Human Resource Development for Emergency Management

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The subject of emergency management is complex for a variety of reasons. Obviously, there are many kinds of disasters. Rational handling of each kind requires different understandings about cause-effect nexuses, appropriate technology, planning approaches, changes of key actors and actions—all depending on whether it is before, during, or after the disaster. United States federalism and interest group politics further complicate the situation. They support a division of governmental authority and responsibility, while disasters frequently confound such a pattern through impacts which cross political and organizational boundaries. Preparedness planning and disaster recovery activities parallel this pattern.

This complexity extends to planning for human resource requirements as well. Human resources are humans capable of performing formally and informally prescribed roles in governmental, private, and third-sector organizations, and also as citizens. However, there are two groups of requisites for estimation of human resources requirements such as is done for various industries, employment sectors, and other domains. First, it must be possible to predict overall demand for outputs and future estimates of labor productivity. Second, it is necessary to develop production functions for either known occupational specialties or required skill mixes—i.e., knowledges, skills, and abilities, abbreviated below as KSAs. Thus, there is need for a data base and models which, unfortunately, do not exist for disaster management.[1] In order to satisfy these requisites, it would be necessary to conduct a hazard analysis for each community or problem shed. Later in this article, a synoptic view of a rational model of emergency management is presented including hazards analysis.

Even though it is not feasible to estimate the set of occupational specialties and number of human resources required for future time horizons, it is possible to infer the KSAs needed for key emergency management roles —emphasis being on management. The general title of emergency management specialist (EMS) will be used to refer to the relevant cluster of KSAs. KSAs are human attributes required to carry out organizational tasks and functions. Once derived, they provide the basis for development of personnel selection and assignment procedures, training or learning objectives, and position design or redesign variables.

Relevant KSAs are to be inferred from three sources of information and ultimately clustered under the phases of emergency management. The first source of information is provided by a brief review of the literature on human behavior in disasters. It gives insights about what people do with and without training, organization, and control; it also clearly points to the need for such preparations. Next, the nature of the milieu in which emergency management must take place is examined. The force field of emergency management is intergovernmental, intersectoral, interorganizational, and interphenomenal. In looking around for conceptual tools to deal with this complexity, the approach of intergovernmental management may prove helpful. Intergovernmental management is an emerging perspective on public administration which is reviewed through experience in the human services field. The third source from which KSAs are derived is a rational model of emergency management which itself is based on a synopsis of the technical processes discussed in the emergency management literature. This greatly abbreviated model is discussed in the context of cross-organizational participation and networking. Finally, KSAs which comprise the new roles of emergency management specialist (EMS) are related to the phases of emergency management, and some observations about appropriate education and training are made.

The Behavior of Communities in Disasters

Among the dimensions on which disaster agents vary are speed of onset and length of possible warning. In general, the degree of community disorganization is inversely proportional to the length of the period of forewarning.[2] It is particularly difficult for an effective *ad hoc* communication and authority center to emerge when the period of warning is short.[3] Finally, there are the factors of duration (an explosion is limited), scope of impact (several communities, one town, a region?), and destructive potential. When the impact is greater,

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