VIRGINIA TECH AFTER 4/16: SOLIDARITY, COMMUNITY, AND RECOVERY

Arnold R. Isaacs

A note to readers:

In recognition of the Virginia Tech community's strong desire not to let its name and identity become synonymous with the sad event that was the subject of this meeting, this document will follow what has become established custom on the campus and use the date, 4-16 or April 16, rather than the university's name, as the usual shorthand reference for the shootings,

Quotations in the document are drawn from a transcription of the conference. Speakers' words have been edited in some places for greater clarity and to avoid repetition and confusing or extraneous matter, but with every effort to preserve not only the meaning but the tone and feeling of their remarks. In addition, quotations do not necessarily appear in the document in the order in which they were spoken at the conference. Other than very short quotations, excerpts from the transcript are indented so they can be more readily distinguished from the rest of the text.

Introduction

What is the lifespan of a critical incident?

A disaster or violent event happens. After some hours or days buildings stop shaking, winds die down, flood waters drain away, gunfire and explosions cease, or fires go out. In following days or weeks, survivors are found and treated, the dead are counted and named, wreckage is cleared, help begins to come. Gradually, the event fades off front pages and television screens. People go back to work and school and begin to resume the routines of daily life, with pauses for mourning rituals. Damage is repaired; victims are memorialized, in stone or living gardens or spontaneous shrines. Eventually, the world seems normal and ordinary again, at least outwardly. But when in this progression can it be said that the incident is over? Or did it really end at all?

About the Author

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The word customarily used for the later life of an event is "aftermath." That phase was pinpointed as the focus of discussion when the Academy for Critical Incident Analysis at John Jay College and the Virginia Tech Center for Peace Studies and Violence Prevention assembled a multidisciplinary group of scholars, administrators, mental health specialists and journalists in Blacksburg, Virginia, to deliberate and reflect on the consequences and reverberations from the April 16, 2007, shootings on the Virginia Tech campus. The meeting took place from July 22 to 24, 2009 -- two years, three months and one week after a seriously mentally ill student named Seung Hui Cho shot and killed 32 people in a dormitory and a classroom building and then killed himself, in what is believed to be the worst mass shooting by a single gunman in U.S. history.

At the opening session, Ned Benton, ACIA's first executive director and subsequently chair of the ACIA Council, set the framework for the proceedings: "There's a dynamic between learning about the event here at Virginia Tech and at the same time asking some higher level questions about aftermath dynamics, about what happens in the days, weeks and months after the incident. We believe that it's important for us to ground our analysis in cases and to engage with the perspectives of the people who were actually involved. So we are doing a case analysis, we are learning from a case, but we are asking some broader questions at the same time."

The word aftermath has an interesting and evocative history. Its use has been traced back to the 1520s, when it meant a second crop of grass grown after the first had been harvested. It combines "after" with -math, derived from an Old English word for mowing. Betty Kirby of Central Michigan University pointed out that in the beginning it "actually had a rather positive meaning." But when the idea of mowing shifted from literal to metaphoric, the sense of the word changed. This shift can be attributed to some extent to early wars and battles that often occurred in the fields. Most often, Kirby noted, "it currently refers to the consequences after an unpleasant or disastrous event. So 'after mowing' took on the meaning of after people have been mowed down, after they've been killed."[*]

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[*] Kirby noted that some have found that meaning in Henry Wadsworth Longfellow's 1873 poem "Aftermath." One theory is that it refers to the 1872 Modoc War in northern California and southern Oregon, one of the last Indian wars. It has also been speculated that Longfellow was writing about the Civil War. In that interpretation, the dry leaves in the path represent the bodies of the dead, and the falling snow and the crows' call are references to death. The poem reads:

When the summer fields are mown,
When the birds are fledged and flown,
  And the dry leaves strew the path;
With the falling of the snow,
With the cawing of the crow,
Once again the fields we mow
  And gather in the aftermath.

Not the sweet, new grass with flowers
Is this harvesting of ours;
  Not the upland clover bloom;

Varying definitions suggest different answers to the question of when -- and whether -- an aftermath comes to an end. Some dictionaries define aftermath as a space of time: "the period immediately following a usually ruinous event" (Merriam-Webster). That does not say when it ends, but by definition a period of time must come to an end at some point. Other definitions, though, make the word synonymous with "consequence" or "result," as in the American Heritage Dictionary: "A consequence, especially of a disaster or misfortune." Since some results are transitory but others are permanent, under that definition there can be no clear end to an aftermath.

Further complicating the question, the aftermath of an event like the April 16 Virginia Tech shootings is to a large extent a subjective phenomenon, rather than an objective one. Several years after the event, those most deeply affected by it are still in its aftermath by any definition of that word. At the same time, though, for a great many in the Virginia Tech community -- students who had not even entered the university when the shootings took place, for example -- the tragedy is far enough in the past and distant enough from their lives and experience that they are not in any meaningful way in its aftermath. As for the institution itself, there may similarly be no definitive way to decide when the aftermath is over. But as became amply clear in ACIA's discussions, issues arising from the shooting are still prominent in various areas of the university's life. As long as memories of the event remain emotionally important to many in the community, and as long as related issues continue to demand time and attention from the leadership, administrators, and members of the faculty, Virginia Tech will still be experiencing the aftermath of the shootings, however imprecise the word may be.

I. The Experience

The Setting

In the opening session of ACIA's Virginia Tech conference, John Ryan sketched the setting and earlier events leading to the April 16 tragedy:

> You are on the campus of Virginia Polytechnic Institute and State
> University. Beginning in the 1980s the preferred name was Virginia Tech.
> This is a public land-grant university, founded in 1872. You're in
> Blacksburg, Virginia, which has a population of about 40,000. And you're
> in the New River Valley, on a plateau which sits between the Allegheny
> mountains and the Blue Ridge Mountains. This university is known for
> engineering, architecture, science, business, agriculture. In the last few
> years it's been emphasizing liberal arts, humanities and social sciences,

But the rowen mixed with weeds,
Tangled tufts from marsh and meads,
Where the poppy drops its seeds
  In the silence and the gloom.

trying to become more comprehensive. We have 30,739 students, about 24,000 undergraduates. We have about 1,400 faculty. The mascot is the Hokie bird, sort of a turkey-like creature on steroids. It used to be the Virginia Tech fighting gobbler, but somewhere along the line the fighting gobbler became the hokie bird. The team is called the Hokies, and where that comes from is a cheer.

Turning to the background of the April 16 events, Ryan gave a summary of an official chronology, compiled by the Virginia Tech Review Panel, that starts with Seung Hui Cho's birth in Korea and his immigration with his family to the United States:

Cho exhibits difficulties in grade school and high school, but it seems to have been dealt with quite effectively by mental health professionals. And one of the things you'll notice in the report is that his family seems to be quite supportive, concerned, involved in his life, at least until he gets to Virginia Tech.

His freshman year here seemed to go pretty well. No reports of any major incidents. Sophomore year became more problematic. He came in as a business information technology major, but he switches to English. He exhibits quite a bit of interest in writing. He writes a novel and submits it for publication and it's rejected and the report implies that might have been a significant incident in his life. Junior year is when the problems seem to become much more apparent. His family sees him withdrawing. He has problems in the poet Nikki Giovanni's class. She is a very imposing powerful teacher and powerful person, so to read that she's intimidated by a student is really quite shocking. Dr. Lucinda Roy was chair of the English department at that time, and she begins to petition the various offices on campus for help with the student. At the same time she takes him on as a student because Nikki Giovanni doesn't want him in her class anymore.

Just before New Year of 2006, he's admitted under a TDO [temporary detention order] to St. Albans hospital in Radford, 12 miles from here. He is evaluated the next day and released after I think two or three independent evaluations that he's not a danger to himself or others. Under the family protection act, FERPA, his parents are not involved or informed of any of these difficulties, including the TDO, given his age and so on. So then we're into the spring semester. The weapons, the ammunition are purchased. From my reading of the report, his contact with mental health services has stopped at this point.

The Event

April 16, 2007, was "a bizarre weather day," Ryan recalled, "an April day with 30 mph winds, snow and paper blowing across campus. The wind can really howl here." His

colleague, sociology professor James Hawdon, continued with the chronology of that morning:

> Cho wakes up early. At about 6:47 a.m. he's spotted outside West Ambler Johnston dormitory. At 7:02 Emily Hilscher arrives at her dorm room, which was her routine. Over the weekend she would spend time with her boyfriend and he would drop her off on Monday morning. About 7:15 Cho has somehow entered West AJ and he shoots Emily. Ryan Clark, the RA who rooms next to her, hears a commotion, comes over to help her, at least that's what the police believe, and is also shot. About 7:20 the VT police receive a call. They're there in about 4 minutes.

According to a revised Review Panel chronology issued in December 2009, university police were quickly joined by officers from the Blacksburg police department and Virginia State Police. At 8:14 a.m. Hilscher's roommate arrived and told detectives that Emily's boyfriend owned guns and practiced with them. Almost immediately, Wendell Flinchum, the chief of the Virginia Tech police department, contacted administrators with that new information. Hawdon continued:

> Chief Flinchum informs them that they have a suspect. During this time officers are searching for the boyfriend. They search the parking lots, they're searching his home, and they cannot find him. They become confident that he had indeed left campus, which he had. At 9:01 Cho is at the Blacksburg post office mailing what becomes the infamous package that he sends to NBC news. At 9:05 the second period of classes begins. Between 9:15 and 9:30 Cho is spotted outside Norris Hall. This period of time is when he was chaining the doors shut, although no one reports having seen him actually chain the doors up.

> At 9:24 the police finally find Emily Hilscher's boyfriend off campus in his pickup truck. They begin questioning him and at that point begin to get a little concerned. At 9:26 the university administration sent an e-mail to everyone on campus, informing us that there had been a shooting at West Ambler Johnston and urging us to be cautious, to basically stay put. As this is happening, the police perform a residue analysis on Emily Hilscher's boyfriend. It comes back negative and they now know they have not correctly framed the incident. At the same time Cho goes into Norris Hall and commits the deadliest school shooting to date, killing 30 and wounding 13. He starts shooting at 9:40. At 9:42 the police receive a 911 call, they are there at 9:45. The doors were chained and it took them five minutes to shoot through one of the machine shop doors and enter the building.

> My office is about 300 yards from Norris Hall. I have a direct view. There were dozens of officers there by 9:50, Virginia Tech police, Blacksburg police, Montgomery county police and state police. Shortly afterward

there were also FBI agents. At this time a second e-mail goes out to the campus, advising that a gunman is loose on campus and everyone should stay in buildings and away from windows. At 9:51 Cho shoots himself. At 10:17 we get a third e-mail saying classes are cancelled and we are told again to stay inside, lock our doors and keep away from the windows. At 10:52 we get another e-mail, informing us for the first time that there were multiple victims at Norris Hall.

Ned Benton pointed out that the timeline lists official communications, but that private, unofficial messages were also an important means of spreading information. Media reports too often reached the campus community well before e-mails from the university administration. Several participants offered examples:

> **John Ryan**: Our executive secretary in our department has a daughter who works in Burruss Hall, and the daughter called with the information about the West AJ shooting probably 20 minutes to a half an hour before the first e-mail came out. Then people in the office started listening to the police scanner...

> **Megan Armbruster**: My brother called me from Denver before I got anything official because CNN was reporting it before anyone else.

Armbruster, who subsequently became recovery coordinator for both the Dean of Students Office and the Division of Student Affairs, recalled that as soon as news of the shootings began to spread,

> Families were immediately calling, texting, trying to get hold of their students and eventually 32 families weren't hearing from their kids or spouses and they started driving to campus. Families of the injured students were going through a similar process. They were calling friends and friends were saying they're at the hospital. Identifications began and there's the story of one parent who was calling all over and finally got hold of a nurse who said we don't have identification or a picture of your son. The mother had a picture of her son on her cell phone and sent it to the nurse on her cell phone so that the nurse could see the picture and say yes, your son's here at the hospital.

Jerzy Nowak's Story (1)

Jocelyne Couture-Nowak, a 49-year-old French instructor, was one of five Virginia Tech faculty members who died in the April 16 shootings. Her Polish-born husband, Jerzy Nowak, a biochemist, was head of the department of horticulture in the university's College of Agriculture and Life Sciences. Nowak subsequently took a leave of absence from that position to establish the Center for Peace Studies and Violence Prevention and serve as its director. The Center initiated its operation in July 2008 and is housed on the

same floor in Norris Hall where Couture-Nowak and 11 of her students were killed. At ACIA's meeting, Nowak recalled his experiences on that day:

> My 12-year-old daughter's school called and said Sylvie has not been picked up after school. So I called my wife. I did not know she was teaching in Norris Hall. I called her department and I asked where did Jocelyn teach? "She taught in Norris Hall," the secretary responded. So I quickly jumped into the car and went to pick up my daughter at the school and asked my secretary to brief me on the way about the developments. We went home. I got a call from my secretary who said at 4 o'clock there will be a briefing for the victims and friends. I told Sylvie that we have to go to Virginia Tech, so make sure you grab something to eat.

> We arrived at Virginia Tech and there were a lot of people and administrators running around. Nobody wanted to take any questions. I finally became agitated and pinpointed one of them to help me to call the hospitals. Eventually a lady called and after a while she said, your wife is not in any of the hospitals. I took it at first as good news. But then I said oh my god, and the administrator heard me and came to me and said you know, she could be among the dead. I said you did not need to tell me that. I turned around and left and went home.

> Another person who lost her husband told me this story about a year and a half after the shooting. She used her maiden name, and she didn't have her marriage certificate. And so she was harassed about even being able to ask for information. Eventually with the support of friends she was listed. Because her husband's name was somewhere at the top of the alphabet, she was called at 7:30 that evening. There were a lot of people around. She approached the table and in a very loud voice, among all these people standing around, a policeman gave the name of her husband and said he has been killed. Her legs got soft and here's what she told me: "I was very vulnerable. And I was not protected from the insensitive individual. At that moment I felt victimized twice." She turned around and left, walking away down a very long corridor between lines of people, all staring. "I could not cry."

> After I got home a friend came and we immediately got on the phone. We confirmed that my wife had not been admitted to any of the hospitals. I said to my friend, crying, "I am ready." There was a command center where you could call a hotline and get information, and they were supposed to call me with updates. Never called me. My daughter went to her mom's bed because she wanted to "smell her". Then, at 11:30 in the night I received a call from the provost that he and another administrator were coming to see me. I forgot that we moved literally four or five weeks ago and that he would go to the old address, so I called his phone but

couldn't get in touch. Eventually at 12:30 they arrived. The provost was compassionate. And he told me what happened.

Afterward

As Jerzy Nowak's experience showed, notifying victims' families was an agonizingly slow process. It took until well into the day after the shooting for the last families to receive official word of their loved ones' deaths. For those survivors, the tragedy was still happening. But even before notifications had been completed, the university was beginning its effort to get past the immediate shock and pick up the threads of community life. On the afternoon of April 17, a convocation ceremony was held, with President Bush, Virginia Gov. Tim Kaine, leading university officials and local religious leaders among those attending to offer statements of sympathy and support. Poet Nikki Giovanni's closing words at the convocation came to symbolize the community's determination to recover:

"We are the Hokies.
"We will prevail.
"We *will* prevail.
"We will *prevail*.
"We are Virginia Tech."

At 8 o'clock that evening thousands of students and other members of the university community gathered on the drillfield for a candlelight vigil to remember and mourn the victims. Those who were there recall the convocation, the vigil, and other swiftly organized commemorative events as powerful moments of togetherness, reflecting a strong determination to find unity and strength after the tragedy.

There were also, however, areas of uncertainty and confusion, some of it avoidable and some not, in the days after the shootings. One set of decisions that some in the community look back on with mixed feelings had to do with how to finish the academic year and whether students should remain on campus or go home. Under university policy, students could accept the grade they had earned up to April 16 and not attend the remaining classes or do any further assignments. They could continue to do classwork if they chose, and if the additional work improved their record that would give them a higher grade for the course. But if completing further assignments would lower their grade, they would still get the one they had on April 16. Guidance for faculty members, as one of them recalled, was to announce that policy and "to be as flexible and forgiving as possible" in carrying it out.

> **John Ryan**: Basically, students could just decide to take the grade they had and go home. Many students attempted to come back and go to class but it was meaningless. So after the first day back many classes just emptied out.

> **Laura Agnich**: They went back the first day, so they were kind of looking

for that structure, for a sense of community, but then it was lost and they just went home.

Faculty members were also unsure -- and received little guidance -- on how to deal with the event in the classroom when classes resumed.

>**Ryan**: Many faculty felt that they were not prepared to have this discussion, they weren't trained to have this discussion, they weren't comfortable. That's something to think about too, about the various roles that people are expected to play. And you'll read in the Review Panel report that a lot of the people who were dealing with the families had not necessarily been trained to do that work, that it was a very ad-hoc sort of thing.

>**Donald Shoemaker**: We were never told and still don't know who the injured victims were. And they could have been in your class. Those of us teaching courses on violence had to be careful about what to say and how to say it because you never knew who might have been closely affected. We did have counselors outside the classrooms when we returned. But there was no personal communication with professors about the students in their class who were directly affected.

Donna Alvis-Banks, then a reporter for the Roanoke Times, covered the tragedy not just as a journalist but as a local resident who cared about Virginia Tech and the community and felt deep sympathy for the victims and survivors. But that sympathy was not always reciprocated. As has become a pattern in highly newsworthy tragedies, intensive news coverage quickly came to be seen as intrusive, and journalists -- even when they tried to cover the story respectfully and humanely -- often encountered deep suspicion and hostility from those they were attempting to write about. In addition, authorities worried about legal liability issues sought to keep journalists away from anyone who might speak unguardedly or critically about official policies or actions. Banks recalled:

>The families of wounded victims and those who were deceased were warned not to talk to the press and I think they were told a lot of scary things about the press. I remember talking to one family. They didn't speak great English and it was hard to explain to them what I was doing. And they told me, we're scared of the press, we're scared of the media, and that made it hard. Sometimes I would go to the memorials, and students would have signs up, "Media go away," but I'd see one of them in tears and I just did what came naturally which was to go up and put my arms around them. A lot of times they didn't want to talk to me and that was OK, but a lot of times they did want to talk to me.

Like "aftermath," the word "survivors" does not have a single, precise definition. In its narrowest sense, the word identifies two specific groups: those who were in the room or the building and at risk of being hit by Cho's gunfire, but were not killed; or alternatively,

family members and close friends of those who died. More broadly, it can mean a wider category of people who were not directly in danger or closely connected with the victims but were close to the event and strongly affected by it. That definition would include the student body and faculty as a whole, the rest of the university community, and perhaps also the residents of Blacksburg and the surrounding area. Even more broadly, to the extent that instant and highly intensive coverage of the shootings engaged a nationwide audience in the story and the compelling emotions it caused, viewers and readers across the entire country might be considered survivors, at least momentarily. In a somewhat different sense, the university itself can be called a survivor too. Like the individuals affected by the tragedy, the institution also experienced loss, stress, disruption of normal life and a struggle for recovery -- including, as more than one speaker observed, a struggle not to let the shootings come to define the university's identity.

Different categories of survivors, obviously, had different needs to be met. To work with the most immediate group -- victims' families, injured students, or students "closely connected with the event" -- the university established an Office of Recovery and Support. Recovery coordinator Megan Armbruster recalled efforts in the first several months to bring the campus back to normal life:

> Students return for the final week of classes, we have commencement, then in June the Office of Recovery and Support was created. We took over the work of the family liaisons in August, right as school was starting, so they were with the families through the summer. In that time we created and completed and dedicated the memorial. Classes resumed and case managers were hired in the Dean of Students Office and the Cook Counseling Center to work with students who were having mandatory psychological evaluations. We had some big fall events that I think helped the larger community -- a football game against East Carolina University and a Dave Matthews concert. And I think they were really meaningful for people getting together.

Her own conclusion from those events, Armbruster added, was "if people could have just stayed in Blacksburg all summer and have picnics on the drillfield that would've been the best thing ever." Working with the families, Armbruster acknowledged, had its difficult moments from the start. In the original group of family liaisons the range of knowledge and experience was quite wide:

> We had new employees, they hadn't been at VT very long, all the way to an associate vice president for student affairs. The families who had folks who had a longer tenure at VT, had a bigger picture of Virginia Tech, had more knowledge of resources perhaps, those families had one experience, vs. families who had liaisons who had lesser knowledge of VT bureaucracy. Very few if any had knowledge of Virginia government or the compensation fund available for physical injury, funds available for victims of crime. Those were things that people at VT had no knowledge of. Now the Virginia legislature has mandated that any time there are

victims of crime, government agencies come in and help navigate all of this. What we should have done was marry victim advocates from the state with our family liaisons, because those advocates have so much knowledge about what's available for victims of crime that our liaisons didn't know. And we're still as of last spring introducing our families to those people. So it's still taking a long time.

Jerzy Nowak's Story (2)

My wife had a network in the community. Anywhere I went, to the bank, to the insurance company, to some utilities, it was like a red carpet for me. The support was tremendous. I continue with this network, fostering what she had established.

I tried to keep my daughter occupied, so there were always some friends coming. But at one point my daughter came and she doesn't like hugs and she came to me and said dad, when is it over? When will we have a normal life?

An overwhelming challenge for me was handling parcels and letters. I also got close to 2,000 e-mails, various religious paraphernalia, numerous quilts, which were given to shelters. I learned that if I don't open the parcels, I can just go to the post office and put on a sticker that says I refused to take them. That helped but it was truly overwhelming. There was also a certain level of anticipation for the return of gratitude which I couldn't do. We developed a thank-you letter and it was published in the Washington Post, Roanoke Times, Chronicle of Higher Education, one French Canadian paper and the Halifax Herald. I also privately sponsored a thank you note for the news coverage in Poland, in my home town and university. That was the extent I could manage to respond. Various religious groups and zealots would resend what I sent back over and over and over. And then you had this flock of lawyers after you because somehow they learned that my wife was not a full-time employee and now we're not getting any compensation.

About my family: Francine at the time was finishing university in British Columbia. Performing Arts and French, two majors. She handled the media and I will get back to that. Very articulate in both languages. She finished university and we all thought that she was taking this loss the best, but I was very wrong. Francine sort of became afraid of the next step in her life. She had big dreams, short term, long term, big dreams. Suddenly they disappeared. She immersed herself totally in social networks. She went to study theater directing in Paris, France, for a year and I thought that would help but it didn't. She quit the second year of the master's program. So she's actually my biggest worry. A very talented young lady. She started the local anti-gun organization but somehow just

cannot stay focused. She always refers to her mother, always talks about her. She got a part time teaching job, she teaches French and arts in a private school in Vancouver now with childhood education props my wife developed. She wants to mimic her mother's career path now.

Sylvie was 12 when it happened. How does someone move on after a loss like this? Her world was violently shattered. Out of I believe five children who lost a parent on April 16, she was the only one who lost her mother. We didn't know each other. I worked. My wife took care of everything. We had to rebuild our relationship from scratch. This picture I found was taken on the 3rd of July 2007, about three months after. Look at her hair. She didn't cut this hair until last fall. She was hiding behind it.

During the funeral time when the family came, Jocelyne's brother, who was an athlete, brought a videotape with my wife winning a triathlon competition in Nova Scotia. Sylvie said what is a triathlon, and I had to explain it to her, and she said, "I want to do a triathlon." And in June she got enrolled in the triathlon. She was a very good swimmer and runner so she just had to do cycling. In the last week of September there was a meet in Shelby, North Carolina, and she went there and won the competition. She won again in Richmond next year. Her time was almost four minutes better than the boy who won the competition. I could see her running like a marathon runner, passing everyone. She came to me and said dad I am not crying but dad I would like my mom to see me. .

The school provided a counseling service that fall for children who lost their parents. This was a mixed blessing because they were taking these kids out of class for the sessions twice a week so then they had to catch up. The teachers didn't like that. She did not open up, she did not talk to anybody. For a half a year she just sat there and didn't say anything. Eventually she did start to build some rapport with one of the girls and with a counselor. But the next year she moved to the high school, so they tried to transfer her to another counselor and then another one. And she came to me one day, she was 14 at the time and said dad, I hate counselors. She said they're like spiders trying to grab me in their web.

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II. Communicating in Crisis

The New Communication Environment

In ACIA's discussions, many threads led to one theme: communication. The need for information is ageless. "What's going on?" has always been an instinctive human response in any critical situation. So have "Are you OK?" and "I'm all right" -- reaching

out to people who are important to us to learn or tell that someone has survived a violent or dangerous event. But if the questions haven't changed, the means of asking and answering have been changing with dizzying speed. It is already hard to remember a world without cell phones, instant messaging and social networks, but that world is actually not far back in time. Only a handful of years before the Virginia Tech shootings we didn't yet live in the confident expectation that we could contact anyone anytime from anywhere. That assumption is now universal, or very close to it, and among many other consequences it has had a profound effect on how people experience and respond emotionally in a critical incident. A striking indication of that effect was a survey finding that the largest single reason for post-traumatic stress symptoms among Virginia Tech students after April 16 was, as Professor Michael Hughes reported, "not being able to contact friends to confirm their safety." In a different survey, described by Steven D. Sheetz, one of the authors, students were asked how important they felt it had been to have a cell phone. The response was unsurprising:

> Having your cell phone on that day, well it was really important. People who had cell phones really felt it was an important thing that they had that ability to communicate available to them on that day.

In Sheetz's sample, nearly two-thirds said having a cell phone was "extremely important" and another 13 percent called it "quite important." Other means of instant communication were important too, though there were notable differences between students and others in their use of communication channels other than cell phones and e-mail. Texting, instant messaging and Facebook were used by large majorities of students (73 percent, 75 percent and 66 percent, respectively) but by much smaller numbers of faculty and staff respondents (less than 5 percent of faculty and 10 percent of staff reported using Facebook on April 16, for example, compared with two-thirds of students). It can be guessed, though, that only two years later, those generational gaps would be narrower.

The revolution in communication technology has fascinating implications for incident management and critical incident analysis. One question is how use of that technology affects the emotional experience of a crisis. Does it reduce stress when people can tell others more quickly that they are safe, or learn that friends are OK? Or can it make the experience more stressful because unlike people in past crises, we have learned to expect instantaneous communication and become stressed much more quickly when we cannot reach someone? Steven Sheetz pointed out that it can be hypothesized that communicating will ease stress, but that such questions await further analysis:

> We know that that happened in Facebook. In Facebook there were groups that were headed "I'm OK at Virginia Tech" and by 2 o'clock that day many people could look at the list of names for that group and know everyone they knew was okay.[*] So from a computer guy's perspective, it's

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[*] More information on the use of Facebook after the April 16 events can be found in S. Vieweg, L. Palen, S. Liu, A. Hughers, J. Sutton, "Collective Intelligence in Disaster: Examination of the Phenomenon in the Aftermath of the 2007 Virginia Tech Shooting." Proceedings of the 5th International ISCRAM Conference, Washington D.C. (May 2008)

like hey, technology matters. It probably reduced stress. Now the question
is how do we figure out how to measure that.

Another set of questions has to do with how new communication channels can be used by institutions and authorities to inform, direct and reassure their communities in an emergency. Ned Benton, chair of the ACIA council, noted that one lesson from Virginia Tech for other universities is that they have to adapt communication strategies for the new technological environment. He cited responses to a 2008 survey conducted by the National Campus Safety & Security Project:

> All kinds of universities and colleges answered what they do differently
> now, and one of the areas had to do with communication. How to
> broadcast, how to e-mail, how to make sure that if you communicated,
> whichever way you were communicating you could get the message and
> whichever way you wanted to get the message out there you could do it.

It is not just communication among people involved in a crisis, or among incident managers, that has been revolutionized in recent years. Communication to the larger public has also undergone profound change. It has been a cliche for some time to say that news, in a headline event like the Virginia Tech shootings, is now instantaneous and nonstop. It is rapidly becoming a cliche to add that news from conventional broadcast and print media is now accompanied by -- or frantically trying to catch up with -- a flood of information and images from spectators and participants, which reaches the public through the Internet and social networking sites without ever passing through any traditional news media structures. Bruce Shapiro, executive director of the Dart Foundation for Journalism and Trauma, recalled that when the July 7 terrorist bombings in London occurred in 2005,

> A number of people sent their video to the BBC. A year later the head of
> online news for BBC said to me that if that happened this year those
> videos would have gone straight to the internet, they wouldn't have gone
> to the BBC.

If that transformation is now widely recognized, though, it is less clear just how it has changed the way we experience critical incidents, and how it shapes the public's response. Jeffrey Stern posed the question this way:

> We just had the 40th anniversary of the moon landing, the first globally
> witnessed televised event. Now it's become commonplace, everything
> from shock and awe in Baghdad to the O.J. Simpson chase to Michael
> Jackson to coverage of Virginia Tech and Columbine, Hurricane Katrina,
> the 9-11 attacks. We used to have an incident and it would affect the
> people right there, and everybody else would get the news on the radio
> later or the next day. Now we're all a part of the incident on a global scale.
> That has to have a huge sociological, psychological impact. I was working

in the White House the day of the Virginia Tech incident, and one thing that struck me was that within 24 hours we went from this bloodbath, this tragedy, to mourner-in-chief President Bush playing out this role before the blood has dried -- this script of what we know we're supposed to do because we've watched it so much. What is the psychological impact of the fact that whenever something happens everyone is a witness, globally and instantaneously? What is the impact for the future?

James Hawdon: There is a literature that doesn't particularly look at mass media coverage, but the whole notion of communal bereavement where people who have no attachment to the victims still suffer trauma, some aspect of trauma. The classic study was done in Sweden after the sinking of a ferry there, and there was a traumatic event for the country. One could hypothesize that the more coverage we have the more widespread this effect is going to be.

Danny Axsom: People desire information in order to reduce uncertainty. And that includes about typical norms for bereavement. We don't know how to act and we look for a lot of comparison information from other people and from the media. Whether that's constructive is another question. People here were being advised to step away from the computer or the TV. But with the lack of information about what's going on, there's also a lack of information about what's normative as far as adjusting. How should I be adjusting, how are other people adjusting? So you look and look. That's not necessarily saying it's good, but there's a motivation for the audience to seek that information out.

In the new information era, we are flooded not just with instant facts but with instant speculation, opinion, unreliable early reports, spin, and guesswork. Arnold R. Isaacs commented:

While information spreads farther and faster than ever before, so does misinformation. Every reporter and every cop, everybody who deals with emergency situations, knows how chaotic and confusing and fragmented the story is during the initial stages. Even if individual reports are cautious and qualified -- and obviously that's not always the case -- the way the process works today means that volume, intensity and repetition can make a whole that is much less careful than any of the individual parts. Think about the white van frenzy during the Washington sniper case. It was a flimsy story to begin with, there really wasn't much there. Yet it had police stopping hundreds of white vans all over the mid-Atlantic states for days. And it obliterated the reports that did exist about the blue Chevy that was the actual vehicle used in the shootings. That's an example of the echo effect, when something is repeated enough times that it starts to bounce back and forth: witnesses tell investigators and journalists things that are not new information or from their experience or observation, but

just repeating what they've heard. Dave Cullen describes this process brilliantly in his book on Columbine. This doesn't only complicate life for incident managers while something is happening. It can clutter up historical understanding as well. I'll bet there are still people who think the Washington snipers were driving around in a white van.

Steven M. Gorelick, professor of media studies at Hunter College, City University of New York, calls the phenomenon "cultural noise":

> A nonstop onslaught of rumors, partial knowledge, misinformation, self-proclaimed expert comment, nonsense, rumors and all sorts of craziness. This noise surrounds catastrophic and other incidents and complicates incident management and understanding. It comes from everyone from the evangelists to the scholars to the bloggers. They complicate the lives of people involved with this, they can offend, but they can't be ignored. I'm not suggesting there's anything that incident managers or sociologists can do about this. Much of this is protected speech.

> Catastrophic events now can be safely said to occur almost 98 percent in real time. Even in less developed countries, virtually everyone who comes to witness a catastrophe is carrying the equivalent broadcasting power of a television station. They carry it with them. They broadcast from an event. It used to be that an event would occur and it would be some moments before society could get sense of what was going on and start building an account of it. But now noise occurs during an event.

> Last point, all this stuff now sticks around. It used to be ephemeral. You'd see it then it's gone. Today's cyberspace is an infinitely expanding area where all the noise is still there. Noise that you all from Virginia Tech have moved on from, rumors, crazy stuff, it's all still there, and even if it's been ripped off the internet, you know it's been mirrored or cached and it's still really there.

> Why does this matter? More than at any other time, anyone in the midst of a calamity with a clear, serious message to communicate -- perhaps immediate enough to involve actual danger -- now sends that message into a confused and noisy environment packed with obstacles that can completely stymie the message's reception. Finding paths of communication amidst this confounding labyrinth, especially when the stakes are high and the danger great, is a serious challenge of the digital age.

Bruce Shapiro noted that underlying the noise is a fierce competition to define what an event means, and to use that meaning to influence political or policy or other consequences:

Charlotte Ryan, who teaches at the University of Massachusetts, says that power is the ability to control rules, resources or meaning.[*] Maybe one defining factor of critical incidents is that they overwhelm or undermine the ability to control rules, resources and meaning. I think where these collisions happen in the aftermath of critical incidents, what really matters more often than not is who will have control over the meaning. Whose story is it becomes critical in the aftermath.

Who are some of these stakeholders who have a role, a stake, in shaping the meaning of an event? There are disaster response agencies, there are mental health professionals, there are educators, religious leaders, political leaders, organized victims. And institutions; we've heard about the university attempting to control how the story gets told. These are all stakeholders. Then there are hijackers of meaning. In the walk on campus we were talking about religious proselytizers who came to the campus trying to manipulate the meaning of this event to get people into their sects. We have talked about pundits who are hijackers of meaning, who try to graft a misleadingly simple narrative line onto something that's really quite complex. There are politicians who seize upon critical incidents and then hijack them.

I think the question of roles and responsibilities in shaping the aftermath has something to do with recognizing that meaning needs to be put together through the combined efforts of all the stakeholders rather than competitive storytelling. It's a big challenge.

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[*] Charlotte Ryan and Samuel Alexander, "'Reframing' the presentation of environmental law and policy," *Boston College Environmental Affairs Law Review*, 33:3 (2006) pp. 563-592

III. Trauma and Recovery

On the evening of April 17 thousands raised candles in memory of the victims.

Introducing a panel on "The Mitigation of Trauma During the Aftermath," the panel chair, Dr. Frank Ochberg, told the audience: "The aftermath is a living thing. It isn't just a bunch of statistics about people who died or were injured. The aftermath lives on, we are in the aftermath now." Opening the discussion, Danny Axsom of the Virginia Tech psychology department described research he and colleagues Heather Littleton and Amie Grills-Taquechel conducted on trauma and resilience issues -- one of several post-shooting studies on that theme.

> **Axsom**: When the shooting occurred we were in the midst of collecting data for another project. And it dawned on me, my gosh, we have pre-data. That's unusual because oftentimes disasters hit places where you don't have data on the pre-trauma status of people. And we did. We were conducting a study on women's reactions to negative sexual experiences. This was part of a three-site project and there were about 800 or so women at Virginia Tech that we had data on. So we followed up after the shootings by sending them an e-mail offering them the opportunity to complete a web-based survey related to the shooting. We had three waves of data collection, the first being two months after the shootings, and close

to 300 women participated in that. We also collected data at six months and then at one year.

We asked a series of yes/no questions: Were you on campus that morning? Did you hear gunfire, did you see police, were you in any of the buildings where the shootings occurred? Based on the responses we classified people as having no direct exposure, less direct exposure or more severe direct exposure. Despite relatively low direct exposure in the sample as a whole, two months out, in terms of post-trauma symptoms, most people reported them and about 28 percent scored above a clinical cut-off that would qualify them as having PTSD. That persisted to a slightly lesser degree at six months. By that point it's 23 percent above the clinical cutoff for PTSD. So this truly seemed to qualify as a community trauma.

The lens that we tried to use was something called conservation of resources theory. This suggests that after traumatic events, one of the things that can lead to distress is when people lose resources of one sort or another. The resources can be tangible things like a house or a car that could be lost in a flood or a tornado, but obviously in a situation like this we were talking more about intangible resources. And the idea is that if you lose them you're at risk for distress. The kinds of resources we're talking about are a sense of life direction, a feeling of being successful, sense of pride in oneself, things of that sort, and interpersonal resources, such as companionship, loyalty of friends. Participants were asked whether they had lost or gained these things. And the last thing is optimism, and the question would be whether they lost or gained a sense of optimism or hope.

Our results indicated that if you're distressed beforehand you're more likely to lose resources in the immediate aftermath, and on the other hand the more social support you have prior to the shooting, the less resource loss you have afterwards, which I think makes sense. We refer to this as a spiral model, because what people often talk about is that once you lose resources that can lead to further resource losses.

Is helping others a way to lessen distress after a traumatic event? That question, Axsom observed, has not been given the research attention it should get:

We should look more closely at how help benefits people. There are a lot of benefits for the givers of help. It gives them something to do, it structures their experience in the aftermath. It's similar to formal rituals like wakes and funerals and memorials. Giving help is one way of addressing the existential threat that's represented by attacks like 4-16 or 9-11. It highlights the better angels of our nature, as Lincoln said. It can be a way of reasserting control over the meaning of the event, and that corresponds to what people were saying about narrative.[*]

Giving help may make it easier to receive help. One of the psychological barriers to help-seeking is a reluctance to feel indebtedness to others. That's one reason why even in situations where barriers like cost and transportation to seeking help are removed, there's still an unwillingness, a reluctance. Some of that revolves around control and indebtedness and reciprocity, and giving help to others can create reciprocity on that balance sheet. Whether it reduces our own distress is an open question. The giver of help comes in contact with images, knowledge and sometimes people that can be distressing. So while on the one hand it may be beneficial, on the other hand it may elevate distress. But that's not always a bad thing. There are clinical practices that elevate distress in the short term but that lead to improvement in the long run and this may be one of them.

People also filled out a coping inventory. One of the dimensions of that inventory is social contact items, including things such as: I found somebody who's a good listener, I talked to someone about how I was feeling, I talked to someone that I was very close to, I asked a friend or relative for advice. What we found is that the more people reported using social contact coping for dealing with their reported distress, the more they reported giving help to others in that emotional way. Which suggests to me a sort of exchange that takes place. It's not like going to a psychotherapist who's there to give you help. It's more a give and take. It's less professional but there are advantages to it as well in terms of its availability, the reciprocity, the timing issue.

We asked what activities people engaged in. Did you go to the convocation? Did you attend the candlelight vigil? Place items on the memorial? Donate money to the Hokie Spirit memorial fund? And so forth. We added up the number of actions that people had taken and what we found was likewise, the more things that people had done, the more emotional help-giving they did. That makes some sense.

Some limitations: this is self-reported emotional data, with all the usual caveats. We don't know whom our participants helped. We don't know whether the help provided was useful from the recipients' perspective, and we don't know exactly how giving help and receiving help are related. That's something we want to get into. Help-giving is a strong urge after traumas. I also think help giving may be a competence that's worth developing in people, for their personal resilience and also for community resiliency, because the more people are engaged in giving help, the more the community is likely to have solidarity.

Psychology professor Russell Jones and sociology professor Michael Hughes described findings from a different study, drawn from a pair of surveys conducted by the Virginia Tech Center for Survey Research three and four months after the shootings. Notable in

the findings was that large majorities of students, faculty and staff did *not* have significant mental health disorders in the immediate aftermath of the shootings.

Hughes: Our study attempted to estimate how many people at Virginia Tech had serious mental health problems following the incidents of April 16 and how many sought and received mental health services. The findings have implications for questions on the impact of traumatic experiences and loss on mental health, on the use of mental health services in the aftermath of trauma, and on the issue of whether the VT community was traumatized by the shootings. Some people were exposed to severely traumatizing events that are among the worst that human beings can experience. However, this occurred to relatively few people. At most, it appears that only 124 people out of approximately 25,000 in the VT community were directly exposed to the shootings in Norris Hall. The large majority of those were not in the rooms where the shootings actually took place. A much smaller number experienced the aftermath of the shootings that occurred earlier at the dormitory.

Russell Jones and I developed measures of direct and indirect event exposure, mental health outcomes, demographic and other background factors, and use of mental health services. Our mental health indicators were a measure of PTSD patterned after the DSM-IV diagnosis and a well-validated measure of serious mental illness (SMI) that measures severe symptoms of anxiety and depression.

So what did we find? Two months after April 16, about 15 percent of the students and nearly 10 percent of the faculty and staff had what we think would qualify for PTSD. Severe anxiety and depression (SMI) affected nearly 5 percent of students and 4 percent of faculty and staff. Eighty or more percent of the students and around 90 percent of faculty and staff did not experience any serious mental health reactions, at least not to the degree we were able to measure them. Women were two to three times more likely to have a mental health reaction.

To measure direct exposure we asked if respondents were in or near the buildings where the shootings took place, if they saw people who had been killed or injured, if they helped anyone who had been injured, if they saw people running in panic, and if they observed the actions of medical personnel, ambulances, police, and SWAT teams. We also asked a series of questions about how close respondents were to victims, whether anyone who was killed, injured, or directly endangered was a relative, close friend, acquaintance, a friend of a friend, a teacher, etc.

To measure indirect exposure we asked people if, because of their schedules, they should or might have been in Norris Hall during the shooting and if they changed campus locations between the two shooting

events when it is now known that the perpetrator was walking on campus with his weapons. Also, we asked whether they tried and failed to contact their friends when there were no details about who had been killed or injured.

How important are these factors in accounting for PTSD among students? If you group all the loss factors together -- that is, all degrees of relationship with someone who was killed, injured or in danger -- these account for about 40 percent of the PTSD that occurred. If you look at each individual measure, the most consequential single factor turns out to be "could not contact friends to confirm their safety." Thirty percent of the PTSDs among students in our study can be accounted for by not being able to contact people. Next highest single factor is having a friend or acquaintance that was killed, accounting for 20 percent of PTSD outcomes.

A major conclusion of our study is that losses and social relationship factors were the most important determinants of serious mental health reactions, and that they were more important than direct physical exposure to the events and their immediate aftermath. An important remaining question is whether the community as a whole experienced trauma. A very large number of people had trouble contacting their friends in the hours immediately following the Norris Hall event. A very large number of people were shocked and saddened by the shootings. A large number experienced negative mental health reactions. However, the percentage with severe reactions was relatively small. Eighty to 90 percent did not have serious mental health reactions as of two months after the shootings. Other evidence indicates that the institution functioned well in drawing the community together. There is no evidence of social dysfunction and little evidence of individual dysfunction among large numbers of people in the aftermath of this tragedy. If the community as a whole was traumatized in a serious way, we did not detect clear evidence of this.

Policy needs to address intervention for the relatively small numbers of people who experience serious mental health reactions. Clearly we don't know how to do this. Very few people got counseling following the events. A substantial proportion of students with SMI and PTSD did not seek or receive counseling. Very few people took the opportunity for the help the university provided all over campus. A lot of volunteers came to help people; hardly anybody took advantage of that.

Because much of the PTSD reaction, about 30 percent, was not due to direct or secondary exposure but due to not being able to contact people, an important thing we need to do is address communication problems.

Russell Jones pointed to the finding that a relatively small number of respondents had received counseling from professional therapists:

> The majority of those who sought help, 60 percent, got help from a primary care doctor, 19 percent from religious counselors. Bottom line is not a lot of people sought out help. Of those who did receive mental health therapy, 28 percent were already in counseling before, and 57 percent started counseling after the shooting. The vast majority had less than 10 sessions, almost 90 percent had five or fewer sessions.

> Findings and implications: we need to address gaps between available services and the actual needs of students. A number of these gaps are actually being filled and people are doing very good things. Two, we need to broaden the pool of trauma specialists trained in evidence based interventions. If you're going to do it, if you're going to treat people, let's do it with a scientific backing. Three, train professionals to reflect the diversity and cultural diversity of the people in Blacksburg.

Asked if those who received therapy did in fact benefit, Jones replied that many did improve. But he added that for many people, PTSD symptoms also fade away with time. Of individuals diagnosed with PTSD following traumatic events, half will no longer meet the diagnosis after three months.

> **Dave Cullen**: So they would've gotten better anyway.

> **Jones**: Many of them would have gotten better anyway.

Examining resilience and recovery leads to the concept of solidarity -- the sense, as James Hawdon put it, of pride in belonging to a group or community, trust in its other members, and identification with common values. When the community is attacked, Hawdon continued,

> As Durkheim wrote over 100 years ago, everyone is attacked. Consequently not only is the reaction general, it's collective, and this comes about in the form of solidarity. Solidarity reaffirms that the group, while damaged, still exists. It acts as a stimulus for collective action. It provides emotional support.

His and John Ryan's research following April 16 showed, Hawdon said, that "solidarity has a positive effect on emotional well-being. Those who expressed higher levels of solidarity later had higher levels of well-being." Studies in New York City after the 9-11 attacks, for example, showed that solidarity was elevated at first but fell back to normal levels in six to nine months.[*]

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[*] Randall Collins, "Rituals of Solidarity and Security in the Wake of Terrorist Attack," *Sociological Theory*, 22:1 (2004) pp. 53-87

What do we mean by community? Christopher D. Campbell argues that community has three elements.[*] There's geographical space. There's sentiment, the cultural, symbolic side of community, what it means when you say I'm a New Yorker or I'm a Hokie. And there's the social structure; the interlocking networks of social relations. These three elements make up a community. A critical incident damages either space or sentiments. When sentiment is the main thing affected, it must be reaffirmed. What we did was ask people about what they did in the week following April 16. Did you talk to family members, how often, did you talk to friends, etc. How often did you talk to media, how often did you shop at local stores, eat at local restaurants, play on a sports team, attend community meetings, etc.

Tracking solidarity over time, at nine months the drop is statistically significant. Lawsuits have been filed. Some old issues of diversity are re-emerging. And we would expect that if we do this again some time in the near future it'll be down further.

John Ryan noted that solidarity tends to reflect how an event and the responses to it are framed by the community:

In the initial phase, multiple frames compete for dominance in defining what is going on here, what does it mean. By the afternoon of April 16, there was a master frame that emerged. People agreed on what had happened -- that this was a mentally ill individual who acted alone, this was senseless. We didn't cause this, we're not responsible for this, unlike Columbine I think. This is an attack on the whole community. A sense of solidarity, we're all victims. And then we get the slogan we are all hokies now, quickly spreading across the country and resonating with what's going on here. So our reading of the initial frame was that it was a frame of solidarity, of oneness.

Danny Axsom: What seems to be missing are the questions that arose pretty quickly about why weren't we notified earlier?

Ryan: People at Virginia Tech quickly dropped that as an issue and said we'll deal with that later, the important thing now is that we're all hokies and we're all victims. It was floating out there. Gun laws, actions by university officials, all those were in the papers the next morning, in the

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[*]*C.D. Campbell, "Social structure, space, and sentiment: searching for common ground in sociological conception of community," in D.A. Chekki, ed., *Community Structure and Dynamics at the Dawn of the New Millennium,* Research in Community Sociology, Volume 10, Bingley, UK: Emerald Group Publishing (2001)

media and among people on campus and in town. But from our experience the pressure was to not criticize in that moment and in fact some faculty who did criticize in that moment were sanctioned very quickly.

Hawdon: One thing you have to remember is that at a university there is pre-existing solidarity. We have solidarity building rituals all the time. Football games, basketball games, let's go hokies! The fact that we were a solidified group prior to April 16 immediately influences the individual frame. As hokies, we did not want to blame the institution. We wanted to feel an allegiance to it. This solidarity also helped form the collective, the master frame. There was a conscious attempt to frame this as not our fault.

Ryan: The university kicked in immediately to make sure that that was part of the master frame. They hired a PR firm the next day for three-quarters of a million dollars to brand this as not being the administration's fault and so on. So it's not that it emerged entirely by itself. It was cultivated, nurtured.

Hawdon: And as this master frame starts to form, it starts to filter out and repress those competing frames. On the 17th I had conversations where people would say, why didn't they shut down campus earlier? By the 18th you didn't hear that because the collective frame had started to form and put pressure on you to have strong character, and strong character was being a good hokie. So the power of this frame grows over time. And it has a feedback effect on solidarity; amplifies its effects.

Megan Armbruster found evidence of solidarity in the fact that none of the 26 students wounded by Seung Hui Cho left the school:

In May of 2006 we had a couple of those students graduate, and one returned to go to graduate school. No one transferred and I think that says a lot about this community. When we have commencement ceremonies I thank those parents especially because they dropped their students off twice. And they are brave people.

The 26 wounded students sought solidarity with each other, Armbruster recalled, as well as with the wider university community:

The students started to e-mail me saying that we want to meet each other and get to know each other. So we started to do things. Our first director and his wife hosted monthly dinners. They still have those every month. The help-giving we talked about, I thought was so true because these students this year have really wanted to get involved in helping other people and get involved in service.

Hawdon: You cannot downplay the importance of the convocation the next day. When Nikki Giovanni gave her speech and ended with "we are hokies, we will prevail," and the students spontaneously stood up doing the Let's Go Hokies chant, that was a very powerful moment. The administration knew what they were doing when they asked Nikki to give that speech. She is a powerful speaker. Another thing to remember about how powerful this frame was. When President Steger took the stand to speak at the convocation, the students gave him a standing ovation. There was already the "hey-he-messed-up" frame out there, but basically the students got up and said you're not sticking this on us, we're behind you. It almost brought Steger to tears.

Ryan: When we think about intervening after this kind of event -- hundreds of counselors were sent to campus but people did not participate in that, which suggests that this other approach of picnics, vigils, community events and so on actually turned out to be very therapeutic for healing at the community level. Not the victims or their families but the community.

Hawdon: Let me close with a quote from Durkheim: when you see a moral scandal in a town, notice what people do. They gather together on the street and they talk, they wax indignant, and out of that individual temper comes a public temper. The moment of the convocation where the students stood up and chanted was one of the closest things to a religious experience I ever had. It said something about the group.

Not all critical incidents give rise to solidarity. Under the pressure of a disastrous and damaging event, fault lines in institutions and in society can widen, instead of narrowing. Jeff Stern gave a vivid illustration of the contrast between Virginia Tech after the shootings and New Orleans after Katrina:

Here you had this hokie solidarity. And in New Orleans -- I'm getting a tour a couple days after the Superdome has been evacuated. We come to a 12-foot wall that's been bulldozed between New Orleans and one of the parishes. The police captain was there and I said, was that to keep the flood waters out? And he said no, that was to keep the people from going into the parish. That's the fracture that you talk about, where it's a very divided community.

Dave Cullen noted that an event can be framed one way within an institution or community and another way in the larger public:

There's the local frame and the national frame. With Columbine, those were completely at odds. There was the same kind of solidarity within the school but that was at odds with the national frame. Here you weren't

necessarily competing with the national narrative, but it was two different narratives.

A paradox of solidarity is that even while it unifies, it can also divide. Defining "us" can also define "them," perhaps particularly when a community has suffered damage or loss in a critical incident. The result can be ambiguous: strengthening bonds of identity and common beliefs and values within the community may assist recovery, but fissures between the group and those outside its boundaries may widen. This happens when identity, solidarity and mutual aid develop around themes of scapegoating and revenge. Gerard Fromm, director of the Erikson Institute at the Austen Riggs Center in Stockbridge, Mass., noted that different dynamics come into play when a critical incident is manmade rather than natural:

> Collective trauma from intentional human disasters is different because it introduces dynamics having to do with human motivation and violence. It attacks people's symbolic, sense-making functioning, individually and collectively, and leaves them vulnerable to massive regression. Societal trauma often leads to an interruption of usual mourning processes in favor of psychic numbing, a sense of overwhelming pain, and indiscriminate rage. Because the natural tendency of the mind is to turn something experienced passively into active mastery, vengeance is sought as a form of recovery. This is why trauma begets trauma, and is also one of the ways trauma is transmitted to the next generation.

Even after incidents of deliberate human violence, a cycle of division and vengeance is not inevitable. The Virginia Tech community's coming together after the April 16shootings illustrated, Fromm observed, "that recovery indeed involves an active relation to trauma but not necessarily a vengeful one." He also noted that a connection between recovery and togetherness is made in the very word "therapy":

> Traumatic dreams are an aspect of the mind's effort at recovery, an attempt to experience, bit by bit, what could not be endured at the time. They represent an effort to become a whole person again, with all of one's history, including its most painful parts. But this return to the scene *must* be experienced in the company of others. The word therapist comes from ancient Greek, one of its original meanings being "the second in combat" -- the people just behind the front line, who support the soldiers and serve as witnesses to the horrific experience.

Richard Curtis, chair of anthropology at John Jay College, saw the Virginia Tech experience as evidence that people may be more resilient after a traumatic event than we commonly think. He also suggested that critical incident analysts and other researchers should give more attention to cultural as well as individual factors that influence people's resilience and ability to recover. And, consistent with the derivation of the word (and with the fact that social expressions of solidarity seem to have benefited many more people than the trauma counselors who flocked to the campus) Curtis pointed out that

therapy does not have to be exclusively the province of professionally trained mental health practitioners, even if American culture views it that way:

> You found that 85 percent of the people didn't have PTSD, and that says something. This subject of successfully managing trauma is an understudied area, because we typically study people who are traumatized rather than the people who emerge unscathed, so to speak. Researchers have paid little attention to social and cultural factors. But there's every reason to believe that trauma and recovery are mediated by culture. And it's something we need to look at more closely.

> Researchers and individuals in psychology have long believed that resilience is pretty fixed. You either have it or you don't. I think that some psychologists have come to realize that resilience is something that you can develop. It can be developed over time. You can build it. It's a finding that I don't think is surprising to cultural anthropologists and perhaps others in the room who have looked at this.

> The "grief industry" has become institutionalized in America, especially after 9-11. But as trauma mitigation becomes more professionalized, what are the pluses and minuses for members of our society? Could this need to provide help to victims of trauma and to do this trauma debriefing actually create more problems by blocking natural family and neighborhood contacts and reducing the traditional role and function of communities? Some researchers now realize that more research should be focused on the particular effects of people's worldviews. If people who share certain worldviews are more resilient than others, we need to understand what those are.

Different cultures, Curtis argued, have different ways to help people manage trauma, grief and loss. Professional mental health counseling as practiced in our society is only one of them, and even within our society should be recognized as not the only alternative:

> Some clinicians now hesitate to automatically provide counseling following a traumatic event. Rather, they recognize that people should share what they want with people they know well: "close friends, relatives, familiar clergy… our social networks – they are what help people create a sense of meaning and safety in their lives."* While it is refreshing to hear that some clinicians do not endorse the "daddy knows best" approach to trauma mitigation, the recognition that different people have different ways of coping with trauma simply begs the question of what those ways are. It is here that some of the methods and techniques employed by anthropologists can be usefully applied. In my own work, among drug users with AIDS, for example, where premature death in this

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* Jerome Groopman, "The Grief Industry," The New Yorker, Jan. 26, 2004

highly stigmatized "community" is a fairly frequent occurrence, there are extensive formal and informal support networks that assist individuals as they cope with loss and grief. Understanding the structure, role and composition of these various networks is essential to being able to offer the kinds of emotional and material assistance that makes a real difference in their ability to successfully cope with grief and loss.

Richard Schwester, ACIA's associate director and archive director, spoke about questions for further study in relation to trauma and post-traumatic stress:

I want to tease out some avenues to pursue. For example, if you can enhance safety -- objective safety, subjective safety, physical and mental safety -- does that decrease the risk or the onset of PTSD and other related disorders? If you increase and build efficacy, does that reduce the risk? If you have greater social connectedness, does that reduce it? And if you instill hope, does that reduce the risk of PTSD and other mental health problems? One thing to look at is differences in media coverage, how the media cover an event and what the effect of the coverage is. Does media coverage matter in terms of perceptions of safety and PTSD?

On the notion of efficacy: in the context of post-traumatic stress, from what I've learned, trauma inhibits your confidence about dealing with emotions or constructive problem-solving. You lose that confidence in terms of how to handle things. There are cognitive behavioral therapy and other tools for promoting efficacy. But it's something that individuals build themselves and impart to others. The real caveat about building efficacy among individuals who have gone through some traumatic incident is that they have to know inside themselves that they have this ability to be efficacious. And that's a pretty big presumption. So one thing I thought about was how do students feel about their ability to be efficacious? Do they have this inside them? It would be interesting to craft a survey instrument that would measure perceptions of self-efficacy.

On social connectedness -- greater networks, greater social supports, less problems. At least that's what I've gotten out of the literature. What do universities do institutionally? What kinds of programs and best practices have been developed? What works? And the importance of families. I wrote "examine the loved ones link." During a traumatic event, is it better to send students home? Did the students who went home to their moms and dads fare better? Jim?

Hawdon: The ones who stayed here fared better.

Schwester: And finally the notion of hope. Hope is socially constructed; it can mean a lot of things to a lot of people, but in the context of trauma mitigation it means getting your life back into place. What does that look

like on a college campus after this kind of event? What is a return to normalcy, so to speak? Was it a good idea to cancel finals? Or would it have been better to force people back to class and then give them that sense about the future, that we have to plan for our future and part of that is finishing the task at hand and getting back to class. That might be an avenue of future research.

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IV. A Wider View

Beyond Virginia Tech: Violence and Schools

The numbers are small, measured against the national student population or the number of educational institutions, and schools remain clearly safer than many other environments. But the list of shootings in American schools is sobering, nonetheless. ACIA's discussions explored several recent violent incidents, focusing on different management and aftermath issues. One in particular resonated at Virginia Tech:

Columbine: Analysts reconstructing Seung Hui Cho's emotional life found one thread leading back from the murders at Virginia Tech to a mass killing on another campus eight years earlier: the shootings at Columbine High School in Littleton, Colorado. Cho, an eighth-grader at the time, appears to have been strongly affected by the Columbine shooting and by the motivations and actions of Eric Harris and Dylan Klebold, the shooters. Cho may even have chosen the date of his attack because of its proximity to the anniversary of the Columbine event. In its review of Cho's past, the Virginia Tech Review Panel reported that "after the Columbine shootings, Cho's middle school teachers observed suicidal and homicidal ideations in his writings and recommended psychiatric counseling." And a "theoretical profile" written for the panel by forensic behavioral scientist Roger L. Depue suggested that Harris and Klebold may have been models for Cho's attack -- and for his suicide, which, like theirs, put him out of reach of arrest and punishment for his acts.

If there were parallels between Cho and the Columbine killers, there were also contrasts. The aftermath stories, for instance, differed sharply. In the Virginia Tech community, even though tensions existed, the story was largely one of coming together, finding unity and a determination to prevail over sorrow. The story after Columbine was a far sadder one. In a dinner talk at ACIA's Blacksburg meeting, Dave Cullen, author of the book Columbine, explained some of the differences:

> In the beginning, everyone assumed Columbine was a conspiracy. It seemed like an orchestrated terrorist attack. Everyone assumed two high school boys could not have done it alone. So there was a conspiracy still on the loose. And it had a name: the Trenchcoat Mafia. Then there was a string of threats and a fake "it's not over" note, and people didn't know if

they were safe yet. At Virginia Tech, everyone felt extreme pain and loss once it was over, but a fraction of the fear. At Columbine, people did not feel safe for much longer. Also, at Columbine, you had fewer killed, but in much tighter proximity. You had nearly 2,000 kids in the building, all fleeing, and nearly half trapped inside for several hours, so you actually had a much larger group who felt they'd been personally attacked. Their families all lived in the neighborhoods nearby. This happened in the heart of their community, not in a college town a long way from home. At Virginia Tech you have a much larger community, but it's much more diffuse.

Another factor was the myth that the shootings happened because of a feud between the jocks and the Trenchcoat Mafia. That story was well established in the first four hours, and "fact" by that night. So immediately a large social group was blamed, and the high school community had to pick sides. Was the jocks' bullying the cause, or were the killers to blame? You had to pick a side. The feud story turned out to be completely wrong, but it quickly became the central Columbine narrative, which led directly to the idea that Columbine's students had brought the tragedy on themselves: that it was created by a culture of bullying and arrogant jocks harassing nonconformist weirdos. The blame narrative placed the Columbine murders in a nightmare of American high school life -- a high school hell where the school caused it, the jocks caused it, the bullies caused it. Even though it was false, its effects were devastating. Victims were made out to be villains, and when victims are being disparaged that horribly, there is a lot of anger that has to go somewhere.

What to do with the library, where ten of the 13 victims and the killers died, became an issue that pitted victim groups against each other. The victims' parents wanted no one to ever set foot again on the spot where their children died. The student body overwhelmingly felt the opposite. They felt the killers took library away from them, and they wanted it back. It became a very ugly fight, victim against victim, survivor against survivor. The students thought they'd win the library fight, but they lost. They had no idea of the power of a grieving parent. The parents won, but at great cost. They alienated most of their community.

Another example was the anger and bitterness that surrounded memorial markers for those who died in the shooting. When someone erected 15 crosses on a nearby hill, including two for Harris and Klebold as well as those for the 12 students and one teacher they killed, a war of graffiti ensued, with some leaving messages of forgiveness on the shooters' crosses while others left notes seething with bitterness and a thirst for revenge. Three days after the crosses went up, the father of one of the dead students ripped down Harris's and Klebold's crosses and hauled them away, filmed by a CNN television crew he had summoned to the scene. In

a reprise some months later, the same father chopped down two of 15 trees that had been planted as a memorial garden at a local church.

(Whether to include the shooter in memorial symbols was also an issue at Virginia Tech. After students spontaneously laid out a circle of 32 blocks of stone in memory of the victims, a senior named Katelynn Johnson added one more, for Cho. The 33rd stone disappeared and was replaced several times during the following weeks, while plans for a permanent memorial were developed. The design committee decided not to include a marker for Cho in the final plan. But while there was disagreement, the issue never generated the fury that arose at Columbine.)

> There was so much anger and blame at Columbine, starting with anger at the killers' parents. That makes sense, because these were high school kids living at home, rather than a 23-year-old senior who'd presumably been away from home for four years. They had an arsenal, so it must have been stored in their parents' homes, so how the hell did the parents not know? That was demanded instantly and widely. So it was felt from the start that there was someone alive responsible. At Virginia Tech, the killer was dead, he was apparently alone and a loner. Anger and blame seemed too late and pointless, so maybe it didn't simmer and boil up.

> At Virginia Tech, there were significant questions about the administration's decision not to notify students after the first homicides, and the failure to identify Cho as a threat prior to the event. But these paled in comparison to actual and perceived bungling by the Jeffco Sheriff's Department at Columbine. This was exacerbated terribly by a refusal to release evidence and a true coverup. The fury over this was huge. Between anger at the cops and anger at the parents, and anger at the feud, this community was seething. The coverup really undermined faith in authority. And if evidence of what drove the killers is suppressed, the question of why the killings happened remains unanswered -- and if you don't have that why, it's explosive.

A historical overview: Laura Agnich combed newspaper archives, published interviews, television news transcripts, Census Bureau reports and material from the National Center for Education Statistics to compile a comprehensive list of shootings and other attacks that claimed multiple victims in schools. Her research found that more than 250 people were killed in 73 such incidents dating back over more than eight decades. Three-fifths of the deaths occurred in just the past 19 years.

> **Agnich**: Schools are among the safest places in America, still. They're the site of less than 1 percent of youth homicides. Homicide in general has been dropping since the early 1990s. But at the same time these mass murder events like what happened here and at Columbine are seemingly on the rise.

The very first incident was in 1927. A man named Andrew Kehoe bombed an elementary school in Bath, Michigan. It was the deadliest school mass murder (37 students and two teachers died in the school) though not the deadliest shooting because he used explosives. Overwhelmingly these incidents have involved the use of firearms. U.S. school shootings have usually occurred in rural and suburban areas. Geographically, most were in the South and West. The 1990s had the most mass murders in middle and high schools; incidents in colleges and universities were highest in the 2000s. In middle and high schools, the perpetrators were overwhelmingly students at the school where they committed the murders; in elementary school incidents, perpetrators were typically adults. There were five female perpetrators and 76 males. Elementary and middle school perpetrators were all white, middle and high school shooters were mostly white, but only eight of 20 college shooters were white, which is 40 percent. Four were Asian, or 20 percent. That group is only represented among college shooters.

What are some commonalities in these incidents? First of all, perpetrators who seem to have a desire for notoriety or to terrorize people through mass media. That's something that Cho and the Columbine killers shared. "Leaks" before a shooting: Cho, Harris and Klebold all wrote papers full of violence. As far as media framing, the same myths come out about loners and bullying. There are a lot of misconceptions about that. Community reactions to the media's portrayal of the killings and division over how to portray the shooters are commonalities that all school shootings seem to share. For example, after 4-16 would it re-traumatize our community at Virginia Tech to see pictures of Cho aiming his gun at the audience?

Dave Cullen: The desire for notoriety, is that just a handful of cases or a lot of the cases?

Agnich: A lot of the cases, it seems to me. They leave trails behind. Videos, journals, blogs, all that.

Columbia University: It was not a shooting, nor did it happen on campus, but an incident that occurred at Columbia almost simultaneously with the Virginia Tech shootings raised some of the same issues about informing the community and maintaining public trust. James McShane, Columbia's vice president of public safety and a 24-year veteran of the New York City Police Department, recalled:

At Columbia we had a horrific rape the weekend before April 16. A grad student in journalism was a victim of probably the most brutal rape I had ever seen. She was raped, they threw acid in her face, tied her up, burned her. Miraculously she survived and escaped. This didn't happen on

campus, it happened at a place called Hamilton Heights a little further up in Manhattan. The media was all over this, it was a big story all weekend.

Then April 16 happened and obviously that was in all the media throughout the country and New York was no exception. So by Tuesday our campus was in an uproar, for all of those reasons. And even though there was so much public information available, there was a demand for us, the administration at Columbia, to put out our own information. That's something I learned that week. That we need to be putting out information. People want to hear it from us. We put out a series of messages from me, from the president, messages about what we do, how we keep you safe, what our resources are. We did that on a regular basis. We also disseminated updates about the investigation into the sexual assault and finally we put out a wanted poster for the suspect because he was identified but not apprehended for a couple of days.

McShane also commented on threat assessment processes and the need for systems and procedures that will allow administrators, health services and security officers to share information and respond to possible dangers before a violent event takes place. As he pointed out, that was an important theme in many post-Virginia Tech reflections, among them a June, 2007, report to President Bush from three of his cabinet officers, the attorney general and the secretaries of education and of health and human services:

In the report to President Bush, three of the five key findings relate to greater communication and information sharing among all persons involved in making the community safe. Another key finding was the need to provide appropriate mental health services, and another recommendation involved greater information on firearms restrictions. Most of these key findings were also found in the Virginia Tech Review Panel when it was released two months later. So those issues resonate.

Information sharing has been consistently complicated by "the FERPA and HIPAA conundrum," as McShane called it, referring to the often murky and confusing legal restrictions imposed by the Family Educational Rights and Privacy Act and privacy rules contained in the Health Insurance Portability and Accountability Act. After the Virginia Tech shooting, authorities sought to clarify those rules, so that university officials can more easily understand when they can exchange information about troubled and possibly dangerous students. As a public safety official, McShane welcomed that effort:

Both the review panel report and the report to the president highlighted the confusion surrounding the scope and application of the FERPA and HIPAA statutes. In November, 2007, the federal department of education issued two brochures which clarified the responsibilities and who was entitled to what. Of particular interest to me in public safety was that the brochures made clear that university public safety officials are "school officials" with a "legitimate educational interest" and are, therefore, able

to be given access to personally identifiable information from students' education records. That was a big step forward because it allows us to work with deans, counselors and everybody else. That put us at the table. A teacher might refer a student to the dean's office, because of troubling writings or pictures with a knife in the heart and that kind of thing. We all need to collaborate on those. The guidelines also made clear that public safety records were not subject to FERPA. This, too, facilitated greater communication among university stakeholders.

We have a threat assessment team. Members include health services, public safety, student affairs, deans of students, and the general counsel. Psychological services is in the room, they're part of our group. In the past, we would have referrals, we'd respond to incidents in the residence where students were clearly problematic and we'd identify them, we'd refer them to the dean and they wouldn't tell us the outcome. We can't tell you, it's FERPA. Well, if you want us to respond when the guy is threatening to burn down the building, you're going to have to tell us. Because we're putting my guys at risk. If you get some kind of a warning, an early sign, you want to stay with that. Explore every avenue, reaching out to the high school if that is part of it. At the end of the day everybody needs to own safety, to own prevention.

At Columbia 25 full-time-equivalent counselors are available. We have a counseling office in the student center and we also have satellite offices in four residence halls and in our law school. If you're living in a residence hall and you're not feeling so well there's a counselor and you can pop in when you go to do your laundry. So we make it easier. We destigmatize it and bring it to the students. We believe this has been successful in addressing potential threats before they become actual ones.

One of the concerns we have found is kids who were on medication and then, when they leave home for the first time and come to college, they stop taking their meds. Predictably, with a lot of these cases, you get some warning signal. You intervene, you go to them, you find out they're not on their meds, and for the most part you get them back on their meds and things work out. In the last two years we've implemented an involuntary leave of absence policy including for people who have mental health problems. The lesson is, if you have somebody you think is acting out, stay with it. Stay on top of it. Do a mandatory leave. Reach out to his family. The ounce of prevention is worth a whole lot more than a pound of cure. The three most significant elements of prevention are a systematic threat assessment procedure, making counseling available, and relentless follow-up on any warning signals.

The Critical Incident Context

Beyond events in schools, ACIA also sought to find insights and lessons from other critical incidents and in exploring the nature of critical incidents and of critical incident response.

One obvious issue is the policy consequences of critical incidents. After a disaster or a shocking terrorist or criminal event, government agencies and political leaders face, or believe they face, an imperative to *do* something in response. There is a need to show concern, to demonstrate effectiveness and control, to reassure frightened or grieving constituents that no such tragedy will be allowed to happen again -- or if it does, it will be handled better and with less damage. So they pass a law, appoint a commission, launch an official inquiry, hold hearings, issue an administrative order, reorganize bureaucratic structures, revise management procedures and policy guidelines and contingency plans -- or, not infrequently, all of the above. Jeff Stern reminded the ACIA gathering that political concerns always underlie crisis response: "We have to understand that policymaking takes place in a political context. Policy is made by politicians and it's the politics in the U.S. that drive our policy outcomes." He recalled a first-hand glimpse of the process:

> When the Virginia Tech tragedy took place I happened to be working as a White House Fellow. I was part of a team that was tasked with rewriting the homeland security strategies to include the lessons from Katrina. In less than 24 hours after the shootings at Virginia Tech, our staff supported a visit from the president so he could play mourner-in-chief. I wondered from a psychological and sociological perspective what is the impact of that script playing out so quickly. It happened how it happened, for good or for bad. But I personally thought maybe it was a little too fast. And that fits the way policy is made. When you are reporting to the president or are a staffer in Congress, you don't score points by sitting back and waiting the way we do in academia. You score points by doing something. You can get the president to issue an executive order, issue a directive or write a national strategy.

As laws, policy directives, plans and bureaucratic structures multiply, so do stakeholders -- individuals and institutions with their own viewpoints and interests. This occurs not only in executive agencies but also in the legislature, which passes laws and then oversees how they are administered. No one questions the need for oversight, but when it becomes fragmented, as often results from U.S. congressional tradition and practice, it can become a distraction for those in charge of preparing and managing crisis response. Stern cited the 9-11 Commission's finding that no fewer than 86 congressional committees and subcommittees had some degree of oversight over the federal Department of Homeland Security after its creation in 2003. Every member of those committees, he pointed out, is a stakeholder with power and authority to weigh in on policy decisions -- often, with interests that are parochial rather than national, especially when decisions involve allocating government funds. The obvious question is whether

policy decisions based largely on political considerations are as informed and useful as they should be. As Stern observed:

> It's not like we're not doing policy. We're very activist in the U.S. about making policy. A lot of activity and yet we have a lot of mistakes and end up tripping ourselves up.

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Betty Kirby tried to identify and describe the phases of a critical incident and its aftermath, and the changing emotional responses that accompany it:

> The impact phase refers to the event when it occurs. People are shocked, frightened, looking for help, looking for answers. It's a relatively short period of time when the event is unfolding. The early aftermath phase begins right after the event happens. It's often talked about as a time of crisis and chaos where people are trying to make sense of it, ask why. There's a lot of anxiety during this time. People are starting to assimilate the information they have, for example who has died, who was injured, whom do we know. This doesn't only apply to the people in the immediate vicinity but also to those who know people who were impacted by the event. The third phase, the short term, may be some weeks in duration, It can be called the processing phase. People are integrating this event and the grief and the loss into their minds in an effort to make sense and accept what has occurred. The final stage is the long term aftermath, during which it's believed a majority of people will recover or integrate this situation successfully psychologically. However, there will still be a minority who may be impaired for life or may have many distressing episodes for a long long time.

A diagram from Kirby's presentation shows the steep hill-and-valley course of emotions after a critical event:

Model of Responses to Trauma and Bereavement
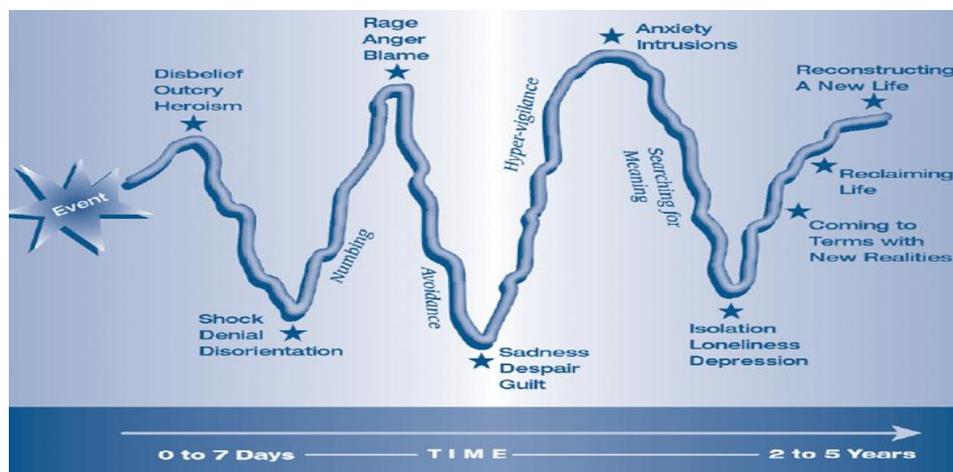
(Adapted from CMHS, 1994)

Kirby: A review of the literature related to trauma and grief indicates that the process for individuals working through the aftermath of a critical incident is very non-linear and non-cyclical. The diagram is very representative of the up and down rollercoaster kind of experience that human beings may experience. The duration of time and degree of ups and downs will vary considerably from one person to the next.

Close-Ups: Hurricane Katrina and 9-11

Jeff Stern, a former firefighter with wide experience in emergency management and now a Ph.D. candidate at Virginia Tech's Center for Public Administration and Policy, remembers the chaos in New Orleans following the Katrina disaster:

At the time I was working with an incident management team in Arlington, Virginia, and we sent a team down to New Orleans. Katrina was not just a single incident even on the scale of the World Trade Center or the Pentagon. It's a different thing to be in an area the size of Great Britain and in the biggest disaster in U.S. history, to be in a helicopter at 3,000 feet and breathe in the fumes from the petrochemical facilities that had been destroyed in the gulf, and see the scope of the damage. In most cases of crisis management, the casual or educated observer often has more information looking at CNN than the folks who are there trying to manage the incident. In this case, we were actually there and able to take in the scale of this damage. It was hard to grasp the scale, or how hard it was managing this, until you were there.

This was September, 2005, ten days or so after Katrina made landfall. Our first step was to be the organizing team for the command center for the New Orleans Police Department. My initial job because I was the fire guy on this team was to go and meet with the New York City incident management team. There were I'd say about 80 to100 New York firefighters. These folks in four years after 9-11 went from not having a clue about what incident management was to being asked to come down and help organize and coordinate the firefighting aspects. The NYFD was working with NOFD to organize the entire fire response. There was no 911 system in the area, it was down and when they would hear about a possible fire in the city they would dispatch fire units by portable radio from an ad hoc fire command post to a general area, tracking them using a paper-card system the way it was done 50 years ago. This occurred for a couple of weeks until a new 911 call system was purchased, installed, dispatchers were trained, and the system was and back up and running. This whole time there would be a New York Fire Department chief sitting next to a very haggard New Orleans fire battalion chief who wasn't wearing his uniform, probably because it had been destroyed or lost. Paying it forward, paying the debt. For those folks from the Virginia Tech community here, sadly, there will be opportunities to pay the lessons

forward and take advantage of those lessons to help the healing process somewhere else.

If Katrina directly affected more people over a larger area, the consequences of the terrorist attacks of September 11, 2001, qualify it to be considered the most significant critical incident in recent American history. Victor Herbert, ACIA's executive director and a professor in the Department of Protection Management at John Jay College, recalled his first-hand view from the headquarters of the New York Fire Department during the event and its aftermath -- and identified an important lesson to be learned:

> I recall that it was a day in September. It was 1954, the first game of the World Series. The Cleveland Indians against the New York Giants in the Polo Grounds. Eighth inning, two outs, Vic Wertz at bat, two men on base. Don Liddle throws a 2-1 pitch, Wertz whacks it and it goes flying over the head of that young man in center field for the Giants with the nickname Say Hey Kid. Willie Mays. He never looks at the ball but takes off running as fast as he can looking only at the wall. He hits the warning track, raises his glove without ever looking back and pow, makes the catch. The fans go berserk. The announcers are shouting, what luck! What a lucky catch! Except for one other player from that other New York team, the Yankees. A catcher by the name of Yogi Berra, noted for occasional colorful expression. He said, Luck? No, he said. Those who practice get lucky.

> Everyone in this room has a 9-11 story. I was working at headquarters, at that time at 9 Metrotech in Brooklyn, and I had just moved into a new house. I wasn't sure how to get to work yet because it really was the first day. I took the bus to the train at 6:30 in the morning and asked a businessman, how long will it take me to get to 9 Metrotech. And he said, I know exactly where that is. I work at the World Trade Center. I make this trip every day. On the train there is a beautiful little family. Korean, I think. There's a father sitting with each of his hands on a violin case, and two little girls, I put them 8 and 10. The mother has this implement of torture in her hand called a hairbrush. But not a whine, not a whimper, not a complaint. We get to Grand Central Station, the Korean family turns uptown. I remember saying to myself, they're on their way to Carnegie Hall, or Lincoln Center or Julliard. They'll never forget this day. Little did I know.

> I got to HQ. I was working on a project, it was of the utmost importance, I'm sure of it, and I had a question for a deputy commissioner. Just as I think I'm about to get an answer, his pager goes off, he picks it up and says, "plane crash world trade center." Any given day at headquarters there are 100 to 300 firefighters. Every single one of them wanted to go to the trade center. They were searching for vehicles, looking for protective clothing. Bunker gear that was exposed to hazardous material was collected in the medical division at headquarters and stored to be analyzed

or whatever. And everyone knew in the basement there was a closet loaded with that stuff, locked. Someone unlocked it and all of a sudden there were firefighters running all over the place. 9-11. What a day. And then it was 9-12, and by 9-12 I don't mean the next day. I mean days of 9-12. Maybe weeks.

The fire department traditionally is very reactionary. Over 150 years their basic attitude was what we do is good enough and we don't have to change very much. After World Trade Center 1, FEMA came and asked what can we do for you, what do you need? The Police Department said we'll take a dozen mobile command centers. Emergency management said we'll take a half dozen. FDNY replied no, no, we're good. We have our hoses, we have our ladders. We put the wet stuff on the red stuff, that's what we do and we don't need anything else. 9-11 came and everything changed. Now the service is remarkably different.

The most obvious change was the implementation of the national incident command system mandated by the Homeland Security office. FDNY set out to master that system and to make it a symbol, a sign of change. When New York sent 600 firefighters to Katrina, in a matter of hours they quickly assumed leadership because of that training. What else? They do a lot more different kinds of training now. A lot more tabletop simulations and on-site scenario response. More preparation for the unthinkable.

In addition to practice you need knowledge. By now, we know how much information held by one agency or another remained unshared leading to needless loss of life on 9/11. But with or without information, practice is essential. I mentioned Yogi Berra, who told us that luck comes to those who practice. Henny Youngman said it better. Somebody asked him how to get to Carnegie Hall, and Youngman said: "Practice, practice, practice." Every critical incident that we look at with an eye to preventing the next one, to being able to manage it, mitigate it, save lives, the best advice I can give is listen to Yogi and listen to Henny and practice and practice and practice.

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V. Remembering and Learning

Memory and Narrative

The consequences of an event, and the meaning we give it, arise not just from the event itself, but from how it is remembered. Journalist and author Arnold R. Isaacs discussed the importance of narrative and how it evolves:

For critical incident study we need to establish the facts of what happened, but it's just as important to analyze the story, or the conflicting stories, that we made out of those facts. Was it a healing, unifying story or a divisive and damaging one? Did it move toward some kind of coming to terms, or did it keep painful feelings alive? Who shapes the narrative -- another way of asking who controls the memory of the event, the language we use to describe it, how it's depicted in popular culture and so forth?

Incident narratives go through stages. First is the instant narrative, the one that used to be created mainly by the news coverage, but now lags behind an even more instantaneous narrative composed of tweets and texts and cell phone videos, etc. Next comes what could be called the short-term consensus narrative -- a consensus that may or may not last. This emerges after the first few news cycles when the identifiable event is over, coverage is shifting to reactions and consequences, and news media and public have usually reached some kind of common version of what happened and adopted a phrase or tag to describe it.

Another variant is the institutional or official narrative, designed to defend the actions and protect the image of political leadership or some official body. There's also the advocacy narrative, that exists to promote the issues or interests or ideas of some group or cause or ideology. Both of these come into being very quickly nowadays. One form of advocacy narrative is the victim narrative, meant to get maximum recognition and sympathy for the victims and often to dramatize their pain and suffering to promote some cause or policy position. And last is the enduring narrative, the one that gets into the history books if the memory of the event lasts that long.

Some further observations: Do advocacy narratives, including the victim narratives, sometimes intentionally or unintentionally keep a story alive and keep fueling the emotions that the event created? And if so, how does that affect recovery and the effort to return to normal life? Another thing to note about the advocacy and official narratives is that these so often turn on issues of blame, on showing that someone is at fault in an event -- in many cases not the actual perpetrator, but someone who should have been able to prevent the incident from happening or keep it from getting as bad as it got.

In the Virginia Tech story, it's striking how quickly the blame narrative got started. The early AP coverage quoted several students criticizing the lack of an earlier warning, including one kid who said university officials had blood on their hands. One newspaper made that its main headline: "Blood on their hands." You might think that on the first day, if they were going to talk about anybody with blood on his hands, it would be Seung Hui Cho rather than the university, but there it is. I found a bunch of similar headlines: "Warning came too late to save lives" (San Francisco

Chronicle), "Bloodied campus asks where were the warnings?" (Chicago Tribune), "Could the massacre have been stopped?" (Detroit Free Press). The headline is supposed to tell you the most important thing, so these tell readers that the most important issue was why didn't the university stop this from happening? There's no way to know if anything would have been different if the early coverage had been different. But the way it unfolded put the university on the defensive from the first hours, maybe the first moments. And this kind of coverage must have helped promote the demands for financial, emotional and legal redress in the aftermath.

Victim narratives also tell us quite clearly that all victims are not the same. Think about the attention and deference, not to mention the money, that was given to the 9-11 survivors, along with the great concern and vast funds spent on their memorial. And then think about the Hurricane Katrina victims who got not even remotely similar recognition. I discovered there's no memorial with the names of Katrina victims. There was never even a plan for such a memorial. There are some local ones, I think the city of Biloxi has one, with the names of those who died in a particular town or parish. But no authority that I could find attempted to keep track of all the victims. The only list I know of was made by a scientist at Columbia University's Earth Institute. It was there on the Internet, but hard to find.[*] And then you go to the website for the 9-11 memorial, and right away you're looking at very elaborate displays of photographs and tributary paragraphs. I believe that's a function of social, racial and economic differences that ought to get a lot more attention than they do. I hope ACIA will keep that in mind as we move forward.

Narratives, like events, have consequences. Psychiatrist Frank Ochberg observed:

As I listened I thought, from a physician's point of view, after a trauma or an infection, there's a body response and that body's response isn't always good. It could involve too many white cells, or an immune response that's awry, or an allergic reaction. All of that at the individual physiological level is part of what we need to study. Writ large, the way the noise emerges is something we have to learn to appreciate, measure and consider a part of a critical incident. A narrative emerges that may be right or wrong but ends up having a great amount of power to proclaim what occurred and sometimes to divide us on pre-existing fault lines in a terrible way into antagonistic human groups. That often does happen. Rarely do we come out of a catastrophic incident in the long run stronger at the broken places and coherent and united. A lot of us hope that we can impose that, make that happen.

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[*] At the end of 2009, the site still exists at http://www.katrinalist.columbia.edu, but the list itself has apparently been removed.

Learning

The narratives that critical incident analysts will most often look at are collective ones. But there are individual narratives too. Some of those reach a public audience; some are retained within a small circle of family members and friends; many are lost. Capturing and preserving more of this material and thus enriching the store of information available for researchers and analysts is a possible area of activity in the field of critical incident study. Steven D. Sheetz, associate professor of accounting and information systems and director of the Center for Global Electronic Commerce, outlined ideas -- and some obstacles he and his colleagues encountered -- on creating a digital library for material on the April 16 events:

> We're a group of faculty from a number of departments across Virginia Tech, computer science, psychology, sociology, accounting and information systems, human development. The digital library for 4-16 was our biggest initiative. We tried to create an archive of the materials that came from Virginia Tech, electronic materials. We crawled the web, we put up a site where people could submit pictures. We asked people to share their stories, we tried to develop our digital library that would maintain those stories and then conducted several different analyses of the things that people gave us.

> Our thought was to capture these things so that people in the future could use them to try and understand why it happened or to try and do some future research. We captured some of the poetry, pretty much all the poetry that was posted. We had a lot of news stories and things. In computer science we like to analyze texts. It fits with what we do, it's somewhat unemotional. We have this text from news stories and blogs and we analyze that and try to see what kind of information came from that.

> We had problems getting people to contribute, we had problems getting the university to agree to things like e-mail logs with all transactions associated with this tragedy so we can do a network analysis of all the communications that occurred during that time. They said no, and no might have been the right answer -- we don't want to hurt the university, that's not what we're about.

> Where we've evolved to is we're looking to develop a thing called a Crisis, Tragedy, and Recovery Toolkit. It comes in a form of a computer preloaded with a set of applications that we can distribute in the case of a tragedy, so that someone can be able to immediately start crawling the web and capturing information and allowing people to upload pictures and blogs and start a Facebook group. We had a grant recommended for funding that we call the CTR grant, and our mission is to develop the CTR toolkit which can be rapidly deployed to any situation and can help people in that situation to be able to rapidly capture information relevant to that

situation and to be able to know, quickly, and to create a Facebook group and do some things that would then facilitate populating the library or the digital archive earlier in the process. These are the services we are hoping to provide within some relatively short period after event.

The toolkit is part of a CTR network where there are existing digital libraries and archives associated with other events. We want to be able to link people going through it, who are trying to figure out what to do, with other people who have already been through it and can perhaps help them to respond. These things that seem to make a difference can now be part of what we want to provide for people that are in some similar situation. And sadly we know there will be something like this happening in the future as there have been many things since that time.

Memorializing

The word "memorial" entered our language more than 600 years ago, Gerard Fromm told the ACIA gathering, with the same meaning it has today. It has a common root with "monument" -- both are from an ancient base word meaning "to think." Traditionally, memorials have *been* monuments, made of stone, usually on a heroic scale and created by official authority for heroic purposes. In recent years, a new tradition of spontaneous memorials, more varied in design and materials, has emerged: homemade, often (but not always) temporary shrines that are constructed quickly and without official sanction or procedure on the site of a tragic event. Fromm, a psychologist and psychoanalyst, found complex paradoxes in contemporary practices of memorialization:

> Memorial processes are at bottom about facing grief, with a minimum of heroic or sentimental defenses. They are as much about recovering one's own mind as they are about recovering the memory of a loved one. Both are essential to moving forward and living one's life. One purpose of a memorial is the ancient, essential function of burying the dead. In the Iliad, the most terrible thing that happens to the King of Troy is that his son is dragged through the battlefield after he is killed; the ultimate Greek revenge is to refuse his burial. Burials mark the place of the dead, and marking this place allows remembering the lost loved one because it allows forgetting them. If there's no place to go back to, no place to re-find the other, it's extremely hard to let go; the loss is always on your mind.

> Another function is dedication for the living. The Institute for Peace Studies at Virginia Tech is an example. So is the VT Engage program.[*] Both of these illustrate the essential partnership between individual leadership and institutional response.

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[*] A Virginia Tech organization founded after the April 16 shootings that promotes community service and volunteer work by the university's students, faculty and staff.

Memorialization can re-traumatize. But if a group's effort to make the unbearable bearable is painful, it also makes that painful experience available for psychological work -- on one's relationship to lost loved ones, on overcoming helplessness and despair in order to live again actively, on managing intense, irrational reactions, on dealing with our whole relationship to the world, on re-discovering purpose, and on overcoming isolation and reconnecting to others.

This work requires company. So a major function of memorials is that they create space or an environment that is safe enough and yet evocative enough to allow the re-experiencing of pain in a contained, collective way. Even if they are "things", like monuments, memorials are also events. Walking down, then up the path of the Vietnam Memorial is an emotional event that takes you into, through and out of an emotional letting-go process. Each memorial goes about that process in specific ways, which may well be worth analyzing for their effectiveness and for what they say about the state of the recovery process in those who planned them.

At this conference, we heard about concentric circles of traumatized groups; I think effective memorials can offer help to all of them. And to play with the word "remember", we also *re-member* through memorials; we recover the memory of the lost love one as a member of our society, and we become members again ourselves through the work of mourning.

Building memorials is intended to heal, but it doesn't always happen that way. Designers, officials, survivors, advocates and commentators may have conflicting concepts of how an event and its victims should be remembered and memorialized, and that can lead to disputes instead of healing. The development of the National September 11 Memorial & Museum at the World Trade Center site is an example. Glenn Corbett, professor of fire science at John Jay College, has been technical advisor to the Skyscraper Safety Campaign, one of several organizations of 9-11 families. He reviewed some of the emotionally painful arguments about the memorial:

I'm not just an observer but a participant and an advocate. So you'll have to understand that this presentation comes primarily from my involvement with the firefighters' families and family groups in general.

Let me run through some memorials that have been the subject of controversies. The Custer battlefield, as it was formally known until relatively recently, has been renamed the Little Bighorn memorial site, particularly because of the Native American movement. Chicago's Haymarket Square.* There was a monument dedicated to the Chicago police, and the memorial itself was defaced, the statue was destroyed twice. All you find today is the platform and it's actually in police

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* Site of an 1886 bombing, attributed to anarchists, that killed eight Chicago policemen and a number of civilians.

headquarters now because they could never leave it at the site without it getting defaced. The Flight 93 memorial. One of the family members was refusing to have his son's name put on the memorial because of an issue with the design. I don't think it was intentional but it was essentially a crescent and the connection to Islam was a major issue here.

Some of you may remember all the discussions about what's going on at the World Trade Center site. How much is memorial? How much is commercial? There are all sorts of competing interests here, unlike at Virginia Tech where you don't have something competing for what's going on at the site. Key elements are two pools, which are the footprints of the twin towers at street level. There are waterfalls, which drop down to about 27 feet below grade. Originally the victims' names were on a parapet knee wall at the 30-foot-below-grade level, so that is where you'd see the names. The names were a big issue as well.

Construction began in March 2006. Protestors were on the site already because a lot of people were unhappy with the design. A couple of months later it was revealed that the cost of this memorial was going to be one billion dollars. That forced the mayor, who also serves as the head of the foundation that's raising money for the memorial, to order the memorial committee to bring it in under $500 million. And that is the first time the families I work with got involved.

The families felt they were never included in the development process and in my estimation they were not. The names issue was particularly galling. You would have to climb down to see your loved ones. People went berserk over that and they created another organization: put it above ground .org. And they rejected the way the names were to be arranged. The architect always used the word random, and the families keep saying this was not a random event, it was planned over time and there was nothing random about it. We had a rally in February, 2006. Our signs said things like "Raise the memorial" and "Our sons are not random names." Today as we speak the names are still random, though they are grouped according to "meaningful adjacencies" -- for example if you were in the north tower, you end up in the north tower area. But if you're looking for someone like a friend from high school, you would still have to go to a kiosk or a person with a book, just like at the Vietnam memorial, to find this person. A better example is a memorial in the firehouse across the street. On that memorial every one of the firefighters is listed by rank and in alphabetical order so you can find them very easily.

Another dispute concerns a senior member of the power company, a man high up in the Con Ed power structure, who showed up at Ground Zero to assist in the emergency response. He showed up down there on 9-11 and he was killed. They found him next to the chief of the fire department.

Guess how they have him categorized? He was a visitor. That is the category they put him in. His family, as you can understand, was very upset about this. There's probably going to be litigation on this issue, saying they want their loved one's name off the memorial. That's how bad this process is right now. This speaks to the point about whose story is being told here.

Jerzy Nowak's story (3): "We started dreaming together"

Thirty-two dead at Virginia Tech, resulting from a damaged mind. Nearly 3,000 dead at the World Trade Center and the Pentagon and a field in Pennsylvania resulting from twisted religious fanaticism. Another 1,700, possibly more, in Hurricane Katrina, resulting from wind, water and human carelessness. Uncounted more deaths in tragic events every year in the United States and across the world. Nothing can erase the grief those losses left, or make sense of their senselessness. But humans do sometimes find a way to create something positive from their pain. At Virginia Tech, Jerzy Nowak closed his personal account of the 4-16 tragedy by recounting the creation of the Center for Peace Studies and Violence Prevention, which now occupies the space in Norris Hall where the shootings, including that of his wife, Jocelyne Couture-Nowak, occurred:

> Remember Francine [his stepdaughter] who was handling the media? She was giving interviews in both French and English, and the French BBC asked her what do you think should be done with Norris Hall? And she said, you know, there should be a peace center there. And the media took it on and it was all over Canadian newspapers and some here. And then she came to me and said I hope it's okay that I suggested there should be a peace center in Norris Hall. And that's where the concept started.
>
> There was an announcement made that Norris Hall will not be used for classes. There will be offices. A few weeks later the faculty members who lost their spouses had a gathering and one of them said well, what will happen with Norris Hall and how about this peace center we've heard of through the media? So then on a visit with the provost who was introducing a new employee and who came to my house, I said, I have this concept of violence prevention and promotion of peace, and I said I don't mind competing for this space if there was a competition. And he said the space has been allocated but people are refusing to move in. So, long story short, the competition was announced and it was overwhelming to me that without announcing or advertising that we were developing this concept, we had close to 20 people around the table during our first meetings. Literally it was spontaneous. This was the positive outcome of this tragedy.
>
> A few people had PTSD but a large group of people became dynamic. People started communicating with each other. Different disciplines were coming together. I worked with engineers and everybody from across the

campus. And we started dreaming together. The program is student-centered. The mission is research, education and leadership to prevent violence, promote peace and enhance human security, to provide opportunities for student engagement in prevention of violence and contribution to peacemaking. An immediate outcome of creating the center was a contribution to the post-traumatic healing process, with primarily the families but also the entire community, the community who interact with us and who heard about us.

To fulfill this primary goal of student-centered mission, I spoke to the students who started the Teach for Madame program. My wife was called Madame by her students. Some of them spontaneously came to me and said they had this idea to teach French culture and language in the Harding Elementary School. I talked to them about the teaching philosophy of my wife, and her contribution to early childhood education. I actually had a suitcase of props of hers and I had put it in the garage so I could think later what to do with it. So the next day I brought this trash bag and said here are these props. She made them all -- she was a really passionate teacher. The students started a 501c(3) charter organization raising money and building a community around it.

We're trying to develop two concentration areas, violence prevention and conflict resolution, and peace studies. We'll be developing a minor. The fundamental approach to this is the students will do it, and it will be multi-disciplinary. We will also try new approaches to develop leadership skills -- not teaching about leadership but actually developing leadership skills. The first thing we're going to organize is a program working in the high school. My daughter is planning to organize a studies for peace movement, affiliated with the students for nonviolence club, in her school as a branch. In the longer term we are aiming at the development of an effective student support network that includes evolution of self-governance, developing responsive protocols for safety and security plans, awareness of post-traumatic stress symptoms, enhancing recovery. Unless students are part of it will never work. Students have to take responsibility. There's a violence prevention committee which has members from the campus and the town.

We plan to have 32 peace fellowships supported by 32 endowments, which is symbolic. Interest from the endowment will be used to foster the student activities we're talking about.

The major challenge in this society, I believe, is securing a safe school environment as a key obligation. We hear about school violence over and over again. This society is destroying itself. We live in a gun culture with media violence and too much crime and guns too readily available. Thus

the process of creating a safe school is more important than ever before in ensuring stress free learning environment.

* * *

Appendix 1

About the Center for Peace Studies and Violence Prevention

The Virginia Tech Center for Peace Studies and Violence Prevention is a student-centered cross-disciplinary undertaking that builds on the academic, cultural, and security initiatives that evolved within the Virginia Tech community after the tragedy of April 16, 2007. Since its inception on July 1, 2008, the Center has adopted three thematic areas:

- The prevention of violence
- Peace studies
- Creation of opportunities for the development of new leaders for this Century

Vision

Advance scholarship, and practice violence prevention and peace through engagement with local and global communities.

Mission

Foster cross-disciplinary research, education, and development of leadership opportunities that prevent violence, promote peace and advance human security.

Focus

To guide program implementation during its formative years the CPSVP will focus on formation of a dynamic student support network responsible for different parts of the campus safety and security plan, i.e., awareness, identification of early distress symptoms, violence prevention, post traumatic recovery/healing process. This work will be led by the student organizations affiliated with the Center.

Research facilitated by the Center will address the complexity of socioeconomic realities of communities with a high proportion of youth at risk. To fulfill this objective, the Center will foster integration of the most current advances in science, engineering, communication and technology into hands-on experiences in K-12 curricula. Students, faculty, staff, and external partners affiliated with the Center, will actively participate in the design and implementation of 3 individual projects, taking advantage of the strength of each targeted community. Working with teachers, school boards, parents, local businesses, and communities, the Center facilitates development of customized approaches to learning.

Goals

The CPSVP will advance the scholarship and practice of violence prevention and peace by:

- Providing opportunities for student engagement in prevention of violence and peace building
- Fostering integration of disciplines in the creation of new knowledge and skills
- Ensuring development of engaged leadership for working with youth at risk

Objectives

Short Term (1-3 years):

- Organize and convene the 2010 Student Symposium for Violence Prevention, entitled Cultivating Peace: An International Symposium for Violence Prevention on the Virginia Tech campus.
- Contribute to the post-traumatic healing process of the victim families and friends, injured students and alumni, Virginia Tech, Blacksburg community, and others affected by the tragedy of April 16, 2007.
- Facilitate formation of a Students for Non-Violence (SNV) undergraduate/graduate student club affiliated with the Center. (completed).
- Contribute (jointly with the Students for Non-Violence club) to the campus safety and security initiatives via creation of a Students' Support Network.
- Participate in the development and implementation of an undergraduate minor area of study in Violence Prevention and Peace Studies, and generate funds for faculty instruction, advising and coordinating the minor.
- Lead a formation of an inter-institutional consortium developing post graduate certificate in Transformative Leadership.
- Establish a network of collaborators to secure competitive funding for the implementation of cross-disciplinary hands-on experiences in K-12 curricula at schools with high proportion of youth at risk.
- Organize and contribute to workshops, seminars, conferences, and cross-disciplinary research and outreach projects related to prevention of violence, peace and justice.
- Recruit and appoint an External Advisory Council comprised of professionals with expertise in youth at risk and prevention of violence.
- Initiate web-based fundraising for the Center and its program.
- Develop a strategic plan for the medium- and long-term objectives of the Center.

Medium term (4-8 years):

- Review and update strategic plan.
- Continue fostering direct participation of students in the campus safety programs.
- Work with teachers, school boards, parents, local businesses and communities to facilitate transformation of the role of school in the lives of youth by developing customized approaches to the learning style of each child/adolescent.
- Equip Virginia Tech students with the knowledge and skills to serve as resource personnel, role models, and leaders in the implementation of the hands-on customized learning opportunities for youth at risk.

- Develop and test a model approach to dealing with youth at risk based on the integration of local resources.
- Continue organizing and participating in workshops, seminars and conferences related to violence prevention, peace and justice.
- Generate $5 million in donations and endowments to establish five Endowed Fellowships for Virginia Tech students to conduct research on youth at risk and prevention of violence.

Long term (9-14 years):

- Review and update strategic plan.
- Generate $20 million in endowments and donations to expand the Center's scope of operation.
- Expand curricular offerings and implement an undergraduate major in Violence Prevention, Peace, Justice and Development.
- Establish 32 Endowed Fellowships for undergraduate and graduate students, trained in a variety of disciplines, who will pursue research that promote hands-on interdisciplinary solutions relevant to the prevention of violence, promotion of peace and the development of leadership skills toward improving the socio-economic transformation of rural and semi-rural communities.

Source: http://www.cpsvp.vt.edu/about.html

Appendix 2

Mission Statement of the Academy for Critical Incident Analysis

The Academy for Critical Incident Analysis, at John Jay College of Criminal Justice, has been established with the support of the Dart Foundation, to promote and disseminate scholarly research relating to the emergence, management and consequences of critical incidents. ACIA sponsors scholarship and research, hosts conferences and symposiums, and maintains research archives of incident records. ACIA also supports the development and dissemination of course curricula and supporting media for the teaching of critical incident analysis, and supports related instruction at the graduate and undergraduate level at John Jay College.

Appendix 3

Roster of Participants

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