

# **Patterns of Public Confidence in Major Institutions' Business Continuity Planning and Disaster Recovery Capabilities In the United States**

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**Abstract:** The checkered response of many organizations to the disasters brought to the United States by Hurricane Katrina has had a profound impact on the confidence of Americans in those institutions to respond to disasters in general. However, that psychological impact has varied greatly in the United States by region, socioeconomic status, education level, gender, and race. This paper presents the results of three nationwide attitudinal surveys with 1000 randomly sampled adults, conducted by InfoSENTRY Services, Inc. in January of each year from 2006 through 2008. The surveys revealed sometimes dramatic shifts over relatively short time periods in Americans' confidence ratings of the abilities of U.S. national government, state governments, local governments, large corporations, medical institutions, educational institutions, and financial institutions to develop effective business continuity plans and to respond to disasters. The paper analyzes the constraints and opportunities these attitudinal patterns place on business continuity, disaster recovery, and emergency preparedness professionals in these institutions. The paper provides an analysis of the potential impact of the declining public confidence ratings of specific institutions' continuity and response capabilities on the likelihood of those institutions gaining effective public support during times of major disasters and operational disruptions.

## **Introduction**

The beginning of the new century has brought a heightened awareness of the impact of major disasters on entire communities in the United States. The World Trade Center attacks and destruction in September, 2001 disrupted life, business, and economy in an area far greater than the several city blocks directly affected in lower Manhattan, New York City.

Hurricane Katrina in late August, 2005 was the most deadly hurricane in the United States in over 70 years. It brought about the direct loss of almost 2,000 lives, had an economic impact of at least US\$81 billion, and destroyed huge portions of a major U.S. city.

On May 4, 2007 an EF5 tornado destroyed almost all of the structures and infrastructure in Greensburg, Kansas. Reportedly, the Greensburg tornado was the first to ever be rated EF5 since the update of the Fujita scale.

Major wildfires have continued to occur in heavily populated areas in the state of California. There were major outbreaks in 2007 affecting thousands of urban and suburban residents and closing hundreds of businesses.

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The area-wide disasters have demonstrated clearly that a country as large and diverse as the United States is open to disasters that affect hundreds of thousands of people in very short periods of time. For the first time in modern American history, the question has emerged in the minds of its citizens about whether its institutions can respond to the disasters, recover from them, and continue the basic levels of operation that many surmise Americans have taken for granted.

After the World Trade Center destruction in September, 2001, it appeared that major American institutions—public and private, small-scale and large-scale—had been able to recover and continue operations. However, when Hurricane Katrina struck directly at the Gulf Coast region in the summer of 2005, the destruction was widespread and pervasive. In addition to the destruction in surrounding cities and states, a major American city fell prey to the worst effects of a natural and human-caused disaster—and to what was widely seen as ineffective disaster response efforts. The debate still rages in the United States about the adequacy of response by local governments, state governments, the Federal government, and a host of other major institutions in the wake of such a major disaster. The blame game and the spin game continuously rebound in political discussions.

It is clear that public perceptions about the capabilities of institutions to recover from disasters and keep themselves in operation in the aftermath of disasters remain at the heart of political and policy debates. Witness that the presumptive Republican candidate for U.S. President felt compelled in late April, 2008 to go to New Orleans and criticize his own party's current President for his administration's mishandling of the Katrina response and aftermath. Witness a Democratic presidential candidate who announced both the beginning and end of his candidacy in New Orleans.

There have also been efforts by various institutions—both in the public and private sectors—to convince their constituents and their customers that they are prepared to respond and continue operations after major emergencies and disasters. A major retailer in the United States has run periodic advertisements touting its rapid assistance to New Orleans residents and its ability to re-open stores all along the Gulf Coast. Major financial and insurance institutions have noted their ability to respond to customers in wide areas because of their extensive branches and ATM systems.

Given the images of the World Trade Center's collapsing buildings and the devastation of a major urban area that are still burned in American minds, although not always on the front burner, we were interested in determining the degree to which those images are changing American attitudes toward disaster recovery and business continuity (DR/BC). We were also interested in determining if American attitudes toward their core, common institutions are shared evenly and similarly across major demographic subgroups. The degree to which subgroups differ in their confidence in the institutions might well have a major impact on broader political shifts in American life and in citizens' broader confidence in those institutions.

We emphasize that our interest is not in the narrow definition of "disaster recovery" as applied to information system or telecommunications operations. Our interest is more broadly in confidence in the abilities of the institutions themselves to recover, resume operations, and presumably assist others in their recovery and continuity efforts. In short, our interest is in public confidence in institutions' capabilities to restore civic life of government, health, education, and commerce in the aftermath of major disasters.

In order to study these questions, we turned to the traditional tool of survey research to ask a representative sample of United States adults about their confidence in these civic institutions to respond to emergencies and disasters.

## Survey Research Methods

InfoSENTRY Services, Inc. contracted Opinion Research Corporation (ORC), a leading national opinion research company in the United States, to ask a random sample of U.S. respondents who are 18 years old and over the following question in ORC's January CARAVAN® surveys in 2006, 2007, and 2008:

“Now I am going to read you some types of organizations that have to deal with emergencies and disasters. As I read each one, using a scale of 1 to 5, where 1 means very low confidence and 5 means very high confidence, please tell me how confident you are that each organization can keep itself in operation during major emergencies or can recover from serious disasters. [READ AND ROTATE ITEMS].”

The interviewers read a list of institutions prepared by InfoSENTRY and ORC. Interviewers rotated the order in which they presented the institutions from interview to interview to eliminate potential bias from the order in which respondents heard the specific institutions.

This type of question typically creates what is known as a Likert item, named after Rensis Likert who refined the 1-to-5 scale for use in psychometric analysis. Researchers deriving data from these types of Likert-item responses typically report the results in percentage terms. They often also compute “Net Scores” by aggregating the positive confidence scores (4 and 5) and subtracting from them the negative confidence scores (1 and 2) on the 1 – 5 scale. We present data in this paper both in percentage terms and in Net Confidence Scores.

InfoSENTRY has conducted the same national opinion surveys at roughly the same time in each of the years since 2006. Table 1 contains the dates and relevant weighted sample sizes of the opinion surveys in each year. The actual number of interviews slightly exceeded 1000 in each year.

**Table 1**  
**National Probability Sample Survey Dates and Sizes**

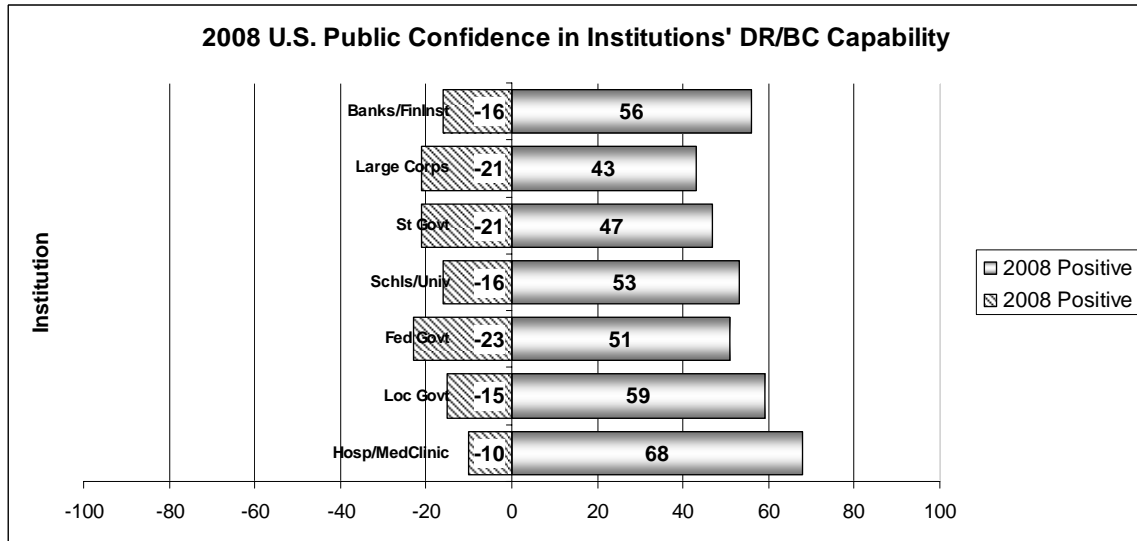
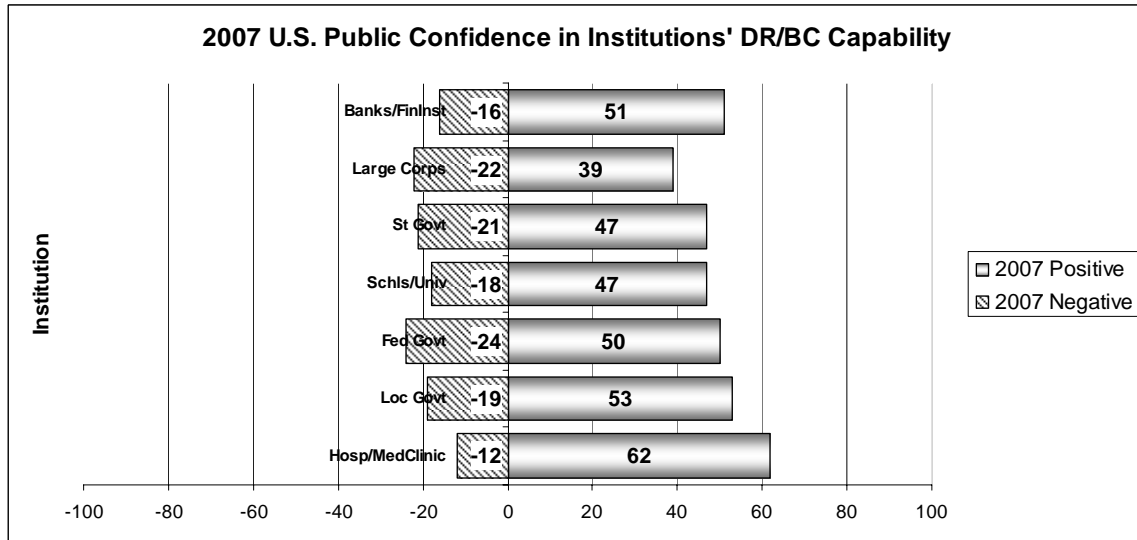
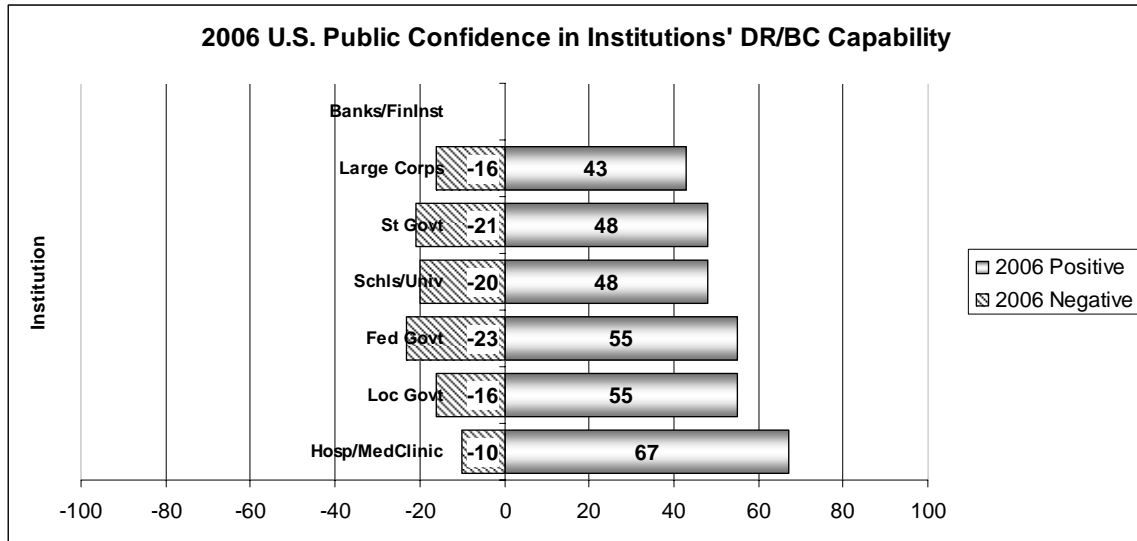
	<b>Sample size, U.S. Adults (Weighted Total)</b>	<b>Females (Weighted Total)</b>	<b>Males (Weighted Total)</b>
12 – 15 January, 2006	1000	517	483
04 – 07 January, 2007	1000	516	484
03 – 06 January 2008	1000	516	484

All of the telephone surveys reached individuals 18 years of age and older, living in private households in the continental United States. The margin of error in these surveys is plus or minus three percentage ( $\pm 3\%$ ) points.

## Overall Confidence in Institutions DR/BC Capabilities

Figure 1 graphically presents summary results of public confidence in major institutions' DR/BC capabilities from the surveys in all three years.

**Figure 1**  
**Summary Trends in U.S. Public Confidence in Institutions' DR/BC Capability\***



\*The 2006 survey did not include the "Banks and Financials Institutions."

The data indicate that the overall level of Americans' confidence in these major civic institutions' abilities to recovery from disasters and continue in operations is not as high as many of those institutions' leaders would undoubtedly hope.

In the post-Katrina period, approximately two-thirds of Americans expressed positive confidence in the recovery and continuity capabilities of hospitals and medical clinics. This level of confidence was significantly higher than the levels of confidence expressed in all other American institutions in the study. At the same time, the percentages of Americans expressing negative levels of confidence in hospitals and medical clinics were significantly less than similar expressions of "negative confidence" in all other institutions over the three January measurement periods. It is likely that Americans understand that responding to emergencies is at the core of what many hospitals and medical clinics do.

American confidence in local governments' recovery and continuity capabilities has increased by a small, but statistically significant, amount in the post-Katrina period. Local government institutions include police, firefighters, rescue responders, and other "on the ground" agencies. At the end of the three-year study, almost six out of ten (59%) survey respondents expressed positive confidence in local governments' recovery and continuity of operations capabilities. It is with these groups that the majority of Americans have had the most direct, continuing contact during emergencies, thereby bolstering their image.

On the other hand, confidence in the Federal government's recovery and continuity capabilities declined slightly, but by a statistically significant amount, from 2006 to 2008. Katrina initially laid bare the idea that the Federal government, which under the current administration had consolidated the Federal Emergency Management Agency under the nation's chief anti-terrorism department, did not place a major priority on recovery and continuity for non-terrorism-related events, regardless of size and scope of devastation. The Federal government's ratings in public confidence of its recovery and continuity of operations ended the three surveys in a statistically tied ranking with state governments. While local governments have improved their recovery and continuity images in the American public mind, state governments and the Federal government have not fared as well.

Public confidence in large corporations' recovery and continuity abilities started at the bottom of the rankings in January, 2006 and remained at the bottom through 2007 into 2008. Fewer than half (43%, 39%, and 43% in the respective three surveys) of the respondents expressed positive confidence in large corporations' recovery and continuity abilities.

Overall the percentages of respondents expressing confidence in these institution's response abilities have rebounded somewhat from 2006 to 2008, after a dip in 2007. Viewed through the lens of time and perhaps through reactions to fires in CA, the public has slowly started to rebound in its opinion of these institutions' capabilities.

### **Regional Patterns in Confidence**

The impact of area-wide disasters has been felt unevenly throughout the United States. While the most visible such disasters have been in New York City, itself a very large area, and in New Orleans, Louisiana, Americans generally perceive hurricanes, wildfires, flooding, and major earthquakes to attach themselves to certain regions.

Therefore, we were interested in determining if any regional patterns have emerged recently in the way Americans view major institutions' abilities to respond to emergencies and provide operational continuity.

Table 2 contains the Net Confidence Scores (that is, positive scores minus negative scores) across the United States' major regions.

**Table 2**  
**Regional Net Confidence Scores in Institutions' DR/BC Capabilities**

	U.S. Fed. Govt.	State Govt.	Local Govt.	Schools / Universities	Hospitals / Med. Clinics	Banks / Finance Institutions	Large Corporations
<b>2006</b>							
Region- Northeast	31	26	34	25	59		29
Region- South	26	29	43	35	56		28
Region- North Central	32	29	34	33	55		28
Region- West	44	24	38	15	52		20
<b>2007</b>							
Region- Northeast	15	25	25	22	43	38	5
Region- South	29	32	36	37	51	40	24
Region- North Central	42	27	37	32	59	38	21
Region- West	16	18	32	21	46	24	17
<b>2008</b>							
Region- Northeast	37	22	35	28	52	34	16
Region- South	30	32	45	47	59	47	27
Region- North Central	17	17	46	37	57	37	20
Region- West	27	33	49	25	60	36	26

These data reflect declines in Net Confidence Scores in all regions for most major institutions from January, 2006 (four months after Hurricane Katrina) and January, 2007 (by when the lack of effective response by many institutions became more clearly evident). By the January, 2008 survey, most of the Net Confidence Scores rebounded for most institutions. A major exception was the collapse of Net Confidence Scores in the Federal government's DR/BC capabilities in the North Central and Western regions from 2006 to 2008. In the South, arguably the nation's most conservative region, Net Confidence Scores in the Federal government's DR/BC capabilities actually increased from 2006 to 2008.

Net Confidence Scores in large corporations' DR/BC capabilities plummeted in the Northeast region after January 2006 and remained low in the January 2008 survey. The Northeast's Net Confidence Score of 5 for large corporations in the 2007 survey was among the lowest scores in any of the surveys for any subgroup and for any institution.

Net Confidence Scores for hospitals and other medical institutions were consistently the highest in all regions in all surveys. They did not reflect the sometimes large and consistent drops in 2007 as did some other institutions' scores.

**Age Patterns in DR/BC Confidence**

Age cohorts are another very important set of demographic subgroups in United States political and policy life. Table 3 contains a statistical breakdown of the survey responses by age subgroups.

**Table 3**  
**Age Subgroups' Net Confidence Scores in Institutions' DR/BC Capabilities**

	U.S. Fed. Govt.	State Govt.	Local Govt.	Schools / Universities	Hospitals / Medical Clinics	Banks / Finance Institutions	Large Corporations
<b>2006</b>							
Age- 18-24 years	54	40	32	19	49		19
Age- 25-34 years	53	41	45	31	54		38
Age- 35-44 years	44	33	40	33	57		21
Age- 45-54 years	22	21	36	28	57		31
Age- 55-64 years	23	19	43	28	61		27
Age- 65+ years	-2	12	38	30	60		21
<b>2007</b>							
Age- 18-24 years	42	38	26	27	43	33	14
Age- 25-34 years	42	40	36	31	57	41	26
Age- 35-44 years	35	24	40	28	41	26	15
Age- 45-54 years	22	16	25	22	46	32	20
Age- 55-64 years	13	21	25	28	49	38	14
Age- 65+ years	6	23	42	42	61	45	19
<b>2008</b>							
Age- 18-24 years	47	48	48	40	48	32	8
Age- 25-34 years	41	58	44	38	54	46	35
Age- 35-44 years	32	16	43	31	61	41	27
Age- 45-54 years	18	20	38	30	57	40	22
Age- 55-64 years	21	30	46	41	69	37	28
Age- 65+ years	7	20	49	45	58	45	19

The positive Net Confidence Scores (that is, of net scores over 50) for hospitals and medical clinics generally held across all age groups. While there were minor dips in the Net Confidence Scores for these institutions in 2007, the scores generally rebounded in the 2008 survey to their 2006 levels.

The age subgroup of 65+ years had the lowest opinion of the Federal government's DR/BC capabilities of all age groups for all institutions in the survey. The Net Confidence Score for the Federal government of -2 from this age group was the second lowest such score for any demographic subgroup in any of our surveys. Even the "rebound" score of +7 in 2008 for the Federal Government's BC/DR capabilities was still statistically lower than almost all other Net Confidence Scores in any demographic subgroup in any of our surveys.

The DR/BC Net Confidence Scores for schools and universities showed statistically significant increases at the opposite ends of the age spectrum. The scores from 18-24 year olds jumped from 19 to 40 for these education institutions from 2006 to 2008. The education institutions' DR/BC confidence scores increased from and 30 to 45 over the same period for the 65+ year old survey respondents. The middle-age groups between the polar ends of the age continuum did not share such substantial increases over the survey periods.

The surveys also detected a substantial, statistically significant decline in the DR/BC Net Confidence Scores in large corporations in the youngest age group, the 18-24 year olds. These scores started at an already low 19 in January, 2006 and dropped to an even lower 8 in January, 2008.

**Household Income Patterns in DR/BC Confidence**

The survey also found very wide variations in the DR/BC Net Confidence Scores across the institutions and across household income subgroups. Table 4 contains the results of these statistical breakdowns.

Table 4

## Household Income Subgroups' Net Confidence Scores in Institutions' DR/BC Capabilities

	U.S. Fed. Govt.	State Govt.	Local Govt.	Schools / Universities	Hospitals / Med. Clinics	Banks / Finance Institutions	Large Corporations
<b>2006</b>							
HHIncome- <\$25K	27	27	43	32	52	*	18
HHIncome- \$25K < \$35K	33	26	39	34	58	*	25
HHIncome- \$35K < \$50K	28	36	38	43	59	*	37
HHIncome- \$50K < \$75K	38	39	40	16	54	*	15
HHIncome- \$75K >	37	18	35	20	56	*	34
<b>2007</b>							
HHIncome- <\$25K	21	34	26	31	48	29	6
HHIncome- \$25K < \$35K	25	31	33	33	42	16	23
HHIncome- \$35K < \$50K	24	28	25	28	43	33	9
HHIncome- \$50K < \$75K	33	25	34	32	45	37	14
HHIncome- \$75K >	38	24	39	24	62	43	27
<b>2008</b>							
HHIncome- <\$25K	28	33	45	43	56	30	20
HHIncome- \$25K < \$35K	13	10	36	28	43	31	4
HHIncome- \$35K < \$50K	28	24	45	43	60	41	34
HHIncome- \$50K < \$75K	32	28	49	28	60	41	20
HHIncome- \$75K >	33	27	40	35	64	44	30

These results indicate that individuals from households with annual incomes over US\$75K had a statistically significant increase in DR/BC Net Confidence Scores for state governments, educational institutions, and hospitals/medical clinics over the three annual survey periods.

It was at the lower household annual income level of US\$25K < US\$35K that the surveys saw declines in confidence from 2006 to 2008 for the Federal government, state governments, and large corporations. Some of the declines in the DR/BC Net Confidence Scores for this lower income category were quite dramatic. For example, this income group's Net Confidence Score in the DR/BC capabilities of the Federal Government dropped from a low 33 in 2006 to an even lower 13 in 2008. Also, this income group's Net Confidence Score in large corporations' DR/BC capabilities plummeted from only 25 in 2006 to a much lower 4 in 2008. Clearly, this income group has minimal confidence in any recovery and continuity safety net capabilities of the Federal government and large American corporations.

### Racial and Ethnic Patterns in DR/BC Confidence

One of the pervasive fault lines in American society is among major racial and ethnic demographic subgroups. Table 5 contains the results of a statistical breakdown of the survey data according to standard subgroups used by ORC in its national surveys: White, Black, and Hispanic.



**Table 5**  
**Racial/Ethnic Subgroups' Net Confidence Scores in Institutions' DR/BC Capabilities**

	U.S. Fed. Govt.	State Govt.	Local Govt.	Schools / Universities	Hospitals / Med. Clinics	Banks / Finance Institutions	Large Corporations
<b>2006</b>							
Race/Ethnic- White	34	32	35	29	56	*	28
Race/Ethnic- Black	19	18	44	30	47	*	15
Race/Ethnic- Hispanic	41	19	54	31	70	*	24
<b>2007</b>							
Race/Ethnic- White	32	31	41	33	56	39	25
Race/Ethnic- Black	8	7	9	26	39	37	-5
Race/Ethnic- Hispanic	24	30	22	22	34	21	9
<b>2008</b>							
Race/Ethnic- White	23	23	43	34	57	40	22
Race/Ethnic- Black	28	16	38	57	53	49	24
Race/Ethnic- Hispanic	45	51	48	37	66	32	28

African-Americans' DR/BC Net Confidence Scores plummeted in 2007 for all major institutions except medical and educational institutions. With the exception of this demographic subgroup's scores for these two institutions, Blacks' DR/BC Net Confidence Scores for all other institutions were in single digits. Their -5 for large corporations was the lowest Net Confidence Score for any subgroup for any institution in our surveys. It is likely that these scores reflect directly on what African-Americans saw as a highly visible and largely protracted failure of disaster recovery and operational continuity efforts—particularly by governments—during that period in New Orleans, Louisiana. The scores for these institutions largely rebounded by the 2008 survey.

Hospitals and medical clinics consistently received the highest DR/BC Net Confidence Scores among all institutions and across all racial/ethnic subgroups for the survey periods.

One of the strongest, single trends among the racial/ethnic groups was the increase in DR/BC Net Confidence Scores among Hispanics for state government institutions. These scores rose from 19 in 2006 to 30 in 2007. They jumped another 21 points to a Net Confidence Score of 51 in 2008. Hispanics' DR/BC Net Confidence Scores for hospitals and medical institutions started in 2006 with a very high score of 70. After a significant dip in 2007 to 34, the subgroup's scores rebounded to 66 in 2008, statistically equivalent to their initial score in 2006.

### **Findings and Discussion**

These scores might be surprisingly low to some people who have worked diligently to prepare, test, and audit their response, recovery, and continuity programs. These scores are generally lower than almost anyone would have liked. However, given (1) that the vast majority of the institutions in the study do not have DR/BC plans, tests, or audits and (2) the obvious lack of such plans when major, area-wide disasters have occurred, these survey results might actually have another interpretation: the generally low American confidence in many institutions' DR/BC capabilities is a generally accurate—if not in fact overly optimistic—reflection of the condition of their actual recovery and operational continuity abilities.

The institutions that generally fared best in the survey were those that provide personal, on-the-ground, continuous emergency response services. In the instances of medical institutions and financial institutions, they are also the institutions that are most highly regulated. (The governments that received such low scores generally do not impose the kinds of regulations on themselves that they impose on other institutions.) In this respect, the regulatory “burden” on these institutions has resulted in a greater confidence that the regulated organizations can respond as required during emergencies and disasters.

The surveys indicate that regional differences exist in public confidence in the DR/BC capabilities of the various institutions. In particular, the Western region has developed a substantially negative view of the Federal government's capabilities to recover from disasters and continue in operations in emergency situations.

The United States' predominant racial and ethnic subgroups have developed substantially differing confidence levels in many institutions' DR/BC capabilities. These differing confidence levels can have a substantial impact on these subgroups' support for political candidates for office at various governmental levels. That impact has already been felt deeply in Louisiana and in the "job performance" ratings for the current President. In fact, it is probably not a coincidence that support for the President's invasion of Iraq began to drop even more significantly soon after what was perceived as his administration's less than competent response to Hurricane Katrina. This attitude toward the Federal government is unlikely to change as long as there is a public attitude, shared even among some first responders, that anti-terrorism activities take heavy precedent over response to natural disasters.

It is also likely that public confidence in an institution's DR/BC capability can have an equally profound impact on public support for and patronage of large corporations if they are seen as lagging too far behind in their ability to provide community support during times of large-scale emergencies and disasters. The low Net Confidence Scores for large corporations' DR/BC capabilities among various age and racial/ethnic subgroups should at least serve as a warning to those corporations if they intend to serve markets with those subgroups as potential customers.

### **Authors' Biographies**

M. Glenn Newkirk is President and co-founder of InfoSENTRY Services, Inc. He has prepared dozens of disaster recovery and business continuity plans with private sector businesses, U.S. governmental agencies, and international organizations since 1990. He directs InfoSENTRY's annual national survey of attitudes toward various issues involving information security and business continuity. He is a Certified Business Continuity Professional, a Certified Software Project Manager, and a Certified Business Resilience Auditor.

Helen Ann Sims is Vice President and Partner in InfoSENTRY Services, Inc. She has participated in preparation of business impact analyses for public sector agencies in the United States and has assisted InfoSENTRY in developing its use of structured After Action Reviews to document continuity and recovery tests. Ms. Sims studied with Peter Drucker at the Claremont Graduate School. She is a Certified Quality Auditor and a Certified Achieving Styles Practitioner.