VOLUNTARY LABOR, UTAH, THE L.D.S. CHURCH, AND THE FLOODS OF 1983: A CASE STUDY*

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National attention was focussed on Utah in the Spring of 1983 when an abnormally deep snowpack in the mountains combined with abrupt, very warm weather to cause sudden, severe flooding along the state's densely populated Wasatch Front. Public officials were not prepared for what happened and they could not control the crisis generated problems with their own resources. A large, efficient, volunteer labor force was needed immediately to prevent serious flooding from becoming a disaster. The extensive media attention given to Utah during this period looked mostly at the way public officials and the people responded to the crisis.

This is a report of voluntary labor and the floods of 1983 in Utah. The only public, semipublic, or private organization that could provide the number of volunteer workers that were necessary during the crisis period and supervise the workers adequately was the Church of Jesus Christ of Latter-day Saints (L.D.S.).

The traditions, attitudes, and organization of the L.D.S. Church as they are important to the immediate delivery of large numbers of volunteer workers, equipment, and supervisors in an emergency period are investigated in this paper. The relationships between government in Utah and the Church are also examined to explain why the Church is relied on to supply the voluntary labor force for any mass emergency in Utah and how this is accomplished. The question is also addressed of whether or not the Utah experience

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would be either appropriate or transferable to any other area. There might be something to be learned from Utah that could aid disaster work elsewhere.

Introduction

National attention in the United States was focused on the state of Utah in the spring of 1983 when an abnormally deep snowpack in the mountains joined forces with abrupt very warm weather to cause severe flooding along the state's densely populated Wasch Front. Public officials had not foreseen what would happen and they were unprepared to meet the ensuing crisis with their own manpower and organizational resources. A large, efficient voluntary labor force was needed immediately to prevent streams from overflowing their banks and water from flooding downtown Salt Lake City and lower parts of Salt Lake Valley. The national media attention given to Utah during this period looked mostly at the volunteer workers and at the way public officials and the people responded to the emergency. This is a case study of the voluntary labor, its organization, its supervision, its tradition, and the reason that it is easily available in the Utah environment. The Utah environment is possibly different from any other place in the speed with which voluntary labor can be mobilized and the efficiency with which it can be supervised by non-public leaders. The question of the applicability of the Utah experience elsewhere is very briefly discussed. The physical environment of the study area is briefly described to provide a setting for the events that took place.

The Physical Environment

The study area is Salt Lake City and unincorporated Salt Lake County. Salt Lake County, including the valley and the mountains, has an area of 764 square miles and the estimated population in the spring of 1983, according to the Utah Population Estimate Committee, was 666,000 people.

Salt Lake Valley is a bowl whose eastern rim is the Wasatch Mountains that rise some 6,000 feet above the valley floor. Prevailing storm tracks cause the Wasatch to receive most of the precipitation that falls in the area. Flooding in Salt Lake Valley is usually most serious along the streams that flow from the mountains to where they empty into the Jordan River, which occupies the low point in the valley, and in the low, flat areas in the bottom of the valley. The Jordan River empties

into the Great Salt Lake. The flooding was caused by a series of events. Weather along the Wasatch Front was abnormally wet during the early 1980s. By late 1982 the soil moisture content was abnormally high and there was enough snow in the Wasatch Mountains early in the winter of 1982-83 to provide the water needs for the coming year. But, it continued to snow and in mid-May there was a record snowpack on the already saturated ground. The weather was cool to cold until the second half of May. It was hoped that temperatures would rise gradually to reduce harm that might be done by a rapid runoff. The opposite happened. Daytime temperatures quickly climbed into the 80s and low 90s and the nights remained warm. It was the sudden change from well below to well above average temperatures that resulted in the flooding. Some heavy rain increased the severity of the problem.

The most serious flood threat for Salt Lake City was from water that came from City Creek Canyon and from the streams that feed into the storm drain system that flows underneath 1300 South Street some two miles south of downtown Salt Lake City. Downtown Salt Lake City is located at the mouth of City Creek Canyon and the City Creek water is carried in a conduit underneath the city westward to the Jordan River. The 1300 South system carries surplus water of other streams from the Wasatch Mountains to the Jordan River.

Preparations for 1983

Minor flooding occurred in Salt Lake Valley in 1982. A few volunteer workers were used at that time. In a way, however, 1982 was a dress rehearsal for 1983. Dynes suggests that previous experience with a similar event on the part of the community seems to produce an adaptive response to the new event. It seems to allow a more rapid assessment of information indicating that a subsequent disaster might occur and it makes it easier to cope with the new situation (1970b:69, 80).

Public officials made plans to handle a modest amount of flooding in 1983, but the plans turned out to be inadequate. A purpose of planning for emergency management is to anticipate what might happen including "worst case scenario." Based on snowpack, soil conditions, precipitation, temperature, and runoff since records were first kept for Salt Lake Valley some 135 years ago, the planners thought they were prepared for the worst. The floods of 1983 were easily the worst natural disaster ever recorded in Utah, a state in which earthquakes have been considered to be the greatest natural hazard.

Barton writes that the reason for a lack of planning and rehearsal for community disaster is that community-wide disaster is a rarity (1969:159). Form and Nosow add that maintaining a full-time specially trained organization ready to handle any emergency is considered an impossible goal by most government officials (1958:158). Nevertheless, Barton states that planning and practice for community-wide emergencies are necessary for adequate performance in such situations (1969:156). It is important to note that the success of the flood control efforts in Utah during 1983 were the product of the traditions and organization of the majority of the people in the state and not due to past experience with a disaster of this magnitude.

Only a small use of voluntary labor was included in the 1983 flood control plans for both Salt Lake City and Salt Lake County. All major work was scheduled to be done by regular employees and contractors were to be used for backup operations. However, the threat of flooding happened so quickly that city and county personnel were quickly exhausted trying to respond to it and the damage would already have occurred by the time contractors could have been mobilized. Calling up the National Guard was not a reasonable choice because even though the National Guard can be mobilized quickly it would have been too late in this case by the time troops could have been in the field. A large, organized efficient labor force was needed and it had to be on the job within an hour after it was requested. There were no public or semi-public orgnizations that could meet this requirement.

Initial Problems

Some diking in the areas that were perceived to be the most flood prone was done prior to the 1983 crisis. The initial call for large-scale voluntary labor was made when these dikes began to deteriorate and when the water threatened to run over them. At the same time the dikes were being threatened plugs developed in the conduit that carried the waters of the swollen City Creek stream underneath the heart of downtown Salt Lake City and then west underneath North Temple Street to the Jordan River. Existing dikes had to be strengthened and heightened immediately, new dikes had to be built, and a way had to be found to control the water of City Creek.

More water was directed towards the 1300 South storm drainage system in 1983 than it could handle. When a similar threat was faced in 1952 the solution was to dike the street and run the excess water on its surface as a river. The same thing was

done in 1983. The experience of 1952 was important to the speed with which a decision was made and action taken to control flooding in 1983.

A primary reason why the drainage system under the city and North Temple was in disrepair was because the system had never threatened to overflow in the past. To avoid disaster a decision had to be made quickly concerning how to control the water. It was to dike State Street and to run City Creek on top of the street for several blocks through the heart of the downtown district to where it could be carried safely west towards the Jordan River by an adequate storm sewer. The success of turning 1300 South into a river was probably important to the decision of making downtown Salt Lake City the Venice of the west, as it was called in the media, by turning one of the city's primary streets into a canal.

The Tradition and Organization of the L.D.S. Church for Volunteer Service

The Church of Jesus Christ of Latter-day Saints (L.D.S.) was the only organization in Utah that was prepared to mobilize thousands of volunteer workers in less than an hour and to supervise them adequately. It is uncommon for any non-public organization in the United States to be able to do this. In Utah it is assumed by public officials and by non-public organizations that the L.D.S. Church will provide the majority of the voluntary labor force in times of disaster and that to a substantial degree non-L.D.S. volunteers will work along with them. In 1980 L.D.S. Church membership was 63 percent of the Salt Lake Valley population according to the Census Bureau and L.D.S. Church records. The next largest private group in Salt Lake, the Roman Catholic Church, included approximately 5 percent of the population. The Catholic Church is not organized in Utah to muster and supervise a large call-up of volunteers. At least one Catholic priest in the area counseled members of his parish to become acquainted with the L.D.S. bishops in their area so that they could participate in the L.D.S. volunteer labor efforts. Furthermore, many of the public officials who needed the volunteers were L.D.S. and they knew that a call to their church leaders would result in quick action. Not an insignificant number of the public officials were also church leaders. Most non-L.D.S. public officials also knew the capabilities of the Church and made similar requests for assistance. Barton writes that volunteer workers who were a team before they arrived, and who come from the same non-disaster organization, are

much more effective than random assortments made on the spot. Random assortments can be dangerous (1963:116). The L.D.S. volunteers were a well organized team before the event.

Smith states that in the past, studies of community disasters and disaster recovery have tended to ignore the activities of religious organizations despite the important role that churches have played (1978:133). He hypothesizes that congregations involved in disaster response will be characterized by (1) a more liberal theology, (2) a higher level of community involvement, (3) benevolence giving, a more social vs. spiritual congregation role, (4) an active disaster role definition, (5) a less particularistic outlook, (6) a decision-making process more centralized around the pastor, and (7) larger numbers of members and congregation bodies associated with the decision-making process (1978:135). The L.D.S. Church is not characterized by (1), (3), or (5). It is characterized by (2), (4), and (7). For (6) it is strong in one sense and not in another. Decision making in a L.D.S. ward is very centralized around the bishop, but the bishop receives instruction in a centralized way from his stake president and on up the line to central church administration. Smith also hypothesized that congregations with higher pre-disaster rates of participation and communications will be more involved in disaster response (1978:135). This is a strong quality of the L.D.S. A basic teaching of the L.D.S. is that the Church should take care of the welfare needs of its members and as much as possible of worthy non-members who reside within ward boundaries and who request assistance. L.D.S. priesthood and Relief Society leaders are routinely involved in crisis management on a small-scale and they use the church membership at large to help solve the crises. Crisis management on a large-scale by them is essentially an extension of somewhat routine activities.

It is not easy to determine whether the L.D.S. Church organization to provide emergency services is a Type I, Type II, or Type III organization (Dynes and Quarantelli, 1968; Dynes, 1970b) because it has characteristics from all three. Type I is an established organization carrying out regular tasks, Type II is an expanding organization with regular tasks, and Type III is an extending organization which undertakes nonregular tasks (Dynes, 1970b:138). The L.D.S. Church seems to be mostly Type III with important characteristics of the other two. The church organization to handle emergency services existed before the emergency event and it operated essentially the same during the emergency as it did prior to it. Clearly defined lines of authority, specific tasks, designated channels of communication, and explicit decision making roles were already in place.

From the time that L.D.S. pioneers settled Salt Lake Valley in 1847 the L.D.S. Church has been relied on in Utah to provide volunteers, equipment, and leadership in times of emergencies. This practice is a part of Utah culture. It is expected that the church will be involved almost immediatly in any such event. Dynes argues that acceptance by the community of an organization to fill this role gives legitimacy to that organization (1970a:333).

Almost the same priesthood and Relief Society organizational structure, and procedures, and personnel are used by the L.D.S. Church to deal with emergencies as with non-emergency situations. This practice is an important reason for its effectiveness because during times of emergency the members are dealing with known quantities. No operational surprises or additional levels of organizational structure are imposed during an emergency. The members have firm social and ecclesiastical relations with each other before a disaster and they are maintained during the emergency. Dynes suggests that this might be an important positive quality in disaster behavior (1970b:137).

The number of people who perform functions within the organization is obviously much larger during an emergency than during normal times. Dynes suggests that an increase in size is related to an increase in the levels of authority, necessitated in part by the need for control of the expanded structure. He also notes that while more authority levels might be needed with expansion, they do not develop easily (1970b: 176). Dynes and Quarantelli write that emergencies sometimes create new crisis-developed structures for groups that are different from pre-crisis structures and that this can be a problem (1968:418). The pyramid organization of the L.D.S. Church, which is authoritarian in its leadership chain of command, for all intents and purposes rules out the creation of crisis-developed structures that depart from regular structures. Form and Nosow comment that when crises occur most people tend to do things that they have learned are appropriate for emergency situations. There is a tendency for established patterns of behavior to persist, with some modification (1958:23). They continue that there is strength in a religious dedication to service and the fact that the members know each other in a close personal way (1958:181).

From the time of its organization in 1830 until now the L.D.S. Church has emphasized the need for personal preparedness and responsible group action on the part of its members (Fisher, 1978; Welfare Services Handbook, 1980). The Church has a tightknit pyramid organization and a tradition of respect and

obedience to leaders. Each active member knows the priesthood and Relief Society leadership chain of command and follows it both routinely and in times of crises (Fisher, 1978; Welfare Services Handbook, 1980).

The Church has responded to emergencies in the past that required a large call-up of volunteer workers, such as the Teton Dam disaster in Idaho of 1976 when more than a million hours of labor were donated. However, prior to 1983 a large majority of church members and officials in Salt Lake Valley had no prior experience with a major emergency. On the other hand, most had been involved with small crises on a local level. The church procedure for handling both large and small emergencies is almost the same.

All L.D.S. Church levels of organization from the ward to the general church level have precise, well defined geographical boundaries. Membership in these units is determined by residence. Neighborhoods in Salt Lake Valley commonly correspond to L.D.S. ward boundaries. A ward mobilization of voluntary labor is about the same as a neighborhood call-up. This has advantages over a structure where a congregation's membership is spread through the entire community.

The basic geographical and organizational unit of the L.D.S. Church is called a ward. A ward has some similarities with a Protestant congregation or a Catholic parish. There were 812 wards in Salt Lake Valley at the time of the 1983 floods. Approximately 412,000, or 62 percent, of the valley's 660,000 people were L.D.S. at that time although not all of them were active. A ward is presided over by a bishop who is the primary decision maker within the ward. Bishops follow instructions from higher organizational levels. A bishop is assisted by two counselors. Eligible males 12 years of age and older belong to one of several priesthood quorums that function within each ward. Quorums are structured roughly according to age. Each quorum is presided over by a presidency of three people. Members of the adult quorums have home teaching assignments of usually three to seven families who they are supposed to visit monthly. A request for volunteer labor made to a bishopric could be relayed to quorum leaders and then to home teachers and thence to their families in a matter of minutes. Quorum leaders can assume authority if bishopric members are not available. There is an organization for the women called the Relief Society that somewhat parallels the priesthood quorum for the man. Like the priesthood structure, the Relief Society organization is highly centralized.

The administrative level above the ward is called the stake. There were 109 stakes in Salt Lake Valley in 1983. A stake

is presided over by a president who has two counselors, an executive executive secretary, and a 12 member high council to assist him. Any of these people can assume command in an emergency according to their position in the chain of command. A request for emergency assistance to a stake can be transmitted to the appropriate ward bishoprics within minutes.

The unit above the stake is called a region. There were 26 of them in Salt Lake Valley in 1983. A region is presided over by a regional representative of the Church's general authorities. He has no counselors but there is a backup organization to call on if he is not available. Emergency requests that originate on the regional level can be relayed to the appropriate stakes quickly for transmission to the wards and for action by the people.

Several regions constitute an area. There are two areas in Utah and the dividing line between them approximately bisects Salt Lake Valley so that Salt Lake City is the core of one and unincorporated Salt Lake County is in the other. Area presidencies are full-time church employees and presiding over an area is only a part of their church assignments. For the floods of 1983 each of the two area presidents for Salt Lake Valley designated a regional representative from within his area to be responsible for all matters dealing with voluntary labor within his area. Hence, there was one person who was responsible for all L.D.S. volunteer worker activities for Salt Lake City and one for unincorporated Salt Lake County. The organizational structure of a single church leader being responsible for each area, who is well-known to all authorized public officials, is very important to the efficient operation of the church's voluntary labor program. This person is the church's key figure in a large-scale emergency voluntary labor operation.

In many religious denominations each local congregation or parish acts independent of the others in matters such as the mustering organization, and supervision of volunteer workers. There is probably none that has as centralized an organizational structure as the L.D.S. Church. However, the Roman Catholic Church has a pyramid organizational structure, but control from top to bottom is less strict than it is for the L.D.S. The state of Utah is a Roman Catholic diocese that is presided over by a bishop whose office is located in Salt Lake City. There are several parishes and other Catholic groups in the Salt Lake Valley. It is possible for all of the Catholic parishes and groups in the area to be organized so that a call for voluntary labor by public officials could be made to a single Catholic office and the Church would manage the request similar to the way

of the L.D.S. This was not done for the floods of 1983. Each Catholic parish or group had to be contacted independently the same as for parishes or congregations of churches that do not have a pyramid structure. The organization of the Catholic Church permits a much more centralized and coordinated crisis management effort than took place in Utah in 1983.

All of the L.D.S. Church officials below the area presidency level are lay persons whose service to the Church is on a voluntary and non-paid basis.

In areas where the L.D.S. population density is high the ward tends to be almost synonymous with neighborhood. This is an asset for handling local emergencies as well as for mobilizing manpower to help with more general problems. Barton has observed that the individual's sense of obligation to help victims is generally strongest when they are nearby, part of his neighborhood or community. This is related to a sense of similarity and identification and also to the feeling that neighborhood members have the first responsibility to look after their own (1969:261).

In Utah the L.D.S. Church would like a two hour lead time from the receipt of a request for voluntary labor on the area level to the time the labor is in the field and ready to work. In an emergency the workers can be delivered in one hour. In places where the L.D.S. population density is light the lead time would probably have to be longer than this. Less time is required for requests that originate on the stake or the ward level.

The Events

There was a modest need for voluntary workers in Salt Lake City the morning of May 28, 1983. Conditions worsened rapidly in one area during the day and by evening a key official in the city's communications system was told that several hundred volunteers were needed immediately. The city worker was well acquainted with the operations and the leaders of both the city and the L.D.S. Church. A call was made to the L.D.S. stake presidents in the area that was threatened by the flooding. Within an hour the necessary workers were on the job and most of them worked through the night. Conditions deteriorated during the night and by morning several thousand volunteers were needed. Another call was made to the same stake presidents and very quickly three thousand volunteers, with their equipment, such as pickup trucks and front end loaders, were on the dikes or filling sandbags.

There were not enough public officials to supervise the volunteers so the public officials told the church leaders what should be done and left the method of accomplishment and supervision of the workers to the church authorities. Supervising workers and making decisions that would ordinarily have been made by civil authorities was also done by church leaders in the remainder of Salt Lake County and in Davis County during the early phases of the emergency.

Form and Nosow state that whoever takes the initiative and starts giving some leadership in an emergency just automatically falls heir to it (1958:136). This notion was supported by the actions of the church supervisors.

Elsewhere in the valley mayors, commissioners, and other public officials who needed voluntary labor called L.D.S. leaders who they knew personally and asked for help because the formal communications system for requesting assistance was not yet in operation. The system used for communication during the early period was satisfactory only as an emergency stopgap measure. A significant number of civil leaders were also members or leaders of the L.D.S. Church. Dynes has observed that it is very useful to have this type of overlapping boundary membership in both organizations because it makes it easier to establish contacts with others in positions of power and thus to legitimatize both the civil and church efforts. Their dual leadership roles have already validated to a certain extent their claim to leadership in their situations (1970b:185, 197).

The event that led to the famous State Street river happened very quickly. City Creek was flowing at an all-time high volume when plugs developed in the conduit that normally transports the water under North Temple Street. There was an urgent requirement for 5,000 volunteer workers. By the time of the City Creek emergency the formal communications system for obtaining workers from the L.D.S. Church was in operation. A call was made by the city to the appropriate L.D.S. official and within four hours of the call, volunteers had completed the dikes that were needed to run the water down State Street. Appeals for help were also made over radio and television. Records were not kept of the exact number of L.D.S. who participated in this activity but estimates based on reports from wards and stakes place it at over 80 percent of the total labor force.

It is easier to obtain volunteer workers when the emergency is clear and present than it is later. Dynes has observed that in a disaster much of the initial work is done by the victims themselves who do not wait to be told what to do (1970b:8, 114). Form and Nosow say that people tend to do things that

they have learned are appropriate for emergency situations, even though they may never have been involved in a crisis before (1958:23). It is a different story for cleanup work, particularly for people from outside of the immediate emergency area, or for preventative tasks whose usefulness is perceived by the volunteers to be marginal. The L.D.S. assigned most of the cleanup responsibility and low visibility prevention work to volunteers from outside of the immediate flood area. The State Street river flowed through the non-residential downtown area so the cleanup work had to be accomplished by outsiders. L.D.S. stakes composed of students from the University of Utah were particularly useful for cleanup and non-emergency prevention tasks. Like their counterparts in the flooded area, the University stake presidents dismissed church on a Sunday and directed their people to these efforts. There were many non-L.D.S. and non-organizational volunteers involved in the State Street cleanup. L.D.S. and non-L.D.S. worked side by side and mostly under the same leadership. The Salt Lake City Public Works Department gave special flood T-shirts to volunteers who worked for at least four hours on the cleanup.

Volunteerism became infectious in Salt Lake Valley during the floods of 1983 and many organizations as well as individuals participated. Even tourists became involved. A considerable number of non-L.D.S. volunteers joined the L.D.S. ranks because they wanted to help and the organization was there for them to do so effectively. The Red Cross, the Salvation Army, and some individual church congregations provided mass support services such as food for the volunteers and other emergency assistance that is normal for the Red Cross and Salvation Army. Neither the Red Cross nor the Salvation Army furnished volunteers for sandbagging or for other manual labor tasks. Fast food outlets provided hamburgers, fried chicken, pizza and drinks free to the volunteers who were working with the floods.

The spirit among the volunteers in the field was often almost festive. Live or recorded music was played in some places to entertain the workers on the dikes. Partying was reported after the work was accomplished. The volunteer effort brought the community close together, at least for a moment. Perhaps closer than at any other time people could remember. Disaster literature indicates that this is common behavior. Dynes notes that disaster problems tend to emphasize the common ties of all and to de-emphasize the differences, at least for the time being. A disaster can minimize conflicts which may have divided a community prior to the disaster (1970b:84, 92, 99). Quarantelli and Dynes list seven factors that are associated with the absence

of community conflict in a natural disaster situation: (1) natural disasters involve an external threat; (2) in almost all natural disaster situations, the disaster agent can generally be perceived and specified; (3) there is a high consensus on priorities in natural disaster situations; (4) natural disasters almost by definition create community-wide problems that need to be quickly solved; (5) disasters lead to a focusing of attention on the present; (6) there is a leveling of social distinctions in disaster situations; and (7) disasters strengthen community identification (1976: 141, 143). These observations seem to be valid for the floods of 1983 in Utah. Dynes and Quarantelli also state that all who share in an emergency are brought close together perhaps because of wider opportunities to participate in activities for the good of the community (1971:201).

Interviews With Public Officials

Detailed interviews were conducted with key public and church officials after the flood crisis was over. There is much to be studied both for concepts and for application in what they had to say about the mobilization and management of voluntary labor.

A non-L.D.S. high official in the Salt Lake City Public Works Department provided the following field observations of volunteer workers.

> City people often worked at various sites with almost no resources except volunteer workers. There were city employees in key locations to say what had to be done, but there were not enough of them to supervise the labor. The church leaders controlled their people, they determined requirements, and they acted. Because of the shortage of city supervisors and the immediacy of the situation some decisions were made by the church leaders that were properly civil matters. There were very few problems as a consequence of these decisions.
>
> The alternative to the call-up of the church volunteers was the National Guard. The process for mobilizing the National Guard is so slow that the dikes would have been built after the floods.
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> A broadcast for volunteer labor over radio or television is much less efficient than the mobilization of workers from an organization such as the L.D.S. Church. You don't know how many will respond to a request over radio or television and they will be completely unorganized. Do not broadcast that so many people are needed here and

so many there. Nothing can be controlled that way. If a media appeal is used have everyone report to a central staging area and distribute the workers from there. Supervision is the key to the effective use of voluntary labor.

A key Salt Lake City official reported the following concerning the emergency communication system.

There was no structure within the Salt Lake City organization to call volunteer workers at the beginning of the 1983 emergency. Within a day, however, the city designated the people who could act for it and the L.D.S. Church had appointed a regional representative to act for the Church. From that time on all calls from the city were made to the regional representative.

There was criticism of the way we handled the 1983 emergency because we did not call on some civic and church groups. The reason is that they were not organized. Subsequent to the 1983 floods we developed a list of every organization whose members want to be involved in future emergency voluntary labor call-ups.

The following comments were made by a volunteer worker coordinator from Salt Lake City.

A city employee was assigned to each site where voluntary work was taking place. The city person was identified by something distinctive such as a hat or an orange vest.

It is difficult to maintain a high level of enthusiasm without a high level of emergency. Let the people know they have accomplished something good. People cheered when they saw water coming down the State Street and 1300 South rivers.

The labor cost to the city for volunteer workers was nothing. There were expenses for inefficiences on the part of the volunteers for such things as using more sandbags than might be necessary for the task, but the labor was free. The volunteer workers returned dollars to the city for pennies invested.

Key Salt Lake County officials made the following observations about the use of volunteer workers in the county.

Appeals to organized groups for voluntary labor are much better than open media appeals. What you ask for is what you get. Media responses are unpredictable and sporadic. They work well when there is a visible large emergency and the volunteers can be fit into an organized work effort. When organized groups can provide the volunteer workers the media appeals tend to lead to confusion. They might even be harmful.

We used the L.D.S. Church because it was organized to deliver what we needed. It had workers in the field within an hour after our requests. There was no alternative source of labor at that time.

The floods threatened the Greek Orthodox Church and an area by it. Members of the Greek Orthodox congregation turned out in goodly numbers to protect their area. People will respond when something of theirs is threatened.

Church groups in other parts of the United States, particularly those that have a pyramid organizational structure, could be organized to respond to emergency requests. The key to commitment and organization is to start with the highest possible church official. For example, if a Catholic Bishop would direct that there be such a program in his diocese it would happen.

Interviews with L.D.S. Church Officials

The following was reported concerning voluntary labor and the role of the L.D.S. Church in emergencies by a key official in the Church's Welfare Services organization.

All people want to help when there is a disaster. Where we differ from most is the speed with which we can react. There is a pyramid command structure in the L.D.S. Church that is known and accepted. It permits a very rapid reaction in a crisis. L.D.S. members follow directions in an emergency according to the church command structure because it is simply an extension of their daily practice. We are prepared organizationally and attitudinally to handle an emergency whether one happens today or not for many years.

There is a watchman mentality of "I am my brother's keeper" that is easy to tap in times of emergency. The basic teaching of self-reliance is tempered with the overriding philosophy of sharing. It is a part of the L.D.S. lifestyle.

Because of our church organization we can record the instructions for emergency planning and behavior on a two page brochure. Our experience has shown us that in times of emergency that which is between your ears from previous training and organization is most important, and supplemental instructions or reminders should be short and simple. Our advice to other organizations is to keep it simple. Use your existing organizational structure as much as possible because that is what your people know.

The farther you get from the existing structure the greater the chance for error or inefficiency.

In many parts of the United States the L.D.S. structure is adequate so that L.D.S. bishops or stake presidents could provide useful guidance to other denominational leaders. This is taking place in some parts of the United States such as California.

There were some problems in 1983 as a consequence of the need for Church authorities to make civil decisions. Subsequent to the floods meetings were held with public and church officials to define the roles that church leaders will play and the roles that public officials will play in future emergencies. One possible solution is to deputize church leaders to act as civil authorities when it is necessary.

Our volunteer labor was somewhat inefficient. We overdid it. We built higher and probably stronger than was really necessary because we were not professionals and we wanted a margin of safety. A cost of voluntary labor is that more workers and more materials are needed than if the work is done by professionals.

Our communications system for work in the field was inadequate in 1983. Since then the Church has worked with the civil authorities so that there will be radio control for ground operations in all future emergencies. The Church has hand-held radios stored in Bishop's Storehouses that are located in various parts of the United States. These radios are available immediately for emergency uses. Each storehouse in the United States has radio contact with the Church Office Building in Salt Lake City. There are volunteer ham radio operators integrated into this communications system for use as needed. In a recent earthquake in Idaho the State of Idaho used the Church radio communications system for some time because it was superior to the state's system.

The following comments were made by a L.D.S. regional representative who had major responsibility in the Salt Lake City area.

Church leaders should not make civil decisions. The Church does not want anyone to think that it attempts to assume authority or responsibility that belongs to civil authorities.

I meet with the civil authorities and with other L.D.S. regional representatives in my area to determine what role the L.D.S. Church will play in providing voluntary labor and equipment in an emergency and how it will be done. I have a list of people who have been authorized

by appropriate civil governments to call me or my representatives to make requests for Church assistance. We do not accept calls from unauthorized public officials except in unusual circumstances. If we did it would lead to chaos. Other church leaders in my area will not accept requests directly from civil authorities except in unusual circumstances. All requests must come through my office. The concerned civil and church leaders in the area know the system and it works well.

The key to a successful volunteer labor program can be summarized in two words--organization and attitude. We try to keep our organization simple and direct.

Summary

Emergency literature suggests that a lack of individuals or organizations who want to play a part in crisis situations is not a problem because there is often a surplus of both. Parr writes that during a crisis it is difficult to find a case of an available organization that does not try to play a part in the disaster effort. The problem is to use the individuals and organizations productively and for them not to become a liability instead of being an asset. The desire to become involved frequently leads to an atomization of the community into uncoordinated efforts and isolated islands of activity early in the crisis period (1970:24). Dynes comments that if personnel becomes problematic, it tends to be in the direction of excess personnel (1970b:164). Barton states that the uncoordinated mass response of individuals and small groups may overload facilities of all kinds, interfering with one another and with the formal organizations. One form of this has become known as the "convergence problem" (1969:130). Barton also says that in the United States it is difficult to find a case of an available organization that did not try to play a part in the disaster effort (1969:161).

A large-scale call-up of voluntary labor was essential to prevent the Salt Lake Valley floods of 1983 from becoming a disaster instead of their being just a serious emergency. The volunteers had to be efficiently organized and they had to be supervised mostly by nonpublic officials if they were to be effective. Furthermore, they had to be at the emergency site, ready for work, within an hour of the request for assistance. The L.D.S. Church was the only organization that could provide the number of volunteers needed on such short notice and supervise them in the field sufficient for efficient performance. According

to Barton a seriously defective type of communications net arises if the field unit broadcasts its requests for help to many individuals and organizations without any central coordination of the response. The results might be both wasteful and harmful (1969:168).

Barton also writes that a major organization role performance problem in many organizations is that of the competence and sense of duty of the organization leaders. This appears particularly in voluntary organizations (1969:87). According to Barton a serious leadership problem can exist among volunteers where leaders are selected for community status and not for ability (1963:37). Both the organizational structure and the leaders for the L.D.S. emergency efforts were in existence and operational prior to the crisis period. The leaders were accepted by the members as leaders and most of them were involved with handling small emergencies as a part of their normal church welfare activities. Dynes writes that when individuals within an organization accept the notion that the person within the position has the right to order certain things done, the authority is established (1970b:177). Supervision of L.D.S. volunteers in the field was good. The supervisors were recognized by their own people and many non-L.D.S. volunteers joined the L.D.S. workers to work under their supervision.

According to Barton the low efficiency of mass response to a crisis is clearly due to lack of skills (1963:118). Dynes states that many Civil Defense volunteers are not effective because they lack training (1970b:47). Form and Nosow go even further and suggest that a rescue role for the untrained citizen is almost nonexistent (1958:100). A lack of individual skills was not a primary concern for the majority of volunteer workers during the 1983 floods in Utah. The need in Utah was for sufficient qualified supervisors and for the volunteers to accept their supervision. Where the need is for a large number of people to provide mostly manual labor it is likely that superior organization and supervision can compensate for a lack of individual skills on the part of the volunteers.

L.D.S. volunteer workers come from a system wherein individual, family, and group preparation to deal with emergencies is part of everyday life. The system has a command and communications structure that can be quickly activated in a crisis. Each ward is supposed to maintain a current list of the people within its boundaries who have skills that might be needed in either a small or large-scale emergency. The system is in operation almost constantly to help church leaders and members respond to the ordinary crises that are a part of everyday life.

The effectiveness of the system in a major emergency was put to the test in 1983 and it performed well. It is expected that the L.D.S. system would be the core for any future mass disaster assistance in Utah such as in the crisis that would follow a strong earthquake along the densely populated Wasatch Front.

Several problems were noted in the 1983 voluntary labor efforts. There was some confusion at first because the system for calling up the volunteers was not fine tuned. It required about a day to solve the problem. However, that day was a very important time because it is when a significant part of the crisis occurred. The system might not have worked during the crucial early period if it had not been for the large number of principals who had dual membership in both government and the L.D.S. Church. The early communications relied initially on a "buddy" system. Meetings between government and Church officials since the 1983 emergency have reportedly resolved this problem.

A second difficulty was encountered because of inadequate ground communications among groups. The mobility and effectiveness of work parties was somewhat diminished because of this. In future emergencies the L.D.S. Church will provide sufficient radios to its people for the task at hand and it will also provide radios to public officials if they are needed.

Another problem was the need to make civil decisions by church supervisors. Resentment can develop towards the Church on the part of those who perceive that they were harmed because of the decisions. Also, there are legal problems that could arise. Dynes refers to this problem when he writes that organizations involved in more extensive (but necessary) activities which require more difficult decisions and more complex activity would be evaluated as being ineffective (1970b:6, 132).

A final problem was that the voluntary effort was sometimes wasteful of materials. More sandbags were used by the volunteers than would have been used by professional flood control workers, for example, because the volunteers overbuilt to provide a margin of safety that was excessive. Perhaps this was not really a problem because the cost of extra sandbags or other materials was a small fraction of the property damage that would have occurred without the volunteers.

It is difficult to say whether the L.D.S. emergency assistance experience in Utah would be adaptable or even appropriate for anyplace else in the United States. Barton cautions that whether the kind of emergency social system studies in one-community disasters has any relevance to the problems of regional or nationwide destruction as in major floods, earthquakes, etc., is not easily answered (1963:121). Dynes concludes that there

is difficulty in transferring learning from one disaster situation to another (1970b:80). Nevertheless, there are organizational similarities between the L.D.S. Church and other churches that have pyramid authority structures, such as the Roman Catholic Church, that might make some of the L.D.S. experience transferable. Interestingly, the percentage of the L.D.S. population in Salt Lake Valley is approximately the same as the percentage of Roman Catholics in Rhode Island. The system would be less effective with non-pyramid organization denominations or in areas where no tightly organized denomination was a significant population base.

Conclusions

On several occasions during the floods of 1983 several thousand L.D.S. volunteers with their own supervisors were on the job in less than an hour after a call was made from the city or county to the appropriate L.D.S. Church official. Early in the crisis period the public officials called church leaders who they knew personally. Later, the officials called a single church office for assistance and the Church handled everything from that point on. Public officials relied exclusively on the Church for the mass mobilization and supervision of volunteers during this period. Other organizations were used to fill small, supportive roles. Media appeals for help were used but they were only supportive of the primary call-ups that were made through the Church. Public officials said that the problem with media appeals is that there is no way to anticipate or control the number of people who will respond and they must be supervised by people from outside their own group.

A reason for the success of the rapid call-up for the L.D.S. was that most of the concerned public officials were also members of the L.D.S. Church and many of them were leaders in it. Hence, they knew who to call to get what they needed. Another reason is the tradition, attitude, and organization of the Church with respect to participation and management in all levels of emergencies. From the time the state of Utah was settled by L.D.S. pioneers until now the Church has played a prominent role in crisis management. Yet another reason is that the L.D.S. constitute about 62 percent of the population in Salt Lake Valley and their grass roots unit, called a ward, is often almost synonomous with neighborhood. This makes it relatively easy for non-L.D.S. to work side by side with the L.D.S. in emergencies under L.D.S. supervision because they are neighbors.

The Salt Lake pattern for volunteer response to an emergency could be replicated in other places where there is a nonpublic organization, such as a church, that has a strong pyramid organizational structure, an adequate density of its members in the community, and the will to act. Some high density Roman Catholic areas might meet these requirements. The key to the success of the Salt Lake voluntary worker experience during the floods of 1983 was summarized by both public and church officials in two words--organization and attitude.

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