



America Recovers:

A Follow-Up to a National Study of Public Response to the September 11th Terrorist Attacks


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N O R C

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On September 11th, 2001 the United States experienced a massive terrorist attack, the likes of which had never before been seen. Thousands of citizens of the USA and of many other countries conducting their business and going about their lives in the heart of America's financial district were attacked and killed by Muslim extremists who carried out a horrific suicide mission. A simultaneous attack made on the Pentagon killed another 190 people, and a third attack, possibly on the White House or Congress, was foiled by brave citizens who lost their lives in the effort. NORC conducted the National Tragedy Study (NTS, Smith, Rasinski, and Toce, 2001), a survey of public reactions to this tragedy by interviewing probability samples of Americans and residents of New City on their reactions, attitudes, values and experiences to the event. The survey was conducted in the two-week period following the attack. A follow-up survey of the same respondents was conducted from January to March 2002.

The purpose of terrorism is to disrupt and intimidate. However, as the first round of the NTS showed, the initial response of the American people was not as some may have expected. The country did not fall into political chaos, and though the economy stumbled and sagged it did not collapse. Those most affected by this brutal act, the residents of New York City mobilized and, in the weeks that followed, were able to aid the afflicted, mourn the dead, and celebrate the many heroic acts performed. There was a tremendous outpouring of support from the rest of the nation and from many other countries. Results from the first round of the National Tragedy Study documented that the overwhelming response nationally and in New York was unprecedented high levels of patriotism and support for the executive, legislative and military branches of the government. Despite the magnitude of the attack and its devastating effect in New York, results from the first round of the NTS showed that citizens' faith in humanity's basic goodness was not shaken.

Nonetheless, the event took its toll. Nearly three-thousand people were killed, families were disrupted, children lost parents, and anxiety about the future emerged. The first round of the NTS documented the high level of anger citizens felt about the attack. In addition, the study showed that citizens in both New York and the nation exhibited symptoms indicative of severe shock, with New Yorkers naturally showing the most effect. Individual differences beyond geographic proximity were found. Both in the nation and in New York women reported more symptoms in response to the attack than men. In addition, middle-aged people reported more symptoms than either the young or the old.

From January to March 2002 NORC conducted a reinterview of the respondents in the National Tragedy Survey. The reinterview addressed questions crucial to a fuller understanding of the impact of the attacks. First, as mentioned, the immediate effects were unprecedented high levels of public expressions of patriotism and support for the executive, legislative and military branches of government. But did these levels persist over time or did they drop to pre-attack levels? Second, initial emotional and psychophysiological effects were substantial. However, substantial effects to such a large-scale disaster are expected. Are people recovering? Are those who showed the greatest initial effect still plagued with their symptoms? It is important to understand

coping mechanisms and behavior change that resulted from the attacks, and how they were related to initial responses. Finally, it is also important to examine opinion, attitudes, and behavior relating to political activities and social events following the attacks.

Two strategies determined the design of the first round of the NTS. The first was driven by our desire to compare public reactions to this event with reactions to a landmark national survey of public reactions to the Kennedy assassination conducted by NORC in 1963. Thus, a number of questions from that survey were used directly or were modified appropriately to assess the impact of the 9/11 attacks. The second strategy was to compare reactions to national estimates before the event. Here we took advantage of the many political and social indicators available on the General Social Surveys (GSSs). In particular, GSS questions about national pride, confidence in public institutions, and misanthropy were included in the NTS for both rounds.

In the second round, we were interested in collecting trend information on psychological, behavioral and attitudinal responses elicited in round 1. Consequently, many of the same questions were used. Additional questions on Post-Traumatic Stress Disorder (PTSD), depression and events related to bioterrorism and the war on terrorism were included.

National Pride

General Trends

Even in 1996, social scientists observed that America had higher levels of national pride than other countries (Smith and Jarkko, 1998). Yet shortly after 9/11, huge increases, sometimes as large as 30 points, were noted in measures of pride in the United States. In the second wave of the NTS, there were a couple of notable drops from 9/11, however as a general trend, pride in the country remained high and well above pre-attack levels.

General pride in the United States was resilient. Most measures either increased or remained at their September 11th levels (see table 1). As in the first round of the NTS, nearly everyone surveyed (97 percent) agreed that they would rather be a citizen of America than of any other country in the world. About 86 percent felt that America is a better country than most other countries, rising a point from the 9/11 survey. Perhaps reacting to the altruistic acts displayed by many Americans in the aftermath of the attacks, 57 percent of Americans agreed that the world would be a better place if people from other countries were more like the Americans (up 9 points from 9/11 and up 19 points from the 2000 General Social Survey). More than a third (35 percent) agreed that people should support their country even if the country is in the wrong (up 3 points from 9/11), and nearly half (49 percent) disagreed with the idea that there are some things about America that makes them feel ashamed (up 4 points).

Table 1: Changes in National Pride, Confidence in Institutions, and Misanthropy, NTS 2001-2002

	NTS 2001		NTS 2002	
	National	New York	National	New York
A. National Pride				
General Pride:				
I would rather be a citizen of America than of any other country in the world (agree)	96.9	93.0	96.7	91.8
Generally speaking, America is a better country than most other countries (agree)	84.6	80.6	86.2	83.3
The world would be a better place if people from other countries were more like the Americans (agree)	48.0	45.4	47.4	48.8
People should support their country even if the country is in the wrong. (agree)	32.0	34.7	34.7	28.1
There are some things about America today that makes me feel ashamed of America. (disagree)	44.7	40.6	49.1	39.9
Domain-Specific: Very Proud of America for...				
Its scientific and technological achievements	75.9	70.8	69.9	70.1
America's armed forces	80.3	73.3	83.7	76.2
Its history	68.0	58.5	55.7	51.3
Its achievements in the arts and literature	56.3	58.8	49.1	54.5
America's economic achievements	60.1	62.4	56.6	61.3
The way democracy works	61.3	59.7	55.4	55.4
Its political influence in the world	38.2	35.5	34.3	28.9
Its fair and equal treatment of all groups in society	34.9	41.4	23.9	28.7
B: Confidence in Institutions				
Great deal of confidence in...				
The military	78.0	68.1	80.7	73.3
Major companies	30.2	30.9	20.4	19.7
Banks and financial institutions	42.5	37.4	36.0	32.8
Organized religion	46.8	40.2	39.0	36.4
Executive branch of the federal government	52.7	44.0	46.1	41.5
Congress	44.4	41.2	31.3	36.2
C. Misanthropy				
People are...				
Fair	64.1	60.8	64.1	56.8
Helpful	67.8	70.5	66.9	71.9
Trustworthy	39.6	33.6	39.2	32.1

New Yorkers reported lower levels of general national pride than the national sample, consistent with the first wave of the study. Only 40 percent of New Yorkers disagreed that there are some things about America today to be ashamed of, as opposed to 49 percent of the national sample. Also, 92 percent of New Yorkers agreed that they would rather be a citizen of America than of any other country in the world. Even though levels of national pride differ between New York and the nation there is no evidence that pride has decayed over time in New York.

Pride in most specific domains dropped in the second wave, but still remained well above pre-attack levels. The largest drop was pride in America's history, which went from 68 to 56 percent. Although a drop, this is still over 8 points higher than its pre-September 11th level. Pride for the country's fair and equal treatment of all groups in society fell 11 points, to 24 percent. This was likely a response to the hate crimes and racial profiling directed at Middle Easterners and Muslims in the aftermath of the attacks. The one exception to this downward trend was pride in America's armed forces, perhaps a show of support for the American troops fighting in Afghanistan at the time. Roughly 84 percent said they were very proud of America for their armed forces, an increase of 3 points from the first wave of data collection.

In the measures of national pride specific to certain domains, New Yorkers followed the same pattern as the rest of the nation. Some changes were small, such as in regards to scientific and technological achievements (down less than a point), while others have been much larger, such as the percentage expressing great pride in the country's fair and equal treatment of all groups (down 13 points). Similar to the rest of the nation, the percentage of New Yorkers expressing great pride in the armed forces increased slightly, from 73 percent to 76 percent.

Demographic Changes

As was the case in the first round of the survey, older Americans were much more likely than younger ones to have high levels of national pride. The differences were most apparent among the general indicators of national pride, which have not wavered since 9/11. Fully 93 percent of those 65 and over agreed that America is a better country than most other countries, compared with 77 percent of those under 30. This difference is virtually unchanged from the first round of the survey, in which 90 percent of adults 65 or over and 78 percent of adults under 30 agreed. Similarly, half of Americans 65 and over felt people should support their country even if the country is in the wrong, whereas only a quarter of Americans under 30 felt the same. Again, these numbers are virtually unchanged from 9/11, when 47 percent of those 65 or over and 25 percent of those under 30 indicated such unconditional support.

Older adults too have remained more proud of America's democracy than younger adults. About 69 percent of adults 65 or over in the NTS follow-up said they were very proud of the way democracy works (down 4 points from 9/11), compared with 36 percent of adults under 30 (down 12 points). This suggests those 65 or over have sustained their high level of pride in democracy, whereas those under 30 appear to be beginning to return to pre-September 11th levels.

In general, partisanship was not found to be a strong predictor of national pride in the first round of the NTS (Smith, Rasinski, and Toce, 2001). In some ways, partisanship was also nonpredictive in the second round. General pride in the country remained uniformly high, and the bounces in pride seen shortly after 9/11 in seemingly unrelated domains like technological achievements, art and literature, and the country's history were all uniformly down, regardless of political party.

However, the "war on terrorism," subsequent to the attacks in New York and Washington DC, did trigger differing reactions by partisanship in two important ways. First, pride among Democrats in some aspects of the political domain fell, while Republican pride in these political areas remained fairly constant. Pride among Democrats in the country's democracy dipped 13 points and pride in the country's political influence fell 10 points between the two surveys. In contrast, in this same time frame Republican pride in America's democracy fell only 5 points, and their pride in the country's political influence gained a point. Second, a convergence occurred between Republicans and Democrats in their support of the armed forces. Republican support of the military at the time of 9/11 was quite high, with 87 feeling a great deal of pride for it. In the follow-up, Republican support remained strong, having gained two points to 89 percent. Democrats joined Republicans in this overwhelming pride of the military, rising from 79 percent in the first round to 86 percent in the second round.

Historically, African Americans have tended to have lower levels of national pride than whites. However, in the NTS follow-up, there is evidence to suggest some convergence. This convergence is strongest in general pride and in domains directly related to the war on terrorism. For example, in their support of the military, about 77 percent of African Americans (up 10 points) and 85 percent of whites (up 2 points) reported a great deal of pride in America's armed forces.

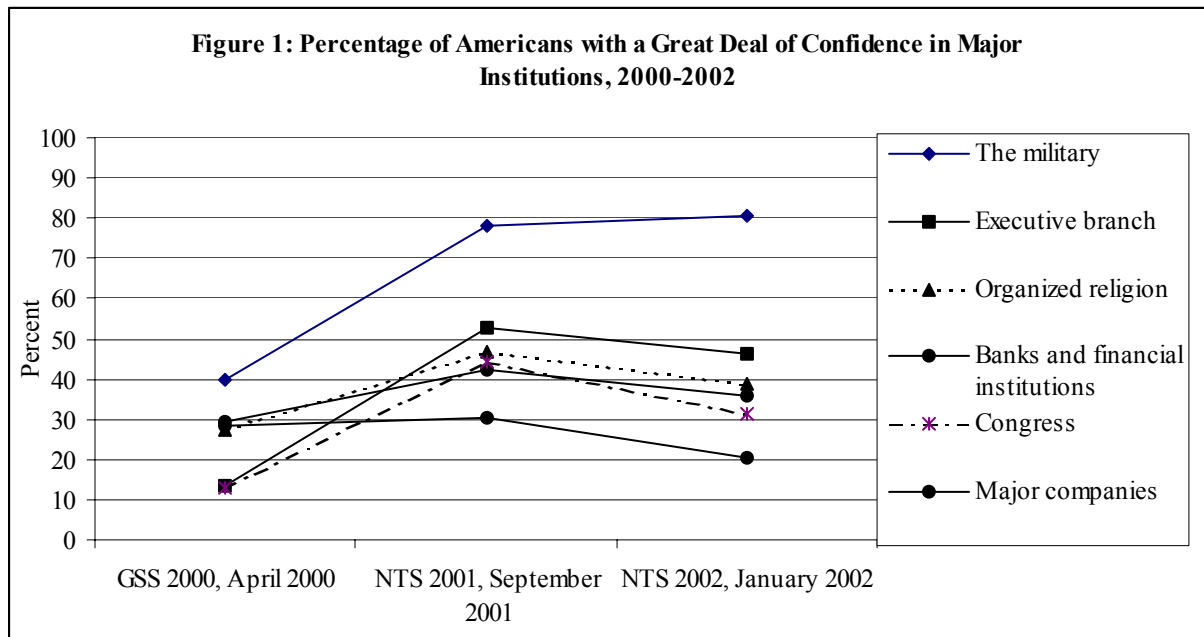
Continuing with the trend observed after the attacks, those with more education tended to have less general pride in the country. However, education was not associated with any shifts one way or the other in national pride since 9/11. Similarly, gender was not related to differences or changes in either general or domain-specific pride.

Confidence in Institutions

General Trends

After huge gains, confidence is beginning to return to pre-9/11 levels in most institutions. In the NTS follow-up, about 46 percent of Americans reported a great deal of confidence in the executive branch (down 7 points since 9/11). Confidence in Congress experienced a 13 point drop, down to 31 percent. Roughly 39 percent of Americans in the follow-up had a great deal of confidence in organized religion (down 8 points) and 36 percent in banks and financial institutions (down 7 points). Only 20 percent of Americans reported a great deal of confidence in major companies, down 10 points from 9/11 and actually 8 points below the measure taken in the 2000 General Social Survey. It likely that, in addition to the slowing economy exacerbated by the terrorist attacks, this measure was also capturing the reaction of Americans who heard the news stories of Enron's bankruptcy and accounting scandal. Only confidence in the military remained at its 9/11 levels, with 81 percent having a great deal of confidence (up 3 points from 9/11 and more than twice the level of 2000, at 40 percent.)

New Yorkers differed only slightly from the rest of the country in their confidence in major institutions at the time of the follow-up survey. There were no differences between New Yorkers and others with respect to confidence in major companies, banks, religion, and the executive branch. There is some evidence to suggest that New Yorkers had less confidence in the military than other Americans (73 vs. 81 percent). And the big drop in confidence of Congress that occurred in the rest of the country was less pronounced in New York (down 5 points vs. 13), perhaps a reaction to the services and funding Congress made available to New Yorkers in the 9/11 aftermath.



Demographic Changes

Men and women differed in confidence in institutions in only one domain: the military. Traditionally, men have had more confidence in the armed forces than women. Shortly after 9/11, this gap between men and women narrowed from 12 points in the 2000 GSS to 5 points in the NTS first round. In the NTS follow-up, this gap between men and women widened slightly to 8 points.

As documented in the NTS first round, 9/11 triggered a large bounce in institutional confidence in whites, but not African Americans. In the 2000 GSS, only in economic institutions did whites tend to be more confident than African Americans. Yet in the first round of the NTS, white confidence exceeded that of African Americans in nearly every domain. In the NTS follow-up, confidence in most institutions dipped slightly, but whites remained considerably more confident than African Americans. In fact, with most institutions, the difference between whites and African Americans with a

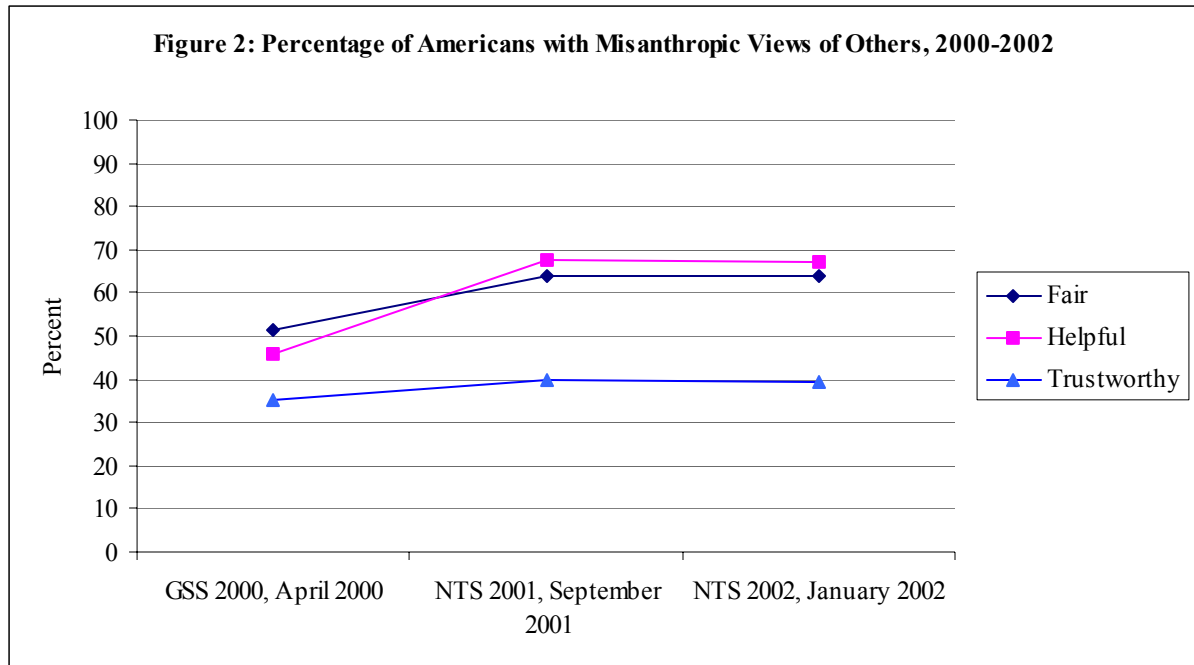
great deal of confidence was about 20 points (84 vs. 61 percent in the military; 49 vs. 23 percent in the executive branch; 41 vs. 23 percent in religion; 39 vs. 13 percent in financial institutions; 34 vs. 16 percent in Congress). Only with major companies was this gap in confidence considerably less (21 vs. 13 percent reporting a great deal of confidence).

Changes in confidence among political partisans varied considerably by the nature of the domain. Republicans and Democrats alike lost confidence in political institutions such as the executive branch (65 percent for Republicans, down 9 points, and 36 percent for Democrats, down 8 points) and Congress (40 percent for Republicans, down 12 points, and 31 percent for Democrats, down 13 points). However, decreases in confidence in economic institutions were particularly acute among Democrats, not Republicans. In spite of the dipping economy, Republicans remained steadfast in their confidence of banks and financial institutions, with 45 percent voicing a great deal of confidence. Democrats, on the other hand, experienced a significant erosion in confidence in banks, dropping 12 points to 31 percent. Likewise, a quarter of Republicans had a great deal of confidence in major companies (down 9 points), whereas only 17 percent of Democrats felt the same (down 15 points).

Misanthropy

General Trends

As strong feelings of national pride persisted well beyond September 11th, so did positive perceptions of people in general. A standard measure of misanthropy, which asks whether people are fair, helpful and trustworthy, underwent a substantial shift shortly after 9/11. This indicates that, rather than thinking about the acts of the terrorists, people reflected upon the acts of those involved in the rescue and relief efforts in New York, acts of charity from those throughout the country, and acts of patriotism both within the country and abroad. The amount of people who believed others were helpful was at an unprecedented high shortly after 9/11, and the numbers of people believing others were fair had not been seen since the 1970s. And after 9/11, these evaluations of others have not changed, neither in New York nor the rest of the country. About 64 percent believed people try to be fair, the exact same as in the 9/11 survey. Just over two-thirds (67 percent) believed people try to be helpful (down 1 point). Roughly 40 percent of Americans believed most people can be trusted (down less than one point).



Demographic changes

The results of the follow-up survey showed that very little changed in people's world views since 9/11 overall. When demographic subgroups were examined, misanthropy levels were also stable. Men and women, for the most part, look upon others similarly, but men remain a little more trusting than women (42 vs. 36 percent). African Americans continue to be less trusting than whites (18 vs. 42 percent), but the view that most people try to be helpful has remained strong among members of both races (66 vs. 67 percent).

Traditionally, the most educated have more faith in people. This difference persists in the NTS follow-up, and in the case of others' helpfulness, it became stronger. Evaluations of people's helpfulness eroded slightly among those with less than a high school degree (54 percent, down 8 points) and gained slightly among those with college degrees (74 percent, up 5 points).

Misanthropy continues to be higher among younger people, a trend unchanged by the 9/11 attacks. Since the attacks, however, older Americans have begun to return to their previous lower views of the helpfulness of others (70 percent, down 15 points) and trustworthiness (43 percent, down 8 points), whereas the views of younger Americans have remained unchanged (50 percent and 16 percent, respectively, each down 1 point). In New York, the old and the young found more agreement in notions of misanthropy with each other than with others in their age cohorts living elsewhere.

Emotional Response to 9/11 Attacks

In the first round of the National Tragedy Study, questions were included that asked about feelings respondents had right after the attacks. Respondents were asked whether the attacks made them feel ashamed, angry, or worried about related political repercussions or the affect on their own lives. In the second round these questions were repeated, but the frame of reference changed from the terrorist attacks to the war on terrorism. Results for the nation and for New York are shown in table 2 and are compared to results from the first round.

Table 2: Feelings when first heard about terrorist attacks (Round 1), and feelings about the war on terrorism (Round 2): Percentage reporting selected feelings as among their "very deepest"

	NTS 2001		NTS 2002	
	Nation	New York	Nation	New York
Worried about political situation	16.3	22.1	16.8	21.6
Worried about foreign relationships	19.8	24.8	22.8	26
Felt angry*	65.2	71.1	42.5	41.5
US brought it upon itself	5.4	3.4	7.4	12.7
Ashamed this could happen	20.9	23.2	21.8	26.6
Worried how this might affect own life	27.2	38.9	28.1	40.3
Wondered about safety	26.1	39.2	25.2	33.8

Question Wording: I'm going to read some ways that some people felt when they first heard about the terrorist attacks/about the war on terrorism and I'd like you to tell me whether the statement represents your very deepest feeling, a feeling that was quite deep, whether the statement crossed your mind, or whether it never occurred to you. Here is the first statement:

- a. Worried about how the attack/the war on terrorism would affect the political situation in this country
- b. Worried about how the attack/the war on terrorism would affect our relations with other countries
- c. Felt angry that anyone should do such a terrible deed/that we should have to have a war on terrorism.
- d. Felt that in many ways the United States had brought it/the war on terrorism on itself
- e. Felt ashamed that this could happen in our country/that this war on terrorism could happen to our country.
- f. Were worried about how this/the war on terrorism might affect your own life, job, and future
- g. Wondered if anybody could really be safe in this country these days

* The drop in anger may be due to a wording change from "terrible deed" to "war on terrorism." The reduction in anger should be interpreted with this in mind.

Both nationally and in New York fewer respondents expressed anger as among their "very deepest" feeling over the war on terrorism compared to anger about the terrorist attacks (23 point decline nationally, 30 point decline in New York). While this represents a substantial decrease in anger, it is possible it can be explained by a change in wording. In round 1, the wording "this terrible deed" was used to refer to the terrorist attacks. The round 2 question did not include the wording "this terrible deed" but said simply "the war on terrorism." Otherwise, there were few differences in feelings about the war on terrorism, compared to feelings about the terrorist attacks, even though several

months separated responses to the two sets of questions. One striking exception is the feeling by New Yorkers that the US may have done something to have brought it all on. Only about three percent of New Yorkers expressed as their very deepest feeling the sentiment that the US might have done something to bring on the terrorist attacks. However, four months later, almost 13 percent of New Yorkers expressed as their very deepest feeling that the US might have done something to bring on the terrorist attacks. This change, while in the same direction, was not as pronounced nationally.

Compared to the nation, New Yorkers' concerns about their own safety showed a steeper decline (1 point nationally, 5 points in New York). However, New Yorkers' safety concerns were still high at the time of the follow-up survey, with more than one-third indicating that safety concerns were still some of their very deepest feelings. This was substantially higher than the level of concern about personal safety found nationally directly after the attacks.

Worries

Because of the terrorist attacks and several other terrorist scares that occurred between September and December 2001, some Americans began to worry about other types of tragedies that might befall their loved ones or others in the United States. In order to understand some of these concerns, the NTS follow-up included a battery of worries Americans might have had in reaction to the attacks.

About one in six Americans said they worried a great deal about flying in an airplane (16 percent) and about more major terrorist attacks happening in the United States (17 percent) (table 3). New Yorkers expressed more concern than the rest of the country about the possibility of other attacks. About one in four New Yorkers (27 percent) worried a great deal about more major terrorist attacks.

Table 3: Worries of Americans since 9/11, NTS 2002¹

	USA	New York
Worried a great deal about...		
Flying in an airplane	16.1	17.3
Being exposed to anthrax or some other bio-terrorism agent	11.1	13.7
More major terrorist attacks in the U.S.	17.0	26.5
Personally being a victim of a terrorist attack	9.2	15.9

¹Question text: "Please tell me how worried you are about each of the following. Have you personally worried a great deal, worried a lot, worried a little or not worried at all about..."

In general, those groups of Americans who had high levels of psychological distress were also more likely than others to have a great deal of worries about future terrorist attacks (see following discussion of psychological symptoms). Women, for example, were consistently more likely than men to report that they worried a great deal about flying (20 vs. 11 percent), bioterrorism (14 vs. 7 percent), and further attacks (22 vs. 12 percent).

Members of minority groups also exhibited more worries about consequences of the attacks. About a third of all Hispanics said they worried a great deal about future attacks (31 percent), bioterrorism (33 percent), or being a victim themselves (31 percent). African Americans also demonstrated a great deal of worry about these same concerns. Roughly a quarter of African Americans said they were worried a great deal about future attacks (27 percent), bioterrorism (25 percent), and being a victim (27 percent). In addition, nearly a third (32 percent) of African Americans reported a great deal of worry about flying.

Among Americans, Democrats expressed greater worry than Republicans about being a victim of a future attack (17 vs. 3 percent) and having another attack happen in the United States (22 vs. 14 percent). This is consistent with the differences by partisanship observed elsewhere in the survey in confidence in the political leaders and the concerns of the outcomes of the September 11th attacks, suggesting perhaps that Democrats have less faith than Republicans in our leaders to prevent future.

Positive-Negative Affect

Results from the survey taken immediately after the terrorist attacks indicated that emotionally, most Americans appeared quite resilient. Our previous report (Smith, Rasinski, and Toce, 2001) indicated that responses to the affect-balance scale (Bradburn, 1965) measured directly after the attacks were not substantially different from what trend data were available. Contrary to what one might expect, levels of positive emotion did not dip to the low levels seen after the Kennedy assassination, nor did levels of negative emotion rise to the post-assassination levels. New Yorkers showed less positive and more negative affect after the attacks than did the nation as a whole, but even the levels of New Yorkers did not approach those of the nation after the Kennedy assassination.

Table 4 shows that results from the follow-up survey indicate very little change in positive emotions at the national level in the months following the attacks. Results indicate that that fewer Americans as a whole reported feeling proud because of being complimented, but more American reported feeling on top of the world and that things were going their way. On average, reports of positive emotions changed a scant seven-tenths of a point (upward) between September 11th and the time of the reinterview, in January to March (69.0 in the first round vs. 69.7 in the second round).

On average, in the nation as a whole, reports of negative emotions diminished by 6 points at the reinterview. In particular, Americans at three to five months after the attack were less likely to report feeling depressed, feeling upset because they had been criticized, and feeling restless than they were at the time of the attack. One would be hard pressed to attribute the decrease in negative emotions to a positive change in social conditions. Indeed, while no radical shifts were seen, an economic recession was worsened by the attacks and America had entered a war. In addition, there were reminders of terrorism everywhere, in the deaths from anthrax, in increased shows of

security at airports and other public places, and in the media coverage of the war in Afghanistan, the grim events surrounding the extraction of victims from the World Trade Centers and the cleanup of that site. In one way or another terrorism and the sagging economy were at the top of the public agenda during most of this period. Presumably, the lessening of negative affect over time was due to the distancing of the event in time, the nation's sense of coming together under siege and, perhaps, the strong, clear and positive anti-terrorist rhetoric and actions of the Bush administration during those trying times.

For New Yorkers, whose results are also shown in table 4, the picture looked quite different. Overall, positive affect decreased for four of the five emotions, the exception being reports of feelings of excitement and interest, which showed an increase. Reports of negative emotions lessened. However, the rate of recovery was half that of the nation. The average decline for negative emotions in the nation was 6 points; for New Yorkers, the decline was 3 points. Twelve percent fewer respondents nationally reported still feeling depressed at the follow-up compared to directly after the event. In New York, this change was less than 9 points. What is most striking is that between seven and eight percent fewer respondents nationally reported feeling upset because they were criticized at the follow-up compared to the initial survey. For New Yorkers over two percent *more* reported feeling upset at being criticized at the follow-up compared to the initial survey. This suggests that interpersonal tensions were still at a high level in New York due to the magnitude of the impact of the event.

Table 4: Changes in affective experience

	NTS 2001		NTS 2002		Differences	
	National	New York	National	New York	National	New York
Positive Affect						
Excited/interested	67.9	56.9	67.0	61.3	-0.9	4.4
Proud/Complimented	81.0	80.8	78.2	72.9	-2.8	-7.9
Pleased/Accomplished	89.5	83.5	89.9	82.8	0.4	-0.7
Top of the World	36.5	29.7	39.5	23.3	3.0	-6.4
Things going your way	70.3	66.6	74.0	63.8	3.7	-2.8
Average % Positive	69.0	63.5	69.7	60.8	0.7	-2.7
Negative Affect						
Restless	39.3	38.2	34.3	33.9	-5.0	-4.3
Lonely/Remote	26.8	30.7	23.8	26.3	-3.0	-4.4
Bored	43.3	43.6	41.1	43.7	-2.2	0.1
Depressed	33.3	42.2	21.1	33.4	-12.2	-8.8
Upset/Criticized	25.9	17.7	18.4	20.1	-7.5	2.4
Average % Negative	33.7	34.5	27.7	31.5	-6.0	-3.0

Effects on psychological well-being

General Trends

In order to measure emotional and psychological stress reactions to the September 11th attacks, the NTS included a battery of commonly experienced stress symptoms. The items were used in the NORC study of reactions to the Kennedy assassination and were included in the National Tragedy Study for comparison purposes. The questions themselves are related to those developed by Stouffer et al. (1949) to study soldiers in World War II. (See Smith and Rasinski, 2002 for a detailed comparison of 9/11 reactions with Kennedy assassination reactions.)

Table 5 shows data on emotional and psychological reactions to the September 11th terrorist attacks. The most common lingering effect for both the nation and New Yorkers was difficulty sleeping. Four to five months after the attacks, 30 percent of the nation and 36 percent of New Yorkers said they had trouble sleeping. Even more in both groups reported feeling more tired than usual -- perhaps related to the sleep disturbance.

Table 5: Comparison of Physical/Emotional Symptoms, 1963 Kennedy Assassination, NTS 2001-2002¹

Symptom:	1963 Kennedy	NTS 2001		NTS 2002	
	Assassination	National	New York	National	New York
Didn't feel like eating	43.0	28.8	46.4	15.0	16.2
Smoked more than usual	29.0	21.2	20.1	10.5	13.8
Had headaches	25.0	21.7	24.3	17.3	25.1
Had upset stomach	22.0	36.7	34.8	19.0	16.1
Cried	53.0	60.3	74.1	20.6	31.6
Had trouble getting to sleep	48.0	51.2	59.4	30.9	39.0
Felt very nervous or tense	68.0	49.9	62.5	26.9	33.6
Felt like getting drunk	4.0	6.6	11.9	8.6	10.7
Felt more tired than usual	42.0	37.5	47.6	32.5	41.2
Felt dizzy at times	12.0	9.0	13.3	10.9	19.8
Lost my temper more than usual	19.0	19.9	27.2	17.7	20.3
Hands sweat and felt damp and clammy	17.0	9.4	10.6	6.0	10.2
Had rapid heart beats	26.0	16.0	21.6	11.3	20.5
Felt sort of dazed and numb	57.0	45.7	46.3	12.3	17.3
Kept forgetting things	34.0	19.7	27.9	21.1	34.0
None of these	11.0	9.6	2.9	37.9	22.6

¹Question text, round 1: "I'm going to read a list of experiences some people have said happened to them since they heard about the attack on the World Trade Center. Please tell me if any of these experiences happened to you"

Question text, round 2: "I'm going to read a list of experiences some people have. Please tell me if any of these experiences happened to you in the last week or two."

NTS 2001 percents reported here are slightly different than the ones reported in Smith, Rasinski and Toce, 2001, because only panel data were used in the current report.

The reports of psychological symptoms in the NTS follow-up were, in general, less than those in the first round, suggesting a trend toward recovery. Americans reported fewer psychological symptoms in the NTS follow-up than on the initial survey (4.3 vs.

2.6 symptoms), indicating that the nation as a whole was recovering. Between the time of the 9/11 survey and the follow-up, many more Americans reported no symptoms at all. About 38 percent of Americans in the follow-up had no psychological symptoms, compared with 10 percent around 9/11 (a drop of 28 points).

Significant decreases were found in 11 of the 15 stress items, suggesting substantial improvement. For example, 21 percent of Americans said in the follow-up they had cried in the last week or two (down 39 points from 9/11). About 27 percent of Americans had felt nervous and tense (down 23 points). And only 12 percent of Americans reported feeling dazed and numb (down 34 points). Even though many Americans still had trouble sleeping (31 percent), this is a large drop from the more than 50 percent of Americans who said in the first round of the survey they had trouble sleeping (down 19 points).

Although New Yorkers remained more likely than the national sample at the time of the follow-up survey to report symptoms (on average, New Yorkers reported 3.5 symptoms in the follow-up, compared with 2.6 of all Americans), there were also substantial improvements (tables 5 and 6). The average number of symptoms reported by New Yorkers dropped from 5.3 to 3.5. And while only 3 percent of New Yorkers had no symptoms in the first round of the NTS, by the time of the second round, the number had increased to 23 percent.

Among individual symptoms reported by New Yorkers, significant decreases were found in 7 of the 15 items. Nearly three-quarters of New Yorkers had cried shortly after 9/11, but in the follow-up this percentage had dropped by two thirds to 21 percent (down 53 points). Substantial decreases were also noted among New Yorkers reporting trouble sleeping, which went from 60 percent to 40 percent, feeling nervous or tense, dropping from 63 to 34 percent, and feeling dazed and numb, going from 46 to 17 percent. The only symptom commonly reported by New Yorkers that did not show a significant decrease between the two waves of the study was those reporting feeling more tired. Shortly after 9/11, about 48 percent of New Yorkers said they had felt more tired than usual, whereas in the follow-up, about 41 percent of New Yorkers reported feeling more tired.

Demographic changes

Table 6 also displays some of the demographic differences among number of symptoms reported by NTS respondents. Many demographic differences observed in the first round of the survey were also seen in the follow-up survey. For example, women continued to report more psychological and emotional stress symptoms than men (3.2 vs. 2.0).

Table 6: Average Number of Psychological/Emotional Symptoms Reported by Americans, NTS 2001-2002

	USA			New York		
	Average number of symptoms		Change in symptoms Wave 2 - Wave 1	Average number of symptoms		Change in symptoms Wave 2 - Wave 1
	Wave 1	Wave 2		Wave 1	Wave 2	
Total	4.3	2.6	-1.7	5.3	3.5	-1.8
Gender						
Male	3.2	2.0	-1.2	4.2	2.3	-2.0
Female	5.4	3.2	-2.2	6.2	4.6	-1.6
Age						
18-29	3.8	2.4	-1.4	5.1	2.6	-2.4
30-39	4.8	2.7	-2.1	5.9	3.3	-2.6
40-49	5.1	3.0	-2.1	5.4	3.4	-2.0
50-64	4.1	2.5	-1.6	5.5	4.5	-1.0
65+	3.3	2.4	-0.9	4.1	3.8	-0.3
General Health						
excellent	3.9	1.9	-2.0	5.1	2.7	-2.4
good	4.4	2.7	-1.7	5.4	3.4	-2.0
fair	4.4	3.1	-1.3	4.7	4.5	-0.2
poor	6.5	4.8	-1.7	7.5	5.4	-2.2
Hispanic						
Yes	5.8	5.0	-0.8	4.6	4.2	-0.4
No	4.3	2.5	-1.8	5.3	3.4	-1.9
Race						
White	4.4	2.4	-1.9	5.6	3.2	-2.4
Black	4.0	3.7	-0.3	4.5	3.9	-0.5
Asian	6.0	2.6	-3.3	5.0	2.6	-2.4
Native American	4.8	3.0	-1.7	12.7	9.4	-3.3
Other	4.5	3.4	-1.1	6.4	4.6	-1.8
Knew anyone hurt or killed						
Don't know	2.9	2.8	-0.1	4.6	2.9	-1.7
Yes	5.5	2.5	-2.9	6.2	3.5	-2.7
No	4.3	2.6	-1.7	4.8	3.5	-1.3
Political party preference						
Republican	3.9	2.0	-1.9	4.8	3.3	-1.5
Democrat	5.0	3.3	-1.7	5.5	3.4	-2.1
Independent	3.9	2.7	-1.3	5.3	3.6	-1.7
Other	4.7	1.5	-3.2	3.9	1.9	-2.0
No preference	4.0	2.3	-1.6	5.3	4.0	-1.3
Education						
<HS diploma	4.5	4.1	-0.4	5.0	4.9	-0.1
HS diploma	4.4	2.5	-1.9	4.8	3.3	-1.5
4-year degree+	4.2	2.2	-2.0	5.6	2.8	-2.8
Income						
Less than \$40K	4.4	3.2	-1.2	4.7	3.6	-1.1
More than \$40K	4.3	2.2	-2.1	5.7	2.7	-3.0

A relationship was observed between psychological symptoms reported at the follow-up survey and socio-economic status indicators such as income and education. Respondents who reported their year 2000 total family income as less than \$40,000 reported more symptoms than those with higher incomes (3.2 vs. 2.2 symptoms). Similarly, Americans who did not have high school diplomas reported more symptoms than those with a high school diploma or a college degree (4.1 vs. 2.5 and 2.2 symptoms, respectively).

Race and ethnicity appeared to be a strongly related to stress in the NTS follow-up. Shortly after 9/11, many researchers documented a strong adverse reaction among Hispanics (Smith, Rasinski, and Toce, 2001; Schuster et al 2001). This reaction persisted in the NTS follow-up. Hispanics reported an average of 5 symptoms in the NTS follow-up, compared with 2.5 of others without Hispanic heritage. African-Americans also reported more symptoms in the follow-up survey than whites (3.7 vs. 2.4 symptoms).

Table 6 also shows that, as quality of general health declined, respondents were more likely to report more symptoms. Respondents who reported poor general health at the initial interview reported 4.8 symptoms on average in the follow-up, compared with an average 2.7 symptoms reported in the follow-up by those claiming to be in good health and 1.9 symptoms from those claiming to have excellent health.

Nationally, middle-aged Americans had more adverse psychological reactions shortly after 9/11, but by the time of the follow-up, their reactions were no different than other age groups. In New York, age differences in initial reactions were not as great, except among the elderly. However, the ability to recover from the shock of the attacks appears to be related to age in New York. The decrease in number of symptoms reported becomes smaller in the older groups, indicating that older people are not bouncing back as quickly as the young.

Recovery

Factoring in the change in number of reported symptoms can help discern the potential long-term impact on psychological well-being in Americans, as well as identify subgroups that are particularly at risk for a slow recovery. Between the time of the initial survey (September 2001) and the follow-up survey (between January and March 2002), Americans reported an average of 1.7 fewer symptoms.

In the case of those who reported knowing someone hurt or killed in the attacks, the high levels of psychological stress observed in the first round of the survey appeared to be temporary, as their stress returned to average levels. In fact, those who knew someone hurt or killed in the attacks have some of the highest levels of recovery of any subgroup, reporting nearly 3 fewer symptoms between the two rounds of the survey. These decreases were also observed in New York; New Yorkers who knew someone hurt or killed reported about 2.7 fewer symptoms between the two rounds of the survey. Some of the initial difference might have been attributed to the respondent's *fear* that someone they knew had been directly affected. Of course, since the actual number of confirmed

victims turned out to be less than half the number originally reported, many of those who thought they knew someone who had been directly involved may have learned later that this was not true.

Other groups have had a more difficult time. African Americans in particular have demonstrated slower levels of recovery than other race groups. Although African-Americans were a group that actually reported below-average numbers of symptoms in the first round (4.0), they showed very little recovery between the two waves of the study (-0.3). By the second wave, African Americans reported an average of 3.7 symptoms, more than a symptom greater than the national average.

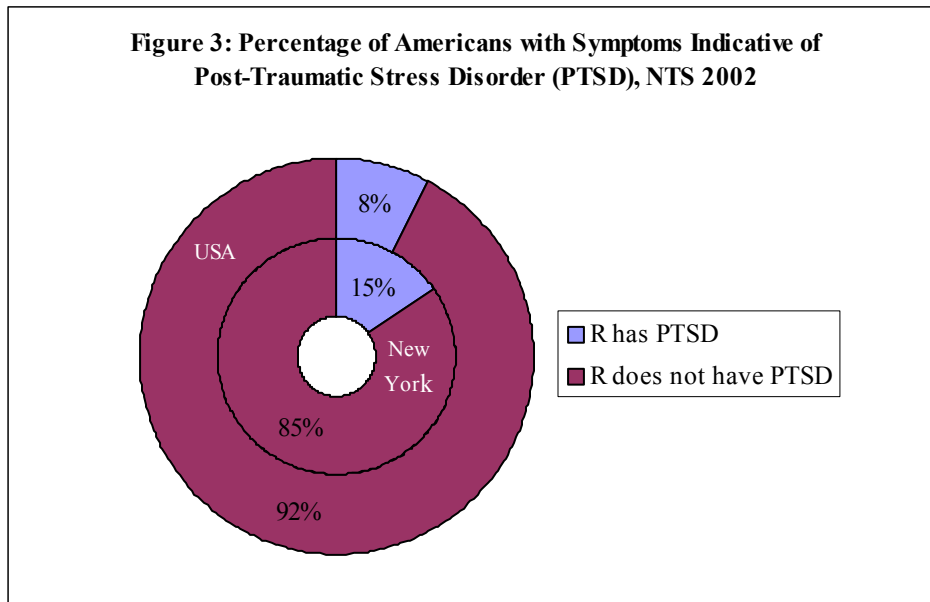
Along with race and ethnicity, socioeconomic status also appears to have been a predictor of recovery. Slower levels of recovery were found among both those with less income and less education. Although there was some recovery among those with a 2000 family income of less than \$40,000 (-1.2 symptoms), it was not on par with those with higher annual incomes (-2.1 symptoms). Moreover, Americans with less than a high school diploma had very little change in reported symptoms between the two rounds of the survey (-0.4). These findings seem to support the literature that argues that those in financially vulnerable situations have more adverse reactions over the long term, as a community begins to rebuild (Norris, 2001) and is consistent with the findings of Galea et al (2001) who argued that those in New York who lost financial resources suffered higher levels of post-traumatic stress. Our findings are consistent for both the national and the New York populations, suggesting that economically at-risk populations may have also been disproportionately affected by the national economic downturn that was exacerbated by the attacks.

Post-Traumatic Stress Disorder

In order to get a measure of psychological stress that was comparable to other studies of reactions to the September 11th attacks, NORC included a standard 17-item inventory used to diagnose Post-Traumatic Stress Disorder (PTSD) in the follow-up survey. Roughly 1 out of every 7 New Yorkers in the NTS follow-up scored in the range indicating they may be experiencing PTSD (see figure 3).¹ Not surprisingly, more New Yorkers scored in this range than did Americans in general (15 percent versus 8 percent). Consistent with the demographic predictors of psychological stress in the national sample, Hispanics, African Americans, and those with poor general health, less education and less income had the highest PTSD scores.

¹ The Post Traumatic Stress Scale was established by the following method: 1) Respondents had PTSD if they had an endorsement from at least 1 item from questions 1 through 5, an endorsement of at least 3 items from questions 6 through 12, and an endorsement of at least 2 items of questions 13 through 17; and 2) A moderate or above response to each of the 17 items was considered an endorsement.

Figure 3: Percentage of Americans with Symptoms Indicative of Post-Traumatic Stress Disorder (PTSD), NTS 2002



Depression

The NTS follow-up included a standard measure of depression, the Short Form version of the CES-D (Center for Epidemiology Studies-Depression Scale). The full CES-D has 20 questions asking about different feelings and behaviors related to depression and how often they have occurred in the past week (Roberts and Vernon, 1983). The short form, the CESD-10 consists of 10 of these questions and has been shown to perform similarly to the full CES-D in detection of negative affect and in classification of depressive symptoms based on the full 20 items (Andersen, Carter, Malmgren and Patrick, 1994). For both versions each symptom can receive a score of 0 to 3 depending on the frequency of the symptom during the last week. Thus the total possible score for the CES-D is 60; for the CESD-10 it is 30. The full scale uses a cutoff of 16 to indicate impairment due to depression (Roberts and Vernon, 1983). For the CESD-10 it is less clear what cutoff should be used because the scale has not been validated against an independent measure of depression. However, based on its comparison with the CES-D a cutoff score of 10 is suggested as a reasonable indicator of impairment due to depression (Andersen, Carter, Malmgren and Patrick, 1994). In this section we examined the percent of respondents nationally and in New York who scored 11 or higher on the CESD-10.

Unfortunately, we have no data on depression for the NTS round 1. Therefore, it is difficult to interpret differences among groups since some differences exist naturally in society. For example, women typically report more symptoms related to depression than do men, and those who describe their health as fair or poor typically report more depression than do those who are in good or excellent health. Therefore, if our data show male/female differences or differences by health status we have no way of knowing

whether this is due to the residual effect of the shock related to the 9/11 attacks or simply represents naturally occurring differences.

Comparison of national figures with those from New York are somewhat more meaningful. The percentage of New Yorkers falling into the impairment range for depression was 1.4 times higher than the national sample (National, 14.6 percent, New York, 21.1 percent). This is consistent with the finding for PTSD and the fifteen symptoms used in the first round of the NTS and in the Kennedy assassination study. With regard to depression symptoms, women in New York were up 10 points from those in the nation (National 16.7 percent; New York, 26.9 percent) compared to an increase of less than 5 points for men (National 9.9 percent; New York, 14.4 percent). Nationally, Blacks and Hispanics report higher levels of depression than do Whites (Blacks, 21.2 percent; Hispanics 32.2 percent; Whites, 11.7 percent). However the difference for Whites in New York compared to the nation is greater than the difference for Blacks and Hispanics (New York, Blacks, 25.6 Percent, up 4.4 points; Hispanics 39.7 percent; up 7.5 points; Whites, 21.3 percent, up 9.7 points).

While initial reactions to the attacks indicated more symptoms among the middle aged groups compared to the younger or older groups, differences in depression between the nation and New York at the round 2 interview suggest that younger respondents, those under 30, are having the most difficult time coping with the aftermath of the attacks. Compared to their counterparts in the nation (13.4 percent of 18 to 30 year olds in the the depressed group) the 18 to 29 year old respondents in New York are 12 points higher (25.4 percent in the depressed group). And compared to National figures, New Yorkers who did not go on to college expressed substantially higher depression than their counterparts in the nation (New York, 30.7 percent; Nation, 17.9 percent).

Behavioral Changes and Coping Mechanisms Post-9/11

In the wake of the September 11th attacks and the anthrax scare that followed shortly thereafter, many Americans began to think twice about their normal daily actions. When asked if they had taken any of a list of actions to reduce their risk of becoming a victim of terrorism, which included canceling an airplane trip, discarding mail unopened, taking precautions to open the mail, or avoiding large crowds of people, nearly half (46 percent) of Americans replied yes to at least one item. Again, in New York, the locus of attention for the worst of the attacks, this number was up significantly. About 70 percent of New Yorkers said they had done at least one of the six items.

The most commonly cited precautions were related to how Americans handled their mail. A substantial number of New Yorkers reported having recently taken extra precautions with their mail than other Americans. About 35 percent of New Yorkers said they had discarded or decided not to open mail they did not recognize, compared to the national sample in which roughly 27 percent of Americans discarded their mail unopened. About 21 percent of Americans said that they took extra precautions to handle their mail, such as wearing gloves or washing their hands afterwards. New Yorkers were

twice as likely than the country in general to have taken extra precautions with their mail (42 percent).

New Yorkers were also more likely than Americans in general to say they had avoided crowded public places since September 11th (27 vs. 16 percent). And while New Yorkers, who by definition live in an urban area, may be more exposed to crowded situations more than those who live in rural areas, they still reported higher levels of aversion to crowds than Americans who lived in urban centers of other cities (27 vs. 19 percent).

Table 7: Behavioral Changes and Sources of Advice since 9/11, NTS 2002

	USA	New York
A. Actions. ¹		
Cancelled an airplane trip	7.6	15.2
Discarded or decided not to open mail you didn't recognize	27.0	35.2
Taken other precautions in handling mail, such as using gloves or washing your hands afterwards	21.2	42.2
Avoided crowded public places like shopping malls and amusement parks	16.2	27.0
Reported a suspicious person or activity to the police	6.7	5.2
Asked your doctor for medicine to calm you down, help you sleep, or lift your mood	6.4	13.5
Any of the above	45.8	69.4
B. Sources of advice. ²		
A friend or family member	25.1	28.1
A government official	3.6	6.3
A psychologist, counselor, or other therapist	4.0	9.7
A minister, priest or other religious leader	11.2	11.4
A medical doctor or nurse	6.6	15.0
A police officer	3.7	4.6
Any of the above	34.4	44.6

¹Question text: "Since the September 11th attacks and the recent anthrax cases, which of the following, if any, have you personally done to try and reduce your risks of becoming a victim of terrorism?"

²Question text: "In response to the September 11th attacks, the anthrax cases and the ongoing war against terrorism, have you sought information, advice or help from any of the following people..."

Since 9/11, New Yorkers were twice as likely as other Americans to have cancelled an airplane trip (15 vs. 7 percent). However, the percentage of New Yorkers canceling a flight was no different than those who lived in other big cities. Finally, New Yorkers were twice as likely as other Americans to have asked for medicine to calm them down, help with sleeping, or lift their mood (14 vs. 6 percent). Given the persistence of symptoms described earlier it is not surprising that those living in New York would seek this kind of help.

Social Support & Advice

It's a commonly noted finding in the literature on PTSD and coping that people adversely affected by tragic events turn to others for social support. (Norris, 2001) The NTS provides further evidence for this finding. Although only about a third of the national sample (34 percent) reported talking to any type of person we asked about, this third of the population was the most adversely affected by the tragic events, reporting more psychological stress symptoms and demonstrating a higher likelihood of having PTSD than the rest of the population. By far the most commonly tapped source of social support was one's own friendship and family networks (table 7). About 25 percent of Americans said they had asked a friend for information, advice, or help in response to the September 11th attacks, the anthrax cases or the war on terrorism. In New York, the trends were similar but the percentages were amplified. About 44 percent of New Yorkers sought advice or help from some type of person we asked about. And again, the most commonly cited source of support was one's own friends (28 percent).

Demographic changes

In actions Americans took to avoid being a victim in the future, the same demographic trends that affected psychological stress persisted. The strongest differences in gender came in daily activities that would leave one vulnerable to a terrorist attack. Women were much more likely than men to report discarding their mail (34 vs. 19 percent) or took precautions in handling mail (30 vs. 11 percent). Women also reported avoiding crowds more often than men (20 vs. 12 percent).

These same trends also persisted among minority communities. Hispanics, for example, were more likely than others to say they had discarded their mail (54 vs. 26 percent) and avoided crowds (37 vs. 15 percent). African Americans were more likely than whites to have taken these precautions (43 vs. 25 percent discarded their mail and 32 vs. 14 percent avoided crowds). One possible explanation is the higher proportion of these populations that live in urban communities, but it is also likely that, given their adverse reactions psychologically to the attacks, they were more willing to take precautions to guard themselves.

In terms of people respondents sought for social support, there were strong demographic differences that affected the choices people made. Especially among New Yorkers, who in general talked to others as sources of advice more than the rest of the country, the differences were striking. Those who said in the initial survey that they had known someone hurt or killed in the attacks showed a strong tendency to talk to others. About 43 percent of Americans who had known someone hurt in the attacks sought outside advice, compared with 33 percent of other Americans. In New York, this figure ballooned to 57 percent, compared with 38 percent of New Yorkers who did not know someone hurt in the attacks.

Age and gender were also related to seeking social support. In New York, women more than men talked to people about their problems or asked someone for advice about how to deal with 9/11 or the anthrax attacks (54 versus 46 percent). Although, in general, age had no effect on whether someone sought advice or not, age had a strong effect on who respondents talked to. A particularly strong linear relationship existed between age and the likelihood of having asked a friend for advice. Particularly, younger respondents were progressively more likely to talk to friends than older respondents. Nearly half of New Yorkers between the ages of 18-30 asked a friend for advice (49 percent), compared with 3-35 percent of New Yorkers in other age groups. The rest of the country observed a similar trend, though not quite as amplified. Again, young adults had higher rates of talking to friends than their older counterparts (32 percent versus 14-29 percent).

Altruistic Behavior

Aiding in the recovery process, many Americans were moved by the outpouring of sympathy and generosity reported by the media directly after the attacks. The media also communicated and sponsored many opportunities to donate. Round 1 of the NTS survey confirmed that the majority of Americans engaged in positive civic actions after the terrorist attacks. About half contributed to charities, 24 percent donated or tried to donate blood, and about 8 percent did extra volunteer work for an organization (table 8). Many Americans also took defensive actions. Almost fifteen percent avoided going to certain places like government buildings or the downtown areas of large cities. New Yorkers were more likely to donate or attempt to donate blood and were more likely to report doing volunteer work.

Table 8 shows round 1/round 2 comparisons for the nation and for New York. As might be expected, fewer people reported giving to charity both nationally (12.1 points less) and in New York (12.7 points less) by the time of the follow-up survey, presumably because of the perception of a decreased need for those activities. Similarly, fewer people reported donating or trying to donate blood, both nationally (10.2 point decline) and in New York (18.0 point decline). While the level of volunteerism dropped by 5.2 points in New York it increased by 4.1 points nationally. The percentage of people nationally and in New York reporting that they avoided specific places such as government buildings and the downtown of a city did not change appreciably at the time of the follow-up, even though four to five months had passed.

Table 8: Altruistic Activities and Other Behavioral Changes After the Terrorist Attack, NTS 2001-2002

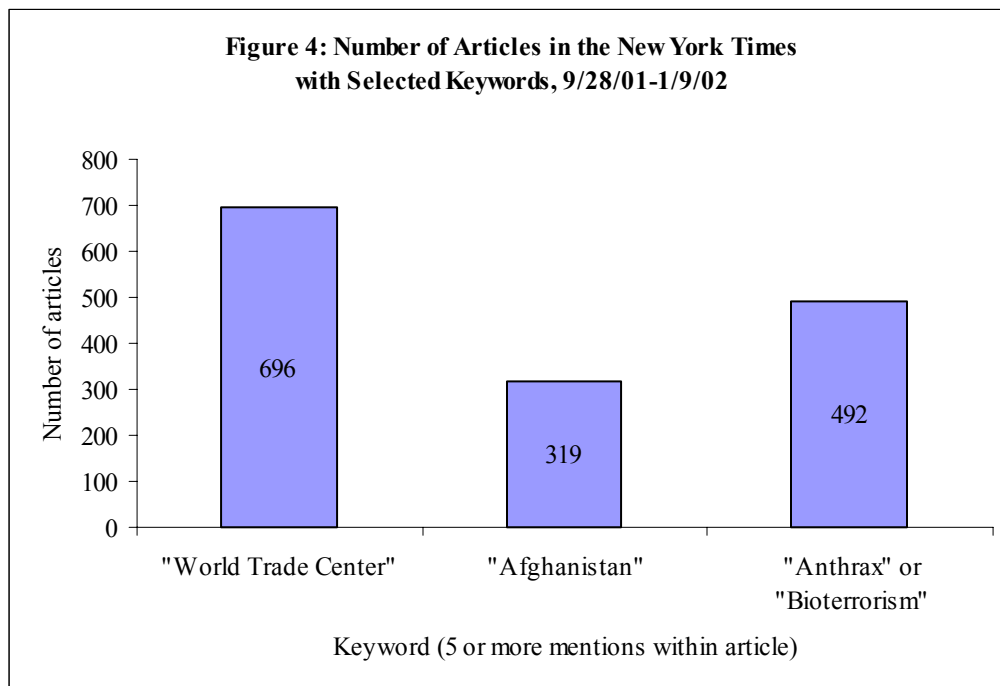
	NTS 2001		NTS 2002	
	National	New York	National	New York
Gave money, clothing, or other items to charity	51.4	54.5	39.3	41.8
Avoided going to a specific place like a government building or the downtown of a city	14.7	26.9	13.1	24.3
Donated blood or tried to donate blood	24.3	36.5	14.1	18.5
Did extra volunteer work for an organization	7.8	15.0	11.9	9.8

¹Question text, wave 1: "Since last Tuesday/September 11th, did you do any of the following in direct response to the attacks in New York City or Washington, DC?"

Question text, wave 2: "In the last week or two did you do any of the following in direct response to the attacks in New York City or Washington, DC?"

Attention to media

Media coverage of events related to the terrorist attacks and its aftermath was high during the three-month period between the first and second rounds of the survey. A rough count of major stories in the New York Times (e.g., those mentioning keywords at least five times) showed nearly 700 stories including the term World Trade Center, more than 300 stories containing the word Afghanistan, and nearly 500 stories containing the terms anthrax or bioterrorism (see figure 4). Granted that there must be some overlap among stories on these topics, it seems justifiable to say that the amount of media coverage of these topics during this period was substantial.



An independent source of information indicates that stories relating to the war on terrorism were attended to very closely by the American public. The Pew Research Center for the People and the Press has been collecting data on public attentiveness to news stories since 1986. Their results show that in September and October, 2001, stories relating to the terrorist attacks were attended to "very closely" by 72 to 78 percent of the American public. As late as February, 2002, 47 percent of the American public reported attending "very closely" to stories about the war in Afghanistan.²

The follow-up survey asked respondents whether they paid a great deal of attention, a lot of attention, a little attention, or almost no attention to media reports related to the terrorists attacks in the following three areas: (1) The September 11th terrorist attack, (2) the war in Afghanistan, and (3) anthrax or bioterrorism. Results are shown in table 9. Nationally, nearly 40 percent reported paying a great deal of attention to the September 11th terrorist attack and the war in Afghanistan (38 and 38 percent). Just over a fifth said they paid a great deal of attention to reporting on anthrax or bioterrorism (22 percent). About seven percent more men than women nationally said they paid a great deal of attention to coverage of the September 11th attacks and the war (42 vs. 35 percent and 42 vs. 35 percent). This pattern was reversed for anthrax and bioterrorism, with about 6 percent more women than men saying they paid a great deal of attention to these topics in the media (25 vs. 19 percent).

Table 9: Attention Paid to Various News Stories since 9/11, NTS 2002¹

	USA	New York
Paid a great deal of attention to...		
The September 11th terrorist attack	38.4	44.6
The war in Afghanistan	38.2	39.8
Anthrax or bio-terrorism	22.2	31.3

¹Question text: "When you read the newspaper, or watch or listen to the news, how much attention do you pay to news stories about each of the following..."

Nationally, more Hispanics than non-Hispanics reported paying a great deal of attention to media coverage of the terrorist-related events. This is particularly true for coverage of the war in Afghanistan and for anthrax and bioterrorism stories (50 vs. 38 percent and 35 vs. 22 percent). African Americans seem particularly attentive to coverage of the anthrax/bioterrorism issue, perhaps because of the coverage indicating that many African Americans who worked at post offices felt unsafe in handling incoming mail (39 percent).

² Public Attentiveness to News Stories: 1986 - 2002. The Pew Research Center For the People and the Press. <http://people-press.org/nii/>

Attention to media coverage related to the World Trade Center and anthrax/bioterrorism was higher in New York than in the nation (45 vs. 38 percent and 31 vs. 22 percent). As in the national sample, more male than female New Yorkers reported paying attention to stories about the World Trade Center and the war in Afghanistan (51 vs. 39 percent and 47 vs. 34 percent). In New York those in the under 30 age group reported that they paid less attention to all three of the topics, compared to other age groups (27 percent for the September 11th attack vs. 35 to 61 percent, 17 percent for the war in Afghanistan vs. 39 to 52 percent, and 16 percent for bioterrorism vs. 24 to 41 percent). This pattern was not seen in the national data. New York Hispanics and African Americans reported being particularly attentive to news stories about anthrax and bioterrorism (44 percent and 37 percent).

Nationally, Democrats seemed more attentive to news stories about the World Trade Center and about anthrax/bioterrorism than were Republicans (44 vs. 36 percent and 30 vs. 20 percent). In contrast, Republican New Yorkers reported more attention to stories about the World Trade Center than Democrats (52 vs. 43 percent). New York Republicans also seemed more interested in the war in Afghanistan than New York Democrats (43 vs. 39 percent).

Conclusions

Round 2 of the NTS, conducted three to five months after the September 11th terrorist attacks, shows the complexity of the aftermath of this tragic event. On the one hand, public pride in America remained high. However, in contrast, with the exception of confidence in the military, confidence in American institutions seem to be returning to pre-September 11th, perhaps more realistic, levels. Some of that may be accounted for by recent domestic scandals involving business and religious institutions. Though strong indications of emotional recovery were present, there were some groups that appeared still to be suffering from shock related to the attacks. In particular, New Yorkers, who were hardest hit, showed both resilience and vulnerability. Their pride in America continued to be high yet the residue of emotional strain is at a level higher than that of the rest of the country. Discrepancies in residual effects by subgroups seem to vary by the type of measure. In general, across all measures of negative symptoms, post-traumatic stress, and depression New Yorkers still fared worse than those in the rest of the nation.

The results indicate that common perceptions of immediate public reactions to the attacks were in some ways misinterpreted. Although there was clearly a strong increase in support for the administration, pride in America, and confidence in institutions, the increases were not uniform. Differences between African Americans and whites, Democrats and Republicans, and older and younger citizens still remained at the time of the follow-up, although some convergence in the confidence between African Americans and whites was apparent. Perhaps this reflects an increased sense of connection with the military as young African American men and women were called to take up arms to defend America against terrorism. Or perhaps it is the result of some identification with the highly visible, extremely competent role played by Secretary of State Colin Powell in the aftermath of the attacks.

Although for the most part the nation is on track towards psychological recovery, round 2 of the NTS shows disturbing trends in the persistence of symptoms for some groups. Several indicators suggest that there is a substantial residual effect among residents of New York City. Other notable trends are the persistence of adverse response among women, minority groups, low income groups, and those in poor health. Greater exploration of the determinants of these long-term effects and a monitoring of their persistence is warranted.

Data

The first round of the National Tragedy Study was conducted between September 13th and September 27th, 2001, by the National Opinion Research Center (NORC) at the University of Chicago. It was a telephone interview of adults (18+) living in households with telephones in the United States. The total sample size of 2,126 comprised a national sample of 1,013 households and additional samples in the New York City (406 additional households), Washington DC (206 additional households), and Chicagoland (502 additional households) areas. The overall response rate was 52 percent, with a 56-percent response rate for the national portion of the survey, 50 percent for New York, 41 percent for Washington DC, and 51 percent for the Chicagoland area. Responses from the Washington DC oversample were not analyzed separately because of its low response rate and small size.

The second round of the National Tragedy Study was conducted between January 10th and March 4th, 2002. This follow-up survey was also conducted by telephone, but only the national and New York City samples were included. The following table shows sample sizes and response rates for both rounds of the NTS.

Table 10: Sample Sizes and Response Rates

Sample	n	Response Rate
Round 1		
National	1,013	56%
New York	406	51%
Round 2		
National	805	79%
New York	296	73%

Weights were constructed to reflect national estimates and to allow comparisons between the national and the New York sample for the round 1 data. An overall weight was created by accounting for the oversampling in New York and adjusting to national proportions based on age, sex, race and education. Separate weights were constructed to generate estimates from New York and to compare New York to the nation. Neither the national nor the New York weights were adjusted for round 2 nonresponse. Demographic

differences between the panel respondents (those interviewed in both rounds) and the panel nonrespondents (those only interviewed in round 1) were examined. Nationally, no differences between panel respondents and nonrespondents were found for sex, age, race, education, or income. In the New York City sample, significantly more panel respondents were college graduates and panel respondents had significantly higher incomes on average, (\$33,700 per adult per household) than panel nonrespondents (\$26,500 per adult per household). Because the panel respondents are a subset of those interviewed in round 1, percentages and other statistics reported on round 1 panel respondents may differ slightly from those presented in our earlier report (Smith, Rasinski, & Toce, 2001).

The Kennedy Assassination Study was conducted between November 16 and December 3, 1963 by the National Opinion Research Center, University of Chicago. It was an in-person interview of adults (21+) living in households in the United States and had 1,384 respondents. It used a modified probability sample.

The General Social Surveys (GSSs) have been conducted by the National Opinion Research Center 24 times from 1972 to 2002. The GSSs are in-person, full-probability samples of adults (18+) living in households in the United States. A total of 43,698 people have been interviewed across the 20 years. Response rates average above 75 percent. Core support for the GSSs comes from the National Science Foundation. For full, technical details on the GSS, see James A. Davis, Tom W. Smith, and Peter V. Marsden, *General Social Surveys, 1972–2000: Cumulative Codebook*. Chicago: NORC, 2001.

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