

Perspectives on Success: Issues and Priorities for All-Hazard Incident Management Teams

Findings from the 2008 All-Hazard IMT
Training and Education Conference

March 8, 2009



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AHIMT Training and Education Conference 2008

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Dear Incident Management and NIMS Stakeholders:

On February 28, 2003, the White House issued Homeland Security Presidential Directive (HSPD)-5, *Management of Domestic Incidents*, directing the development and administration of the National Incident Management System (NIMS). NIMS provides a consistent nationwide foundation to enable Federal, State¹, tribal, and local governments², nongovernmental organizations (NGOs), and the private sector to work together to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity.

The *Command and Management* component of NIMS is designed to enable effective and efficient incident management and coordination by providing a flexible, scalable, standardized incident management structure. One of the three key organizational constructs of Command and Management is the Incident Command System (ICS). Originally developed in the 1970s, ICS is a widely applicable management system designed to enable effective, efficient incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure.

Incidents typically begin and end locally and are managed on a daily basis at the lowest possible geographical, organizational, and jurisdictional level. However, there are instances in which successful incident management operations depend on the involvement of multiple jurisdictions, levels of government, functional agencies, and/or emergency responder disciplines with a greater degree of incident management expertise.

An Incident Management Team (IMT) is an incident command organization consisting of trained and experienced personnel who respond to an incident or event to provide logistical, planning, financial, and operational support to manage an emergency or event. An IMT is typically made up of the Command and General Staff positions in ICS and typically includes other appropriate ICS positions that can be deployed or activated as needed. These individuals are trained in not only the core concepts of the Incident Command System, but also in teamwork, team dynamics,

¹ As defined in the Homeland Security Act of 2002 P.L.I 07-296, the term "State" means any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any possession of the United States" 6 U.S.C. 101(14)

² As defined in the Homeland Security Act of 2002, Section 2(10): the term "Local government" means "(A) county, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments ... regional or interstate government entity, or agency or instrumentality of a local government: an Indian tribe or authorized tribal organization, or in Alaska a Native village or Alaska Regional Native Corporation: and a rural community, unincorporated town or village, or other public entity" 6 U.S.C. 101(10)

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and the specific responsibilities and duties of the ICS positions they fill. Utilizing members who represent multiple disciplines to fill team positions provides a variety of knowledge, skills, and abilities to manage all-hazard incidents and events. This is the concept behind the development of the All-Hazard Incident Management Team (AHIMT) program: to provide local/regional incident management capability that can quickly assist a jurisdiction(s) when its own incident management capabilities are overwhelmed or exceeded. Since its inception in 2003, the AHIMT program has grown to include approximately fifty to sixty teams and is considered one of the most beneficial outcomes of the implementation of NIMS. Because new teams are being developed each month, the program must expand to meet their needs.

HSPD-5 also requires the Department of Homeland Security (DHS) to establish a mechanism for ongoing coordination to provide strategic direction for and oversight of NIMS and its components, including Command and Management and the Incident Command System. The Incident Management Systems Integration (IMSI) Division (formerly the NIMS Integration Center) located in FEMA's National Integration Center was established to support both routine maintenance and the continuous development, refinement, and implementation of NIMS. A number of stakeholder working groups and work projects address various elements of developing and implementing the components of NIMS, including the Incident Management Working Group (IMWG). The IMWG has the responsibility for developing ICS, for providing the direction that can help guide the development of incident management capability in the nation, and for coordinating with other internal and external agencies and entities that are working toward the same goal.

In October 2008, a national learning conference was convened in DeKalb, Illinois on the campus of Northern Illinois University. Over one hundred AHIMT managers, training coordinators, and AHIMT members representing 30 states and Puerto Rico attended the conference to discuss issues and opportunities surrounding the development of AHIMTs. Stakeholders were asked to discuss their concerns and priorities to provide input for a research project.

The result of that research is this report. This report is intended to assist DHS, FEMA, and the associated and related agencies, offices, programs, and working groups in developing the strategy, infrastructure, and guidance required for a robust incident management capability in the spirit of the NIMS.

Sincerely,

/s/

2008 AHIMT-TEC Conference Committee

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Executive Summary

In October 2008, over one hundred AHIMT team managers, training coordinators, and team members representing over 30 states and Puerto Rico attended a national learning conference to discuss issues and opportunities surrounding the development of All-Hazard Incident Management Teams (AHIMTs). Conference organizers used a Q-methodology to systematically identify, record, and prioritize the broad array of issues AHIMT stakeholders raised. The Q-methodology uses factor analysis to identify patterns of viewpoints across a spectrum of individuals, and allows the researcher to construct typologies of values or perceptions.³ It also imposes a minimum bias by an analyst.

Overall, 112 AHIMT stakeholders participated in this study. The analysis shows that they fall into eight distinct groups of at least ten members each, according to the correlation among their responses (see Appendix F).

The top 4 issues that participants identified as ‘most important’ were:

Standards. As indicated by statement #1, participants expressed a clear and strong preference for a national qualification standard to ensure a basic minimum proficiency.

Connections and Tools. As indicated by statement #27, participants are hungry for tools, best practices, and connections to their peers across the country.

Funding. Participants felt the need for a predictable and steady source of funding for standing up an IMT and maintaining the team’s and individual members’ viability (qualifications and credentials). In the opinion of participants, establishing, developing, and maintaining an IMT are not trivial efforts, and given the strategic need to be able to respond to disasters, federal funding support is essential for establishing, developing, and maintaining state and local Type 3 All-Hazard IMTs.

Training. After establishing a team, training is essential to ensure that the team reaches a level of proficiency that will ensure its safety and the safety of others who depend on the team. Critical training infrastructure to support a performance-based qualification system includes standard instructor-led training courses and exercises and qualified instructors to lead them.⁴



³ The investigator who performed this analysis has employed this methodology to facilitate systematic documentation and analysis of the opinions of emergency responders related to other topics in support of DHS programs. For details, see the following: “Review of Emergency Response Capability Needs.” 2008. Prepared for The United States Department of Homeland Security’s Federal Emergency Management Agency, National Preparedness Directorate, System Support Division, and Science & Technology Directorate, Office of State and Local Preparedness by Michelle Royal, Amy Donahue, and Aidan Kirby; and “Incident Management Team All-Risk Operations and Management Study” 2003. Prepared for the United States Forest Service Region 8 and the Federal Emergency Management Agency Region 6, at the Center for Policy Analysis and Management, University of Connecticut by Amy K. Donahue.

⁴ Participants also indicated their support for a steady pipeline of qualified instructors (see statement 33). The Type 3 AHIMT program is faced with two conflicting imperatives. The first imperative is to ensure high-quality training delivered by qualified and credentialed instructors – for

Introduction

All-Hazard Incident Management Teams (AHIMTs) are a relatively recent development. While they are born of decades of effort to develop a coherent, effective incident management system and of long experience with incident management, especially in the wildland community, the extension of the Incident Management Team model to create state and local all-hazard teams is still in its early stages. As teams mature, and states and local governments learn how to employ and collaborate with them, teams confront needs and challenges that demand attention to ensure that a robust capability can emerge nationwide.

In October 2008, a national learning conference was convened in DeKalb, Illinois on the campus of Northern Illinois University. Over one hundred team managers, training coordinators, and AHIMT members representing 30 states and Puerto Rico attended the conference to discuss issues and opportunities surrounding the development of AHIMTs. To help government decision-makers, the teams themselves and the Department of Homeland Security, which supports and enables the AHIMT program to better understand the myriad challenges and needs teams face, the 2008 Training and Education Conference Team asked AHIMT stakeholders directly about their concerns and priorities.

This paper both describes the structured methodology used to identify and prioritize participant issues and presents the findings and recommendations of participants. The paper then focuses on the top ten recommendations of the stakeholders by providing a summary of any existing work and brief recommendations of future efforts needed to implement each recommendation.

Methodology

Rather than present a general discussion format for the conference, organizers sought to systematically identify, record, and prioritize the concerns of AHIMT stakeholders. In order to capture the broad array of issues AHIMT stakeholders might raise, a technique that facilitates methodical study of human subjectivity was required to ensure this process would proceed with minimum bias imposed by an analyst.

AHIMT Training and Education Conference 2008
"Building Partnerships"
October 15 & 16, 2008 - DeKalb, IL

This is a unique and rare opportunity for the Incident Management community involved in the All-Hazard Incident Management Team program including Team members, coordinators, and managers, to communicate to DHS personnel the needed support and priorities for NIMS products that support the AHIMT program. Topics include Position Task Checklists/Booklets, training requirements and the credentialing process, the revised ICS forms, grants and funding, deployment standards, and other essential products. The outcome of this Training and Education Conference will be a set of white papers describing the needs, priorities, and systems essential for the continued development of the AHIMT program and incident management capability. Attendees will leave with valuable Lessons Learned and Best Practices of developing and maintaining AHIMTs.

Conference Location & Check in: Northern Illinois University Convocation Center
1525 West Lincoln Highway, DeKalb, IL 60115

Registration Opens: July 28, 2008
Hotel Reservation Deadline: September 22, 2008
Registration Deadline: October 1, 2008

Hotel Accommodations: Best Western DeKalb Inn & Suite
\$79.00 per night
1525 W. Lincoln Highway, DeKalb, IL 60115
815-758-8661 (Phone) - 815-758-8091 (Fax)
Complimentary breakfast
24 hour business office
www.bestwestern.com/DeKalbInnSuites
Guests need to identify they are with AHIMT-EC

Register at www.AHIMT.net

ICF INTERNATIONAL
IMTC
ONLY \$50.00 Registration Fee
For questions/comments contact Dana Hays at dahays@nims1010.com or 603-483-7800

example someone with the appropriate teaching experience and ability who is also currently qualified in a position on a national Type 1 or 2 team would generally be considered highly qualified as an instructor. The second imperative is to meet the high demand for training. Given that the AHIMT program is relatively young and many teams are in the "establish" or "developing" phase there is a high demand for training and exercises, as well as job shadowing/mentoring opportunities. This leads to a potential trade-off between *quality* and *quantity* in the areas of training and qualifications of AHIMT members.

The method chosen for this study was Q-methodology, which uses factor analysis to identify patterns of viewpoints across a spectrum of individuals, and allows the researcher to construct typologies of values or perceptions. The first step in this method is to specify the range of opinion about the topic of interest. The variety of relevant beliefs is captured in a series of opinion statements—in this case, a series of statements that articulate challenges that face AHIMTs. The participants then complete an exercise in which they systematically rank-order the statements (issues) according to the extent to which they agree or disagree that the statements are important. Finally, the Q-factor analytic method is applied to these rankings to determine the extent to which respondents can be grouped around common beliefs or consensuses about the needs. This methodology is explained in detail in **Appendix G**.

The Q technique offers several important advantages to the analysis: first, it allows a large group of respondents to communicate their opinions about a large number of points more efficiently and systematically than they could in open discussion. Second, it facilitates correlation of these respondents to see where areas of consensus and disagreement lie, thereby signaling potential opportunities and problems for future policy development efforts, grant funding decisions, and assessment programs. Third, it is non-deterministic—that is, respondents are not constrained by some *a priori* structure or scale of opinion about the topic under investigation (as there are approximately 8×10^{47} possible ways of rank-ordering the statements). Finally, it promotes much more systematic investigation and characterization of opinions and perspectives than does interviewing or focus group discussions alone.

In this study, a naturalistic sample of statements was derived from the AHIMT stakeholders themselves. A base set of issues was first obtained through a simple written survey, administered in advance of the conference, which asked conference participants what issues they thought were most pressing. Specifically, people were asked: “What are the 5 most critical issues you would like to see addressed during the conference?” These responses were reviewed and were determined to fall into six general areas:

- **Training,**
- **Credentialing,**
- **Deployment,**
- **Formation,**
- **Funding, and**
- **Support.**

Then, when the participants arrived at the conference, they were asked to sign up to participate in focus group discussions of two of these six topics that were of particular interest to them. Each participant therefore participated in a focus group about one topic in the morning and in a different focus group about a second topic in the afternoon. Ultimately a total of twelve focus groups (two per topic) were conducted. Focus groups were facilitated, limited to twenty participants each, and lasted ninety minutes.

In each focus group the facilitator led the group in a discussion of the topic designed to surface important challenges, concerns, issues, or opportunities related to the topic at hand.

Participants were encouraged to think broadly about their own AHIMT’s capabilities, limitations, opportunities, and constraints they face and about internal and external conditions that either enable or hinder their AHIMTs. Participants were then asked to propose specific statements that articulated a specific need, issue, or concern. Other participants in the focus group commented on each statement, and statements were modified until all participants in the room concurred that the statements accurately represented the issues in question. Note, however, that participants could freely agree or disagree with any statement—the point of the exercise was to ensure that the concept was characterized in a way that reflected the common understanding of all participants. This approach of having the participants generate the statements has the key advantages that the participants understand what the statements mean and that a variety of opinions about the relative importance of each statement are allowed. Further, the very process of discussing and explaining the issues allows participants to share perspectives and ideas and therefore to learn from each other.

The statements generated during the twelve focus group sessions were consolidated to form a single list, redundancies were eliminated, and statements were vetted to assure a fairly common level of analysis (i.e. statements were culled to focus on more major issues rather than small, particular details). This process produced a final sample of forty issue statements (included in **Appendix A**). The 112 participating AHIMT stakeholders then ranked the forty issue statements, using a specified strategy (explained in **Appendix G** and shown in **Appendix H**). Each participant’s issue statement ranking was compared with all other participants rankings, using common statistical techniques. This permitted the research team to accomplish two objectives:



First, the analysis identified groups comprised of people who organized the issue statements similarly according to their levels of agreement with each statement. This analysis revealed groups with different perspectives about the issues; the people whose sorts correspond significantly with a given group share similar views on the issues about AHIMTs. Interpretation of the groups was based on the construction of a “model Q-sort” for each group (**Appendix F**), which is somewhat akin to a weighted average of their individual responses. These model sorts permitted the statements that uniquely define each group of people to be identified, and the sorts were compared to discover areas of consensus and dissension about the subject in question.

Second, the model Q sorts show how each group would have ranked each issue. By calculating average ranking (weighted by group size) for each issue, we determined which of the issues were deemed most pressing and which least pressing by the participants (**Appendix C**). The

statements were also rank-ordered according to the degree of consensus about how important they were (**Appendix D**).

In addition to ranking the statements, participants were asked to respond to two open-ended questions to explain why they indicated their agreement or disagreement with issues they chose. The value of this information was to allow additional insight into the rankings. Of the 112 participants who ranked statements, 107 answered question number 1, and 112 answered question number 2. The two questions were:

Question # 1: Note the three issues that you most agreed were an important priority. Briefly explain why you agreed that these issues are priorities.

Question # 2: Note the issues that you most disagreed were an important priority. Briefly explain why you disagreed that these issues are a priority.

Overall Findings and Recommendations

Analysis of the 112 AHIMT stakeholders participating in this study shows that conference participants fall into eight distinct groups of at least ten members each, according to the correlation among their responses. Each group has an identifiable perspective on the challenges and issues AHIMTs face. This perspective is described by a “model” sort, which summarizes how that group sorted the forty issue statements on average. The model sorts for each group are shown in **Appendix F**, which also identifies which issues each group sees as the most important priorities to address and which they see as least important and, in addition, reports the number of participants in each group.

Although it is possible to identify a number of findings based on different statistical analyses of the data, in this section we will focus on just a few of the most important and/or actionable findings. One finding that stood out was that of the 40 issue statements, only one issue was never ranked as the highest priority (marked as a +3 on the form), suggesting that essentially all 40 issues are important to some degree.

Top Four Most Important Issues. The four most important issues for participants can be summarized as a desire for standards, connections and tools, funding, and training.

Standards. As indicated by statement 1, participants expressed a clear and strong desire for a national qualification standard to ensure a basic minimum proficiency.

Statement 1. A national standard that specifies required minimum training, knowledge, and experience should be developed for all IMTs and for all positions.

Connections and Tools. As indicated by statement 27, participants are hungry for tools, best practices, and connections to their peers across the country.

Statement 27. A single web-based repository for important information and resources (team contacts; lessons learned; best practices; ICS forms; model SOPs, IAPs, and MOUs; example policies and procedures) should be created.

Funding. Participants expressed the importance of providing a predictable and steady source of funding for standing up an IMT and maintaining the team’s and individual members’ viability (qualifications and credentials). In the opinion of participants, establishing, developing, and maintaining an IMT are not trivial efforts, and, given the strategic need to be able to respond to disasters, federal funding support is essential for establishing, developing, and maintaining state and local Type 3 all-hazard IMTs.

Statement 22. The federal government should identify a specific, sustainable funding stream for the creation and ongoing support of AHIMTs

Training. After establishing a team, training is essential to ensure that the team reaches a level of proficiency that will ensure their safety and the safety of others who depend on them. Critical training infrastructure to support a performance-based qualification system includes standard instructor-led training courses and exercises and qualified instructors to lead them.⁵

Statement 37. DHS needs to assure that sufficient ICS, team, position-specific, and unit-level training opportunities are available to meet credentialing requirements.

These four statements were considered most important based on the number of participants who indicated that the statement was the in the ‘most important’ (+3) category. Moreover, and not surprisingly, when the preferences of each of eight groups were averaged, the same four statements were the top four most important items, although in a different order (by statement number: 37, 27, 1, and 22). **Appendix B** shows all forty statements ordered according to the number of participants who indicated that they consider the issue to be “most important” (in the +3 category). This is the list used for the *Top Ten Recommendations*. While the participants were not asked to rank the statements from 1-40, Appendix B does show which issues a preponderance of participants considered most important compared to the remaining issues.

To help provide additional context and depth to the numerical rankings of the statements, participants also answered questions about why they ranked their statements as most

⁵ Participants also indicated their support for a steady pipeline of qualified instructors (see statement 33). The Type 3 AHIMT program is faced with two conflicting imperatives. The first imperative is to ensure high-quality training delivered by qualified and credentialed instructors – for example, someone with the appropriate teaching ability and experience who is also currently qualified in a position on a national Type 1 or 2 team would generally be considered highly-qualified as an instructor. The second imperative is to meet the demand for training courses. Given that the AHIMT program is relatively young and many teams are in the “establish” or “developing” phase, there is a high demand for training and exercises, as well as job shadowing/mentoring opportunities. This leads to a potential trade-off between *quality* and *quantity* in the areas of training and qualifications of AHIMT members.

important or least important. The following analysis highlights the most common themes identified for items respondents classified as “most strongly agree” with. The themes most commonly found throughout the analysis include:

- National standards are required
- Single web-based contact for teams is beneficial
- Funding is paramount
- Access to quality training is needed
- A single lead agency is required

These themes generally reinforce the ranking of the top four statements above.

Appendix C presents the issues rank-ordered from most important to least important based on the average ranking (weighted by group size). This ranking is slightly different from ranking the issues by counting the number of individual participants who ranked each statement as ‘most important’ (+3) shown in Appendix B.

In **Appendix D**, the issue statements were rank-ordered according to the degree of consensus about how important they are. Statements that appear at the top of the table are not necessarily more important to the groups; rather, they indicate that the eight groups hold similar views about how important or unimportant the statement is in their view. Statements at the top of the table indicate that all groups were relatively similar in how they ranked the statement on the +3 to -3 scale. Statements at the bottom indicate that there was little agreement across the eight groups about the level of importance of the statement – in other words, the groups had very different views on the importance of the statement.

“One finding that stood out was that of the 40 issue statements only one issue was never ranked as the highest priority (marked as a +3 on the form), suggesting that essentially all 40 issues are important to some degree.”

Appendix A contains the statements in their original random order.

Appendix B shows all forty statements ordered according to the number of participants who indicated that they consider the issue to be “most important” (in the +3 category) - the list used for the *Top Ten Recommendations*.

Appendix C contains the statements ranked by the average of the group’s agreement with the statement.

Appendix D contains the statements ranked by group consensus across the eight groups.

Top Ten Recommendations, Present State, and Recommended Additional Work

The results of this study provide important insight into the issues and needs of the AHIMT program based on the consensus of the personnel most familiar and involved with the challenges of developing, of sustaining, and of mobilizing this important resource. It is important to note that of all the issues existing in the landscape of the AHIMT program, these forty statements are considered at the top of the participants' lists and should be reviewed, analyzed, and used as guidance as the AHIMT program undergoes needed future development. Implementing all the recommendations necessary to address the entire list may be too aggressive a challenge, at least in the short term. To initiate the process, the first ten statements derived from Appendix B are presented along with a brief summary of work that is currently in progress. To close the gap between the current state and the recommendation, a brief description of recommended additional work is included where appropriate. The remaining thirty statements should be analyzed, and statements with similar recommendations that could be implemented together should be considered for simultaneous implementation.

- (1) A national standard that specifies required minimum training, knowledge, and experience should be developed for all IMTs and for all positions.**

Present State:

The IMSID, through the Incident Management Working Group (IMWG), has produced the draft *Type-3 Incident Management Personnel Qualifications Guide*⁶, which specifies the minimum training, knowledge, and experience of the Command and General Staff for Type-3 incident management personnel. The draft guideline also covers several additional incident management positions but not "all" as indicated in the recommendation. The draft guideline is being prepared for public review.

Additional Work Recommended:

After the comments received during the public comment period have been adjudicated and the document released, the IMWG should review the additional incident management positions that Type-3 incident management teams may request during a response and add those positions considered appropriate for inclusion into the document. A systematic process should be developed for recognizing additional positions as they are recognized or developed.

⁶ Draft title subject to change

- (2) **A single web-based repository for important information and resources (team contacts; lessons learned; best practices; ICS forms; model Standard Operational Procedures, Incident Action Plans, and Memorandums Of Understandings; example policies and procedures) should be created.**

Present State:

The DHS operates several web portals intended for information-sharing and preparedness information-sharing, including the Lessons Learned Information-Sharing (LLIS.gov) secure web site that is the national network of Lessons Learned, Best Practices, innovative ideas, and preparedness information for Homeland Security and emergency response professionals. This site currently does not house the types of materials and information the recommendation is suggesting.

Additional Work Recommended:

Research the capability of the existing DHS web portals including the LLIS site to determine if they can accommodate the types of materials and organizational structure suggested in the recommendation, particularly if information already on the site(s) or if potential AHIMT information is considered sensitive. If it is feasible to use the LLIS site, then implementation options need research. If using the LLIS site is not feasible, then research is needed to determine the most feasible and economical approach to implement the recommendation.

- (3) **The federal government should identify a specific, sustainable funding stream for the creation and ongoing support of AHIMTs.**

Present State: The development and maintenance of most AHIMTs are at least partially funded through the Homeland Security Grant Program (HSGP), with most using the State Homeland Security Grant Program or the Urban Area Security Initiative Grant program funding sources. There appears to be a low level of awareness that development and maintenance of AHIMTs are eligible for HSGP funding. However, the HSGP does not provide a funding stream specifically for or exclusively dedicated to AHIMT creation and ongoing support.

Additional Work Recommended:

The use of HSGP funds for the development and maintenance of AHIMTs should be specifically addressed in the grant program guidance documents. The Type-3/ AHIMT development guidance previously discussed should also include potential sources of funding and information describing eligible HSGP funding costs. A funding stream specifically for or exclusively dedicated to AHIMT creation and ongoing support could be explored if analysis indicates that use of the HSGP provides insufficient financial resources to ensure a robust national incident management capability.

(4) DHS needs to assure that sufficient ICS, team, position-specific, and unit-level training opportunities are available to meet credentialing requirements.

Present State: The position-specific curricula for the Command and General Staff positions are completed. A few Train-the-Trainer courses were attempted using the Pre-Net system and relied on FEMA regions to identify participants and to host and manage logistics for the sessions. Evaluations indicated a number of concerns about the sessions: a) the delivery method was not optimal and instructor-led sessions would be preferred; b) facilities were not optimal for the sessions with respect to equipment, space, and access; c) logistical and support functions were inadequate – including not identifying qualified participants and reproducing but not providing assembled course manuals. Statements number #33 and #34 (ordered as 14th and 19th) indicate there is significant concern over preserving the integrity of the instructional process and the instructors authorized to instruct the position-specific courses.

Additional Work Recommended: The federal AHIMT lead agency needs to ensure that, as the delivery system continues to be developed, it balances integrity, quality, and accessibility. The primary sources of the existing shadowing, mentoring, and training opportunities are derived from wildland fire response opportunities. It is critical for the integrity of the developing DHS all-hazard system qualifications program that personnel and teams trained and credentialed under the program can perform as expected during these training and mentoring opportunities. The lead federal agency will need to ensure that the program has the assurance of quality built in to withstand the scrutiny of other well-developed pre-existing qualifications programs, or those opportunities may become more difficult to obtain, viewed skeptically, or their qualifications challenged.

(5) The federal government should identify and define a lead federal agency to support, fund, and coordinate the AHIMT program.

Present State:

The US Fire Administration maintains the current AHIMT program. The program receives a small budget and one FTE for the AHIMT program from DHS sources. When the program was developed in 2003, no one knew that six years later the level of interest in the program would dramatically escalate as it became a critical component of developing the *local incident management capability* called for and discussed in numerous large and small scale after-action reports and reviews.

Additional Work Recommended:

For the program to support the development and maintenance of the continually increasing number of AHIMTs, their training requests, and the coordination necessary for proper management including shadowing and training opportunities, a robust

strategic plan needs to be developed to recognize this critical resource and to provide the crucial support. Potential options for staffing, resources, funding, responsibilities, and implementation need to be developed, vetted, and carefully implemented. The agency, department, program, or office designated to oversee this program should include personnel with significant experience on a type 1 or 2 incident management team to provide the needed level of incident management team expertise and stakeholder credibility. The possibility of using a cooperative interagency effort to assist in the program oversight could be explored.

(6) DHS should develop and disseminate a standardized road map that explains the steps in team formation from concept to completion.

Present Status:

As a direct result of this recommendation, the Incident Management Working Group is in the process of developing a document titled, *All-Hazard/Type-3 Team Development Guide*⁷, which will outline the steps, recommendations, lessons learned, and best practices of states and local jurisdictions which currently have or are developing Type-3 / All-Hazard Incident Management Teams. The proposed guidance document will contain the information requested in the recommendation and is projected to be completed in the spring of 2009.

Additional Work Recommended:

As new information, guidance, and lessons learned are developed, periodic updates to the guide will be necessary. The federal agency overseeing the AHIMT program (see number 5) should be tasked to provide future updates to the document.

(7) DHS should create a national deployment coordination center that tracks all teams nationwide, their capabilities, and their availability for emergency and planned events.

Status: There are numerous state and national coordination systems in use, including intra-state mutual aid systems, the EMAC system, the wildland fire-based system, and others. This makes it difficult to ensure that incident management team deployments and uses are consistent and coordinated, and that training opportunities are effectively distributed and utilized.

Additional Work Recommended: The IAFC has written a national strategy titled, “A National Mutual Aid System for the Fire Service - A Strategic Plan” for mutual aid including a national coordination system, based on the wildland fire model. Other groups have also proposed national coordination models based on the wildland fire

⁷ Draft title subject to change.

model. These models should be researched and analyzed to determine the feasibility of adapting one or more of them as a national coordination system and center.

(8) A national credentialing working group should be established to resolve issues and concerns related to credentialing.

Status: Under the NIMS Guidance: *National Credentialing Definition and Criteria* issued by the Federal Emergency Management Agency (FEMA, NG0002, March 2007), credentialing is a systematic effort to make sure that personnel can be identified, their authorization for deployment confirmed, *and* their qualifications related to the performance of any job, in any position, or assigned task or duty are understood by both the receiving jurisdiction and the sending organization. After reviewing the context of the comments surrounding this statement, it appears that the respondents are more concerned with the qualifications portion of the credentialing process. Given that, the broader guidance document tentatively titled, “Incident Management Personnel Qualifications Guidance⁸,” under development by the Incident Management Working Group (IMWG) may provide the guidance to resolve the issue stated, although it does not include a national working group.

Additional Work Recommended:

Both the *Type-3 Incident Management Personnel Qualifications Guide* and the *Incident Management Personnel Qualifications Guidance* need to be completed, vetted, and disseminated to the stakeholders involved in this research project. A follow-up survey needs to be developed and distributed to them to ensure that this issue has been addressed, and if not, what further action needs to be completed.

(9) DHS should ensure that State Homeland Security Strategies include IMT’s as a state, regional, and local resource.

Status: Incident management teams are mentioned in numerous plans and procedures but their capabilities and usefulness remain largely unrecognized and untapped, leading to frequently ineffective use (type-1 teams used to manage mobilization centers that would more appropriately be managed by type-3 teams.) It is also unclear if provisions and coordination are in place to ensure that IMTs are available as a resource when they will be needed.

Additional Work Recommended: The federal agency managing the AHIMT program should consider a stakeholder and potential IMT users outreach program to improve their knowledge of IMTs and their capabilities, their usefulness, and their operating

⁸ Draft title subject to change.

parameters. This outreach program could then be expanded to ensure that states' Homeland Security Strategies include IMTs as a state, regional, and local resource.

(10) A process for specifying equivalency of training and experience across disciplines should be established.

Status: The document tentatively titled, "Incident Management Personnel Qualifications Guidance," under development by the Incident Management Working Group (IMWG) will provide significant guidance to agencies seeking procedures for developing a qualifications process for their jurisdictions.

Additional Work Recommended: The IMWG needs to ensure that the document titled "Incident Management Personnel Qualifications Guidance" include a process for specifying equivalency of training and experience across disciplines.

Appendix A. Statements in Random Order

Ordered	Description
•	A national standard that specifies required minimum training, knowledge, and experience should be developed for all IMTs and for all positions.
•	The credentialing system should enable people to advance within the AHIMT structure.
•	Procedures and funding should be developed to support ongoing maintenance of qualifications.
•	A national credentialing working group should be established to resolve issues and concerns related to credentialing.
•	A process for specifying equivalency of training and experience across disciplines should be established.
•	DHS should create a national deployment coordination center that tracks all teams nationwide, their capabilities, and their availability for emergency and planned events.
•	A system should be created to assign AHIMT members to Type 1, Type 2, and other more established Type 3 teams to gain experience and necessary credentials.
•	A system for how agencies request IMTs should be developed.
•	Guidelines should be developed to help agencies decide what level of IMT services they need.
•	A standardized procedure (including model MOUs) for deployment of teams should be developed.
•	A national standard should be established that identifies what minimum capabilities an AHIMT should deploy with.
•	A clear set of national guidelines that define all types of IMTs and explain what they can do should be published.
•	A national system and cache should be developed to provide logistical support to deployed AHIMTs.
•	The question of who has the authority to type teams and credential team members above Type 3 needs to be resolved on a national level.
•	DHS should develop and disseminate a standardized road map that explains the steps in team formation from concept to completion.
•	Clear guidelines for how to develop and transition an existing team from Type 4 to Type 3, or Type 3 to Type 2, should be developed.

- Guidance for how to integrate trained and experienced personnel who are no longer affiliated with a sponsoring agency should be developed.
- The federal government should provide marketing and technical assistance to help state and local agencies understand the value, mission, roles, and capabilities of IMTs.
- The various federal government agencies that provide funds for AHIMTs should work together to alleviate confusion and resolve conflicting priorities and requirements.
- The federal government needs to clearly identify the costs associated with standing up and maintaining an AHIMT.
- All IMTs should be incorporated into the Resource Ordering and Status System (ROSS).
- The federal government should identify a specific, sustainable funding stream for the creation and ongoing support of AHIMTs.
- The federal agencies that fund AHIMTs need to provide clear guidance about what grant funding can be used for.
- To promote effective planning, DHS should publish a calendar that identifies key milestones related to program objectives, funding, and standards development.
- The federal government should enforce funding pass-through requirements and timelines to ensure AHIMTs receive funding to meet their needs and support federal priorities.
- DHS should ensure that State Homeland Security Strategies include IMTs as a state, regional, and local resource.
- A single web-based repository for important information and resources (team contacts; lessons learned; best practices; ICS forms; model SOPs, IAPs, and MOUs; example policies and procedures) should be created.
- DHS should provide ongoing support for an annual AHIMT learning conference to promote continuous improvement of the AHIMT capability.
- The federal government should identify and define a lead federal agency to support, fund, and coordinate the AHIMT program.
- DHS should facilitate the ability of AHIMTs to access field training opportunities, including providing funding and access to national travel discounts.
- DHS should develop and administer a national training calendar that tracks all IMT team-level and position-related courses and exercises.
- The relationship between national-level teams, state teams, and AHIMTs should be formalized and expanded to enhance field training, shadowing, and opportunities to build experience.
- A program for the ongoing development of AHIMT instructors should be developed to ensure a steady pipeline of qualified instructors.

- AHIMT instructor qualification standards that address knowledge, skills, and experience should be established and enforced.
- A broad range of disciplines should be represented in the AHIMT instructor cadre nationwide.
- Mandated training should reflect adopted standards, and training must be available at the time standards are released.
- DHS needs to assure that sufficient ICS, team, position-specific, and unit-level training opportunities are available to meet credentialing requirements.
- A standard progressive training matrix that includes classroom, shadowing, trainee status, and full-level deployment needs to be developed for AHIMTs.
- DHS should develop and distribute standard user-friendly software to automate ICS forms.
- The performance of AHIMTs should be evaluated regularly.

Appendix B. Statements ordered according to the number of participants that considered each most important.

<i>Ordered</i>	<i>Statement</i>	<i>Description</i>
1	1	A national standard that specifies required minimum training, knowledge, and experience should be developed for all IMTs and for all positions.
2	27	A single web-based repository for important information and resources (team contacts; lessons learned; best practices; ICS forms; model SOPs, IAPs, and MOUs; example policies and procedures) should be created.
3	22	The federal government should identify a specific, sustainable funding stream for the creation and ongoing support of AHIMTs.
4	37	DHS needs to assure that sufficient ICS, team, position-specific, and unit-level training opportunities are available to meet credentialing requirements.
5	29	The federal government should identify and define a lead federal agency to support, fund, and coordinate the AHIMT program.
6	15	DHS should develop and disseminate a standardized road map that explains the steps in team formation from concept to completion.
7	6	DHS should create a national deployment coordination center that tracks all teams nationwide, their capabilities, and their availability for emergency and planned events.
8	4	A national credentialing working group should be established to resolve issues and concerns related to credentialing.
9	26	DHS should ensure that State Homeland Security Strategies include IMTs as a state, regional, and local resource.
10	5	A process for specifying equivalency of training and experience across disciplines should be established.
11	7	A system should be created to assign AHIMT members to Type 1, Type 2, and other more established Type 3 teams to gain experience and necessary credentials.
12	13	A national system and cache should be developed to provide logistical support to deployed AHIMTs.
13	31	DHS should develop and administer a national training calendar that tracks all IMT team-level and position-related courses and exercises.
14	34	AHIMT instructor qualification standards that address knowledge, skills, and experience should be established and enforced.

15	21	All IMTs should be incorporated into the Resource Ordering and Status System (ROSS).
16	25	The federal government should enforce funding pass-through requirements and timelines to ensure AHIMTs receive funding to meet their needs and support federal priorities.
17	30	DHS should facilitate the ability of AHIMTs to access field training opportunities, including providing funding and access to national travel discounts.
18	32	The relationship between national-level teams, state teams, and AHIMTs should be formalized and expanded to enhance field training, shadowing, and opportunities to build experience.
19	33	A program for the ongoing development of AHIMT instructors should be developed to ensure a steady pipeline of qualified instructors.
20	9	Guidelines should be developed to help agencies decide what level of IMT services they need.
21	12	A clear set of national guidelines that define all types of IMTs and explain what they can do should be published.
22	35	A broad range of disciplines should be represented in the AHIMT instructor cadre nationwide.
23	3	Procedures and funding should be developed to support ongoing maintenance of qualifications.
24	11	A national standard should be established that identifies what minimum capabilities an AHIMT should deploy with.
25	38	A standard progressive training matrix that includes classroom, shadowing, trainee status, and full-level deployment needs to be developed for AHIMTs.
26	17	Guidance for how to integrate trained and experienced personnel who are no longer affiliated with a sponsoring agency should be developed.
27	18	The federal government should provide marketing and technical assistance to help state and local agencies understand the value, mission, roles, and capabilities of IMTs.
28	19	The various federal government agencies that provide funds for AHIMTs should work together to alleviate confusion and resolve conflicting priorities and requirements.
29	36	Mandated training should reflect adopted standards, and training must be available at the time standards are released.
30	39	DHS should develop and distribute standard user-friendly software to automate ICS forms.

31	2	The credentialing system should enable people to advance within the AHIMT structure.
32	8	A system for how agencies request IMTs should be developed.
33	10	A standardized procedure (including model MOUs) for deployment of teams should be developed.
34	16	Clear guidelines for how to develop and transition an existing team from Type 4 to Type 3, or Type 3 to Type 2, should be developed.
35	28	DHS should provide ongoing support for an annual AHIMT learning conference to promote continuous improvement of the AHIMT capability.
36	14	The question of who has the authority to type teams and credential team members above Type 3 needs to be resolved on a national level.
37	20	The federal government needs to clearly identify the costs associated with standing up and maintaining an AHIMT.
38	23	The federal agencies that fund AHIMTs need to provide clear guidance about what grant funding can be used for.
39	24	To promote effective planning, DHS should publish a calendar that identifies key milestones related to program objectives, funding, and standards development.
40	40	The performance of AHIMTs should be evaluated regularly.

Appendix C. Ordered According to the Degree of Agreement With the Statement.

(The average ranking that each **group** would give each statement is shown. These are weighted by group size, and statements are ordered from overall most agreement that the statement is important to least agreement that the statement is important).

#	Abbreviated Statement	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
37	DHS needs to assure that sufficient ICS, team, position-	3	3	2	1	3	1	2	0
27	A single web-based repository for important information	3	1	3	2	3	3	-1	2
1	A national standard that specifies required minimum training	3	0	1	3	3	1	2	2
22	The federal government should identify a specific, sustain	1	3	2	2	1	0	-2	2
32	The relationship between national-level teams, state teams	2	1	0	3	1	0	2	0
5	A process for specifying equivalency of training and experience	2	0	0	0	1	2	3	2
33	A program for the ongoing development of AHIMT instructors	1	0	1	2	1	1	1	0
4	A national credentialing working group should be established	1	0	0	1	0	-1	3	3
26	DHS should ensure that State Homeland Security Strategies	0	-1	3	2	0	-1	0	3
15	DHS should develop and disseminate a standardized road map	2	-2	3	1	-3	3	0	0
38	A standard progressive training matrix that includes	2	2	-1	-1	1	0	1	-2
30	DHS should facilitate the ability of AHIMTs to access field	1	2	0	0	2	-2	-1	0
36	Mandated training should reflect adopted standards, and tng	0	0	0	0	0	3	2	-1
29	The federal government should identify and define a lead fed	1	3	1	-1	-2	-2	-2	3
34	AHIMT instructor qualification standards that address	0	2	-1	0	1	0	1	-1
3	Procedures and funding should be developed to support ongoin	-2	2	1	-1	2	0	0	1
19	The various federal government agencies that provide funds	0	1	1	0	-2	1	0	0
6	DHS should create a national deployment coordination center	1	1	0	1	2	-3	-1	-2
2	The credentialing system should enable people to advance	-1	-1	0	1	0	0	3	1
28	DHS should provide ongoing support for an annual AHIMT conf	-1	1	1	0	0	0	-3	1
31	DHS should develop and administer a national training calend	2	0	-1	-3	2	-3	0	0
11	A national standard should be established that identifies	1	-1	-2	0	1	-1	-1	2
35	A broad range of disciplines should be represented in the	-1	-2	-2	1	2	2	1	0
12	A clear set of national guidelines that define all types	0	0	0	-1	0	-1	2	-2
7	A system should be created to assign AHIMT members to Type 1	0	0	-1	3	0	-2	0	-2
10	A standardized procedure (including model MOUs) for deploym	0	0	2	-1	-2	2	-2	-3
25	The federal government should enforce funding pass-through	-1	2	0	-2	-1	-1	-3	1
21	All IMTs should be incorporated into ROSS	0	1	-3	0	-1	-2	1	-1
23	The federal agencies that fund AHIMTs need to provide clear	-2	0	-1	-1	-1	1	0	1
17	Guidance for how to integrate trained and experienced pers	-3	1	-3	1	0	2	0	-1
16	Clear guidelines for how to develop and transition an exist	0	-1	-2	0	-2	1	1	-3
14	The question of who has the authority to type teams and	-2	-1	-2	-2	0	0	1	1
40	The performance of AHIMTs should be evaluated regularly	-1	-2	-1	-1	-1	1	0	-2
13	A national system and cache should be developed to provide	-1	-1	-2	2	-3	-3	-1	1
9	Guidelines should be developed to help agencies decide what	-2	-3	1	0	-2	0	-1	-1
39	DHS should develop and distribute standard user-friendly	0	-2	-3	-3	-1	2	-2	0
8	A system for how agencies request IMTs should be developed	-3	-3	2	-2	-1	-1	0	-1
18	The federal government should provide marketing and technic	-2	-3	2	-2	0	-2	-3	0
24	To promote effective planning, DHS should publish a calendar	-1	-2	-1	-3	-1	-1	-1	-1
20	The federal government needs to clearly identify the costs	-3	-1	0	-2	-3	0	-2	-3

Appendix D. Ordered by the Statistical Degree of Consensus Across the Eight Groups

(The average ranking that each **group** would give each statement is shown. Statements at the top of the table indicate the eight groups have a higher degree of agreement about the importance of the statement. Statements at the bottom indicate that there was little agreement across the eight groups about the importance of the statement).

#	Abbreviated Statement	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
33	A program for the ongoing development of AHIMT instructors	1	0	1	2	1	1	1	0
40	The performance of AHIMTs should be evaluated regularly	-1	-2	-1	-1	-1	1	0	-2
32	The relationship between national-level teams, state teams	2	1	0	3	1	0	2	0
34	AHIMT instructor qualification standards that address	0	2	-1	0	1	0	1	-1
12	A clear set of national guidelines that define all types	0	0	0	-1	0	-1	2	-2
19	The various federal government agencies that provide funds	0	1	1	0	-2	1	0	0
5	A process for specifying equivalency of training and exper	2	0	0	0	1	2	3	2
2	The credentialing system should enable people to advance	-1	-1	0	1	0	0	3	1
3	Procedures and funding should be developed to support ongoin	-2	2	1	-1	2	0	0	1
24	To promote effective planning, DHS should publish a calendar	-1	-2	-1	-3	-1	-1	-1	-1
36	Mandated training should reflect adopted standards, and tng	0	0	0	0	0	3	2	-1
37	DHS needs to assure that sufficient ICS, team, position-	3	3	2	1	3	1	2	0
16	Clear guidelines for how to develop and transition an exist	0	-1	-2	0	-2	1	1	-3
38	A standard progressive training matrix that includes	2	2	-1	-1	1	0	1	-2
35	A broad range of disciplines should be represented in the	-1	-2	-2	1	2	2	1	0
23	The federal agencies that fund AHIMTs need to provide clear	-2	0	-1	-1	-1	1	0	1
14	The question of who has the authority to type teams and	-2	-1	-2	-2	0	0	1	1
7	A system should be created to assign AHIMT members to Type 1	0	0	-1	3	0	-2	0	-2
28	DHS should provide ongoing support for an annual AHIMT conf	-1	1	1	0	0	0	-3	1
1	A national standard that specifies required minimum training	3	0	1	3	3	1	2	2
9	Guidelines should be developed to help agencies decide what	-2	-3	1	0	-2	0	-1	-1
11	A national standard should be established that identifies	1	-1	-2	0	1	-1	-1	2
20	The federal government needs to clearly identify the costs	-3	-1	0	-2	-3	0	-2	-3
30	DHS should facilitate the ability of AHIMTs to access field	1	2	0	0	2	-2	-1	0
8	A system for how agencies request IMTs should be developed	-3	-3	2	-2	-1	-1	0	-1
4	A national credentialing working group should be established	1	0	0	1	0	-1	3	3
39	DHS should develop and distribute standard user-friendly	0	-2	-3	-3	-1	2	-2	0
10	A standardized procedure (including model MOUs) for deploym	0	0	2	-1	-2	2	-2	-3
25	The federal government should enforce funding pass-through	-1	2	0	-2	-1	-1	-3	1
21	All IMTs should be incorporated into ROSS	0	1	-3	0	-1	-2	1	-1
27	A single web-based repository for important information	3	1	3	2	3	3	-1	2
13	A national system and cache should be developed to provide	-1	-1	-2	2	-3	-3	-1	1
26	DHS should ensure that State Homeland Security Strategies	0	-1	3	2	0	-1	0	3
22	The federal government should identify a specific, sustain	1	3	2	2	1	0	-2	2
6	DHS should create a national deployment coordination center	1	1	0	1	2	-3	-1	-2
18	The federal government should provide marketing and technic	-2	-3	2	-2	0	-2	-3	0
15	DHS should develop and disseminate a standardized road map	2	-2	3	1	-3	3	0	0
17	Guidance for how to integrate trained and experienced pers	-3	1	-3	1	0	2	0	-1
31	DHS should develop and administer a national training calend	2	0	-1	-3	2	-3	0	0
29	The federal government should identify and define a lead fed	1	3	1	-1	-2	-2	-2	3

Appendix E. Thematic Analysis of Two Open-Ended Questions

Conference participants were asked to follow a systematic process for ranking 40 issue statements according to how strongly they agreed or disagreed that the issue was an important priority to address. As part of this ranking process, participants were asked to respond to two open-ended questions to explain **why** they agreed or disagreed with items they chose. The two open-ended questions were:

Question # 1: *Note the three issues that you most **agreed** were an important priority. Briefly explain why you agreed that these issues are priorities.*

Question # 2: *Note the issues that you most **disagreed** were an important priority. Briefly explain why you disagreed that these issues are a priority*

The remainder of this appendix presents a description of the issues identified as most and least important and provides a thematic analysis of reasons why issues were categorized as such.

Question # 1: *Note the three issues that you most **agreed** were an important priority. Briefly explain why you agreed that these issues are priorities.*

- There were no issues significantly identified as “the most important priority;” the item identified most often was identified by 29 out of 107 respondents (27% of respondents.)
- Five respondents did not provide justification as to why they ranked their issues as strongly agree
- Of the 40 statements identified, all statements were identified by at least one person as an issue he or she most strongly agreed was an important priority.
- The most frequent issues reported as “most strongly agree” with include:
 - Item # 1 (n=29): A national standard that specifies required minimum training, knowledge, and experience should be developed for all IMTs and for all positions
 - Item # 27 (n=26): A single web-based repository for important information and resources (team contacts, lessons learned, best practices, ICS forms model SOPs, IAPs, and MOUs, example policies and procedures) should be created
 - Item # 22 (n=25): The federal government should identify a specific, sustainable funding stream for the creation and ongoing support of AHIMT
 - Item # 37 (n=25): DHS needs to assure that sufficient ICS, team, position-specific, and unit-level training opportunities are available to meet credentialing requirements

- Item #29 (n=24): The federal government should identify and define a lead federal agency to support, fund, and coordinate the AHIMT program

The following chart displays the frequency of all issues identified as most important to address. A description of the issue statements is found in **Appendix A**.

<i>Frequency Of Issues Most Important To Address</i>		
<i>Issue Statement</i>	<i>#</i>	
<i>Item #</i>	<i>responses</i>	<i>% respondents (n=112)</i>
1	29	27%
27	26	24%
22	25	23%
37	25	23%
29	24	22%
15	16	15%
6	14	13%
4	13	12%
26	13	12%
5	10	9%
7	10	9%
13	8	7%
31	8	7%
34	8	7%
21	7	7%
25	7	7%
30	7	7%
32	7	7%
33	6	6%
9	5	5%
12	5	5%
35	5	5%
3	4	4%
11	4	4%
38	4	4%
17	3	3%
18	3	3%
19	3	3%
36	3	3%
39	3	3%
2	2	2%
8	2	2%
10	2	2%
16	2	2%
28	2	2%
14	1	1%
20	1	1%
23	1	1%

Thematic Analysis for question #1

The following analysis highlights the most common themes identified for items that respondents classified as “most strongly agree.” Numbers in parentheses indicate the number of respondents that included the theme in their open-ended responses. Respondents may have provided comments on more than one theme. Items analyzed included a minimum of ten respondents. The themes most commonly found throughout the analysis include:

- National standards are required
- Single web-based contact for teams is beneficial
- Funding is paramount
- Access to quality training is necessary
- A single lead agency is required

1: A national standard that specifies required minimum training, knowledge, and experience should be developed for all IMTs and for all positions (29)

- National standards offer consistency (10)
- Provides for better utilization of resources with a known minimum competence (9)
- Developing national standards is not an easy task but necessary, help is needed (2)
- Provides for a qualified and capable team (2)
- Standards should be based on ‘wildland’ and ‘non-wildland’ work /experience (2)
- Need to establish national attainable standards – and provide support and education in the development – deployment and sustainability of AHIMT’s (2)
- Many individuals come into the AHIMT and are not properly trained to meet minimum requirements (2)
- Must be at national level, otherwise each state will develop their own (1)
- Should be developed either generically to support all-hazard missions, or be designed for specific missions (1)
- Alleviates confusion and provides credibility to teams and individuals (1)
- Provides ability to mentor and train and to progress as team members (1)
- Offers the state agencies the knowledge that responding AHIMT is a trusted and qualified response option (1)

27: A single web-based repository for important information and resources (team contacts, lessons learned, best practices, ICS forms model SOPs, IAPs, and MOUs, example policies and procedures) should be created (26)

- Single point of contact for teams, saves time, and increases efficiency (5)
- Provides consistency, reduces duplication (3)
- Single place to seek out information, rather than having to ‘hunt out’ information (3)
- Establishes contacts (2)
- Provides information on resources (2)
- Offers ability to learn from others (1)

22: The federal government should identify a specific, sustainable funding stream for the creation and ongoing support of AHIMT (25)

- Sustainable funding is paramount (7)
- Federal funding is required to sustain effort, cannot be done locally (4)
- Funding is an issue for training/certifying teams (2)
- Financial assistance is crucial (2)
- Funding is the biggest obstacle in rural areas (1)
- Regional AHIMTs receive no state or federal funding (1)
- Staff members are volunteers with other primary occupations (1)
- Lack of funding is one of our main problems (1)
- Funding is required with clear guidance (1)
- Lead agency needed to support, fund, and coordinate the AHIMT program (1)
- Disasters usually deplete all needed resources very quickly; funding is critical (1)
- Top priorities deal with funding (1)
- Need stable funding source to get team training and shadowing (1)

37: DHS needs to assure that sufficient ICS, team, position-specific, and unit-level training opportunities are available to meet credentialing requirements (25)

- Ability to access quality training is a serious problem (3)
- Courses must be offered on an ongoing basis to maintain team position qualifications (3)
- Training is an essential element (3)
- Position specific training is required (3)
- Availability of training (3)
- Training is necessary to keep members moving toward the goal of deployment and credentialing (2)
- Training supports credentialing and is a large part of the AHIMT program (2)
- Instructor credibility and qualifications need improvement (2)
- Must be a standard to ensure requirements are met (2)
- Same training opportunities on both coasts (2)
- Training of AHIMT members is priority issue (1)
- Training funding (1)

#29: The federal government should identify and define a lead federal agency to support, fund, and coordinate the AHIMT program (24)

- A single lead agency is required (12)
- Little guidance is in place; federal oversight is needed (3)
- No standardized approach and no authority for 'type' teams (2)
- Federal coordination is essential for success (2)
- Too many agencies confuse everyone (1)
- Central location is greatly needed (1)

#15: DHS should develop and disseminate a standardized road map that explains the steps in team formation from concept to completion (16)

- Roadmap assists teams, defines costs, establishes timeframes, and outlines needed commitments (4)
- Roadmap alleviates confusion and provides guidance to developing teams (2)
- Standardized, step-by-step roadmap expedites early-stage team development (1)
- Rules/direction keeps changing making it difficult to develop a plan (1)
- Top down direction and organization is necessary (1)

#6: DHS should create a national deployment coordination center that tracks all teams nationwide, their capabilities, and their availability for emergency and planned events (14)

- System to keep track of teams and show availability of team in a rotation (2)
- Efficient process, saves time, money, and confusion (2)
- Status during deployment needs to be centralized at a national level (2)
- Inconsistency between teams that get deployed all the time and those who do not get called to deploy (2)
- Deployment tracking and planning are very important (2)
- System would ensure that teams are not assigned above or below their abilities (1)
- Centralizing 24/7 dispatching will ensure smooth ordering response (1)
- National coordination center would streamline the request and fulfillment of teams, as well as track availability (1)
- Too many different ways ongoing currently to deploy teams; deployment has to be centralized at one location nationally (1)

4: A national credentialing working group should be established to resolve issues and concerns related to credentialing (13)

- Credentialing is a key component/priority (6)
- Credentialing is the single most important issue (1)
- Credentialing system must accommodate 'non-wildland' personnel (1)
- Strong leadership will be required (1)
- Credentialing is key to decision of team size and formation (1)
- Credentialing must be established in a professional and creditable way (1)
- Credentialing assists in setting guidelines and protocols (1)
- A major issue in the NIMS world is misunderstanding nationwide (1)
- Credentialing system produces the road map to follow through the system (1)

#26: DHS should ensure State Homeland Security strategies include IMTs as a state, regional, and local resource (13)

- Not many agencies actually know what an IMT is and how it can help them (2)
- Federal strategies should reference IMTs as a resource (1)
- Including IMTs would ensure funding and support (1)
- Including IMTs would enable smoother transition into management positions (1)
- Including IMTs would ensure agencies know they can call on an IMT (1)

- Ensures relevance and provides credibility to the IMT concept (1)
- States need some source of direction to successfully implement IMTs (1)
- DHS must take the lead to show the importance of IMTs; this needs to be relayed to the state as a mandate (1)
- DHS should develop formation steps so states can successfully implement their IMTs up to standards (1)
- Consistency among IMT positions is critical (1)

#5: A process for specifying equivalency of training and experience across disciplines should be established (10)

- Given broad level of experience and expertise individuals bring to the table, standard guidelines are required to equate training and experience (2)
- Recognizing equivalency/experience optimizes individuals with demonstrated KSAs (1)
- Opportunity to train with other agencies gives greater depth in the knowledge base (1)
- Many training and exercise opportunities at the local level are as good or better than many of the federal ICS courses, but are not recognized as an official alternative (1)
- Develop standards based on competencies (1)
- Speeds the process and takes advantage of experience and positions held (1)
- Once established, guidance is needed (1)

#7: A system should be created to assign AHIMT members to Type 1, Type 2, and other more established Type 3 teams to gain experience and necessary credentials (10)

- Assign AHIMT to Type 1 & 2 teams (2).
- Ensures the teams are given the opportunity to gain experience and to develop as viable resources (2)
- Teams would know whom they are working with and when they might be deployed (2)
- Working with the established Type 1 and 2 teams on actual incidents provides the best experience (2)
- Shadowing cross training is non-existent, and it is the single most important need of upcoming teams (1)
- Connection to the Type 1 or 2 team provides on-going mentoring and support and keeps motivated people interested (1)

Question # 2: Note the issues that you most **disagreed** were an important priority. Briefly explain why you disagree that these issues are a priority

- Of the 40 statements identified, every statement was identified by at least one person as an issue they most strongly disagreed with
- Six respondents did not provide justification as to why they ranked their issues as strongly disagree
- There were no issues overwhelmingly identified as “most strongly disagree;” the item identified most often was identified by 23 out of 112 responses (21% of respondents)
- The most frequent issues reported as “most strongly disagree” with include:
 - Item # 17 (n=23): Guidance for how to integrate trained and experienced personnel who are no longer affiliated with a sponsoring agency should be developed
 - Item # 20 (n=21): The federal government needs to clearly identify the costs associated with standing up and maintaining an AHIMT
 - Item # 18 (n=20): The federal government should provide marketing and technical assistance to help state and local agencies understand the value, mission, roles, and capabilities of IMTs
 - Item # 13 (n=19): A national system and cache should be developed to provide logistical support to deployed AHIMTs
 - Item # 21 (n=19): All IMTs should be incorporated into the Resource Ordering and Status System (ROSS)
 - Item # 39 (n=19): DHS should develop and distribute standard user-friendly software to automate ICS forms

The following chart displays the frequency of all issues identified as least important to address. A description of the issue statements is found in **Appendix A**.

<i>Frequency Of Issues Least Important To Address</i>		
<i>Issue Statement</i>	<i>#</i>	
<i>Item #</i>	<i>responses</i>	<i>% respondents (n=112)</i>
17	23	21%
20	21	19%
18	20	18%
13	19	17%
21	19	17%
39	19	17%
24	17	15%
8	16	14%
9	15	13%
40	13	12%
14	10	9%
16	10	9%
6	9	8%
31	9	8%
25	8	7%
2	7	6%
29	7	6%
11	6	5%
19	6	5%
28	6	5%
35	6	5%
4	5	4%
12	5	4%
15	5	4%
23	5	4%
10	4	4%
30	4	4%
38	4	4%
5	3	3%
7	3	3%
26	3	3%
34	3	3%
3	2	2%
36	2	2%
1	1	1%
22	1	1%
37	1	1%
N/A	6	5%

Thematic Analysis for question #2

The following analysis illustrates the most common themes identified for items that respondents classified as “most strongly disagree.” Numbers in parentheses indicate the number of respondents that included the theme in their open-ended response. Respondents may have provided comments in more than one theme. Items analyzed included a minimum of 10 respondents. The themes most commonly found throughout the analysis include:

- Should be done at state/local level
- Other issues more pressing
- Already in place

#17: Guidance for how to integrate trained and experienced personnel who are no longer affiliated with a sponsoring agency should be developed (23)

- Should be done at state/local level (10)
- Not a wide-spread problem (3)
- No specific comment (3)
- Other issues more pressing (2)
- When it’s time to go it’s time to go (2)
- A clear guideline will already provide for the integration of any personnel (1)
- Move up to Type 1 or 2 teams (1)
- Focus on covering liabilities of agencies and organizations before volunteers (1)
- A lost cause (1)

#20: The federal government needs to clearly identify the costs associated with standing up and maintaining an AHIMT (21)

- Costs vary across the nation (10)
- Should be done at state/local level (9)
- Other issues more pressing (2)
- Costs are constantly changing and will not remain accurate (1)
- Information is already available (1)
- Unreasonable expectation (1)
- No specific comment (1)

#18: The federal government should provide marketing and technical assistance to help state and local agencies understand the value, mission, roles, and capabilities of IMTs (20)

- Should be done at state/local level (12)
- Use of funds elsewhere (not marketing) (4)
- Other issues more pressing (3)
- No specific comment (3)

13: A national system and cache should be developed to provide logistical support to deployed AHIMTs (19)

- Should be done at state/local level (7)

- Other issues more pressing (4)
- Not cost-effective (3)
- Unreasonable expectation (2)
- Difficult to train and equip staff (2)
- Inefficient (2)
- No specific comment (2)
- More confusion to team coordinators (1)
- Beneficial once you become an established team (1)
- Too many variables in deployment scenarios (1)
- Teams should be self-sufficient (1)
- Cache should be available for all teams, not just AHIMT (1)

21: All IMTs should be incorporated into the Resource Ordering and Status System (ROSS) (19)

- Should be done at state/local level (5)
- ROSS system must be improved (3)
- ROSS is fire-based (2)
- Small Type 2 teams will not have the ability/resources (2)
- Lack of understanding of the ROSS system (2)
- Already in place (2)
- No specific comment (2)
- Other issues more pressing (1)
- Too difficult to keep up with, always changing (1)
- Need own DHS system (1)
- Resource ordering procedure will be different in every case scenario (1)
- Effort is not worth the time (1)

39: DHS should develop and distribute standard user-friendly software to automate ICS forms (19)

- Already in place (16)
- Not a one size fits all and should not be “one” program (1)
- Do not understand computer or software (1)
- Should be done at state/local level (1)

24: To promote effective planning DHS should publish a calendar that identifies key milestones related to program objectives, funding, and standards development (17)

- Each team will develop at its own rate based on local need and capability (5)
- Other issues more pressing (3)
- Should be done at state/local level (3)
- Already in place (2)
- Statement not clear/too vague (2)
- Not relevant to planning (1)
- A calendar will follow if national level training standards are set (1)

- Only good if maintained and consolidated under DHS (1)

#8: A system for how agencies request IMTs should be developed (16)

- Should be done at state/local level (6)
- Other issues more pressing (5)
- Already in place (4)
- Need to be included in Feds system (1)
- Depends on various factors (1)
- No specific comment (1)

#9: Guidelines should be developed to help agencies decide what level of IMT services they need (15)

- Already in place (4)
- Should be done at state/local level (3)
- Cannot standardize due to variability and type of incident (3)
- Not necessary (2)
- Other issues more pressing (2)
- Unreasonable – fed agencies do not know what is best (1)
- Agency in need of help should be able to call on anyone (1)
- No specific comment (1)

#40: The performance of AHIMTs should be evaluated regularly (13)

- Should be done at state/local level (5)
- Does not specify who does the evaluation (3)
- Must evaluate instructors first (1)
- Not comfortable with team evaluation (1)
- Cost for overhead support and tracking (1)
- They are fluff (1)
- No specific comment (1)

#14: The question of who has the authority to type teams and credential team members above type 3 needs to be resolved on a national level (10)

- Should be done at state/local level (4)
- Already in place (4)
- Other issues more pressing (3)
- DHS “AHS” must be removed or enforced (1)

#16: Clear guidelines for how to develop and transition an existing team from Type 4 to type 3 or type 3 to type 2 should be developed (10)

- Already in place (7)
- Should be done at state/local level (2)

- Hard to quantify because of overlap (1)
- Not cost effective (1)
- Should be based on the amount of resources that come with the typing (1)
- Other issues more pressing (1)

Appendix F. Q Analysis Factor Summaries (Model Sorts for Each Group)

GROUP 1

24 of 112 (21.4%) respondents loaded significantly

Circled numbers indicate statements that significantly distinguish each particular group by how they are ranked within the sort framework (Statistical significance level is $p < .01$).

-3 Most strongly disagree	-2 Strongly disagree	-1 Disagree	0 Neutral	+1 Agree	+2 Strongly agree	+3 Most strongly agree
8	9	28	12	4	5	1
20	3	2	26	11	31	37
17	18	40	39	22	38	27
	14	25	36	29	32	
	23	35	21	16	15	
		13	10	30		
		24	19	33		
			16			
			7			
			34			

Most Strongly Agree:

1. A national standard that specifies required minimum training, knowledge, and experience should be developed for all IMTs and for all positions.
37. DHS needs to assure that sufficient ICS, team, position-specific, and unit-level training opportunities are available to meet credentialing requirements.
27. A single web-based repository for important information and resources (team contacts; lessons learned; best practices; ICS forms; model SOPs, IAPs, and MOUs; example policies and procedures) should be created.

Most Strongly Disagree:

8. A system for how agencies request IMTs should be developed.
20. The federal government needs to clearly identify the costs associated with standing up and maintaining an AHIMT.
17. Guidance for how to integrate trained and experienced personnel who are no longer affiliated with a sponsoring agency should be developed.

GROUP 2

20 of 112 (17.9%) respondents loaded significantly

Circled numbers indicate statements that significantly distinguish each particular group by how they are ranked within the sort framework (Statistical significance level is $p < .01$).

-3 Most strongly disagree	-2 Strongly disagree	-1 Disagree	0 Neutral	+1 Agree	+2 Strongly agree	+3 Most strongly agree
8	15	2	33	27	30	22
18	35	11	1	19	25	29
9	39	16	36	21	3	37
	40	14	23	6	34	
	24	26	5	28	38	
		13	10	32		
		20	12	17		
			4			
			31			
			7			

Most Strongly Agree:

- 22. The federal government should identify a specific, sustainable funding stream for the creation and ongoing support of AHIMTs.
- 29. The federal government should identify and define a lead federal agency to support, fund, and coordinate the AHIMT program.
- 37. DHS needs to assure that sufficient ICS, team, position-specific, and unit-level training opportunities are available to meet credentialing requirements.

Most Strongly Disagree:

- 8. A system for how agencies request IMTs should be developed.
- 18. The federal government should provide marketing and technical assistance to help state and local agencies understand the value, mission, roles, and capabilities of IMTs.
- 9. Guidelines should be developed to help agencies decide what level of IMT services they need.

GROUP 3

16 of 112 (14.3%) respondents loaded significantly

Circled numbers indicate statements that significantly distinguish each particular group by how they are ranked within the sort framework (Statistical significance level is $p < .01$).

-3 Most strongly disagree	-2 Strongly disagree	-1 Disagree	0 Neutral	+1 Agree	+2 Strongly agree	+3 Most strongly agree
21	35	34	30	33	22	26
17	16	40	32	3	18	27
39	11	38	20	28	8	15
	14	24	4	9	37	
	13	7	2	29	10	
		23	36	19		
		31	6	1		
			5			
			12			
			25			

Most Strongly Agree:

26. DHS should ensure that State Homeland Security Strategies include IMTs as a state, regional, and local resource.
27. A single web-based repository for important information and resources (team contacts; lessons learned; best practices; ICS forms; model SOPs, IAPs, and MOUs; example policies and procedures) should be created.
15. DHS should develop and disseminate a standardized road map that explains the steps in team formation from concept to completion.

Most Strongly Disagree:

21. All IMTs should be incorporated into the Resource Ordering and Status System (ROSS).
17. Guidance for how to integrate trained and experienced personnel who are no longer affiliated with a sponsoring agency should be developed.
39. DHS should develop and distribute standard user-friendly software to automate ICS forms.

GROUP 4

13 of 112 (11.6%) respondents loaded significantly

Circled numbers indicate statements that significantly distinguish each particular group by how they are ranked within the sort framework (Statistical significance level is $p < .01$).

-3 Most strongly disagree	-2 Strongly disagree	-1 Disagree	0 Neutral	+1 Agree	+2 Strongly agree	+3 Most strongly agree
39	18	10	34	35	26	1
24	8	3	28	15	27	7
31	14	38	30	17	33	32
	20	29	5	4	13	
	25	12	11	2	22	
		23	21	6		
		40	9	37		
			19			
			16			
			36			

Most Strongly Agree:

1. A national standard that specifies required minimum training, knowledge, and experience should be developed for all IMTs and for all positions.
7. A system should be created to assign AHIMT members to Type 1, Type 2, and other more established Type 3 teams to gain experience and necessary credentials.
32. The relationship between national-level teams, state teams, and AHIMTs should be formalized and expanded to enhance field training, shadowing, and opportunities to build experience.

Most Strongly Disagree:

39. DHS should develop and distribute standard user-friendly software to automate ICS forms.
24. To promote effective planning, DHS should publish a calendar that identifies key milestones related to program objectives, funding, and standards development.
31. DHS should develop and administer a national training calendar that tracks all IMT team-level and position-related courses and exercises.

GROUP 5

13 of 112 (11.64%) respondents loaded significantly

Circled numbers indicate statements that significantly distinguish each particular group by how they are ranked within the sort framework (Statistical significance level is $p < .01$).

-3 Most strongly disagree	-2 Strongly disagree	-1 Disagree	0 Neutral	+1 Agree	+2 Strongly agree	+3 Most strongly agree
15	16	39	17	34	31	37
13	29	21	2	33	30	1
20	9	24	28	11	35	27
	19	40	4	22	3	
	10	8	7	5	6	
		23	36	32		
		25	12	38		
			26			
			18			
			14			

Most Strongly Agree:

1. A national standard that specifies required minimum training, knowledge, and experience should be developed for all IMTs and for all positions.
37. DHS needs to assure that sufficient ICS, team, position-specific, and unit-level training opportunities are available to meet credentialing requirements.
27. A single web-based repository for important information and resources (team contacts; lessons learned; best practices; ICS forms; model SOPs, IAPs, and MOUs; example policies and procedures) should be created.

Most Strongly Disagree:

15. DHS should develop and disseminate a standardized road map that explains the steps in team formation from concept to completion.
20. The federal government needs to clearly identify the costs associated with standing up and maintaining an AHIMT.
13. A national system and cache should be developed to provide logistical support to deployed AHIMTs.

GROUP 6

12 of 112 (10.7%) respondents loaded significantly

Circled numbers indicate statements that significantly distinguish each particular group by how they are ranked within the sort framework (Statistical significance level is $p < .01$).

-3 Most strongly disagree	-2 Strongly disagree	-1 Disagree	0 Neutral	+1 Agree	+2 Strongly agree	+3 Most strongly agree
31	7	12	22	23	17	15
13	18	4	34	29	5	36
6	29	24	38	33	35	27
	21	25	3	37	10	
	30	11	20	16	39	
		26	28	1		
		8	9	40		
			14			
			32			
			2			

Most Strongly Agree:

15. DHS should develop and disseminate a standardized road map that explains the steps in team formation from concept to completion.
36. Mandated training should reflect adopted standards, and training must be available at the time standards are released.
27. A single web-based repository for important information and resources (team contacts; lessons learned; best practices; ICS forms; model SOPs, IAPs, and MOUs; example policies and procedures) should be created.

Most Strongly Disagree:

31. DHS should develop and administer a national training calendar that tracks all IMT team-level and position-related courses and exercises.
13. A national system and cache should be developed to provide logistical support to deployed AHIMTs.
6. DHS should create a national deployment coordination center that tracks all teams nationwide, their capabilities, and their availability for emergency and planned events.

GROUP 7

12 of 112 (10.7%) respondents loaded significantly

Circled numbers indicate statements that significantly distinguish each particular group by how they are ranked within the sort framework (Statistical significance level is $p < .01$).

-3 Most strongly disagree	-2 Strongly disagree	-1 Disagree	0 Neutral	+1 Agree	+2 Strongly agree	+3 Most strongly agree
25	20	30	23	21	37	④
②⑧	29	24	19	34	1	5
18	10	9	⑧	33	32	②
	39	13	7	16	⑫	
	⑫②	⑥	26	38	③⑥	
		11	31	14		
		⑫⑦	40	35		
			⑫⑦			
			3			
			15			

Most Strongly Agree:

4. A national credentialing working group should be established to resolve issues and concerns related to credentialing.
5. A process for specifying equivalency of training and experience across disciplines should be established.
2. The credentialing system should enable people to advance within the AHIMT structure.

Most Strongly Disagree:

25. The federal government should enforce funding pass-through requirements and timelines to ensure AHIMTs receive funding to meet their needs and support federal priorities.
28. DHS should provide ongoing support for an annual AHIMT learning conference to promote continuous improvement of the AHIMT capability.
18. The federal government should provide marketing and technical assistance to help state and local agencies understand the value, mission, roles, and capabilities of IMTs.

GROUP 8

10 of 112 (8.%) respondents loaded significantly

Circled numbers indicate statements that significantly distinguish each particular group by how they are ranked within the sort framework (Statistical significance level is $p < .01$).

-3 Most strongly disagree	-2 Strongly disagree	-1 Disagree	0 Neutral	+1 Agree	+2 Strongly agree	+3 Most strongly agree
16	7	21	35	25	22	29
10	6	36	18	23	27	4
20	40	34	19	3	11	26
	12	24	37	28	5	
	38	8	33	14	1	
		17	31	2		
		9	30	13		
			32			
			39			
			15			

Most Strongly Agree:

- 29. The federal government should identify and define a lead federal agency to support, fund, and coordinate the AHIMT program.
- 4. A national credentialing working group should be established to resolve issues and concerns related to credentialing.
- 26. DHS should ensure that State Homeland Security Strategies include IMTs as a state, regional, and local resource.

Most Strongly Disagree:

- 16. Clear guidelines for how to develop and transition an existing team from Type 4 to Type 3, or Type 3 to Type 2, should be developed.
- 20. The federal government needs to clearly identify the costs associated with standing up and maintaining an AHIMT.
- 10. A standardized procedure (including model MOUs) for deployment of teams should be developed.

Appendix G. Additional Technical Explanation

This appendix briefly explains the Q methodology, by which it is possible to measure how individuals perceive their environments and describes how the methodology was implemented in this study. Q methodology is an analytical technique credited to Stephenson (1935), that facilitates systematic study of human subjectivity, defined as “a person’s communication of his or her point of view” (McKeown and Thomas, 1988: 12). It is used to identify patterns of perceptions about a topic across a spectrum of individuals, and to construct typologies of perspectives based on interpreting these patterns. For a detailed description and technical explanation of the technique and a comprehensive review of its application, see in particular Brown (1980), McKeown and Thomas (1988), and Brown, Durning, and Selden (1998).

Q Sample and Sorting Process

The application of Q methodology rests fundamentally on the assemblage of communication about a subject, from which is drawn a sample of statements selected to represent the range of opinion. Participants each sort these opinion statements into a forced quasi-normal distribution according to the extent to which they agree or disagree with them. This sorting process produces what is called a “Q-sort,” or an individual’s set of relative rankings for all statements included in the sample. McKeown and Thomas (1988) explain that the rationale for using the forced quasi-normal structure is to facilitate systematic consideration of the statements in the sample. Respondents retain freedom to locate a statement anywhere in the distribution, and anywhere relative to the other statements, permitting billions of combinations (Brown, Durning, and Selden, 1998). The distribution thus does not have meaning as a conventional attitude index, but as a picture of the relative relationships of the statements for an individual, which might not be revealed if simple scales were used. It has been demonstrated that the shape of the distribution is statistically and substantively inconsequential (Brown, 1971 and 1980, and Cottle and McKeown, 1980). Thus, in Q methodology, the participants are treated as variables, the statements they sort comprise the sample, and the ranks assigned to the sample statements by a participant through the sorting process comprise observations on that participant. The mechanics of the sorting process are readily illustrated by an example of the instrument provided to respondents. The directions and form on which respondents recorded their responses provided in this study are shown in **Appendix H**.

An important objective at hand in this study is to explore how AHIMT members perceive issues and to prioritize these issues. While Brown points out that, “the selection of statements...for inclusion in a Q sample is of utmost importance but remains more an art than a science...” (1980: 186), there are established conventions for generating the sample. Following Brown’s (1980) recommendation, this study rests on a naturalistic sample (taken from members’ communications) to maximize the likelihood that the sample captures possible opinions to which the members can easily attach meaning. It is also structured to promote systematic

coverage of the topic of interest. For a detailed explanation of Q sample construction, see Brown (1980:186-191).

For this study, a structured, quasi-naturalistic sample of statements was generated from two sources: first, a base set of capability need statements was obtained from a preliminary survey of participants. These responses were reviewed and determined to fall into six general areas: training, credentialing, deployment, formation, funding, and support. Then, during the conference, the participants were asked to discuss their concerns in detail by participating in focus group discussions, each of which targeted one of these six topics. These processes produced a set of approximately 60 concerns. These statements were then categorized to ensure that all dealt with major issues, and redundancies (including capabilities that were closely related, though not identical) were eliminated. Lengthy descriptions were paraphrased for brevity. The full list was narrowed to the 40 most prevalent concerns that covered the full range of topics in a balanced way. The final sample of statements appears in **Appendix A**.

During a subsequent session at the conference, the 112 participants were asked to sort the randomly-ordered statements into a quasi-normal distribution ranging from -3 (most strongly disagree that this need is an important concern or issue) to +3 (most strongly agree that this need is an important concern or issue). Participants were asked to explain why they felt as they did about the statements with which they agreed and disagreed most strongly. In addition, participants were asked to provide some basic demographic information and information about their professional education and experience. *It is important to recognize that all forty of the issues identified are considered important by some participants.* The ranking process allows respondents to identify which of these important issues are most important and which of them are less important. Thus, a statement ranked -3 (most strongly disagree that this issue is an important priority) may not be unimportant, but is at least less important than 39 of the other issues.

Q Factor Analysis and Interpretation

The ways participants rank the statements (captured in the individual sorts) are compared using common factor analytic techniques to arrive at factors that represent groups of people who sorted the statements similarly. Thus, Q methodology effectively reveals different perspectives that exist; the people whose sorts load significantly on a given factor share similar views on the subject under study. Interpretation of the factors is based on the construction of a factor array, or “model Q-sort,” for each factor. This is accomplished by merging the sorts that loaded significantly on that factor, weighted according to their loadings, to achieve average scores for each statement, by factor. These model Q-sorts permit the statements that uniquely define each factor –and thus each group of people– to be identified.

Once the factor arrays are constructed, it remains to interpret them. Brown, Durning, and Selden (1998) suggest a three-step approach: First, identify those statements with which each group strongly agreed or disagreed. Next, describe the common theme presented by the array.

Finally, compare the groups. Because the Q approach is intensive – Q studies typically involve small numbers of respondents compared to survey techniques – it provides rich, detailed information about respondents’ views about a particular topic. In this sense, the Q technique promotes “situational representativeness” by causing each respondent to address and model the broad array of possible states that arise with respect to the topic under investigation (Brown, Durning, and Selden, 1998: 623). People who sort the sample similarly (and therefore load together) form groups that can be compared using the factors arrays to discover areas of consensus and dissension about the subject in question. Since the participants are not randomly sampled, Q method does not provide insight into how these known “subjectivities” are distributed across a population. Other worldviews may exist that might be revealed if different people were chosen (Selden et. al., 1999). It is possible, however, to look for patterns of other attributes across groups, such as variations in demographic characteristics, to lend insight into what might contribute to a person’s proclivity to adhere to a certain perspective. In this study, the Q-sorts of the respondents were correlated to create a 112 X 112 matrix of correlations between the sorters. This matrix was factor-analyzed using the principal components method. Eight factors with eigenvalues greater than unity were rotated using varimax. Eight distinct (weakly correlated) factors emerged for which the loadings of at least ten participants’ sorts were significant at $p \leq .01$. Thus, these factors each represent a particular perspective on capabilities requirements held by a group of AHIMT members. All members who load significantly on a factor have a similar view of these issues. The factor loading for each member represents the correlation of his/her sort with that factor. Further, as explained above, factors are interpreted according to a factor array. The arrays for each of the eight factors (or groups of AHIMT members) that emerged in this study are presented in Appendix F. In other words, Appendix F shows how those members that loaded on each factor sorted each statement as a weighted average (i.e. in which column of the distribution shown in Appendix F each group of members would have placed each statement). Then, using these arrays and their representative scores for each statement weighted by the size of each group, the statements were rank-ordered according to the degree of agreement with the statement overall (**Appendix C**). The statements were also rank ordered according to the degree of consensus about how important they are (**Appendix D**).

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Appendix H. Q Instrument

DIRECTIONS

You have been provided with 40 cards numbered from 1 to 40. Each card has an issue relevant to All-Hazard Incident Management Teams written on it. The cards are in no particular order. You have also been provided with a record form.

These directions lead you step-by-step through a systematic process for ranking the cards according to how strongly you agree or disagree that the issue on each one is an important priority to address.

- STEP 1. Begin by reading the cards one at a time. As you read them, place them in three piles:
- Place those with issues that you agree are important priorities in one pile.
 - Those cards with issues that you disagree are important priorities in a second pile.
 - Those cards you feel neutral about or have no opinion about, place in a third pile.
- STEP 2. Next, select the three cards from your “agree” pile with which you agree *the most*. That is, choose the three issues that you think are *the most important* from your “agree” pile. Write the numbers of these cards in the three spaces provided under the +3 (most strongly agree) column at the right hand side of your record sheet. Note: These do not need to be in rank order.
- STEP 3. From the cards remaining in your “agree” pile, select the next 5 you most agree are important, and write the numbers of these cards in the +2 (strongly agree) column on your sheet. If you do not have enough cards in your “agree” pile to fill the column, select the highest priorities from your “neutral” pile to fill it.
- STEP 4. From the cards remaining in your “agree” pile, select the next 7 you most agree with and write the numbers of these cards in the +1 (agree) column on your sheet. Again, if you do not have enough cards, select the most important cards from your “neutral” pile to fill the column.
- STEP 5. If you have leftover cards in your “agree” pile, place them in your “neutral” pile. At this time, *do not* write in the 0 (neutral) column on your record sheet.
- STEP 6. Now, go to your “disagree” pile and select the three cards with which you *disagree most*. That is, choose the three issues that you think are the *least important* from your “disagree” pile. Write the numbers of these cards in the three spaces provided under the –3 (most strongly disagree) column at the left hand side of your record sheet. Even if you think these are actually important, these three should be the things you think are less of a priority than any of the others.
- STEP 7. From the cards remaining in your “disagree” pile, select the next 5 lowest priority issues, and write the numbers of these cards in the –2 (strongly disagree) column on your sheet. If you do not have enough cards in your “disagree” pile to fill the column, select the most disagreeable cards from your “neutral” pile to fill it.

- STEP 8. From the cards remaining in your “disagree” pile, select the next 7 you most disagree with and write the numbers of these cards in the -1 (disagree) column on your sheet. Again, if you do not have enough cards to fill the column, select the most disagreeable cards from your “neutral” pile to fill it.
- STEP 9. If you have leftover cards in your “disagree” pile, place them in your “neutral” pile.
- STEP 10. Now, write down the numbers of the remaining cards (that is, those in your “neutral” pile) in the 0 (neutral) column on your record sheet. When you are finished, you should have no cards left over and no blank spaces on your answer sheet. Finally, please answer the questions on pages 3 and 4. Your responses will be kept confidential.

RECORD FORM

-3	-2	-1	0	+1	+2	+3
MOST STRONGLY DISAGREE	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	MOST STRONGLY AGREE
(3 CARDS)	(5 CARDS)	(7 CARDS)	(10 CARDS)	(7 CARDS)	(5 CARDS)	(3 CARDS)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	
	_____	_____	_____	_____	_____	
		_____	_____	_____		

NOTE: You do not need to rank order the cards in each column. The cards you list in each column can be in any order. Be sure that each card is listed only once, and that every card is listed somewhere. Every line should have a number on it and there should be no blanks. The form must be completed correctly in order for your response to be counted.

Appendix I. 2008 AHIMT TEC Sponsors



U.S. Fire Administration