for Transmission Cleaners
-- months since last use (N=103 users)

	Months
Minimum	0.03
1%	0.03
5%	0.23
10%	0.46
25%	1.00
Median	7.00
75%	24.00
90%	48.00
95%	60.00
99%	236.16
Maximum	240.00

Table AA-3 shows that respondents in the lowest 25th percentile grouping used the product within the month preceding their answering the question. The 75th percentile through the 100th percentile respondents report that they last used the product between 24 months (2 years) and 240 months (20 years ago).

Q3: How many times have you used transmission cleaner in the last 12 months?

Table AA-4: Number of uses of Transmission Cleaner in the last 12 months (N=69 recent users)

Mean # of uses	2.28
Median # of uses	1.00
Standard deviation	3.55

Among those respondents who had used the product within the past year, the mean number of times it had been used was 2.28, and the median number of uses was 1.0. Almost two-thirds of the respondents who had used the product within the past 12 months, 63.8% to be exact, had only one occasion to make use of transmission cleaner. It was used twice by 17.4%, and 3 times by 10.1% of this group of 75 recent users.

Table AA-5: Percentile rankings of number of uses of Transmission Cleaner within the last 12 months (N=69 recent users)

	Uses
Minimum	1.00
5%	1.00
10%	1.00
25%	1.00
Median	1.00
75%	2.00
90%	3.00
95%	9.00
Maximum	26.00

Q4: How much time did you spend using transmission cleaner the last time you used it?

Table AA-6: Time spent using the Transmission Cleaner last time used (N=67 recent users)

Mean # of minutes	27.90
Median # of minutes	15.00
Standard deviation	61.44

The mean number of minutes of use of transmission cleaner is a little less than half an hour. The median is a quarter hour.

Table AA-7: Percentile rankings for time spent using the Transmission Cleaner last time used (N=67 recent users)

	Minutes
Minimum	0.17
1%	--
5%	0.35
10%	1.80
25%	5.00
Median	15.00
75%	30.00
90%	60.00
95%	60.00
99%	--
Maximum	450.00

The time spent using the product ranges from a few seconds to seven and one-half hours. Respondents spending one hour or less using the product include more than 95% of those with recent experience using transmission cleaner.

Q5: How much time did you spend in the room immediately after use the last time you used transmission cleaner?

Table AA-8: Time spent in the room after use of Transmission Cleaner (N=69 recent users)

Mean # minutes in room	5.29
Median # minutes in room	0.00
Standard deviation	29.50

The mean number of minutes spent in the room after use is just over 5.0 minutes. The median value of zero indicates that at least half the respondents left the room immediately after using the product.

Table AA-9: Percentile rankings for time spent in the room after use including those who did not spend any time in room after use of Transmission Cleaner (N=69 recent users)

	Minutes
Minimum	0.00
1%	NA .00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	0.00
90%	5.00
95%	22.50
99%	--
Maximum	240.00

More than 75% of respondents spent no time in the room following use of the product, while fully 95% stayed in the room less than 23.0 minutes, and none stayed longer than 240.0 minutes (4 hours).

Table AA-10: Percentile rankings of time spent in the room after last use of Transmission Cleaner, including only those respondents who spent time in the room (N=8 recent users who stayed in the room afterwards)

	Minutes
Minimum	5.00
1%	--
5%	--
10%	--
25%	6.25
Median	15.00
75%	41.25
90%	--
95%	--
99%	--
Maximum	240.00

Table AA-10 is similar to Table AA-9 except it includes only users who did in fact stay in the room after using the product, therefore the zero values are eliminated.

Q6A: Which brand of transmission cleaner did you use the last time you used it?

Table AA-11: Brand distribution for Transmission Cleaners

Brand category	Frequency	Percent
Top brand	9	12.0
Second highest brand	8	10.7
Third highest brand	6	8.0
Don't Knows and Not Ascertained	43	57.3
All other named brands	<u>9</u>	<u>12.0</u>
Total	75	100.0

A total of 42.7% of the respondents specified a brand. The top three brands of Transmission Cleaner named were used by 12.0%, 10.7% and 8.0% of the users, respectively.

Q6B: Was the product in aerosol form?

Table AA-12: Percent of respondents saying Transmission Cleaner is aerosol (N=69 recent users)

Yes, product is aerosol	21.7%
No, product is nonaerosol	78.3%

More than three-quarters of the transmission cleaner used by respondents was in a form other than aerosol.

Q7: What size of transmission cleaner did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table AA-13: Amount of Transmission Cleaner used in ounces (N=64 recent users)

Mean ounces per year	35.71
Median ounces per year	15.00
Standard deviation	62.93

The mean number of ounces of transmission cleaner used per year is moderate to high compared to the amounts used of other products.

Table AA-14: Percentile rankings for amount of Transmission Cleaner used in ounces (N=64 recent users)

	Ounces
Minimum	2.00
1%	--
5%	3.75
10%	4.00
25%	8.00
Median	15.00
75%	32.00
90%	77.00
95%	140.00
99%	--
Maximum	360.00

The range between the minimum and maximum values in Table AA-14 is substantial, with the minimum at only 2.0 ounces per year and the maximum at 360.0 ounces per year. The seventy-fifth percentile respondent used no more than about 32.0 ounces per year.

Q8: Where did you use transmission cleaner the last time you used it?

Table AA-15: Location where the product was last used
(N=69 recent users)

Basement	0.0%
Living Room	0.0%
Other inside room	1.4%
Several inside rooms	0.0%
Garage	14.5%
Outside	79.7%
Garage & outside	4.3%
Total	<hr/> 100.0%

Most people (79.7%) used transmission cleaner outside, with the second most common usage location being the garage, and the third being a combination of garage and outside. Rarely (1.4%) was the product used in a room of the house other than the garage.

Table AA-16: Protective measures undertaken while using Transmission Cleaner

	Yes (# 's)	No (# 's)
1. Door or Window Open to the Outside (N=11 recent inside users)	7	4
2. Exhaust Fan on During Use (N=11 recent inside users)	2	9
3. Whether Inside Door to Room Was Open (N=10 recent inside users)	6	4
4. Whether Directions on Label Were Read (N=69 all recent users)	59	10

For the three questions concerned with air flow in the room in which the product was used, it should be noted that there were only 10 or 11 respondents. Most of these respondents did keep the window or door open to the outside, but kept inside door(s) closed and did not use an exhaust fan. More than 85.0% of the 69 respondents who answered the question regarding reading of the product label claimed to have done so.

Table AA-17 is a derived variable indicating the number of ounces per use. It is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table AA-17: Ounces per use of Transmission Cleaner
(N=63 recent users)

Mean # of ounces per use	16.60
Median # of ounces per use	12.00
Standard deviation	18.83

Table AA-17 shows the mean value for ounces per use is a relatively high number compared to those for some other products encountered.

Table AA-18: Percentile rankings of ounces per use of Transmission Cleaner (N=63 recent users)

	Ounces/Use
Minimum	2.00
1%	--
5%	3.15
10%	4.00
25%	6.00
Median	12.00
75%	18.00
90%	32.00
95%	55.20
99%	--
Maximum	128.00

Table AA-18 indicates that there is a jump between the 95th percentile of 55.20 and the maximum value of 128.00, and more than a four-fold increase between the median and the 95th percentile, from 12.0 to 55.20.

Table AA-19: Respondent characteristics of Transmission Cleaner users

1. Respondent Age (N=75 recent users)	Mean = 36.33 years
2. Respondent Gender (N=75 recent users)	Male = 69.3% Female = 30.7%
3. Number of Household Members (N=75 recent users)	Mean = 3.19 members
4. Number of Bedrooms (N=75 recent users)	Mean = 2.63 bedrooms

Table AA-19 presents the respondent characteristics of transmission cleaner users. The mean age of these respondents, at 36.33, is about 8 years younger than the mean for the total sample. These respondents are also predominantly male, while the total sample is nearly evenly divided between men and women--a function most likely of the fact that this is an automotive product. Household membership and number of bedrooms much more nearly approximate the full sample figures.

BATTERY TERMINAL PROTECTORS

BB. Product 28: Battery Terminal Protector

Q1: Have you ever used battery terminal protector?

Table BB-1: Numbers and % of Respondents Ever Using
Battery Terminal Protector

	Numbers	Percent
Yes	333	6.7
No	<u>4584</u>	<u>93.3</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table BB-1 shows that 6.7% of the total respondents have "ever" used battery terminal protector. This is among the lowest usage rates of any product evaluated.

Q2: When was the last time you used battery terminal protector?

Table BB-2: Last time Battery Terminal Protector was used
in months (N=327 users)

Mean # of months	14.00
Median # of months	6.00
Standard deviation	25.03

As Table BB-2 shows, the mean number of months since last use of a battery terminal protector is 14.0 months. Compared to other products studied, this is a moderate amount of time since last use.

The percentile rankings for time since last use are shown below:

Table BB-3: Percentile rankings for Battery Terminal Protector--months since last use (N=327 users)

	Months
Minimum	0.03
1%	0.03
5%	0.10
10%	0.43
25%	2.00
Median	6.00
75%	12.00
90%	36.00
95%	60.00
99%	120.00
Maximum	240.00

Table BB-3 shows that respondents in the lowest 25th percentile grouping used the product within the 2.0 month period preceding their answering the question. The 75th percentile through the 100th percentile respondents report that they last used the product between 12 months (1 year) and 240.0 months (20 years) ago.

Q3: How many times have you used battery terminal protector in the last 12 months?

Table BB-4: Number of uses of Battery Terminal Protector within the last 12 months (N=228 recent users)

Mean # of uses	3.95
Median # of uses	2.00
Standard deviation	24.33

Among those respondents who had used the product within the past year, the mean number of uses was nearly 4.0, and the median number of uses was 2.0. Nearly half of the respondents who had used the product within the past 12.0 months, 49.6% to be exact, had only one occasion to make use of battery terminal protector. It was used twice by 28.9%, and three times by 9.2% of this group of 228 recent users.

Table BB-5: Percentile rankings of the number of uses of Battery Terminal Protector within the last 12 months (N=228 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	2.00
90%	4.00
95%	6.55
99%	41.30
Maximum	365.00

Q4: How much time did you spend using battery terminal protector the last time you used it?

Table BB-6: Time spent using the Battery Terminal Protector last time used

Mean # of minutes	9.61
Median # of minutes	5
Standard deviation	18.15

Compared to other products, the mean number of minutes of use of battery terminal protector is relatively low.

Table BB-7: Percentile rankings for time spent using the Battery Terminal Protector last time used (N=226 recent users)

	Minutes
Minimum	0.03
1%	0.04
5%	0.08
10%	0.23
25%	1.00
Median	5.00
75%	10.00
90%	20.00
95%	30.00
99%	120.00
Maximum	180.00

The time spent using the product ranges from a few seconds to three hours. Nearly 95% of respondents had spent less than 30.0 minutes using the product, while half had spent 5.0 minutes or less.

Q5: How much time did you spend in the room immediately after use the last time you used battery terminal protector?

Table BB-8: Time spent in the room after use of Battery Terminal Protector (N=226 recent users)

Mean # minutes in room	3.25
Median # minutes in room	0.00
Standard deviation	17.27

The mean number of minutes spent in the room after last use is just over 3 minutes. The median value of zero indicates that at least half the respondents left the room immediately after using the product.

Table BB-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room after use of Battery Terminal Protector (N=226 recent users)

	Minutes
Minimum	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	0.00
90%	2.90
95%	15.00
99%	120.00
Maximum	180.00

More than 75% of respondents spent no time in the room following use of the product, while fully 90% stayed in the room less than 3 minutes.

Table BB-10: Percentile rankings of time spent in the room after last use of Battery Terminal Protector, including only those who spent time in the room (N=25 recent users who stayed in the room afterwards)

	Minutes
Minimum	1.00
5%	1.00
10%	1.60
25%	5.00
Median	10.00
75%	30.00
90%	120.00
95%	162.00
Maximum	180.00

Table BB-10 is similar to Table BB-9 except it includes only users who did in fact stay in the room after using the product, therefore the zero values are eliminated.

Q6A: Which brand of battery terminal protector did you use the last time you used it?

Table BB-11: Brand distribution for Battery Terminal Protectors

Brand category	Frequency	Percent
Top brand	15	6.5
Second highest brand	10	4.3
Third highest brand	9	3.9
Don't Knows and Not Ascertained	145	62.5
All other named brands	<u>53</u>	<u>22.8</u>
Total	232	100.0

A total of 37.5% of the users of the product specified a brand. The top 3 brands of battery terminal protector named were used by 6.5%, 4.3% and 3.9% of the respondents, respectively.

Q6B: Was the product in aerosol form?

Table BB-12: Percent of respondents saying Battery Terminal Protector is aerosol (N=226 recent users)

Yes, product is aerosol	58.4%
No, product is nonaerosol	41.6%

Nearly three-fifths of the battery terminal protector used by respondents was in aerosol form.

Q7: What size of battery terminal protector did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table BB-13: Amount of Battery Terminal Protector used in ounces (N=193 recent users)

Mean ounces per year	16.49
Median ounces per year	4.00
Standard deviation	87.84

As might be expected, the mean ounces of battery terminal protector used per year is rather low compared to the amounts used of other products. Most of the other products included were used in larger quantities by those who used them than was battery terminal protector.

Table BB-14: Percentile rankings for amount of Battery Terminal protector used in ounces (N=193 recent users)

	Ounces
Minimum	0.12
1%	0.13
5%	0.58
10%	1.00
25%	2.00
Median	4.00
75%	8.00
90%	15.00
95%	24.60
99%	627.00
Maximum	1050.00

The range between the minimum and maximum values in Table BB-14 is tremendous, with the minimum at .12 ounces per year and the maximum at 1050.0 ounces per year. Nearly three quarters of the respondents using the product used no more than about 8.0 ounces per year.

Q8: Where did you use battery terminal protector the last time you used it?

Table BB-15: Location of last use of the product (N=225 recent users)

Basement	0.0%
Living Room	0.0%
Other inside room	1.3%
Several inside rooms	0.0%
Garage	11.6%
Outside	86.7%
Garage & outside	0.4%
Total	<hr/> 100.0%

Most people (86.7%) used battery terminal protector outside, with the second most common usage location being the garage. Rarely (1.3%) was the product used in a room of the house other than the garage.

Table BB-16: Protective measures undertaken while using
Battery Terminal Protector

	Yes (# 's)	No (# 's)
1. Door or window open to the outside (N=29 recent inside users)	23	6
2. Exhaust fan on during use (N=29 recent inside users)	3	26
3. Whether inside door to room was open (N=28 recent inside users)	15	13
4. Whether directions on label were read (N=220 all recent users)	157	63

For the three questions concerned with air flow in the room in which the product was used, it should be noted that there were only 28 or 29 respondents. Most of these respondents did keep the window or door open to the outside, but kept inside door(s) closed and did not use an exhaust fan. More than 71.0% of the 220 respondents who answered the question regarding reading of the product label claimed to have done so.

Table BB-17 is a derived variable indicating the number of ounces per use. It is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table BB-17: Ounces per use of Battery Terminal Protector
(N=193 recent users)

Mean # of ounces per use	8.07
Median # of ounces per use	2.72
Standard deviation	45.40

Table BB-18 shows that the mean ounces per use for battery terminal protector is moderate compared to other products included in the study.

Table BB-18: Percentile rankings of ounces per use of Battery Terminal Protector (N=193 recent users)

	Ounces/Use
Minimum	0.06
1%	0.08
5%	0.31
10%	0.60
25%	1.08
Median	2.72
75%	5.00
90%	8.60
95%	13.25
99%	223.96
Maximum	600.00

Table BB-18 indicates that there is a huge jump between the 95th percentile of 13.25 and the maximum value of 600.00 with the rate of increase being less dramatic until the 95th percentile.

Table BB-19: Respondent characteristics of Battery Terminal Protector users

1. Respondent age (N=220 recent users)	Mean = 42.34 years
2. Respondent gender (N=232 recent users)	Male = 87.9% Female = 12.1%
3. Number of household members (N=230 recent users)	Mean = 3.18 members
4. Number of bedrooms (N=232 recent users)	Mean = 2.92 bedrooms

Table BB-19 presents the respondent characteristics of battery terminal protector users. The mean age of these respondents, at just over 42, is about 2 years younger than the mean for the total sample. These respondents are also nearly exclusively male, while the total sample is nearly evenly divided between men and women--a function most likely due to the fact that this is an automotive product. Household membership and number of bedrooms much more nearly approximate the full sample figures.

BRAKE QUIETERS/ CLEANERS

CC. Product 29: Brake Quieter/Cleaner

Q1: Have you ever used the brake quieter/cleaner?

Table CC-1: Numbers and % of Respondents Ever Using
Brake Quieter/Cleaner

	Numbers	Percent
Yes	133	2.6
No	<u>4784</u>	<u>97.4</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table CC-1 shows that 2.6% of the total respondents have "ever" used brake quieter/cleaner. This is among the lowest usage rates of any product evaluated.

Q2: When was the last time you used brake quieter/cleaner?

Table CC-2: Last time Brake Quieter/Cleaner was used in
months (N=130 users)

Mean # of months	13.30
Median # of months	6.00
Standard deviation	25.90

As Table CC-2 shows, the mean number of months since last use of brake quieter/cleaner is 13.30 months. Compared to other products studied, this is a moderate amount of time since last use.

The percentile rankings for time since last use are shown below:

Table CC-3: Percentile rankings for Brake Quieter/Cleaner
--months since last use (N=130 users)

	Months
Minimum	.03
1%	0.08
5%	0.33
10%	0.46
25%	1.00
Median	6.00
75%	12.00
90%	46.80
95%	53.40
99%	187.92
Maximum	240.00

Table CC-3 shows that respondents in the lowest 25th percentile grouping used the product within the month preceding their answering the question. The 75th percentile through the 100th percentile respondents report that they last used the product between 12 months and 240 months (20 years) ago.

Q3: How many times have you used brake quieter/cleaner in the last 12 months?

Table CC-4: Number of uses of Brake Quieter/Cleaner within the last 12 months (N=95 recent users)

Mean # of times	3.00
Median # of times	2.00
Standard deviation	6.06

Among those respondents who had used the product within the past year, the mean number of times it had been used was 3.0 and the median number of uses was 2.0. Nearly half of the respondents who had used the product within the past 12 months, 49.5% to be exact, had only one occasion to make use of brake quieter/cleaner. It was used twice by 29.5%, and 3 times by 6.3%.

Table CC-5: Percentile rankings of the number of uses of Brake Quieter/Cleaner within the last 12 months (N=95 recent users)

	Uses
Minimum	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	2.00
90%	6.00
95%	10.40
Maximum	52.00

Q4: How much time did you spend using brake quieter/cleaner the last time you used it?

Table CC-6: Time spent using the Brake Quieter/Cleaner last time used (N=96 recent users)

Mean # of minutes	23.38
Median # of minutes	15.00
Standard deviation	36.32

The mean number of minutes spent during last use of brake quieter/cleaner is 23.38 and the median is 15.0.

Table CC-7: Percentile rankings for time spent using the Brake Quieter/Cleaner last time used (N=96 recent users)

	Minutes
Minimum	0.07
5%	0.50
10%	1.00
25%	5.00
median	15.00
75%	30.00
90%	49.50
95%	120.00
Maximum	240.00

The time spent using the product ranges from a few seconds to four hours. Nearly 95% of respondents had spent less than 120 minutes (2 hours) using the product, while half had spent 15.0 minutes or less.

Q5: How much time did you spend in the room immediately after use the last time you used brake quieter/cleaner?

Table CC-8: Time spent in the room after use of Brake Quieter/Cleaner (N=96 recent users)

Mean # minutes in room	10.27
Median # minutes in room	0.00
Standard deviation	30.02

The mean number of minutes spent in the room after last use is just over 10 minutes. The median value of zero indicates that at least half the respondents left the room immediately after using the product.

Table CC-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room after use of Brake Quieter/Cleaner (N=96 recent users)

	Minutes
Minimum	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	0.00
90%	30.00
95%	120.00
Maximum	120.00

More than 75% of respondents spent no time in the room following use of the product, while fully 90% stayed in the room no more than 30.0 minutes. Only 5% of respondents stayed in the room for 120.0 minutes (2 hours) following use of brake quieter/cleaner, and none stayed longer.

Table CC-10: Percentile rankings of time spent in the room after last use of Brake Quieter/Cleaner, including only those who spent time in the room (N=16 recent users who stayed in room afterwards)

	Minutes
Minimum	1.00
5%	--
10%	7.30
25%	30.00
Median	30.00
75%	120.00
90%	120.00
95%	---
Maximum	120.00

Table CC-10 is similar to Table CC-9 except it includes only users who did in fact stay in the room after using the product, therefore the zero values are eliminated.

Q6A: Which brand of brake quieter/cleaner did you use the last time you used it?

Table CC-11: Brand distribution for Brake Quieters/Cleaners

Brand category	Frequency	Percent
Top brand	11	11.2
Second highest brand	8	8.2
Third highest brand	6	6.1
Don't Knows and Not Ascertained	41	41.8
All other named brands	<u>34</u>	<u>32.7</u>
Total	98	100.0

A total of 58.2% of the respondents specified a brand. The top 3 brands of brake quieter/cleaner named were used by 11.2%, 8.2% and 6.1% of users, respectively.

Q6B: Was the product in aerosol form?

Table CC-12: Percent of respondents saying Brake Quieter/Cleaner is aerosol (N=96 recent users)

Yes, product is aerosol	65.6%
No, product is nonaerosol	35.4%

Nearly two-thirds of the brake quieter/cleaner used by respondents was in aerosol form.

Q7: What size of brake quieter/cleaner did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table CC-13: Amount of Brake Quieter/Cleaner used in ounces (N=86 recent users)

Mean ounces per year	11.72
Median ounces per year	8.00
Standard deviation	13.25

As might be expected, the mean ounces of brake quieter/cleaner used per year is rather low compared to the amounts used of other products. Only a handful of the other products included were used in smaller quantities by those who used them than was brake quieter/cleaner.

Table CC-14: Percentile rankings for amount of Brake Quieter/Cleaner used in ounces (N=86 recent users)

	Ounces
Minimum	0.50
5%	1.00
10%	2.00
25%	3.02
Median	8.00
75%	14.25
90%	32.00
95%	38.60
Maximum	78.00

The range between the minimum and maximum values in Table CC-14 is substantial, with the minimum at one-half ounce per year and the maximum at 78.0 ounces per year. Nearly three quarters of the respondents using the product used no more than 14.25 ounces per year.

Q8: Where did you use brake quieter/cleaner the last time you used it?

Table CC-15: Location of last use of the product (N=96 recent users)

Basement	0.0%
Living Room	0.0%
Other inside room	2.1%
Several inside rooms	0.0%
Garage	17.7%
Outside	77.1%
Garage & outside	3.1%
Total	<hr/> 100.0%

Most people (77.1%) used brake quieter/cleaner outside, with the second most common usage location being the garage, and the third being a combination of garage and outside. Rarely (2.1%) was the product used in a room of the house other than the garage.

Table CC-16: Protective measures undertaken while using Brake Quieter/Cleaner

	Yes (#'s)	No (#'s)
1. Door or window open to the outside (N=19 recent inside users)	14	5
2. Exhaust fan on during use (N=19 recent inside users)	3	16
3. Whether inside door to room was open (N=19 recent inside users)	13	6
4. Whether directions on label were read (N=95 all recent users)	68	27

For the three questions concerned with air flow in the room in which the product was used, it should be noted that there were only nineteen respondents. Most of these respondents did keep the window or door open to the outside, but kept inside door(s) closed and did not use an exhaust fan. More than 71.0% of the ninety-five respondents who answered the question regarding reading of the product label claimed to have done so.

Table CC-17 is a derived variable indicating the number of ounces per use. It is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table CC-17: Ounces per use of Brake Quieter/Cleaner
(N=85 recent users)

Mean # of ounces per use	6.26
Median # of ounces per use	4.00
Standard deviation	6.78

Table CC-17 shows that the mean and median values for ounces per use are fairly close to each other, indicating a distribution less skewed than some others encountered.

Table CC-18: Percentile rankings of ounces per use of Brake Quieter/Cleaner (N=85 recent users)

	Ounces/Use
Minimum	0.32
5%	0.58
10%	1.00
25%	2.00
Median	4.00
75%	8.00
90%	12.00
95%	16.00
Maximum	40.00

Table CC-18 indicates that there is a large jump between the 95th percentile of 16.0 and the maximum value of 40.0 and a doubling between the 75th and 95th percentiles, from 8.0 to 16.0.

Table CC-19: Respondent characteristics of Brake Quieter/Cleaner users

1. Respondent age (N=98 recent users)	Mean = 34.75 years
2. Respondent gender (N=98 recent users)	Male = 93.9% Female = 6.1%
3. Number of household members (N=98 recent users)	Mean = 3.25 members
4. Number of bedrooms (N=98 recent users)	Mean = 2.84 bedrooms

Table CC-19 presents the respondent characteristics of brake quieter/cleaner users. The mean age of these respondents, at almost 35, is more than 9 years younger than the mean for the total sample. These respondents are also nearly exclusively male, while the total sample is nearly evenly divided between men and women--a function most likely due to the fact that this is an automotive product. Household membership and number of bedrooms much more nearly approximate the full sample figures.

GASKET REMOVERS

DD. Product 30: Gasket Remover

Q1: Have you ever used gasket remover?

Table DD-1: Numbers and % of Respondents Ever Using Gasket remover

	Numbers	Percent
Yes	136	2.7
No	<u>4780</u>	<u>97.3</u>
Total	4916*	100.0

*4 cases where information was not ascertained

Table DD-1 shows that 2.7% of the total respondents have "ever" used gasket remover. This is among the lowest usage rates of any product evaluated.

Q2: When was the last time you used gasket remover?

Table DD-2: Last time Gasket Remover was used in months (N=132 users)

Mean # of months	22.40
Median # of months	9.00
Standard deviation	39.20

As Table DD-2 shows, the mean number of months since last use of gasket remover is 22.40 months. Compared to other products studied, this is a relatively long period of time since last use.

The percentile rankings for time since last use are shown below:

Table DD-3: Percentile rankings for Gasket Remover--months since last use (N=132 users)

	Months
Minimum	0.07
1%	0.07
5%	0.23
10%	0.37
25%	2.00
Median	9.00
75%	24.00
90%	60.00
95%	96.60
99%	240.00
Maximum	240.00

Table DD-3 shows that respondents in the lowest 25th percentile grouping used the product within the two month period preceding their answering the question. The 75th percentile through the 100th percentile respondents report that they last used the product between 24.0 months (2 years) and 240.0 months (20 years) ago.

Q3: How many times have you used gasket remover in the last 12 months?

Table DD-4: Number of uses of Gasket Remover within the last 12 months (N=74 recent users)

Mean # of uses	2.50
Median # of uses	1.00
Standard deviation	4.39

Among those respondents who had used the product within the past year, the mean number of times it had been used was 2.50, and the median number of uses was 1.0. Nearly two-thirds of the respondents who had used the product within the past 12 months, 60.8% to be exact, had only one occasion to make use of gasket remover. It was used 2 times by 20.3%, and 3 times by 5.4% of this group of 79 recent users. This makes gasket remover among the least frequently used products of all those studied.

Table DD-5: Percentile rankings of the number of uses of Gasket Remover within the last 12 months (N=74 recent users)

	Uses
Minimum	1.00
1%	--
5%	1.00
10%	1.00
25%	1.00
Median	1.00
75%	2.00
90%	5.00
95%	6.50
99%	--
Maximum	30.00

Q4: How much time did you spend using gasket remover the last time you used it?

Table DD-6: Time spent using the Gasket Remover last time used (N=72 recent users)

Mean # of minutes	23.57
Median # of minutes	15.00
Standard deviation	27.18

Compared to other products, the mean and median number of minutes of use of gasket remover are moderate.

Table DD-7: Percentile rankings for time spent using the Gasket Remover last time used (N=72 recent users)

	Minutes
Minimum	0.33
1%	--
5%	0.50
10%	2.00
25%	6.25
Median	15.00
75%	30.00
90%	60.00
95%	60.00
99%	--
Maximum	180.00

The time spent using the product ranges from a few seconds to three hours. At least 95% of respondents spent 60.0 (1 hour) or less using the product, while half spent 15 minutes or less.

Q5: How much time did you spend in the room immediately after use the last time you used gasket remover?

Table DD-8: Time spent in the room after last use of Gasket Remover (N=73 recent users)

Mean # minutes in room	27.56
Median # minutes in room	0.00
Standard deviation	58.54

The mean number of minutes spent in the room after last use is just under one-half hour. The median value of zero indicates that at least half the respondents left the room immediately after using the product.

Table DD-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room after use of Gasket Remover (N=73 recent users)

	Minutes
Minimum	0.00
1%	--
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	12.50
90%	120.00
95%	180.00
99%	--
Maximum	240.00

More than 50% of respondents spent no time in the room following use of the product, while 75% stayed in the room 12.50 minutes. Only about 10% of respondents stayed in the room for 120.0 minutes (two hours) or more following use of gasket remover.

Table DD-10: Percentile rankings of time spent in the room after last use of Gasket Remover, including only those respondents who spent time in the room (N-24 recent users who stayed in the room afterwards)

	Minutes
Minimum	2.00
1%	--
5%	2.75
10%	7.50
25%	11.25
Median	60.00
75%	120.00
90%	210.00
95%	240.00
99%	--
Maximum	240.00

Table DD-10 is similar to Table DD-9 except it includes only users who did in fact stay in the room after using the product, therefore the zero values are eliminated.

Q6A: Which brand of gasket remover did you use the last time you used it?

Table DD-11: Brand distribution for Gasket Remover

Brand category	Frequency	Percent
Top brand	18	22.8
Second highest brand	6	7.6
Third highest brand	4	5.1
Don't Knows and Not Ascertained	37	46.8
All other named brands	<u>14</u>	<u>17.7</u>
Total	79	100.0

A total of 53.2% of the respondents specified a brand. The top 3 brands of gasket remover named were used by 22.8%, 7.6% and 5.1% of users, respectively.

Q6B: Was the product in aerosol form?

Table DD-12: Percent of respondents saying Gasket Remover is aerosol (N=73 recent users)

Yes, product is aerosol	49.3%
No, product is nonaerosol	50.7%

About one-half of the gasket remover used by respondents was in aerosol form.

Q7: What size of gasket remover did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table DD-13: Amount of Gasket Remover used per year in ounces (N=66 recent users)

Mean ounces per year	13.25
Median ounces per year	7.75
Standard deviation	22.35

As might be expected, the mean ounces of gasket remover used per year is rather low compared to the amounts used of other products. Not very many of the other products included were used in smaller quantities by those who used them than was gasket remover.

Table DD-14: Percentile rankings for amount of Gasket Remover used in ounces (N=66 recent users)

	Ounces
Minimum	0.50
1%	--
5%	1.00
10%	1.00
25%	3.75
Median	7.75
75%	16.00
90%	24.00
95%	58.40
99%	--
Maximum	160.00

The range between the minimum and maximum values in Table DD-14 is substantial, with the minimum at one-half ounce per year and the maximum at 160.0 ounces per year. Nearly three quarters of the respondents using the product used no more than about 16.0 ounces per year.

Q8: Where did you use gasket remover the last time you used it?

Table DD-15: Location of last use of the product (N=72 recent users)

Basement	0.0%
Living Room	0.0%
Other inside room	0.0%
Several inside rooms	0.0%
Garage	37.5%
Outside	59.7%
Garage & outside	2.8%
Total	<hr/> 100.0%

Most people (59.7%) used gasket remover outside, with the second most common usage location being the garage, and the third being a combination of garage and outside. The product was never used in a room of the house other than the garage.

Table DD-16: Protective measures undertaken while using Gasket Remover

	Yes (#'s)	No (#'s)
1. Door or window open to the outside (N=27 recent inside users)	21	6
2. Exhaust fan on during use (N=27 recent inside users)	2	25
3. Whether inside door to room was open (N=26 recent inside users)	13	13
4. Whether directions on label were read (N=73 all recent users)	54	19

For the three questions concerned with air flow in the room in which the product was used, it should be noted that there were only 26 or 27 respondents. Most of these respondents did keep the window or door open to the outside, but did not use an exhaust fan. Respondents were evenly divided as to whether they kept inside door(s) open or closed. Nearly three-quarters of the 73 respondents who answered the question regarding reading of the product label claimed to have done so.

Table DD-17 is a derived variable indicating the number of ounces per use. It is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table DD-17: Ounces per use of Gasket Remover
(N=66 recent users)

Mean # of ounces per use	7.09
Median # of ounces per use	4.00
Standard deviation	9.44

Table DD-17 shows that the mean and median values for ounces per use are reasonably close to each other, indicating a distribution less skewed than some others encountered.

Table DD-18: Percentile rankings of ounces per use of Gasket Remover (N=66 recent users)

	Ounces/Use
Minimum	0.50
1%	--
5%	0.50
10%	0.97
25%	2.00
Median	4.00
75%	8.00
90%	16.19
95%	25.74
99%	--
Maximum	64.00

Table DD-18 indicates that there is a jump between the median value of 4.0 and the maximum value of 64.0.

Table DD-19: Respondent characteristics of Gasket Remover users

1. Respondent age (N=79 recent users)	Mean = 36.61 years
2. Respondent gender (N=79 recent users)	Male = 88.6% Female = 11.4%
3. Number of household members (N=79 recent users)	Mean = 3.33 members
4. Number of bedrooms (N=79 recent users)	Mean = 3.01 bedrooms

Table DD-19 presents the respondent characteristics of gasket remover users. The mean age of these respondents, at less than 37, is nearly 8 years younger than the mean for the total sample. These respondents are also much more likely to be male, while the total sample is nearly evenly divided between men and women--a function most likely due to the fact that this is an automotive product. Household membership and number of bedrooms much more nearly approximate the full sample figures.

TIRE/ HUBCAP CLEANERS

EE. Product 31: Tire/Hubcap Cleaners

Q1: Have you ever used tire/hubcap cleaners?

Table EE-1: Numbers and % of respondents ever using
Tire/Hubcap Cleaners

	Numbers	Percent
Yes	782	15.9
No	<u>4135</u>	<u>84.1</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table EE-1 shows that 15.9% of the total respondents have "ever" used tire/hubcap cleaners.

Q2: When was the last time you used tire/hubcap cleaners?

Table EE-2: Last time Tire/Hubcap Cleaner was used in
months (N=777 users)

Mean # of months	7.30
Median # of months	1.00
Standard deviation	20.22

As Table EE-2 shows, the mean number of months since last use of tire/hubcap cleaners is 7.30 months and the median is 1.0 month. The mean is more than seven times the size of the median. This difference is the result of a few extreme responses to this question.

The percentile rankings for time since last use are shown below:

Table EE-3: Percentile rankings for Tire/Hubcap Cleaners-- months since last use (N=777 users)

	Months
Minimum	0.03
1%	0.03
5%	0.07
10%	0.10
25%	0.23
Median	1.00
75%	6.00
90%	13.00
95%	36.00
99%	101.28
Maximum	240.00

Table EE-3 shows that the months since the product was last used range from a minimum of 0.03 months to a maximum of 240.0 months. Twenty-five percent of the users last used the product less than a month ago. The number of months reported may be subject to rounding discussed earlier under aspects of the data (i.e. 3, 20 years rather than 3 years 3 months). The data are usable for indicating the approximate last use.

Q3: How many times have you used tire/hubcap cleaners in the last 12 months?

Table EE-4: Number of uses of Tire/Hubcap Cleaners within the last 12 months (N=691 recent users)

Mean # of uses	11.18
Median # of uses	4.00
Standard deviation	18.67

The mean number of uses for tire/hubcap cleaners in the last 12 months is 11.18 uses and the median is 4 uses. Of the 691 respondents who answered this question, 18.7% used it once, 13.7% used it twice and 10% used it three times in the last year. As shown in Table EE-5 which follows, 99% of the respondents used the product 77 times or less in the last year. The maximum number of times the product was used is 200.

Table EE-5: Percentile rankings of number of uses of Tire/Hubcap Cleaners within the last 12 months (N=691 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	2.00
Median	4.00
75%	12.00
90%	30.00
95%	50.00
99%	77.00
Maximum	200.00

Q4: How much time did you spend using tire/hubcap cleaner the last time you used it?

Table EE-6: Time spent using Tire/Hubcap Cleaners last time used (N=683 recent users)

Mean # of minutes	22.66
Median # of minutes	15.00
Standard deviation	23.94

The mean and median number of minutes for using tire/hubcap cleaners are 22.66 and 15.0 minutes respectively.

Table EE-7: Percentile rankings for time spent using Tire/Hubcap Cleaners last time used (N=683 recent users)

	Minutes
Minimum	0.08
1%	0.71
5%	3.00
10%	5.00
25%	10.00
Median	15.00
75%	30.00
90%	60.00
95%	60.00
99%	120.00
Max	240.00

The time spent using tire/hubcap cleaners ranges from a minimum of 0.08 minutes to 240.0 minutes at the 100th percentile. Ninety-five percent of the respondents used the product for 1 hour or less.

Q5: How much time did you spend in the room immediately after use the last time you used tire/hubcap cleaners?

Table EE-8: Time spent in the room after last use of Tire/Hubcap Cleaners (N=682 recent users)

Mean # minutes in room	1.51
Median # minutes in room	0.00
Standard deviation	20.43

The mean number of minutes spent in the room after use is 1.51 minutes. Of the 32 products surveyed, this is the smallest period of time spent in the room after use of the product. The median is zero as 95% of the respondents did not spend any time in the room after use of tire/hubcap cleaners.

Table EE-9: Percentile rankings for time spent in the room after last use of Tire/Hubcap Cleaners including those who did not spend any time in the room (N=682 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	0.00
90%	0.00
95%	0.00
99%	30.00
Maximum	480.00

Only respondents at the 99th and 100th percentile did spend time in the room after using tire/hubcap cleaners.

Table EE-10: Percentile rankings for Tire/Hubcap Cleaners for time spent in the room after use including only those who spent time in the room (N=14 recent users who stayed in the room afterwards)

	Minutes
Minimum	2.00
1%	--
5%	--
10%	3.50
25%	8.75
Median	30.00
75%	75.00
90%	330.00
95%	---
99%	---
Maximum	480.00

Table EE-10 is similar to Table EE-9 except it includes only users who did in fact stay in the room after using the product. Only 14 users did spend some time in the room after use of the product. Since the number spending time in the room is small it was not possible to calculate the time spent at the 1st, 5th, 95th and 99th percentile. The mean time now spent in the room is 73.70 minutes and the median is 30.0. This differs considerably from the mean and median in Table T-8 as respondents who did not spend any time in the room have now been excluded.

Q6A: Which brand of tire/hubcap cleaner did you use the last time you used it?

Table EE-11: Brand distribution for Tire/Hubcap Cleaners

Brand category	Frequency	Percent
Top brand	168	24.1
Second highest brand	42	6.0
Third highest brand	33	4.7
Don't Knows and Not Ascertained	219	31.4
All other named brands	<u>225</u>	<u>33.8</u>
Total	687	100.0

Sixty-nine percent (68.6%) of the users of the product specified a brand. The top three brands of tire/hubcap cleaners named were used by 24.1%, 6.0% and 4.7% of respondents, respectively.

Q6B: Was the product in aerosol form?

Table EE-12: Percent of respondents saying the Tire/Hubcap Cleaner used is in aerosol or nonaerosol form (N=685 recent users)

Yes, product is aerosol	29.50%
No, product is nonaerosol	70.50%

The majority of respondents (70.5%) said the tire/hubcap cleaner they used was in nonaerosol form.

Q7: What size of tire/hubcap cleaner did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table EE-13: Amount of Tire/Hubcap Cleaner used in ounces (N=637 recent users)

Mean ounces per year	31.58
Median ounces per year	12.00
Standard deviation	80.39

The mean ounces used per year for tire/hubcap cleaners is 31.58 ounces and the median is 12.0 ounces.

Table EE-14: Percentile rankings for amount of Tire/Hubcap Cleaners used in ounces (N=637 recent uses)

	Ounces
Minimum	0.12
1%	0.50
5%	1.82
10%	3.00
25%	6.00
Median	12.00
75%	28.00
90%	64.00
95%	96.00
99%	443.52
Maximum	960.00

The minimum amount of tire/hubcap cleaners used is 0.12 ounces and the maximum is 960.0 ounces. Ninety-five percent of the respondents used 96.0 ounces or less of the product.

Q8: Where did you use tire/hubcap cleaner the last time you used it?

Table EE-15: Location of where product used last time
(N=684 recent users)

Basement	0.0%
Living room	0.3%
Other inside room	0.1%
Several inside rooms	0.0%
Garage	4.0%
Outside	94.9%
Garage & outside	0.7%
Total	<hr/> 100.0%

As expected the majority of the respondents (94.9%), used the product outside. A total of 4% used the product in the garage. The remaining .4% of the respondents used the product inside in a room other than the garage.

Table EE-16: Protective measures undertaken while using Tire/Hubcap Cleaners

	Yes	No
1. Door or window open to the outside (N=25 recent inside users)	56.0%	44.0%
2. Exhaust fan on during use (N=23 recent inside users)	4.3%	95.7%
3. Whether inside door to room was open (N=24 recent inside users)	45.8%	54.2%
4. Whether directions on label were read (N=659 all recent users)	67.1%	32.9%

The majority of the users who used the product inside, had read the directions on the label (67.1%). A little more than half the respondents had a door or window open to the outside (56%). Less than half the respondents had an inside door to the room open (45.8%).

Table EE-17 is a derived variable ounces per use and it is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table EE-17: Ounces per use of Tire/Hubcap Cleaners
(N=636 recent users)

Mean # of ounces per use	4.90
Median # of ounces per use	2.67
Standard deviation	11.72

The mean ounces per use of the product is 4.90 and the median is 2.67. Table EE-18 which follows presents the percentile rankings for this variable. Ninety-five percent of the respondents used 16.0 ounces or less of the product per use. The maximum ounces used per use is 256.0.

Table EE-18: Percentile rankings of ounces per use of Tire/Hubcap Cleaners (N=636 recent users)

	Ounces/Use
Minimum	0.02
1%	0.07
5%	0.30
10%	0.53
25%	1.23
Median	2.67
75%	6.00
90%	10.55
95%	16.00
99%	32.00
Maximum	256.00

Table EE-19: Respondent characteristics of Tire/Hubcap Cleaner users

1. Respondent age (N=696 recent users)	Mean = 38.04 years
2. Respondent gender (N=696 recent users)	Male = 63.6% Female = 36.4%
3. Number of household members (N=696 recent users)	Mean = 3.15 members
4. Number of bedrooms (N=696 recent users)	Mean = 2.92 bedrooms

Table EE-19 presents the respondent characteristics of tire/hubcap cleaners. The mean age of these respondents is 38.04 years. The number of male respondents (63.6%) is nearly twice the number of female respondents (36.4%). Except for respondent gender, the other characteristics are similar to the characteristics for the total sample of respondents. The total sample has nearly an equal number of male and female respondents.

IGNITION AND WIRE DRYERS

FF. Product 32: Ignition Wire Dryer

Q1: Have you ever used ignition wire dryer?

Table FF-1: Numbers and % of Respondents Ever Using Ignition Wire Dryer

	Numbers	Percent
Yes	240	4.8
No	<u>4677</u>	<u>95.2</u>
Total	4917*	100.0

*3 cases where information was not ascertained

Table FF-1 shows that 4.8% of the total respondents have "ever" used ignition wire dryer. This is among the lowest usage rates of any product evaluated.

Q2: When was the last time you used ignition wire dryer?

Table FF-2: Last time Ignition Wire Dryer was used in months (N=234 users)

Mean # of months	22.80
Median # of months	8.00
Standard Deviation	44.33

As Table FF-2 shows, the mean number of months since last use of ignition wire dryer is 22.8.0 months. Compared to other products studied, this is a rather long amount of time since last use.

The percentile rankings for time since last use are shown below:

Table FF-3: Percentile rankings for Ignition and Wire Dryer -- months since last use (N=234 users)

	Months
Minimum	0.07
1%	0.07
5%	0.23
10%	0.69
25%	3.00
Median	8.00
75%	24.00
90%	60.00
95%	96.00
99%	219.00
Maximum	480.00

Table FF-3 shows that respondents in the lowest 25th percentile grouping used the product within the three month period preceding their answering the question. The 75th percentile through the 100th percentile respondents report that they last used the product between 24.0 months (2 years) and 480.0 months (40 years) ago.

Q3: How many times have you used ignition wire dryer in the last 12 months?

Table FF-4: Number of uses of Ignition Wire Dryer within the last 12 months (N=142 recent uses)

Mean # of uses	3.01
Median # of uses	2.00
Standard deviation	5.71

Among those respondents who had used the product within the past year, the mean number of times it had been used was 3.0, and the median number of uses was 2.0. Nearly half of the respondents who had used the product within the past 12 months, 45.1% to be exact, had only one occasion to make use of ignition wire dryer. It was used twice by 25.4%, and 3 times by 9.9% of this group of 142 recent users.

Table FF-5: Percentile rankings of number of uses of Ignition Wire Dryer within the last 12 months (N=142 recent users)

	Uses
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	3.00
90%	5.00
95%	9.70
99%	44.52
Maximum	60.00

Q4: How much time did you spend using ignition wire dryer the last time you used it?

Table FF-6: Time spent using the Ignition Wire Dryer last time used (N=137 users)

Mean # of minutes	7.24
Median # of minutes	5.00
Standard deviation	8.48

The mean number of minutes of use of ignition wire dryer is the least of all products included in the study.

Table FF-7: Percentile rankings for time spent using the Ignition Wire Dryer last time used (N=137 recent users)

	Minutes
Minimum	0.02
1%	0.02
5%	0.08
10%	0.47
25%	1.50
Median	5.00
75%	10.00
90%	15.00
95%	25.50
99%	48.60
Maximum	60.00

The time spent using the product ranges from a few seconds to one hour. Nearly 90% of respondents had spent 15.0 minutes or less using the product, while half had spent 5.0 minutes or less.

Q5: How much time did you spend in the room immediately after use the last time you used ignition wire dryer?

Table FF-8: Time spent in the room after use of Ignition Wire Dryer (N=137 recent users)

Mean # minutes in room	6.39
Median # minutes in room	0.00
Standard deviation	31.63

The mean number of minutes spent in the room after last use is just over 6.0 minutes. The median value of zero indicates that at least half the respondents left the room immediately after using the product.

Table FF-9: Percentile rankings for time spent in the room after last use including those who did not spend any time in room after use of Ignition Wire Dryer (N=137 recent users)

	Minutes
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	0.00
75%	0.00
90%	0.10
95%	30.00
99%	216.60
Maximum	240.00

More than 75% of respondents spent no time in the room following use of the product, while fully 95% stayed in the room no more than 30.0 minutes, and none stayed longer than 240.0 minutes (4.0 hours).

Table FF-10: Percentile rankings of time spent in the room after last use of Ignition Wire Dryer, including only those respondents who spent time in the room (N=13 recent users who stayed in room afterwards)

	Minutes
Minimum	1.00
1%	--
5%	--
10%	1.40
25%	4.50
Median	30.00
75%	150.00
90%	216.00
95%	--
99%	--
Maximum	240.00

Table FF-10 is similar to Table FF-9 except it includes only users who did in fact stay in the room after using the product, therefore the zero values are eliminated.

Q6A: Which brand of ignition wire dryer did you use the last time you used it?

Table FF-11: Brand distribution for Ignition Wire Dryer

Brand category	Frequency	Percent
Top brand	15	10.2
Second highest brand	10	6.8
Third highest brand	4	2.7
Don't Knows and Not Ascertained	90	61.2
All other named brands	<u>28</u>	<u>19.1</u>
Total	147	100.0

A total of 38.8% of the respondents specified a brand. The top 3 brands of ignition wire dryer named were used by 10.2%, 6.8% and 2.7% of the respondents, respectively.

Q6B: Was the product in aerosol form?

Table FF-12: Percent of respondents saying Ignition Wire Dryer is aerosol (N=138 recent users)

Yes, product is aerosol	78.3%
No, product is nonaerosol	21.7%

More than three-quarters of the ignition wire dryer used by respondents was in aerosol form.

Q7: What size of ignition wire dryer did you use the last time you used it? How much of a can or how many cans did you use during the past year?

The two questions above were used to derive the variable called ounces per year.

Table FF-13: Amount of Ignition Wire Dryer used in ounces (N=128 recent users)

Mean ounces per year	9.02
Median ounces per year	6.00
Standard deviation	14.59

As might be expected, the mean ounces of ignition wire dryer used per year is very low compared to the amounts used of other products. Only two of the other products studied were used in smaller quantities by those who used them than was ignition wire dryer.

Table FF-14: Percentile rankings for amount of Ignition Wire Dryer used in ounces (N=128 recent users)

	Ounces
Minimum	0.13
1%	0.32
5%	1.09
10%	1.50
25%	3.00
Median	6.00
75%	10.75
90%	16.00
95%	20.55
99%	113.04
Maximum	120.00

The range between the minimum and maximum values in Table FF-14 is substantial, with the minimum at a fraction of an ounce per year and the maximum at 120.0 ounces per year. Ninety percent of the respondents using the product used no more than about 16.0 ounces per year.

Q8: Where did you use ignition wire dryer the last time you used it?

Table FF-15: Location of last use of the product (N=138 recent users)

Basement	0.0%
Living Room	0.7%
Other inside room	0.7%
Several inside rooms	0.0%
Garage	8.7%
Outside	88.4%
Garage & outside	1.4%
Total	100.0%

Most people (88.4%) used ignition wire dryer outside, with the second most common usage location being the garage, and the third being a combination of garage and outside. Rarely (1.4%) was the product used in a room of the house other than the garage (Living room or other inside room).

Table FF-16: Protective measures undertaken while using Ignition Wire Dryer

	Yes	No
1. Door or Window Open to the Outside (N=13 recent inside users)	9%	4%
2. Exhaust Fan on During Use (N=13 recent inside users)	2%	11%
3. Whether Inside Door to Room Was Open (N=12 recent inside users)	7%	5%
4. Whether Directions on Label Were Read (N=133 recent users)	95%	38%

For the three questions concerned with air flow in the room in which the product was used, it should be noted that there were only 12 or 13 respondents. Most of these respondents did keep the window or door open to the outside, but kept inside door(s) closed and did not use an exhaust fan. More than 71% of the 133

respondents who answered the question regarding reading of the product label claimed to have done so.

Table FF-17 is a derived variable indicating the number of ounces per use. It is derived by dividing Question 7 (ounces per year) by Question 3 (# of times used in the last year).

Table FF-17: Ounces per use of Ignition Wire Dryer (128 recent users)

Mean # of ounces per use	4.74
Median # of ounces per use	3.00
Standard deviation	8.99

Table FF-17 shows the mean and median values for ounces per use. The mean, at 4.74 ounces per use, is relatively low compared to other products evaluated.

Table FF-18: Percentile rankings of ounces per use of Ignition Wire Dryer (N=128 recent user)

	Ounces/Use
Minimum	0.07
1%	0.14
5%	0.50
10%	0.94
25%	1.50
Median	3.00
75%	6.00
90%	9.06
95%	12.00
99%	73.96
Maximum	96.00

Table FF-18 indicates that there is a large jump between the 95th percentile of 12.0 and the maximum value of 96.0, and a doubling between the 75th and 95th percentiles, from 6.0 to 12.0.

Table FF-19: Respondent characteristics of Ignition Wire
Dryer users

1. Respondent Age (N=147 recent users)	Mean = 42.99 years
2. Respondent Gender (N=147 recent users)	Male = 83.7% Female = 16.3%
3. Number of Household Members (N=147 recent users)	Mean = 3.27 members
4. Number of Bedrooms (N=147 recent users)	Mean = 3.04 bedrooms

Table FF-19 presents the respondent characteristics of ignition wire dryer users. The mean age of these respondents, at almost 43, is about one year younger than the mean for the total sample. These respondents are also predominantly male, while the total sample is nearly evenly divided between men and women--a function most likely due to the fact that this is an automotive product. Household membership and number of bedrooms much more nearly approximate the full sample figures.

IV. Findings for the Drycleaning Questions

A. Frequency of Commercial Drycleaning Use

Q10: During the preceding 12 months, about how often did you use commercial dry cleaners for dry cleaning use excluding laundry use?

Table 5-1. Frequency of commercial drycleaning use - users only for times per month (N=2512)

Mean # times per month	1.87
Median # times per month	.42
Standard deviation	7.51

Table 5-1 presents the frequency of commercial drycleaning use in units of times per months for users only. The mean number of times per months is 1.87 and the median number is .42 times per month. Table 5-2 presents the percentile rankings for the frequency of commercial drycleaning use in units of times per months for users only.

Table 5-2. Percentile rankings for frequency of commercial drycleaning use - users only for time per month (N=2512)

	Times per month
Minimum	.08
1%	.08
5%	.08
10%	.08
25%	.17
Median	.48
75%	1.00
90%	3.92
95%	4.33
99%	27.73
Maximum	*

*Maximum value is an unrealistically high number so its value is not presented.

The percentile rankings for frequency of drycleaning use range from a minimum of .08 times per month to a 99th percentile value of 27.73 times per month.

Table 5-3. Frequency of commercial drycleaning use -
users and nonusers for times per month
 (N=4901 19 missing users)

Mean # times per month	.96
Median # times per month	.08
Standard deviation	5.46

Table 5-3 presents the frequency of commercial drycleaning use for users as well as nonusers in units of times per month. Table 5-4 presents the percentile rankings for the same measure.

Table 5-4. Percentile rankings for frequency of
 commercial drycleaning use - users and
 nonusers for times per month (N=4901 19
 missing cases)

	Times per month
Minimum	0.00
1%	0.00
5%	0.00
10%	0.00
25%	0.00
Median	.08
75%	.42
90%	2.00
95%	3.92
99%	12.04
Maximum	*

*Maximum value is an unrealistically high number so that its value is not presented.

B. Frequency of Self-Service Drycleaning Use

Q11: During the past year, how often did you visit self-service laundry facilities with drycleaning machines?

Table 5-5. Numbers using and not using self-service laundry facilities with drycleaning machines

	Numbers	Percent
Those not using	4331	88.0%
Those using	580	11.8%
Not ascertained	9	.2%
	<u>4920</u>	<u>100.0%</u>

Table 5-5 reflects the number and percent of respondents using and not using self-service laundry facilities with dry cleaning machines. Table 5-6 reflects the number of times it was used in the past year by the 580 respondents who did in fact use this type of facility.

Table 5-6. Number of times using self-service laundry facilities with drycleaning machines
(N=577)

Mean # times per year	11.65
Median # times per year	3.00
Standard deviation	17.94

For those using self-service laundry facilities with dry cleaning machines, the mean number of times used per year is 11.65 and the median number of times per year is 3.00.

Table 5-7. Percentile rankings for number of times using self-service laundry facilities with drycleaning machines (N=577)

	Times per year
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	3.00
75%	12.00
90%	48.00
95%	52.00
99%	83.96
Maximum	104.00

The percentile rankings for the number of times using self-service laundry facilities with drycleaning machines range from a minimum of 1.0 to a maximum of 104.0 times per year.

Q12: On how many of these visits to the laundry facility during the past year did you actually use the dry cleaning machines?

Table 5-8. Number of times visitors to self-service laundry facilities used drycleaning machines (N=125)

	Times per year
Mean # times	5.54
Median # times	2.00
Standard deviation	9.70

The mean number of times visitors actually used the drycleaning machines in the past year is 5.54 and the median is 2.0.

Table 5-9. Percentile rankings of number of times visitors to self-service laundry facilities used drycleaning machines

	Times per year
Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	1.00
Median	2.00
75%	5.00
90%	12.00
95%	24.20
99%	52.00
Maximum	52.00

The percentile rankings for the number of times visitors to self-service laundry facilities used drycleaning machines ranged from a minimum of 1.0 time per year to a maximum of 52.0 times per year.

Q13: About how much time do you spend inside during each visit to the laundry facility regardless of whether you actually used the drycleaning machines?

Table 5-10. Minutes spent inside of laundry facility with drycleaning machines

Mean # of minutes	70.36
Median # of minutes	60.00
Standard deviation	133.22

The mean number of minutes spent inside of laundry facility is 70.36 minutes and the median is 60.00.

Table 5-11. Percentile rankings of minutes spent inside laundry facilities with drycleaning machines

Minimum	1.00
1%	1.00
5%	5.00
10%	5.00
25%	20.00
Median	60.00
75%	90.00
90%	120.00
95%	120.00
99%	300.00
Maximum	2700.00

The percentile rankings for minutes spent inside the laundry facility with drycleaning machines ranged from a minimum of one minute to a maximum of 2700.0. Once again the maximum value is a substantial amount higher than the rest of the values.

V. Respondent Characteristics of the Sample

A. Respondent Age

Table 5-12 presents the age of the respondents. The mean age is 44.35 years and the median is 44.00 years.

Table 5-12. Respondent age

Mean # of years	44.35
Median # of years	44.00
Standard deviation	15.87

Table 5-13. Percentile rankings of respondent age

	Years of Age
Minimum	18
1%	18
5%	20
10%	24
25%	33
Median	44
75%	56
90%	66
95%	71
99%	81
Maximum	86

B. Respondent Gender

Table 5-14 presents the gender of respondents. Approximately forty four percent of the sample is male.

Table 5-14. Gender of respondents

	Numbers	Percent
Male	2178	44.30
Female	2733	55.50
Not Ascertained	9	.20

C. Number of Household Members

Table 5-15 presents the mean and median number of household members. The mean number is 3.48 and the median is 3.0.

Table 5-15. Number of household members

Mean # of household members	3.12
Median # of household members	3.00
Standard deviation	1.70

Table 5-16. Percentile rankings for number of household members

Minimum	1.00
1%	1.00
5%	1.00
10%	1.00
25%	2.00
Median	3.00
75%	4.00
90%	5.00
95%	6.00
99%	10.00
Maximum	13.00

D. Number of Bedrooms in House

Table 5-17 presents the mean and median number of bedrooms in the house. The mean is 2.9 and the median is 3.0.

Table 5-17. Number of bedrooms in the house

Mean # bedrooms	2.90
Median # bedrooms	3.00
Standard deviation	.95

Table 5-18. Percentile rankings of number of bedrooms

Minimum	1.00
1%	1.00
5%	1.00
10%	2.00
25%	2.00
Median	3.00
75%	3.00
90%	4.00
95%	4.50
99%	5.00
Maximum	6.00

Section 6

BRAND IMPUTATION MODELING

I. STATEMENT OF THE PROBLEM

A. Background

A shelf study was conducted in conjunction with this household survey by the Office of Toxic Substances of EPA. Twelve hundred items were collected from a sample of stores within six cities in the United States all of which were thought to have the possibility of containing either methylene chloride or one of its five substitutes. Laboratory analyses were then conducted to determine whether or not each of the six types of chlorocarbons were present and at what concentrations. The intention was to match the brand the respondents said that they used in the household survey to the brand laboratory tested as the result of the shelf survey, at least, where a match was possible. The match would produce information on the concentration of the chemicals which would then be used in calculations of the exposure assessments of the general population to these six chemicals.

Table 6-1 depicts the number and percent of users (respondents) who named brands in the household survey which found a match in the laboratory data and those who named brands which did not have a match in the laboratory data.

Excluding latex and oil paint which are included in this survey because of their general interest rather than the fact they are thought to contain methylene chloride or one of its substitutes, the remaining thirty products range from a low of 2 per cent of the users naming brands with a match in the laboratory data for the category of glass frostings, tints, and artificial snow to a high of 85 per cent of the users naming brands with a match in the laboratory data for the category of other nonautomotive lubricants. As can be seen by this table, many brands and users of these brands are without laboratory data.

Because the household survey provides frequency, duration, amount of product used, and other data used in the exposure assessments for all of the respondents in the sample, it is desirable to have the match in the laboratory data for all brands named in the household survey as well.

Ideally, all brands named in the household survey would have been purchased and tested in the laboratory for the presence or

Table 6-1. Listing of total number of users, and numbers and percent of users with and without laboratory data, by product category

Product Category	Total Number Of Users	Number of Users With Laboratory Data	Percent of Users With Laboratory Data	Number of Users W/Out Laboratory Data	Percent of Users W/Out Laboratory Data
1. Spray Shoe Polish	270	143	53	127	47
2. Water Repellents	1049	455	43	594	57
3. Spot Removers	1401	875	62	526	38
4. Solvent Cleaners	1117	400	36	717	64
5. Wood/Floor/Panel Cleaners	1315	924	70	391	30
6. Typewriter Correction Fluid	1147	867	76	280	24
7. Cement/Glue/Spray Adhesives	2700	605	22	2095	78
8. Adhesive Removers	175	24	14	151	86
9. Silicone Lubricants	761	392	52	369	48
10. Other Lubricants, Non-Automotive	1545	1310	85	235	15
11. Specialized Electronic Cleaners	553	100	18	453	82
12. Latex Paint	1801	177	10	1624	90
13. Oil Paint	744	8	1	736	99
14. Wood Stains/ Varnishes/ Finishes	1268	786	62	482	38
15. Paint Removers/ Strippers	769	315	41	454	59
16. Paint Thinners	1113	99	9	1014	91

Table 6-1. Listing of total number of users, and numbers and percent of users with and without laboratory data, by product category (continued)

Product Category	Total Number Of Users	Number of Users With Laboratory Data	Percent of Users With Laboratory Data	Number of Users W/Out Laboratory Data	Percent of Users W/Out Laboratory Data
17. Aerosol Spray Paint	1190	213	18	977	82
18. Non Automotive Primers	406	157	39	249	61
19. Aerosol Rust Removers	295	181	61	114	39
20. Outdoor Water Repellents	247	106	43	141	57
21. Glass Frostings/ Tints and Artificial Snow	283	6	2	277	98
22. Engine Degreasers	588	134	23	454	77
23. Carburetor Cleaners	812	483	59	329	41
24. Aerosol Car Spray Paint	372	68	18	304	82
25. Auto Spray Primers	264	72	27	192	73
26. Car Spray Lubricants	781	491	63	290	37
27. Transmission Cleaners	75	17	23	58	77
28. Battery Terminal Protectors	232	40	17	192	83
29. Brake Quieter/ Cleaner	98	30	31	68	69
30. Gasket Remover	79	30	38	49	62
31. Tire/Hubcap Cleaners	697	98	14	599	86
32. Ignition and Wire Dryers	147	7	5	140	95

absence and the concentrations of methylene chloride and its substitutes. However, this was beyond the scope and budgetary limits of the shelf survey. In the absence of this empirical data, a brand imputation model was developed to provide for the random assignment of existing laboratory data to the brands missing actual laboratory data. The brand imputation model and procedures will be discussed under Subsection II.

B. Assignment of Zeros

Before discussing the brand imputation model itself, certain brands missing laboratory data were assigned zero concentrations of the six chemicals in question. These brands fall into categories which were sufficiently tested in the shelf survey and, as categories, were found not to have these six chlorinated solvent chemicals. These categories were as follows:

- Stain Removers
- NonAerosol Wax
- Deodorant Freshener
- Oven Cleaners
- Laundry Presoaks
- Anti-static Sprays
- Rug Cleaners
- Window Cleaners
- Bathroom Cleaners
- Dip Dye Metal Cleaners
- Brush On Primers
- Brush on Stains & Varnishes
- All Purpose Cleaners
- Starting Fluids
- Windshield De-Icers
- Chrome Protectors
- Auto Carpet Cleaners
- Upholstery Cleaners
- Vinyl Top Cleaners

Of course, for the brand to be listed in the household survey meant that the brand listed from one of the shelf categories above was listed under a different household category. For example, many respondents listed a laundry presoak (a shelf category) as a spot remover (a household category). The shelf survey had a greater number of product categories than the household survey. In fact, the above categories were excluded from the household survey because no brands were found to have the chemicals. Nonetheless, some respondents listed a brand of products from these shelf categories under categories similar but different in the household. In general, a brand was placed in a household survey category if the respondent placed it there.

In any case, brands which fell into a category which was found not to have the six chemicals were assigned a zero concentration of the chemicals. Table 6-2 depicts the number and percent of users naming a brand for each product which was attributed the zero concentrations. These attributions were treated as if there were laboratory data in Table 6-1.

II. BRAND IMPUTATION MODEL AND PROCEDURES

A. The Model

A separate brand imputation model was developed within each product category to randomly assign (proportionate to brand use) existing laboratory data to those brands and users of those brands which were missing actual data. The brand imputation model was basically a simulation approach. For this approach the brands missing data were made to resemble the brands with laboratory data on the percent containing each of the six chemicals so that the overall percent of users using brands containing the chemical is similar to those with laboratory data. The underlying assumption for this procedure was that brands selected for laboratory testing are similar to the brands without data. Additionally, for brands missing laboratory data (that are imputed to contain a given chemical) the concentration of chemical was selected so that the distribution of imputed chemical matches the brands with the chemical for those having laboratory data.

The information provided for the imputed data is identical to that presented for the actual laboratory data. The following information was generated whether by laboratory data or by imputation for each brand used in each product category by a respondent of the household survey. The information which was imputed follows:

- presence or absence of the six chemicals
- amount of chemical #1 (blank if no data)
- amount of chemical #2
- amount of chemical #3
- amount of chemical #4
- amount of chemical #5
- amount of chemical #6

Table 6-2. Total and Numbers and percents of users with brands attributed zeros, by product category

Product Category	Number of Users with Attributed Zero Values	Percent Users with Attributed Zero Values
1. Spray Shoe Polish	2	1
2. Water Repellents	2	0
3. Spot Removers	222	16
4. Solvent Cleaners	157	14
5. Wood/Floor/Panel Cleaners	164	12
6. Typewriter Correction Fluid	1	0
7. Concentrated Cement/Glue/ Spray Adhesives	0	0
8. Adhesive Removers	1	1
9. Silicone Lubricants	0	0
10. Other Lubricants, Non-Automotive	0	0
11. Specialized Electronic Cleaners	0	0
12. Latex Paint	177	10
13. Oil Paint	2	0
14. Wood Stains/Varnishes/Finishes	744	59
15. Paint Removers/Strippers	45	6
16. Paint Thinners	8	1
17. Aerosol Spray Paint	7	1
18. Non Automotive primers	125	31
19. Aerosol Rust Removers	167	57
20. Outdoor Water Repellents	2	1
21. Glass Frosting/Tints/Artificial Snow	0	0
22. Engine Degreasers	0	0
23. Carburetor Cleaners	20	2
24. Aerosol Car Spray Paint	2	1
25. Auto Spray Primers	1	0
26. Car Spray Lubricants	0	0
27. Transmission Cleaners	0	0
28. Battery Terminal Protectors	7	3
29. Brake Quieter/Cleaner	0	0
30. Gasket Remover	0	0
31. Tire/Hubcap Cleaners	39	6
32. Ignition and Wire Dryers	0	0

B. Brand Imputation Procedures

The brand imputation model has been operationalized using the following procedures:

1. The number and percent of users using each brand in each of the thirty-two product categories was calculated.
2. A list of brands named by respondents but missing laboratory data was created and prepared for imputation.
3. A list of instances where respondents said they used but could not remember the brand was also created and prepared for imputation.
4. For each instance in list #2 or #3 above, a brand with laboratory data was randomly selected as a donor for a brand without laboratory data using a type of "hot deck" procedure. This was performed using the following algorithm (separately for aerosol and nonaerosol for each product category):
 - a) Select for imputation the first brand missing laboratory data.
 - b) Randomly select a brand from those with laboratory data with probability proportionate to the number of users of the brand. Use this brand to impute for the first brand missing laboratory data, i.e. use the amount of each chemical on the selected brand for imputation.
 - c) For the remainder of the brands missing laboratory data the above steps were performed until all the brands missing data were given an imputed value. Each selection of a brand to be used as a "donor" was independent of previous selections. This means that if a brand was selected to be a donor it was still available for future selections with the same probability (i.e. the procedure was performed with replacement). Thus, if 80 percent of respondents with laboratory data used brand X, the formulation for brand X would be applied to 80 percent of those without data.

III. LIMITATIONS OF THE BRAND IMPUTATION MODEL AND PROCEDURES

The following paragraphs describe limitations in analyses that might be performed using the imputed data.

A. Bias

The imputation procedure used will not remove bias associated with the lack of brand data. Data were missing primarily because either the respondent did not know the name of the brand used or because it was not included in the shelf survey. Since neither process is random it is possible that the brands missing data differ in chemical composition from those with lab data. The extent of the difference between the brands with shelf survey data and all other brands is unknown. The impact of whatever difference exists will also be a function of the extent of the missing data, and will vary from product type to product type. Table 6-1 containing the distribution of missing data should be carefully examined prior to making inferences.

Table 6-3 summarizes the tests of significance for differences between respondents using products with laboratory data and those using products without laboratory data. The degree of bias in the brand imputation procedures and assumptions is reflected by the number of significant differences between the above two groups of respondents. Significant differences are assessed for three usage variables for 30 of the 32 products tested. Out of the 90 resulting tests, 20 showed a significant difference at $p \leq .05$ between those using products with laboratory data and those using products without laboratory data. Three products had significant differences for two or three of the three usage variables. These are: water repellents/protectors, spot removers, and gasket removers.

Although the numbers of significant differences found in Table 6-3 are greater than would be expected by chance alone, the numbers are not unusually high when the method of brand selection for laboratory testing is taken into account. Given that the number of items purchased for laboratory testing was limited to 1,153 items for budgetary reasons, brand items were specifically selected for testing over those left behind based on the fact that they were thought based on predetermined criteria to be more likely to contain one of the six solvents of interest. When this fact is taken into account, the number of significant differences in the usage variables for Table 6-3 can be expected to be higher than if brands were selected randomly.

The same analysis was done for assessing significant differences between usage data for products known to have any one

TABLE 6-3

Results of the Tests of Significance for
Those Using Products With Laboratory Data
Versus Those Using Products Without Laboratory Data

(Probabilities Listed - * Indicates Significance at $< .05$)

PRODUCT	USES PER YEAR P =	MINUTES LAST USE P =	OUNCES PER YEAR P =
1. SPRAY SHOE POLISH	.607	.700	110
2. WATER REPELLENTS/PROTECTORS (FOR SUEDE, LEATHER, AND CLOTH)	* .023	.180	* .001
3. SPOT REMOVERS	* .000	* .024	* .000
4. SOLVENT-TYPE CLEANING FLUIDS OR DEGREASERS	* .002	.102	.606
5. WOOD FLOOR AND PANELING CLEANERS	.360	.960	* .000
6. TYPEWRITER CORRECTION FLUID	* .023	.288	.504
7. CONTACT CEMENT, SUPER GLUES AND SPRAY ADHESIVES	* .036	.984	.399
8. ADHESIVE REMOVERS (GENERAL PURPOSE, TILE, AND WALLPAPER)	.518	.919	.975
9. SILICONE LUBRICANTS (EXCLUDING AUTOMOTIVE)	* .006	.635	.962
10. OTHER LUBRICANTS (EXCLUDING AUTOMOTIVE)	.147	.392	* .000
11. SPECIALIZED ELECTRONIC CLEANERS FOR TV, VCR, RAZOR, ETC.)	.730	.302	* .018
12. LATEX PAINT	NOT TESTED	NOT TESTED	NOT TESTED
13. OIL PAINT	NOT TESTED	NOT TESTED	NOT TESTED
14. WOOD STAINS, VARNISHES AND FINISHES	.233	.271	* .000
15. PAINT REMOVERS/STRIPPERS	.200	.083	.579

TABLE 6-3 (Continued)

PRODUCT	USES PER YEAR P =	MINUTES LAST USE P =	OUNCES PER YEAR P =
16. PAINT THINNERS	.969	.094	.247
17. AEROSOL SPRAY PAINT (EXCLUDING AUTOMOTIVE)	.763	.744	.575
18. PRIMERS AND SPECIAL PRIMERS (EXCLUDING AUTOMOTIVE)	.079	* .054	.251
19. AEROSOL RUST REMOVERS	.187	.790	.781
20. OUTDOOR WATER REPELLENTS (FOR WOOD OR CEMENT)	.264	.429	.116
21. GLASS FROSTINGS, WINDOW TINTS, AND ARTIFICIAL SNOW	* .000	.787	.350
22. ENGINE DEGREASERS	.526	.342	.088
23. CARBURETOR CLEANERS	* .014	.507	.511
24. AEROSOL SPRAY PAINT FOR CARS	.401	.299	.735
25. AUTO SPRAY PRIMERS	.175	.648	.222
26. SPRAY LUBRICANTS FOR CARS	* .045	.956	.711
27. TRANSMISSION CLEANERS	.603	.378	.675
28. BATTERY TERMINAL PROTECTORS	.652	.637	.519
29. BRAKE QUIETERS/CLEANERS	.324	.783	.784
30. GASKET REMOVERS	* .036	.286	* .028
31. TIRE/HUBCAP CLEANERS	.099	* .006	.309
32. IGNITION AND WIRE DRYERS	.834	.616	.988

of the chemicals and products known not to have any chemical. As Table 6-4 indicates, 13 out of the 81 possibilities were significant (6 squares are not filled in because the products weren't tested and 9 squares are not filled in because there are no results.) Significant differences in this second instance occur 16 percent of the time.

The actual mean values for comparisons of each of the 32 products by those with laboratory data versus those without and those with the chemical versus those without can be found in Appendix C.

The preceding paragraphs show that there are some significant differences between the usage variables for respondents using brands with lab data and those without lab data. Additionally, significant usage differences were present between products known to have any of the chemicals of interest and those that do not, for those products with lab data. The number of statistically significant differences are more than would be expected by chance. However, given the method of brand selection previously discussed, there are actually fewer differences than might be expected.

Any imputation procedure should be reviewed carefully in the context of how the results are going to be used. The imputation procedure used for this data set will be affected by these differences between the brands with lab data and those without because it makes the brands missing lab data resemble those with lab data. To minimize the relationship of chemical presence to usage, brands were matched for imputation on the basis of usage. Given the differences that exist between brands with lab data and those without lab data, it would be more ideal to have obtained data for more brands. However, as was mentioned previously, this was beyond the scope and budgetary limits of the survey.

B. Overstated Sample Size

Subsequent analyses conducted using the data containing imputed values have the potential to appear more precise than they actually are. This can happen for a number of reasons: the variance of estimated means will be dramatically underestimated (ignoring the question of bias), the sample size will appear much larger than it is, and subgroup analyses may be differentially influenced by the imputation procedure. Researchers not familiar with statistical analysis and those examining the data at a later date could tend to overlook the limitations brought about by imputation.

The variance of the mean, as calculated by standard statistical programs, is S^2/n , where n is the sample size. With

TABLE 6-4

Results of the Tests of Significance for
Those Using Products With a Chemical
Versus Those Using Products Without a Chemical

(Probabilities Listed - * Indicates Significance at $< .05$)

PRODUCT	USES PER YEAR P =	MINUTES LAST USE P =	OUNCES PER YEAR P =
1. SPRAY SHOE POLISH	.557	.642	.464
2. WATER REPELLENTS/PROTECTORS (FOR SUEDE, LEATHER, AND CLOTH)	.014*	.603	.000*
3. SPOT REMOVERS	.000*	.930	.000*
4. SOLVENT-TYPE CLEANING FLUIDS OR DEGREASERS	.834	.533	.300
5. WOOD FLOOR AND PANELING CLEANERS	.000*	.000*	.160
6. TYPEWRITER CORRECTION FLUID	.980	.661	.945
7. CONTACT CEMENT, SUPER GLUES AND SPRAY ADHESIVES	.232	.000*	.016*
8. ADHESIVE REMOVERS (GENERAL PURPOSE, TILE, AND WALLPAPER)	.500	.222	.210
9. SILICONE LUBRICANTS (EXCLUDING AUTOMOTIVE)	.075	.178	.507
10. OTHER LUBRICANTS (EXCLUDING AUTOMOTIVE)	.733	.919	.305
11. SPECIALIZED ELECTRONIC CLEANERS FOR TV, VCR, RAZOR, ETC.)	.468	.911	.761
12. LATEX PAINT	NOT TESTED	NOT TESTED	NOT TESTED
13. OIL PAINT	NOT TESTED	NOT TESTED	NOT TESTED
14. WOOD STAINS, VARNISHES AND FINISHES	.246	.055	.198
15. PAINT REMOVERS/STRIPPERS	.972	.368	.042*

TABLE 6-4 (Continued)

PRODUCT	USES PER YEAR P =	MINUTES LAST USE P =	OUNCES PER YEAR P =
16. PAINT THINNERS	.613	.328	.669
17. AEROSOL SPRAY PAINT (EXCLUDING AUTOMOTIVE)	.489	.600	.736
18. PRIMERS AND SPECIAL PRIMERS (EXCLUDING AUTOMOTIVE)	.125	.056	.036*
19. AEROSOL RUST REMOVERS	.095	.031*	.248
20. OUTDOOR WATER REPELLENTS (FOR WOOD OR CEMENT)	.517	.107	.325
21. GLASS FROSTINGS, WINDOW TINTS, AND ARTIFICIAL SNOW			
22. ENGINE DEGREASERS	.167	.301	.378
23. CARBURETOR CLEANERS	.979	.812	.466
24. AEROSOL SPRAY PAINT FOR CARS	.480	.782	.440
25. AUTO SPRAY PRIMERS	.725	.857	.804
26. SPRAY LUBRICANTS FOR CARS	.045*	.441	.077
27. TRANSMISSION CLEANERS			
28. BATTERY TERMINAL PROTECTORS	.802	.666	.477
29. BRAKE QUIETERS/CLEANERS			
30. GASKET REMOVERS	.471	.805	.865
31. TIRE/HUBCAP CLEANERS	.123	.460	.293
32. IGNITION AND WIRE DRYERS	.652	.438	.043*

the data set containing imputed data the n will be inflated by the imputed data and so make the variance of the mean appear much smaller than it really is.

The imputation procedure has been conducted without considering subgroup analyses (eg. men 60 years and over). It is possible that some subgroups could have a higher rate of imputation than the sample as a whole. In the most extreme case all data for a particular subgroup could come from imputed data. Researchers using this data set should examine the amount of imputation that has occurred in subgroups being examined.

C. Use or Publication of the Results

Special care should be taken when using the tape or the hard copy of brand imputation results so that actual laboratory results remain distinguished from simulated laboratory data assigned to a brand using these brand imputation procedures.

Appendix A
RESULTS OF VARIANCE ESTIMATION

Appendix A RESULTS OF VARIANCE ESTIMATION

Table 1: Product 1 -- Spray Shoe Polish

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4916	0.05	0.00	0.05	0.06
Months since last use	574	42.12	2.68	36.87	47.38
Uses per year	266	10.28	1.27	7.79	12.77
Minutes of use, last use	263	7.49	0.59	6.34	8.64
Minutes in room after last use	189	42.42	6.64	29.40	55.43
Ounces used per year	247	9.99	1.15	7.74	12.24
Ounces per year/Uses per year	246	2.40	0.27	1.87	2.92

Table 2: Product 2 -- Water Repellents

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4913	0.21	0.01	0.20	0.22
Months since last use	1757	20.49	0.72	19.08	21.90
Uses per year	1042	3.54	0.36	2.83	4.26
Minutes of use, last use	1035	14.46	0.75	13.00	15.93
Minutes in room after last use	659	59.03	5.14	48.95	69.10
Ounces used per year	976	11.38	0.70	10.01	12.76
Ounces per year/Uses per year	974	6.23	0.42	5.41	7.05

Table 3: Product 3 -- Spot Removers

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4909	0.28	0.01	0.27	0.30
Months since last use	1912	14.74	0.70	13.37	16.12
Uses per year	1390	15.59	1.18	13.28	17.91
Minutes of use, last use	1385	10.68	0.60	9.50	11.86
Minutes in room after last use	1105	53.80	3.73	46.49	61.10
Ounces used per year	1281	26.32	2.50	21.42	31.22
Ounces per year/Uses per year	1275	3.49	0.28	2.94	4.04

Table 4: Product 4 -- Cleaning Fluids or Degreasers

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4907	0.22	0.01	0.21	0.24
Months since last use	1378	10.00	0.70	8.62	11.37
Uses per year	1104	16.46	1.34	13.82	19.09
Minutes of use, last use	1093	29.48	2.93	23.75	35.22
Minutes in room after last use	649	55.60	4.30	47.17	64.02
Ounces used per year	1028	58.13	7.01	44.38	71.87
Ounces per year/Uses per year	1022	9.45	1.02	7.45	11.45

Table 5: Product 5 -- Wood Floor/Panel Cleaners

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4917	0.27	0.01	0.25	0.28
Months since last use	1715	12.64	0.63	11.41	13.86
Uses per year	1312	8.48	0.56	7.38	9.59
Minutes of use, last use	1301	74.04	3.53	67.13	80.95
Minutes in room after last use	1071	114.63	6.29	102.30	126.96
Ounces used per year	1229	28.41	1.67	25.14	31.67
Ounces per year/Uses per year	1228	9.50	0.53	8.45	10.54

Table 6: Product 6 -- Typewriter Correction Fluid

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4910	0.23	0.01	0.22	0.24
Months since last use	1273	6.98	0.74	5.53	8.43
Uses per year	1137	40.01	2.31	35.48	44.54
Minutes of use, last use	1131	7.62	0.89	5.88	9.36
Minutes in room after last use	1082	128.39	4.73	119.12	137.67
Ounces used per year	1037	4.14	0.44	3.27	5.01
Ounces per year/Uses per year	971	0.43	0.08	0.28	0.57

Table 7: Product 7 -- Cement, Glue, Spray Adhesives

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4901	0.55	0.01	0.53	0.56
Months since last use	2973	5.20	0.24	4.72	5.68
Uses per year	2681	8.89	0.51	7.89	9.89
Minutes of use, last use	2676	15.58	1.59	12.46	18.71
Minutes in room after last use	2013	88.94	4.09	80.92	96.95
Ounces used per year	2275	7.49	1.16	5.21	9.76
Ounces per year/Uses per year	2230	2.98	0.75	1.52	4.45

Table 8: Product 8 -- Adhesive Removers

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4912	0.03	0.00	0.03	0.04
Months since last use	283	21.65	2.26	17.22	26.08
Uses per year	167	4.22	0.95	2.35	6.09
Minutes of use, last use	168	121.20	13.34	95.05	147.34
Minutes in room after last use	131	119.27	14.62	90.61	147.92
Ounces used per year	155	34.46	7.77	19.23	49.68
Ounces per year/Uses per year	153	22.04	6.90	8.52	35.57

Table 9: Product -- Non-Auto Silicone Lubricants

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4909	0.15	0.01	0.14	0.16
Months since last use	863	6.52	0.51	5.52	7.53
Uses per year	750	10.32	0.92	8.52	12.12
Minutes of use, last use	747	10.42	1.18	8.10	12.73
Minutes in room after last use	343	65.85	8.14	49.90	81.81
Ounces used per year	687	12.50	1.06	10.42	14.58
Ounces per year/Uses per year	682	3.26	0.32	2.63	3.89

Table 10: Product 10 -- Other Non-Auto Lubricants

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4906	0.31	0.01	0.30	0.33
Months since last use	1690	5.05	0.33	4.41	5.69
Uses per year	1531	10.66	0.67	9.35	11.97
Minutes of use, last use	1518	8.12	0.82	6.52	9.73
Minutes in room after last use	841	84.07	5.56	73.17	94.97
Ounces used per year	1407	9.93	1.18	7.63	12.24
Ounces per year/Uses per year	1400	1.61	0.17	1.28	1.95

Table 11: Product 11 -- Specialized Electronic Cleaners

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4917	0.11	0.00	0.10	0.12
Months since last use	642	7.93	0.75	6.47	9.39
Uses per year	550	13.41	1.60	10.27	16.55
Minutes of use, last use	543	9.47	1.95	5.65	13.28
Minutes in room after last use	484	129.11	7.16	115.08	143.13
Ounces used per year	456	9.48	2.58	4.42	14.54
Ounces per year/Uses per year	452	1.83	0.25	1.34	2.31

Table 12: Product 12 -- Latex Paint

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4913	0.37	0.01	0.35	0.38
Months since last use	2710	16.70	0.57	15.59	17.81
Uses per year	1794	3.93	0.49	2.96	4.90
Minutes of use, last use	1769	295.08	11.61	272.32	317.85
Minutes in room after last use	1005	160.48	10.19	140.51	180.46
Ounces used per year	1762	371.27	14.59	342.66	399.87
Ounces per year/Uses per year	1759	193.04	7.90	177.56	208.52

Table 13: Product 13 -- Oil Paint

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4911	0.15	0.01	0.14	0.16
Months since last use	1465	30.39	1.27	27.90	32.87
Uses per year	735	5.66	0.86	3.98	7.35
Minutes of use, last use	726	194.12	12.98	168.69	219.56
Minutes in room after last use	321	100.50	12.54	75.92	125.07
Ounces used per year	702	168.92	14.25	141.00	196.85
Ounces per year/Uses per year	698	107.69	11.42	85.30	130.08

Table 14: Product 14 -- Wood Stains, Varnishes, Finishes

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4911	0.26	0.01	0.24	0.27
Months since last use	2103	23.21	0.87	21.50	24.92
Uses per year	1259	4.21	0.35	3.52	4.90
Minutes of use, last use	1247	117.17	6.09	105.24	129.10
Minutes in room after last use	642	93.43	8.22	77.31	109.55
Ounces used per year	1221	65.06	5.13	55.01	75.11
Ounces per year/Uses per year	1217	33.72	2.40	29.02	38.43

Table 15: Product 15 -- Paint Removers/Strippers

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4912	0.15	0.01	0.14	0.17
Months since last use	1493	28.96	1.18	26.65	31.27
Uses per year	761	3.68	0.37	2.95	4.41
Minutes of use, last use	752	125.57	10.62	104.76	146.38
Minutes in room after last use	340	69.03	7.93	53.48	84.58
Ounces used per year	737	63.73	5.75	52.46	74.99
Ounces per year/Uses per year	735	29.84	1.99	25.94	33.74

Table 16: Product 16 -- Paint Thinners

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4911	0.22	0.01	0.21	0.24
Months since last use	1747	21.48	0.95	19.62	23.34
Uses per year	1104	6.78	0.66	5.48	8.08
Minutes of use, last use	1087	39.43	3.48	32.61	46.25
Minutes in room after last use	486	72.96	6.76	59.71	86.22
Ounces used per year	1053	69.45	6.07	57.55	81.35
Ounces per year/Uses per year	1050	23.68	1.62	20.50	26.86

Table 17: Product 17 -- Aerosol Spray Paint

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4908	0.24	0.01	0.23	0.25
Months since last use	1737	17.23	0.80	15.66	18.80
Uses per year	1178	4.22	0.45	3.34	5.10
Minutes of use, last use	1162	39.54	2.60	34.45	44.64
Minutes in room after last use	305	48.50	6.67	35.43	61.56
Ounces used per year	1121	30.75	1.61	27.60	33.90
Ounces per year/Uses per year	1118	13.81	0.74	12.35	15.26

Table 18: Product 18 -- Non-Auto Primers

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4910	0.08	0.00	0.07	0.09
Months since last use	682	22.04	1.41	19.29	24.79
Uses per year	396	3.43	0.43	2.58	4.28
Minutes of use, last use	381	91.29	9.04	73.58	109.01
Minutes in room after last use	129	66.16	8.87	48.78	83.53
Ounces used per year	364	68.39	8.77	51.19	85.58
Ounces per year/Uses per year	363	42.14	5.61	31.14	53.14

Table 19: Product 19 -- Aerosol Rust Removers

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4915	0.06	0.00	0.05	0.07
Months since last use	400	15.09	1.55	12.06	18.12
Uses per year	290	6.17	0.58	5.03	7.30
Minutes of use, last use	282	18.57	2.88	12.92	24.22
Minutes in room after last use	101	42.04	7.17	27.99	56.09
Ounces used per year	266	18.21	4.98	8.44	27.98
Ounces per year/Uses per year	265	9.24	4.83	0.00	18.69

Table 20: Product 20 -- Outdoor Water Repellents

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4914	0.05	0.00	0.04	0.06
Months since last use	425	24.66	1.91	20.91	28.40
Uses per year	241	2.07	0.25	1.58	2.55
Minutes of use, last use	239	104.94	7.82	89.61	120.28
Minutes in room after last use	28	71.71	20.51	31.51	111.92
Ounces used per year	234	148.71	19.21	111.05	186.36
Ounces per year/Uses per year	230	99.53	11.15	77.68	121.38

Table 21: Product 21 -- Glass Frosting, Window tints and Snow

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4916	0.06	0.00	0.05	0.06
Months since last use	506	34.22	2.53	29.26	39.19
Uses per year	279	2.78	1.31	0.21	5.36
Minutes of use, last use	275	29.45	2.89	23.78	35.12
Minutes in room after last use	216	171.69	18.32	135.79	207.60
Ounces used per year	259	13.82	0.92	12.02	15.62
Ounces per year/Uses per year	258	12.51	0.88	10.79	14.23

Table 22: Product 22 - Engine Degreasers

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4914	0.12	0.00	0.11	0.13
Months since last use	846	16.55	1.01	14.57	18.53
Uses per year	582	4.18	0.56	3.08	5.29
Minutes of use, last use	578	29.29	2.03	25.31	33.27
Minutes in room after last use	41	63.59	10.60	42.81	84.36
Ounces used per year	555	46.95	5.67	35.84	58.06
Ounces per year/Uses per year	554	18.72	2.52	13.79	23.66

Table 23: Product 23 -- Carburetor Cleaners

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4911	0.16	0.01	0.15	0.17
Months since last use	1071	13.05	0.86	11.36	14.73
Uses per year	803	3.77	0.25	3.28	4.26
Minutes of use, last use	800	13.57	0.81	11.98	15.17
Minutes in room after last use	79	75.82	23.24	30.27	121.38
Ounces used per year	769	22.03	1.85	18.40	25.66
Ounces per year/Uses per year	766	7.60	0.34	6.93	8.27

Table 24: Product 24 -- Aerosol Spray Paint for Cars

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4915	0.07	0.00	0.07	0.08
Months since last use	596	20.85	1.43	18.05	23.65
Uses per year	367	4.50	0.49	3.54	5.46
Minutes of use, last use	362	42.77	3.94	35.06	50.48
Minutes in room after last use	57	68.40	12.85	43.22	93.58
Ounces used per year	347	44.95	4.63	35.87	54.03
Ounces per year/Uses per year	347	13.76	1.04	11.72	15.81

Table 25: Product 25 -- Auto Spray Primers

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4916	0.05	0.00	0.05	0.06
Months since last use	453	24.05	1.90	20.33	27.76
Uses per year	260	6.42	2.09	2.31	10.52
Minutes of use, last use	258	51.45	5.32	41.03	61.87
Minutes in room after last use	44	66.66	13.65	39.91	93.40
Ounces used per year	247	70.37	17.46	36.16	104.59
Ounces per year/Uses per year	247	20.54	2.76	15.14	25.94

Table 26: Product 26 -- Spray Lubricants for Cars

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4910	0.16	0.01	0.15	0.17
Months since last use	880	6.28	0.59	5.13	7.43
Uses per year	771	10.31	1.10	8.15	12.46
Minutes of use, last use	762	9.90	1.30	7.36	12.44
Minutes in room after last use	84	41.36	9.19	23.34	59.38
Ounces used per year	705	18.63	2.04	14.63	22.63
Ounces per year/Uses per year	704	3.40	0.29	2.83	3.97

Table 27: Product 27 -- Transmission Cleaners

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4914	0.01	0.00	0.01	0.02
Months since last use	103	16.73	3.00	10.84	22.62
Uses per year	69	2.28	0.42	1.45	3.11
Minutes of use, last use	67	27.90	7.45	13.29	42.50
Minutes in room after last use	8	45.62	26.38	0.00	97.33
Ounces used per year	64	35.71	7.54	20.93	50.50
Ounces per year/Uses per year	63	16.60	2.32	12.06	21.14

Table 28: Product 28 -- Battery Terminal Protectors

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4916	0.05	0.00	0.04	0.05
Months since last use	327	14.04	1.36	11.37	16.70
Uses per year	228	3.95	1.61	0.80	7.11
Minutes of use, last use	226	9.61	1.21	7.24	11.97
Minutes in room after last use	25	29.36	8.89	11.93	46.79
Ounces used per year	193	16.49	6.27	4.20	28.79
Ounces per year/Uses per year	193	8.07	3.22	1.74	14.39

Table 29: Product 29 -- Brake Quieters/Cleaners

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4917	0.02	0.00	0.02	0.02
Months since last use	130	13.27	2.29	8.78	17.76
Uses per year	95	3.00	0.61	1.80	4.20
Minutes of use, last use	96	23.38	3.67	16.18	30.58
Minutes in room after last use	16	61.62	11.69	38.72	84.53
Ounces used per year	86	11.72	1.55	8.67	14.76
Ounces per year/Uses per year	85	6.26	0.73	4.84	7.68

Table 30: Product 30 -- Gasket Removers

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4915	0.02	0.00	0.01	0.02
Months since last use	132	22.39	3.37	15.78	29.00
Uses per year	74	2.50	0.51	1.49	3.51
Minutes of use, last use	72	23.57	3.17	17.35	29.79
Minutes in room after last use	24	83.83	15.23	53.98	113.69
Ounces used per year	66	13.25	2.77	7.82	18.68
Ounces per year/Uses per year	66	7.09	1.15	4.84	9.34

Table 31: Product 31 -- Tire/Hubcap Cleaners

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4914	0.14	0.01	0.13	0.15
Months since last use	777	7.25	0.72	5.85	8.66
Uses per year	691	11.18	0.72	9.77	12.59
Minutes of use, last use	683	22.66	0.97	20.76	24.55
Minutes in room after last use	14	73.71	32.73	9.56	137.87
Ounces used per year	637	31.58	3.58	24.56	38.60
Ounces per year/Uses per year	636	4.90	0.46	3.99	5.81

Table 32: Product 32 -- Ignition and Wire Dryers

	Sample size	R	Standard deviation of R	95% Lower bound	95% Upper bound
Percent recent users	4915	0.03	0.00	0.02	0.03
Months since last use	234	22.84	3.03	16.89	28.78
Uses per year	142	3.01	0.48	2.07	3.95
Minutes of use, last use	137	7.24	0.74	5.78	8.69
Minutes in room after last use	13	67.85	22.09	24.56	111.13
Ounces used per year	128	9.02	1.29	6.50	11.55
Ounces per year/Uses per year	128	4.73	0.79	3.18	6.28

Appendix B

TOTAL MINUTES OF USE
FOR LAST USE OF PRODUCT

Appendix B

TOTAL MINUTES OF USE FOR LAST USE OF PRODUCT

Total minutes of use for last use is computed by adding Question 4, time spent using the product, to Question 5, time spent in the room after use. If users spent time using the product but did not spend time in the room after use, their total minutes of use will equal only the time they spent using the product.

Product 1. Spray Shoe Polish -- Q4 + Q5

N = 255	Minimum	.03	75%	35.00
Mean = 38.87	1%	.19	90%	120.10
Median = 12.00	5%	1.40	95%	136.00
Standard	10%	2.00	99%	481.44
Deviation = 81.91	25%	5.00	Maximum	740.00
	Median	12.00		

Product 2. Water Repellents/Protectors -- Q4 + Q5

N = 1022	Minimum	.02	75%	50.00
Mean = 52.54	1%	.25	90%	130.00
Median = 15.25	5%	2.00	95%	242.85
Standard	10%	3.00	99%	485.00
Deviation = 115.52	25%	6.00	Maximum	1810.00
	Median	15.25		

Product 3. Spot Removers -- Q4 + Q5

N = 1362	Minimum	.03	75%	45.00
Mean = 54.35	1%	.13	90%	150.10
Median = 15.00	5%	1.17	95%	259.25
Standard	10%	2.00	99%	486.85
Deviation = 112.26	25%	5.00	Maximum	1470.00
	Median	15.00		

Appendix B

TOTAL MINUTES OF USE FOR LAST USE OF PRODUCT (Continued)

Product 4. Solvent type Cleaning Fluids -- Q4 + Q5

N = 1081	Minimum	.02	75%	60.00
Mean = 62.92	1%	.47	90%	150.00
Median = 23.00	5%	2.00	95%	245.00
Standard	10%	4.00	99%	602.70
Deviation = 137.22	25%	10.00	Maximum	1860.00
	Median	23.00		

Product 5. Wood Floor and Paneling Cleaners -- Q4 + Q5

N = 1267	Minimum	.03	75%	180.00
Mean = 170.35	1%	5.00	90%	420.00
Median = 90.00	5%	15.00	95%	600.00
Standard	10%	20.00	99%	1470.00
Deviation = 251.74	25%	40.00	Maximum	2880.00
	Median	90.00		

Product 6. Typewriter Correction Fluid -- Q4 + Q5

N = 1112	Minimum	.02	75%	181.00
Mean = 132.51	1%	.56	90%	360.04
Median = 62.00	5%	4.00	95%	480.08
Standard	10%	10.00	99%	609.35
Deviation = 158.48	25%	30.50	Maximum	1800.03
	Median	62.00		

Product 7. Contact Cement, Super Glues, and Spray Adhesives -- Q4 + Q5

N = 2593	Minimum	.02	75%	70.00
Mean = 84.92	1%	.05	90%	240.67
Median = 20.00	5%	1.00	95%	371.50
Standard	10%	2.00	99%	871.80
Deviation = 194.53	25%	5.17	Maximum	4320.00
	Median	20.00		

Product 8. Adhesive Removers -- Q4 + Q5

N = 166	Minimum	.50	75%	270.00
Mean = 216.33	1%	1.17	90%	512.00
Median = 124.50	5%	8.00	95%	759.00
Standard	10%	15.00	99%	1440.00
Deviation = 282.95	25%	40.00	Maximum	1440.00
	Median	124.50		

Appendix B

TOTAL MINUTES OF USE FOR LAST USE OF PRODUCT (Continued)

Product 9. Silicone Lubricants -- Q4 + Q5

N = 731	Minimum	.02	75%	30.00
Mean = 41.24	1%	.04	90%	120.00
Median = 6.00	5%	.17	95%	240.05
Standard	10%	.50	99%	491.80
Deviation = 112.67	25%	2.00	Maximum	1442.00
	Median	6.00		

Product 10. Other Lubricants -- Q4 + Q5

N = 1487	Minimum	.02	75%	60.00
Mean = 55.71	1%	.03	90%	130.00
Median = 10.00	5%	.17	95%	245.60
Standard	10%	.50	99%	573.60
Deviation = 131.25	25%	2.02	Maximum	1445.00
	Median	10.00		

Product 11. Specialized Electronic Cleaners -- Q4 + Q5

N = 532	Minimum	.02	75%	180.25
Mean = 127.01	1%	.17	90%	305.00
Median = 65.00	5%	2.00	95%	480.39
Standard	10%	4.30	99%	738.35
Deviation = 162.94	25%	15.00	Maximum	1440.50
	Median	65.00		

Product 12. Latex Paint -- Q4 + Q5

N = 1753	Minimum	.03	75%	480.00
Mean = 385.29	1%	3.00	90%	738.80
Median = 240.00	5%	30.00	95%	1201.50
Standard	10%	60.00	99%	3181.80
Deviation = 574.06	25%	120.00	Maximum	6240.00
	Median	240.00		

Product 13. Oil Paint -- Q4 + Q5

N = 719	Minimum	.02	75%	300.00
Mean = 236.64	1%	3.00	90%	488.00
Median = 130.00	5%	25.00	95%	605.00
Standard	10%	30.00	99%	1764.00
Deviation = 373.59	25%	60.00	Maximum	5760.00
	Median	130.00		

Appendix B

TOTAL MINUTES OF USE FOR LAST USE OF PRODUCT (Continued)

Product 14. Wood Stains, Varnishes, and Finishes -- Q4 + Q5

N = 1235	Minimum	.02	75%	180.00
Mean = 162.32	1%	2.00	90%	360.00
Median = 90.00	5%	11.40	95%	600.00
Standard	10%	20.00	99%	960.00
Deviation = 243.99	25%	40.00	Maximum	3240.00
	Median	90.00		

Product 15. Paint Removers/Strippers -- Q4 + Q5

N = 747	Minimum	.03	75%	180.00
Mean = 154.37	1%	1.48	90%	336.00
Median = 70.00	5%	5.00	95%	483.00
Standard	10%	10.00	99%	1440.00
Deviation = 305.19	25%	30.00	Maximum	4350.00
	Median	70.00		

Product 16. Paint Thinners -- Q4 + Q5

N = 1076	Minimum	.02	75%	60.00
Mean = 70.19	1%	.08	90%	180.02
Median = 20.00	5%	2.00	95%	310.75
Standard	10%	4.00	99%	755.30
Deviation = 148.11	25%	7.00	Maximum	1500.00
	Median	20.00		

Product 17. Aerosol Spray Paint -- Q4 + Q5

N = 1156	Minimum	.02	75%	60.00
Mean = 52.40	1%	.22	90%	120.00
Median = 30.00	5%	3.00	95%	180.00
Standard	10%	5.00	99%	445.80
Deviation = 106.71	25%	10.00	Maximum	1800.00
	Median	30.00		

Product 18. Primers and Special Primers -- Q4 + Q5

N = 379	Minimum	.05	75%	120.00
Mean = 114.24	1%	.50	90%	300.00
Median = 60.00	5%	4.00	95%	480.00
Standard	10%	10.00	99%	987.00
Deviation = 185.25	25%	20.00	Maximum	1920.00
	Median	60.00		

Appendix B

TOTAL MINUTES OF USE FOR LAST USE OF PRODUCT (Continued)

Product 19. Aerosol Rust Removers -- Q4 + Q5

N = 281	Minimum	.02	75%	37.50
Mean = 133.74	1%	.07	90%	74.00
Median = 15.00	5%	.18	95%	120.00
Standard	10%	.50	99%	314.80
Deviation = 67.14	25%	5.00	Maximum	723.00
	Median	15.00		

Product 20. Outdoor Water Repellents -- Q4 + Q5

N = 238	Minimum	.02	75%	130.00
Mean = 112.81	1%	.05	90%	240.00
Median = 60.00	5%	9.80	95%	360.00
Standard	10%	15.00	99%	498.30
Deviation = 122.70	25%	30.00	Maximum	960.00
	Median	60.00		

Product 21. Glass Frostings, Window Tints, and Artificial Snow -- Q4 + Q5

N = 268	Minimum	.03	75%	210.00
Mean = 162.42	1%	.40	90%	427.50
Median = 70.00	5%	4.45	95%	526.50
Standard	10%	6.90	99%	1442.00
Deviation = 234.08	25%	20.00	Maximum	1805.00
	Median	70.00		

Product 22. Engine Degreasers -- Q4 + Q5

N = 577	Minimum	.02	75%	30.00
Mean = 33.84	1%	.95	90%	71.00
Median = 20.00	5%	2.00	95%	120.00
Standard	10%	5.00	99%	240.00
Deviation = 54.81	25%	10.00	Maximum	900.00
	Median	20.00		

Product 23. Carburetor Cleaners -- Q4 + Q5

N = 796	Minimum	.02	75%	15.00
Mean = 21.16	1%	.08	90%	40.00
Median = 10.00	5%	.50	95%	65.75
Standard	10%	1.00	99%	240.00
Deviation = 73.73	25%	4.00	Maximum	1815.00
	Median	10.00		

Appendix B

TOTAL MINUTES OF USE FOR LAST USE OF PRODUCT (Continued)

Product 24. Aerosol Spray Paint for Cars -- Q4 + Q5

N = 362	Minimum	.03	75%	60.00
Mean = 53.54	1%	.19	90%	120.00
Median = 30.00	5%	1.07	95%	192.75
Standard	10%	4.00	99%	395.55
Deviation = 84.86	25%	10.00	Maximum	900.00
	Median	30.00		

Product 25. Auto Spray Primers -- Q4 + Q5

N = 258	Minimum	.05	75%	60.08
Mean = 62.82	1%	.32	90%	150.00
Median = 30.00	5%	5.00	95%	240.00
Standard	10%	5.00	99%	600.00
Deviation = 100.67	25%	10.75	Maximum	660.00
	Median	30.00		

Product 26. Spray Lubricants for Cars -- Q4 + Q5

N = 760	Minimum	.02	75%	10.00
Mean = 14.49	1%	.03	90%	30.00
Median = 5.00	5%	.08	95%	35.00
Standard	10%	.25	99%	311.95
Deviation = 47.39	25%	2.00	Maximum	720.00
	Median	5.00		

Product 27. Transmission Cleaners -- Q4 + Q5

N = 67	Minimum	.17	75%	30.00
Mean = 33.35	1%	.17	90%	60.00
Median = 15.00	5%	.35	95%	168.00
Standard	10%	1.80	99%	450.00
Deviation = 69.58	25%	5.00	Maximum	450.00
	Median	15.00		

Product 28. Battery Terminal Protectors -- Q4 + Q5

N = 226	Minimum	.03	75%	15.00
Mean = 12.85	1%	.04	90%	30.00
Median = 5.00	5%	.11	95%	41.50
Standard	10%	.45	99%	165.15
Deviation = 24.67	25%	2.00	Maximum	195.00
	Median	5.00		

Appendix B

TOTAL MINUTES OF USE FOR LAST USE OF PRODUCT (Continued)

Product 29. Brake Quieters/Cleaners -- Q4 + Q5

N = 96	Minimum	.07	75%	38.25
Mean = 33.65	1%	.07	90%	120.00
Median = 15.00	5%	.50	95%	154.50
Standard	10%	1.00	99%	240.00
Deviation = 49.60	25%	5.00	Maximum	240.00
	Median	15.00		

Product 30. Gasket Removers -- Q4 + Q5

N = 72	Minimum	.50	75%	60.00
Mean = 51.51	1%	.50	90%	147.00
Median = 27.50	5%	.83	95%	211.00
Standard	10%	3.60	99%	360.00
Deviation = 68.76	25%	10.50	Maximum	360.00
	Median	27.50		

Product 31. Tire/Hubcap Cleaners -- Q4 + Q5

N = 681	Minimum	.08	75%	30.00
Mean = 24.19	1%	.70	90%	60.00
Median = 15.00	5%	3.00	95%	60.00
Standard	10%	5.00	99%	150.00
Deviation = 31.76	25%	10.00	Maximum	500.00
	Median	15.00		

Product 32. Ignition and Wire Dryers -- Q4 + Q5

N = 137	Minimum	.02	75%	15.00
Mean = 13.67	1%	.02	90%	26.00
Median = 5.00	5%	.08	95%	60.00
Standard	10%	.50	99%	219.72
Deviation = 32.27	25%	2.00	Maximum	241.00
	Median	5.00		

Appendix C

ACTUAL MEAN VALUES OF COMPARISONS OF BRANDS
BY PRODUCT FOR THOSE WITH AND WITHOUT
LABORATORY DATA AND THOSE FOUND TO BE
WITH AND WITHOUT THE CHEMICAL

Spray Shoe Polish
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	18	7.50	122	10.00	.5573
Time spent	18	8.22	123	7.14	.6420
Amount used	18	6.58	116	8.59	.4641

Spray Shoe Polish
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	140	9.67	126	10.95	.6069
Time spent	141	7.28	122	7.74	.6996
Amount used	134	8.32	113	11.97	.1097

Spot Removers
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	387	7.39	265	16.68	.0001
Time spent	387	9.20	265	9.31	.9299
Amount used	369	5.99	245	23.38	.0001

Spot Removers
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	652	11.17	738	19.51	.0003
Time spent	652	9.24	733	11.95	.0238
Amount used	614	12.93	667	38.65	.0001

Solvent Cleaners
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	93	8.39	147	8.98	.8342
Time spent	93	21.62	148	19.65	.5328
Amount used	90	35.00	146	61.57	.2999

Solvent Cleaners
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	240	8.75	864	18.60	.0022
Time spent	241	20.41	852	32.05	.1019
Amount used	236	51.44	792	60.12	.6063

Water Repellents
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	430	2.51	21	4.43	.0142
Time spent	430	13.23	21	15.17	.6027
Amount used	419	12.47	21	44.64	.0001

Water Repellents
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	451	2.60	591	4.26	.0233
Time spent	451	13.32	584	15.35	.1802
Amount used	440	14.00	536	9.23	.0007

Wood/Floor/Panel Cleaners
 Users With Lab Data
 Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	418	10.61	437	5.69	.0001
Time spent	417	56.61	436	90.46	.0001
Amount used	398	25.86	416	22.50	.1599

Wood/Floor/Panel Cleaners
 All Users
 With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	855	8.10	457	9.21	.3603
Time spent	853	73.91	448	74.28	.9602
Amount used	814	24.14	415	36.78	.0002

Typewriter Correction Fluid
 Users With Lab Data
 Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	488	42.82	371	42.96	.9800
Time spent	492	7.49	371	6.59	.6605
Amount used	457	4.26	352	4.33	.9448

Typewriter Correction Fluid
 All Users
 With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	859	42.88	278	31.13	.0227
Time spent	863	7.10	268	9.30	.2882
Amount used	809	4.29	228	3.60	.5042

Contact Cement, Glue, Spray Adhesives
 Users With Lab Data
 Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	122	5.57	477	7.25	.2320
Time spent	124	34.51	478	10.75	.0001
Amount used	114	23.34	414	5.41	.0155

Contact Cement, Glue, Spray Adhesives
 All Users
 With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	599	6.91	2082	9.46	.0361
Time spent	602	15.64	2074	15.57	.9837
Amount used	528	9.28	1747	6.94	.3992

Adhesive Removers
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	9	3.44	13	2.08	.4998
Time spent	10	71.05	13	165.79	.2222
Amount used	10	57.40	13	15.78	.2103

Adhesive Removers
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	22	2.64	145	4.46	.5182
Time spent	23	124.60	145	120.66	.9188
Amount used	23	33.88	132	34.56	.9754

Silicone Lubricants
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	173	9.53	216	15.37	.0745
Time spent	173	7.63	217	11.75	.1776
Amount used	164	13.42	204	11.84	.5072

Silicone Lubricants
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	389	12.77	361	7.68	.0061
Time spent	390	9.93	357	10.95	.6354
Amount used	368	12.54	319	12.44	.9622

Other Non-Auto Lubricants
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	27	11.70	1279	10.24	.7331
Time spent	27	8.49	1280	7.82	.9185
Amount used	27	11.84	1193	7.90	.3054

Other Non-Auto Lubricants
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	1306	10.27	225	12.93	.1471
Time spent	1307	7.84	211	9.88	.3917
Amount used	1220	7.98	187	22.66	.0001

Specialized Electronic Cleaners
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	42	9.95	58	13.86	.4684
Time spent	42	5.35	58	5.16	.9106
Amount used	38	17.57	49	25.55	.7608

Specialized Electronic Cleaners
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	100	12.22	450	13.68	.7304
Time spent	100	5.24	443	10.42	.3021
Amount used	87	22.06	369	6.51	.0181

Brake Quieters/Cleaners
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used					
Time spent					
Amount used					

Brake Quieters/Cleaners
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	29	2.07	66	3.41	.3236
Time spent	30	24.91	66	22.69	.7832
Amount used	28	11.15	58	11.99	.7838

Battery Terminal Protectors
 Users With Lab Data
 Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	16	2.13	17	2.24	.8024
Time spent	16	8.99	17	7.51	.6657
Amount used	15	6.59	17	7.96	.4770

Battery Terminal Protectors
 All Users
 With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	33	2.18	195	4.25	.6523
Time spent	33	8.23	193	9.84	.6374
Amount used	32	7.32	161	18.32	.5190

Transmission Cleaners
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used					
Time spent					
Amount used					

Transmission Cleaners
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	17	1.88	52	2.40	.6025
Time spent	17	39.34	50	24.01	.3782
Amount used	17	30.17	47	37.72	.6752

Auto Spray Lubricants
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	96	5.36	391	13.62	.0453
Time spent	95	7.00	391	10.53	.4406
Amount used	89	9.24	365	21.63	.0768

Auto Spray Lubricants
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	487	12.00	284	7.41	.0453
Time spent	486	9.84	276	9.99	.9562
Amount used	454	19.20	251	17.60	.7114

Oil Paint
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used					
Time spent					
Amount used					

Oil Paint
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	6	2.17	729	5.69	.7100
Time spent	6	162.50	720	194.39	.8221
Amount used	6	36.21	696	170.07	.3751

Wood Stains, Varnishes, Finishes
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	162	3.98	274	5.24	.2455
Time spent	161	98.25	274	141.34	.0550
Amount used	160	34.68	268	44.21	.1981

Wood Stains, Varnishes, Finishes
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	436	4.77	823	3.91	.2332
Time spent	435	125.39	812	112.77	.2714
Amount used	428	40.65	793	78.24	.0003

Paint Removers/Strippers
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	303	3.17	9	3.22	.9723
Time spent	304	149.25	9	71.11	.3678
Amount used	301	58.64	9	114.67	.0422

Paint Removers/Strippers
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	312	3.17	449	4.03	.1999
Time spent	313	147.00	439	110.29	.0834
Amount used	310	60.26	427	66.24	.5791

Paint Thinners
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	7	3.57	84	6.95	.6131
Time spent	7	7.86	84	21.16	.3279
Amount used	7	34.86	84	48.35	.6688

Paint Thinners
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	91	6.69	1013	6.79	.9685
Time spent	91	20.14	996	41.19	.0941
Amount used	91	47.31	962	71.54	.2465

Aerosol Spray Paint (Excluding Automotive)
 Users With Lab Data
 Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	192	3.99	11	2.64	.4891
Time spent	193	42.30	11	25.00	.6002
Amount used	186	32.88	11	29.05	.7356

Aerosol Spray Paint (Excluding Automotive)
 All Users
 With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	203	3.92	975	4.28	.7630
Time spent	204	41.37	958	39.15	.7436
Amount used	197	32.67	924	30.34	.5747

Primers and Special Primers (Non-Automotive)
 Users With Lab Data
 Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	16	10.06	31	3.19	.1254
Time spent	16	74.22	31	30.24	.0561
Amount used	13	65.00	30	29.42	.0361

Primers and Special Primers (Non-Automotive)
 All Users
 With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	47	5.53	349	3.14	.0792
Time spent	47	45.21	334	97.78	.0538
Amount used	43	40.18	321	72.16	.2505

Aerosol Rust Removers
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	8	3.50	6	1.83	.0952
Time spent	8	23.38	6	4.28	.0315
Amount used	8	17.84	6	4.91	.2482

Aerosol Rust Removers
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	14	2.79	276	6.34	.1874
Time spent	14	15.19	268	18.74	.7900
Amount used	14	12.30	252	18.54	.7807

Outdoor Water Repellents
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	7	1.43	96	1.78	.5173
Time spent	7	35.73	96	117.29	.1069
Amount used	7	48.93	94	191.71	.3247

Outdoor Water Repellents
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	103	1.76	138	2.30	.2644
Time spent	103	111.75	136	99.79	.4285
Amount used	101	181.81	133	123.56	.1160

Glass Frostings/Tints/Artificial Snow
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used					
Time spent					
Amount used					

Glass Frostings/Tints/Artificial Snow
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	6	62.00	273	1.48	.0001
Time spent	6	24.18	269	29.57	.7867
Amount used	6	19.46	253	13.69	.3496

Engine Degreasers
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	47	4.47	87	3.01	.1668
Time spent	47	29.62	87	23.77	.3007
Amount used	45	33.93	84	26.63	.3778

Engine Degreasers
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	134	3.52	448	4.38	.5261
Time spent	134	25.82	444	30.34	.3417
Amount used	129	29.17	426	52.34	.0882

Carburetor Cleaners
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	143	4.27	329	4.29	.9786
Time spent	143	13.47	329	12.97	.8120
Amount used	140	25.71	326	21.83	.4658

Carburetor Cleaners
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	472	4.29	331	3.03	.0136
Time spent	472	13.12	328	14.22	.5067
Amount used	466	23.00	303	20.54	.5109

Aerosol Spray Paint for Cars
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	49	5.84	17	4.18	.4799
Time spent	49	35.23	17	32.41	.7819
Amount used	45	54.24	17	33.15	.4397

Aerosol Spray Paint for Cars
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	66	5.41	301	4.30	.4012
Time spent	66	34.51	296	44.61	.2991
Amount used	62	48.46	285	44.19	.7351

Auto Spray Primers
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	10	4.90	61	12.08	.7245
Time spent	10	52.10	61	46.71	.8572
Amount used	10	39.40	60	35.86	.8041

Auto Spray Primers
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	71	11.07	189	4.67	.1752
Time spent	71	47.47	187	52.96	.6483
Amount used	70	36.37	177	83.82	.2216

Tire/Hubcap Cleaners
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	26	5.12	32	9.09	.1230
Time spent	25	27.60	33	33.36	.4603
Amount used	26	17.41	33	24.59	.2933

Tire/Hubcap Cleaners
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	58	7.31	633	11.54	.0989
Time spent	58	30.88	625	21.89	.0062
Amount used	59	21.43	578	32.62	.3087

Ignition and Wire Dryers
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	6	2.83	1	1.00	.6523
Time spent	6	10.25	1	0.17	.4384
Amount used	6	10.25	1	2.25	.0432

Ignition and Wire Dryers
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	7	2.57	135	3.04	.8343
Time spent	7	8.81	130	7.15	.6164
Amount used	7	9.11	121	9.02	.9875

Gasket Removers
Users With Lab Data
Chemical vs No Chemical

Variable	<u>Chemical</u>		<u>No chemical</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	18	3.11	11	5.00	.4712
Time spent	19	20.26	11	18.17	.8048
Amount used	18	21.04	10	18.80	.8648

Gasket Removers
All Users
With Lab Data vs No Lab Data

Variable	<u>With</u>		<u>Without</u>		Approx. p-value
	N	Mean	N	Mean	
Last used	29	3.83	45	1.64	.0359
Time spent	30	19.49	42	26.48	.2858
Amount used	28	20.24	38	8.10	.0280

Appendix D

SUMMARY OF THE FINDINGS FOR
AEROSOL ONLY PRODUCTS

SUMMARY OF FINDINGS

AEROSOL ONLY

PRODUCT	1.		2.	3.	4.	5.
	Percentage Aerosol	Percentage Non-Aerosol	When was the last time you used (PRODUCT)?	How many times did you use (PRODUCT) in the last 12 months?	How much time did you spend using (PRODUCT) the last time you used it?	How much time did you spend in the room immediately after use the last time you used (PRODUCT)?
1. SPRAY SHOE POLISH	98%	2%	NA	mean 10.3 times median 4.0 times	mean 7.4 minutes median 5.0 minutes	mean 31.4 minutes median 5.0 minutes
2. WATER REPELLENTS/ PROTECTORS (FOR SUEDE, LEATHER, AND CLOTH)	71%	28%	NA	mean 3.2 times median 2.0 times	mean 12.6 minutes median 5.0 minutes	mean 32.2 minutes median 2.0 minutes
3. SPOT REMOVERS	44%	56%	NA	mean 12.5 times median 3.0 times	mean 11.1 minutes median 5.0 minutes	mean 47.5 minutes median 5.0 minutes
4. SOLVENT-TYPE CLEANING FLUIDS OR DEGREASERS	26%	74%	NA	mean 11.6 times median 3.0 times	mean 21.3 minutes median 10.0 minutes	mean 28.7 minutes median 1.0 minutes
5. WOOD FLOOR AND PANELING CLEANERS	49%	51%	NA	mean 10.5 times median 2.0 times	mean 62.6 minutes median 30.0 minutes	mean 90.3 minutes median 30.0 minutes
6. TYPEWRITER CORRECTION FLUID	.1%	99.9% (Since only one respondent used this product, no further calculations are provided.)	NA			
7. CONTACT CEMENT, SUPER GLUES AND SPRAY ADHESIVES	3%	97%	NA	mean 10.2 times median 3.0 times	mean 28.6 minutes median 5.0 minutes	mean 68.6 minutes median 15.0 minutes
8. ADHESIVE REMOVERS (GENERAL PURPOSE, TILE, AND WALLPAPER)	15%	85%	NA	mean 5.4 times median 2.0 times	mean 50.2 minutes median 45.0 minutes	mean 53.0 minutes median 10.0 minutes
9. SILICONE LUBRICANTS (EXCLUDING AUTOMOTIVE)	80%	20%	NA	mean 10.8 times median 4.0 times	mean 9.3 minutes median 2.0 minutes	mean 27.7 minutes median 0.0 minutes
10. OTHER LUBRICANTS (EXCLUDING AUTOMOTIVE)	33%	67%	NA	mean 14.0 times median 5.0 times	mean 7.5 minutes median 2.0 minutes	mean 30.8 minutes median 0.0 minutes

7. What size of (PRODUCT) did you use the last time you used it? How much of a can or how many cans did you use during the past year? OUNCES PER YEAR	8. Where did you use (PRODUCT) the last time you used it?	9. When using (PRODUCT) the last time, did you . . .			
		Have a window open to the outside?	Have an exhaust fan on?	Keep the inside door to the room closed?	Read the directions on the label?
mean 10.1 ounces median 4.5 ounces	1 B 5.2% 2 LR 14.7% 3 OR 62.6% 4 G 3.6% 5 Outs. 13.9%	Yes. . 40% No . . 60%	Yes.. 11% No... 89%	Yes. . 76% No . . 24%	Yes. . 72% No . . 28%
mean 11.8 ounces median 6.7 ounces	1 B 10.3% 2 LR 12.9% 3 OR 44.8% 4 G 10.5% 5 Outs. 21.5%	Yes. . 44% No . . 56%	Yes.. 8% No... 92%	Yes. . 74% No . . 26%	Yes. . 85% No . . 15%
mean 15.9 ounces median 6.0 ounces	1 B 9.8% 2 LR 23.7% 3 OR 58.2% 4 G 3.1% 5 Outs. 5.2%	Yes. . 47% No . . 53%	Yes.. 9% No... 91%	Yes. . 79% No . . 21%	Yes. . 80% No . . 20%
mean 37.6 ounces median 14.0 ounces	1 B 4.7% 2 LR 4.4% 3 OR 39.8% 4 G 11.7% 5 Outs. 39.4%	Yes. . 62% No . . 38%	Yes.. 17% No... 83%	Yes. . 76% No . . 24%	Yes. . 75% No . . 25%
mean 23.6 ounces median 13.0 ounces	1 B 5.0% 2 LR 36.9% 3 OR 55.9% 4 G 0.6% 5 Outs. 1.6%	Yes. . 58% No . . 42%	Yes.. 11% No... 89%	Yes. . 82% No . . 18%	Yes. . 68% No . . 32%
mean 12.1 ounces median 4.0 ounces	1 B 8.2% 2 LR 8.2% 3 OR 56.2% 4 G 8.2% 5 Outs. 19.2%	Yes. . 56% No . . 44%	Yes.. 9% No... 91%	Yes. . 70% No . . 30%	Yes. . 68% No . . 32%
mean 19.9 ounces median 8.0 ounces	1 B 4.3% 2 LR 13.0% 3 OR 69.7% 4 G 8.7% 5 Outs. 4.3%	Yes. . 75% No . . 25%	Yes.. 29% No... 71%	Yes. . 75% No . . 25%	Yes. . 84% No . . 16%
mean 11.9 ounces median 6.0 ounces	1 B 4.3% 2 LR 5.4% 3 OR 31.1% 4 G 16.6% 5 Outs. 42.6%	Yes. . 54% No . . 46%	Yes.. 8% No... 92%	Yes. . 71% No . . 29%	Yes. . 59% No . . 41%
mean 13.3 ounces median 6.0 ounces	1 B 3.9% 2 LR 6.1% 3 OR 24.2% 4 G 15.3% 5 Outs. 50.5%	Yes. . 53% No . . 47%	Yes.. 6% No... 94%	Yes. . 67% No . . 33%	Yes. . 47% No . . 53%

Note: Question 6 has been deleted from the summary but it is reported in the text.

PRODUCT	1. Percentage Aerosol Percentage Non-Aerosol		2. When was the last time you used (PRODUCT)?	3. How many times did you use (PRODUCT) in the last 12 months?	4. How much time did you spend using (PRODUCT) the last time you used it?	5. How much time did you spend in the room immediately after use the last time you used (PRODUCT)?
11. SPECIALIZED ELECTRONIC CLEANERS (FOR TV, VCR, RAZOR, ETC.)	34%	66%	NA	mean 11.0 times median 2.0 times	mean 7.5 minutes median 2.0 minutes	mean 95.5 minutes median 60.0 minutes
12. LATEX PAINT	1%	99%	NA	mean 2.8 times median 1.0 times	mean 168.8 minutes median 120.0 minutes	mean 59.4 minutes median 5.0 minutes
13. OIL PAINT	4%	96%	NA	mean 2.0 times median 1.0 times	mean 109.0 minutes median 60.0 minutes	mean 19.7 minutes median 0.0 minutes
14. WOOD STAINS, VARNISHES AND FINISHES	8%	92%	NA	mean 5.0 times median 2.0 times	mean 69.9 minutes median 30.0 minutes	mean 44.7 minutes median 5.0 minutes
15. PAINT REMOVERS/STRIPPERS	7%	93%	NA	mean 3.7 times median 1.0 times	mean 204.6 minutes median 60.0 minutes	mean 23.2 minutes median 2.0 minutes
16. PAINT THINNERS	2%	98%	NA	mean 2.4 times median 2.0 times	mean 66.2 minutes median 20.0 minutes	mean 27.9 minutes median 0.0 minutes
17. AEROSOL SPRAY PAINT (EXCLUDING AUTOMOTIVE)	99%	1%	NA	mean 4.2 times median 2.0 times	mean 39.6 minutes median 20.0 minutes	mean 12.8 minutes median 0.0 minutes
18. PRIMERS AND SPECIAL PRIMERS (EXCLUDING AUTOMOTIVE)	42%	58%	NA	mean 2.6 times median 1.0 times	mean 51.4 minutes median 20.0 minutes	mean 15.9 minutes median 0.0 minutes
19. AEROSOL RUST REMOVERS	98%	2%	NA	mean 6.3 times median 2.0 times	mean 18.6 minutes median 5.0 minutes	mean 15.1 minutes median 0.0 minutes
20. OUTDOOR WATER REPELLENTS (FOR WOOD OR CEMENT)	12%	88%	NA	mean 2.7 times median 2.0 times	mean 50.4 minutes median 20.0 minutes	mean 22.9 minutes median 0.0 minutes
21. GLASS FROSTINGS, WINDOW TINTS, AND ARTIFICIAL SNOW	90%	10%	NA	mean 2.9 times median 1.0 times	mean 26.0 minutes median 15.0 minutes	mean 139.3 minutes median 60.0 minutes

1. What size of (PRODUCT) did you use the last time you used it? How much of a can or how many cans did you use during the past year? OUNCES PER YEAR	5. Where did you use (PRODUCT) the last time you used it?	3. When using (PRODUCT) the last time, did you . . .			
		Have a window open to the outside?	Have an exhaust fan on?	Keep the inside door to the room closed?	Read the directions on the label?
mean 12.5 ounces median 3.0 ounces	1 B 9.6% 2 LR 39.6% 3 OR 36.7% 4 G 5.6% 5 Outs. 8.5%	Yes. . 37% No . . 63%	Yes.. 8% No... 92%	Yes. . 72% No . . 28%	Yes. . 74% No . . 26%
mean 111.9 ounces median 64.0 ounces	1 B 9.1% 2 LR 9.1% 3 OR 45.5% 4 G 4.5% 5 Outs. 31.8%	Yes. . 71% No . . 29%	Yes.. 6% No... 94%	Yes. . 88% No . . 12%	Yes. . 74% No . . 26%
mean 43.2 ounces median 16.0 ounces	1 B 7.7% 2 LR 0.0% 3 OR 19.2% 4 G 7.7% 5 Outs. 65.4%	Yes. . 44% No . . 56%	Yes.. 11% No... 89%	Yes. . 67% No . . 33%	Yes. . 65% No . . 35%
mean 39.1 ounces median 16.0 ounces	1 B 13.8% 2 LR 12.6% 3 OR 25.4% 4 G 14.9% 5 Outs. 33.3%	Yes. . 65% No . . 35%	Yes.. 9% No... 91%	Yes. . 71% No . . 29%	Yes. . 74% No . . 26%
mean 56.5 ounces median 28.0 ounces	1 B 6.2% 2 LR 0% 3 OR 41.7% 4 G 14.6% 5 Outs. 37.5%	Yes. . 80% No . . 20%	Yes.. 23% No... 77%	Yes. . 70% No . . 30%	Yes. . 86% No . . 14%
mean 38.2 ounces median 32.0 ounces	1 B 3.7% 2 LR 0% 3 OR 33.3% 4 G 11.1% 5 Outs. 51.9%	Yes. . 77% No . . 23%	Yes.. 8% No... 92%	Yes. . 38% No . . 62%	Yes. . 73% No . . 27%
mean 30.7 ounces median 13.0 ounces	1 B 7.6% 2 LR 0.7% 3 OR 9.6% 4 G 16.0% 5 Outs. 66.1%	Yes. . 63% No . . 37%	Yes.. 9% No... 91%	Yes. . 61% No . . 39%	Yes. . 73% No . . 27%
mean 43.8 ounces median 13.0 ounces	1 B 6.5% 2 LR 0% 3 OR 6.5% 4 G 24.2% 5 Outs. 62.7%	Yes. . 82% No . . 18%	Yes.. 11% No... 89%	Yes. . 57% No . . 43%	Yes. . 72% No . . 28%
mean 18.4 ounces median 8.0 ounces	1 B 6.6% 2 LR 0.8% 3 OR 11.6% 4 G 23.5% 5 Outs. 57.5%	Yes. . 62% No . . 38%	Yes.. 13% No... 87%	Yes. . 58% No . . 42%	Yes. . 69% No . . 31%
mean 65.9 ounces median 24.0 ounces	1 B 7.4% 2 LR 3.7% 3 OR 11.1% 4 G 11.1% 5 Outs. 66.7%	Yes. . 67% No . . 33%	Yes.. 0% No... 100%	Yes. . 63% No . . 37%	Yes. . 79% No . . 21%
mean 13.4 ounces median 12.0 ounces	1 B .9% 2 LR 69.3% 3 OR 16.3% 4 G 1.9% 5 Outs. 11.6%	Yes. . 24% No . . 76%	Yes.. 10% No... 90%	Yes. . 72% No . . 28%	Yes. . 71% No . . 29%

Note: Question 6 has been deleted from the summary but it is reported in the text.

PRODUCT	1. Percentage Aerosol Percentage Non-Aerosol		2. When was the last time you used (PRODUCT)?	3. How many times did you use (PRODUCT) in the last 12 months?	4. How much time did you spend using (PRODUCT) the last time you used it?	5. How much time did you spend in the room immediately after use the last time you used (PRODUCT)?
22. ENGINE DEGREASERS	79%	21%	NA	mean 4.1 times median 2.0 times	mean 28.8 minutes median 15.0 minutes	mean 4.0 minutes median 0.0 minutes
23. CARBURETOR CLEANERS	85%	15%	NA	mean 4.0 times median 2.0 times	mean 12.3 minutes median 8.0 minutes	mean 6.9 minutes median 0.0 minutes
24. AEROSOL SPRAY PAINT FOR CARS	99%	1%	NA	mean 4.5 times median 2.0 times	mean 42.9 minutes median 20.0 minutes	mean 10.8 minutes median 0.0 minutes
25. AUTO SPRAY PRIMERS	99%	1%	NA	mean 6.5 times median 2.0 times	mean 51.4 minutes median 25.0 minutes	mean 11.5 minutes median 0.0 minutes
26. SPRAY LUBRICANTS FOR CARS	99%	1%	NA	mean 10.2 times median 3.0 times	mean 9.9 minutes median 5.0 minutes	mean 4.1 minutes median 0.0 minutes
27. TRANSMISSION CLEANERS	22%	78%	NA	mean 1.9 times median 1.0 times	mean 20.1 minutes median 15.0 minutes	mean 3.3 minutes median 0.0 minutes
28. BATTERY TERMINAL PROTECTORS	58%	42%	NA	mean 2.8 times median 2.0 times	mean 8.6 minutes median 5.0 minutes	mean 4.4 minutes median 0.0 minutes
29. BRAKE QUIETERS/ CLEANERS	66%	34%	NA	mean 2.5 times median 1.0 times	mean 25.9 minutes median 15.0 minutes	mean 9.2 minutes median 0.0 minutes
30. GASKET REMOVERS	49%	51%	NA	mean 2.5 times median 1.0 times	mean 22.8 minutes median 20.0 minutes	mean 25.4 minutes median 0.0 minutes
31. TIRE/HUBCAP CLEANERS	30%	70%	NA	mean 9.6 times median 4.0 times	mean 22.7 minutes median 15.0 minutes	mean 1.7 minutes median 0.0 minutes
32. IGNITION AND WIRE DRYERS	78%	22%	NA	mean 2.3 times median 2.0 times	mean 7.2 minutes median 5.0 minutes	mean 5.8 minutes median 0.0 minutes

7. What size of (PRODUCT) did you use the last time you used it? How much of a can or how many cans did you use during the past year? OUNCES PER YEAR	8. Where did you use (PRODUCT) the last time you used it?	9. When using (PRODUCT) the last time, did you . . .			
		Have a window open to the outside?	Have an exhaust fan on?	Keep the inside door to the room closed?	Read the directions on the label?
mean 40.5 ounces median 16.0 ounces	1 B 0.2% 2 LR 0.0% 3 OR 0.7% 4 G 7.8% 5 Outs. 91.3%	NA	NA	NA	Yes. . 78% No . . 22%
mean 21.8 ounces median 12.0 ounces	1 B 0.2% 2 LR 0.2% 3 OR 1.1% 4 G 9.6% 5 Outs. 88.9%	NA	NA	NA	Yes. . 73% No . . 27%
mean 45.0 ounces median 16.0 ounces	1 B 0.6% 2 LR 0% 3 OR 1.1% 4 G 19.2% 5 Outs. 79.1%	NA	NA	NA	Yes. . 72% No . . 28%
mean 69.0 ounces median 16.0 ounces	1 B 0.8% 2 LR 0.0% 3 OR 0.8% 4 G 21.4% 5 Outs. 77.0%	NA	NA	NA	Yes. . 69% No . . 31%
mean 18.5 ounces median 6.0 ounces	1 B 0.4% 2 LR 0% 3 OR 1.2% 4 G 12.7% 5 Outs. 85.7%	NA	NA	NA	Yes. . 55% No . . 45%
mean 20.2 ounces median 12.0 ounces	1 B 0% 2 LR 0% 3 OR 0% 4 G 27% 5 Outs. 73%	NA	NA	NA	Yes. . 93% No . . 7%
mean 7.8 ounces median 4.0 ounces	1 B 0% 2 LR 0% 3 OR 2.3% 4 G 12.1% 5 Outs. 85.6%	NA	NA	NA	Yes. . 76% No . . 24%
mean 13.2 ounces median 8.0 ounces	1 B 0% 2 LR 0% 3 OR 3.3% 4 G 16.4% 5 Outs. 80.3%	NA	NA	NA	Yes. . 71% No . . 29%
mean 15.2 ounces median 8.0 ounces	1 B 0% 2 LR 0% 3 OR 0% 4 G 38.2% 5 Outs. 61.8%	NA	NA	NA	Yes. . 83% No . . 17%
mean 26.8 ounces median 12.0 ounces	1 B 0% 2 LR 0.5% 3 OR 0.0% 4 G 4.5% 5 Outs. 95.0%	NA	NA	NA	Yes. . 76% No . . 24%
mean 8.0 ounces median 6.0 ounces	1 B 0% 2 LR 0% 3 OR 0.9% 4 G 8.4% 5 Outs. 90.7%	NA	NA	NA	Yes. . 71% No . . 29%

Note: Question 6 has been deleted from the summary but it is reported in the text.

Appendix E

RECOMMENDATIONS FOR PROJECTING
LIFETIME FREQUENCY OF USE

Appendix E

RECOMMENDATIONS FOR PROJECTING LIFETIME FREQUENCY OF USE FROM CROSS-SECTIONAL DATA

A number of options for estimating lifetime frequency of use for use in exposure assessment have been proposed. The chosen approach consists basically of assuming that each person's relative exposure is constant for the person's lifetime. The level of use might go up or down for other age groups, but the relative frequency of use stays the same. For example, a current heavy user in their twenties will remain a heavy user in their fifties relative to other users in that age group. Respondents in each age group are used to estimate the percentiles for their age group, and this distribution is used for people previously (later) in this age group. It is unlikely that this assumption will be met completely, but some assumption must be made in order to make lifetime projections from a non-longitudinal, one-year study. It seems likely that persons in the extreme percentiles will move "toward the middle" for previous and later ages, but the technique should still be useful for extrapolating current data.

Our understanding of the procedure used was as follows:

1. The data will be divided into five-year age groups (other groupings would be acceptable as long as each has at least 100 respondents).
2. Calculate, for each person, a yearly frequency of use for each product type and for each chemical (adding over products containing the chemical). For respondents indicating they used the product in the last 12 months, the number given will be treated as the yearly frequency for the entire age group. For those indicating no usage in the last

year, but a last time used, the estimated yearly frequency for the age group will be

$$12 \times \frac{1}{2 \times \# \text{ months since last use}}$$

For example, if it has been 18 months since the last use, the estimate of average yearly use would be .33.

3. Estimate percentiles for frequency of use for each product type and for each chemical for each age group, 5%, 10%, 15%,....., 95%.
4. (a) For a person reporting use of a product or chemical in the last 12 months, the expected lifetime frequency of use can be calculated by first finding the percentile for the current age group and then finding the corresponding percentile for the other age groups. The percentile for each age group is then multiplied by the number of years in the group and summed over all age groups.

(b) For a person reporting no prior use, assume no use in prior age groups and follow (a) for later age groups.

(c) For a person reporting no use in only a few preceding age groups, the appropriate percentiles for those age groups not specifically excluded will be used.

A modification of this procedure should be considered to improve the lifetime projections. For older respondents past usage estimates should be modified to take into account the availability and overall usage rates for previous time periods. Projections for previous time periods should not use today's percentiles for a time when the product or chemical was less frequently used by the general public. Either zero usage or a lower frequency of use should be used for these years.

Appendix F
PRODUCT BRAND STATISTICS

Q6A: Which brand of spray shoe polish did you use the last time you used it?

Table F-1: Brands of Spray Shoe Polish used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	67	24.8
Amway Shoe Spray	40	14.8
Avon	1	0.4
Cavalier protect-All	3	1.1
Child Life	1	.4
E-Z Off	3	.1
Emory	1	.4
Esquire Spray Shine	3	.1
Griffin	10	3.7
Hess	2	.7
Hossco	1	.4
Johnson's	4	.5
Justin E-Z On Spray	2	.7
Kinney	3	1.1
Kiwi	6	2.2
Kiwi Conditioner/Cleaner	1	.4
Kiwi Spray Shine	83	30.7
Krylon	1	.4
Leather Foam	1	.4
Magix Shoe Color Spray	2	.7
Navex	1	.4
Nike	1	.4
Nu-Life	2	.7
Nunn-Bush	1	.4
O'Leary's	1	.4
Patent Patina	1	.4
Penny Shoe Shine	7	2.6
Plate Shoe Source	1	.4
Quick	2	.7
ReNu	1	.4
Rease Texas	1	.4
Roscoe Griffie	1	.4
Shinola	1	.4
Shu-Shine	1	.4
Stain Repel	1	.4
Stanley	2	.7
Stride-Rite	4	1.5
Tammy	1	.4
Tannery	1	.4
Tom McCann	2	.7
Water Shield	2	.7
Total	270	100.0

Seventy-five percent (75.2%) of the users of the product specified a brand. The top three brands of spray shoe polish used were Kiwi Spray with 30.7% of the users; Amway Shoe Polish with 14.8% of the users; and Griffin with 3.7% of the users. All other brands have a relatively low number of users.

Q6A: Which brand of water repellents did you use the last time you used it?

Table F-2: Brands of Water Repellents used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	382	36.4
3M	1	.1
A&P Brand	1	.1
Aigner	1	.1
Aigner Leather Protector	1	.1
All Guard	5	.5
Amway Drifab	17	1.6
Amway Remove Fabric Cleaner	1	.1
Armorall	9	.2
BASF Suede Protector	1	.0
Bear	1	.1
Berman's	1	.1
Boot & Shoe	1	.1
Browning	4	.4
Butler's	1	.1
Cadillac	1	.1
Cadillac Rain & Stain	4	.4
Camie	1	.1
Cavalier Mink Oil	5	.5
Cavalier Protect All	11	.1
Colorado Old Town	4	.4
Dexter	1	.1
Dr. Scholl's Mink Oil	1	.1
Duck's Back	1	.1
Endicott-Johnson	1	.1
Esquire	2	.2
Esquire Rain/Stain Guard	1	.1
Esquire Water Shed	2	.2
Favor	1	.1
Fiebing's	2	.2
Fleet's	1	.1
Foot Locker Rain & Stain	2	.2
Frye	1	.1
Fuller	1	.1
Fuller Brush	3	.3
Genuine Mink Oil	3	.3
Hardy	1	.1
Hossco Mink Oil	1	.1
Hydrostop	1	.1
Jarman	2	.2
Johnson's	2	.2
K Mart	5	.5
K-Kote	1	.1
Kel Shield Repellent	8	.8
Kenyon	1	.1
Keston	1	.1

Table F-2: Brands of Water Repellents used (Continued)

Brands	Frequency	Percent
Kinney	25	2.4
Kinney Mink Oil	1	.1
Kiwi	18	1.7
Kiwi Camp Dry	14	1.3
Kiwi Mink Oil	3	.3
Kiwi Protect-All	5	.5
Kiwi Saddle Soap	2	.2
Kiwi Spray Shine	9	.9
Kiwi Wet-Pruf	5	.5
Kramer	1	.1
LL Bean	2	.2
Lazarus Magic Guard	2	.2
Leather Boot	3	.1
Leather Lather	1	.1
Leather Lather No. 2	1	.1
Leather-Coat	1	.10
Meltonian	1	.1
Millstreet	1	.1
Mink Oil (Generic)	7	.7
Morse	1	.1
Neatsfoot (Generic)	2	.2
Nobic's	1	.1
Nor y de	1	.1
Nordstrom	2	.1
Norligen	1	.1
Open Country	2	.2
Original Mink Oil	1	.1
Otter's	1	.1
Parisian	1	.1
PayLess	1	.1
Propert's	1	.1
Protect	1	.1
Protect-All	1	.1
Rain & Stain Shield	5	.5
Rainpruf	1	.1
Red Wing Boot/Shoe Oil	1	.1
Reed	1	.1
Resolve	1	.1
STP	1	.1
Savall	1	.1
Scotch Gard Protector	330	31.5
Scotchgard	10	1.0
Seam Tite	1	.1
Sears	1	.1
Shoe Saver	3	.3
Shoe Source	6	.6

Table F-2: Brands of Water Repellents used (Continued)

Brands	Frequency	Percent
Sil-Cone Spray	1	.1
Silicone for Boots	1	.1
Smiling Mink oil	1	.1
Sno Coat	1	.1
Sno Seal	5	.5
Sno Seal Paste	1	.1
Snow	1	.1
Snow Proof	1	.1
Stanley	1	.1
Stay-Dry	1	.1
Seude Aid	1	.1
Seude Saver	3	.3
Swipe	1	.0
Tana All Protector	6	.6
Tannery	8	.2
Tom McCann	15	1.4
Thompson's Sport Seal	1	.1
Thompson's Water Seal	7	.7
Totes Coat	2	.2
Touraine	1	.1
Tuffcote	1	.1
Water & Stain	1	.1
Water & Stain Repellent	1	.1
Water Shield	3	.3
Water and Stain Protector	1	.1
Water Shed	1	.1
Wilson's	2	.2
Wolverine	1	.1
Woly (Switzer)	1	.1
Total	1049	100.0

Almost sixty four percent of the users in the last twelve months of water repellents specified a brand. Scotch Gard Protector was by far the most popular brand of water repellent used with 31.5% of the respondents using it. Kinney and Kiwi followed with 2.4% and 1.7% respectively.

Q6A: Which brand of spot removers did you use the last time you used it?

Table F-3: Brands of Spot Removers used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	304	21.7
2-12	1	.1
3M	3	.2
409	6	.4
A-1	1	.1
A-Penn	1	.1
Advantage	1	.1
Afta	1	.1
Afta Cleaning Fluid	7	.5
Albatross	1	.1
All Star	2	.1
Allied-Kelite-Kesol	1	.1
Allway	1	.1
Amway LOC	1	.1
Amway Remove Fabric Cleaner	33	2.4
Bissell	2	.1
Bissell One Step	1	.1
Blair	1	.1
Bo Peep Ammonia	1	.1
Bolex	1	.1
Boot's	1	.1
Bristol-Myers	1	.1
Brush Top Spot Remover	6	.4
C60	1	.1
CT	1	.1
Carbona #10 Spot Remover	12	.9
Carbona Spot Remover	80	5.7
Carboxol	1	.1
Carpet Magic Rug Cleaner	1	.1
Celebrity	1	.1
Clorox Prewash	7	.5
Clorox Soil & Stain Remover	4	.3
Cutex	1	.1
Desolv-It	2	.1
Diacar 2	1	.1
Dirtbusters	1	.1
Dry Cleaners	1	.1
DuPont	1	.1
Duraclean	1	.1
E Z Spot	2	.1
Easy Wash	5	.4
Energine Cleaning Fluid	68	4.9
Energine Spot Fluid	11	.8
Energine Spot Remover	9	.6
Era	1	.1
Fabric Kleen	1	.1

Table F-3: Brands of Spot Removers used (Continued)

Brands	Frequency	Percent
Fantastic	4	.3
Faultless	3	.2
Flax Soap	1	.1
Folex	1	.1
Ford	4	.3
Fuller Fabric Guard	11	.8
Gemco Lady Lee	1	.1
Glamorene Rug Cleaner	1	.1
Glory	4	.3
Go Jo	1	.1
Goddard's Dry Clean	6	.4
Goof Off	2	.1
Goop	4	.3
Gunk	1	.1
HR Carpet Cleaner	3	.2
HR Steam	1	.1
Heddy Carpet	1	.1
High Tech	1	.1
Hoky Spot Eater	2	.1
Hot Shot	1	.1
JP's General Store	1	.1
Jewel Tea	1	.1
Johnson's	2	.1
Just-in-Time	1	.1
K12	4	.3
K2R Spot Lifter	357	25.5
Kirby	7	.5
Lestoil	3	.2
Mox	1	.1
Murphy	1	.1
Murphy's	1	.1
Natural Citrus	1	.1
No Ring	1	.1
NoDeSolvit	1	.1
Not Spot	1	.1
Nylac	1	.1
On The Spot	1	.1
Palmolive	1	.1
Peacock All-Purpose Cleaner	1	.1
Perky Carpet	1	.1
Pine Sol	1	.1
Poof	1	.1
Power Out	1	.1
Power Plus	1	.1
ProChem	2	.1
R&D	1	.1

Table F-3: Brands of Spot Removers used (Continued)

Brands	Frequency	Percent
Rally	1	.1
Renault	1	.1
Renews It	5	.4
Renuzit	7	.5
Resolve	9	.6
Resolve Carpet Cleaners	3	.2
Rinse & Back	1	.1
Ronson Kleenol	3	.2
Rug Doctor Spot-Remover	1	.1
SR 7	1	.1
Scotchgard	2	.1
Service Master	1	.1
Shaklee	1	.1
Shell	1	.1
Shout	114	8.1
Silicone (Generic)	1	.1
Simple Green	1	.1
Soil-Off	2	.1
Spar	1	.1
Spot Free	1	.1
Spot Out	3	.2
Spot Shot	3	.2
Spots Gone	1	.1
Spotz	2	.1
Spray & Wash	70	5.0
Spray'n Wash	44	3.1
Sprayway	1	.1
Stanley	18	1.3
Stanley All Purpose	2	.1
Tech	2	.1
Thoro Spot Remover	2	.1
Tide	1	.1
Total Clean	1	.1
Touch & Go	1	.1
Turtle	1	.1
Turtle Wax Carpet Cleaner	1	.1
Vivid	3	.2
Vorwerk Carpet	1	.1
WD 40	1	.1
Washout	1	.1
Watson's Quick & Bright	1	.1
Western Family	2	.1
Whoosh	1	.1
Wind	1	.1
Wisk	11	.8
Woolite	25	1.8

Table F-3: Brands of Spot Removers used (Continued)

Brands	Frequency	Percent
Woolworth's Soil & Stain	1	.1
Zip Strip	1	.1
Zippo	1	.1
Zout	2	.1
Total	<u>1401</u>	<u>100.0</u>

The top three brands of spot removers are K2R Spot Lifter with 25.5% of the users; Shout with 8.1%; and Carbona Spot Remover with 5.7%. These three brands together account for 51.3% of the use. Shout is a laundry presoak and it is one example of laundry presoaks named by respondents as spot removers.

Q6A: Which brand of solvent-type cleaning fluid did you use the last time you used it?

Table F-4: Brands of Solvent-type Cleaning Fluids

Brands	Frequency	Percent
Don't Knows and Not Ascertained	412	36.9
111 Trichloroethane	1	.1
409	19	1.7
5 Star	1	.1
AMS Oil	1	.1
AP 2	1	.1
Acetone (Generic)	1	.1
Acrysol	1	.1
Afta Cleaning Fluid	4	.4
Ajax	2	.2
All Star	1	.1
Allied-Kelite Kesol	1	.1
Amazing 901	1	.1
Amoco	1	.1
Amway	2	.2
Amway LOC	27	2.4
AnSCO	1	.1
Armorall	1	.1
Associated	11	1.0
Avon	1	.1
Basic Age	1	.1
Berryland	1	.1
Berryman	1	.1
Big Brute	1	.1
Big Red	1	.1
Bleachwhite	1	.1
Blue Luster	1	.1
Blue Shower	1	.1
Boot's	1	.1
Brake Cleaner	1	.1
Brasso	1	.1
Butcher's Speed Ball	1	.1
Carbena	1	.1
Certified	1	.1
Chemco	1	.1
Chevron	1	.1
Chozos-Boroco	1	.1
Clorox	2	.2
Coleman Fuel	1	.1
Comet	1	.1
Conaco	1	.1
Costcutter	1	.1
D-Solvit	1	.1
DL Hand Cleaner	3	.3
DNL	1	.1
Dapper	1	.1

Table F-4: Brands of Solvent-type Cleaning Fluids
(Continued)

Brands	Frequency	Percent
Dawn	4	.4
Desolv-It	1	.1
Diosol	1	.1
Dirt Squirt	1	.1
Doop	1	.1
Drann	1	.1
Drive Away	2	.2
DuPont	5	.4
ECR	1	.1
Easy-Off	8	0.7
Easy-Of Oven Cleaner	19	1.7
Eliminator	1	.1
Energine Cleaning Fluid	4	.4
Energine Spot Fluid	1	.1
Energine Spot Remover	2	.2
FS 25	1	.1
Fantastic	4	.4
Flash	1	.1
Folex	1	.1
Ford	1	.1
Fuller Brush	13	1.2
Future	1	.1
Glass Plus	2	.2
Glidden	1	.1
Go Jo	6	.5
Goddard	1	.1
Goop	9	.8
Grease Off	1	.1
Grease Release	6	.5
Grease Relief	20	1.8
Greosol	1	.1
Guardian	1	.1
Gulf	1	.1
Gumout	4	.4
Gun Slick	1	.1
Gunk	1	.1
Gunk Cleaner	57	5.1
Gunk Degreaser	91	8.1
Gunk General Degreaser	2	.2
Gunk Home/Auto	19	1.7
Handy Clean	1	.1
Hobte's No. 9	1	.1
Hoppe's	1	.1
I Luv My Car	1	.1
IGA	1	.1
K Mart	6	.5

Table F-4: Brands of Solvent-type Cleaning Fluids
(Continued)

Brands	Frequency	Percent
K2R Spot Lifter	2	.2
Kawasaki	1	.1
Kel All Purpose Cleaner	1	.1
Klink	1	.1
Kodak	1	.1
LPS Instant Degreaser	2	.2
Lestoil	9	.8
Lime Away	1	.1
Lysol Basin/Tub Cleaner	1	.1
MEK Solvent	1	.1
Marten's	1	.1
McNeff	1	.1
Mobil	1	.1
Mox	1	.1
Mr. Clean	11	1.0
Mr. Muscle Oven Cleaner	1	.1
Murphy	2	.2
NB-100	2	.2
Napa	1	.1
Nature Pine	1	.1
Naval Jelly	1	.1
Outer's	2	.2
Oven-Off	4	.4
Parks	8	.7
Parr's	1	.1
Parsons' Ammonia	2	.2
Pathmark	1	.1
Penetrating Oil	1	.1
Penzoil Engine Cleaner/D	1	.1
Permapax	1	.1
Pine Sol	6	.5
Power Kleen	1	.1
ProChem	1	.1
R&M	1	.1
Rain Dance	1	.1
Rawley	3	.3
Real Clean	1	.1
Red Devil	3	.3
Ronson Kleenol	3	.3
SOS	1	.1
STP	3	.3
Safety Clean	1	.1
Safeway Brand	1	.1
San Diego	1	.1
Sani Wax	1	.1
Scotchgard	2	.2

Table F-4: Brands of Solvent-type Cleaning Fluids
(Continued)

Brands	Frequency	Percent
Sears	2	.2
Shaklee Basic H	5	.4
Shell Oil	2	.2
Shop-Rite	1	.1
Shout	5	.4
Soft-Scrub	2	.2
Solvacol	1	.1
Solvent Touch	1	.1
Solvitype	1	.1
Spray & Wash	9	.8
Spray'n Wash	2	.2
Stanley	6	.5
Stanley All Purpose	87	7.8
Stay-Off	1	.1
Sterling	1	.1
Stoddard Solvent	1	.1
Sunnyside Carbo Chlor	1	.1
T&R Gun Turp	2	.2
TCE	1	.1
Tamor's	1	.1
Tar-X	1	.1
Texize	4	.4
Thoro Spot Remover	1	.1
Tilex	4	.4
Top Job	17	1.5
Trichlorothane (Generic)	3	.3
Trisodium Phosphate (Generic)	1	.1
True Value	1	.1
Turtle Wax Carpet Cleaner	1	.1
Unbelievable	1	.1
Varsol	1	.1
Vibrant	1	.1
WD 40	13	1.2
Watkin's	1	.1
Weepak	1	.1
Westley's Clear Magic	1	.1
Windex	2	.2
Wisk Detergent	2	.2
Woolite	1	.1
Woolworth's	1	.1
Wright's Silver Polish	1	.1
Wynn's	1	.1
Zep	1	.1
Zippo	2	.2
Total	1117	100.0

Sixty-three percent of the users of solvent-type cleaning fluids specified a brand. The top three brands used were Gunk Degrease with 8.1% of the users; Stanley All Purpose with 7.8%; and Gunk Cleaner with 5.1%. These top three brands represent 21.0% of the use.

Q6A: Which brand of wood floor panel cleaner did you use the last time you used it?

Table F-5: Brands of Wood Floor Panel Cleaners used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	185	14.1
409	1	.1
Ajax	2	.2
Allure	1	.1
Amway	2	.2
Aulwood	1	.1
Beauti-flor	1	.1
Behold	1	.1
Bissell One Step	2	.2
Bravo	2	.2
Bruce	22	1.7
Buff Up Dust Control	3	.2
Cabinet Magic	15	1.1
Clean & Shine	1	.1
Color Tile	3	.2
Complete	1	.1
Controll	1	.1
Counter Life	1	.1
Countertop Magic	1	.1
Dir Tex	1	.1
Dorzersol	1	.1
Electrolux	1	.1
Emulso	1	.1
Fame	1	.1
Favor	6	.5
Flak	1	.1
Flex Soap	1	.1
Floortastic	1	.1
Formby's	2	.2
Formby's Furniture Clean.	14	1.1
Formby's Lemon Oil	2	.2
Fuller	2	.2
Fuller Brush Panel	6	.5
Furniture Polish	2	.2
Future	3	.2
Gillespie	1	.1
Guardman	1	.1
Johnson Paste Wax	3	.2
Johnson's	44	3.3
K Mart	3	.2
Kind	1	.1
Klean 'n' Shine	1	.1

Table F-5: Brands of Wood Floor Panel Cleaners used
(continued)

Brands	Frequency	Percent
Kleen Floor	1	.1
Kleenguard	2	.2
Kotton Klenser	1	.1
Kwik	2	.2
Kwik Deglos	1	.1
Landmark	1	.1
Lemon Behold	8	.6
Lemon Creme Old English	7	.5
Lemon Endust	14	1.1
Lemon Pledge	59	4.5
Lemon Well	2	.2
Liminol	1	.1
Liquid Paper	1	.1
Liquid Sandpaper	1	.1
Marlite	1	.1
Mighty Moe	1	.1
Minwax Finishing Paste	1	.1
Mop & Glo	6	.5
Mr. Clean	3	.2
Multi-Clean	1	.1
Murphy's Oil Soap	89	6.8
Old English	17	1.3
Old Gold	1	.1
One Step Wax Remover	1	.1
Panel Life	2	.2
Panel Magic	50	3.8
Panel Nu	19	1.4
Parks	2	.2
Pine Power	1	.1
Pine Sol	5	.4
Pledge	11	.8
Pratt & Lambert	1	.1
Pride	1	.1
Raleigh	1	.1
Regard	9	.7
Renuzit	2	.2
Scott's Liquid Gold	575	43.7
Solid Gold	1	.1
Sorbez	1	.1
Spic & Span	3	.2
Stanley	19	1.4
Telege	1	.1
Texize	1	.1
Thompson's	1	.1
Touch	1	.1

Table F-5: Brands of Wood Floor Panel Cleaners used
(continued)

Brands	Frequency	Percent
Trewax	1	.1
Trewax Wood Cleaner	7	.5
True Value	1	.1
Vanish	1	.1
Watco Satin Wax Natural	1	.1
Weiman Panel Bright	4	.3
Williams	1	.1
Wood Beautiful	1	.1
Wood Glo	2	.2
Wood Kraft	1	.1
Wood New	1	.1
Wood Plus	6	.5
Wood Preen	13	1.0
Wood Saver	1	.1
	<u>1,315</u>	<u>100.0</u>

Eighty-six percent (85.9%) of the users of the product specified a brand. The top three brands of wood floor panel cleaners named were Scott's Liquid Gold, Murphy's Oil Soap and Lemon Pledge which accounted for 43.7%, 6.8% and 4.5% of the named brands respectively.

Q6A: Which brand of typewriter correction fluid did
you use the last time you used it?

Table F-6: Brands of Typewriter Correction Fluid used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	185	16.1
3M	1	.1
Amco	2	.2
Associated	2	.2
Benchmark	1	.1
Bond White	3	.3
Boo Boo Goo	2	.2
Cardinal	1	.1
Correct-All	12	1.0
Correction Fluid (Generic)	1	.1
Correcto	6	.5
Correctype	29	2.5
Daisy	1	.1
Delete	2	.2
Dixon	1	.1
Dry Lite	1	.1
Eberhard	1	.1
Formula 109	2	.2
Houston	1	.1
IBM Special	2	.2
Liquid Paper	477	41.6
Liquid Paper Pen & Ink	4	.3
Meade	3	.3
Mistake Out	1	.1
National Office	1	.1
Opaque	1	.1
Papermate	9	.8
Pentel	1	.1
Quill	1	.1
ReType	1	.1
Rotex For Ink	3	.3
Rotex Thinner	1	.1
Ryan & Williams	1	.1
Scripto	1	.1
Sears	2	.2
Sno Pake	2	.2
Tipp-Ex	3	.3
Touch & Go	3	.3
Typ-Strip	1	.1
Wite-Out	374	32.6
X-Pert Tabs	1	.1
Total	1147	100.0

Of those who used the product in the last 12 months, 83.9% specified a brand. Of the 962 respondents specifying a brand, 41.6% named "Liquid Paper", 32.6% named "Wite Out". These were the 2 major brands used and together account for 74.2% of the named brands.

Q6A: Which brand of contact cement, super glues, or spray adhesive did you use the last time you used it?

Table F-7: Brands of Contact Cement, Super Glues, or Spray Adhesive used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	398	14.7
3M Auto Pack	3	.1
3M Contact Cement	9	.3
3M General Trim Adhesive	4	.1
3M Multi Purpose Adhesive	2	.0
3M Spray Trim Adhesive	5	.2
3M Super 77	2	.0
5 Minute Epoxy	1	.0
5 Second Nail Glue	5	.2
AA Super Glue	1	.0
Aqua	2	.0
Archer Instant Bonding	1	.0
Armstrong Contact Cement	1	.0
Arrow	1	.0
Barge Cement	3	.1
Best Test	3	.1
Black Tack	1	.0
Bond	6	.2
Bonini 2	6	.2
Borden Super Glue	5	.2
Bordon	2	.1
Bradlee's	1	.0
Carter's Rubber Cement	5	.2
Contac	1	.0
Contact Cement (Generic)	26	1.0
Correct-All Super Gel	1	.0
Cry Super Glue	1	.0
Dap Contact Cement	23	.9
Dap Glazing	1	.0
Delwood	1	.0
Dennison	1	.0
Devcon Super Glue	1	.0
Dropmatic Super Glue	2	.1
DuPont	10	.4
DuPont Contact Cement	1	.0
DuPont Super Glue	11	.4
Duco Cement	43	1.6
Dunlop Super Glue	1	.0
Duro Auto Trim Adhesive	1	.0
Duro Black Plastic Rubber	1	.0
Duro Contact Cement	79	2.9
Duro Depend II	3	.1

Table F-7: Brands of Contact Cement, Super Glues, or Spray Adhesive used (continued)

Brands	Frequency	Percent
Duro Epoxy Glue	5	.2
Duro Master Mend Resin	1	.0
Duro Quick Gel	1	.0
Duro Spray Adhesive	4	.1
Duro Super Glue 5	218	8.1
Duro White Plastic Rubber	1	.0
E Z Fix Patch Kit	1	.0
Elmer's	1	.0
Elmer's Carpenters Glue	2	.1
Elmer's Contact Cement	22	.8
Elmer's Epoxy Hardener	2	.1
Elmer's Glue All	102	3.8
Elmer's Heavy Grip Cement	3	.1
Elmer's Rubber Cement	2	.1
Elmer's Silicone Glue	1	.0
Elmer's Stix All	4	.1
Elmwood	1	.0
Eltico Super Glue	1	.0
Evans St. Clair	1	.0
Fancy Fingers Nail Glue	2	.1
Fast Wallpaper Remover	1	.0
Ford Super Glue	1	.0
Formica Contact Cement	4	.1
Foxy Poxxy	1	.0
Franklin Hide Glue	1	.0
GE Super Glue	4	.1
Gilman Super Glue	1	.0
Glu-Stic Contact Cement	3	.1
Goldenberg's Model Glue	1	.0
Good Glue	1	.0
Goodyear Pliobond	1	.0
Goop Automotive	2	.1
Goop Household	1	.0
Grand Acricutes	1	.0
Grip Contact Cement	1	.0
Grumbacher	1	.0
Gunk Super Glue	1	.0
Hard as Nails	1	.0
Harwell	1	.0
Hazel's Super Glue	1	.0
Hermetite	1	.0
Hi-Tack	1	.0
Hold It!	1	.0
Hot Glue	2	.1
Hot Stuff	2	.1
Hydro-Grip	1	.0

Table F-7: Brands of Contact Cement, Super Glues, or Spray Adhesive used (continued)

Brands	Frequency	Percent
Hypoxy	1	.0
Insta-Cure	1	.0
Instant Success	1	.0
Instant-Glu Pen	4	.1
JB Wells Contact Cement	2	.1
Jet	1	.0
Jet Super Glue	1	.0
K Mart	15	.6
Kodak	1	.0
Krazy Glue	454	16.8
Krazy Instant Glue	1	.0
Lepage Rubber Cement	2	.1
Leech F26 Heavy Adhesive	2	.1
Liq-Nails	1	.0
Liquid Paper	1	.0
Liquid Steel	1	.0
Loctite	7	.3
Loctite Quick Gel	1	.0
Macco Liquid Nails	1	.0
Magic Glue	4	.1
Meijer's	1	.0
Minute Bond Primer	1	.0
Miracle Black Magic	1	.0
Nail Glue (Generic)	6	.2
Napa	1	.0
Never Mar Contact Cement	1	.0
Nukote	1	.0
Old Adhesive/Paint Remover	1	.0
On The Spot Thick Gel	1	.0
PDC Weld Contact Glue	1	.0
PVC Cement	2	.1
Pactra	1	.0
PermaLastic	1	.0
Permabond Super Glue	10	.4
Permatex Super Glue	1	.0
Photo Mount	1	.0
Pierce & Stevens	1	.0
Plastic Mender Magic	21	.8
Pliobond Contact Cement	1	.0
Pro Seal Super Glue	3	.1
Pro Spray Adhesive	1	.0
Qualco Super Glue	2	.1
Rawn	1	.0
Richbond Super Glue	1	.0
Ross Rubber Cement	12	.4
Ross Ultra Super Glue	13	.5

Table F-7: Brands of Contact Cement, Super Glues, or Spray Adhesive used (continued)

Brands	Frequency	Percent
Rubbermaid Contact Cement	1	.0
SBR	1	.0
Sanford	1	.0
Scotch	1	.0
Scotch Spray Adhesive	3	.1
Scotchgard Contact Cement	1	.0
Scotty's	1	.0
Seal-All	3	.1
Sears	2	.1
Sear Super Glue	1	.0
Shoe Goo	3	.1
Silicone II	34	1.3
Silicone Rubber Adhesive	4	.1
Sobo	1	.0
Spay Mount	1	.0
Spray N Glue	1	.0
Stanley	1	.0
Stick-It Nail Glue	3	.1
Streamline Super Glue	1	.0
Super Bond	3	.1
Super Glue (Generic)	491	18.2
Super Glue Brand	305	11.3
Super Goo	1	.0
Super Hypoxy	2	.1
Super Jet Super Glue	2	.1
Super Lightweight One Time	1	.0
Super Tac	1	.0
TC-7	1	.0
Tacky	1	.0
Talon America	1	.0
Testors	11	.4
Testors Model Glue	2	.1
Testors Super Glue	1	.0
Tiger Grip	1	.0
Titebond Wood Glue	1	.0
Toledo Super Glue	1	.0
Tru-Bond	1	.0
True-Value	1	.0
Velcro	1	.0
Victor Rubber Cement	1	.0
WD 40	1	.0
Walgreen's	1	.0
Walgreen's Super Glue	1	.0
Weld-It All Purpose	4	.1
Weldbond	1	.0
Weldwood Contact Cement	25	.9

Table F-7: Brands of Contact Cement, Super Glues, or Spray Adhesive used (continued)

Brands	Frequency	Percent
Weldwood Spray'n Glue	1	.0
Weldwood Super Glue	3	.1
Weldwood Touch N Glue	2	.1
Wilhold Contact Cement	4	.1
Wite-Out	1	.0
Wonder Bond Plus	85	3.1
Zap-a-Gap	1	.0
Total	4920	100.0

Eighty-five percent (85.3%) of the users of the product specified a brand. The top three brands of contact cement, super glues, and spray adhesives used were Super Glue (Generic) with 18.2% of the users; Krazy Glue with 16.8%; and Super Glue Brand with 11.3% users.

Q6A: Which brand of adhesive remover did you use the last time you used it?

Table F-8: Brands of Adhesive Removers used

Brands	Frequency	Percent
Don't Knows or Not Ascertained	106	60.6
3M Adhesive Remover	1	.6
409	1	.6
Amway	1	.6
Bestline	2	1.1
Bix	1	.6
C33	1	.6
Carbo Chlor	1	.6
Channel	1	.6
Clorox	1	.6
Color Tile	5	2.9
Duco	1	.6
Fantastic	1	.6
Fast Wallpaper Remover	11	6.3
Gen Purpose Adhesive Cl	1	.6
Golden Harvest	1	.6
Jasco Premium P&E Rem	1	.6
K&K	1	.6
Lequior	1	.6
Locweld	1	.6
Metylan	3	1.7
Nasco	1	.6
Old Adhesive/Paint Remover	8	4.6
Old Hard Adhesive Remover	1	.6
Peerless	1	.6
Power Kleen	1	.6
Savagran	2	1.1
Scotchgard	1	.6
Sears	1	.6
Sherwin-Williams	3	1.7
Standard Brands	1	.6
Super Glue (Generic)	1	.6
Super Glue Remover	1	.6
Tile Helper	1	.6
True Value	1	.6
Wall Off	1	.6
Walltex	2	1.1
Whisk	1	.6
Wick	1	.6
X-14	1	.6
Zip Strip	1	.6
Zip Zap	1	.6
Total	175	100.0

Thirty-nine percent (39.4%) of the users specified a brand. The top three brands named were Fast Wallpaper Remover, Old Adhesive/Paint Remover and Color Tile which account for 6.3%, 4.6% and 2.9% of named brands respectively.

Q6A: Which brand of silicone lubricant did you use the last time you used it?

Table F-9: Brands of Silicone Lubricant used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	243	31.9
3-in-1	2	.3
30-40	1	.1
3M Auto Pak Silicone Lube	3	.4
5-5-6	1	.1
AC 40	1	.1
AMS Oil	1	.1
Ace	1	.1
Aero-Kroil	1	.1
Amway	1	.1
Amway Wonder Mist	5	.7
Armorall	4	.5
Birchwood Casey	1	.1
Black & Decker	1	.1
Brake Free	1	.1
Break Away	1	.1
CD 2 Silicone Spray	36	4.7
CRC Heavy Duty Silicone	35	7.2
Camie 888	3	.4
Casite Spray Lube	1	.1
Central Hardware	1	.1
Dana	1	.1
Dap Slipicone Lubricant	5	.7
Dow Corning	1	.1
Dry Lube	2	.3
DuPont	13	1.7
Duro	1	.1
Easy Wrench	1	.1
Electro Wash	1	.1
Elmer's	1	.1
Exsil Spray & Lube	1	.1
Fantastic	1	.1
Ford	1	.1
GC Electronic	1	.1
GE	3	.4
Gold Seal	1	.1
Gumout	1	.1
Gunk	4	.5
Gunk Heavy Duty Silicone	22	2.9
Gunk Silicone Spray Lube	12	1.6
Handy Dandy	1	.1
Ideal	1	.1

Table F-9: Brands of Silicone Lubricant used
(continued)

Brands	Frequency	Percent
K Mart	3	.4
K Mart White Silicone	2	.3
Kel Pure Silicone	1	.1
Krylon Silicone Spray	2	.3
LaBell	1	.1
Lube Glide	1	.1
Lubex	1	.1
Lubsit	1	.1
Maxi Glide	1	.1
NYBCO Spray Glue	1	.1
Napa	2	.3
No Squeak	1	.1
Otter's	1	.1
Pennzoil	1	.1
Permatex Lubricant	1	.1
Purol	1	.1
Radio Shack	1	.1
STP	3	.4
Sears Silicone Spray	4	.5
Shell	1	.1
Shop-Dri	1	.1
Silglide	1	.1
Silicone Lube Spray	3	.4
Silicone Penetrant	16	2.1
Slip Plate	1	.1
Slip Spray	1	.1
Slip-It	1	.1
Slipicone	2	.3
Snap Silicone Spray	1	.1
Snap Super Heavy Duty	1	.1
Solder Seal	5	.7
Solder Seal Super Oil	1	.1
Somaca	1	.1
Spray Slik	1	.1
Sprayway	1	.1
Stanley	5	.7
Starrett	1	.1
Super Silicone	1	.1
Surface Shield	1	.1
TMP Silicone Lubricant	1	.1
Teflon	2	.3
Texize	1	.1
This Is It Silicone Spray	1	.1
Thompson's	1	.1
Tri-Flow Lubricant	3	.4
True Value	3	.4

Table F-9: Brands of Silicone Lubricant used
(continued)

Brands	Frequency	Percent
Turtle	1	.1
Union Carbide Silicone	26	3.4
WD 40	203	26.7
Westley's	2	.3
Zayre	1	.1
Zynolyte Silicone Lube	2	.3
Total	<u>761</u>	<u>100.0</u>

Sixty-eight percent (68.1%) of the users of the product specified a brand. The top three brands of silicone lubricants named were WD 40, CRC Heavy Duty Silicone and CD 2 Silicone Spray by 26.7%, 7.2% and 4.7% of the respondents respectively.

Q6A: Which brand of other lubricants did you use the last time you used it?

Table F-10: Brands of Other Lubricants used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	134	8.7
1W 40	8	.5
3-in-1 Bolt Loosener	1	.1
3-in-1 Household Oil	780	50.5
3-in-1 Plus	3	.2
3M	2	.1
A-1	2	.1
Amway	1	.1
Armorall	1	.1
Borden Industrial	1	.1
Brake Free	1	.1
Break Free	3	.2
Bullshot	1	.1
CML	2	.1
CRC 5-56	9	.6
Chain Lube	1	.1
Chevron	1	.1
Clock Oil	1	.1
Conoco	1	.1
Cutter's	1	.1
DK-50	1	.1
Drydene	1	.1
Echo	1	.1
Electric Clean	1	.1
Elmer's	1	.1
Elmer's Slide-All	3	.2
Fuller Brush Superlube	1	.1
Greece	1	.1
Gulf	1	.1
Gun Slick	1	.1
Hobte's No. 9	1	.1
Hoppe's	6	.4
Johnson's	1	.1
K Mart Multi Purpose	3	.2
Kenmore Sewing Machine Oil	2	.1
LPS 1 Greaseless	1	.1
Lakee's	1	.1
Liquid Graphite Lubricant	4	.3
Liquid Wrench	7	.5
Lithium Grease	1	.1
Lock Ease	25	1.6
Lubrease	1	.1
Lubriplate	1	.1
MP	1	.1
Maltby	1	.1

Table F-10: Brands of Other Lubricants used
(continued)

Brands	Frequency	Percent
Marvel Air Tool Oil	1	.1
Master	1	.1
Mechanic's Choice	1	.1
Mobile	2	.1
Necchi Sewing Machine Oil	1	.1
Never Cease	1	.1
Otter's	2	.1
Pane's	2	.1
Panel	1	.1
Pennzoil Motor Oil	2	.1
Pro Hair Clipper Oil	1	.1
Quaker State	2	.1
Quick Silver	1	.1
Rem Oil	1	.1
Sears Oil	1	.1
Shop Foreman	1	.1
Singer Sewing Machine Oil	34	2.2
Spray-a-Day	1	.1
Stanley	1	.1
Sun Oil	1	.1
Super Oil	1	.1
Super Slick	1	.1
SynLec 2	1	.1
Texaco	1	.1
Tri-Flow Lubricant	3	.2
Tronan	1	.1
True Value	1	.1
Trumpet Valve Oil	1	.1
Valvoline	2	.1
Vaseline	2	.1
W-44	1	.1
WD 40	448	29.0
Wahl	1	.1
White Sewing Machine Oil	1	.1
Total	1545	100.0

The majority of respondents, 91.3%, specified a brand of other lubricants that they used. The top three brands of other lubricants named were 3-in-1 Household Oil, WD 40 and Singer Sewing Machine Oil by 50.5%, 29.0% and 2.2% of the respondents respectively.

Q6A: Which brand of specialized electronic cleaners did you use the last time you used it?

Table F-11: Brands of Specialized Electronic Cleaners used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	251	45.4
3M Stereo	4	0.7
AT607	1	0.2
All Stop Dirt	1	0.2
Allose	2	0.4
Allsop3 Cleaning Solution	10	1.8
Alpha	1	0.2
Anti Static Cleaner	1	0.2
Archer Break Free	2	0.4
Archer Dust Remover Spray	3	0.5
Archer TV Cl/Lube	6	1.1
Audio Technica	5	0.9
Avanti	1	0.2
Baldwin	1	0.2
Best Brand	1	0.2
Bib Video Head Cleaner	1	0.2
Black Cat	1	0.2
Blue Shower	1	0.2
CRC	2	0.4
CRC Electronic Cleaner	13	2.4
CRC Lectra-Motive	1	0.2
CRT Screen Cleaner	1	0.2
Channel Master	1	0.2
Chemtronics	2	0.4
Colony	1	0.2
Color TV Tuner Cleaner	1	0.2
Contact	2	0.4
Contact Renu	3	0.5
Curtis	1	0.2
Curtis-Mathis	2	0.4
D4 Discwasher	67	12.1
D4+ Discwasher	1	0.2
Digital Equipment	1	0.2
Discwasher	4	0.7
Electric Motor Cleaner	1	0.2
Electro Contact Cleaner	1	0.2
Electro Shave	1	0.2
Electroswitch	1	0.2
Fine Tune	1	0.2
Fuji	1	0.2
GC	1	0.2
GC Electric	1	0.2

Table F-11: Brands of Specialized Electronic Cleaners
used (continued)

Brands	Frequency	Percent
HP Video	1	0.2
Head Cleaner HC-3	1	0.2
Humeseal	1	0.2
IBM	1	0.2
JC Penney	1	0.2
Jasco	1	0.2
Jebsee	1	0.2
K Mart	1	0.2
LPS	2	0.4
LPS Cold Galvanize	1	0.2
Lektro Cleaner Lube	7	1.3
Lektro Shaver Saver	6	1.1
MCM	1	0.2
MRP Record Cleaner	1	0.2
Magic Giant	2	0.4
Maxwell	3	0.5
Memorex Cleaning Fluid	4	0.7
Memorex Cleaning Kit	8	1.4
Memorex Record Care Kit	3	0.5
Memorex X HC	2	0.4
Metro	1	0.2
Miller-Stephenson	1	0.2
Moore Corp.	1	0.2
Motion	1	0.2
Motorla	1	0.2
No. 2 Tuner	1	0.2
Norelco	1	0.2
Norelco Razor Cleaner	5	0.9
Norelco Razor Lubricant	1	0.2
Norelco Whisk Off	1	0.2
Nortronics	3	0.5
Oster	1	0.2
Parks Shave Ease	1	0.2
Perfect Data	1	0.2
Precision Lab	1	0.2
Pro-100	1	0.2
Prowick Ionizer	1	0.2
RCA Deluxe Acrylic Spray	1	0.2
Radio Shack	22	4.0
Rawn	2	0.4
Realistic Head Cleaner	9	1.6
Realistic Non-Slip	1	0.2
Realistic Prof. Anti-Stat.	1	0.2
Recoton VCR Head Cl	1	0.2
Relay Clean	1	0.2
Retron	1	0.2

Table F-11: Brands of Specialized Electronic Cleaners
used (continued)

Brands	Frequency	Percent
Ross	2	0.4
SC	3	0.5
SSK Head Cleaner	1	0.2
Scott's	3	0.5
Sears	2	0.4
Shav-R-Aid Shaver Cleaner	1	0.2
Shaver Sharp	1	0.2
Sony	3	0.5
Sound Guard	2	0.4
Space	1	0.2
Suddreth	1	0.2
SynLec 2	1	0.2
TDK	3	0.5
TEAC Head Cleaner HC3	1	0.2
TV/Computer Screen Cl	2	0.4
Tape Recorder Head Cl	1	0.2
Transcriber	1	0.2
USA Shaver Cleaner	1	0.2
VHS Scotch Tape	2	0.4
Video Magic Head Cleaner	1	0.2
Video Pro	1	0.2
WD 40	1	0.2
Williams	2	0.4
Zetol	1	0.2
Zykkor VCR Head Cleaner	1	0.2
Total	553	100.0

About fifty-five percent (54.6%) of the users of the product specified a brand. This is a relatively low percentage. The top three brands of specialized electronic cleaners used were D4 Discwasher with 12.1% of the users; Radio Shack with 4.0% of the users; and CRC Electronic Cleaner with 2.4% of the users.

Q6A: Which brand of latex paint did you use the last time you used it?

Table F-12: Brands of Latex Paint used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	385	21.4
84 Lumber	1	.1
A-1	2	.1
Aboff's	2	.1
Acco	2	.1
Ace	8	.4
Acro-Hyde	1	.1
Acrolux	1	.1
Ameritone	5	.3
Ames	2	.1
Anvil	1	.1
Bear	1	.1
Behr	2	.1
Benjamin Moore	57	3.2
Bennett	3	.2
Best	1	.1
Best Brothers	1	.1
Big Wheel	1	.1
Blair House	1	.1
Blue Ridge	1	.1
Bradlee's	1	.1
Brod Dugan's	1	.1
Broussard's	1	.1
Bruning	2	.1
Builder's Square	1	.1
Butte	1	.1
C&C	2	.1
Cabot	1	.1
California	2	.1
Carolina Coatings	1	.1
Celolite	1	.1
Cemico	1	.1
Channel	29	1.6
Classic	3	.2
Coast to Coast	8	.4
Colony	5	.3
Color Tile	2	.1
Connecticut	1	.1
Contempo	1	.1
Cook's	3	.2
DeHart	2	.1
Deen & Byrd	1	.1
Delmar	1	.1
Delta	1	.1
Devoe	11	.6
DuPont	50	2.8

Table F-12: Brands of Latex Paint used
(continued)

Brands	Frequency	Percent
Duncan	1	.1
Dunn-Edwards	3	.2
Duron	3	.2
Dutch Boy	68	3.8
Eberhard	1	.1
Eclipse	1	.1
Elite-Graham	2	.1
Enterprise	3	.2
Evans	1	.1
F&H	1	.1
Ferry & Derrick	2	.1
Fillet	1	.1
Finneran & Haley	1	.1
Flex Bon	3	.2
Forest City	2	.1
Forum	1	.1
Fox	1	.1
Frazee	2	.1
Fuller-O'Brien	5	.3
General	1	.1
Gibson	1	.1
Gilman	7	.4
Glidden	168	9.3
Glidden Wood & Stain	1	.1
Graham	2	.1
Gray Seal	1	.1
Handy Dandy	2	.1
Handy Man	2	.1
Hank's	3	.2
Hardware Fair	1	.1
Hechinger	1	.1
Heck's	1	.1
Hide-All	1	.1
Hirschfield's	3	.2
Home Club	3	.2
Home Depot's Finest	2	.1
Hooker	1	.1
Image	1	.1
Jones Blair	1	.1
K Mart	37	2.1
Kelly Moore	9	.5
Kem-Tone	2	.1
Knox Lumber	1	.1
Komac	1	.1
Krylon Spray Paint	1	.1
Kwal	2	.1
Kyanize	2	.1
Lark	2	.1

Table F-12: Brands of Latex Paint used
(continued)

Brands	Frequency	Percent
Levy's	2	.1
Litton	1	.1
Load's	1	.1
Lowe's	5	.3
Lumberjack	1	.1
Luster Plus	2	.1
MAB	8	.4
Magic	6	.3
Magic Touch Spray Paint	1	.1
Majestic	1	.1
Martin (Jim)	4	.2
Martin Senour	15	.8
Mautz	3	.2
Meijer's	3	.2
Merytone	2	.1
Miller	3	.2
Monarch	1	.1
Mr. How	1	.1
Myers	5	.3
National	1	.1
New Coat	1	.1
OK Hardware	3	.2
Old Quaker	1	.1
Olympic	13	.7
Orchard	2	.1
Ox Line	2	.1
PPG	1	.1
Panda	2	.1
Paydee	1	.1
Performer	1	.1
Pergament	12	.7
Pittsburgh	27	1.5
Porter's	11	.6
Pratt & Lambert	14	.8
Pri Man	1	.1
Red Devil	3	.2
Regent	1	.1
Repco-Lite	3	.2
Rich-Lux	1	.1
Rickles	3	.2
Rink's	1	.1
Rohm & Hass	1	.1
Rose's	2	.1
Rust	2	.1
S&T Hardware	1	.1
Saxon	5	.3
Schmidt's	1	.1
Sears	369	20.5

Table F-12: Brands of Latex Paint used
(continued)

Brands	Frequency	Percent
Sears Metallic Enamel	1	.1
Sears Spray Enamel	1	.1
ServiStar	2	.1
Sherwin-Williams	124	6.9
Shop-Ko	4	.2
Sieperstein's	1	.1
Silverlead	1	.1
Simms	1	.1
Sinclair	5	.3
Southland DeSoto	1	.1
Spectratone	1	.1
St. Louis	2	.1
Standard Brands	31	1.7
Sterling	3	.2
Sternberger	1	.1
Strathmore	1	.1
Supreme	4	.2
TCI	1	.1
TGNY	2	.1
Target	4	.2
Town & Ranch	1	.1
Tripp	3	.2
True Value	23	1.3
Trutone	1	.1
Tung-Ox	1	.1
Tyanize	1	.1
United Coatings	3	.2
Valspar	1	.1
Vegas	1	.1
Versatex	1	.1
Virginia Paint	1	.1
Vista	3	.2
Wal-Mart	10	.6
Wards	26	1.4
Weatherall	1	.1
Wellborn	2	.1
West Hardware	1	.1
Wick	1	.1
Woolsey	1	.1
Worth Chemical	1	.1
X-D Rust	1	.1
Zayre	2	.1
Total	1801	100.0

Seventy-eight percent (78.6%) of latex paint users specified a brand. The top three brands were Sears with 20.5% of the users; Glidden with 9.3%; and Sherwin Williams with 6.9% of the users.

Q6A: Which brand of oil paint did you use the last time you used it?

Table F-13: Brands of Oil Paint used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	228	30.6
84 Lumber	1	.1
Ace	2	.3
Americana	2	.3
Ameritone	2	.3
Ames	1	.1
Behr	2	.3
Benjamin Moore	34	4.6
Bennett	1	.1
Benny & Smith	1	.1
Big Wheel	1	.1
Blue Ridge	1	.1
Broussard's	1	.1
Bru-Toke	1	.1
Bruning	4	.5
C&C	1	.1
Cabot	1	.1
Cansto	1	.1
Central Hardware	1	.1
Channel	3	.4
Co-op	1	.1
Coast to Coast	4	.5
Contempo	1	.1
Cook's	3	.4
Deen & Byrd	1	.1
Devoe	5	.7
Diamond	1	.1
DuPont	7	.9
Dunn-Edwards	2	.3
Duron	6	.8
Dutch Boy	21	2.8
Edwards	1	.1
Enterprise	1	.1
Finneran & Haley	1	.1
Fixall	1	.1
Flex Bon	2	.3
Frazee	1	.1
Fred Myers Brand	2	.3
Fuller-O'Brien	3	.4
Gambel's	1	.1
Gibson	1	.1
Gilman	1	.1
Glidden	37	5.0
Gold Brand	1	.1

Table F-13: Brands of Oil Paint used (Continued)

Brands	Frequency	Percent
Graham	1	.1
Grumbacher	5	.7
Handy Dandy	1	.1
Hank's	1	.1
Hechinger	1	.1
Heck's	1	.1
Hooker	1	.1
Interlux	1	.1
International	1	.1
Jewell	2	.3
Jones Blair	1	.1
K Mart	6	.8
Kelly Moore	4	.5
Kilz	1	.1
Krylon Spray Paint	3	.4
Kwal	2	.3
Kyanize	1	.1
Liquitex	2	.3
MA Bruder	2	.3
MAB	5	.7
Magic	4	.5
Majestic	1	.1
Martin (Jim)	1	.1
Martin Senour	9	1.2
Mautz	1	.1
McCloskey	1	.1
McCoy's	1	.1
Murphy's Mart	1	.1
Mysticote	1	.1
Napa Valley	2	.3
National	1	.1
NazDar	1	.1
OK Hardware	2	.3
Olde South	1	.1
Olympic	11	1.5
PPG	2	.3
Pactra Spray Paint	1	.1
Payless	1	.1
Performer	1	.1
Pergament	3	.4
Pioneer	1	.1
Pittsburgh	14	1.9
Plasti Kote	1	.1
Porter's	10	1.3
Pratt & Lambert	17	2.3
Pure Magic	1	.1
Red Devil	5	.7
Repco-Lite	3	.4

Table F-13: Brands of Oil Paint used (Continued)

Brands	Frequency	Percent
Rich-Lux	1	.1
Rickles	1	.1
Rust Oleum	15	2.0
Scotty's	1	.1
Sears	69	9.3
Sears Spray Enamel	1	.1
ServiStar	2	.3
Sherwin-Williams	39	5.2
Shiva	5	.7
Sieperstein's	1	.1
Sign Painter's	1	.1
Silathane	1	.1
Silathane Enamel	1	.1
Sinclair	5	.7
Spectratone	1	.1
Stain Block	1	.1
Standard Brands	19	2.6
Sternberger	1	.1
Strathmore	1	.1
Target	1	.1
Testors	7	.9
Testors Spray Enamel	1	.1
Touraine	2	.3
TriChem	1	.1
Tripp	1	.1
True Value	12	1.6
Unico	1	.1
Universal	1	.1
Utilac Spray Enamel	1	.1
Valspar	1	.1
Varathane	1	.1
Vista	2	.3
Wal-Mart	3	.4
Wards	4	.5
West Hardware	1	.1
Windsor & Newton	2	.3
Woolsey	1	.1
Zayre	1	.1
Total	744	100.0

Sixty-nine and four-tenths % of the users of the product specified a brand. The top three brands of oil paint used were Sears with 9.3% of the users; Sherwin Williams with 5.2% of the users; and Glidden with 5.0% of the users.

Q6A: Which brand of wood stain, varnish or finish did you use the last time you used it?

Table F-14: Brands of Wood Stains, Varnishes and Finishes used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	465	36.7
4 City	1	.1
84 Lumber	1	.1
AR	1	.1
Ace	4	.3
Ace Spray Stain	1	.1
Allwoods	1	.1
Ames Store	1	.1
Antique Walnut Wiping	1	.1
Arthur Fomer	1	.1
BLP Mobil Stain	1	.1
Barthey Collection	1	.1
Bean & Berry	1	.1
Behr	4	.3
Behr Patio Redwood Stain	1	.1
Behr Spray Stain & Stealer	1	.1
Belknap	1	.1
Benchmark	1	.1
Benjamin Moore	8	.6
Benwood	1	.1
Big Red	1	.1
Biltmore	1	.1
Birchwood	1	.1
Blue Ridge Varnish	1	.1
Bridges & Smith	1	.1
Bruce	2	.2
Bud	1	.1
Cabot	3	.2
Channel Varnish	1	.1
Clear Finish Soft Sheen	4	.3
Coast to Coast	2	.2
Coberstar	1	.1
Colony	2	.2
Color Rich Wood Stain	6	.5
Color Tile	1	.1
Coppernai	1	.1
Cuprinol	7	.6
Danish Oil Finish	2	.2
DeHart	1	.1
Deft	8	.6
Deft Clear Wood Finish	3	.2
Devlin	2	.2
Diamond	1	.1
DuPont	7	.6

Table F-14: Brands of Wood Stains, Varnishes and Finishes used (Continued)

Brands	Frequency	Percent
Duffy's	1	.1
Dunn-Edwards	2	.2
Dura-Shield	7	.6
Dutch Boy	2	.2
Evans	1	.1
Fame	1	.1
Flecto	6	.5
Flex Bon	1	.1
Formby's	1	.1
Formby's Furniture Refin.	115	9.1
Formby's Tung Oil Finish	10	.8
Formby's Wiping Stain	3	.2
Fred Myers Brand	1	.1
Fuller-O'Brien	2	.2
General Finishes 3-Step	1	.1
Gillespie	1	.1
Glid-Tone Clear Oil	1	.1
Glid-Tone Wood Finish	12	.9
Glidden Varnish	2	.2
Gold Ball	1	.1
Grossman's Linseed Oil	1	.1
Gym Seal Varnish	2	.2
Hank's Barathine	2	.2
Hannah Wood Stain	1	.1
Hardware Hank	2	.2
Hill's	1	.1
Home Club	1	.1
Interior Oil Stain	2	.2
Jasco Linseed Oil	1	.1
Jiffy	1	.1
Johnson's	3	.2
K Mart	7	.6
Kresge	1	.1
Krylon Spray Varnish	3	.2
Lacquer Wood Finish	1	.1
Larson	1	.1
Last n Last Clear Satin	1	.1
Last n Last Polyurethane	1	.1
Lemon Endust	1	.1
Lemon Pledge	2	.2
Liquid Plastic	1	.1
Lowe's	1	.1
MAB	4	.3
Macolac	1	.1
Magic	1	.1
Man O' War Varnish	3	.2

Table F-14: Brands of Wood Stains, Varnishes and Finishes used (Continued)

Brands	Frequency	Percent
Mautz	3	.2
Miller	1	.1
Miniwax Finishing Wax	179	14.1
Minwax Polyshades	3	.2
Minwax Spar Urethane	4	.3
Minwax Tung Oil Finish	12	.9
Minwax Wood Finish	8	.6
Mop & Glo	1	.1
Murphy's Oil Soap	1	.1
NYBCO Redwood Stain	1	.1
Old English	10	.8
Old Masters	1	.1
Olympic	29	2.3
Open Hearth	1	.1
Outer's	1	.1
PPG Interior Wood Finish	1	.1
Panel Magic	1	.1
Parks	3	.2
Parks Tung Oil	1	.1
Payless	1	.1
Penofin	1	.1
Pergament	2	.2
Pittsburgh	4	.3
Pledge	2	.2
Polyurethane Clear Satin	2	.2
Polyurethane Liq. Plastic	12	.9
Polyurethane Varnish	1	.1
Polyurethane (Generic)	4	.3
Porter's	4	.3
Pratt & Lambert	6	.5
Quick Strip	1	.1
Red Devil	18	1.4
Red Devil Polyurethane	5	.4
Regard	1	.1
Rocky's	1	.1
Sawmill	2	.2
Scott's	3	.2
Scott's Liquid Gold	2	.2
Scottie's Patina	1	.1
Sears	25	2.0
Self Name	1	.1
ServiStar	1	.1
Sherwin-Williams	25	2.0
Specto	1	.1
Spectrum	1	.1
Spread Urethane Varnish	10	.8

Table F-14: Brands of Wood Stains, Varnishes and Finishes used (continued)

Brands	Frequency	Percent
Standard Brands	11	.9
Stanley Varnish	1	.1
Star	1	.1
Strypeeze	1	.1
Sutherland	2	.2
Town Paint	1	.1
True Value	11	.9
Valspar	7	.6
Valspar Varnish Spray	4	.3
Varathane	14	1.1
Varathane Oil Finish	1	.1
Varathane Satin	3	.2
Verastain	1	.1
Watco Danish Oil Finish	11	.9
Watco Redwood Finish	1	.1
Water Rinsable Wood Stain	2	.2
Wellborn	1	.1
Welwood	1	.1
Wipe & Stain	1	.1
Wood Coat	2	.2
Wood Glo	1	.1
Wood Rich	1	.1
Woodsman	3	.2
Z-Spar	1	.1
Zar	6	.5
Zip Guard	2	.2
Zip Guard Wood Finish	3	.2
Zip Strip	1	.1
Zynolyte Spray Stain	1	.1
Total	1268	100.0

Sixty-three percent (63.3%) of the users who used the product in the last year specified a brand. The top three brands named are Miniwax Finishing Wax, Formby's Furniture Refin. and Olympic by 14.1%, 9.1% and 2.3% of the respondents respectively.

Q6A: Which brand of paint removers/strippers did you use the last time you used it?

Table F-15: Brands of Paint Removers/Strippers used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	321	41.7
3M Woodgrain and Stripe	1	.1
Acco Strip	1	.1
Ace Brush Cleaner	5	.7
Allied-Kelite A127B	1	.1
Benjamin Moore	1	.1
Bix Stripper	4	.5
Broussard's	1	.1
Brush & Roller Cleaner	1	.1
Builder's Square	1	.1
Circa 6	1	.1
Coast to Coast	4	.5
Color Tile	2	.3
Crown Brush & Roller Cleaner	1	.1
Cutex Polish Remover	1	.1
Dap Paint Remover	1	.1
DeSoto	1	.1
Devoe	1	.1
Douglas & Nanke	1	.1
Dupont	4	.5
Duffy's	1	.1
Dupli Color	1	.1
Dynamite	1	.1
E Z Paint Deglosser	1	.1
Eckard	2	.3
El Pico	1	.1
Fix-It	1	.1
Forbes	2	.3
Formby's Paint Remover	98	12.7
Formby's Remover Wash	1	.1
Forum Speed	1	.1
General	1	.1
Gillespie	1	.1
Green's Liquid Paint Remover	2	.3
Hip Strip	1	.1
Hope's Refinisher	2	.3
Huntsville Roofing	1	.1
Jasco	1	.1
Jasco Furniture Refinisher	8	1.0
Jasco Premium P&E Rem	2	.3
Jasco Speedomatic	6	.8
Jiffy	1	.1

Table F-15: Brands of Paint Removers/Strippers used
(continued)

Brands	Frequency	Percent
John Deere	1	.1
Johnson's	2	.3
K Mart	6	.8
Kem Cleaner	1	.1
Keti 2	1	.1
Klean Strip	4	.5
Klean Strip Brush/Roller Cleaner	1	.1
Klean-Clean Paint Remover	1	.1
Kleer Kote	1	.1
Kutzit Paint Remover	4	.5
Kutzit Paint/Varnish Remover	1	.1
Kwik Liquid No-Wash	1	.1
Liquid Dynamite	1	.1
Liquid Sandpaper	1	.1
Lowe's	3	.4
Lutex	1	.1
Majestic	1	.1
Mason's	1	.1
Mautz	1	.1
McCoy's	1	.1
Mineral Springs	1	.1
Minwax Antique Refinisher	1	.1
Minwax Stripper	1	.1
Nasco Paint Remover	16	2.1
Nasco Sandpaper In A Can	3	.4
Naval Jelly	1	.1
No Sand	1	.1
Odish	1	.1
Ole's	2	.3
Oops Paint Remover	1	.1
Paint and Varnish Remover	9	1.2
Parks Furniture Refinisher	4	.5
Pergament	1	.1
Pittsburgh	2	.3
Premium Paint Remover	3	.4
Quick Strip	4	.5
Red Devil	21	2.7
Redi-Strip	2	.3
Rust Oleum	1	.1
Scottie's	1	.1
Sears Brush/Roller Cleaner	1	.1
Serv-U	1	.1
Sherwin-Williams WashAway	5	.7
Shop-Ko	1	.1
So Fast Paint Remover	4	.5
Standard Brands	1	.1

Table F-15: Brands of Paint Removers/Strippers used
(continued)

Brands	Frequency	Percent
Stanley	1	.1
Strip X Paint Stripper	1	.1
Strip-It	2	.3
Stripper (Generic)	2	.3
Stripz Em	2	.3
Strypeeze	3	.4
Strypeeze Paint Remover	44	5.7
Sunnyside	1	.1
Sunnyside Brush Cleaner	1	.1
Super Ease	1	.1
SuperStrip Paint Remover	20	2.6
Sure Strip	1	.1
TMP Paint Stripper	1	.1
Texelle	1	.1
Thinz It	1	.1
Times Square	1	.1
Town & Ranch	1	.1
Trewax Wax Stripper	1	.1
True Value	6	.8
Valco	1	.1
Var-T	2	.3
Varsol	1	.1
Wards	1	.1
Water Cleanup	1	.1
West Lumber	1	.1
Western Auto	2	.3
Whitney's	1	.1
Wize Stripper	1	.1
Wonder Paste	1	.1
Wood Strip	1	.1
Zar	1	.1
Zayre	1	.1
Zemolite	1	.1
Zip Off	1	.1
Zip Sander	1	.0
Zip Strip	46	6.0
Zip-It	1	.1
Total	769	100.0

Fifty-eight percent (58.3%) of the users of the product specified a brand. The top three brands of paint removers/strippers used were Formby's with 12.7% of the users; Zip Strip with 6.0% of the users; and Strypeeze Paint Remover with 5.7% of the users.

Q6A: Which brand of paint thinner did you use the last time you used it?

Table F-16: Brands of Paint Thinners used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	646	58.0
Ace	5	.4
Baldwin	2	.2
Barber	1	.1
Barco	1	.1
Benjamin Moore	2	.2
Bix Stripper	1	.1
Blue Ridge	1	.1
Bortzoil	3	.3
Bridges & Smith	1	.1
Brod Dugan's	1	.1
Broussard's	1	.1
Builder's Square	1	.1
Caldol	1	.1
Chekr	2	.2
Coast to Coast	3	.3
Coleman Fuel	1	.1
Crown Paint Thinner	1	.1
Davis	1	.1
Devoe	2	.2
Diamond	2	.2
Diosol	1	.1
Ditzler	4	.4
Dope (Generic)	2	.2
Douglas & Nanke	1	.1
Dupont 3602SA	11	1.0
Duco	1	.1
Duron	1	.1
Dutch Boy	1	.1
Edwards	1	.1
Fedco	1	.1
First Mate	1	.1
Forbes	1	.1
Formby's	6	0.5
Frazee	1	.1
Fred Myers Brand	2	.2
Fuller	1	.1
Fulton	1	.1
Glidden	3	.3
Great Plains	1	.1
Grumbacher	2	.2
Handy City	2	.2

Table F-16: Brands of Paint Thinners used
(Continued)

Brands	Frequency	Percent
Holman	1	.1
Image	1	.1
Jamesway	1	.1
Jasco Paint Thinner	4	.4
John Deere	1	.1
Johnson's Mineral Spirits	2	.2
Jones Blair	1	.1
K Mart	15	1.3
Kelly Moore	2	.2
Klean Strip	7	.6
Klenk's Epoxy Thinner	1	.1
Lenmar Lacquer Thinner	1	.1
Lone Star Paint Thinner	1	.1
Lutex	1	.1
M&M	1	.1
MAB	3	.3
Majestic	1	.1
Martin Senour	2	.2
McCloskey	2	.2
McCoy's	1	.1
Merker's	1	.1
Mister	1	.1
NEK	1	.1
Namel Thinner	2	.2
Nankee	1	.1
Nasco Brush Cleaner	2	.2
Nasco Linseed Oil	2	.2
Nasco Paint Thinner	70	6.3
Nasco Sandpaper In A Can	1	.1
Nasco Turpex	7	.6
No Brite	1	.1
Odorless Paint Thinner	1	.1
Olde South	1	.1
Ole's	2	.2
Olympic	2	.2
PPC	2	.2
Pactra Aero Gloss	1	.1
Parks Lacquer Thinner	2	.2
Parks Paint Thinner	22	2.0
Payless	1	.1
Pergament	6	.5
Petroleum Spirits	1	.1
Pioneer	1	.1
Pittsburgh	4	.4
Porter's	2	.2
Power Kleen	1	.1

Table F-16: Brands of Paint Thinners used
(Continued)

Brands	Frequency	Percent
Pratt & Lambert	1	.1
R&M	1	.1
Red Band	2	.2
Red Devil	10	.9
Red Devil Brush Cleaner	1	.1
Red Label	2	.2
Repco-Lite	1	.1
Rust Oleum Thinning Oil	1	.1
Saxon	1	.1
Scotty's	1	.1
Sears Epoxy/Lacquer Thinner	7	.6
Sears Terpolene Thinner	36	3.2
ServiStar	2	.2
Sherwin-Williams	19	1.7
Shiva	1	.1
Sieperstein's	1	.1
Sinclar	2	.2
So Fast	1	.1
So Fast Lacquer Thinner	2	.2
So Fast Paint Thinner	2	.2
Solvoil	1	.1
Southern Pine	2	.2
Standard Brands	20	1.8
Standard Shellac Thinner	3	.3
Stanley	1	.1
Strypeeze	2	.2
Sub-Turp	1	.1
Sunnyside	8	.7
Sunnyside Brush Cleaner	2	.2
T&R	2	.2
T-10	1	.1
TGNY	1	.1
Testors	7	.6
Thinnerine	1	.1
Thinnex	5	.4
Thinz It	8	.7
Thompson's	1	.1
Trewax	1	.1
TriChem	1	.1
True Value Mineral Spirit	9	.8
Tuff Coat	1	.1
USA Paint	1	.1
Union Ink	1	.1
Unisol Town & Country	1	.1

Table F-16: Brands of Paint Thinners used
(Continued)

Brands	Frequency	Percent
Val-Kraft	2	.2
Vanderin	1	.1
Varsol	7	.6
Vary	1	.1
Vinnie's	1	.1
Vista	3	.3
Vogart Craft	1	.1
Wal-Mart	2	.2
Walton	1	.1
Wards	4	.4
Weldwood Cleaner/Thinner	2	.2
Woolco	1	.1
Z Spar	1	.1
Total	769	100.0

Forty-two percent (42.0%) of the users of the product specified a brand. The top three brands of paint thinners used were Nasco Paint Thinner with 6.3% of the users; Sears Terpolene Paint Thinner with 3.2% of the users; and Parks Paint Thinner with 2.0% of the brands.

Q6A: Which brand of aerosol spray paint did you use the last time you used it?

Table F-17: Brands of Aerosol Spray Paint used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	439	36.9
3M	1	.1
4 City	1	.1
4-in-1	1	.1
Accent	1	.1
Ace Spray Enamel	5	.4
Akron	1	.1
Ames	1	.1
Bantam	3	.3
Behlen	1	.1
Big A	1	.1
Black Baron	1	.1
Borden Acrylic Coating	1	.1
Bradlee's	2	.2
Broma Decorative Enamel	1	.1
Broma Enamel	2	.2
Calborn	1	.1
Central Hardware	1	.1
Channel	1	.1
Chevron	1	.1
Coast to Coast	9	.8
Coatal Coat	1	.1
Color Touch Spray Paint	1	.1
Colorworks Appliance Fin	1	.1
Consort	2	.2
Cook's	1	.1
Crystal Clear Glaze	2	.2
Dart Enamel	2	.2
Dart Spray Paint	5	.4
Daz-L Fluorescent Paint	1	.1
Derusto	19	.6
Derusto Enamel Paint	1	.1
Derusto Epoxy Paint	3	.3
Devoe	1	.1
Dollar General	1	.1
DuPont	16	.3
Duco	1	.1
Dutch Boy	3	.3
Eager Beaver	1	.1
East Dry Lacquer	6	.5
Effecto Spray Enamel	2	.2

Table F-17: Brands of Aerosol Spray Paint used
(Continued)

Brands	Frequency	Percent
Family Dollar	1	.1
Farm & Home	1	.1
Fay's	1	.1
Fillet	1	.1
Fixall Enamel Lacquer	4	.3
Fluorescent Spray Paint	1	.1
Ford	1	.1
Formula 4	1	.1
Frazee	1	.1
Fred Myers Brand	1	.1
Gambel's	1	.1
Gee Bee	1	.1
Glidden	7	.6
Gloss Black Lacquer	1	.1
Great Day Enamel	2	.2
HWI Hardware	1	.1
Heck's	1	.1
Hobby Household Enamel	1	.1
Imperial Enamel	3	.3
Johnson's	1	.1
Joy Valley	1	.1
K Mart Spray Enamel	37	.1
Kelly Moore	1	.1
Keno	1	.1
Kiester's Epoxy	1	.1
Kra-Seal	1	.1
Krylon Acrylic Spray	14	.2
Krylon Enamel	1	.1
Krylon Spray Coating	2	.2
Krylon Spray Paint	269	22.6
Liquid Wrench	1	.1
Magic High Gloss Enamel	3	.3
Magic Spray Enamel	1	.1
Magicolor Rustreat	1	.1
Man O' War	1	.1
Maypole	1	.1
Murphy's Mart	2	.2
NYBCO Siliconized Enamel	2	.2
Napa	1	.1
One Coat	1	.1
Orlac	1	.1
Pactra Spray Enamel	2	.2
Pactra Spray Paint	1	.1
Pamida	1	.1
Panda	2	.2
Pep Boys	1	.1

Table F-17: Brands of Aerosol Spray Paint used
(Continued)

Brands	Frequency	Percent
Pergament	4	.3
Pittsburgh	1	.1
Plasti Kote Epoxy	1	.1
Plasti Kote Spray Paint	1	.1
Premium	1	.1
Quality	1	.1
Red Devil	6	.5
Rose's	1	.1
Rough Lock	1	.1
Rust Beater Touch Coat	1	.1
Rust Defender	1	.1
Rust Exit	1	.1
Rust Guard Halt Rust	1	.1
Rust Oleum	152	12.8
Rust Oleum Finish	1	.1
Rust Oleum Spray Paint	1	.1
Rustall	1	.1
Rutland	1	.1
S&T Hardware	1	.1
Sampson	1	.1
Scotty's	5	.4
Screen Kleen	1	.1
Sears Metallic Enamel	1	.1
Sears Spray Enamel	7	.6
Sherwin-Williams Enamel	2	.2
Sherwin-Williams Lacquer	3	.3
Shop-Ko	2	.2
Sparvar Perma Clear	1	.1
Sparvar Spray Paint	1	.1
Spray Arama Enamel	1	.1
Super Value	1	.1
Suzuki	1	.1
TGNY	3	.3
Target	5	.4
Tempo Color Spray	2	.2
Testors Spray Enamel	9	.8
Tough Coat Spray Enamel	4	.3
Town & Country	1	.1
Tru Color	1	.1
Tru-Test Supreme Enamel	3	.3
True Value	6	.5
Utilac Spray Enamel	1	.1
Varathane	1	.1
Vary	1	.1
Wal-Mart	16	.3

Table F-17: Brands of Aerosol Spray Paint used
(Continued)

Brands	Frequency	Percent
Wards	1	.1
Western Auto	1	.1
WoodRich	1	.1
Zeylone	1	.1
Zynolyte Spray Paint	1	.1
Total	<u>1190</u>	<u>100.0</u>

Sixty-three percent (63.1%) of the users of the product specified a brand. The top three brands of aerosol spray paint used were Krylon Spray Paint with 22.6% of the users; Rust Oleum with 12.8% of the users; and K Mart Spray Paint with 3.1% users.

Q6A: Which brand of primers did you use the last time you used it?

Table F-18: Brands of Primers used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	156	38.4
Aboff's	1	.2
Bantam	2	.5
Behr	1	.2
Benjamin Moore	10	2.5
Bondo	3	.7
Bradlee's	1	.2
Bright Beauty Primer	1	.2
Cabot	1	.2
Classic	1	.2
Coast to Coast	1	.2
Colony	1	.2
Cook's	1	.2
Dart Rust-Away Enamel	3	.7
Decade	1	.2
Deen & Byrd	1	.2
Derusto Preventive Enamel	1	.2
Devoe	1	.2
Dupont	3	.7
Dunn-Edwards	1	.2
Duro Sandable Primer	2	.5
Dutch Boy	3	.7
Fay's	1	.2
Fix-It	1	.2
Flex Bon	1	.2
Frazee	1	.2
Glidden	6	1.5
Graham	1	.2
Hank's	1	.2
Hercules	1	.2
Hide-All	1	.2
Interlux	1	.2
K Mart	4	1.0
K Mart Sandable Primer	3	.7
Kelly Moore	1	.2
Krylon Spray Enamel	1	.2
Krylon Spray Paint	1	.2
Krylon Spray Primer	19	4.7
Martin Senour	2	.5
Minwax	1	.2
Muralo	1	.2
Napa	1	.2

Table F-18: Brands of Primers used
(Continued)

Brands	Frequency	Percent
Ole's	1	.2
Olympic Primecoat	2	.5
Open Hearth	1	.2
Orlace	1	.2
Parks	1	.2
Pep Boys	1	.2
Pergament	1	.2
Pinetoff Bottom Primer	1	.2
Pittsburgh	4	1.0
Porter's	2	.5
Pratt & Lambert	1	.2
Redicote	1	.2
Rickles	1	.2
Rossow	1	.2
Rust Oleum	64	15.8
Rust Oleum Auto Primer	1	.2
Rust Oleum Hunter Green	1	.2
Rust Oleum Metal Primer	13	3.2
Rust Proof	1	.2
Rustall	1	.2
Saxon	1	.2
Sealz-It	1	.2
Sears	28	6.9
Seashore	1	.2
Sherwin-Williams	12	3.0
Sinclar	1	.2
Standard Brands	5	1.2
T&R	1	.2
TVA	1	.2
Touch & Tone	1	.2
True Value	2	.5
Unico	1	.2
Valspar	1	.2
Wards	2	.5
White Pigmented Kilz	2	.5
Zimmer	1	.2
Total	406	100.0

Sixty-two percent (61.6%) of the users of the product specified a brand. The top three brands of primers were Rustoleum with 15.8% of the users; Sears with 6.9% of the users; and Krylon Spray Primer with 4.7% of the users.

Q6A: Which brand of aerosol rust remover did you use the last time you used it?

Table F-19: Brands of Aerosol Rust Remover used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	84	28.5
3-in-1	1	.3
5-5-6	1	.3
Amway Redu Rust Remover	1	.3
Bowman	1	.3
CRC	1	.3
Conklin Rust Bomb	1	.3
Derusto Preventive Enamel	3	1.0
Ditzler	1	.3
Gunk	1	.3
Krylon	1	.3
LPS 3 Rust Inhibitor	2	.7
Liquid Wrench	103	34.9
Liquid Wrench No. 2	2	.7
Napa	1	.3
Permatex Solvo Rust	1	.3
Premier	1	.3
Quaker State	1	.3
Red Devil	1	.3
Rotanium	1	.3
Rust Exxit	2	.7
Rust Oleum	24	8.1
RustOff	2	.7
Rustbuster	1	.3
STP	1	.3
Sherwin-Williams	1	.3
Snap Rust Buster	8	2.7
Solder Seal	1	.3
WD 40	41	13.9
Wal-Mart	1	.3
Western Auto	2	.7
Whink	2	.7
Total	295	100.0

Seventy-two percent (71.5%) of the users of the product specified a brand. The top three brands of aerosol rust remover named were Liquid Wrench, WD 40 and Rust Oleum by 34.9%, 13.9% and 8.1% of respondents respectively.

Q6A: Which brand of outdoor water repellent did you use the last time you used it?

Table F-20: Brands of Outdoor Water Repellent used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	78	31.6
A-1 Water Repellent	2	.8
Amway Drifab	1	.4
Armorall	2	.8
Behr	3	1.2
Benjamin Moore	1	.4
Browning	1	.4
Bruning	1	.4
Cadet Heel and Sole	1	.4
Clean Wood Preservative	1	.4
Clear Wood	3	1.2
Coast to Coast	1	.4
Colony	1	.4
Cuprinol	20	8.1
Fiebing's	1	.4
Flex Bon	1	.4
Genuine Mink Oil	1	.4
Glidden	1	.4
HWI Hardware	1	.4
Johnson's	1	.4
K Mart	2	.8
Kiwi Camp Dry	1	.4
Liquid Wrench	1	.4
Lowe's	2	.8
MAB	2	.8
Majestic Wood Preserv	2	.8
Menard's House Brand	1	.4
Olympic	10	4.0
Penofin	1	.4
Penta Wood Preservative	1	.4
Pergament	2	.8
Polyurethane (Generic)	1	.4
Pratt & Lambert	1	.4
Prime Appell	1	.4
Raid	1	.4
Rust Oleum	2	.8
Scotchgard	4	1.6
Seal-Tite	1	.4
Seal-Treat	1	.4
Sears	4	1.6
Sherwin-Williams	2	.8
Thompson's Water Seal	68	27.5

Table F-20: Brands of Outdoor Water Repellent used
(Continued)

Brands	Frequency	Percent
True Value Wood Preserver	1	.4
Water Lock	2	.8
Water Seal	1	.4
Waterlox Water Repellant	1	.4
Wood Preen	1	.4
Woodlife Preservative	7	2.8
Z-Ment Seal	1	.4
Total	247	100.0

Sixty-eight percent (68.4%) of the users of the product specified a brand. The top three brands of outdoor water repellent named were Thompson's Water Seal, Cuprinol and Olympic named by 27.5%, 8.1% and 4.0% of respondents respectively.

Q6A: Which brand of glass frosting, window tint or artificial snow did you use the last time you used it?

Table F-21: Brands of Glass Frostings, Window Tints and Artificial Snows used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	187	66.1
Artificial Snow (Generic)	25	8.8
Avon	16	5.7
Bliz	4	1.4
Blow Snow	2	.7
CRC Electronic Cleaner	1	.4
Dart	1	.4
Dow Artificial Snow	1	.4
Eckard	1	.4
Elco Artificial Snow	1	.4
Frank's Nursery	1	.4
Frcon	1	.4
Frosty	1	.4
Gila Spray Film	3	1.1
Glass Frosting	2	.7
Holly Tree	1	.4
Holly Trim	1	.4
K Mart	8	2.8
McCrory	1	.4
Meadows	1	.4
Motorola	1	.4
No Vue Window Frosting	1	.4
Pathmark	1	.4
PayLess	1	.4
R&S Strauss	1	.4
Rainpruf	1	.4
Santa's Snow	1	.4
Snow Glow Artificial Snow	1	.4
Snow King	1	.4
Snow Star	2	.7
Snow Tree	1	.4
Thrifty Artificial Snow	1	.4
True Snow	1	.4
VHT	1	.4
WD 40	1	.4
Wal-Mart	1	.4
Western Auto	1	.4

Table F-21: Brands of Glass Frostings, Window Tints and Artificial Snows used (Continued)

Brand	Frequency	Percent
Windex	1	.4
X-Max Snow	1	.4
Zynolyte Anodized Bronze	2	.7
Zynolyte Glass Frosting	2	.7
Total	<u>283</u>	<u>100.0</u>

Thirty-four percent (33.9%) of the respondents specified a brand of glass frosting, window tint or artificial snow that they had used. The top three brands named were Artificial Snow (Generic), Avon and K Mart by 8.8%, 5.7% and 2.8% of the respondents respectively.

Q6A: Which brand of engine degreasers did you use the last time you used it?

Table F-22: Brands of Engine Degreasers used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	94	16.0
10-2	1	.2
3 M	1	.2
AMS Oil	1	.2
Amway Engine Degreaser	3	.5
B 33 Engine Cleaner	3	.5
Bardohl	2	.3
Bel-Ray	1	.2
Berryman	1	.2
Bowman	1	.2
Chemoco	1	.2
Dupont	6	1.0
Goop	1	.2
Gumout	2	.3
Gumout Degreaser/Cleaner	37	6.3
Gumout Steam Cleaner	6	1.0
Gunk Engine Brite	292	49.7
Gunk Foamy Engine Brite	8	1.4
Gunk Motor Flush	46	7.8
Gunk S-C Degreaser	6	1.0
JB	2	.3
Johnson Bros.	1	.2
K Mart Engine Degreaser	3	.5
Kawasaki	1	.2
M 1 Remover	1	.2
Napa	2	.3
Naptha	1	.2
PayLess	1	.2
Pep Boys	1	.2
Permatex	1	.2
STP	6	1.0
STP Engine Degreaser	12	2.0
STP Heavy Duty Degreaser	24	4.1
Safety Solvent	1	.2
Sears	1	.2
Snapon Skippins	1	.2
Solder Seal EB4	1	.2
StuHow	1	.2
Thoroughbred	1	.2

Table F-22: Brands of Engine Degreasers used
(Continued)

Brands	Frequency	Percent
WD 40	6	1.0
Westley's	1	.2
Wynn's	5	.9
Zep	1	.2
Total	<u>588</u>	<u>100.0</u>

Eighty-four percent (84.0%) of the users of the product specified a brand. The top three brands of engine degreasers used were Gunk Engine Brite with 49.7% of the users; Gunk Motor Flush with 7.8% of the users; and Gumout Degreaser/Cleaner with 6.3% of the users.

Q6A: Which brand of carburetor cleaners did you use the last time you used it?

Table F-23: Brands of Carburetor Cleaners used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	225	27.7
2+2 Instant Gum Cutter	2	.2
AMS Oil	1	.1
Andy Granatelli	1	.1
Autopro	2	.2
Bl2 Chemtool	23	2.8
Bowman	1	.1
CD 2 Choke/Carb Cleaner	19	2.3
CRC	6	.7
Carb & Smoke	1	.1
Carb Medic	64	7.9
Carb-All	1	.1
Carb-Out	5	.6
Carb/Choke & Linkage Cleaner	1	.1
Carter's	1	.1
Chemco	1	.1
Clean Carb	1	.1
Co-op	1	.1
Cyclo	2	.2
Dupont	1	.1
Ford	1	.1
GE	1	.1
Gaha	1	.1
Gulf	1	.1
Gumout	9	1.1
Gumout Carb/Choke/Cleaner	151	18.6
Gunk	11	1.4
Gunk Engine Brite	1	.1
JB Carburetor Cleaner	3	.4
K Mart	8	1.0
K Mart Carb & Choke	4	.5
Lube-Aid	2	.2
Mechanics Brand	2	.2
Motorcycle Carb Cleaner	1	.1
Nack	1	.1
Napa	10	1.2
Penzoil	1	.1
Pep Boys	3	.4
Permatex	1	.1
Power Foam	1	.1
Prestone Carb/Choke Cleaner	3	.4
Repco	1	.1

Table F-23: Brands of Carburetor Cleaners used
(Continued)

Brands	Frequency	Percent
STP	5	1.0
STP Carb Spray Cleaner	158	19.5
Sears	3	.4
Siloo Carb/Choke Cleaner	2	.2
Snap Carb & Choke Cleaner	52	6.4
Solder Seal Carb Medic	4	.5
Taylor Made Carb & Choke	1	.1
Union 76	1	.1
WD 40	3	.4
Wards	1	.1
Western Auto	1	.1
Westley's	2	.2
Total	812	100.0

Seventy-two percent (72.3%) of the users of the product specified a brand. The top three brands of carburetor cleaners used were STP with 19.5% of the users; Gumout with 18.6% of the users; and Carb Medic with 7.9% of the users.

Q6A: Which brand of auto spray paint did you use the last time you used it?

Table F-24: Brands of Auto Spray Paints used

Brands	Frequency	Percent
Don't knows and Not Ascertained	168	45.2
3M	1	.3
Ace Spray Enamel	2	.5
Alco	1	.3
Ames	1	.3
Appliance Epoxy Finish	1	.3
BHT	1	.3
Bantam	2	.5
Borden Van & Truck	1	.3
Bradlee's	1	.3
Bright Beauty Enamel	2	.5
Car Color	1	.3
Car Color Spray Paint	11	3.0
Chemco	1	.3
Classic Lacquer	1	.3
Clear Coat	1	.3
Derusto	1	.3
Devoe	2	.5
Ditzler	1	.3
DuPont	12	3.2
Duco	1	.3
Dupli Color Auto Panel Paint	2	.5
Dupli Color Auto Touch Up	1	.3
Dupli Color Spary Paint	7	1.9
Dutch Boy	3	.8
East Dry Lacquer	1	.3
Easy Way Spray Paint	1	.3
Fay's	1	.3
Ford	1	.3
Frazee	1	.3
GM	6	1.6
Grayson	1	.3
HWI Hardware	1	.3
Handy Man	1	.3
High Heat Paint	1	.3
Imperial Enamel	1	.3
K Mart Spray Enamel	9	2.4
Kandicolor	1	.3
Krylon Acrylic Spray	2	.5
Krylon Spray Paint	34	9.1
Magic High Gloss Enamel	1	.3
Majestic	1	.3

Table F-24: Brands of Auto Spray Paints used
(Continued)

Brands	Frequency	Percent
Mopar	1	.3
NYBCO Auto Paint	2	.5
Napa	1	.3
Pittsburgh	1	.3
Plasti Kote Car Color	9	2.4
Plasti Kote Rust Not	1	.3
Plasti Kote Spray Paint	2	.5
Porter's	1	.3
Raabe	2	.5
Red Devil	2	.5
Rust Oleum	33	8.9
Scotty's	1	.3
Sear's Spray Enamel	2	.5
Sherwin-Williams Enamel	1	.3
Shriek	1	.3
Sparvar Spray Paint	2	.5
Spray Arama Enamel	1	.3
TGNY	1	.3
Tempo Auto Touch-Up	1	.3
Tempo Engine Enamel	3	.8
Testors Spray Enamel	1	.3
Touch Up	1	.3
Tough Coat Spray Enamel	4	1.1
Tradco	1	.3
Tru Color	1	.3
Tru-Test Supreme Enamel	1	.3
Wal-Mart	2	.5
Wards	1	.3
Western Auto	1	.3
Zynolyte Spray Paint	1	.3
Total	372	100.0

Fifty-five percent (54.8%) of the users of the product specified a brand. The top three brands of auto spray paint named were Krylon Spray Paint, Rust Oleum and Dupont by 9.1%, 8.9% and 3.2% of respondents respectively.

Q6A: Which brand of auto spray primer did you use the last time you used it?

Table F-25: Brands of Auto Spray Primer used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	111	42.0
Ace	1	.4
Ames	1	.4
Bantam	2	.8
Big 8	1	.4
Bondo Easy Sanding Paper	1	.4
Bondtite	1	.4
Bowman	1	.4
Bradlee's	1	.4
Bright Beauty Primer	2	.8
Deluxe	1	.4
Ditzler	3	1.1
DuPont	12	4.5
Dupli Color Auto	2	.8
Duro Sandable Primer	1	.4
Dutch Boy	4	1.5
Easy Way	1	.4
Ford	1	.4
GM	1	.4
Grayson	1	.4
Hi-Q	1	.4
K Mart Sandable Primer	10	3.8
Krylon Spray Primer	21	8.0
Majestic	1	.4
Martin Senour	4	1.5
Multi Color	1	.4
NYBCO Filler Primer	1	.4
Napa	2	.8
Orlac	1	.4
PPG	1	.4
PPG Spray Enamel	1	.4
Panda	1	.4
Plasti Kote Auto Primer	11	4.2
Plasti Kote Primer	1	.4
R&M	1	.4
Raabe	1	.4
Retardo	1	.4
Rust Oleum Auto Primer	29	11.0
Rust-Away	1	.4
Sears	5	1.9
Sherwin-Williams	4	1.5
Snap Rust Buster	1	.4

Table F-25: Brands of Auto Spray Primer used
(Continued)

Brands	Frequency	Percent
Solder Seal	1	.4
Standard Brands	1	.4
Tempo	1	.4
Testors	1	.4
Topco	2	.8
Trado	1	.4
Trak Auto	1	.4
True Value	2	.8
VHT Prime Coat	1	.4
Virginia Paint	1	.4
Wal Mart	1	.4
Western Auto	2	.8
Total	264	100.0

Fifty-eight percent of the users of the product specified a brand. The top three brands of auto spray primer named were Rust Oleum Auto Primer, Krylon Spray Primer and DuPont by 11.0%, 8.0% and 4.5% of the respondents respectively.

Q6A: Which brand of spray lubricant did you use the last time you used it?

Table F-26: Brands of Spray Lubricants used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	203	26.0
105	3	.4
10W 40	3	.4
2+2 White Lithium Grease	1	.1
2-5-6	2	.3
3-in-1 Household Oil	7	.9
3-in-1 Plus	1	.1
3M for Cars	1	.1
40-D	1	.1
AMS Oil	1	.1
Ace	1	.1
Applied-Kelite Penetrant	1	.1
Arasoil	1	.1
Armorall	8	1.0
Autopro	1	.1
Avon	1	.1
Belt Ease Belt Dressing	30	3.8
Borden Industrial	1	.1
Bowman	1	.1
CD 2 Silicone Spray	4	.5
CML	1	.1
CRC 5-56	13	1.7
CRC Heavy Duty Silicone	2	.3
Casite Spray Lube	1	.1
Chain Lube	1	.1
Chevron	1	.1
Cling	1	.1
Coast to Coast	1	.1
Door Ease Spray Lube	15	1.9
Dorsey Chain Lube	1	.1
Dow	1	.1
DuPont	3	.4
Duro	2	.3
Eviex	1	.1
Exsil Spray & Lube	1	.1
Ford	1	.1
Fuller Brush Superlube	1	.1
Gumout Pennz Guard	3	.4
Gunk Cycle Chain Lube	1	.1
Gunk Heavy Duty Silicone	2	.3
Gunk Silicone Spray Lube	2	.3
JB 80	1	.1

Table F-26: Brands of Spray Lubricants used
(Continued)

Brands	Frequency	Percent
K Mart Auto	1	.1
K Mart Belt Dressing	2	.3
K Mart Multi Purpose	2	.3
K Mart White Silicone	1	.1
K&W Knock'er Loose	1	.1
K2R	1	.1
KMD	1	.1
Krylon	1	.1
Krylon Silicone Spray	1	.1
LPS 1 Greaseless	2	.3
LPS 2	2	.3
Liquid Wrench	4	.5
Lithium Grease	2	.3
Lock Ease	4	.5
Lubriplate	4	.5
MP	1	.1
MTV	1	.1
Mechanic's Choice	1	.1
Milcon	1	.1
Napa	2	.3
Panet	1	.1
Quaker State	1	.1
R&S Strauss	1	.1
Remington	1	.1
STP	7	.9
Sears	3	.4
Sears Silicone Spray	2	.3
Shell	1	.1
Sherwin-Williams	1	.1
Snap Belt Dressing	1	.1
Snap Silicone Spray	1	.1
Solder Seal Super Oil	1	.1
Star White Lithium	2	.3
Stop Slip	1	.1
TRW	1	.1
TVP	1	.1
Teflon	1	.1
Texaco	1	.1
Tri-Flow Lubricant	2	.3
Union Carbide	2	.3
Union Carbide Silicone	8	1.0
VHT	1	.1
Valvoline	1	.1
WD 40	369	47.2
Wards	1	.1

Table F-26: Brands of Spray Lubricants used
(Continued)

Brands	Frequency	Percent
White Lithium Grease	1	.1
Wynn's	2	.3
Zep	2	.3
Zet	1	.1
Total	<u>781</u>	<u>100.0</u>

Seventy-four percent (74%) of the users of the product specified a brand. The top three brands of spray lubricant named were WD 40, Belt Ease Belt Dressing and Door Ease Spray Lube by 47.2%, 3.8% and 1.9% of respondents respectively.

Q6A: Which brand of transmission cleaner did you use the last time you used it?

Table F-27: Brands of Transmission Cleaner used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	43	57.3
Bel-Ray	2	2.7
Bowman	1	1.3
Gunk Trans Fusion	9	12.0
Quaker State	1	1.3
STP	6	8.0
Solder Seal	2	2.7
Trans-Medic	8	10.7
Tranto	1	1.3
Wynn's	2	2.7
Total	75	100.0

A total of 42.7% of the respondents specified a brand. The top three brands of Transmission Cleaner named were Gunk Trans Fusion, Trans-Medic and STP by 12.0%, 10.7% and 8.0% of the users, respectively.

Q6A: Which brand of battery terminal protector did you use the last time you used it?

Table F-28: Brands of Battery Terminal Protector used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	145	62.5
2+2	1	0.4
3M	2	0.9
Arm & Hammer	4	1.7
Armorall	1	0.4
Atlas	1	0.4
Auto Motion	1	0.4
Battery Post	1	0.4
Berkebile 2+2 Clean Brake	1	0.4
Berkebile 2+2 Cleaner	15	6.5
Bowman	2	0.9
CRC	1	0.4
Central Hardware	1	0.4
Duro Battery Cleaner	1	0.4
Duro Battery Protector	1	0.4
Durocell	1	0.4
Grand Auto	1	0.4
JB 80	1	0.4
K Mart	4	1.7
Krylon Battery Cleaner	2	0.9
Krylon Battery Protector	4	1.7
MP2	1	0.4
McKay	1	0.4
Mechanic's Choice	1	0.4
Napa	1	0.4
Napper	1	0.4
Naptha	1	0.4
Plasti Kote	2	0.9
Plasti Kote Protector	9	3.9
Protecto	1	0.4
Punk	1	0.4
Sears	10	4.3
Solvex	1	0.4
TRW	2	0.9
Trak Auto	2	0.9
Vaseline	2	0.9
WD 40	2	0.9
Whittaker	1	0.4
Wink	1	0.4
Zeep	1	0.4
Total	232	100.0

A total of 37.5% of the users of the product specified a brand. The top 3 brands of battery terminal protector named were Berkebile 2+2 Cleaner, Sears and Plastic Kote Protector by 6.5%, 4.3% and 3.9% of the respondents respectively.

Q6A: Which brand of brake quieter/cleaner did you use the last time you used it?

Table F-29: Brands of Brake Quieter/Cleaner used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	41	41.8
2+2	1	1.0
Bendix	2	2.0
Berkebile 2+2 Clean Brake	6	6.1
Blue Magic	1	1.0
CRC	1	1.0
CRC Brakleen	8	8.2
Dorsey	1	1.0
Ford	1	1.0
GM	1	1.0
K Mart	1	1.0
K56	2	2.0
Masterbrake	1	1.0
Permatex	4	4.1
Permatex Disc Brake Quiet	11	11.2
Prestone	1	1.0
Radiator Specialty Cleaner	1	1.0
STP	2	2.0
STP Brake Parts Cleaner	4	4.1
Safety Clean	1	1.0
Sears	1	1.0
Siloo	1	1.0
Super X	1	1.0
Wagner	1	1.0
Western Auto	1	1.0
Westley's	1	1.0
Wynn's	1	1.0
Total	98	100.0

A total of 58.2% of the respondents specified a brand. The top 3 brands of brake quieter/cleaner named were Permatex Disc Brake Quiet with 11.2%, CRC Brakleen with 8.2% and Berkebile 2+2 Clean Brake with 6.1%.

Q6A: Which brand of gasket remover did you use the last time you used it?

Table F-30: Brands of Gasket Remover used

Brands	Frequency	Percent
Don't Know and Not Ascertained	37	46.8
Amero	1	1.3
Bowman	1	1.3
Gunk	1	1.3
Napa	1	1.3
Permatex Form-a-Gasket	6	7.6
Permatex Gasket Remover	18	22.8
Permatex High Tack	4	5.1
Permatex Spray-a-Gasket	1	1.3
Permatex Ultra Blue	2	2.5
Prestone	1	1.3
STP	1	1.3
Sears	1	1.3
Thush	1	1.3
WD 40	1	1.3
Western Auto	1	1.3
Zippo	1	1.3
Total	79	100.0

A total of 53.2% of the respondents specified a brand. The top 3 brands of gasket remover named were Permatex Gasket Remover with 22.8%, Permatex Form-a-Gasket 7.6% and Permatex High Tack with 5.1%.

Q6A: Which brand of tire/hubcap cleaner did you use the last time you used it?

Table F-31: Brands of Tire/Hubcap Cleaners used

Brands	Frequency	Percent
Don't Knows & Not Ascertained	219	31.4
409	3	.4
Ajax	1	.1
Amway Zoom	3	.4
Astorall	168	24.1
Bon Ami	1	.1
Bright & White	3	.4
Busch Chrome Wash	1	.1
Chrome Brite	1	.1
Culleone	1	.1
DuPont	2	.3
DuPont Whitewall Cleaner	3	.4
Eagle 1	7	1.0
Espree	8	1.1
Espree Wheel Seal	5	.7
Fantastic	1	.1
Glow	1	.1
Go-Go	1	.1
Goodyear	1	.1
Gumout Whitewall	1	.1
Gunk	5	.7
Gunk Silicone Tire Shine	14	2.0
Gunk Tire White	5	.7
K Mart	9	1.3
Mag Cleaner	2	.3
Mag White/Bright	1	.1
Mother's Pride	4	.6
Mr. Clean	1	.1
Napa	1	.1
Nesley	1	.1
New Vinyl	1	.1
Penray	1	.1
Pep Boys	1	.1
Power White	1	.1
Pro Tire Cleaner	1	.1
Rain Dance	2	.3
Restat	1	.1
STP	11	1.6
STP Plus	2	.3
Sears	5	.7
Simonize	3	.4
Snap Silicone Tire Shine	4	.6

Table F-31: Brands of Tire/Hubcap Cleaners used
(Continued)

Brands	Frequency	Percent
Snow White	1	.1
Soft Scrub	1	.1
Solder Seal Whitewall	1	.1
Sperex Black Tire	4	.6
Sperex Black Tire Paint	1	.1
Sperex Tire Bright	1	.1
Spray-9	2	.3
Sprint	1	.1
State Brite	1	.1
Super Gloss	1	.1
Target	1	.1
Toyota	3	.4
True Value	1	.1
Turtle Wax	24	3.4
Turtle Wax Chrome Protect	15	2.2
Viking	1	.1
WD40	1	.1
Westley's	42	6.0
Westley's Bleche Wite	33	4.7
Westley's Silicone Tire S	6	.9
Westley's Tire Shine	23	3.3
Wheel Brite	1	.1
White Shield	1	.1
White Sidewall Cleaner	3	.4
White Wash	1	.1
White's	2	.3
White-All	4	.6
Whitebrite	1	.1
Whitewall	6	.9
Whitney's	3	.4
Wichley All Star	1	.1
Wilson's	1	.1
Wyler's	2	.3
Total	697	100.0

Sixty-nine percent (68.6%) of the users of the product specified a brand. The top three brands of tire/hubcap cleaners named were Armorall, Westley's and Westley's Bleche Wite by 24.1%, 6.0% and 4.7% of respondents respectively.

Q6A: Which brand of ignition wire dryer did you use the last time you used it?

Table F-32: Brands of Ignition Wire Dryer used

Brands	Frequency	Percent
Don't Knows and Not Ascertained	90	61.2
5-5-6	1	0.7
Atlas	1	0.7
Bowman	1	0.7
CRC	10	6.8
CRC Brakleen	1	0.7
Chemtronics	1	0.7
Contact Renu	1	0.7
DuPont	1	0.7
Gumout	1	0.7
Gunk	1	0.7
JC Penney	1	0.7
K Mart Wire Drier	1	0.7
LPS	1	0.7
Master Mechanic	1	0.7
Napa	2	1.4
STP	3	2.0
Snap Wire Drier	4	2.7
Solder Seal	1	0.7
Stay-Dry	1	0.7
SynLec 2	1	0.7
TMP	1	0.7
Texaco	1	0.7
True Value	1	0.7
WD 40	15	10.2
Wet-Seal	1	0.7
Woodhill Ignition & Wire	1	0.7
Wynn's	2	1.4
Total	147	100.0

A total of 38.8% of the respondents specified a brand. The top 3 brands of ignition wire dryer named were WD 40, CRC and Snap Wire Drier by 10.2%, 6.8% and 2.7% of the respondents, respectively.