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**A Segmentation of U.S. Consumers
on Attitudes Relating to Terrorism,
and their Communication Preferences**

***Findings from a National Survey of Attitudes
of U.S. Residents about Terrorism***

Dennis J. Degeneffe, Jean Kinsey,
Thomas F. Stinson, and Koel Ghosh¹

October 2006

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This is the second working paper describing the results from a national survey on public attitudes toward anti terrorist activity conducted by The Food Industry Center at the University of Minnesota. The first paper entitled "How Should America's Anti-terrorism Budget be Allocated?" (Stinson, et. al) addressed how America's anti-terrorism budget should be funded based on consumer attitudes and security priorities, and other papers will address consumer characteristic with respect to attitudes toward anti terrorism activities.

¹ University of Minnesota. Dennis J. Degeneffe, Research Fellow at The Food Industry Center, Jean Kinsey, Professor of Applied Economics and Co-Director of The Food Industry Center; Thomas Stinson, Associate Professor of Applied Economics; Koel Ghosh, Post Doctorate Research Associate.

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**Research Report National Center for Food Protection and Defense
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ABSTRACT

In the light of lessons learned from recent disasters (The London Subway Bombings, and Hurricane Katrina), it has become clear that government and private organizations need to be prepared to communicate effectively with consumers before, during and after a disaster in order to minimize harm to consumers and to the nation. Findings from a national survey of attitudes of U.S. Residents about terrorism provides information for the development of such communications. Using "Predictive Segmentation" this study demonstrates that consumers can be grouped based on their general attitudes and values in such a way that their diversity can be captured in a simple framework of six segments reflecting striking differences with respect to their level of concern over potential terrorist attacks. The segments were named as follows: "Fear Tethered," "Principled & Self-Disciplined," "Intelligentsia," "Predestinarians," "Optimistic & Self-Reliant," and "Uncommitted C'est la vie." Each of these segments differ on their preferences for information should an attack happen, and on their preferred source of news. Based on their information needs and media behavior, some preliminary guidance is offered for the development of communication strategies for each segment.

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A Segmentation of U.S. Consumers on Attitudes Relating to Terrorism, and their Communication Preferences

Findings from a National Survey of Attitudes of U.S. Residents about Terrorism

Introduction

America's attitude toward terrorism changed forever on September 11, 2001. Dramatic visual images of the collapse of the World Trade Center's twin towers and stark pictures documenting damage to the pentagon drove home a lasting impression on the American public. From that day on Americans lived and worked in a different geo-political environment.

Concern over another 9/11 style attack using airliners continues to run high⁴, but in addition, U.S. consumers recognize that future attacks may be directed at a wide variety of other targets including the food supply chain, mass transit, the energy grid, national monuments, and public gathering areas. Like the 9/11 attack each of these targets bears the potential of inflicting mass casualties, public hysteria, disruption of commerce and economic harm to consumers and the nation.

In 2005 lessons from two disasters underscored the need for the government and private industry to better understand and anticipate the reactions of U.S. consumers in the event of a disaster. The London Subway Bombings on July 7th, 2005 demonstrated

⁴ As documented in How Should America's Anti-Terrorism Budget be Allocated? (Stinson, et al, 2006), 98 percent of U.S. consumers over the age of 16 believe there will be another terrorist attack during their lifetime.

that terrorists will strike at soft, relatively common targets that have the potential of disrupting daily life and shaking the confidence of consumers in public infrastructure. Additionally, relief efforts in the aftermath of Hurricane Katrina painfully showed that government and private organizations need to be prepared to communicate effectively with consumers before, during and after a disaster in order to minimize physical and emotional harm.

Therefore gaining a better understanding of the attitudes, needs and concerns of consumers can be crucial in preparing them for the consequences of future attacks, and then dealing with events as they happen. Such an understanding could be used to craft messages that speak to the information needs of the individual, and to select media/communication channels to deliver messages.

It stands to reason that not all consumers are the same with respect to their information needs and media usage. This research uses segmentation analysis to group U.S. consumers into six segments based on their agreement or disagreement with 75 attitude/value statements related to security and lifestyle.

Segmentation has long been a marketing research method used by private industry (Morton. 1990). By identifying prospective consumer segments, marketers have deployed successful business strategies by focusing on the needs of specific groups of consumers in the development of meaningful new products, and highly effective advertising campaigns. This same approach can be applied in the public sector for

providing government agencies and policy makers with a tool for better understanding the diversity of consumer needs, and developing more effective communication (Maibach, et. al. 1966).

Essentially segmentation enables the user to simplify consumer diversity into a framework consisting of a discrete and manageable set of groupings or segments. With this simplified framework, communication strategies can be developed for each segment. Messages can then be crafted for each segment based on the information that is most relevant to the segment. Media can also be selected that will be the most credible and efficient with respect to the individual segment's viewer/listener ship/readership tendencies. This study will show that consumers' concerns over terrorism vary dramatically across segments, as does their information preferences and media behavior. It suggests a framework for grouping U. S. consumers according to their general attitudes and values with the premise that different consumers require different approaches to communication. Based on this type of framework, government agencies, and private organizations can develop communication strategies to get relevant information to the right people through the right channels.

Method

Research Design and Execution

This study was conducted by researchers at The Food Industry Center at the University of Minnesota. The questionnaire was developed from the findings from a set of four focus groups that were conducted in Chicago, IL, and Maplewood, MN, in December of

2004. These cities were selected because they represented areas of the country that differed greatly with respect to population concentration, which is logically related to degree of concern over terrorist attacks (i.e. people in larger cities may sense they are living in an area with a greater likelihood for attack). Two of the groups were conducted with men, and two with women, each with a good distribution across ages from 24 – 65 years of age. Discussion in these groups focused on obtaining a general understanding of consumer knowledge and attitudes toward terrorism in the food supply chain. The information was used to develop a comprehensive set of measures pertaining to consumer attitudes toward terrorism. It was also used to refine the measures for the main purpose of the study which was to incorporate consumer input into estimating the dollar value consumers would place on defending the food supply chain from terrorism compared to other potential terrorist targets (Stinson et al, 2006). In addition, attitude and value dimensions were collected that are related to consumer security concerns. To insure that the list of attitude questions was comprehensive, it was compared to batteries of attitude question used by commercial marketing research firms, including Datamonitor.⁵ The selection of the statements was made by the research team with input from industry experts.

A total of 75 attitude/value statements became the basis for the segmentation of consumers in this study. The questionnaire was pre-tested among a sample of 100 respondents on-line prior to execution of the full study. In the pretest, responses to the questions were evaluated with respect face validity, dispersion across respondents, and

⁵ Datamonitor is a leading provider of on-line databases of consumer trends in several industries, including consumer products. They have offices in New York, San Francisco, London, Tokyo, Frankfurt, and Sydney

consistency across similar sets of questions, i.e. alternate forms reliability (Churchill and Iccobucci, 2004). The survey was administered by TNS-NFO,⁶ a private research company. It was conducted via the internet with respondents selected from TNS-NFO's national on-line panel of over 1.5 million consumers.

Respondents were contacted by TNS-NFO and invited to come to a web-site to complete a survey. In return for their participation, panelists received points they could add to points accumulated from other studies conducted by TNS-NFO to redeem for prizes.

The sample for this study was selected so that it comprised a nationally representative geo-demographic cross section of consumers. Responses to the survey's questions were weighted so that the final sample accurately reflected the composition of the U.S. with respect to age, race and ethnic origin, gender, geographic region, population density and income. The final sample size was 4,260 U. S. residents. For a comparison of the demographic distribution of respondents in this study to the 2000 U.S. Census see Figure 1.

Data

Segmentation analysis was used on a battery of 75 consumer attitude/value statements which were generated from the findings from a set of focus groups conducted prior to the survey for the purpose of questionnaire development. The range of statements was

⁶ TNS-NFO is headquartered in London, and one the three largest world-wide market information companies doing business in 110 countries. TNS-NFO conducts research for the New York Conference Board tracking consumer confidence in the U.S. that is widely used for economic policy decisions.

intentionally very broad and general so as to enable the identification of fundamental consumer values that relate to an individual's sense of security/ vulnerability in relationship to a potential terrorist attack. These statements included such dimensions as: lifestyle, outlook on life, aspirations, fears, views on authority, self image, health orientation, family focus, sense of social responsibility and moral standards. In the development of this question battery, each of these dimensions was believed to have some relevance to a person's concern over potential terrorist attacks. (See Appendix 1 for the battery of 75 attitude/value statements.)

Figure 1 – Demographic Distribution of Respondents

Comparison of the Sample Demographic Distribution to U.S. Census

Demographic Strata	Sample	2000 Census
Gender:		
Male	32.4	49.1
Female	67.6	50.9
Age		
15-19 Years of Age	3.0	0.2
20-34	22.0	29.2
35-54	46.8	41.2
55-64	18.4	12.1
65-84	9.8	15.3
85 and over	0.1	2.1
Household Income:		
Under \$10,000	7.3	9.5
\$10,000-\$14,999	6.4	6.3
\$15,000-\$24,999	15.2	12.8
\$25,000-\$34,999	11.6	12.8
\$35,000-\$49,999	16.5	16.5
\$50,000-\$74,999	16.7	19.5
\$75,000-\$99,999	12.6	10.2
\$100,000-\$149,999	10.4	7.7
\$150,000-\$199,999	2.0	2.2
\$200,000 and over	1.3	2.4
Race:		
White	82.2	75.1

African American	12.1	12.3
Asian	3.8	3.6
Native American	0.7	0.9
Others	1.2	8.0
<i>Hispanic Origin:</i>		
Hispanic	10.5	12.5
Non-Hispanic	89.5	87.5
<i>Geographic Region</i>		
New England	5.0	5.0
Middle Atlantic	13.9	14.1
East North Central	16.0	16.1
West North Central	7.0	6.8
South Atlantic	19.3	18.4
East South Central	6.3	6.1
West South Central	11.0	11.2
Mountain	6.6	6.5
Pacific	15.0	16.0

A balanced six point Likert, agree/disagree scale was used to force respondents to agree or disagree with each statement, but still allow them to indicate strong to weak intensity of agreement or disagreement (Churchill and Iccobucci, 2004). This was intended to provide a fair degree of discrimination across responses. Respondents were asked their intensity of agreement as to whether the statement described them with anchor points of “strongly agree” (6) to “strongly disagree” (1).

Other measures used in the segmentation approach included concerns over different types of terrorist targets, expectations for the timing of potential attacks, and the allocation of defense spending by potential target. These measures were used as a set of “dependent” measures in a canonical correlation analysis to identify relationships between the individual attitude/value statements (the independent measures) and attitudes toward potential terrorist attacks (the dependent measures) (Morton, 1990).

Once the segments were identified, all other questions in the questionnaire were used as descriptive measures for profiling the segments.

Analytic Approach

The purpose of segmentation is to place subjects into groups or segments that are suggested by the data, and not defined a priori, such that subjects in a given cluster tend to be similar to each other with respect to attitudes, values, beliefs and lifestyles, and different from subjects in other clusters. It has long been recognized that these characteristics are better for explaining or predicting consumer behavior than conventional demographics.

For this study “Predictive Segmentation,” was used to identify groups of consumers with similar sets of responses to general attitude/value statements that have a predictive relationship to concerns pertaining to terrorism. The “Predictive Segmentation” consisted of a two stage approach, first using canonical correlation to identify relationships between independent, or “predictor” variables and dependent or “result” variables. Then cluster analysis is used to group subjects by the predictor variables (Aldenderfer and Blanshfield, 1984). Historically “Predictive Segmentation” has been used to identify relationships between attitudes and behaviors (Morton, 1990), but in this case it is used to identify which general attitudes/values relate to consumer concerns/expectations over potential terrorist attacks. The independent variables in this case were a set of 75 attitude/value statements listed in Appendix 1. The

dependent variables were measures related to concern over terrorist attacks across a variety of targets, expectations for when a terrorist attack might happen, and allocation of spending for defense against terrorist attacks.

The rationale for segmenting consumers on the basis of general attitudes and values rather than directly on terrorism concerns is to identify groups of consumers that have common perspectives and information needs that provide insights for crafting effective communication strategies. Tailored messages that are based on each segment's interests will be received as being much more relevant to the individual than messages for the population in general.

In the first stage of "Predictive Segmentation" a canonical correlation analysis (SAS CANCECORR procedure) was used to find a linear combination of a set of independent variables (ratings from the attitudinal scales) and a set of dependent variables (ratings of concern and likelihood of a terrorist attack, and allocation of spending). These sets are called independent and dependent canonical factors, and they are determined such that the correlation between the independent and dependent canonical factors is maximized (SASCANCECORR, 1990, p. 367-385). This combination then becomes the first canonical correlation. Then the procedure iteratively finds further linear combinations from the sets of remaining variables. This process continues until the number of pairs of canonical variables equals the number of variables in the smaller group (the dependent variables). The coefficients of the linear combinations are canonical factor scores or canonical weights. Canonical factor scores are normalized

so that each canonical variable has a variance of 1. Each canonical variable is uncorrelated with all the other canonical variables of either set except for the one corresponding canonical variable in the opposite set.

In this study a total of 15 independent canonical factors were identified (see Appendix 2) and a set of 6 dependent canonical factors were identified (see Appendix 3). SAS CANCELLOR uses an F approximation (Rao 1973; Kshiragar 1972) that gives better small sample results than the usual chi-square approximation and uses a multiple regression analysis to aid in interpreting the canonical correlation analysis, using a least squares method. SAS CANCELLOR produced a data set containing the scores of each canonical variable against its counterpart in the other group (see Appendix 4). The bolded numbers in Appendix 4 indicate the strongest relationships between the independent (attitude scales) and dependent (ratings of concern and likelihood of an attack, and allocation of spending) variables.

In the second stage of “Predictive Segmentation” the canonical scores for the canonical factors identified in the first stage were used as inputs for segmentation. SAS PROC CLUSTER was used to identify seeds for a k-means clustering procedure. PROC CLUSTER finds hierarchical clusters using the Ward’s minimum variance method to calculate distances between clusters. The distance between two clusters is defined by the following algorithm:

$$D_{KL} = \|\bar{x}_K - \bar{x}_L\|^2 / (1/N_K + 1/N_L) .$$

Where: D = Distance between clusters K and L

\bar{x} = Mean vector for cluster K and L

N = Number of observations in clusters K and L

In Ward's minimum variance method, the distance between two clusters is the ANOVA sum of squares between the two clusters summed over all the variables. At each generation, the within-cluster sum of squares is minimized over all partitions obtained by merging two clusters from the previous generation.

With the cluster means as starting points SAS FASCLUS was used to perform a k-means clustering based on Euclidean distances (SASCANCORR, 1990, p.53-101). This procedure was used to get the final clustering. FASTCLUS uses a nearest centroid sorting method (Anderberg, 1973). In this case the cluster seeds from the PROC CLUS were selected as a first estimate of the cluster means. Then each observation was assigned to the nearest seed to form temporary clusters. The seeds were then replaced by the means of the temporary clusters, and the process was repeated until no further changes occur on the clusters. SAS FASCLUS was used to produce six different cluster solutions ranging from three to eight clusters, through hierarchical clustering of observations using eleven agglomerative methods applied to the canonical factor scores from the canonical correlations analysis. Each of the six cluster solutions were evaluated on: separateness of clusters and the face validity of the pattern of responses. A six cluster solution resulted.

Reporting

In reporting findings, indexes are used to site comparisons across segments relative to the total sample of consumers. For most scaled questions, these indexes are based on the percent of respondents who answered in the “Top 2 Boxes” of the rating scale – either a 6 or a 5. The index is then computed as the “Top 2 Box Score” for the segment divided by the “Top 2 Box Score” for the total sample – see example in Figure 2.

Figure 2 – Example: Top 2 Box Score and Index

Statement: *I have a strong sense of duty to my family, community and/or country.*

<u>Scale</u>	<u>Percent</u>	
	<u>Segment A</u>	<u>Total Sample</u>
Strongly Agree – 6	45.2%	31.7%
5	<u>31.1</u>	<u>29.5</u>
Top 2 Box Score	76.3%	61.2%
4	15.0	20.5
3	6.7	13.6
2	1.6	3.5
Strongly Disagree – 1	0.4	1.2

$$\text{Index (Segment A)} = 76.3/61.2 * 100 = 125$$

In addition, for all differences sited in the analysis, a significance test was done on the *mean* (not the “top 2 box score” or the index) difference between the segment and the total sample. The decision to use the mean instead of the index was based on the desire of the researchers to keep the test of significance consistent, simple and conventional. Significance tests (z-test) were done for individual segments versus total

respondents when inferences were made with respect to how segments differ from the general population, and significance tests were done between segments when inferences were made between segments. Unless otherwise noted all differences are significant at .95 or greater.

Findings

Overview of Segments

Six consumer segments were identified using the “Predictive Segmentation” approach (Morton. 1990). These segments were studied with respect to the pattern of responses to the attitude/value scales upon which the segments were identified, and named, based on the analyst’s interpretation of the pattern of responses to these questions as well as other data collected in the study including demographic and lifestyle profiles.

The segments as identified were:

Segment 1 - “Uncommitted C’est la vie”

Segment 2 – “Intelligentsia”

Segment 3 – “Fear Tethered”

Segment 4 – “Principled & Self-Disciplined”

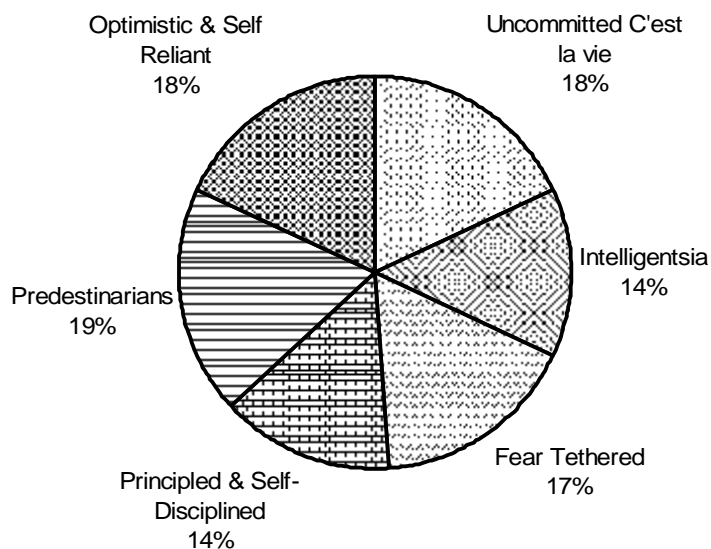
Segment 5 – “Predestinarians”

Segment 6 – Optimistic & Self Reliant

These segments vary in size from the largest – “Predestinarians” at 19.9% of the general population over 16 years of age - to the smallest - “Principled & Self-

Disciplined” at 13.6% of the general population over 16 years of age. The segments and their relative sizes are shown in Figure 3.

Figure 3: Consumer Segments Identified



The relative size of the segments does not vary greatly (14 – 19%), suggesting that each segment represents an appreciable proportion of the general population. Therefore it is important to understand and address each segment in the development of policies and strategies to mitigate the impact of potential terrorist attacks.

Segment Profiles

Segment 1

The “**Uncommitted C'est la vie**” tend not to worry about the unexpected, and believe that health threats they have heard about in the news are overblown. Relative to the general population (and other segments) they can be characterized as having low levels

of concern over health and safety. The “Uncommitted C’est la vie” mindset also carries over to social interactions. They are less likely to worry about how others view them and have yet to set any goals for their career or life (see Appendix 5).

The demographic profile of the “Uncommitted C’est la vie” helps put some of these attitudes in perspective. Although this segment includes people of all ages, there is greater tendency for The “Uncommitted C’est la vie” to be between 16 and 24 years of age and male (see Appendix 12). Therefore the attitude/value set likely reflect young adulthood, and a time before social, family and career commitments force one’s attention to uncertainties and risks.

The Uncommitted C’est la vie” are not likely to be concerned about the threat of a terrorist attack, and are not likely to prepare for it. In the event of an attack they may be caught off guard, and may experience a sense of shock and helplessness. However, they are more likely to have only themselves to look out for.

Segment 2

The “*Intelligentsia*” hunger for learning and experience. They value freedom of action and thought, and tend to question authority and leadership. The “Intelligentsia” view themselves as more knowledgeable than most people, and use this knowledge to gain the admiration of others. They are status seekers, but more from an intellectual standpoint than a materialistic standpoint. The knowledge they accumulate gives the “Intelligentsia” a sense that they are more in tune with reality. Therefore, they tend to

be more concerned over health and security threats, as well as environmental risks (see Appendix 6).

The most notable demographic characteristic of the “Intelligentsia” is education level. They are more likely to have a bachelors degree or higher. They are nearly 50% more likely than the general population to have a post graduate degree. And they tend to be older (age 50 or more), male and live in 1-2 member households (see Appendix 11 and 12).

When it comes to terrorism, the “Intelligentsia” will already have an awareness if not some degree of anxiety over the potential for attacks. Their biggest concerns will be with respect to the credibility of information source.

Segment 3

The “***Fear Tethered***” is the consumer segment with the greatest fear level in general, and also with respect to terrorist attack. They have a much greater tendency than the general population, (and other segments) to be frightened by the threat of disease and threats to personal and family safety. This fear seems to emanate from a sense of powerlessness. The “Fear Tethered” feel they have little control or influence over future events. Still they do have strong values and convictions. Family, religion, social conscious and the environment are all important. Further, they express a sense of ambition and set career/life goals. The “Fear Tethered” manage their own affairs as

best they can, but feel that they are at the mercy of dangerous forces beyond their control (see Appendix 7).

From a demographic standpoint, the “Fear Tethered” tend to have families to watch out for. They have a higher tendency (than the general population) to be between the ages of 30 and 44, to be female, and have three or more members in their household. They also tend to be moderately educated with high school diplomas to associate college degrees (see Appendix 11 and 12).

Clearly the attitudes/values of the “Fear Tethered” come from their focus on the welfare of their family. They readily interpret the risks they hear about in the media to be risks to themselves and their family, and this results in fear and apprehension. To prepare for a real terrorist attack, they will need to be provided with objective, factual information and a sense of what they can do to protect their family.

Segment 4

The “**Principled & Self-Disciplined**” can be best characterized as risk avoiders. They deal with future uncertainty by planning and self discipline - they maintain a budget and set aside money for major purchases, and they maintain a healthy and balance diet. They plan for the future, and have insurance policies in place. Therefore, the “Principled & Self-Disciplined” plan and prepare for the future. Their principles are also reflected in other ways. They view others as inherently good, and have a strong social conscience, with a sense of responsibility for the welfare of society, and the natural environment. Still,

from a moral standpoint they are conservative with strong personal integrity and religious convictions. “Principled & Self-Disciplined are practical and pragmatic people, and are less into the superficial – e.g. trends and fashions, adventure, or needing the admiration of others (see Appendix 8).

From a demographic standpoint “Principled & Self-Disciplined” are generally average, but do tend to be older than the general population – with the strongest age skew across segments to being more than 50 years of age. Additionally they have a slight tendency to be white, female, and living in two person households (see Appendix 11 and 12).

The “Principled and Self-Disciplined’ are likely to be highly receptive to communications on how to prepare for the possibility of a terrorist attack. They are likely to follow the advice of a credible spokesperson. And in the event of an attack would probably maintain a level head, and be willing to volunteer and help others.

Segment 5

“Predestinarians” are generally supporters of the status quo, believing that future events are predestine to occur. They trust in the country’s leadership, and are generally optimistic toward the future, expecting that things will not be that different from the past. Therefore, they are less likely to be concerned over safety or sickness, and are also less likely to plan for the future. “Predestinarians” are the most morally conservative group, with a tendency to have fundamental religious convictions, and hold strong

beliefs regarding gender roles. Still they consider material wealth as being important, and are trend/fashion conscious (see Appendix 9).

Demographically, “Predestinarians” are much more likely than the general population to be under the age of 40, and be moderately educated – having a high school diploma to associates college degree. They tend to have incomes under \$40,000, and live in rural and small metro areas. Relative to the general population, “Predestinarians” have a higher incidence across minority groups – Hispanic, Black/African American, Asian and Native American (see Appendix 11 and 12). With “Predestinarians” tending to trust the country’s leadership they are likely to rely on the government to protect and care for consumers in the event of an attack.

Segment 6

The “**Optimistic & Self-Reliant**” tend to be absorbed in building careers and accumulating wealth. They are successful in life, and prefer to assume leadership roles. They have financial plans, and are optimistic about the future. They are contented with life, and are less likely to be preoccupied with the fears and anxieties that are more top of mind in other segments (see Appendix 10).

Not surprisingly, the “Optimistic & Self-Reliant” segment has the highest socio-demographic skew. They are more likely to have incomes over \$60,000, and are twice as likely to have incomes over \$100,000. They tend to be more educated, and live in

larger population centers. Their age range (25-45) tends to reflect the career development lifestage (see Appendix 11 and 12).

With respect to security from terrorism, the “Optimistic & Self-Reliant” are not likely to have invested much attention or thought. Careers are more likely to have taken a priority.

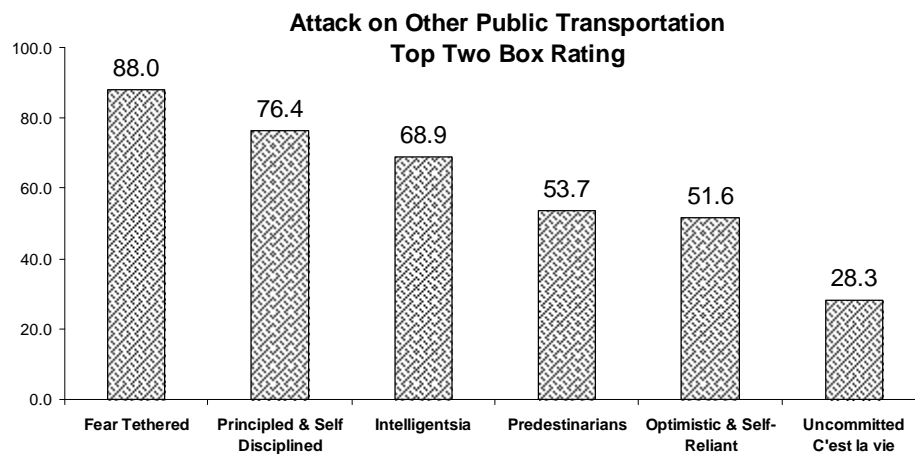
Attitudes toward Terrorism by Segment

Concern over terrorism varies dramatically across segments regardless of the type of target, demonstrating that each of the segments has a very different sense of personal and national vulnerability.

Respondents were asked to indicate how concerned they are about six alternative terrorist events. The event that received the highest level of concern in the overall sample was an **attack on public transportation** (other than airlines).⁷ For this type of attack, 88.0% of the “Fear Tethered” segment indicated either a 5 or a 6 on the six point scale - i.e. “Top 2 Box Rating” - which contrasts sharply with a Top 2 Box Rating of only 28.3% among the “Uncommitted C’est la vie.” The Top 2 Box Rating for concern over an attack on public transportation (other than airlines) varied across the other segments as shown in Figure 4.

⁷ It should be noted that this survey was administered four weeks following the London subway bombings in July of 2005. The recent nature of this event probably increased consumer consciousness and perhaps the level of concern with an attack on other public transportation.

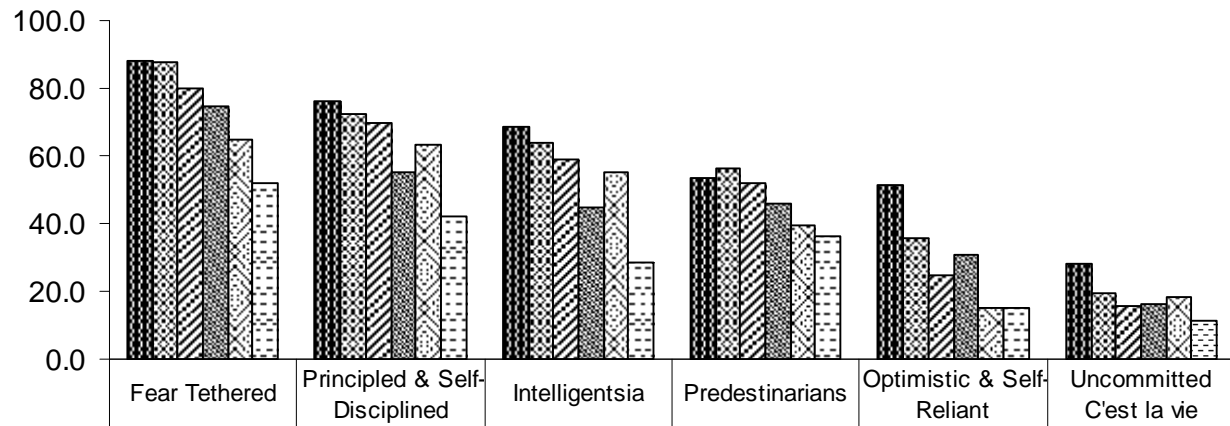
Figure 4 – Ratings of Concern over Attack on Public Other Transportation



A similar pattern in level of concern was seen across another five types of terrorist events is shown in Figure 5, with “Fear Tethered” consistently showing the highest level of concern, and “Uncommitted C’est la vie” the lowest, and the other segments arrayed in the virtually the same order. Clearly, these segments reflect dramatic differences in their concerns over terrorism in general. Strikingly few exceptions to the pattern are apparent; with one notable deviation from the pattern being between “Intelligentsia” and “Predestinarians” on the potential destruction of a national monument. Although “Predestinarians” tend to be less concerned about terrorist events than “Intelligentsia” in general, they are significantly more concerned with respect to the threat to national monuments (top 2 box scores of 36.2% for Predestinarians vs. 28.2% for Intelligentsia) possibly reflecting stronger values toward national icons and symbols.

Figure 5 – Ratings of Concern across Potential Terrorist Attack Targets

Level of Concern over Terrorist Attack Top 2 Box Rating



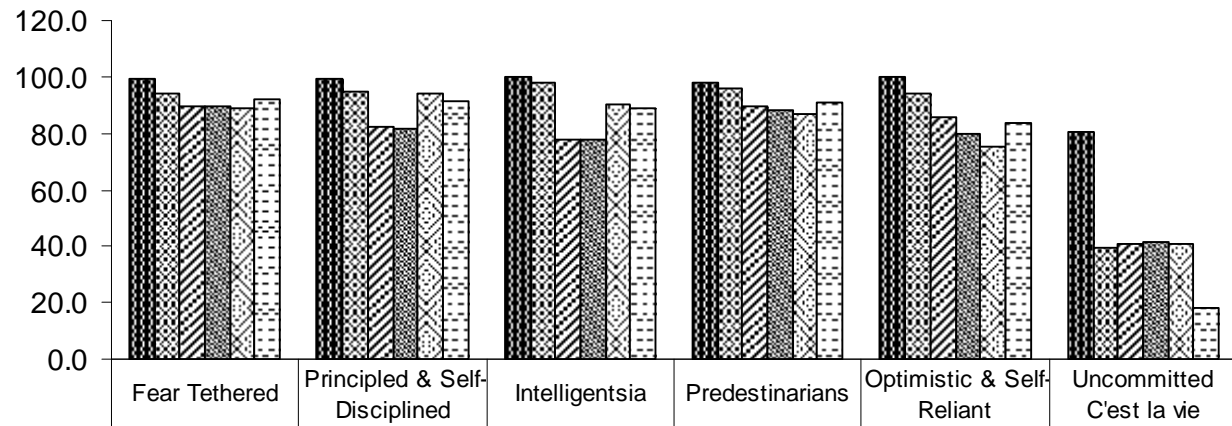
	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie
Other Public Transportation	88.0	76.4	68.9	53.7	51.6	28.3
Biological or Chemical Agent in a Crowded Area	87.7	72.4	63.9	56.2	35.8	19.6
Contamination of a Common Food Product	79.9	70.0	59.0	51.7	25.0	15.7
Attack Using Passenger Aircraft	74.8	54.9	45.0	45.8	30.8	16.2
Disruption of Electrical Power Grid	65.0	63.5	55.2	39.7	15.1	18.3
Destruction of a National Monument	51.8	42.0	28.4	36.2	15.2	11.2

Expectations that an Attack Might Ever Happen

With regard to the expected timing of a potential terrorist attack, five of the segments did not differ greatly from one another in the expectation that an attack would occur in their lifetime, but one - the “Uncommitted C’est la vie,” stood out as different from the rest as is shown in Figure 6. For five of the consumer segments expectations that an attack would happen during their lifetime ran high for all six types of targets. Virtually everyone expected that an attack on public transportation (other than airlines), and an attack on a crowded public area using a chemical or biological agent would occur in their lifetime. And as for the other types of targets, between 75.0% and 93.9% of respondents in the remaining five segments expected attacks in their lifetime. Although all of these differences are statistically significant from one another, the most notable difference is with respect to the other segment – the Uncommitted C’est la vie – who were radically different from the rest on all types of attacks. Whereas nearly everyone in the other segments expected an attack on other public transportation, only 4 in 5 Uncommitted C’est la vie expected such an attack, and as for the other targets, Uncommitted C’est la vie expectations ranged from 41.4% for another attack using airlines, to 18.2% for an attack on a national monument. Clearly Uncommitted C’est la vie are the most different with respect to their expectations of the likelihood of an attack, reflecting their lack of a tendency to be concerned and probable lack of preparation.

Figure 6 – Likelihood of an Attack in Lifetime

Level of Concern over Terrorist Attack Top 2 Box Rating



	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie
Other Public Transportation	99.2	99.4	99.6	98.1	100.0	80.5
Biological or Chemical Agent in a Crowded Area	94.3	95.0	97.7	96.3	93.9	39.7
Contamination of a Common Food Product	89.5	82.7	77.7	89.7	85.6	40.9
Attack Using Passenger Aircraft	89.5	81.9	77.6	88.2	79.5	41.4
Disruption of Electrical Power Grid	88.8	93.9	90.2	86.8	75.0	40.9
Destruction of a National Monument	91.9	91.2	88.7	90.8	83.5	18.2

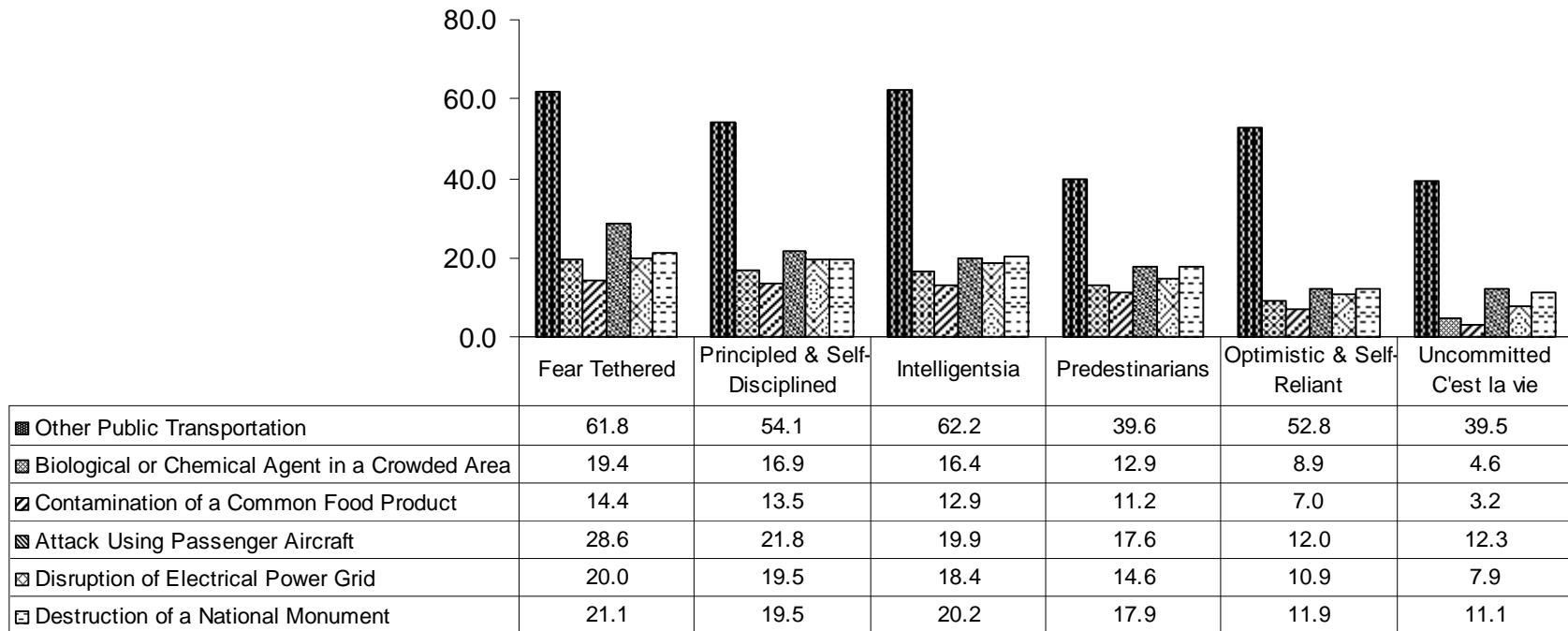
Expectations for Eminence of an Attack

Focusing on a more eminent time frame – expectations for an attack in the next year - the same pattern across segments re-emerges as was previously discussed with respect to concern over a future attack as seen in Figure 7. However, one of the potential targets – an attack on other public transportation (other than airlines) - loomed above all others and exhibited a somewhat different pattern.

An expected attack on other public transportation (other than airlines) was far above other potential targets across all segments with respect to eminence (in the next year). As previously noted this is quite likely caused by the proximity of the London Subway bombings to the time this study was conducted. These bombings occurred a few weeks before the study was fielded. Still, some interesting differences suggest potential insights with respect to the segments. The segment with the highest expectation of an attack on other public transportation was the Intelligentsia (62.2% expecting such an attack in the next year), possibly reflecting their tendency to seek out information and desire to learn. Other segments quite likely also listened closely to news reports covering the London Subway bombings, and made the inference that such an event could easily occur here in the United States. On the other hand, the segment with the lowest sense of eminence of an attack on other public transportation is the Predestinarians (39.6%). This may reflect the Predestinarian's greater faith in the country's leadership and infrastructure. These differences suggest that the segments process news pertaining to a terrorist event differently, and that their resulting behavior in the event of an attack here in the United States is also likely to differ.

Figure 7 – Eminence of an Attack

Likelihood of an Attack in the Next Year Top 2 Box Rating



As for the other types of potential terrorist attacks, the segments with the higher levels of concern tend to also exhibit higher expectations for an attack in the next year with only minor exceptions; hence concern and eminence seem to be highly related in the minds of consumers.

Expected Impact on America vs. Self

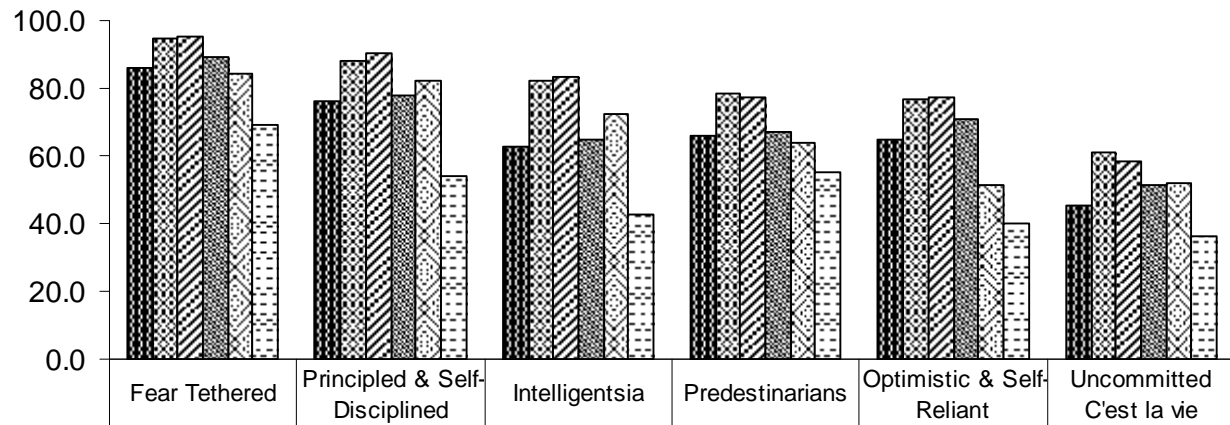
Expectations for the impact of a potential terrorist attack on America and the individual provides an insight as to why the segments with the highest levels of concern feel the way they do as shown in Figure 8.

Although the types of targets changed with respect to the expected severity of impact - an attack on the food supply chain, and the release of a biological or chemical agent in a public area were seen as having the highest potential impact on America - the pattern of expected impact ***on America*** by segment again reflects the more general pattern seen across segments as was discussed with respect to concern over attack and eminence of attack. Segments with the highest levels of concern also tended to expect that an attack would more seriously impact America.

Although all potential terrorist attacks are seen as having a higher likelihood of impact on America in general than on the individual/self, the general pattern across segments again tended to prevail with respect to the expected seriousness of an attack ***on the individual*** as shown in Figure 9.

Figure 8 – Expected Impact on America

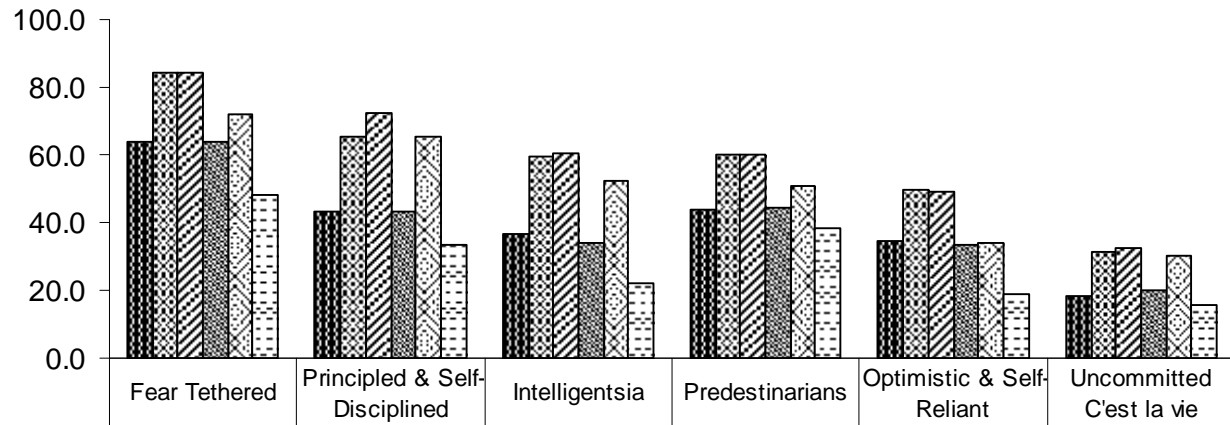
Expected Impact of an Attack on America Top 2 Box Rating



	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie
Other Public Transportation	85.9	76.4	62.5	66.0	64.6	45.5
Biological or Chemical Agent in a Crowded Area	94.6	88.1	81.9	78.3	76.7	61.3
Contamination of a Common Food Product	95.1	90.4	83.5	77.4	77.3	58.3
Attack Using Passenger Aircraft	89.3	77.9	64.8	67.1	71.0	51.2
Disruption of Electrical Power Grid	84.3	81.9	72.3	63.8	51.3	51.8
Destruction of a National Monument	69.3	54.2	42.9	55.0	40.2	36.3

Figure 9 – Expected Overall Impact on Self

Expected Impact of an Attack on Individual Respondent Top 2 Box Rating

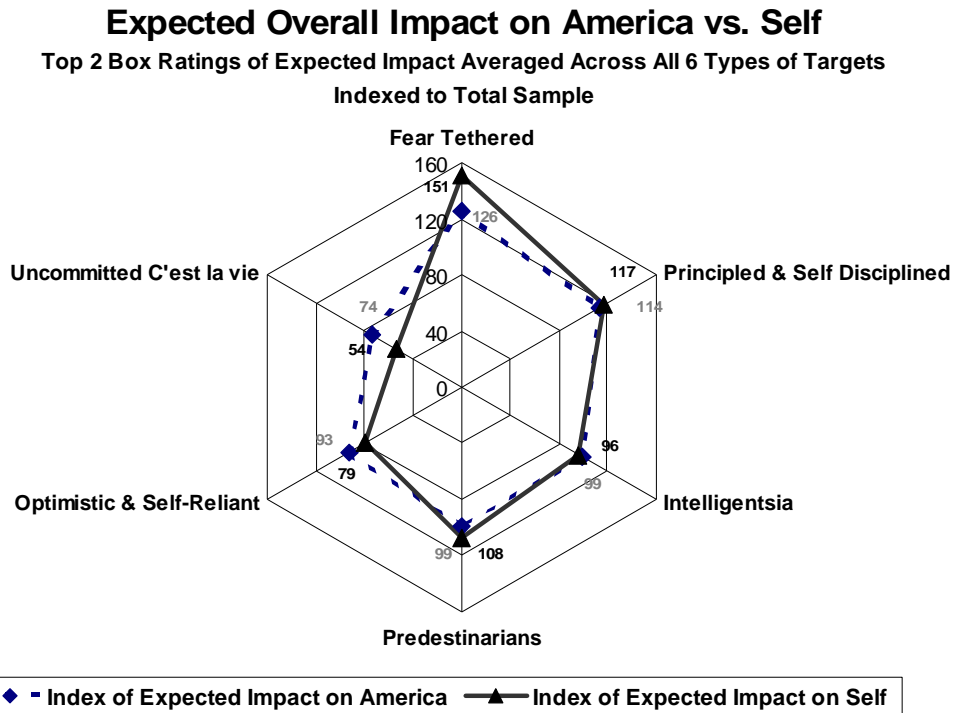


	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie
Other Public Transportation	63.9	43.3	36.6	43.8	34.4	18.5
Biological or Chemical Agent in a Crowded Area	84.1	65.6	59.2	59.8	49.7	31.4
Contamination of a Common Food Product	84.5	72.4	60.7	60.0	49.1	32.5
Attack Using Passenger Aircraft	63.9	43.0	34.3	44.3	33.3	20.1
Disruption of Electrical Power Grid	71.8	65.5	52.2	50.8	33.8	30.5
Destruction of a National Monument	48.0	33.6	22.3	38.5	19.0	15.8

However, contrasting the expected impact on America vs. impact on self, segments with higher levels of concern (e.g. “Fear Tethered”) tend to see *a proportionately higher risk to self than segments with lower levels of concern* (e.g. Uncommitted C’est la vie”). When the average Top 2 Box Ratings for expected impact on America and expected impact on self are each indexed to total consumers, Fear Tethered are much more likely to fear an impact on themselves as individuals (index of 151 – i.e. they are 51% more likely to fear an impact on themselves than are consumers in general), while they are also somewhat more likely (index of 126) to fear an impact on America. Among the next three segments – Principled & Self Disciplined, Intelligentsia, and Predestinarians the index for expected impact on self and on America are approximately the same. And for the two segments with the least concern over potential terrorist acts, the Optimistic & Self-Reliant and Uncommitted C’est la vie, the expected impact is proportionately greater for America than self. This pattern suggests that segments with a greater concern over terrorism sense a greater threat to themselves personally. Figure 10 shows a comparison across segments of Top 2 Box scores when indexed to the general population for expected impact on America and on self.

The differences in these indexes suggest that the segments not only perceive the threat of an attack differently, but that the segments with the most concern tend to internalize the threat more as having a greater potential impact on themselves as individuals.

Figure 10 – Comparison of Expected Impact of an Attack on America vs. Self



(Index = Average Top 2 Box Ratings for Segment divided by Average Top 2 Box Ratings for Total Sample.)

This table shows the relative expectations across segments of a terrorist attack for having an impact on America (dashed line with diamond points) and for having an impact on the respondent (solid line with triangle points).

Communication Preferences

Having defined six different consumer segments with respect to general attitudes and values, and finding that these segments do indeed reflect dramatic differences with respect to concerns and expectations around potential terrorist events, the question arises as to what government and industry can do to mitigate the impact of the next terrorist attack on America. These six segments provide a framework for grouping U. S. consumers according to their concerns over terrorism. Based on this type of structure, government agencies and private organizations can develop communication strategies to get the right information to the right people using the right media/channels.

Information Sought

Respondents in the survey were asked what type of information they would like to receive most in the event of an attack on the **food supply chain**. Since the research objectives for the study focused on the food supply chain as a target, this was the only potential target where this type of question was asked (the other types of attacks were included mainly for comparison purposes in assessing the value consumers place on security of the food supply chain). Still, given the consistency of patterns across segments, it would be reasonable to assume that the findings for the food supply chain are generalizable to other terrorist targets.

As would be expected given the range of concerns across segments, differences do exist in both the amount and type of information desired in the event of an attack as

shown in Figure 11. The primary information desired by all segments is how to protect one's self and family during a crisis. But in addition, the most concerned segment – “Fear Tethered” – desire a wide range of information including: the scope and consequences of the attack (91.5%), identification of the responsible parties (80.0%), technical or scientific information about how the incident developed (71.6%), and even emotional support (75.0%). The “Fear Tethered” anticipate a great deal of stress relative to the other segments, and are looking for not only the facts, but ways to cope with a crisis situation. In contrast, “Uncommitted C'est la vie” and “Predestinarians” are less likely to desire information than other segments. Whether this sentiment is caused by lack of ability to visualize the impact of an attack, or simply ambivalence is not clear. However, it does seem likely that consumers in these two segments will be less receptive to information disseminated before and in preparation for an attack.

The “Principled & Self-Disciplined” and the “Intelligentsia” both desire information as to the scope of the attack, and the responsible parties. This reflects their greater desire for knowledge, and possibly to provide some guidance in understanding the situation in total and avoiding further risk – particularly among the “Principle & Self-Disciplined.” The “Optimistic & Self-Reliant” desire information about the scope of the attack – probably with an interest in assessing its impact on the economy and commerce in protection of their financial and/or career interests.

Source of Information

To provide some guidance in selecting how to communicate with consumers in the event of an attack, respondents were asked what their primary source of news was. Again differences are seen across segments. As shown in Figure 12, although television is the predominant source – ranging from 67.7% of “Fear Tethered” (117 index to total) to 49.6% of “Uncommitted C’est la vie” (86 index to total), other communication media/avenues reflected preferences by segment. The “Intelligentsia” and “Uncommitted C’est la vie” both have a higher tendency to get their news from the Internet. In the case of “Intelligentsia” this may reflect their general sense of curiosity, while in the case of “Uncommitted C’est la vie,” it may reflect the tendency of younger generations to use the Internet. The “Uncommitted C’est la vie” are also more likely to source their news from Radio, which is also consistent with their younger demographic characteristics.

Figure 11 – Types of Information Desired in Event of an Attack on the Food Supply Chain

**Types of Information Would Like to Receive in Event of an Attack on Food - Top Two Box
Percent Segment**

	Percent Total Sample	Fear Tethered	Principled & Self- Disciplined	Intelligentsia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie
Sample Size	4,260	725	580	600	849	761	745
How I can protect myself during a food defense crisis	84.8	96.4	94.8	92.4	68.4	86.4	76.6
Consequences in terms of the scope of harm-significance of the crisis	74.9	91.5	86.1	83.4	59.3	74.3	61.3
Identification of the responsible parties	64.5	80.0	73.6	72.3	52.5	63.5	50.7
Technical or scientific information about how a food defense crisis developed	56.7	71.6	62.8	66.3	44.1	51.6	49.2
Emotional support/comforting	50.5	75.0	60.8	46.1	48.1	44.9	30.4

The incidence of using other media as a primary source of news was quite low, so further observations are sited with caution to small sample sizes. Still the usage skews appear to have some degree of face validity. “Predestinarians” and to a lesser extent “Principled & Self-Disciplined” have somewhat of a tendency to source news from their local church. Also, the “Intelligentsia” has somewhat of a tendency to look to other sources for news.

As shown in Figure 13, focusing on television as a primary news source, “Fear Tethered” have a greater tendency to watch CNN/CNN Headline news, where as “Predestinarians” watch Fox and CBS to a greater extent. The “Optimistic & Self-Reliant are more likely to watch ABC.

Although not dramatic, these media preferences do tend to reflect tendencies to source news differently, and suggest that different media plans may be needed to deliver messages to particular segments.

Figure 12 – Primary Source of News

	Primary Source of News						
	Percent Total Sample	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie
Sample Size	4,260	725	580	600	849	761	745
Television	58.0	117	103	88	104	101	86
Internet	18.0	71	79	122	98	106	122
Newspapers	16.0	96	104	114	84	96	113
Radio	6.3	59	114	100	105	95	129
Magazines	0.5	20	100	80	100	140	180
Local Church	0.5	40	120	60	160	100	100
Other	0.7	43	100	243	86	14	143

Figure 13 – Primary Source of Television News

	Primary Source of News on Television						
	Percent Total Sample	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie
Sample Size	4,210	722	572	588	837	756	724
Television							
NBC	22.4	97	96	104	103	96	106
ABC	18.7	96	112	95	87	122	89
CNN/CNN Headline							
News	15.1	130	101	107	78	70	120
CBS	15.0	94	100	86	123	101	85
Fox	7.4	100	65	64	145	101	100

Note: These two tables use indexes to illustrate proportional differences in media usage since the percentage viewership/readership is quite small. The reader is cautioned to note both the index and the percentage in the total sample.

Summary and Implications for Communication Strategies

Overall, this study underscores the need for the development of a communication strategy to better understand and anticipate the reactions of U.S. consumers in the event of another terrorist attack. *Concern over the possibility of a future attack runs high, and expectations that an attack will happen in the future is a near certainty for most people.* The key question is what can government and industry do to channel these expectations toward constructive ends, and avoid ineffective preparation, mass hysteria, a high number of casualties and economic chaos.

The six consumer segments identified in this study and their relevance with respect to the range of attitudes related to potential terrorist attacks demonstrate that the value of consumer segmentation stretches well beyond traditional marketing/commercial applications, and into emergency preparedness. These segments provide a framework for the development of communication strategies that could be put in place to educate, prepare, and direct relief efforts in the event of a terrorist attack.

Through this framework, decision makers can gain a better understanding of consumer needs and concerns. Such an understanding could be used to craft messages that speak to the information needs of the individual, and to select media / communication channels to deliver the messages.

Based on the insights identified in this analysis, some of the directions that government and industry could take in the development segment specific communication strategies are shown in Figure 14.

**Figure 14 – Communications Guidance
Development Guidance for Communications Strategies**

Segment	Size	Top 2 Box Concern Over Food Security	What to Communicate	How To Communicate
Fear Tethered	17.0%	79.9%	Clarify what the real threats are. Provide perspective for personal vulnerabilities. Calm fears.	Establish a credible "official source" of information, one that filters out any sensationalism that may be present in news media.
Principled & Self-Disciplined	13.6%	70.0%	Provide guidance for how to prepare for an attack - how to safeguard family and loved ones. Provide a step-by-step process for what to do in the event of an attack.	Create documentary type of programming featuring a credible spokesperson to provide the guidance - someone with a trustworthy image, and an ability to relate to consumer life styles.
Intelligentsia	14.1%	59.0%	Address concerns regarding confidence in the Country's leadership and infrastructure. Make planning and intervention strategies more transparent	Provide verification or corroboration from trusted institutions like Universities.
Predestinarians	19.9%	51.7%	Enlist support, and make it clear that it is every citizen's duty to be involved. Create a sense of empowerment in affecting the outcome of a potential attack.	Develop local and "grass roots" outreach programs. Find ways to communicate through civic and church groups.
Optimistic & Self-Reliant	17.9%	25.0%	Provide guidance for managing career and financial concerns. Provide a broad picture of impact on America and financial sectors. Calm economic concerns.	Enlist experts from financial community and publications. Place articles in such media as the Wall Street Journal.
Uncommitted C'est la vie	17.5%	15.7%	Create an awareness of the reality of the risks the need for vigilance, and where to turn when an event occurs.	Develop web-sites and blogs. Use Public Service Announcement in entertainment/lifestyle media.

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Appendices

Appendix 1 – Attitude/Value Battery used for Segmentation

Attitude/Values Question Battery (Bases for segmentation analysis)

- 1 I like the challenge of doing something I have never done before
- 2 I like trying new things
- 3 I often crave excitement
- 4 I would like to spend a year or more in a foreign country
- 5 Everyone has the power to be successful if they just work hard
- 6 I consider it a duty to help those who are less fortunate
- 7 If everyone would just take care of themselves the world would be better off
- 8 Most people are inherently good
- 9 On most things I see a clear distinction between good and evil
- 10 We are all responsible for insuring the welfare of society
- 11 Everyone is equal, and deserving of the same opportunities
- 12 It is important to question authority
- 13 Our county's leaders tend to know what is best for us
- 14 I consider myself to be environmentally knowledgeable
- 15 It is important that we protect our natural environment
- 16 Protecting the environment is an obligation to future generations
- 17 One must consider the cost of protecting the environment
- 18 I am happiest when I am in tune with nature
- 19 I must admit that I like to show off
- 20 I can never do enough to make sure my family is safe
- 21 I feel anxious that someone in my family will get sick
- 22 I take great pleasure in doing things for my family
- 23 I make a point of having quality time with my family regularly
- 24 I follow the latest trends and fashions
- 25 A woman's life is fulfilled only if she can provide a happy home for her family
- 26 Just as the Bible says, the world was literally created in six days
- 27 There is far too much sex on television today
- 28 Acquiring wealth / material possessions is very important to me
- 29 I strive to win the admiration of others
- 30 I have a stronger sense of ambition than others
- 31 I maintain honesty and integrity all my dealings with others
- 32 Freedom of action and thought is very important to me
- 33 Protecting my reputation and public image is always a concern
- 34 Old friendships are the most important to preserve
- 35 Life is something to be enjoyed
- 36 It is important to have fun
- 37 It is important to look good and be attractive to others
- 38 I have a strong sense of duty to my family, community and/or country
- 39 One must respect their elders/ancestors
- 40 Traditional gender roles for men and women are important to maintain
- 41 Religious faith is a major part of my life
- 42 I am frightened by diseases I have recently heard about
- 43 I believe most of the health threats in the news are overblown
- 44 I find that my busy schedule prevents me from exercising as I should

Appendix 1 – Attitude/Value Battery used for Segmentation - Continued

Attitude/Values Question Battery (Bases for segmentation analysis)

- 45 I have a set routine/schedule for exercising
- 46 I know more about staying healthy than the average person
- 47 I maintain a healthy and balanced diet
- 48 I try not to worry about getting sick
- 49 I try to lead a physically active lifestyle (biking, walking, etc.)
- 50 The danger of catching a serious illness is increasing
- 51 The things I need to do to stay healthy are often confusing and complicated
- 52 There is not much I can do to make sure I won't get sick
- 53 I like to learn about things even if they may never be of any use to me
- 54 I consider myself an intellectual
- 55 I consider myself to be a very creative person
- 56 I consider myself to be a curious person
- 57 I am constantly learning new things
- 58 I like to lead others
- 59 I am frightened by things I have recently heard about in the news
- 60 I am optimistic about the future
- 61 I believe that future events are predestined
- 62 I tend not to worry about the unexpected, things usually work out for the best
- 63 The future will not be that different than the past
- 64 I contribute regularly to a retirement plan e.g. IRA, 401-K, etc.
- 65 I have one or more life insurance policies
- 66 I have set a weekly/monthly budget, and stick to it
- 67 I set money aside for large purchases before I buy them
- 68 I set specific goals for my career/life
- 69 I always make decisions to avoid taking unnecessary risks
- 70 One must take risks if they are to live a fulfilling life
- 71 With respect to danger, I like to live a bit on the edge
- 72 I tend to seek adventure in my life
- 73 I like my life to be pretty much the same from week to week
- 74 I have more ability than most people
- 75 I love to make things I can use every day

Appendix 2 – Independent Canonical Factors Identified

1. Adventure/Experience Seeking
2. Fear
3. Public Image
4. Religious Faith / Fundamentalism
5. Family Focus
6. Health Orientation
7. Narcissistic Self Image
8. Environmental Concern
9. Self Improvement & Learning Orientation
10. Enjoy life, Not Worry
11. Question Authority vs. Trust Leaders
12. Maintain a Budget
13. Judgmental Convictions (Everyone is Should be Self Reliant, Sense of Right and Wrong)
14. Lack of Ability to Influence Future Events
15. Long Term Financial Planning

Appendix 3 – Criterion (Dependent) Canonical Factors Identified

1. Concern over Potential Terrorist Events
 - Biological/Chemical attack in crowded area
 - Public Transportation
 - Biological/Chemical attack on common food product
 - Electrical power grid
 - Passenger aircraft
 - National monument
2. Likelihood of a Potential Terrorist Event (in lifetime)
 - Biological/Chemical attack on common food product
 - Biological/Chemical attack in crowded area
 - Electrical power grid
 - Public Transportation
 - National monument
 - Passenger aircraft
3. Allocation of Spending Toward Potential Terrorist Events (of \$100)
 - Passenger aircraft
 - Public Transportation
 - Biological/Chemical attack on common food product
 - Biological/Chemical attack in a public area
4. Allocation of Spending - Potential Destruction of a National Monument
5. Allocation of Spending - Other Potential Attacks
6. Allocation of Spending - Potential Electrical Grid Attack

Appendix 4 – Canonical Correlation Matrix

Correlation Between Canonical Factors						
"Independent Factors"	"Criterion Factors"					
	Spending Allocation					
	Concern Terrorist Events	Likelihood Terrorist Events	Aircraft Transportation Food Crowded Area	National Monument	Other	Electrical Grid
Adventure/Experience Seeking	-0.04	0.07	-0.01	-0.05	0.01	-0.02
Fear	0.42	-0.01	-0.03	-0.02	0.01	-0.01
Public Image	0.07	0.07	0.02	0.01	0.06	0.03
Religious Faith	0.15	-0.01	0.04	-0.03	-0.02	0.03
Family Focus	0.18	0.02	-0.01	0.03	0.01	-0.02
Health Orientation	0.02	0.00	0.04	0.04	0.01	-0.01
Narcissistic Self Image	0.01	0.05	-0.05	-0.03	0.00	0.00
Environmental Concern	0.11	-0.07	0.02	0.00	-0.02	0.01
Self Improvement & Learning Orientation	0.04	-0.10	0.04	0.01	0.01	0.00
Enjoy Life, Not Worry	0.07	0.10	-0.03	0.05	-0.01	0.00
Question Authority vs. Trust Leaders	-0.06	-0.17	-0.05	0.01	0.03	0.00
Maintain a Budget	0.09	-0.05	0.07	0.01	-0.01	-0.02
Judgmental Convections	0.14	0.02	0.03	0.02	0.00	0.00
Lack of Ability to Influence Future Events	-0.06	0.06	0.11	0.00	0.01	0.00
Long Term Financial Planning	-0.01	0.03	-0.07	0.03	-0.02	0.02

Appendix 5 – Segment 1 “Uncommitted C’est la vie” Defining Attitudes and Values

"Uncommitted C'est la vie" Defining Attitudes and Values			
Attitude/Value Statement	Percent Total Sample	Percent Segment	Segment Index to Total Sample
<i>Sample Size</i>	4,260	745	
<u>Stronger Agreement than General Population</u>			
I believe most of the health threats in the news are overblown	20.3	30.2	149
I tend not to worry about the unexpected, things usually work out for the best	28.8	32.9	114
<u>Weaker Agreement than General Population</u>			
On most things I see a clear distinction between good and evil	51.9	40.9	79
I set specific goals for my career/life	32.2	24.0	75
I believe that future events are predestined	19.2	12.9	67
I can never do enough to make sure my family is safe	43.2	27.1	63
It is important to look good and be attractive to others	20.3	12.5	62
Protecting my reputation and public image is always a concern	27.1	15.3	56
I strive to win the admiration of others	13.2	7.2	55
The danger of catching a serious illness is increasing	30.7	13.1	43
I am frightened by diseases I have recently heard about	16.2	5.3	33
I am frightened by things I have recently heard about in the news	19.9	6.4	32
I feel anxious that someone in my family will get sick	18.4	5.4	29

Appendix 6 – Segment 2 “Intelligentsia” Defining Attitudes and Values

Defining Attitudes and Values			
Attitude/Value Statement	Percent Total Sample	Percent Segment	Segment Index to Total Sample
<i>Sample Size</i>	4,260	600	
<u>Stronger Agreement than General Population</u>			
It is important to question authority	32.7	55.7	170
I feel anxious that someone in my family will get sick	18.4	27.3	148
I must admit that I like to show off	8.4	12.4	148
I like to learn about things even if they may never be of any use to me	48.1	69.0	143
I strive to win the admiration of others	13.2	18.8	142
Protecting my reputation and public image is always a concern	27.1	38.4	142
I consider myself to be a curious person	50.1	70.7	141
I have more ability than most people	24.2	33.2	137
I would like to spend a year or more in a foreign country	23.8	32.5	137
I know more about staying healthy than the average person	21.7	29.4	135
It is important to look good and be attractive to others	20.3	26.9	133
I am constantly learning new things	56.4	74.0	131
I consider myself to be environmentally knowledgeable	29.7	38.7	130
Freedom of action and thought is very important to me	66.5	85.9	129
I like to lead others	25.1	31.1	124
I am happiest when I am in tune with nature	28.7	34.3	120
<u>Weaker Agreement than General Population</u>			
I find that my busy schedule prevents me from exercising as I should	26.7	20.8	78
I contribute regularly to a retirement plan e.g. IRA, 401-K, etc.	37.4	28.0	75
The future will not be that different than the past	11.1	8.3	75
There is not much I can do to make sure I won't get sick	10.1	7.2	71
I am optimistic about the future	37.5	26.1	70
Everyone has the power to be successful if they just work hard	46.5	26.6	57
Just as the Bible says, the world was literally created in six days	35.0	19.1	55
A woman's life is fulfilled only if she can provide a happy home for her family	12.6	6.8	54
Our county's leaders tend to know what is best for us	9.1	3.2	35
I believe that future events are predestined	19.2	6.7	35

Appendix 7 – Segment 3 “Fear Tethered” Defining Attitudes and Values

Defining Attitudes and Values			
Attitude/Value Statement	Percent Total Sample	Percent Segment	Index to Total Sample
<i>Sample Size</i>	4260	725	
<u>Stronger Agreement than General Population</u>			
I am frightened by diseases I have recently heard about	16.2	41.2	254
I am frightened by things I have recently heard about in the news	19.9	46.3	233
The danger of catching a serious illness is increasing	30.7	63.2	206
I feel anxious that someone in my family will get sick	18.4	36.5	198
I believe that future events are predestined	19.2	31.6	165
I can never do enough to make sure my family is safe	43.2	66.1	153
Just as the Bible says, the world was literally created in six days	35.0	51.1	146
I find that my busy schedule prevents me from exercising as I should	26.7	38.4	144
I have a stronger sense of ambition than others	19.3	26.5	137
One must consider the cost of protecting the environment	38.0	51.0	134
Religious faith is a major part of my life	44.2	59.1	134
I set specific goals for my career/life	32.2	42.3	131
I consider it a duty to help those who are less fortunate	40.4	52.9	131
Everyone has the power to be successful if they just work hard	46.5	60.6	130
There is far too much sex on television today	50.7	65.6	129
Protecting the environment is an obligation to future generations	57.6	73.8	128
We are all responsible for insuring the welfare of society	54.3	69.4	128
On most things I see a clear distinction between good and evil	51.9	65.2	126
One must respect their elders/ancestors	69.8	86.9	124
It is important that we protect our natural environment	65.1	81.0	124
I have one or more life insurance policies	38.9	48.4	124
I have a strong sense of duty to my family, community and/or country	61.2	75.4	123
I make a point of having quality time with my family regularly	54.8	67.4	123
I like trying new things	42.6	51.9	122
I take great pleasure in doing things for my family	67.0	81.3	121
<u>Weaker Agreement than General Population</u>			
I maintain a healthy and balanced diet	25.1	19.7	78
I am optimistic about the future	37.5	28.2	75
I tend not to worry about the unexpected, things usually work out for the best	28.8	18.4	64
I have a set routine/schedule for exercising	16.3	9.6	59
The future will not be that different than the past	11.1	5.2	47
I believe most of the health threats in the news are overblown	20.3	7.6	37

Appendix 8 – Segment 4 “Principled & Self-Disciplined” Defining Attitudes and Values

Defining Attitudes and Values			
Attitude/Value Statement	Percent Total Sample	Percent Segment	Index to Total Sample
<i>Sample Size</i>	4,260	580	
<u>Stronger Agreement than General Population</u>			
I have set a weekly/monthly budget, and stick to it	21.3	38.3	180
I maintain a healthy and balanced diet	25.1	45.0	179
Most people are inherently good	30.1	50.2	167
I always make decisions to avoid taking unnecessary risks	26.5	42.0	158
I like my life to be pretty much the same from week to week	24.1	37.2	154
I am happiest when I am in tune with nature	28.7	42.8	149
There is far too much sex on television today	50.7	74.7	147
I love to make things I can use every day	25.5	37.4	147
I set money aside for large purchases before I buy them	34.4	50.2	146
One must consider the cost of protecting the environment	38.0	54.8	144
I have a set routine/schedule for exercising	16.3	23.4	144
I try to lead a physically active lifestyle (biking, walking, etc.)	26.4	37.4	142
I consider myself to be environmentally knowledgeable	29.7	41.5	140
I try not to worry about getting sick	48.3	65.4	135
I tend not to worry about the unexpected, things usually work out for the best	28.8	38.1	132
I consider it a duty to help those who are less fortunate	40.4	53.3	132
Protecting the environment is an obligation to future generations	57.6	75.4	131
I have one or more life insurance policies	38.9	50.7	130
Religious faith is a major part of my life	44.2	57.5	130
On most things I see a clear distinction between good and evil	51.9	67.4	130
I make a point of having quality time with my family regularly	54.8	70.9	129
We are all responsible for insuring the welfare of society	54.3	70.1	129
I am optimistic about the future	37.5	47.6	127
I have a strong sense of duty to my family, community and/or country	61.2	76.3	125
If everyone would just take care of themselves the world would be better off	32.5	40.5	125
It is important that we protect our natural environment	65.1	80.7	124
Everyone is equal, and deserving of the same opportunities	65.8	81.0	123
I maintain honesty and integrity in all my dealings with others	75.9	93.2	123
I like to learn about things even if they may never be of any use to me	48.1	58.6	122
Old friendships are the most important to preserve	47.9	58.3	122
One must respect their elders/ancestors	69.8	83.7	120
<u>Weaker Agreement than General Population</u>			
There is not much I can do to make sure I won't get sick	10.1	8.0	79
One must take risks if they are to live a fulfilling life	27.8	21.8	78
I have more ability than most people	24.2	18.4	76
I would like to spend a year or more in a foreign country	23.8	17.2	72
It is important to look good and be attractive to others	20.3	13.8	68
I have a stronger sense of ambition than others	19.3	11.8	61
I like to lead others	25.1	14.2	57
I strive to win the admiration of others	13.2	6.3	48
I tend to seek adventure in my life	18.5	7.7	42
I often crave excitement	18.3	5.6	31
Acquiring wealth / material possessions is very important to me	10.6	2.4	23
With respect to danger, I like to live a bit on the edge	9.0	1.4	16
I follow the latest trends and fashions	8.2	1.1	13

Appendix 9 – Segment 5 “Predestinarians” Defining Attitudes and Values

Defining Attitudes and Values			
Attitude/Value Statement	Percent Total Sample	Percent Segment	Segment Index to Total Sample
<i>Sample Size</i>	4,260	849	
<u>Stronger Agreement than General Population</u>			
There is not much I can do to make sure I won't get sick	10.1	20.2	200
With respect to danger, I like to live a bit on the edge	9	17.8	198
I must admit that I like to show off	8.4	16.4	195
I follow the latest trends and fashions	8.2	15.3	187
A woman's life is fulfilled only if she can provide a happy home for her family	12.6	23.4	186
Our county's leaders tend to know what is best for us	9.1	16.3	179
Traditional gender roles for men and women are important to maintain	19.1	31.2	163
Acquiring wealth / material possessions is very important to me	10.6	17.3	163
I believe that future events are predestined	19.2	30	156
The future will not be that different than the past	11.1	17.3	156
I tend to seek adventure in my life	18.5	26.2	142
I strive to win the admiration of others	13.2	18.5	140
I often crave excitement	18.3	24.6	134
The things I need to do to stay healthy are often confusing and complicated	13.1	17.1	131
Just as the Bible says, the world was literally created in six days	35	42.5	121
I love to make things I can use every day	25.5	30.9	121
<u>Weaker Agreement than General Population</u>			
I make a point of having quality time with my family regularly	54.8	42.6	78
It is important to have fun	66.1	51.2	77
Everyone is equal, and deserving of the same opportunities	65.8	50	76
Life is something to be enjoyed	78.9	59.8	76
It is important to question authority	32.7	24.6	75
I maintain honesty and integrity in all my dealings with others	75.9	56.5	74
We are all responsible for insuring the welfare of society	54.3	40.1	74
It is important that we protect our natural environment	65.1	47.7	73
I am constantly learning new things	56.4	40.5	72
I consider myself to be a curious person	50.1	35.8	71
Protecting the environment is an obligation to future generations	57.6	40.8	71
Freedom of action and thought is very important to me	66.5	46.5	70
I try not to worry about getting sick	48.3	32.7	68
I like to learn about things even if they may never be of any use to me	48.1	32.5	68
I contribute regularly to a retirement plan e.g. IRA, 401-K, etc.	37.4	23.9	64
I have one or more life insurance policies	38.9	20.5	53

Appendix 10 – Segment 6 “Optimistic & Self Reliant” Defining Attitudes and Values

Defining Attitudes and Values			
Attitude Statement	Percent Total Sample	Percent Segment	Index to Total Sample
<i>Sample Size</i>	4,260	762	
<u>Stronger Agreement than General Population</u>			
I contribute regularly to a retirement plan e.g. IRA, 401-K, etc.	37.4	58.1	155
I have one or more life insurance policies	38.9	49.3	127
I like to lead others	25.1	31.0	124
I am optimistic about the future	37.5	46.3	123
It is important to have fun	66.1	79.4	120
<u>Weaker Agreement than General Population</u>			
Just as the Bible says, the world was literally created in six days	35.0	24.7	71
I set money aside for large purchases before I buy them	34.4	23.8	69
I consider it a duty to help those who are less fortunate	40.4	27.7	69
One must consider the cost of protecting the environment	38.0	25.9	68
Religious faith is a major part of my life	44.2	30.1	68
I consider myself to be environmentally knowledgeable	29.7	20.2	68
There is far too much sex on television today	50.7	31.4	62
I believe that future events are predestined	19.2	11.2	58
A woman's life is fulfilled only if she can provide a happy home for her family	12.6	7.1	56
There is not much I can do to make sure I won't get sick	10.1	5.3	52
I feel anxious that someone in my family will get sick	18.4	9.4	51
I am happiest when I am in tune with nature	28.7	14.3	50
I am frightened by things I have recently heard about in the news	19.9	9.7	49
The danger of catching a serious illness is increasing	30.7	14.5	47
Traditional gender roles for men and women are important to maintain	19.1	8.9	47
I have set a weekly/monthly budget, and stick to it	21.3	9.6	45
I love to make things I can use every day	25.5	10.4	41

Appendix 11 – Segment Household Demographic Profiles

Household Income

	Index to Percent Total Sample						
	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	
	Percent Total Sample	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie
Total Sample	4260	745	600	725	580	849	761
Under \$10,000 (9)	6.1	95	110	108	95	156	33
\$10,000 - \$19,999	9.2	83	120	100	113	146	42
\$20,000 - \$39,999	22.9	99	92	107	108	127	62
\$40,000 - \$59,999	15.1	123	101	109	97	83	91
\$60,000 - \$79,999	13.2	102	92	97	97	68	144
\$80,000 - \$99,999	8.9	89	92	107	91	88	130
\$100,000 or more	13.3	88	93	87	68	65	195

Geographic Region

	Index to Percent Total Sample						
	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	
	Percent Total Sample	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie
Total Sample	4260	745	600	725	580	849	761
New England	5.0	104	98	104	132	56	120
Middle Atlantic	13.9	82	109	112	81	103	109
NET - MIDWEST	23.0	103	98	105	108	96	93
East North Central	16.0	93	99	110	114	96	92
West North Central	7.0	127	96	93	93	97	94
NET - SOUTH	36.6	92	93	103	98	111	99
South Atlantic	19.3	88	102	102	87	100	119
East South Central	6.2	92	71	110	119	135	71
West South Central	11.0	100	91	103	107	116	82
NET - WEST	21.5	121	108	81	100	94	98
Mountain	6.5	151	149	60	106	82	69
Pacific	15.0	108	91	90	97	100	111

Appendix 11 Segment Household Demographic Profiles – Continued

Market Size

	Index to Percent Total Sample						
	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	
Percent Total Sample	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie	
Total Sample	4260	745	600	725	580	849	761
Non-CBSA, or CBSA<100,000	13.3	89	104	110	113	118	68
CBSAs or CSAs							
100,000 - 499,999	16.1	86	92	93	128	120	84
500,000 - 1,999,999	23.4	124	87	105	107	88	90
2,000,000 or more	47.2	96	108	97	83	94	119

Household Size

	Index to Percent Total Sample						
	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	
Percent Total Sample	Fear Tethered	Principled & Self-Disciplined	Intelligent-sia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie	
Total Sample	4260	745	600	725	580	849	761
NET - 1 - 2 MEMBERS	59.9	104	119	87	112	92	93
1 member	26.5	109	118	80	93	108	92
2 members	33.4	99	120	92	128	81	93
NET - 3+ MEMBERS	40.1	94	72	120	82	111	111
3 members	16.0	97	86	123	89	98	103
4 members	14.3	87	64	117	83	106	131
5 or more members	9.8	100	60	118	66	141	94

Household Designation

	Index to Percent Total Sample						
	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	
Percent Total Sample	Fear Tethered	Principled & Self-Disciplined	Intelligent-sia	Predestinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie	
Total Sample	4260	745	600	725	580	849	761
Husband and wife	44.8	90	96	104	116	86	113
Male, no wife, child, other relative	7.1	151	117	69	54	101	100
Female, no husband, child, other relative	16.1	84	73	138	90	127	77
Male living alone	11.9	134	119	45	65	143	86
Female living alone	14.5	91	117	110	117	79	98
Male living with non-relative	2.7	152	130	74	74	89	89
Female living with non-relative	2.8	86	86	114	107	104	111

Appendix 11 Segment Household Demographic Profiles – Continued

Ethnic Diversity

	Index to Percent Total Sample						
	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	
Percent Total Sample	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Pre-destinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie	
Total Sample	4260	600	725	580	849	761	
Spanish Origin							
Yes	10.5	69	114	47	137	101	
No	89.5	104	98	106	96	100	
Race							
White	82.2	107	94	115	88	101	
Black/African-American	12.1	64	140	26	148	102	
Asian or Pacific Islander	3.8	50	97	34	187	97	
Native American	0.6	117	100	33	183	83	

Female Head of Household Education

	Index to Percent Total Sample						
	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	
Percent Total Sample	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Pre-destinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie	
Total Sample	4260	600	725	580	849	761	
High school or less	19.4	82	122	114	125	66	
Some college - no degree	25.3	80	124	114	102	88	
Graduated college - Associates Degree	8.7	80	131	109	100	109	
Graduated college - Bachelors Degree	17.1	105	86	102	68	152	
Post Graduate Degree	8.8	149	85	97	49	128	
No answer/no female/not available	20.7	125	56	65	122	88	

Appendix 11 Segment Household Demographic Profiles – Continued

Male Head of Household Education

	Index to Percent Total Sample						
	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	
Percent Total Sample	Fear Tethered	Principled & Self-Disciplined	Intelligentsia	Pre-destinarians	Optimistic & Self-Reliant	Uncommitted C'est la vie	
Total Sample	4260	745	600	725	580	849	761
High school or less	17.3	108	65	118	125	111	73
Some college - no degree	19.3	85	108	97	107	102	104
Graduated college - Associate's Degree	6.5	114	98	89	78	102	112
Graduated college - Bachelor's Degree	16.3	110	115	69	78	101	125
Post Graduate Degree	9.7	129	133	63	85	66	131
No answer/no male/not available	30.8	88	97	123	103	104	87

Appendix 12 – Segment Respondent Demographic Profiles

Age of Respondent

Segment Number	Index to Total Sample						
	Total	Fear Tethered Segment 1	Principled & Self-Disciplined Segment 2	Intelligentsia Segment 3	Predestinarians Segment 4	Optimistic & Self-Reliant Segment 5	Uncommitted C'est la vie Segment 6
	Total Sample	4260	745	600	725	580	849
NET - 18 - 34	24.9	109	55	92	29	162	121
18 - 20	3.9	131	56	77	15	223	54
21 - 24	4.7	140	49	85	28	157	106
25 - 29	6.9	80	65	77	23	161	162
30 - 34	9.4	105	48	113	40	139	126
NET - 35 - 49	35.3	96	79	117	76	98	124
35 - 39	10.9	94	69	117	48	120	135
40 - 44	12.7	90	61	136	76	85	142
45 - 49	11.6	107	109	97	102	93	96
NET - 50+	39.8	98	147	90	166	63	66
50 - 59	21.2	82	141	110	146	62	83
60+	18.6	116	154	67	189	63	46

Gender of Respondent

Segment Number	Index to Total Sample						
	Total	Fear Tethered Segment 1	Principled & Self-Disciplined Segment 2	Intelligentsia Segment 3	Predestinarians Segment 4	Optimistic & Self-Reliant Segment 5	Uncommitted C'est la vie Segment 6
	Total Sample	4260	745	600	725	580	849
Total Sample	4260						
Male	32.4	134	127	59	70	110	97
Female	67.6	84	87	120	114	95	101

Appendix 12 – Segment Respondent Demographic Profiles Continued

Education Level of Respondent

	Total	Fear Tethered Segment 1	Principled & Self- Disciplined Segment 2	Intelligentsia Index to Total Sample Segment 3	Predestinarians Segment 4	Optimistic & Self- Reliant Segment 5	Uncommitted C'est la vie Segment 6
Segment Number							
Total Sample	4260	745	600	725	580	849	761
Total Sample	4260						
NET - HIGH SCHOOL OR LESS	20.9	95	73	117	107	140	60
Grade School	0.1	500	100			100	100
Some High School	2.5	112	56	92	116	148	56
Graduated High School	18.3	91	75	121	106	139	60
NET - COLLEGE	42.8	89	92	113	111	106	90
Some College - no degree	32.3	94	94	111	114	101	88
Graduated College - Associate's Degree	10.5	74	86	116	99	121	96
Graduated College - Bachelor's Degree	23.3	106	112	81	81	81	137
Post Graduated Degree	13.1	131	147	65	89	50	130