

**AN EVALUATION OF THE COMMUNITY-WIDE FLOOD RELIEF EFFORTS**  
**2004-2005**  
**A Study Commissioned by North Hills Community Outreach**

**SUBMITTED—July 2006**

Cornerstone Evaluation Associates LLC would like to express appreciation to all flood victims who made this evaluation possible by willingly sharing their time and their stories as well as to those volunteers who gave tireless hours to gather critical information from these individuals.

In addition, Cornerstone would like to thank NHCO staff members as well as its own associates for exceptionally good work in completing this project. They are in alphabetical order: at NHCO—Mary Renee Chi, Director of Services; Virginia Giles, Volunteer Team Leader; Wendy Gordon, Director of Communications; Fay Morgan, Executive Director and David Tiernan, Flood Service Manager.

At Cornerstone—Robert Goldbach for his assistance with data analysis, Claire Palmgren for her role in overseeing interviewing, Marilyn Spisak for her work throughout this evaluation and Gabe Yu for his assistance with transcriptions.

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## EXECUTIVE SUMMARY

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I did truly, thoroughly enjoy working with NHCO. You know, my contacts with them were always professional. They never stepped over their bounds and they were always very respectful of the Privacy Act...It has always been a good relationship and I appreciate that very much—*Administrator from partnering agency*

### Introduction

North Hills Community Outreach (NHCO) is a 501(c)(3) organization that is both faith- and community-based. Founded in 1987 as an agency of 'People Helping People,' NHCO began as a by-product of community-wide assistance to victims of the 1986 flood. NHCO has grown steadily since establishing its main office in Allison Park, PA, opening satellites in Millvale in 1993 and Bellevue in 1997.

NHCO addresses the basic human needs of local individuals and families in poverty and hardship by providing assistance developed in response to their needs. Among the wide-range of services that NHCO has provided to the community is flood relief and recovery.

Consequently, in the first few days immediately following Hurricane Ivan in September 2004, NHCO received almost 500 requests for help, primarily from families in Northern Allegheny County in communities such as Etna, Millvale, Sharpsburg, Shaler, Hampton, Aspinwall, Avalon and Emsworth. This figure had climbed to over 1,000 households and over 40 businesses within a few months. Most of the calls for help concerned individuals' needs for food, furnaces, water heaters, refrigerators, washers and dryers as well as their need to relocate. Individuals in Etna and Millvale appeared to have sustained the most damaging flooding.

At the time, NHCO had 24 staff members and more than 1,000 volunteers. The organization was already skilled at addressing basic human needs so that 'no one in northern Allegheny County is cold, hungry or forgotten.' Thus, NHCO was positioned to serve as the leader for grassroots flood relief efforts.

Drawing on a long history of service in the affected communities, NHCO developed a realistic plan and budget to efficiently meet the pressing needs of flood victims. As part of this plan, NHCO added six full-time staff members led by a flood relief manager, all of whom were dedicated to the flood relief efforts. The addition of the specialized flood staff was imperative so that 'regular' staff could continue helping those in crises and hardship not related to the flood.

NHCO named a staff liaison to each affected community. These liaisons were charged with staying in contact with critical community leaders such as mayors and managers. In addition, NHCO played a pivotal role in forming collaborative partnerships with other agencies that were participating in the flood relief and recovery efforts. These coalition/partnering organizations included...

- Adventist Community Services
- Allegheny County Department of Human Services
- Business Organization of Millvale
- Etna Team for Neighborhood Assistance—ETNA
- FEMA—PA Emergency Management Association
- Hosanna Industries
- Millvale Assistance Team—MAT
- Network of Hope

- PA Christian Endeavor\*
- Pittsburgh Habitat for Humanity
- Southwestern PA Long Term Recovery Team
- St. Vincent De Paul

\*A group from eastern PA brought to Pittsburgh through the efforts and coordination of NHCO.

In addition to its partnerships, NHCO relied heavily on its general volunteer pool comprised of professionals such as carpenters, plumbers, architects, social workers, attorneys and others donating their time and talent.

NHCO received more than \$1.5 million in financial and in-kind donations from thousands of donors, including individuals, schools, businesses, congregations, civic groups and foundations. These resources were marshaled to provide assistance during the initial rescue efforts and subsequent relief and recovery efforts. In fact, NHCO and its partnering agencies continue to address the relief and recovery needs of Hurricane Ivan flood victims to this day.

### **Research Approach**

As the lead agency among organizations providing services to flood victims, NHCO commissioned Cornerstone Evaluation Associates LLC to conduct an evaluation of the overall, community-wide flood relief efforts. NHCO wanted to understand how the services provided by all the partnering agencies impacted the flood victims who received assistance. More specifically, NHCO wanted...

- to examine the extent to which flood victims—both householders and businesses—were satisfied with the services they received
- to understand which services victims perceived as most and least adequate
- to identify what concerns victims still have that remain unresolved
- to know how their partners perceived NHCO—what these partnering agencies thought of NHCO's leadership ability, its effectiveness, efficiency and professionalism and how satisfied these partners were with the assistance and support they received from NHCO

It is anticipated that by taking an 'introspective' look at the outcomes of their efforts, NHCO and its partnering agencies will be better positioned in the event of another flooding or similar disaster to provide critically-needed emergency services. In addition, the information will allow NHCO more knowledge in stepping forward as a leader to assist partnering service agencies. Feedback about overall direct services and NHCO's leadership abilities can also be shared with funders to demonstrate the achievement, capacity and effectiveness of NHCO and its partnering agencies in handling this and other disasters of this magnitude.

To answer critical questions about the adequacy of flood relief services, Cornerstone, a Pittsburgh-based, client-centered research firm, proposed a comprehensive survey to be carried out over the telephone. The telephone interviews involved exploring the relief effort from multiple viewpoints—a process called 'triangulation'. The three groups contacted were...

- householders/landlords whose property was damaged
- business owners whose businesses were flooded
- partnering agencies who collaborated with NHCO in delivering services

Approximately 25 volunteers were intensively trained to carry out telephone surveys with householders and business owners using structured protocols developed by Cornerstone with input from NHCO. These protocols incorporated both quantitative rating scales and open-ended queries for reflection. In addition, two staff members from Cornerstone conducted in-depth, primarily open-ended telephone interviews with key personnel at partnering agencies.

From November 2005 to March 2006, Cornerstone staff and volunteers interviewed a 17% representative sample drawn from 800 householders whose homes had been damaged by the flood—N=135, all business owners who had experienced damage and agreed to be interviewed—N=30 and 12 personnel from ten partnering agencies.

In order to understand the recovery and satisfaction of householders and business owners and the effectiveness of the services they received in the aftermath of the Hurricane Ivan flooding, a variety of questions were posed...

- of the services they received, which ones were they most/least satisfied with
- of the agencies that offered assistance, which ones were they most/least satisfied with
- what, if any, problems remain unresolved
- what suggestions do they have about improving services in the event of future flooding

To understand how partnering agencies perceived their relationship with NHCO, interviewers asked the following types of questions...

- what were agencies' roles in the flood relief effort
- how, if at all, did NHCO assist other agencies in their work—what was NHCO's most important contribution to agencies' efforts and which aspects of this assistance were agencies most/least satisfied with
- how did agencies collaborate with NHCO and how do agencies perceive their collaboration with NHCO—important contributions of collaborating with NHCO and drawbacks of working with NHCO

## **The Householders' Perspective**

### **Householders' Demographics**

NHCO provided Cornerstone with the names of householders who had been assisted by NHCO and their partnering agencies during the Hurricane Ivan flood. From this list, Cornerstone drew a 17% representative sample of householders or 135 individuals. Interviews revealed that 70% of them owned the properties that had been flooded, while the remaining 30% of the householders said they rented their flooded properties.

Most of householders said their properties were located in Millvale (35%) and Etna (35%). The remaining householders were from the communities of Shaler (9%), Sharpsburg (6%) and other surrounding communities (15%). On average, the householders said that they had been at these locations for 17 years.

While many householders reported sustaining a great deal of damage to their personal property and buildings—covered, on average, by seven feet of water—76% of these householders said they continued to live at the same properties after the flood. An additional 10% relocated to different properties in the same communities, 6% relocated to different communities and 8% were landlords—some of whom continue to rent their properties. Most householders revealed their concerns about the prospect of future flooding.

### **Householders' Recovery and Satisfaction with Services**

When asked open-ended queries about the most helpful services received at the time of the flood, more than two-thirds of the householders mentioned specific types of services they received such as food and clothing and clean up assistance. Over two-fifths mentioned specific agencies—particularly NHCO, the Red Cross and the Salvation Army.

Then, when asked about any unmet needs at the time of the flood, almost half of the householders indicated that they would have appreciated more help with specific services like essential appliances and rebuilding as well as more financial help. However, in response to this same question a full two-fifths of the householders expressed their satisfaction with all the assistance they received, saying that there was nothing more they needed.

When read a list of services and asked to identify those they had received, the majority of householders said that they got emotional support and assistance with basic needs such as food and shelter—basic needs (83%), special projects (59%) and emotional support (58%). Many of them received services that contributed to the recovery of their personal property and rebuilding their homes—essential appliances (47%), clean-up (37%), rebuilding (30%), furniture (30%) and utilities (23%). A few householders said that they were aided financially (8%) and with transportation (4%).

Householders were then asked to rate their satisfaction with the services they had received. They proved to be content with most services—on a 5-point scale, the mean satisfaction ratings for all of the services ranged between 4.0 and 4.8, solidly in the 'satisfied' to 'extremely satisfied' ball park. Householders expressed particular enthusiasm about the special projects and essential appliances that they received. Householders expressed the least satisfaction with recovery plan services and transportation.

While most householders were satisfied with the specific services they received, a small number of householders found fault with services when they failed to meet their needs and expectations or were of poor quality. This was particularly true in the recovery phase when financial assistance and help with rebuilding were most needed. Most householders were appreciative of the services they received, but clearly would have liked even more help restoring their homes and personal property in the face of the enormity of the destruction they faced.

A small number of householders said that they did not get help from agencies because they were unaware of services available or were self-sufficient and did not ask for help. In a number of these situations, householders said friends and neighbors stepped in to assist.

At the time of the interviews, nearly half of the householders (48%) reported that they continued to have some needs that had not been met, although 44% said there was nothing they needed and were satisfied with everything. Not surprisingly, from the time of the flood until now, the need for rebuilding has moved to the top of the list as immediate needs for essential appliances, furniture and utilities have been met. It may be surprising, however, to learn that a year and a half after the flood, some householders report that they are still struggling with meeting their basic needs and with cleaning up. On the other hand, having moved past the initial devastation, we now find that some householders have turned their attention to concerns about flood prevention.

### **Householders' Satisfaction with All Agencies**

While householders were recovering from the flood damage, they were helped by a number of groups/organizations/agencies/congregations. Householders were asked to recall 16 agencies that may have assisted them during the flood and then to rate their satisfaction with that assistance.

In summary, 80% of the householders remembered being assisted by NHCO. At least half of the householders reported receiving help from the Salvation Army (68%), the Red Cross (65%) and FEMA (63%). One-quarter to two-fifths of the householders recalled the assistance of two neighborhood teams—ETNA and MAT—and two faith-based agencies—St. Vincent de Paul and Hosanna Industries. The remaining eight agencies had less than one-fifth of the householders remembering them.

Householders rated their level of satisfaction with assistance as quite high. Of the 'most remembered' agencies, NHCO, along with the Salvation Army, received top mean satisfaction ratings of 4.5 and 4.6, respectively, on a 5-point scale.

### **Householders' Suggestions for Improvements in Flood Relief Efforts**

Twenty-five per cent of the householders said they had no suggestions for improving services and another 31% took this opportunity to praise agencies for their quick responses and doing 'great jobs'. Householders making suggestions for flood relief assistance mentioned improving communications, flood prevention and immediate response.

## **The Business Owners' Perspective**

### **Business Owners' Demographics**

NHCO provided Cornerstone with the names of 42 business owners who had been assisted by NHCO and their partnering agencies during the Hurricane Ivan flood. Interviewers made multiple attempts to contact all 42 business owners on the NHCO list. Thirty business owners were interviewed.

These business owners had a variety of long-established, small businesses located in primarily in Millvale (57%), Sharpsburg (23%) and Etna (17%). On average, the owners had been in business for 21 years. Twenty-six of the business owners stayed in the same location after the flood, two remained in business, but in different locations and two business owners were no longer in business. Among business owners doing business in the same location, they reported needing an average of five months to get back on their feet, but said that they were only doing about 60% of the business they had been doing prior to the flood.

Business owners reported that, on average, their businesses had been covered by about ten feet of water. They expressed similar concern about the damage sustained to their properties and the possibility of future flooding—on a 5-point scale they rated their concerns at a mean of 3.8. Furthermore, their worries about future flooding showed a correspondence to the severity of flooding they experienced.

### **Business Owners' Recovery and Satisfaction with Services**

When asked open-ended queries about the most helpful services received at the time of the flood, more than two-fifths of the business owners were impressed with the assistance they received, mentioning specific nonprofit agencies and staff members who had been particularly helpful and attentive. They cited NHCO as being available and on-site five days a week with critical information for recovery. In addition, over one-third mentioned financial assistance as being particularly helpful, while another third identified a variety of services as critical to their recovery.

When queried about any unmet needs at the time of the flood, over one-third of the business owners indicated that they would have appreciated more help with repairs, building materials and specialized equipment. One-fifth of the business owners mentioned needing more help financially and emotionally.

When read a list of services and asked to identify those they had received, at least half of business owners said that they got emotional support (57%), assistance with resources/information (53%) and help with advertising and marketing (47%). A good many of them also received help with their businesses' physical plants—ranging from 23% to 33% depending on the service. A few were aided in areas involving running their businesses—ranging from 10% to 20%.

Business owners were then asked to rate their satisfaction with the services they had received. They proved to be content with most services. On a 5-point scale, the mean satisfaction ratings for all of the services ranged between 3.0 and 5.0—at mid-range or better with 11 of the 14 mean ratings being above 4.0. Business owners indicated particular enthusiasm with the emotional support and tangible items—money, appliances, business inventory—that they received. In contrast, business owners expressed the least satisfaction with information/resources they were given as well as various offerings designed specifically for business recovery purposes.

Despite the fact that business owners voiced mostly positive opinions about the specific services they received, they also felt that the business community was underserved—that help provided to individuals with businesses was sorely limited. Like householders, a small number of business owners found fault with services when they failed to meet their needs and expectations or were of poor quality.

Business owners shared with us that their continuing needs were primarily financial. Some of the business owners also said that they would welcome more assistance in attracting customers as well as qualified employees and continued to have need for equipment and rebuilding.

### **Business Owners' Satisfaction with All Agencies**

While business owners were recovering from the flood damage, they were helped by a number of groups/organizations/agencies/congregations. Business owners were asked to recall 11 agencies that may have assisted them during the flood and then to rate their satisfaction with that assistance.

In summary, a dramatically greater number of business owners remembered NHCO helping them than any other agency—25 of the 30 business owners remembered being assisted by NHCO. Anywhere from 7 to 10 business owners recalled being helped by nonprofit agencies such as the Red Cross, Salvation Army and Network of Hope; government agencies including the borough offices, SBA and FEMA and finally neighborhood teams like MAT that came together in response to the flooding situation.

Business owners were asked to rate their level of satisfaction with the assistance from agencies that had helped them. Of the 'most remembered' agencies, NHCO, along with the Salvation Army, received business owners' top satisfaction rating of 4.4 on a 5-point scale. Generally, business owners indicated satisfaction with most all agencies' assistance except for the help they received from the SBA and FEMA. Both of these agencies were cited for having too much government red tape and not providing sufficient help to businesses.

### **Business Owners' Suggestions for Improvements in Flood Relief Efforts**

In its effort to do a better job of providing services in the event of a future flood, NHCO wanted to learn from the business owners themselves how assistance could be improved. To that end, business owners were asked to provide suggestions for improving services.

Twenty-nine of the business owners offered multiple suggestions most often asking for improvements in services that would make financial assistance more readily available and would enhance communication about available assistance.

### **The Partnering Agencies' Perspective**

Telephone interviews were conducted with 12 individuals from 10 agencies that partnered with NHCO in the flood relief efforts. These administrators and staff members were from agencies that represented government, nonprofit organizations and neighborhood assistance teams, many of whom were faith-based organizations. Some of these partnering agencies already served Etna, Millvale and the surrounding communities.

### **Partners' Satisfaction with NHCO Assistance**

In the course of offering relief and recovery help to flood victims, NHCO partnered with its collaborating agencies for the coordination and facilitation of these efforts. All agencies involved in this partnership reported engaging in true collaboration by giving assistance to and receiving assistance from NHCO.

There were specific types of assistance that NHCO was able to provide to its partners. It is their partners' satisfaction with this assistance that NHCO is interested in understanding. Thus, throughout the course of the interviews with the administrators and line staff, they were asked to rate and discuss their satisfaction with the assistance that NHCO gave to them.

The interviewees were first asked to rate their overall satisfaction with NHCO's assistance. Then they were asked to identify and rate their satisfaction with help they may have received in specific areas.

In short, agencies' overall level of satisfaction with NHCO's assistance was very high. Ninety-two percent of the respondents reported being 'satisfied' or 'extremely satisfied' with their overall experience with NHCO's assistance—a mean rating of 4.6 on a 5-point scale.

In specific areas, the largest number of partnering agencies reported receiving NHCO's assistance with various aspects of sharing and collaboration—ranging from 75% to 83% depending on the exact areas of assistance. A modest number of the agencies reported NHCO's help with direct services to flood victims—anywhere from 42% to 58%. A small number of the partners mentioned NHCO's help with administrative tasks—from one-quarter to one-third of the agencies depending on the type of administrative task.

Partnering agencies' ratings of NHCO assistance indicated high levels of satisfaction with all types of assistance received as well as with NHCO's overall work. Mean satisfaction ratings for NHCO assistance ranged from 4.0 to 4.9 on a 5-point scale depending on the type of help received. The most highly rated types of assistance reflect NHCO's familiarity with the community and its resources as well as its strong organizational skills.

### **Partners' Perceptions of Collaboration with NHCO**

The partnering agencies reported that they were able to accomplish a great deal of what they set out to do in the relief and recovery efforts—estimating an average of 87% of their goals met. According to these agencies, their success was due, in large part, to NHCO's assistance.

Interviewees from partnering agencies were asked to describe the nature of their collaboration with NHCO—how this working relationship lightened their load and, in contrast, how this partnership may have hampered them in accomplishing their agencies' goals. We also queried these agencies about their desire or plans to collaborate with NHCO in the future. Feedback from these agencies will position NHCO to nurture stronger, collaborative partnerships in the event of a future flood.

The administrators and line staff were asked an open-ended question about what they saw as the most important contribution NHCO made to their agencies' flood relief efforts. According to these partnering agencies, NHCO assisted in a wide variety of ways. NHCO offered...

- strong organizational skills
- good quality people
- dependable resources
- skill and hard work in building positive relationships with their partnering agencies

In short, these interviewees viewed NHCO as a great collaborator, facilitator and mediator.

Administrators and staff members were also asked to reflect on their collaboration with NHCO and discuss any ways in which NHCO may have interfered with what their agencies were trying to accomplish. They were also asked to consider whether NHCO overstepped its boundaries to take over their role in any way. Interviewees from all ten agencies said that they either had no complaints or offered praise to NHCO. Two of these ten additionally stated that one of the drawbacks in collaborating with NHCO is that its size, in relation to smaller agencies, creates boundary issues.

All administrators and line staff were asked to offer suggestions for how NHCO could better assist agencies in the future should a disaster like the Hurricane Ivan flooding occur again. Eight respondents (73%) offered no suggestions and/or gave kudos saying that NHCO is well-positioned within the community and familiar with volunteer resources. These respondents were confident that NHCO had learned lessons from the Hurricane Ivan experience and would apply this knowledge to future crises. Simply put, they thought that NHCO had done a fantastic job.

In addition to the praise, all respondents offered suggestions to NHCO for improving future efforts. Their ideas included improving communication/resource sharing and upgrading training.

But all in all, they explained that they would enjoy future collaborative experiences because they found NHCO...

- highly professional and collaborative in its interactions with other agencies
- easy to work with
- having hard-working, dedicated and congenial staff

### **Continuing Efforts**

A year after the flood, the majority of NHCO's recovery effort is complete. But the organization has promised to walk alongside all flood victims until they are back on their feet, and that is what NHCO is currently doing. NHCO staff and volunteers have re-contacted over eighty elderly and individuals with disabilities who had been flooded to assess and address their continuing needs.

When necessary, homes have been visited in order to assess the situation and determine the next steps to be taken. Volunteers have replaced electric service boxes that had been submerged in flood waters, waterproofed basements and provided help with yard work and other clean-up as needed. In addition, referrals have been made for further assistance with utilities, weatherization and engaging contractors.

Relief efforts continued through the holidays 2005 as NHCO sponsored holiday giveaways for Millvale, Sharpsburg and Etna residents. Over 500 families received holiday help. This was a collaborative effort with Network of Hope, Etna Team for Neighborhood Assistance, Millvale Assistance Team, the Borough of Millvale and Hosanna Industries. The giveaway project provided about 800 gently-worn winter coats and more than \$70,000 in gift certificates to major retailers and local businesses affected by the flood. This last part is the most important as it is a win-win situation, benefiting both flooded families and businesses and promoting economic recovery for the community as a whole. This giveaway also addressed business owners' primary concern—expressed by 41% of the business owners—that agencies need to deal more effectively with the financial problems that businesses incur during flooding disasters.

While most of the flood damage has been addressed and NHCO's temporary flood staff has been released, NHCO's general staff members are still handling calls when received and flood relief efforts are still underway in some areas of Allegheny County including Tarentum, Glendale, West Deer, etc. This assistance will require the continuing oversight and guidance of NHCO and its regular service staff.

*I think the most important thing that NHCO did was to establish an open relationship with us based on great communication, mutual strategy, and forward thinking—Administrator from a partnering agency*

**Please go to [www.nhco.org](http://www.nhco.org) to view the complete 54-page report.**

## **PART I—INTRODUCTION**

I did truly, thoroughly enjoy working with NHCO. You know, my contacts with them were always professional. They never stepped over their bounds and they were always very respectful of the Privacy Act...It has always been a good relationship and I appreciate that very much—*Administrator from partnering agency*

### **NHCO Organizational Background**

North Hills Community Outreach (NHCO) is a 501(c)(3) organization that is both faith- and community-based. Founded in 1987 as an agency of 'People Helping People,' NHCO began as a by-product of community-wide assistance to victims of the 1986 flood. NHCO has grown steadily since establishing its main office in Allison Park, PA, opening satellites in Millvale in 1993 and Bellevue in 1997.

NHCO addresses the basic human needs of local individuals and families in poverty and hardship. NHCO provides tangible resources and support to bring immediate and effective help in a manner that preserves personal dignity and demonstrates the love of God.

NHCO develops programming in response to community needs—providing services with compassion, effectiveness, professionalism, collaboration, stewardship and vision using a holistic approach. NHCO's services include...

- case management
- college scholarships for adults in need
- disaster relief
- emergency financial assistance
- employment services
- family savings accounts
- food pantries
- legal help
- utility assistance
- volunteer care giving
- youth leadership programming

### **Flood Relief for Hurricane Ivan 2004**

In the first few days immediately following Hurricane Ivan in September 2004, NHCO received almost 500 requests for help, primarily from families in Northern Allegheny County in communities such as Etna, Millvale, Sharpsburg, Shaler, Hampton, Aspinwall, Avalon and Emsworth. This figure had climbed to over 1,000 households and over 40 businesses within a few months. Most of the calls for help concerned individuals' needs for food, furnaces, water heaters, refrigerators, washers and dryers as well as their need to relocate. Individuals in Etna and Millvale appeared to have sustained the most damaging flooding.

At the time, NHCO had 24 staff members and more than 1,000 volunteers. The organization was already skilled at addressing basic human needs so that 'no one in northern Allegheny County is cold, hungry or forgotten'. Thus, NHCO was positioned to serve as the leader for grassroots flood relief efforts.

Drawing on a long history of service in the affected communities, NHCO developed a realistic plan and budget to efficiently meet the pressing needs of flood victims. As part of this plan, NHCO added six full-time staff members led by a flood relief manager. These newly-hired staff members coordinated community efforts, provided case management, mobilized volunteers, authorized expenditures and kept records. The addition of the specialized flood staff was imperative so that 'regular' staff could continue helping those in crises and hardship not related to the flood.

NHCO named a staff liaison to each affected community. These liaisons were charged with staying in contact with critical community leaders such as mayors and managers. In addition, NHCO played a pivotal role in forming collaborative partnerships with other agencies that were participating in the flood relief and recovery efforts. These coalition/partnering organizations included...

- Adventist Community Services
- Allegheny County Department of Human Services
- Business Organization of Millvale
- Etna Team for Neighborhood Assistance—ETNA
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- Hosanna Industries
- Millvale Assistance Team—MAT
- Network of Hope
- PA Christian Endeavor\*
- Pittsburgh Habitat for Humanity
- Southwestern PA Long Term Recovery Team
- St. Vincent De Paul

\*A group from eastern PA brought to Pittsburgh through the efforts and coordination of NHCO.

In addition to its partnerships, NHCO relied heavily on its general volunteer pool. During the flood relief efforts, over 800 volunteers gave upwards of 33,000 hours of service in a variety of capacities. The volunteer professionals working with NHCO included carpenters, plumbers, architects, social workers, attorneys and others donating their time and talent.

NHCO received more than \$1.5 million in financial and in-kind donations from thousands of donors, including individuals, schools, businesses, congregations, civic groups, foundations and government entities.

The initial rescue efforts were spent providing basic food and shelter to those affected. Later, relief and recovery efforts included assisting with cleaning up and rebuilding; providing essential appliances, utilities, furniture, transportation and rent/mortgages; and offering counseling and support. In addition, businesses were given essential office furniture, equipment, inventory and rent; were helped with advertising/marketing and were offered consulting/mentoring services, networking opportunities and various educational classes.

Most importantly, NHCO walked beside affected individuals over the long haul; helping them with tangible goods, emotional support and access to other available resources—filling the gaps as needed.

Due to their long-term presence in the community, NHCO had the support and trust of the local community—both those who needed help and those who wanted to help others. NHCO knew what was being done by other agencies and groups, what was needed, what their capacity was, and what needed to be done to alleviate immediate family distress and effect long-term community recovery.

## Research Approach

As the lead agency among organizations providing services to flood victims, NHCO commissioned Cornerstone Evaluation Associates LLC to conduct an evaluation of the overall, community-wide flood relief efforts. NHCO wanted to understand how the services provided by all the partnering agencies impacted the flood victims who received assistance. More specifically, NHCO wanted...

- to examine the extent to which flood victims—both householders and businesses—were satisfied with the services they received
- to understand which services victims perceived as most and least adequate
- to identify what concerns victims still have that remain unresolved
- to know how their partners perceived NHCO—what these partnering agencies thought of NHCO's leadership ability, its effectiveness, efficiency and professionalism and how satisfied these partners were with the assistance and support they received from NHCO

It is anticipated that by taking an 'introspective' look at the outcomes of their efforts, NHCO and its partnering agencies will be better positioned in the event of another flooding or similar disaster to provide critically-needed emergency services. In addition, the information will allow NHCO more knowledge in stepping forward as a leader to assist partnering service agencies.

Feedback about overall direct services and NHCO's leadership abilities can also be shared with funders to demonstrate the achievement, capacity and effectiveness of NHCO and its partnering agencies in handling disasters of this magnitude.

NHCO engaged Cornerstone Evaluation Associates LLC—a Pittsburgh-based, client-centered research firm specializing in social research and program evaluation—to gather feedback on the adequacy of flood relief services. Cornerstone's areas of expertise include education, human services, health care, government, the arts, business and web site assessment. Previously, Cornerstone conducted another evaluation research project for NHCO. The thrust of that work was to carry out a needs assessment and satisfaction survey of the services NHCO provided at its Allison Park site.

**Who was surveyed?**—To answer critical questions about the adequacy of flood relief services, Cornerstone proposed a comprehensive satisfaction survey to be carried out over the telephone. This study involves contacting three distinct groups...

- householders/landlords whose property was damaged
- business owners whose businesses were flooded
- partnering agencies who collaborated with NHCO in delivering services

Exploring important aspects of the relief effort from multiple viewpoints is a process called 'triangulation'. This method requires gathering data from all perspectives—from victims receiving services and from agencies partnering with NHCO. In this way, we come to understand how all stakeholders—individuals and agencies alike—perceive NHCO and the services offered. By hearing the voices of all involved, this method promises to provide an accurate and comprehensive understanding of the flood relief effort.

Approximately 25 volunteers were intensively trained to carry out telephone surveys with householders and business owners using structured protocols developed by Cornerstone with input from NHCO. These protocols incorporated both quantitative rating scales and open-ended queries for reflection. In addition, two staff members from Cornerstone conducted in-depth, primarily open-ended telephone interviews with key personnel at partnering agencies.

From November 2005 to March 2006, Cornerstone staff and volunteers interviewed a representative sample drawn from 800 householders whose homes had been damaged by the flood—N=135, all business owners who had experienced damage and agreed to be interviewed—N=30 and 12 personnel from ten partnering agencies.

**What were they asked?**—In order to understand the satisfaction of householders and business owners with regard to the services they received in the aftermath of the Hurricane Ivan flooding, a variety of questions were posed...

- of the services they received, which ones were they most/least satisfied with
- of the agencies that offered assistance, which ones were they most/least satisfied with
- what, if any, problems remain unresolved
- what suggestions do they have about improving services in the event of future flooding

To understand how partnering agencies perceived their relationship with NHCO, interviewers asked the following types of questions...

- what were agencies' roles in the flood relief effort
- how, if at all, did NHCO assist agencies in their work—what was NHCO's most important contribution to agencies' efforts and which aspects of this assistance were agencies most/least satisfied with
- how did agencies collaborate with NHCO and how do agencies perceive their collaboration with NHCO—important contributions of collaborating with NHCO and drawbacks of working with NHCO

**How are the findings summarized?**—The next three sections present the findings from the telephone interviews. These sections represent the three perspectives from which information was gathered...

- Part II—The Householders' Perspective
- Part III—The Business Owners' Perspective
- Part IV—The Partnering Agencies' Perspective

All rating-scale type data are summarized as simple descriptive statistics—means and percentages—and presented in tables and graphs. For open-ended queries, themes are identified and critical quotes are provided to illustrate some of the themes. These analyses are included as displays.

Finally, there is a fifth section...

- Section V—Concluding Remarks

that offers a brief piece on the continuing relief efforts that have taken place in late 2005 and 2006 since our survey was completed.

## **PART II—THE HOUSEHOLDERS' PERSPECTIVE**

### **Overview**

NHCO provided Cornerstone with the names of householders who had been assisted by NHCO and their partnering agencies during the Hurricane Ivan flood. It was the charge of Cornerstone's staff and NHCO volunteers to conduct telephone interviews with these householders in order to understand their experiences with and gain their perceptions of the flood relief efforts.

Despite the fact that NHCO had served close to 1,000 householders, Cornerstone could use only about 800 of these records due to incomplete data. In the end, a representative sample of approximately 17% (N=135) of the 800 householders shared their views about the assistance they received after the flooding.

To prepare volunteers for the interviewing task, Cornerstone held intensive on-the-job training sessions to acquaint interviewers with the interview protocol and coach them on how to conduct these calls. It took almost eight weeks, during the months of February and March 2006, to do the training and complete interviewing the 135 householders who agreed to share their stories. Twenty-one interviewers were involved in the process that took place primarily at the offices of NHCO in Allison Park.

Interviewers used a structured protocol developed by Cornerstone with input from NHCO. This protocol incorporated both quantitative rating scales and open-ended queries for reflection. Interviews with the householders lasted an average of 19 minutes—ranging from 9 to 60 minutes.

Interviewers asked householders a wide range of questions that are presented in the following sections...

- Householders' demographics
- Householders' recovery and satisfaction with services
- Householders' satisfaction with all agencies
- Householders' suggestions for improving services

### **Householders' Demographics**

This section helps the reader understand who the householders are—how they were sampled, their situations both before and after the flood and their perceptions of the extent of damage they sustained and their concerns about future flooding.

### **Sampling**

Although more than 1,000 clients were served by NHCO and its partnering agencies, the list of householders from which Cornerstone drew its representative sample was reduced to 800 to eliminate householders with missing information on phone numbers, addresses or community locations.

Our goal was to interview a representative sample of these householders based on the locations of their properties and the number of services they received. The displays below indicate the percentages of the 800 householders at various locations and with varying numbers of services received...

<u>Location of Properties</u>		<u>Number of Services Received</u>	
33%	Millvale	24%	1 service
32%	Etna	14%	2
14%	Shaler	11%	3
7%	Sharpsburg	10%	4
14%	Other areas	6%	5
		17%	6-10
		12%	11-20
		6%	21+

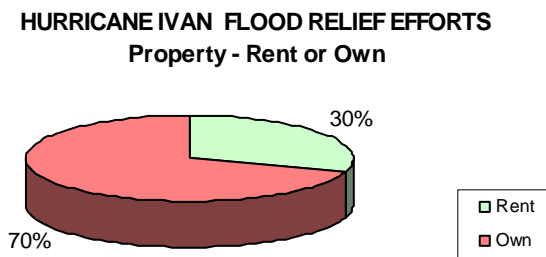
Our goal was to complete interviews with at least 15% of the 800 householders. We drew a representative sample of 400 names, mailed letters to their homes announcing the upcoming survey and then began the interviewing process.

In the end, we completed interviews with 135 of the 800 householders—a 17% sample. The disposition of the outcomes of calls to the representative sample of 400 householders is summarized below...

135 (34%)	<b>Interviews completed</b>
132 (33%)	<b>Unresponsive interviewees</b> —Left message/no reply; requested call back/no response; declined interview
112 (28%)	<b>Unable to contact interviewees</b> —Disconnected number; no phone number available; wrong telephone number; phone call not answered; "Does not live there"; deceased
21 (5%)	<b>Names not used</b> —No attempt made to call once sample goal was met and exceeded

**Householders Before the Flood**

The householders were asked to describe whether they owned or rented the property sustaining flood damage, if they lived there at the time of the flood and whether they were landlords. Additionally, the householders were asked to name the communities in which their properties were located and to estimate the length of time they had lived there. Figure 1 shows the proportion of owners vs. renters.



**FIGURE 1. Householders—Property-Rent or Own.** Percentage of householders owning vs. renting the properties sustaining flood damage—N=135.

**Most householders said they owned their properties**—Nearly three-quarters (70%) of the 135 householders said they owned their properties, while the remaining 30% said that they rented the properties in which they lived at the time of the flood.

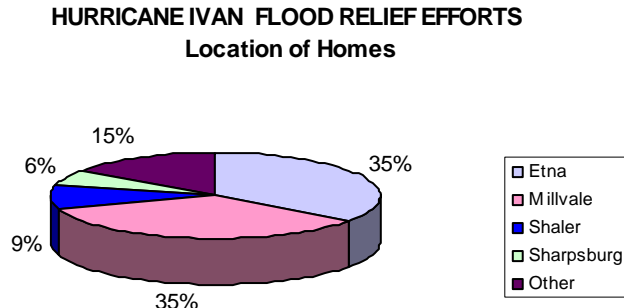
Householders who owned their properties (70%) represented 94 of the householders interviewed. These householders/property owners were also asked whether they lived on their properties at the time of the flood and whether or not they were landlords. Their responses are highlighted below...

**Most property owners said they lived on their properties**—Of the 94 householders identifying themselves as property owners, 87 (93%) of them said they lived on their properties at the time of the flood, while 7 (7%) did not.

**Most property owners said they were not landlords**—Of those 94 householders identifying themselves as property owners, 84 (89%) of them said they were not landlords, while another ten (11%) identified themselves as landlords.

Combining the information above, we have 94 householders who own the properties affected by the flood. Eighty-four of these owners are non-landlords who lived at the properties at the time of the flood. The remaining ten were landlords—seven of whom did not live at the flooded properties they rented to others and three of whom did live at their properties, renting out a portion of them (duplexes or rented rooms).

All 135 householders were also asked to identify the communities in which their flooded properties were located. Figure 2 below presents the percentages living in the communities most affected by Hurricane Ivan.



**FIGURE 2. Householders—Location of Homes.** Percentage of householders living in various communities at the time of the flood—N=135.

**Most householders said their homes were in Etna and Millvale**—Nearly three-quarters (70%) of the householders said their properties were in Etna (35%) and Millvale (35%). Householders indicating their properties were in Shaler totaled 9% with another 6% saying their properties were in Sharpsburg. Other communities (15% or 21 flood victims) included...

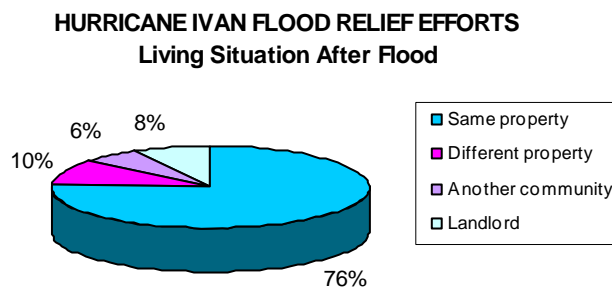
- N=3** In each of the following communities—**Glenshaw, Hampton Township, Ross Township**
- N=2** In each of the following communities—**East Deer Township, O’Hara Township**
- N=1** In each of the following communities—**Allison Park, Bauerstown, Crafton, Emsworth, McCandless Township, Oakdale, Reserve Township, Tarentum**

The distribution of communities as reported by the 135 householders in our sample—Figure 2—turns out to be similar and therefore representative of the distribution of communities in the population of 800 householders from which we drew our sample—see the display at the top of page 6. In the original 800 householders, 32% were from Etna, 33% from Millvale, 14% Shaler, 7% Sharpsburg and 14% from other communities.

**Householders reported being in these locations an average of 17 years**—Householders said they had been at these locations, on average, for 17 years—ranging from less than one year to 70 years.

### **Householders After the Flood**

At the time of the interviews, almost a year and a half had elapsed since the flood. The 135 householders, who lived through this ordeal, were asked to tell us about their living situations after the flood. Seventy-six percent of the sample had continued living at the same property that had been damaged, 10% were at a different home in the same community, 6% lived in another community and 8% were landlords. Figure 3 summarizes their responses.



**FIGURE 3. Householders—Living Situation After Flood.** Percentage of householders indicating various living situations after the flood—N=135.

**Located at the same properties**—Of the 135 householders, 103 (76%) had continued to live at the same properties damaged by the flood. They provided the following data...

**Half of the householders who continue to live at the same properties never left it at all**—Of the 103 householders who were still located at the properties that had been flooded, 51 of them (50%) had never left their properties. The remaining 52 householders (50%) said they had to leave for varying periods of time.

**Of those householders who continue to live at the same properties but left for a period of time, almost all returned in less than four months**—Of the 52 householders, who had to leave their properties for a time, more than half (N=27) returned within two weeks and 90% (N=58) reported that they were back 'home' in less than four months.

The average amount of time before returning home was calculated at two months—a figure skewed by one householder who was not yet back in his home and projected that it would be the better part of two years before he returned.

**Of those householders who continue to live at the same properties but left for a period of time, almost half stayed in communities hard hit by the flood**—Of the 52 householders who left their properties for a period of time, 49 told us where they relocated temporarily. In most cases, these householders reported staying with family members. Almost half of these householders (about 24) stayed in communities that had been hardest hit by Hurricane Ivan.

**Respondents N=49**

- N=10** Etna
- N=8** Shaler
- N=5** Millvale
- N=3** In each of the following communities—**Glenshaw, Outside Allegheny County** (Butler, Forest and Westmoreland Counties, New York)
- N=2** In each of the following communities—**Hampton Township, Lawrenceville, Penn Hills, Reserve Township, Troy Hill**
- N=1** In each of the following communities—**Blawnox, Emsworth, Morningside, North Side, O'Hara Township, Oakdale, Pittsburgh, Ross Township, Sharpsburg, Tarentum**

**Relocated to different properties in the same communities**—Fourteen (10%) of the 135 householders relocated to different properties in the same communities where they had lived before the flood. They revealed...

**None will return to the property that had been damaged by the flood**—Of the 14 householders who relocated from their damaged properties to others within the same communities, 13 shared their reasons why they would never return to their original 'homes'...

**Respondents N=13**

- N=6** Property unsuitable for living/condemned
- N=4** Issues with the landlord/Section 8 housing/eviction
- N=2** Fear of flooding/dealing with flooding
- N=1** Found more suitable living conditions/bought home

**Relocated to different communities**—Of the 135 householders, eight (6%) relocated to different communities. Seven of these re-locators named the new communities to which they had moved...

**Respondents N=7**

- N=2** Sharpsburg
- N=1** In each of the following communities—**Cheswick, Hampton Township, Northview Heights, Reserve Township, Shaler**

**Landlords**—The remaining 10 (8%) householders of the 135 in our sample represent the landlords—seven of whom do not live at the damaged properties and three who do live at these properties, renting a duplex or room at these locations. When asked about the disposition of their rental properties, only the seven 'off-site' landlords responded...

**Most continue to rent their properties**—Of these seven landlords, four (57%) said that they continued to rent their properties. The three (43%) remaining landlords shared their reasons for no longer renting their properties...

**Respondents N=7**

- N=1** Sold property
- N=1** Having difficulty renting property that has been flooded
- N=1** Property needs repairing; landlord has limited funds

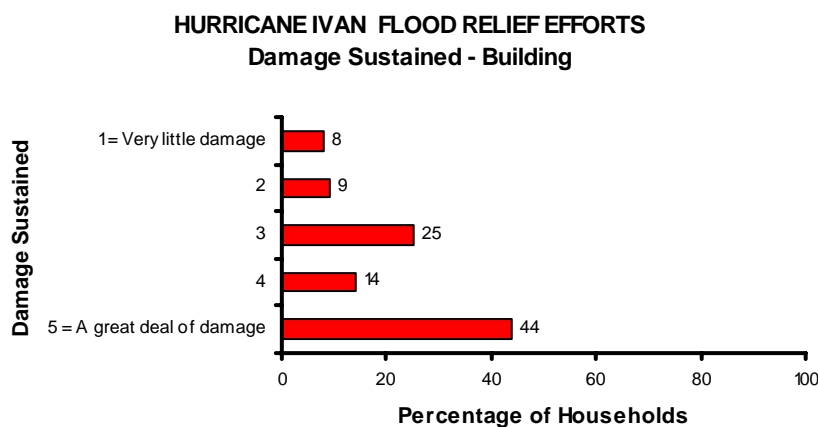
Interviewers experienced confusion in dealing with the three 'on-site' landlords—those with the dual status of renting properties at which they also lived. Thus, no data were collected from these landlord/residents.

### **Householders' Perceptions of Damage Sustained and Future Concerns**

Householders were asked to estimate the amount of water they had to contend with and to rate the amount of damage they sustained. They were also asked to rate the degree to which they worried about flooding in the future.

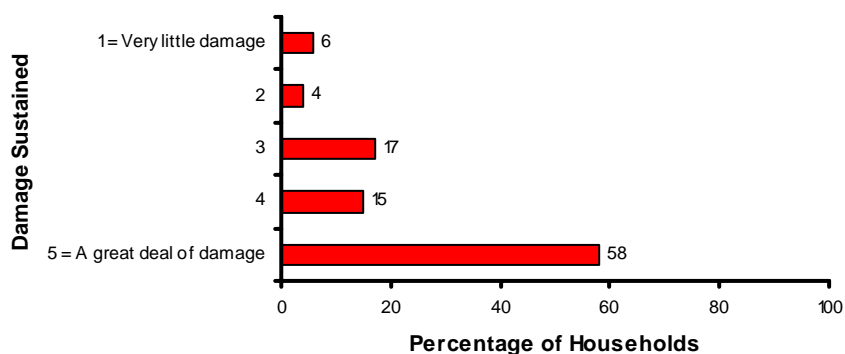
One hundred thirty-four of the 135 householders responded to a question about the amount of water damage to their properties. On average, they reported their properties were covered by seven feet of water, ranging from six inches to 25 feet.

The householders were asked to use a 5-point scale to describe their perceptions about the extent of damage to their properties—from a 'great deal of damage' to 'very little damage'. They were asked to consider separately the damage sustained by the building and that sustained by their personal property. They were also asked to indicate how worried they were that their properties would be flooded again in the future—from 'extremely worried' to 'not worried at all'. Figures 4, 5 and 6 illustrate the results of these ratings.



**FIGURE 4. Householders—Damage Sustained - Building.** Percentage of householders indicating the extent of damage to the buildings on their properties (5-point scale)—N=132.

### HURRICANE IVAN FLOOD RELIEF EFFORTS Damage Sustained - Personal Property

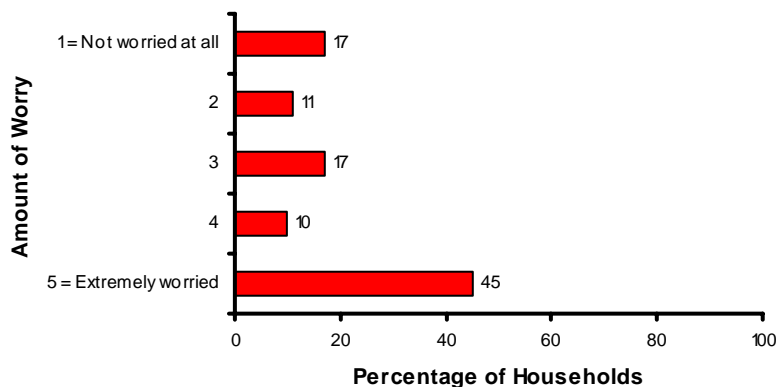


**FIGURE 5. Householders—Damage Sustained - Personal Property.** Percentage of householders indicating the extent of damage to their personal property (5-point scale)—N=132.

Householders reported slightly more damage to personal effects than to their properties—Almost two-fifths (58%) of the householders reported that ‘a great deal of damage’ was sustained by their personal property, while 44% said that the buildings on their properties sustained ‘a great deal of damage’—see Figures 4 and 5. When considering damage estimates from the mid-point of the scale, ‘3’, and above, 90% of householders reported personal property damage in that range, while 83% reporting building damage in that range.

Householders’ estimates of damage resulted in mean ratings for damage to personal property at 4.2 and for damage to buildings at 3.8. Since building damage was limited to an average of seven feet of water—typically in basements—and structural damage was minimal, it is not surprising that householders’ mean rating of personal property loss is greater than their mean rating of building loss.

### HURRICANE IVAN FLOOD RELIEF EFFORTS Concern About Future Flooding



**FIGURE 6. Householders—Concern About Future Flooding.** Percentage of householders indicating concerns about future flooding (5-point scale)—N=133.

Most householders continue to express some worry about future flooding—Nearly three-quarters (72%) of the householders rated their level of concern about future flooding at the mid-point of the range or above—a rating of ‘3’ or greater—with a full 45% reporting ‘extreme worry’. Over one-quarter (28%) expressed less concern—in fact 17% said they are not worried at all about future flooding.

### **Householders' Recovery and Satisfaction with Services**

Once we understood the householders' situations, we began to probe their perceptions of all services they had received from all sources during the rescue, relief and recovery efforts. In conversations during the instrument development stage of this project, NHCO leaders indicated that it would be unlikely for flood victims to be able to link particular services they received with specific agencies providing those services. In addition, more than one agency might provide the same or similar services. Thus, in questioning victims, our approach was to ask whether or not a particular individual had received specific services from any source at all.

We posed both open-ended and rating scale questions to identify services that were most helpful and those that failed to meet householders' needs. We also asked householders about their satisfaction with specific services, their disappointment with any services and which services they continued to need.

#### **Open-Ended Queries About Assistance Received**

First, we asked general, open-ended queries about what services householders found most helpful and what needs they had that went unmet.

**Most helpful assistance at time of flood**—When asked about what post-flood assistance stuck out in their minds as being most helpful, 130 householders responded. Their comments were categorized by theme and are summarized in Table 1 below. Since multiple responses were allowed, the percentages will exceed 100%.

<b>HURRICANE IVAN FLOOD RELIEF EFFORTS Householders—Most Helpful Relief Efforts</b>	<b>Households (N=130)</b>
<b>Specific types of services mentioned</b>	61%
<b>Assistance from non-governmental agencies and fraternal organizations</b>	42
<b>Assistance from churches</b>	11
<b>Assistance from government agencies</b>	8
<b>Assistance from municipal services/community/schools</b>	8
<b>None; problems with communication</b>	7
<b>General positive comments about assistance—longevity, speed</b>	4
<b>Assistance from businesses, families and friends</b>	3

**TABLE 1. Householders—Most Helpful Relief Efforts.** Percentage of households mentioning various types of assistance as 'most helpful'—N=130.

**Specific types of assistance mentioned**—79 householders (61%) cited specific types of assistance. These householders were permitted multiple responses, thus the number of responses exceeds the number of respondents. These householders said they found the following types of assistance to be the most helpful...

**Respondents N=79**

<b>N=25</b>	<b>Basic Needs</b>
<b>N=17</b>	<b>Cleaning up</b>
<b>N=16</b>	<b>Essential appliances</b>
<b>N=12</b>	For each of the following types of assistance— <b>Rebuilding, money</b>
<b>N=6</b>	<b>Support</b>
<b>N=3</b>	For each following type of assistance— <b>Essential furniture, special projects</b>

**Assistance from non-governmental agencies and fraternal organizations**—54 householders (42%) cited specific agencies. They mentioned assistance from non-governmental agencies and fraternal organizations as being the most helpful. They often mentioned multiple agencies—the number of responses exceeds the number of respondents...

**Respondents N=54**

<b>N=20</b>	<b>Salvation Army</b>
<b>N=19</b>	<b>NHCO</b>
<b>N=11</b>	<b>Red Cross</b>
<b>N=4</b>	<b>Non-governmental agencies (unspecified)</b>
<b>N=3</b>	For each of the following organizations— <b>Hosanna Industries, MAT, ETNA</b>
<b>N=2</b>	For each of the following organizations— <b>St. Vincent de Paul Society, VFW</b>
<b>N=1</b>	<b>PACE</b>

**Assistance from congregations**—14 householders (11%) mentioned congregations that provided the most helpful assistance. While church names and locations were not specified, Lutheran churches, a Catholic church and a Christian youth group were mentioned.

**Assistance from government agencies**—10 householders (8%) mentioned specific government agencies as being most helpful. Nine of the householders' comments were about FEMA with one additional reference to the county government agency that supplied furnaces.

**Assistance from municipal services/community/schools**—10 householders (8%) mentioned the community in general as being most helpful as well as the teachers from the Shaler school district, local firemen and college student volunteers.

**None; problems with communication**—9 householders (7%) reported that they did not receive help other than from friends or that they failed to hear about available help. Thus, these householders were unable to state anything that stuck out in their minds as being the most helpful.

**General positive comments about assistance—longevity, speed**—5 householders (4%) commented that once help was received, they were satisfied with how long they continued to receive it, while others were impressed by and commented on how quickly they received assistance.

**Assistance from businesses, families and friends**—3 householders (2%) said that the efforts of householders' children, extended families and husband's employer were the most helpful. One householder (1%) cited a business, PPL Corporation, a Pennsylvania-based electric and natural gas utility company, as being the most helpful for its assistance in the clean up efforts.

**Unmet needs**—The householders were asked an open-ended question regarding whether there was anything they needed that was not provided to them by agencies after the flood. This question was answered by 129 of the householders. Their responses are categorized according to theme and summarized in Table 2. Percentages exceed 100% because multiple responses were allowed.

HURRICANE IVAN FLOOD RELIEF EFFORTS Householders—Unmet Needs	Households (N=129)
Specific types of services mentioned	47%
Need nothing; satisfied with everything	43
Nothing provided by agencies; family help only	9
Timing of assistance too slow	3

**TABLE 2. Householders—Unmet Needs.** Percentage of households indicating various unmet needs during the flood relief efforts—N=129.

**Specific types of services mentioned**—61 householders (47%) mentioned specific types of assistance that fell short of their needs. They often offered multiple responses, thus the number of responses exceeds the number of respondents. These householders felt that the following services failed to meet their needs...

**Respondents N=61**

- N=20 Essential appliances
- N=14 Rebuilding
- N=12 Financial assistance
- N=9 Essential furniture
- N=6 For each of the following services—Basic needs, recovery plan
- N=5 Cleaning up
- N=2 Essential utilities
- N=1 For each of the following services—Transportation, support

**Need nothing; satisfied with everything**—55 of the householders (43%) stated that there was nothing more they needed at the time and that they were satisfied with everything they received.

**Nothing provided by agencies; family help only**—12 householders (9%) said that they didn't get any help despite the fact that their need was great—everything they owned needed to be replaced. One of these householders made a specific point to say that she got everything she needed from her family.

**Timing of assistance too slow**—4 householders (3%) commented on assistance being too slow. The Red Cross was singled out for being slow to respond and that the timing of relief efforts could be improved. Additionally, at least one of these householders thought a list of places and phone numbers of available assistance should have been provided much sooner than it was.

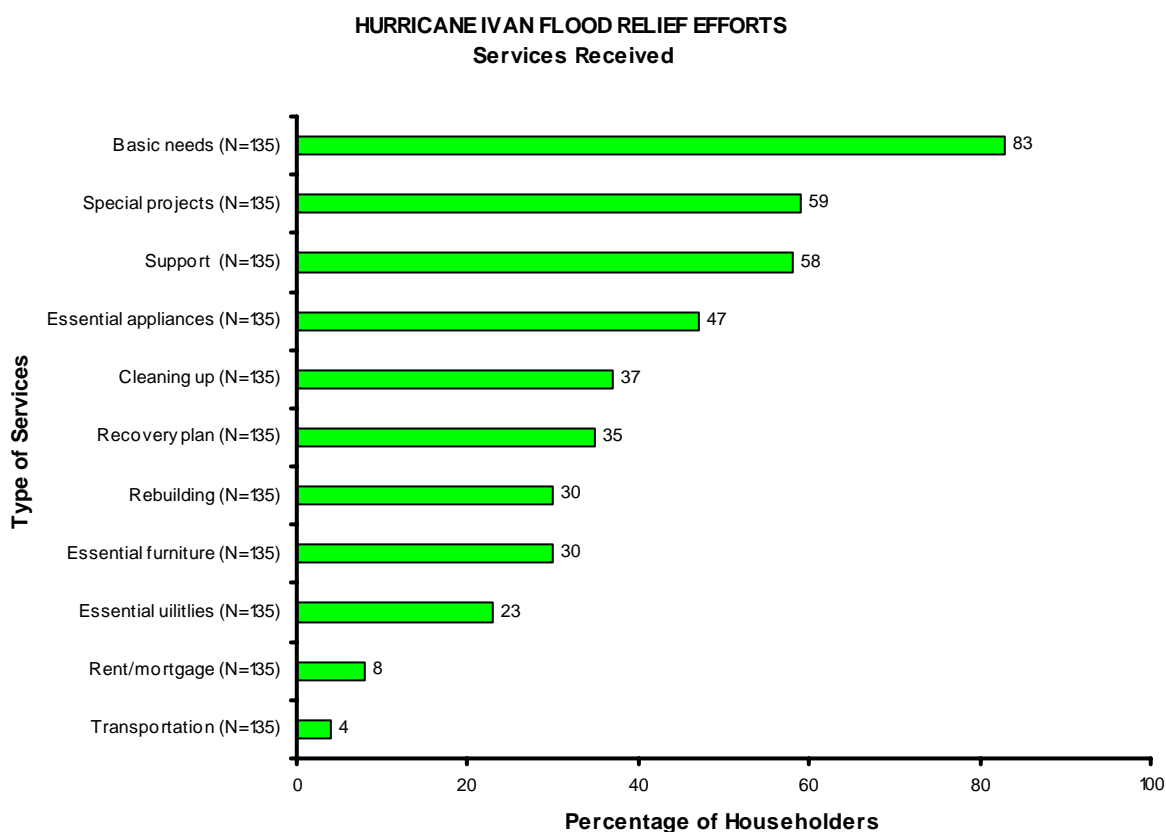
In short, when asked what stuck out in their minds as being most helpful at the time of the flood, more than two-thirds of the householders mentioned specific types of services they received such as food and clothing and clean up assistance. Over two-fifths mentioned specific agencies—particularly NHCO, the Red Cross and the Salvation Army. Almost half of the householders indicated that, at the time of the flood, they would have appreciated more help with specific services like essential appliances and rebuilding as well as more financial help. Over two-fifths of the householders expressed their satisfaction with all the assistance they received, saying that there was nothing more they needed.

### Ratings of Assistance Received

The previous sections summarized householders' responses to general, open-ended questions about their perceptions of the assistance they received from all agencies at the time of the flood. In this section, we present householders' responses when asked to identify specific types of help they may have received and to rate their level of satisfaction with these services. We also asked them to rate their overall satisfaction with flood relief and recovery assistance.

**Householders identify services received and rate their satisfaction**—NHCO assisted Cornerstone in generating a list of 11 services offered to householders who had been affected by the flood. These services are presented in the next two figures which summarize the percentage of householders receiving each type of help (Figure 7) and the mean ratings of their satisfaction with each type of assistance (Figure 8).

With regard to the services that householders actually received, the majority said that they got emotional support and assistance with basic needs such as food and shelter—anywhere from 58% to 83% of the householders depending on the type of assistance. Many of them received services that contributed to the recovery of their personal property and rebuilding their homes—clean-up (37%), rebuilding (30%), essential appliances (47%), furniture (30%) and utilities (23%). A few householders said that they were aided financially (8%) and with transportation (4%). Specific percentages are detailed in Figure 7.



**FIGURE 7. Householders—Services Received.** Percentage of householders indicating various types of services received—N=135.

**Householders most frequently received emotional support and help with their basic needs**—More than four-fifths of the householders (83%) received help with their basic needs such as food, shelter and clothing. With the start of school and Thanksgiving as well as Christmas holidays occurring near the time of the flood, almost three-fifths (59%) received additional food, clothing, toys and school supplies as part of 'special projects' centered around those events.

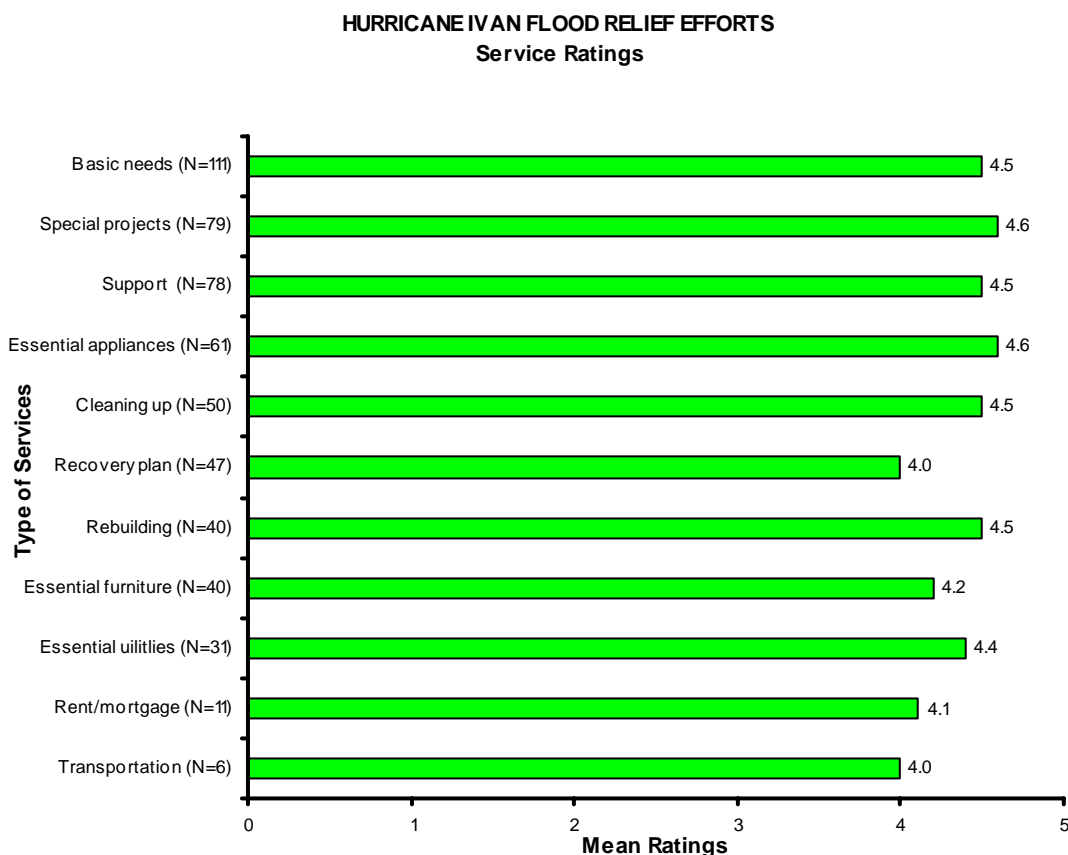
A total of 58% of the householders reported that they received emotional support, either by personal visit or having someone available to talk to about their concerns.

**Many householders said they received help in recovering their personal property and rebuilding their homes**—37% of the householders mentioned services associated with cleaning up from the flood and 35% got help developing their recovery plans. As householders continued to reestablish their homes, they received services for essential appliances (47%), rebuilding (30%), essential furniture (30%) and essential utilities (23%).

**A few householders said they received financial help and transportation**—Rent/mortgage assistance was received by 8% of the householders, while 4% cited receiving help with transportation.

For each type of service received, householders were asked to use a 5-point scale to rate their satisfaction with that service—with '5' being 'extremely satisfied' and '1' being 'extremely dissatisfied'. Figure 8 summarizes their average ratings.

With regard to their satisfaction with these services, householders proved to be content with most services—indicating particular enthusiasm with the special projects and essential appliances—that they received. Householders expressed the least satisfaction with recovery plan services and transportation.



**FIGURE 8. Householders—Service Ratings.** Percentage of householders indicating their satisfaction with services received (5-point scale)—N=135.

### Rating Scale Values

- 1=Extremely dissatisfied
- 2=Dissatisfied
- 3=Neutral
- 4=Satisfied
- 5=Extremely satisfied

**The householders indicated satisfaction with all services**—The mean satisfaction ratings for all of the services rated ranged between 4.0 and 4.8, solidly in the ‘satisfied’ to ‘extremely satisfied’ ball park.

**More than half of the eleven services were rated very highly**—Householders’ mean ratings for the help they received with essential appliances (4.8) and special projects (4.8) were the highest of all ratings. An additional four services were rated at 4.5—help with basic needs, emotional support, cleaning up and rebuilding. Help with essential utilities was also highly rated at 4.4.

**Householders proved to be relatively less satisfied with four of the services that were also among the least received services**—The services rated at the lower end of the satisfaction range—essential furniture (4.2), rent/mortgage (4.1), recovery plan (4.0) and transportation (4.0)—were all services used by about a third of the householders or less (see Figure 7).

**Householders giving some low ratings**—Despite general satisfaction with specific services, 22 of the householders did mention service areas that posed problems for them. These householders cited services that they felt were below par by rating them with ‘1’s’ or ‘2’s’. Each of the 11 services was mentioned by at least one householder and some mentioned more than one service, thus the number of responses exceeds the number of respondents. We asked householders to share the reasons for their dissatisfaction. Their responses are summarized below...

#### Respondents N=22

**Failure of service to meet householders’ needs or expectations**—Householders cited specific services where they received very little help or none at all...

- N=4**     **Support**—interviewee called for help, but didn’t get any; promises made, not kept; only NHCO came around
- N=4**     **Recovery plan**—FEMA didn’t help at all; organization never called back; interviewee felt insulted during interaction with organization
- N=2**     **Special projects**—gift card had limited items to buy; interviewee didn’t get much but neighbor did
- N=2**     **Rebuilding**—help from FEMA didn’t materialize; didn’t get help with other side of duplex
- N=1**     **Essential appliances**—felt help was too hard to get
- N=1**     **Transportation**—unsatisfactory, couldn’t get to where interviewee needed to go

**Inadequacy and poor quality of services**—Householders cited the specific services where they received help that they felt was of poor quality or insufficient in some way...

- N=3**     **Basic needs**—not much help given at all; food center could have stayed open longer
- N=3**     **Cleaning up**—received little help; cleaning supplies arrived too late, so interviewee got sick from the foul water damage

- N=3**      **Essential furniture—low quality; warehouse ran out of furniture by the time**  
interviewee got there; didn't have beds
- N=2**      **Rent/mortgage—rent help wasn't enough; FEMA was non-responsive, provided**  
inadequate help
- N=2**      **Essential utilities—received help with connection, but not with bills; felt borough**  
could have helped out more in reconnecting water service in interviewee's area

**Householders giving no low ratings**—The remaining 113 householders, who did not rate any of the services with a '1' or a '2', were asked to talk about any help they received that may have been 'inadequate'—assistance that did not meet their needs.

One hundred and seven of these householders offered comments. More than two-thirds (N=74) said that nothing was inadequate. They said they were satisfied with everything and had praise for the assistance they received. All respondents to this question, including those offering praise, did mention some small inadequacies in services. The display below categorizes their multiple responses—the number of responses sums to greater than the number of respondents...

**Respondents N=107**

- N=74**      **General positive comments**
- N=23**      **Specific types of assistance—insufficient coverage by homeowners' and flood**  
insurance and FEMA; promises for assistance not kept for major appliances and  
gift cards provided; insufficient furniture in warehouses to meet needs for all
- N=12**      **Assistance from government agencies—FEMA failed to meet needs and**  
expectations; local government help insufficient; borough should have had a  
more adequate sewer system
- N=7**      **Agencies did not provide help—help not received; insufficient information**  
about help available to homeowners; family and friends provided help
- N=6**      **Assistance from non-governmental agencies—asked Red Cross for help, but**  
didn't get any; never saw anyone from Red Cross or got anything from them
- N=3**      **Other—health issues caused by flood, no help for that; one co-owner of a**  
property was helped, while the other was not; flood insurance eventually met  
needs
- N=2**      **Landlords—landlord was of no help and/or out of town**
- N=1**      **Assistance from municipal services/community/schools—girls came from a**  
local university to clean, but did a poor job

In summary, while most householders were satisfied with the specific services they received, a small number of householders found fault with services when they failed to meet their needs or expectations or were of poor quality. This was particularly true in the recovery phase when financial assistance and help with rebuilding were most needed. Most householders were appreciative of the services they received, but clearly would have liked even more help restoring their homes and personal property in the face of the enormity of the destruction they faced.

A small number of householders said that they did not get help from agencies because they were unaware of services available or were self-sufficient and did not ask for help. In a number of these situations, householders said friends and neighbors stepped in to assist.

**Disappointment with overall assistance**—The last section revealed that householders' ratings of specific services generally indicate a high level of satisfaction with services received—see Figure 8. Moreover, when these same respondents were queried about the most helpful assistance they received, a full 61% of them named specific services as opposed to other aspects of assistance like agency names, etc.—see Table 1

Prior to posing questions about satisfaction with **specific** services, however, householders were asked to rate their **overall** satisfaction with the help they received. All 135 householders rated overall satisfaction. On average, their rating was 3.9—just short of the lowest rating of 4.0 that they gave to two of the **specific** services—see Figure 8.

This overall rating of 3.9 is surprisingly low, considering the more positive ratings for specific services. We suspect that this overall rating is tainted by householders' frustrations with not getting the assistance they needed or their bad experiences with particular agencies.

Of the 135 householders rating **overall** satisfaction, only 19 householders rated it with a '1' or '2' (ratings indicating dissatisfaction or extreme dissatisfaction). These householders cited one or more reasons for their discontent. No one specifically mentioned NHCO. The reasons for dissatisfaction are categorized thematically as follows...

% (N=19)	Reasons for Areas of Overall Dissatisfaction
79%	Little or no help from federal/local/government and non-governmental agencies (FEMA, Red Cross, MAT)
11	Friends gave more help than agencies/self-sufficient
5	No advance planning for disaster
5	Inadequate communication

We can infer from these responses that 15 of the 19 'most dissatisfied' householders had concerns with the lack of assistance from various agencies.

### **Continuing Needs for Services**

At the time of the interviews in February and March 2006, almost a year and a half had passed since the flood. Recognizing that recovery efforts were still ongoing, interviewers asked householders an open-ended question regarding what assistance they felt they continued to need. About half of the householders stated that there was nothing that they still needed, while the other half said they still needed assistance and mentioned specific areas in which they would like help. Their responses are categorized in Table 3 below. Since multiple responses were allowed, the percentages of responses in these categories total more than 100%.

HURRICANE IVAN FLOOD RELIEF EFFORTS Householders—Services Still Needed	Households (N=135)
<b>No Assistance Needed</b>	
Need nothing; satisfied with everything	44%
Unsure; don't know	4
Need nothing; no help provided by agencies/self-sufficient	3
<b>Assistance Still Needed</b>	
Specific types of services mentioned	48
Flood prevention	3

**TABLE 3. Householders—Services Still Needed.** Percentages of householders offering various responses concerning assistance still needed—(N=135).

**Need nothing; satisfied with everything**—59 householders (44%) stated that there was nothing that they still needed.

**Unsure; don't know**—5 householders (4%) were unable to think of anything at the time of the interview. At least one of these householders said he was unsure because he was still rebuilding.

**Need nothing; no help provided by agencies/self-sufficient**—4 householders (3%) reported that they received no help from agencies because they are independent and didn't ask for any help or received help from their families.

**Specific types of services mentioned**—The 65 householders (48%) who said they still needed assistance mentioned the following service areas—multiple responses were allowed...

**Respondents N=65**

- N=31** Rebuilding
- N=15** Financial assistance
- N=10** Basic needs
- N=8** Essential appliances
- N=7** For each of the following services—Essential utilities, cleaning up
- N=6** Essential furniture
- N=1** For each of the following services—Transportation, recovery plan, special projects

**Flood prevention**—4 householders (3%) stated that they thought the creek was supposed to have been fixed so that flooding, like that from Hurricane Ivan, would not occur. Since flooding did recur, they stated that there still needs to be a better flood prevention plan for the future.

A full year and one-half after the flooding, about half of the householders report that they continue to have some needs that have not been met—specific needs (48%) and flood prevention concerns (3%). This figure is almost identical to the proportion of householders (47%) who stated they had unmet needs at the time of the flood—see Table 2. Another striking similarity is the proportion of householders indicating that most all their needs had been met at the time of the flood, 43%—see Table 2—as compared to 44% reporting a year and one-half later that they were satisfied with all the assistance they had received—see Table 3.

Not surprisingly, from the time of the flood until now, the need for rebuilding has moved to the top of householders' 'needs' list as the immediate demand for more basic and essential items has been met in the relief efforts. It may be surprising, however, to learn that a year and half after the flood, a handful of householders are still struggling with meeting their basic needs and cleaning up. On the other hand, having moved past the initial devastation, we now find that some householders have turned their attention to the need for flood prevention.

### **Householders' Satisfaction With All Agencies**

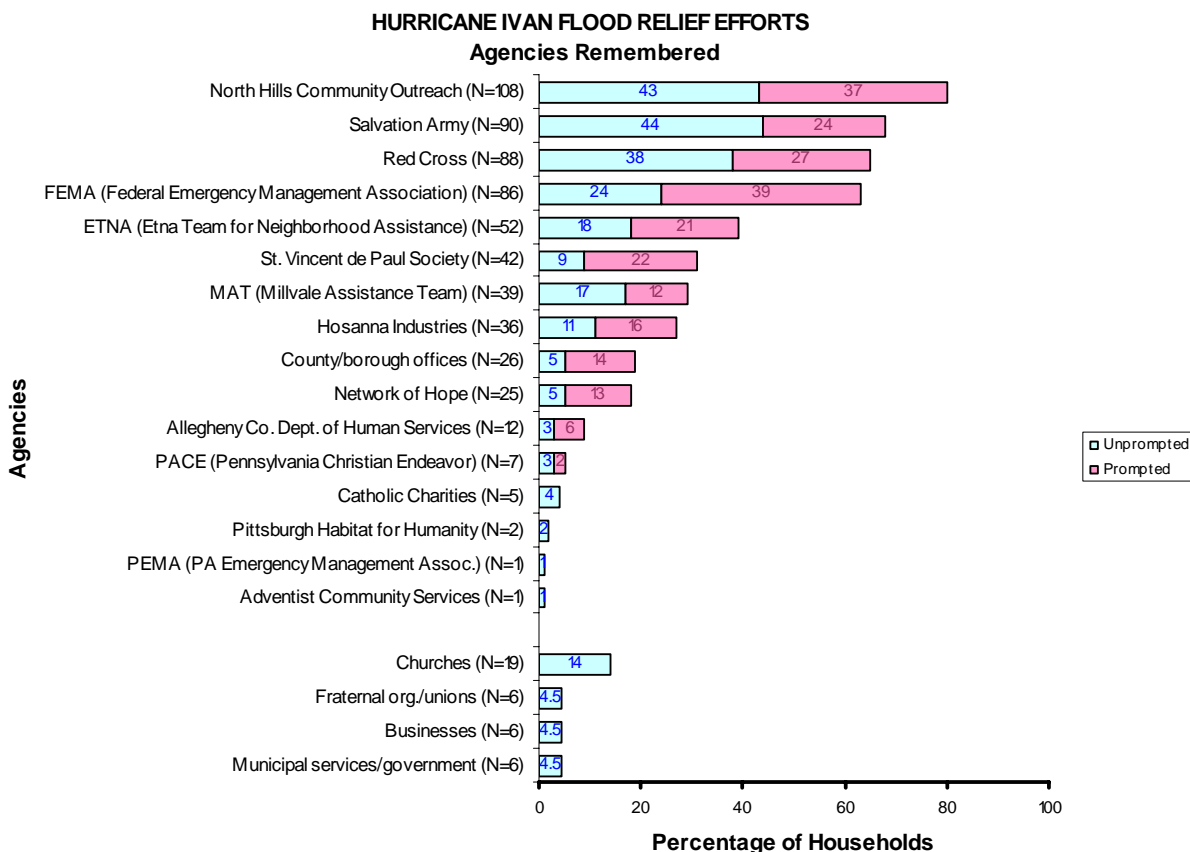
While householders were recovering from the flood damage, they were helped by a number of groups/organizations/agencies/congregations. The 135 householders were asked if they could remember any of the names of agencies that assisted them—this was considered an 'unprompted' response. They were then asked to rate how satisfied they were that each organization they mentioned met their needs.

Next, interviewers read a list of 16 agencies—asking respondents if they had been assisted by each specific group—this was considered a 'prompted' response. Householders were again asked to indicate how satisfied they were that these organizations met their needs.

This listing of 16 agencies was generated by NHCO and included government and nonprofit agencies that were particularly active in the flood recovery efforts. NHCO was interested in learning which agencies 'stuck out' in the minds of the householders as well as how they would rate these agencies in terms of satisfaction with the agencies' services. Householders were asked to rate agencies using a 5-point scale where '1' is 'extremely dissatisfied' and '5' is 'extremely satisfied'.

A listing of these agencies appears in both Figures 9 and 10. Figure 9 gives the percentages of householders remembering each agency—both prompted and unprompted. Figure 10 presents the mean satisfaction rating for each agency. Caution should be taken in interpreting data with such small and varying numbers of respondents.

In summary, 80% of the householders remembered being assisted by NHCO. At least half of the householders reported receiving help from the Salvation Army (68%), the Red Cross (65%) and FEMA (63%). One-quarter to two-fifths of the householders recalled the assistance of two neighborhood teams—ETNA and MAT—and two faith-based agencies—St. Vincent de Paul and Hosanna Industries. The remaining eight agencies had less than one-fifth of the householders remembering them. Householders rated their level of satisfaction with assistance as quite high.



**FIGURE 9. Householders—Agencies Remembered.** Percentage of householders remembering various agencies that came to their aid during the flood—N=135.

**NHCO is remembered by the vast majority of householders**—A total of 80% of the householders remembered NHCO providing them with assistance—with 43% ‘unprompted’ and an additional 37% remembering NHCO when ‘prompted’. There are numerous plausible explanations for NHCO’s lead—1) NHCO was very visible, providing direct aid and assuming a leadership and coordinating role in the recovery efforts, 2) the names of the householders solicited came from the registry of individuals that NHCO had assisted, 3) NHCO volunteers conducted the interviews and NHCO had sent letters prior to these calls announcing the forthcoming survey, and finally, 4) NHCO has had a longstanding presence in the flooded areas.

**At least half of the householders remembered being assisted by two non-governmental agencies and one government organization**—Two other non-governmental agencies, the Salvation Army and the Red Cross, were also remembered by 68% and 65% of the householders, respectively. These showed a mixture of ‘unprompted’ and ‘prompted’ responses—with the majority being ‘unprompted’.

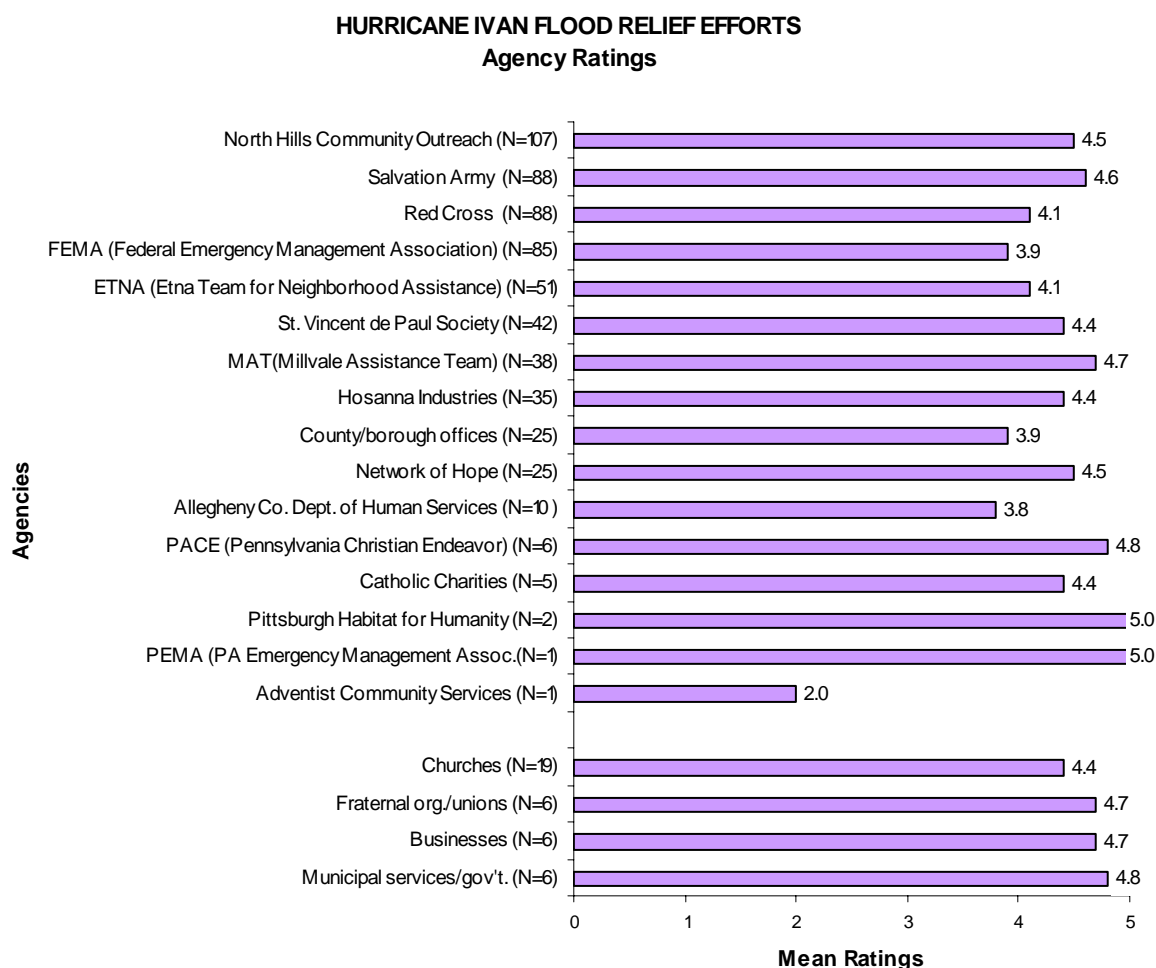
In addition to these three ‘top remembered’ agencies, a full 63% of the householders recalled being assisted by FEMA, the only governmental agency in the top five. Interestingly, the majority of these householders only remembered FEMA when ‘prompted’.

**Two neighborhood teams and two faith-based agencies were remembered by anywhere from one-quarter to two-fifths of the householders**—Two neighborhood teams—ETNA and MAT—were recalled by 39% and 29% of the householders, respectively, while almost one-third (31%) remembered St. Vincent de Paul Society and over one-quarter (27%) recalled Hosanna Industries. Each of these had a mix of ‘prompted’ and ‘unprompted’ responses.

**The remaining eight agencies had less than one-fifth of the householders remembering them**—The remaining eight agencies on the NHCO list included a mix of governmental agencies—both country and state—as well as faith- and community-based organizations. Recall for these agencies ranged from 1% to 19% of the householders.

**A few agencies off the list were remembered as giving assistance**—Some householders mentioned being helped by agencies that were not included on our list. These additional agencies fall into the categories of neighborhood congregations mentioned by 19 householders (14%) and fraternal organizations/unions, businesses and municipal services/government mentioned by six householders each (4.5%). These agencies were off the list and thus were all ‘unprompted’.

Householders who identified themselves as landlords, were also asked if they remembered being helped by the SBA—Small Business Administration—or North Allegheny Chamber of Commerce. Of the seven landlords who were questioned, none of them remembered being helped by either of these agencies.



**FIGURE 10. Householders—Agency Ratings** Mean ratings of agencies that aided householders during the flood (5-point scale)—N=135.

### **Rating Scale Values**

- 1=Extremely dissatisfied
- 2=Dissatisfied
- 3=Neutral
- 4=Satisfied
- 5=Extremely satisfied

**Of the 'most remembered' agencies, NHCO received householders' top satisfaction rating for assistance**—Considering the top five 'most remembered' agencies—NHCO, Salvation Army, Red Cross, FEMA and ETNA—NHCO and the Salvation Army received top mean ratings of 4.5 and 4.6, respectively, with regard to householders' satisfaction with their assistance. The other three 'top remembered' agencies hovered around a mean 4.0 satisfaction rating with FEMA at 3.9 and ETNA and Red Cross both at 4.1.

**Generally, householders indicated they were satisfied with most all agencies**—For twelve of the sixteen agencies remembered on the interview list, householders rated their level of satisfaction with these agencies anywhere from 4.1 to 5.0—solidly in the 'satisfied' to 'extremely satisfied' range. All twelve of these agencies were non-governmental, except PEMA to which one householder gave a 5.0 rating. Three agencies just missing the 4.0 cut-off were all governmental—FEMA (3.9), county/borough offices (3.9) and the Allegheny County Department of Human Services (3.8).

Additionally, seven of the sixteen agencies, including NHCO, shared the highest ratings that ranged from 4.5 to 5.0.

Only one agency, Adventist Community Services, received a mean satisfaction rating in the 'dissatisfied' range—a 2.0, but caution must be used in interpreting this rating that was offered by one respondent.

**'Off-the-list' agencies received high satisfaction ratings**—Mean ratings for agencies not included on the interview list were quite high—ranging from 4.4 to 4.8. However, small numbers of householders rated these groups of agencies.

### **Householders' Suggestions for Improving Services**

In its effort to do a better job of coordinating and providing services in the event of a future flood, NHCO wanted to learn from the householders themselves how assistance could be improved. To this end, all 135 householders were asked to provide suggestions for how agencies could improve their services.

The householders offered multiple responses to this question, in many cases, reiterating the points they had already made in the course of the interviews. Twenty-five per cent of the householders said they had no suggestions for improving services and another 31% took this opportunity to praise agencies for their quick responses and doing 'great jobs'.

The following chart represents a summary of comments householders made as suggestions for improvements. In many cases, the suggestions are not specific to the work of particular agencies, but rather are more generic ideas about flood prevention and disaster response. The action items that emerged are categorized as follows...

<u>Category</u>	<u>Suggestions</u>
<b>Improving Communications</b>	<p>Use firemen or volunteers with megaphones to communicate aid information when power is out</p> <p>Provide a list of names, addresses and phone numbers of agencies who can help and what kind of help is available</p> <p>Send people from agencies directly into communities to contact householders in person and let them know what services they offer</p> <p>Agencies should ensure they are following up on all residents on regular basis</p>
<b>Flood Prevention and Response</b>	<p>Make sure trash in creek is cleaned in order to prevent creeks and sewer systems don't dam up; make sure waterways are evaluated to ensure they can handle the water</p> <p>Build flood walls</p> <p>Develop a countywide disaster plan and communicate it to residents</p> <p>Develop a better warning system for notifying householders about evacuation and when and how to evacuate</p> <p>Create and distribute a brochure about how to respond to floods and train residents on its contents</p>
<b>Volunteers</b>	<p>Develop pool of potential volunteers who can be called on in an emergency to ensure enough are available to help in clean up, for example</p> <p>Develop and provide rewards to volunteers for their efforts</p> <p>Have more volunteers bring their own tools to rebuilding work sites</p>
<b>Timing of response</b>	<p>Agencies need to get to the scene quicker, especially for essentials—householders reported that Salvation Army and Red Cross did not arrive until a week after the flood.</p>
<b>Financial help</b>	<p>Individualize help—particularly financial—for each household to ensure needs are met</p>
<b>Recovery</b>	<p>Prepare a list of pre-screened reputable contractors and suppliers and make it available for householders rebuilding and repairing their properties in order to eliminate fraud</p>
<b>Transportation</b>	<p>Provide transportation so that individuals who can't get to agencies can still get help</p>

## PART III—THE BUSINESS OWNERS' PERSPECTIVE

### Overview

NHCO provided Cornerstone with the names of 42 business owners who had been assisted by NHCO and their partnering agencies during the Hurricane Ivan flood. It was the charge of the Cornerstone staff and NHCO volunteers to conduct telephone interviews with these business owners in order to understand their experiences with and gain their perceptions of the flood relief efforts.

To prepare volunteers for the interviewing task, Cornerstone held intensive on-the-job training sessions to acquaint interviewers with the interview protocol and coach them on how to conduct these calls. It took eight sessions during the month of November 2005 to do the training and complete interviewing all business owners who agreed to share their stories. Four interviewers were involved in this process that took place primarily at the offices of NHCO in Allison Park.

Interviewers made multiple attempts to contact all 42 business owners on the NHCO list. Thirty business owners were interviewed. Of the 12 not interviewed, one declined to participate and 11 were unavailable; even after repeated calling. The average length for an interview with business owners was 23 minutes—ranging from 10 to 47 minutes.

Interviewers asked business owners a wide range of questions that are presented in the following sections...

- Business owners' demographics
- Business owners' recovery and satisfaction with services
- Business owners' satisfaction with all agencies
- Business owners' suggestions for improving services

### Business Owners' Demographics

The business owners brought context to their individual situations by describing the status of their businesses both before the flood and fourteen months after the flood when we interviewed them. Additionally, they shared their perceptions of the extent of damage sustained and their concerns about future flooding.

#### Business Before the Flood

The 30 business owners were asked to describe the types of businesses they owned, how long they had been in business, the locations of their businesses and whether or not they owned the properties where their businesses were situated. They revealed the following...

**A variety of small businesses were represented**—Businesses represented in this study included hair salons, restaurants, furniture stores and galleries. There was also a food market, a bakery, a photo studio, a funeral home, a heating and cooling concern and a variety of other small businesses.

**On average, the owners had been in business for 21 years**—The business owners reported they had been in business for an average of 21 years ranging from just getting ready to open when the flood occurred to having been in operation for 84 years.

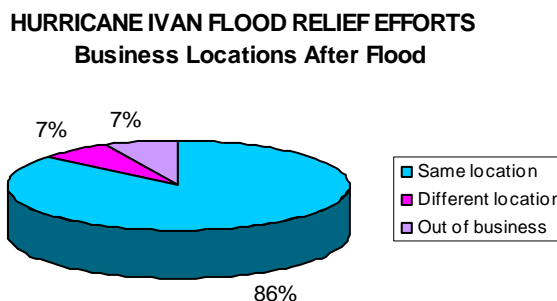
**Most of the businesses were located in Millvale**—The business owners reported that their businesses were located in the following communities...

57%	Millvale
23%	Sharpsburg
17%	Etna
3%	Shaler

**Most of the business people owned the properties housing their businesses**—Nearly three fifths (59%) of the 30 business owners interviewed owned the properties on which their businesses operated. The remaining two fifths (41%) rented the properties housing their businesses.

### **Business After the Flood**

Fourteen months after the flood, we interviewed business owners asking them to describe the current situations of their businesses. All 30 business owners responded. They indicated that 26 were still in business at the same location, two had switched locations while continuing to do business and two had gone out of business. Figure 11 shows this distribution.



**FIGURE 11. Business Owners—Business Locations After Flood.** Percentage of business owners indicating the situations and locations of their businesses after the flooding—N=30.

**Business in same location**—The 26 (86%) business owners who had continued after the flood to do business in the same location provided the following data...

**Nearly two-thirds of these business owners own the properties housing their businesses**—Of the 26 business owners reopening their businesses at the same location, 64% reported owning the properties while 36% were renters—a little more ownership than the overall average of 59% owners. Certainly owning property is an incentive to continue the business in the same location.

**These business owners reported being back in business in an average of five months**—The business owners reported that the amount of time it took for their businesses to re-open ranged from less than a month to 14 months with an average time of five months.

**These business owners reported that, on average, they are doing only 60% of the business they did prior to the September 2004 flood**—The business owners estimated that they are currently (14 months after the flood) doing anywhere from 1% to 200% of the business they did prior to the flood, averaging 60% of pre-flood capacity.

The median percentage was 50%—meaning that half the business owners reported doing less than 50% of their previous business, while half were conducting more than 50% of their pre-flood business.

Only two business owners were doing the same amount of business or better than they had done before the flood.

**Business in a different location**—Two of the 30 business owners reported that they are still doing business, but in a different location. These business owners represent 7% of the total number interviewed. Their situations are described as follows...

**Both of these business owners rented the properties that had been flooded**—The two business owners who moved to different locations had rented the properties housing their businesses.

**Both business owners moved out of their original communities**—Of the two business owners who are no longer doing business in their pre-flood locations, one business moved from Millvale to Etna and one moved from Etna to Pleasant Hills.

**Neither plans to return to their original locations**—Both owners reported they would not return to their original locations. While the owner who left Millvale for Etna gave no reason for not returning to his original location, the business owner who relocated to Pleasant Hills cited not receiving help from his landlord or the community of Etna as his reason for not returning.

**Out of business**—Two of the 30 business owners reported that they were no longer in business, representing 7% of the number interviewed. They described their situations as follows...

**The two business owners who are no longer in business are an owner and a renter**—While one of these two business owners, who had been located in Millvale, indicated that he owned the property that housed his business, the other business owner from Etna rented property.

**Both have plans to start their businesses again**—The business owner from Millvale who owned the property estimated that it would take him another month to re-open in his same location. The business owner from Etna who rented estimated that it will take him three years to re-open—depending on resources and finding a new location.

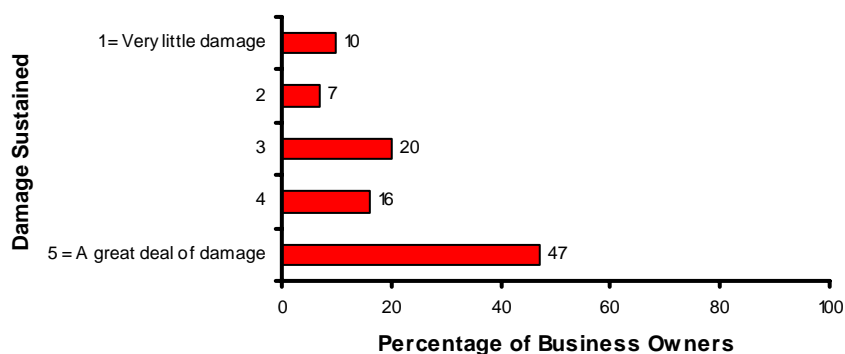
### **Business Owners' Perceptions of Damage Sustained and Future Concerns**

Business owners were asked to estimate the amount of water they had to contend with and to rate the amount of damage they sustained. They were also asked to rate the degree to which they worried about flooding in the future.

Twenty-nine of the 30 business owners responded to a questions about the amount of water damage to their property. On average, they reported their properties were covered by nearly ten feet of water, ranging from about ten inches to 16 feet. One business owner reported that he did not have any flooding in his business, but was affected by the flood because his customers could not reach his business due to street flooding.

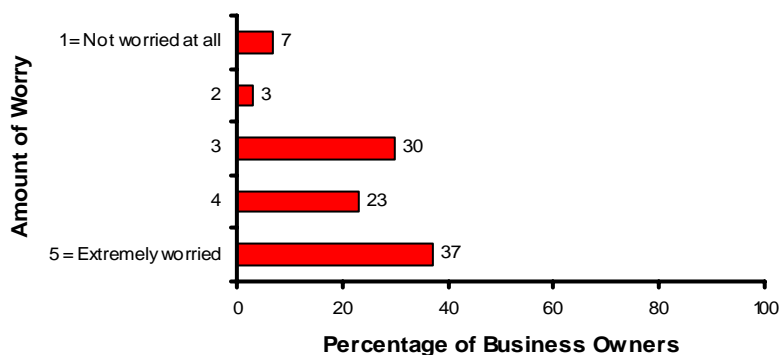
The business owners were asked to use a 5-point scale to describe their perceptions about the extent of damage to their properties—from a 'great deal of damage' to 'very little damage'. They were also asked to indicate how worried they were that their properties would be flooded again in the future—from 'extremely worried' to 'not worried at all'. Figures 12 and 13 illustrate the results of these ratings.

### HURRICANE IVAN FLOOD RELIEF EFFORTS Damage Sustained



**FIGURE 12. Business Owners—Damage Sustained.** Percentage of business owners estimating the extent of damage their businesses sustained at the time of the flood (5-point scale)—N=30.

### HURRICANE IVAN FLOOD RELIEF EFFORTS Concern About Future Flooding



**FIGURE 13. Business Owners—Concern About Future Flooding.** Percentage of business owners indicating concerns about future flooding (5-point scale).—N=30.

**Overall, the business owners showed similar concern about the damage sustained and future flooding—**The mean response rating for each question—damage sustained and concern about future flooding—was 3.8.

**Business owners' concern about future flooding corresponds to the severity of flooding experienced—**There is a similar pattern in the percentages of business owners rating their perceptions of damage sustained and their concerns about future flooding. A full 83% of the business owners rated the amount of damage at the mid-range or above—a rating of '3' or greater—while 90% of the business owners rated their concern about future flooding at the mid-range '3' or above. In addition, the patterns of percentages in both figures are similar.

### **Business Owners' Recovery and Satisfaction with Services**

Once we understood the householders' situations, we began to probe their perceptions of all services they had received from all sources during the rescue, relief and recovery efforts. In conversations during the instrument development stage of this project, NHCO leaders indicated that it would be unlikely for flood victims to be able to link particular services they received with specific agencies providing those services. In addition, more than one agency might provide the same or similar services. Thus, in questioning victims, our approach was to ask whether or not a particular business owner had received specific services from any source at all.

We posed both open-ended and rating scale questions to identify services that were most helpful and those that failed to meet business owners' needs. We also asked business owners about their satisfaction with specific services, their disappointment with any services and which services they continued to need.

#### **Open-Ended Queries About Assistance Received**

First, we asked general, open-ended queries about what services business owners found most helpful and what needs they had that went unmet.

**Most helpful assistance at time of flood**—When asked about the most helpful assistance received, all but one of the business owners responded. Their comments were categorized by theme and are summarized in Table 4 below. Since multiple responses were allowed, the percentages may exceed 100%.

<b>HURRICANE IVAN FLOOD RELIEF EFFORTS Business Owners—Most Helpful Assistance</b>	<b>Owners (N=29)</b>
<b>Specific nonprofit agencies and staff members mentioned for excellent assistance and attentiveness</b>	41%
<b>Financial assistance mentioned as particularly helpful</b>	35
<b>Specific services/items mentioned as helpful</b>	35
<b>General comments made about assistance and support from community, friends/family and government agencies</b>	21

**TABLE 4. Business Owners—Most Helpful Assistance.** Percentage of business owners offering various types of assistance as 'most helpful'—N=29.

The content of the themes in Table 4 is elaborated below...

**Specific nonprofit agencies and agency staff members mentioned for excellent assistance and attentiveness**—12 business owners (41%) cited specific nonprofit agencies for excellent assistance. NHCO and Network of Hope were specifically identified. NHCO was constantly on-site offering information five days a week. Individual staff members were on-site daily; stopping in every day to every business.

**Financial assistance mentioned as particularly helpful**—10 business owners (35%) reported that financial assistance was particularly helpful. Money given for bills, equipment, and supplies as well as low/no interest loans provided. NHCO was mentioned for help with outstanding bills and money for machinery, computers and supplies. Allegheny County and Rotary were cited for giving money to pay bills. Low interest loans from Hebrew Free Loan Foundation.

**Specific services/items mentioned as helpful**—10 business owners (35%) cited specific services as helpful. Range of items including food, cleaning and rebuilding supplies, dumpsters, appliances and furnishings received from NHCO, Christian Endeavor, Salvation Army and Network of Hope.

**General comments made about assistance and support from community, friends and family and government agencies**—6 business owners (21%) made general comments about assistance from individuals and the community. Help received from neighbors in the community, family, friends of family and Melissa Hart's office. Appreciative comments made about the kindness of those providing help.

**Unmet needs**—The business owners were asked an open-ended question regarding whether there was anything they needed that was not provided to them by agencies after the flood. All but one of the business owners responded to this question. Their responses are categorized according to theme and summarized in Table 5. Percentages exceed 100% because multiple responses were allowed.

HURRICANE IVAN FLOOD RELIEF EFFORTS Business Owners—Unmet Needs	Owners (N=29)
Repairs, materials, equipment and appliances needed	35%
Financial assistance needed	21
Emotional support needed	21
Not counting on agencies to meet needs; relying on friends/families	14
General positive comments about help received	14
Information needed	7

**TABLE 5. Business Owners—Unmet Needs.** Percentage of business owners offering various responses concerning their unmet needs in their recovery—N=29.

Again, the content of the themes is described below...

**Repairs, materials, equipment and appliances needed**—10 business owners (35%) said they still needed basic repairs and equipment. Special, expensive equipment was needed to restore businesses or supplement bare essentials. In addition, business owners said they needed furnaces, water tanks and refrigeration units. Mold remediation and repairs to equipment as well as roofs and floors were needed.

**Financial assistance needed**—6 business owners (21%) needed monetary support. Some businesses got monetary help, but others didn't. Funds received were often insufficient. Loans, particularly SBA, presented a great deal of 'red tape'—making it easier to apply for bank loans. Some businesses only received assistance of \$200 from Office Depot.

**Emotional support needed**—6 business owners simply wanted more emotional support. Amount of loss was too overwhelming. Not enough emotional support was provided.

**Not counting on agencies to meet needs; relying on friends and family**—4 business owners (14%) relied exclusively on family and friends for support. Didn't count on or look to agencies; friends provided all help. Depended on friends and family, so didn't ask for help believing individual residents were in more need.

**General positive comments about help received**—4 business owners (14%) made general positive comments, citing no unmet needs. Red Cross provided food and some cleaning products in the first few days of business clean-up. NHCO was great!

**Information needed**—2 business owners (7%) said that they needed more information. Business owners were not informed on a formal basis about grant money available from county; only learning about it by word-of-mouth.

In short, when asked what stuck out in their minds as being most helpful at the time of the flood, more than two-fifths of the business owners mentioned specific nonprofit agencies and staff members. Over one-third mentioned financial assistance as being particularly helpful, while another third identified a variety of services as critical to their recovery.

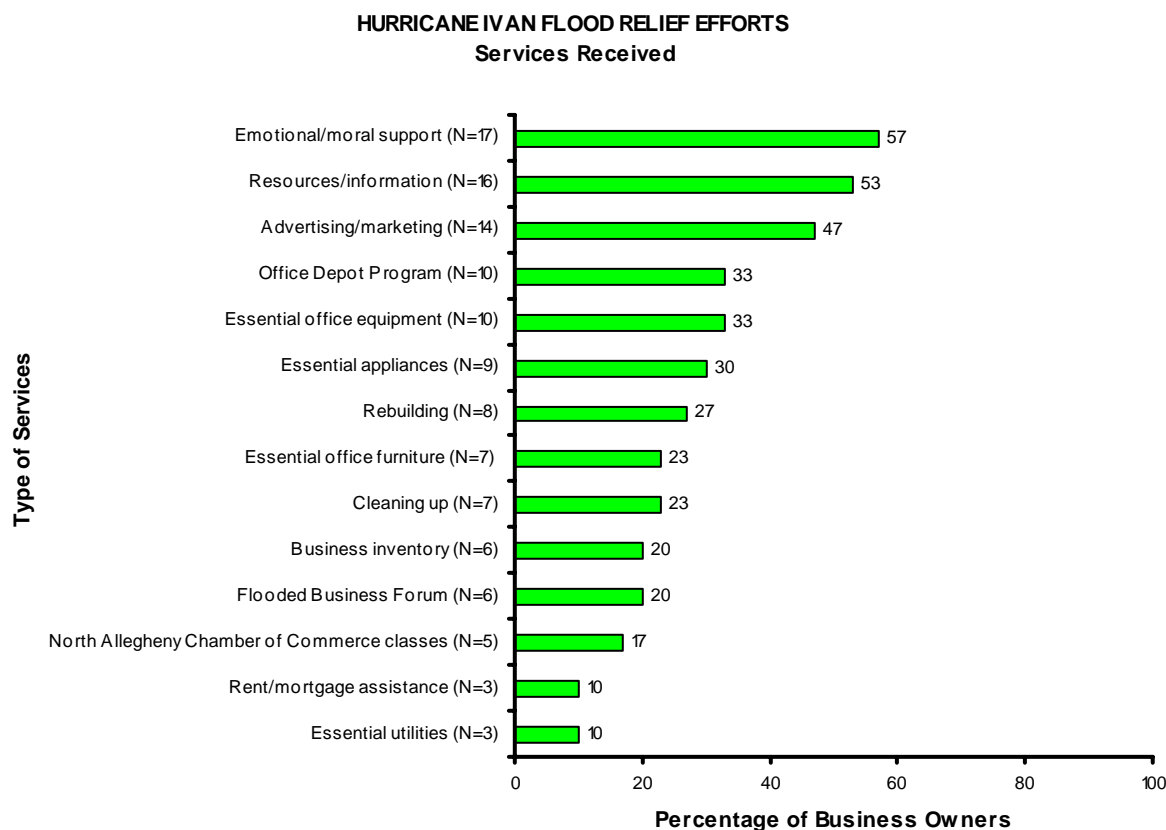
Over one-third of the business owners indicated that, at the time of the flood, they would have appreciated more help with repairs, building materials and specialized equipment. One-fifth of the business owners mentioned needing more help financially and emotionally.

### **Ratings of Assistance Received**

The previous sections summarized business owners' responses to general, open-ended questions about their perceptions of the assistance they received from all agencies at the time of the flood. In this section, we present business owners' responses when asked to identify specific types of help they may have received and to rate their level of satisfaction with these services. We also asked them to rate their overall satisfaction with flood relief and recovery assistance.

**Business owners identify services received and rate their satisfaction**—NHCO assisted Cornerstone in generating a list of 14 services offered to business owners who had been affected by the flood. These services are presented in the next two figures which summarize the percentage of business owners receiving each type of help (Figure 14) and the mean ratings of their satisfaction with each type of assistance (Figure 15).

With regard to the services that business owners actually received, at least half of business owners said that they got emotional support (57%), assistance with resources/information (53%) and help with advertising and marketing (47%). A good many of them also received help with their businesses' physical plants—ranging from 23% to 33% depending on the service. A few were aided in areas involving running their businesses—ranging from 10% to 20%.



**FIGURE 14. Business Owners—Services Received.** Percentage of business owners indicating various types of services they received.

**The services mentioned as being received most frequently were those involving emotional support, information and marketing/advertising—**Nearly three-fifths of the business owners (57%) said they received emotional/moral support, 53% received resources/information and 47% received help with advertising and marketing.

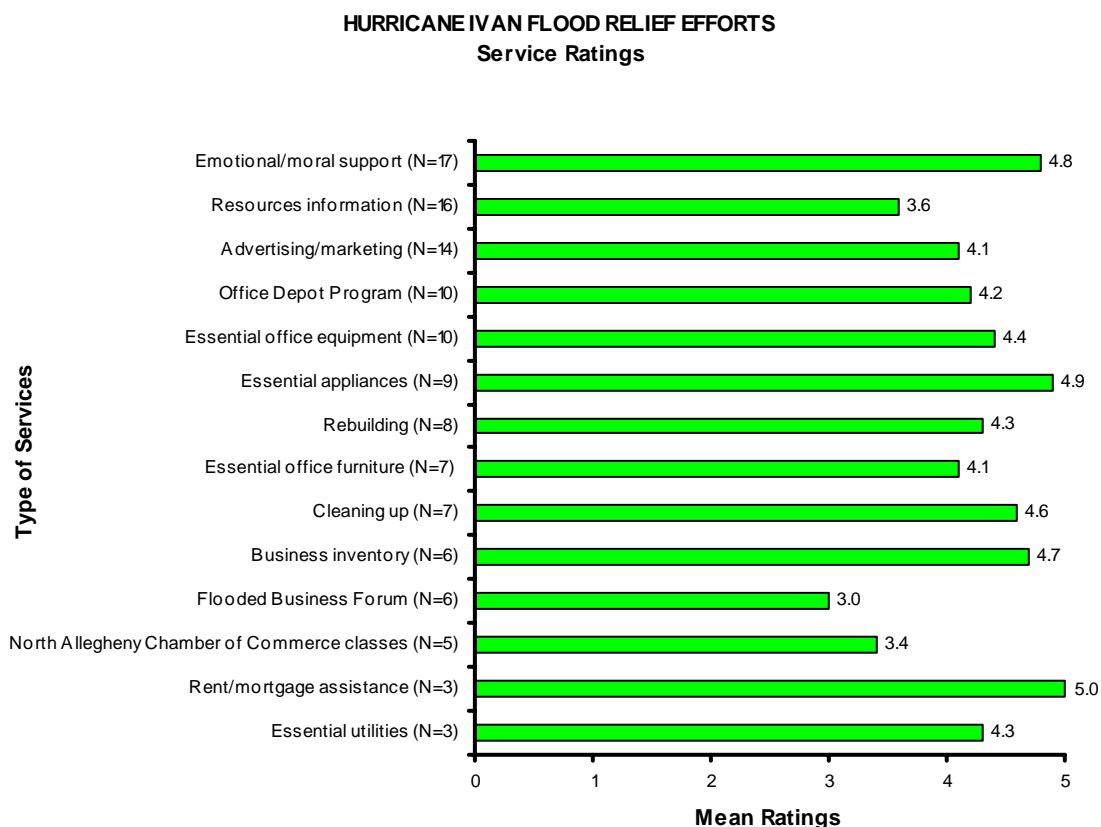
**To a lesser degree business owners said they received help with the physical plant of the business—**One-third of the business owners said they received help from the Office Depot Program (33%) and another third said they received help with essential office equipment (33%). Just under one-third (30%) received help with essential appliances and just over one-quarter (27%) with rebuilding. Slightly under one-quarter (23%) got help with essential furniture and cleaning up.

**Business owners received the least amount of help in areas related to the running of the business and paying for rent/mortgages and utilities—**One-fifth (20%) of the owners said they got help with their inventories and attended the Flooded Business Forum. Only 17% were able to take advantage of the NACC classes. The fewest number of business owners received help with rent/mortgage (10%) and essential utilities (10%).

For each type of assistance received, business owners were asked to use a 5-point scale to rate their satisfaction with that service—with '5' being 'extremely satisfied' and '1' being 'extremely dissatisfied'. Figure 15 summarizes their average ratings. Caution needs to be taken in interpreting these statistics due to small and varying numbers.

With regard to their satisfaction with these services, business owners proved to be content with most services. They indicated particular enthusiasm with the emotional support and tangible items—money, appliances, business inventory—that they received. In contrast to these high ratings, business owners shared in open-ended questions that their emotional and financial needs had not been adequately met—see Table 5.

Interestingly, business owners expressed the least satisfaction with information/resources they were given as well as various offerings designed specifically for business recovery purposes.



**FIGURE 15. Business Owners—Service Ratings.** Percentage of business owners indicating their satisfaction with services received (5-point scale).

#### Rating Scale Values

- 1=Extremely dissatisfied
- 2=Dissatisfied
- 3=Neutral
- 4=Satisfied
- 5=Extremely satisfied

The mean ratings of all services received were at mid-point of the range and above—Ratings ranged from 3.0 to 5.0—at mid-range or better; with 11 of the 14 mean ratings being above 4.0—in the solidly 'satisfied' area.

**The top four services rated involved moral/emotional support and tangible items**—Business owners' rated highly the emotional/moral support they received (4.8). They also were very satisfied with more tangible gifts of money for rent/mortgage (5.0), appliances (4.9) and refurbishing their business inventory (4.7).

**Business owners were least satisfied with the resources/information they were provided and offerings designed specifically for business recovery**—Business owners were least satisfied with the Flooded Business Forum (3.0) and the NACC (3.4)—take caution in interpreting small numbers of respondents. While more than half of the business owners, 53% (see Figure 14), said they received resources/information, they rated that service slightly lower than 'satisfied' at 3.6.

**Business owners giving some low ratings.** Despite general satisfaction with specific services, twelve of the business owners did mention some service areas that posed problems for them. These business owners cited eight such services that they felt were below par—they rated these with '1's' or '2's'. We asked for reasons for their dissatisfaction. Their responses are summarized below with 10 of the respondents giving one low rating and two of them giving two low ratings, thus there are 14 responses displayed...

Respondents=12

**Failure of service to meet business owners' needs or expectations**—Business owners cited the specific services where they received very little help or none at all...

- N=3 **Resources/information**—too much government red tape
- N=3 **Flooded Business Forum**—failed to meet the individualized needs of the business
- N=2 **Advertising/marketing**—failed to meet business owners' expectations and was minimal
- N=2 **Chamber of Commerce networking classes**—lack of relevance and response

**Inadequacy and poor quality of services**—Business owners cited the specific services where they received help that they felt was of poor quality or insufficient in some way...

- N=1 **Rebuilding**—insufficient help offered
- N=1 **Office furniture**—furniture offered was of poor quality
- N=1 **Office equipment**—computers provided could not be networked
- N=1 **Office Depot program**—not an economical option since a better discount could be obtained elsewhere

**Business owners giving no low ratings.** The remaining 18 business owners who did not rate any of the services with a '1' or a '2' were asked to talk about any help they received that may have been 'inadequate'—assistance that did not meet the needs of their businesses. Sixteen of these business owners offered multiple comments so the number of responses exceeds the number of respondents. Their comments are summarized as follows...

Respondents=16

- N=9 **Received limited agency help**—business owners felt that businesses were underserved
- N=6 **Disappointed with FEMA/SBA assistance**—business owners felt that these agencies provided limited assistance with much cumbersome 'red tape'
- N=2 **No inadequacies**—business owners expressed praise for assistance from NHCO and Millvale's mayor
- N=1 **Continued unmet needs**—business owner continues to experience financial hardship

In summary, business owners were positive about the specific services they received, but they felt that the business community was underserved—that help provided to individuals with businesses was sorely limited.

**Disappointment with overall assistance**—The previous section revealed that business owners' ratings of specific services generally indicate a high level of satisfaction with specific services received—see Figure 15. These same respondents also offered some positive comments about specific services when asked about the assistance they experienced as most helpful—summarized previously in Table 4.

Prior to posing questions about satisfaction with **specific** services, however, business owners were asked to rate their **overall** satisfaction with the help they received. All but one of the business owners rated overall satisfaction. On average, their rating was 2.4—in the range of 'dissatisfied' to 'neutral'.

This rating of overall dissatisfaction is in stark contrast to business owners' positive ratings of specific services—see Figure 15. In general, this overall rating seems to be negatively impacted by business owners' frustrations with not getting the assistance they needed or their bad experiences with one particular agency.

Of the 29 business owners rating **overall satisfaction**, 19 owners rated it with a '1' or '2' (ratings indicating dissatisfaction or extreme dissatisfaction). Seventeen of these 'dissatisfied' owners specified one or more reasons for their discontent with 65% citing government help as the source of their dissatisfaction. Their reasons for concern are categorized thematically as follows...

% (N=17)	Category of Reason for Overall Dissatisfaction
65%	Little or no help from federal/state/local government (FEMA, SBA)
59	Only helped by one agency or not much help received
18	Friends gave more help than agencies/self-sufficient

We can infer from these responses that even though business owners were generally satisfied with the assistance they received in specific service areas, they felt discontent with the overall assistance they received from all sources. It appears that this overall reaction may be due to one particular event—a bad experience with a particular agency, difficulty in getting critical assistance or inadequacies in the help they did receive. Possibly this single event colored their overall perceptions without tainting their views of specific services that they rated quite highly.

### **Continuing Needs for Services**

At the time of the interviews in November 2005, more than a year had passed since the flood. Recognizing that recovery efforts were still ongoing, interviewers asked business owners an open-ended question regarding what assistance they felt they continued to need. Almost half of the business owners reported needing financial assistance. Their responses are categorized in Table 6 below. Since multiple responses were allowed, the percentages sum to more than 100%.

HURRICANE IVAN FLOOD RELIEF EFFORTS Business Owners—Services Still Needed	Owners (N=30)
Financial assistance	47%
Attract customers/qualified employees	27
Equipment/materials needed	20
None/did work on own with help from friends	7
Sporadic help needed	3

**TABLE 6. Business Owners—Services Still Needed.** Percentages of business owners offering various responses concerning assistance still needed—N=30.

**Financial assistance**—14 business owners (47%) said they needed monetary help. Need for capital continues in order to buy inventory and replace what was lost. More grants and low-interest loans would be helpful. More funding and timely response from SBA would be appreciated.

**Attract customers/qualified employees**—8 business owners (27%) reported needing help in finding customers and employees. Need help to cultivate new customer base and announce with advertising and Internet presence that community is ready to do business. Need assistance to find qualified employees to replace those displaced by flood.

**Equipment/materials needed**—6 business owners (20%) mentioned needing equipment. Need equipment for air conditioning, plumbing, electrical and refrigeration. Need carpentry assistance for replacing and repairing. Need help with roof and furnace. More food supplies needed.

**None/did work on own with help from friends**—2 business owners (7%) said that they needed no assistance. No further assistance needed—back in business through own efforts and with assistance from friends and families.

**Sporadic help needed**—1 business owner (3%) reported needing help as the needs arise. Help is needed sporadically while rearranging inventory as repairs are done.

### **Business Owners' Satisfaction with All Agencies**

While business owners were recovering from the flooding damage, they were helped by a number of agencies including various nonprofit groups, governmental organizations and congregations. The 30 business owners were asked if they could remember any of the names of agencies that assisted them—this was considered an 'unprompted' response. They were asked to rate their level of satisfaction with each organization they mentioned.

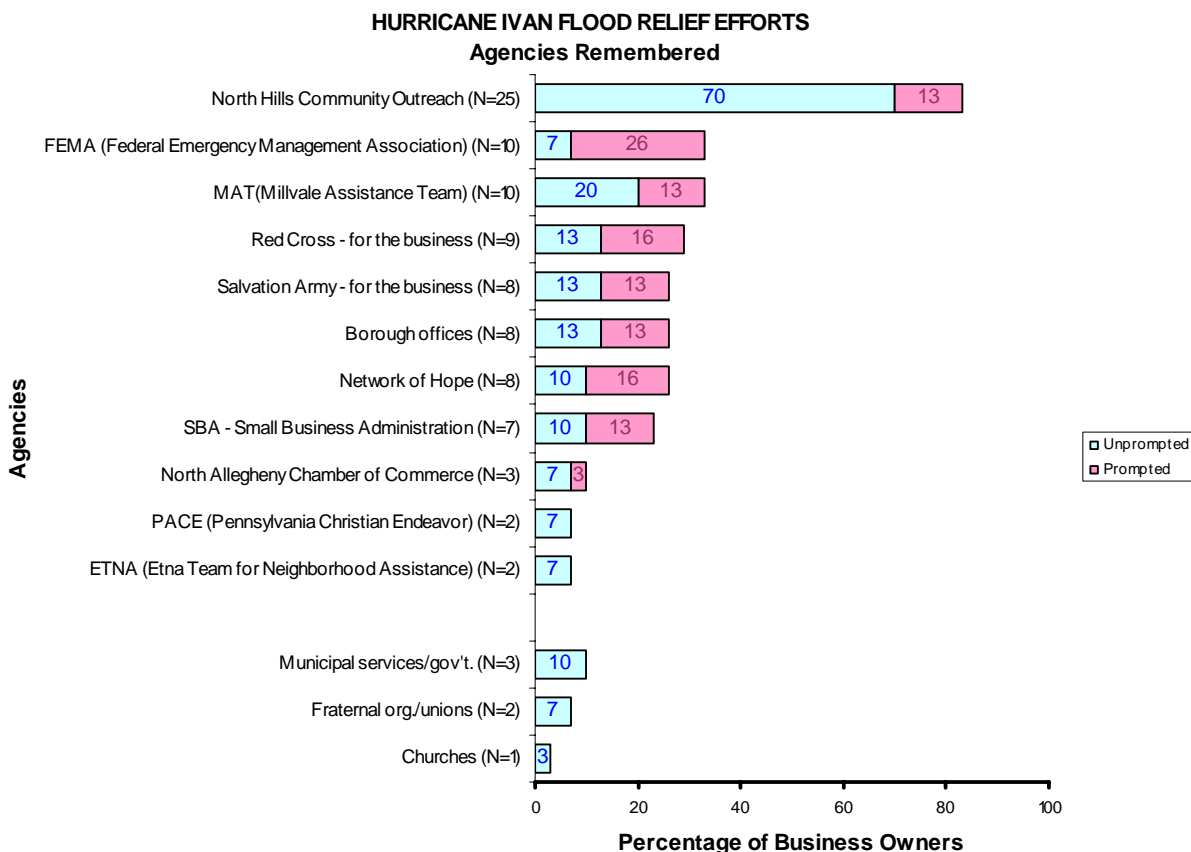
Then, interviewers read a list of eleven agencies, asking respondents if their businesses had been assisted by each specific agency—this was considered a 'prompted' response. Business owners were again asked to indicate how satisfied they were that these agencies met their needs.

This listing of eleven agencies was generated by NHCO and included government and nonprofit organizations that were particularly active in the flood recovery efforts. NHCO was interested in learning which agencies 'stuck out' in the minds of the business owners as well as how owners would rate these agencies in terms of satisfaction with the agencies' services. Business owners were asked to rate agencies using a 5-point scale where '1' is 'extremely dissatisfied' and '5' is 'extremely satisfied'.

A listing of these agencies appears in both Figures 16 and 17. Figure 16 gives the percentages of business owners remembering each agency—both prompted and unprompted. Figure 17 presents the mean satisfaction rating for each agency. Caution should be taken in interpreting data with such small and varying numbers of respondents.

In summary, 25 of the business owners interviewed said that they remembered being assisted by NHCO during the flood. Anywhere from 7 to 10 remembered being helped by nonprofit agencies such as the Red Cross, Salvation Army and Network of Hope; government agencies including the borough offices, SBA and FEMA and neighborhood teams like MAT that came together in response to the flooding situation. Only 2 to 3 business owners remembered the North Allegheny Chamber of Commerce, PACE and ETNA.

Business owners rated their level of satisfaction with this assistance as quite high except in the cases of the help they received from the SBA and FEMA.



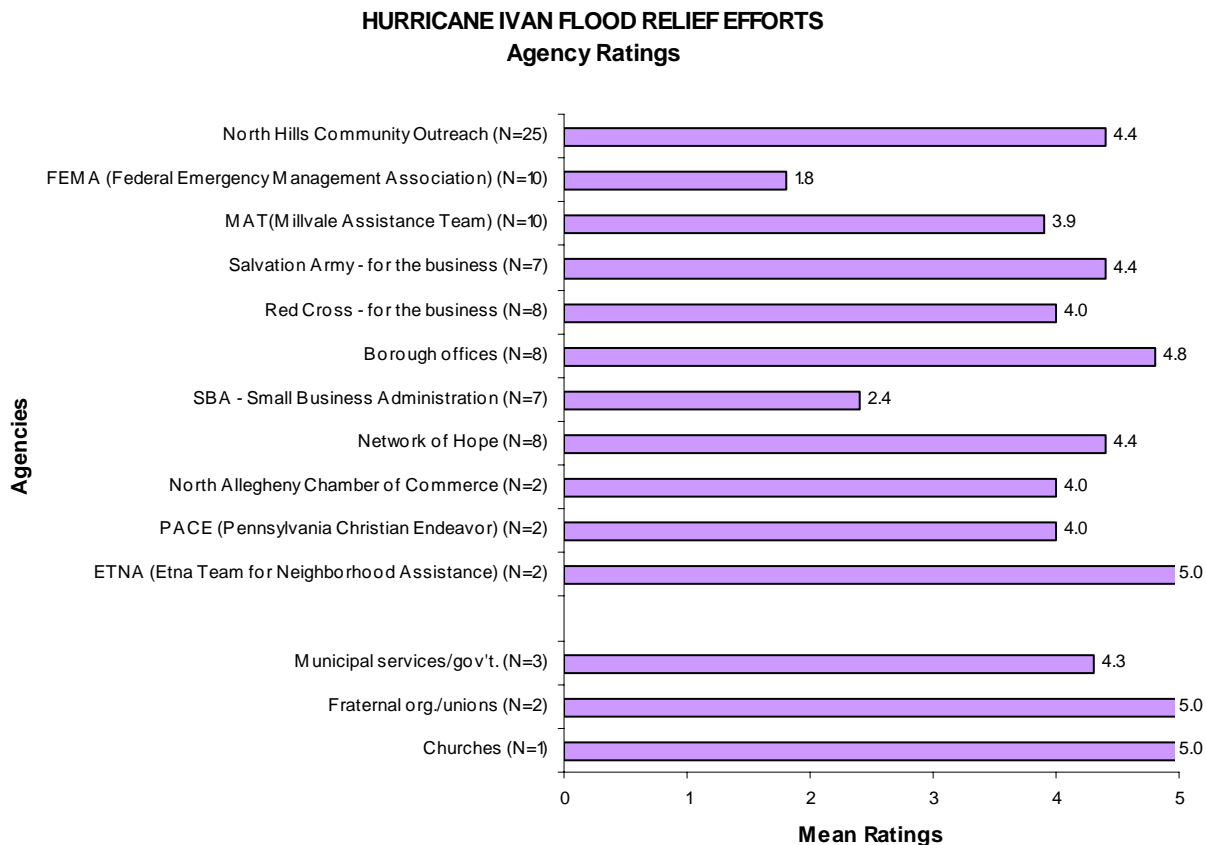
**FIGURE 16. Business Owners—Agencies Remembered.** Percentages of business owners remembering various agencies that came to their aid during the flood—N=30.

**A dramatically greater number of business owners remembered NHCO helping them than any other agency—**A total of 83% of the business owners remembered being assisted by NHCO—with 70% ‘unprompted’ and an additional 13% remembering when ‘prompted’. There are numerous plausible explanations for NHCO’s lead—1) NHCO was very visible, providing direct aid and assuming a leadership and coordinating role in the recovery efforts, 2) the names of the business owners solicited came from the registry of businesses that NHCO had assisted, 3) NHCO volunteers conducted the interviews and NHCO had sent letters prior to these calls announcing the forthcoming survey, and finally, 4) NHCO has had a longstanding presence in the flooded areas.

**The majority of agencies were remembered by anywhere from one-quarter to one-third of the business owners—**Around one-quarter of the business owners remembered a handful of the eleven agencies—SBA remembered by 23%, the Salvation Army, borough offices and Network of Hope by 26% and the Red Cross by 29%. Exactly one-third of the business owners remembered MAT and FEMA. These all showed a mix of ‘prompted’ and ‘unprompted’ responses.

**The remaining three agencies had less than one-tenth of the business owners remembering them—**The remaining three agencies on the NHCO list included a neighborhood team and two non-profit organizations. Recall for these agencies ranged from 7% to 10% of the business owners.

**A few agencies off the list were remembered as giving assistance**—Some business owners mentioned being helped by agencies that were not included on our list. These additional agencies fall into the categories of municipal services/government mentioned by three business owners, fraternal organizations offered by two owners and congregations remembered by one business owner. These agencies were off the list and thus were all ‘unprompted’.



**FIGURE 17. Business Owners—Agency Ratings.** Mean ratings of agencies that aided business owners during the flood (5-point scale).

**Rating Scale Values**

- 1=Extremely dissatisfied
- 2=Dissatisfied
- 3=Neutral
- 4=Satisfied
- 5=Extremely satisfied

**Of the ‘most remembered’ agencies, NHCO received business owners’ top satisfaction rating for assistance**—Considering the top five ‘most remembered’ agencies—NHCO, FEMA, MAT, Salvation Army and the Red Cross—NHCO and the Salvation Army received top mean ratings of 4.4 with regard to business owners’ satisfaction with their assistance. Two of the other three ‘top remembered’ agencies hovered around a mean 4.0 satisfaction rating with MAT at 3.9 and the Red Cross right at 4.0. FEMA, however, stands out with a mean satisfaction rating of only 1.8.

**Generally, business owners indicated they were satisfied with most all agencies**—With the exception of FEMA and SBA, all other agencies’ mean ratings of satisfaction ranged from 3.9 to 5.0.

**Business owners were least satisfied by FEMA and SBA**—The business owners' mean ratings for their level of satisfaction with SBA was slightly higher at 2.4 than their rating for FEMA at 1.8, but both reflect dissatisfaction with the assistance received.

**'Off-the-list' agencies received high satisfaction ratings**—Mean ratings for agencies not included on the interview list were quite high—ranging from 4.3 to 5.0. However, small numbers of business owners rated these groups of agencies.

### **Business Owners' Suggestions for Improving Services**

In its effort to do a better job of providing services in the event of a future flood, NHCO wanted to learn from the business owners themselves how assistance could be improved. To that end, business owners were asked to provide suggestions for improving services.

Twenty-nine of the business owners offered responses that are categorized in Table 7. Many business owners offered more than one response resulting in the percentages totaling more than 100%.

Again, business owners asked for improvements in services that would make financial assistance more readily available and would enhance communication about available assistance.

<b>HURRICANE IVAN FLOOD RELIEF EFFORTS Business Owners—Suggestions</b>	<b>Owners (N=29)</b>
<b>Address financial concerns more effectively</b>	41%
<b>Improve communication/feedback</b>	31
<b>Agencies not helpful—no suggestions</b>	17
<b>Praise for agencies—no suggestions</b>	17
<b>Specific needs remain unmet</b>	17
<b>Individualize help to businesses</b>	7
<b>Provide more moral/emotional support</b>	7
<b>Have greater sense of urgency for providing help</b>	7

**TABLE 7. Business Owners—Suggestions.** Percentages of business owners offering various suggestions for improving future flood relief assistance.—(N=29).

**Address financial concerns more effectively**—Agencies need to make it easier for people to be helped. Money needs to be readily available for businesses—not just individuals—including loans that cover all needs. Need more help to resolve problems encountered with finances. Money needs to be ready for help; we really needed financial help.

**Improve communication/feedback**—Improve communications to businesses regarding help available to them. Ensure businesses are in the loop, make sure referred agencies contact business to offer available help. More on-site contact by FEMA would be appreciated. Provide contact lists so business owners know who to call for assistance.

**Agencies not helpful—no suggestions**—Family and friends stepped in to offer their expertise as electricians, maintenance people and fund raisers. Some businesses used their own money to put their businesses back together.

**Praise for agencies—no suggestions**—In the cases where agency help was received, everyone pulled together and did an awesome job.

**Specific needs remain unmet**—Business owner continues to wait for furnace promised, another has filed paperwork with a municipality and awaits a response. Some still report clean-up work to be done

**Individualize help to businesses**—Have people come to each business and see what its specific needs are. Be sensitive to specialized needs of a business particularly unique equipment needs.

**Provide more moral/emotional support**—Make phone calls once a month to ask if there is something that is needed. Needed more support from mental health services.

**Have greater sense of urgency for providing help**—Help needs to be provided sooner. Applications for aid should be provided on a timely basis.

## **PART IV—THE PARTNERING AGENCIES' PERSPECTIVE**

### **Overview**

Having explored the viewpoints of those receiving relief services—the householders and business owners affected by the flooding—it is time to turn our attention to those partnering agencies that worked with NHCO in providing these services.

NHCO provided Cornerstone with a list of 10 partnering agencies that worked alongside NHCO in an effort to respond to the needs of those affected by Hurricane Ivan. The partnering agencies were...

- Adventist Community Services
- Allegheny County Department of Human Services
- ETNA—Etna Team for Neighborhood Assistance
- FEMA
- Habitat for Humanity
- Hosanna Industries
- MAT—Millvale Assistance Team
- Network of Hope
- PACE—Pennsylvania Christian Endeavor\*
- St. Vincent de Paul Society

\*A group from eastern PA brought to Pittsburgh through the efforts and coordination of NHCO.

During December 2005, Cornerstone interviewers contacted 12 administrators and line staff at the ten agencies. Two of the agencies—PACE and Network of Hope—were each represented by two personnel members; one administrator and one line staff.

During discussions that lasted an average of 40 minutes, interviewers asked a wide range of questions to shed light on the partnering agencies' satisfaction with the assistance they received from NHCO and their perceptions of the collaborative relationships that they experienced with NHCO. This information is presented in the following sections...

- Description of agencies and interviewees
- Agencies' satisfaction with NHCO's assistance
- Agencies' perceptions of the collaborative process

### **Descriptions of Agencies and Interviewees**

The agencies partnering with NHCO represented a mixture of government organizations, established nonprofit agencies and neighborhood assistance teams. The two partnering government agencies were federal- and county-based—FEMA and the Department of Human Services. Five of the partnering agencies were faith-based groups—Adventist Community Services, Hosanna Industries, Network of Hope, PACE and St. Vincent de Paul. The two neighborhood assistance teams that emerged in response to the flooding—MAT and ETNA—were heavily comprised of congregations and faith-based organizations, many of which already served Etna, Millvale and the surrounding communities.

Interviewers spoke with agency personnel who were both administrative leaders and 'line' staff, that is, personnel directly responsible for working with flood victims. We felt that both viewpoints were critical to understanding agencies' perceptions of their collaboration with NHCO. As it turned out, not only did all the 'line' staff we interviewed work with flood victims, but also some of the administrators worked in the field in addition to tending to their administrative duties.

The interviewee(s) from the partnering agencies provided descriptions of their own agencies' roles in the flood relief effort, their satisfaction with the assistance they received from NHCO and their perceptions of the collaborative experience. Summaries of the information that interviewees provided vary in length based on the amount of detail they shared.

#### **Adventist Community Services**

**Adventist Community Services' Role in Relief Effort**—Worked with long-term recovery team to ensure that services were not duplicated. In keeping with this goal, Adventist took on the task of providing distribution and warehousing management. Worked with UMCORE (United Methodist Committee) and local churches and agencies to help people get back in their homes and receive needed commodities

**Interviewee**—Pastor—*Line staff*

#### **Allegheny County Department of Human Services**

**Allegheny County Department of Human Services' Role in Relief Effort**— Provide basic counseling and information to clients. Ensured that clients of Agency on Aging and Mental Retardation were safe; received needed services and got emotional support

**Interviewee**—Mental Health Specialist—*Line staff*

**Collaboration with NHCO**—Looked to NHCO for assistance in directing resources such as equipment, furnishing and rebuilding help to families and individuals in need

### **ETNA—Etna Team for Neighborhood Assistance**

**ETNA's Role in Relief Effort**—Worked with residents to get them back into their homes. Comprised of churches in Etna, the Sisters of Divine Providence, Northern Area Multi Service Center, Lutheran Service Center and the St. Vincent de Paul Society—all of whom organized to react to the flood and its aftermath. ETNA said its role was...

- To effectively organize the relief efforts of multiple churches and organizations that were willing to help ETNA by making a consistent commitment following the flood
- To organize the response of volunteers originally working in the rescue effort that transitioned into a more organized relief group
- To contact the residents, find out what they needed and connect them to the volunteers coming in to do that kind of work

**Interviewee**—Case worker—*Line staff*

**Collaboration with NHCO**—ETNA could call on NHCO to solve part of their problems, making it easier for ETNA. NHCO brought two of the best people to the job—a social worker and a project manager—who were not only easy to work with, but also took care of whatever was needed

### **FEMA**

**FEMA's Role in Relief Effort**— Support the state with response and relief effort. Once the state has determined that a particular event is beyond its capacity to handle, federal assets are brought in to assist. Agency's role was...

- To provide money, the primary assistance
- To provide educational opportunities about mitigation efforts including books, manuals and personal consultations
- To administer the national flood insurance program including advice about coverage and how to file a claim
- To provide a public assistance program which gives funds to help repair public access roads, utilities, bridges, etc.

**Interviewee**—Voluntary Agency Liaison—*Administrator*. Based in Philadelphia, she initially exchanged information then coordinated FEMA's immediate response and then its involvement in the recovery effort. Worked with long-term recovery committee

**Collaboration with NHCO**—NHCO clearly understood its role; NHCO knew what needed to be done by their agency; NHCO's perception of its role was right on target—providing an excellent match for FEMA

### **Habitat for Humanity**

**Habitat for Humanity's Role in Relief Effort**—Initial response was for clean-up and then to focus on permanent housing. Agency's role was...

- To coordinate volunteers for flood clean-up
- To supply as much person power as available for the work teams scheduled through ETNA
- To direct people, looking for either temporary or permanent housing to the appropriate agencies

**Interviewee**—Executive Director—*Administrator*. Also helped in the clean-up effort as part of the volunteer work teams

**Collaboration with NHCO**—Agency initially met NHCO through the Southwestern PA Long-Term Task Force and maintained contact with NHCO through that consortium. NHCO proved to be a strong support group for everyone working flood relief

### **Hosanna Industries**

**Hosanna Industries' Role in Relief Effort**— Assist low and very low income households. Provide basic services to assist with reestablishing households and coping with the aftermath of a natural disaster

**Interviewee**—Executive Director—*Administrator*. Also worked in the field with the social workers addressing needs from carpentry to electrical work

**Collaboration with NHCO**—Hosanna noted a strong existing relationship with NHCO...

- Hosanna Industries shared with NHCO the same values and broad strategy with respect to the desired outcome for the flood recovery effort
- NHCO and Hosanna Industries worked together on a variety of specific projects
- Hosanna Industries shared their funding with NHCO

### **MAT—Millvale Assistance Team**

**MAT's Role in Relief Effort**—Supported Millvale's plan of recovery both financially and with volunteers. Recruited and trained individuals to assess the needs of flood victims. Provided financial and emotional support as well as information about how people could recover. Agency's role was...

- To recruit and train a dozen individuals from the community—Western Pennsylvania Conference, The United Methodist Church, Millvale—to go door to door, make home visits and assess the needs of the homeowners using a standardized assessment form
- To provide direct help cleaning out homes—purchased materials needed to restore electrical services and provided drywall, for example
- To bring in volunteer groups to do major renovations
- To provide financial support and information to assist homeowners in their own flood recovery efforts
- To provide spiritual, emotional support—to lend an ear for those who needed somebody to talk to

**Interviewee**—Chairperson of MAT—*Line staff*

**Collaboration with NHCO**—MAT saw NHCO fulfilling a key role in the relief efforts as a collaborator and stated...

- Since NHCO's Millvale satellite was destroyed by flood, NHCO hired flood staff to work with MAT
- NHCO staff assisted MAT by providing focus and supervisory support
- NHCO provided financial resources by splitting the cost of materials needed for recovery
- NHCO helped with logistical support to develop plans of action with volunteers

### **Network of Hope**

**Network of Hope's Role in Relief Effort**—To promote lasting change in families, individuals and communities with an emphasis on emotional health. Registered flooded families and provided for basic needs in the relief phase. Provided construction and other support in the recovery effort such as holding job fairs and health fairs and encouraging grassroots support of local businesses

**Interviewees**—Director—*Administrator*  
Flood Operations Manager (Sharpsburg)—*Line staff*

**Collaboration with NHCO**—NHCO worked in partnership with Network of Hope to establish and operate the Flood Mart to supply basic needs in the relief phase. NHCO assisted in the transition to the recovery phase. Both organizations closely coordinated their respective case managers' work to ensure there was no duplication of effort

### **PACE—Pennsylvania Christian Endeavor**

**PACE's Role in Relief Effort**—Interdenominational youth ministry organization helping people recover after flooding. Rebuilt homes, majority of which were owner occupied, as well as one business and one community center. Provided evening programs for the flood victims including sharing the gospel, which is part of their goal in reaching people

**Interviewees**—Ministries Director—*Administrator*. Handled administrative duties including registering youth group volunteers and arranging for their housing when in town  
Events coordinator—*Line staff*. Worked with youth groups at the job sites

**Collaboration with NHCO**—NHCO set up the job sites since they knew the community and its needs. NHCO set up 74 job sites that were completed in record time of two weeks. PACE felt that such efficiency would not have been possible without NHCO

### **St. Vincent de Paul Society**

**St. Vincent de Paul Society's Role in Relief Effort**—Help the poor of the parish or anyone else in need. The St. Vincent de Paul Society's role was...

- To work with the ETNA group whenever called upon, helping out as much as possible
- To provide direct monetary aid to flood victims
- To distribute 92 washers and dryers and to help out with furnaces, hot water tanks and any other needs arising

**Interviewee**—Vice President—*Line staff*. Also represented the agency in ETNA

**Collaboration with NHCO**—NHCO supplied volunteers when needed and worked hand-in-hand with ETNA

### **Agencies' Satisfaction with NHCO Assistance**

In the course of offering relief and recovery help to flood victims, NHCO partnered with its collaborating agencies for the coordination and facilitation of these efforts. All agencies involved in this partnership reported engaging in true collaboration by giving assistance to and receiving assistance from NHCO.

There were specific types of assistance that NHCO was able to provide to its partners. It is their partners' satisfaction with this assistance that NHCO is interested in understanding. Thus, throughout the course of the interviews with the administrators and line staff, they were asked to rate and discuss their satisfaction with the assistance that NHCO gave to them.

Twelve interviewees from ten agencies were first asked to rate their overall satisfaction in working with NHCO. Then they were asked to identify and rate their satisfaction with help they may have received in specific areas.

In short, agencies' overall level of satisfaction in their working relationships with NHCO was very high. In specific areas, the largest number of partnering agencies received NHCO's assistance with various aspects of sharing and collaboration. A modest number of the agencies reported NHCO's help with direct services to flood victims. A small number of the partners mentioned NHCO's help with administrative tasks. Partnering agencies' ratings of NHCO assistance indicated high levels of satisfaction with all types of help received.

### **Partners' Overall Satisfaction**

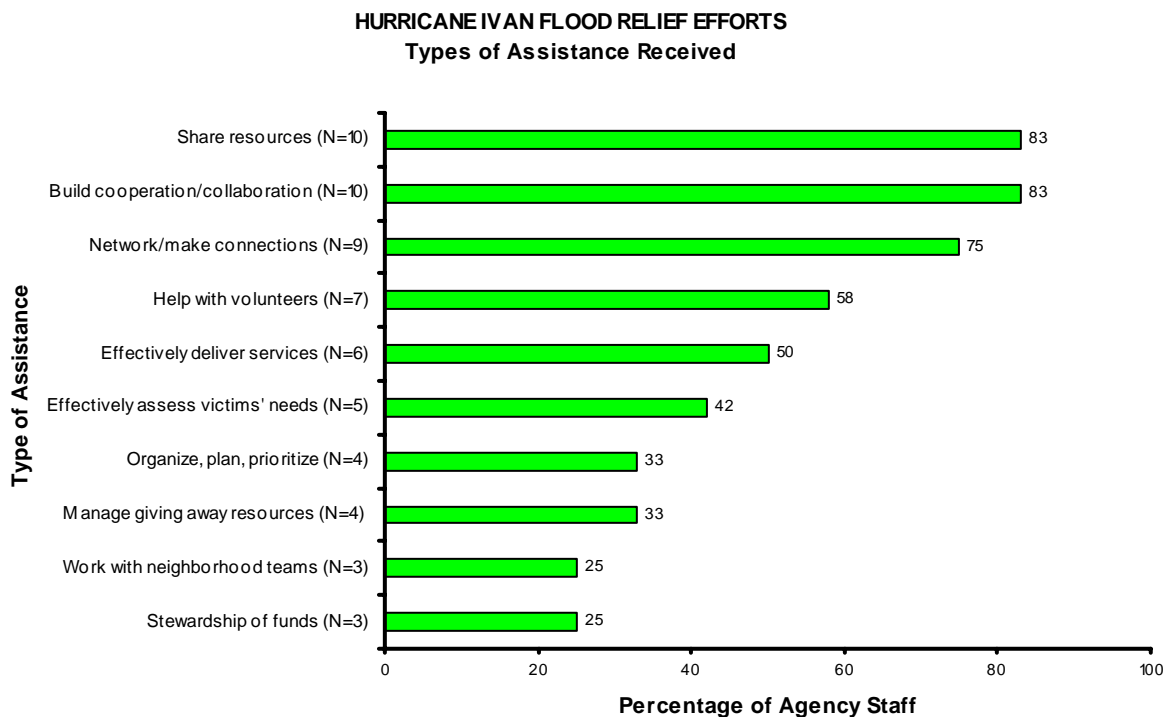
Twelve administrators and line staff from ten agencies were first asked to rate their overall satisfaction in working with NHCO. Remember, two of the agencies—PACE and Network of Hope—were each represented by two personnel members; one administrator and one line staff.

In rating their overall satisfaction, interviewees used a 5-point scale that ranged from '1=extremely dissatisfied' to '5=extremely satisfied'. Nine (75%) of the twelve respondents interviewed said they were 'extremely satisfied' with the overall experience with NHCO. Another two (17%) said they were 'satisfied'. With 92% of the respondents satisfied with their overall experience, it is no surprise that the mean rating on the 5-point scale was 4.6.

Only one agency expressed dissatisfaction with its overall experience with NHCO. This agency's representative pointed to specific areas of weakness that will be discussed in the next section.

### **Partners' Satisfaction with Specific Assistance**

From a list of ten specific areas of assistance that NHCO had created, these twelve respondents were asked to identify and rate their satisfaction with the help they had received. Again, interviewees used a 5-point scale that ranged from '1=extremely dissatisfied' to '5=extremely satisfied' to rate their level of satisfaction in the areas they had been assisted by NHCO. These data are discussed in the remainder of this section and presented in Figures 18 and 19 below.

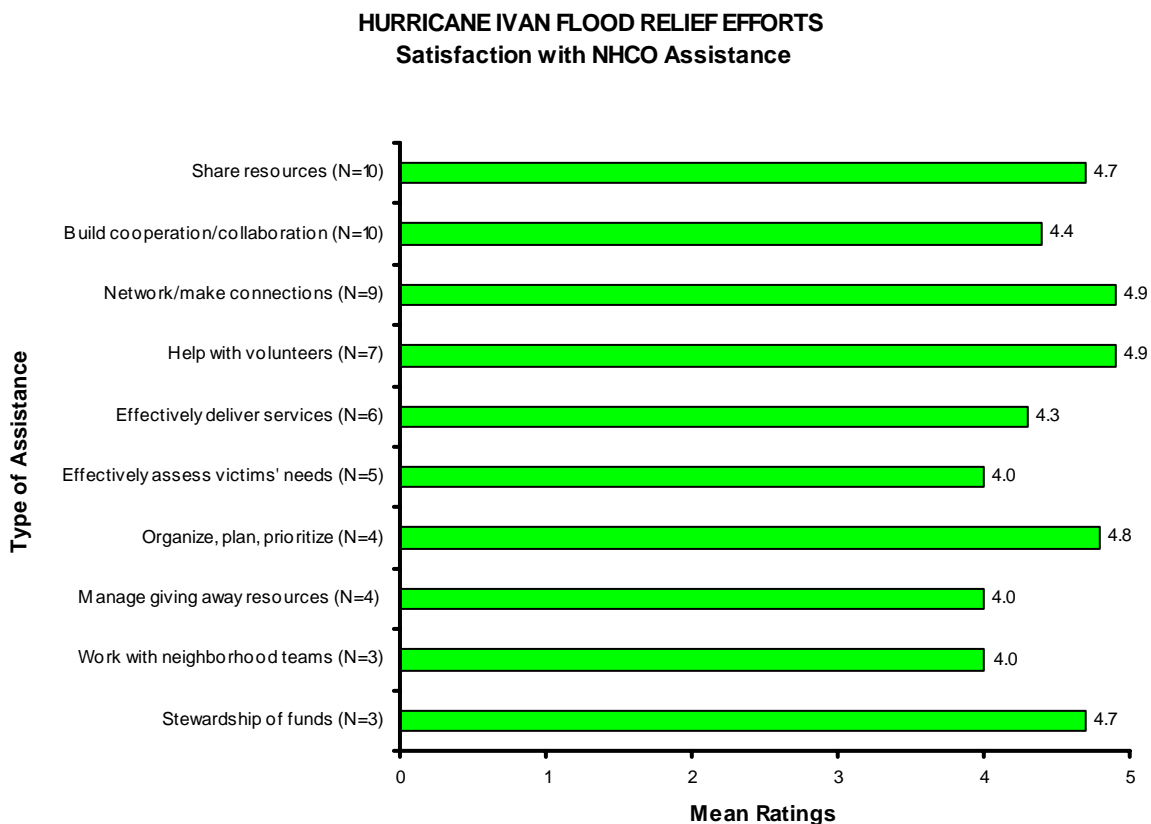


**FIGURE 18. Partnering Agencies—Types of Assistance Received.** Percentage of respondents indicating various types of assistance received from NHCO.

**Large percentages of partnering agencies reported turning to NHCO to assist them with various aspects of sharing and collaboration.** 83% of the respondents said that NHCO assisted them by sharing resources, another 83% cited NHCO's assistance in building cooperation/collaboration within the agencies themselves and 75% said they received assistance with networking/making connections with other agencies.

**Moderate percentages of partnering agencies reported that they received NHCO's assistance in areas that helped them deliver services.** 58% of the respondents said that NHCO assisted them with volunteers, half (50%) said that NHCO helped them effectively deliver services and 42% said NHCO assisted them in effectively assessing victims' needs.

**Smaller percentages of partnering agencies took advantage of NHCO's administrative assistance.** A third (33%) of the respondents said that NHCO helped them with organizing, planning and setting priorities and another 33% said NHCO assisted them in managing the distribution of resources. A quarter (25%) reported NHCO's assistance in working with neighborhood teams, while another 25% said NHCO helped them in the stewardship of funds.



**FIGURE 19. Partnering Agencies—Satisfaction with NHCO Assistance.** Percentage of respondents indicating their level of satisfaction with assistance received from NHCO (5-point scale).

#### Rating Scale Values

- 1=Extremely dissatisfied
- 2=Dissatisfied
- 3=Neutral
- 4=Satisfied
- 5=Extremely satisfied

Agency respondents indicated a great deal of satisfaction with all types of assistance received from NHCO. Mean satisfaction ratings for assistance received ranged from 4.0 to 4.9 solidly in the range of 'satisfied' to 'extremely satisfied'.

The most highly rated types of assistance reflect NHCO's familiarity with the community and its resources as well as its strong organizational skills. Respondents gave NHCO the highest rating of 4.9 for its assistance with volunteers and in networking/making connections. Following closely behind were NHCO's assistance in organizing and planning (4.8), sharing resources (4.7) and stewardship of funds (4.7).

The one agency that had not been satisfied with its overall experience in working with NHCO pointed to three specific areas of weakness—rating each with a ‘2’ or dissatisfied.

<b>Assessment of needs</b>	Agency did not agree with NHCO’s assessment of victims’ needs. Also felt NHCO was overzealous in questioning flood victims’ motives
<b>Effectively delivering services</b>	Agency disagreed with NHCO over federally-mandated guidelines for delivering aid
<b>Building cooperation</b>	Agency felt that NHCO was impeding them from collaborating with one of the other partnering agencies

### **Agencies’ Perceptions of Their Collaboration with NHCO**

Collaborations are typically seen as double-edged swords. They clearly benefit from positives like doing the job together and maximizing the strengths brought to the task, but they frequently experience challenges such as communication problems, competition for resources and boundary concerns.

To set the stage to understand agencies’ need for and perceptions of their collaboration with NHCO, we asked respondents first to focus on their own agencies—talking about accomplishing their goals during the flood and any difficulties they encountered. Then we asked respondents to describe the nature of their collaboration with NHCO—how this working relationship lightened their load and, in contrast, how this partnership may have hampered them in accomplishing their agencies’ goals. Finally, we queried these agencies about their desire or plans to collaborate with NHCO in the future.

Feedback from these agencies will position NHCO to nurture stronger, collaborative partnerships in the event of a future flood.

### **Partners’ Accomplishments and Perceived Problems**

In discussions about their agencies’ accomplishments during the flood relief effort, eight of the 12 respondents gave a percentage estimate of the proportion of their goals that they thought their agencies actually accomplished. The remaining four found this estimate difficult to quantify. On average, this index of accomplishment turned out to be 87%—an extremely high figure.

Despite the fact that interviewees indicated a high level of accomplishment, we asked them to think about any barriers they may have encountered in meeting their goals. All 12 of the administrators and line staff responded.

Nine (75%) interviewees reported that their agencies encountered no barriers, giving general positive responses about their efforts to meet their goals. All respondents—including these nine—did admit, however, that their agencies had experienced minor glitches that they felt may have hindered their goal achievement. The display below categorizes their multiple responses, meaning that the number of responses exceeds the number of respondents.

**Respondents N=12**

<b>N=9</b>	<b>General positive comments</b>
<b>N=3</b>	<b>Communication issues</b> —Agencies cited logistical glitches and homeowner miscommunication as hampering delivery of aid
<b>N=2</b>	<b>Bureaucracy</b> —Agencies said it was difficult for victims to encounter and understand the bureaucratic process
<b>N=2</b>	<b>Community support</b> —Agencies said communities did not support their efforts by allowing access to facilities to house out-of-town volunteers. Agencies also felt that they did not have full support of pastors of congregations
<b>N=2</b>	<b>Crisis management</b> —Agencies said they lacked experience in dealing with crises. Furthermore, the needs in a crisis situation were overwhelming to small organizations
<b>N=2</b>	<b>Competition for resources</b> —Agencies noted that communities competed for volunteers and that agencies were competing for foundation funds
<b>N=1</b>	<b>Disaster relief fatigue</b> —Agency felt that tsunami in Southeast Asia drew attention away from local recovery efforts
<b>N=1</b>	<b>Volunteers not honoring commitments</b> —Agency said that community members might volunteer to handle a particular job, but then fail to show up to do it

Understanding the difficulties that agencies experience in meeting their goals during a disaster recovery effort provides a foundation for sound collaboration. This list shows the exact areas in which agencies struggle to accomplish their objectives. Thus, the list can serve as a guide to NHCO in planning, organizing and coordinating multiple agencies in carrying out flood relief efforts in the future.

Challenges such as those mentioned above are common to most any relief and recovery effort. They can seem overwhelming, even insurmountable, to an agency acting alone. But in partnering with other like-minded organizations, the work is made easier. Collaborating agencies have a better chance of providing unduplicated services and helping more victims than groups working alone.

The interviewees were asked to reflect upon their partnership with NHCO and to discuss NHCO's contribution as a collaborator, any drawbacks in working with NHCO and the ways that NHCO could better assist agencies in future disasters.

### **Partners' Perceptions of NHCO's Collaborative Contributions**

The administrators and line staff were asked an open-ended question about what they saw as the most important contribution NHCO made to their agencies' flood relief efforts. Ten of the interviewees offered one or more responses. Their comments have been categorized thematically and anecdotal quotations are offered to illustrate each theme. Two respondents failed to offer comment.

According to their partnering agencies, NHCO assisted in a wide variety of ways. NHCO offered...

- strong organizational skills
- good quality people
- dependable resources
- skill and hard work in building positive relationships with their partnering agencies

**Respondents N=10****N=4 Case management/organizational skills**

I would say the administration and organization of North Hills was the strongest I've ever seen in any agency we've ever worked with...because of that, it freed me up and the other leadership people in our organization to get kids right to work—*Line staff*

**N=4 Leadership/caliber of people**

Great staff members at NHCO...certain individuals at NHCO were very open with helping us understand and realize the importance of survivors being part of their own recovery as well as giving information about technical issues, people that we could contact at the state and county level—*Line staff*

**N=4 Dependable resources**

We counted on them for everything, and they came through with everything—*Line staff*

**N=3 Building relationships/mentoring**

I think the most important thing that NHCO did was to establish an open relationship with us based on great communication, mutual strategy, and forward thinking—*Administrator*

**Partners' Perceptions of Drawbacks in Collaborating with NHCO**

Administrators and staff members were also asked to reflect on their collaboration with NHCO and discuss any ways in which NHCO may have interfered with what their agencies were trying to accomplish. They were also asked to consider whether NHCO overstepped its boundaries to take over their role in any way.

Ten of the twelve interviewees addressed this question, while two deferred making any comment. All ten said that they either had no complaints or offered praise for NHCO as a great facilitator, collaborator and mediator. Two of these ten additionally stated that one of the drawbacks in collaborating with NHCO is that its size in relation to smaller agencies creates boundary issues. The display below categorizes their multiple responses.

**Respondents N=10****N=10 General positive comments****N=2 'Big' organization issues—attention to boundaries between 'big' and 'small' agencies should be observed**

Well I think there were definitely times when boundaries needed to be drawn because they're [NHCO] large and we're small, and I think a lot of times it's easier for the larger organization to call the shots—*Line staff*

### **Partners' Views of Future Collaboration with NHCO**

A measure of the success of any collaboration is not only the willingness of partners to offer praise of a fellow collaborator, but also to express a desire to work with that collaborator again. Throughout the course of the interviews, a number of respondents offered unsolicited comments about their desire or intention to work with NHCO in the future. They explained that they would enjoy future collaborative experiences because they found NHCO...

- highly professional and collaborative in its interactions with other agencies
- easy to work with
- having hard-working, dedicated and congenial staff

All administrators and line staff were asked to offer suggestions for how NHCO could better assist agencies in the future, should a disaster like the Hurricane Ivan flooding occur again. Eleven of the interviewees offered one or more responses.

Eight respondents (73%) offered no suggestions and/or gave kudos saying that NHCO is well-positioned within the community and familiar with volunteer resources. These respondents were confident that NHCO had learned lessons from the Hurricane Ivan experience and would apply this knowledge to future crises. Simply put, they thought that NHCO had done a fantastic job. All respondents—including some of these 11—made suggestions for improving future efforts. The display below categorizes their multiple responses.

#### **Respondents N=11**

**N=8    General positive comments/no suggestions because everything was great**

**N=3    Improve communication/resource sharing—Let partnering agency know of need for their services; share resources; publicize partnering agencies' efforts**

Probably the most [needed change] would be letting us know that there is a need, and how can we build from there. For our organization that's how to be helpful, because letting us know that there is a need, when we know that...we have someone in the area to work with—*Line staff*

I would love to know, I would love to share resources as far as networking, funding possibilities, media resources, volunteer resources—*Line staff*

It would just be that one point of helping equalize out the publicity or making it really look like a collaborative effort...I wish NHCO would have included us in their publicity a little bit more—*Administrator*

**N=1    Improve training**

Toward the end of the interviews, three respondents spontaneously provided their perspectives on collaborative support that they felt they would need in future partnerships with NHCO. Their 'wish list' describes ways in which they envision NHCO can build upon already existing strengths to position itself in an even stronger leading role...

<b>Provide more support for partner's' goals</b>	Agency stated it would appreciate more support with getting more assistance to communities less served
<b>Share more resources</b>	Agency would appreciate more data on corporate contribution availability about which NHCO may have information
<b>Direct more families to partnering agencies</b>	Agency did not find as many families referred to them as they might have expected, conceding that perhaps the families did not qualify, but nonetheless feeling that more could be referred in the future.

## **PART V—CONTINUING EFFORTS**

A year after the flood, the majority of NHCO's recovery effort is complete. But the organization has promised to walk alongside all flood victims until they are back on their feet, and that is what they are currently doing. NHCO staff and volunteers have re-contacted over eighty elderly and individuals with disabilities who had been flooded to assess and address their continuing needs.

When necessary, homes have been visited in order to assess the situation and determine the next steps to be taken. Volunteers have replaced electric service boxes that had been submerged in flood waters, waterproofed basements and provided help with yard work and other clean-up as needed. In addition, referrals have been made for further assistance with utilities, weatherization and engaging contractors.

Relief efforts continued during the holidays 2005 as NHCO sponsored holiday giveaways for Millvale, Sharpsburg and Etna residents. Over 500 families received holiday help. This was a collaborative effort with Network of Hope, Etna Team for Neighborhood Assistance, Millvale Assistance Team, the Borough of Millvale and Hosanna Industries. The giveaway project provided about 800 gently-worn winter coats and more than \$70,000 in gift certificates to major retailers and local businesses affected by the flood. This last part is the most important as it is a win-win situation, benefiting both flooded families and businesses and promoting economic recovery for the community as a whole. This giveaway also addressed business owners' primary concern—expressed by 41% of the business owners—that agencies need to deal more effectively with the financial problems that businesses incur during flooding disasters.

While most of the flood damage has been addressed and NHCO's temporary flood staff has been released, NHCO's general staff members are still handling calls when received and flood relief efforts are still underway in some areas of Allegheny County including Tarentum, Glendale, West Deer, etc. This assistance will require the continuing oversight and guidance of NHCO and its regular service staff.