|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Activity | Population mean (min) | Doer  mean (min)\* | Activity | Population mean (min) | Doer  mean (min)\* |
| Sleeping | 504 | 506 | Child care | 18 | 79 |
| Working | 194 | 424 | Active sports | 16 | 88 |
| Electronic media | 143 | 184 | Outdoor recreation | 11 | 134 |
| Travel | 109 | 118 | Cultural events | 10 | 143 |
| Eating | 89 | 93 | Errands | 8 | 41 |
| Socializing | 56 | 115 | Car repair | 6 | 48 |
| Personal care | 50 | 58 | Hobbies | 5 | 114 |
| Reading/writing | 48 | 104 | Bars/lounges | 4 | 101 |
| Education | 46 | 237 | Animal care | 3 | 33 |
| Cooking | 38 | 73 | Singing/dancing | 3 | 106 |
| House cleaning | 34 | 87 | Other | 2 | 29 |
| Shopping | 25 | 66 | Dry cleaners | 1 | 73 |
| Yard work | 20 | 111 | Services | 1 | 83 |

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Activity | Code | Activity |
| 11 | Agriculture, Forestry, Fishing & Hunting | 53 | Real Estate & Rental & Leasing |
| 21 | Mining | 54 | Professional, Scientific, and Technical Services |
| 22 | Utilities | 55 | Management of Companies and Enterprises |
| 23 | Construction | 56 | Administrative and Support and Waste Management and Remediation Services |
| 31-33 | Manufacturing | 61 | Educational Services |
| 42 | Wholesale Trade | 62 | Health Care and Social Assistance |
| 44-45 | Retail Trade | 71 | Arts, Entertainment, and Recreation |
| 48-49 | Transportation & Warehousing | 72 | Accommodation and Food Services |
| 51 | Information | 81 | Other Services  (except Public Administration) |
| 52 | Finance and Insurance | 92 | Public Administration |

fficult to clearly classify businesses as basic or service activities, to define the base area, and to measure the size of the base and service sectors (Chapin & Kaiser, 1985).

These economic concepts also have significant implications for disaster recovery. First, communities having a weak economic base characterized by low exports, low investments, and high internal consumption will need considerable assistance in recovering from a disaster. Second, basic industries that produce exports should receive immediate attention in the disaster aftermath so they can generate income whose multiplier effect will stimulate local investment and consumption. This will spread the recovery to other community industries.

*Government activities*. The governments of most local jurisdictions—towns, cities, and counties—perform a variety of functions that cannot reasonably be performed by businesses in the private sector (Caiden, 1982; Graham & Hays, 1993; Nigro & Nigro, 1980). Each function is assigned to governmental subunit called an agency or department. All of the departments report to the jurisdiction’s CAO, who might be a mayor, city manager, or Chair of the County Board of Supervisors. Figure 11-2 displays an organization chart listing the departments typically found in local jurisdictions and indicates the direct reporting relationship by the solid line connecting each department directly to the CAO.

**Figure 11-2**.Sample Jurisdictional Organization Chart.

The seven departments at the bottom are usually called *line agencies,* whereas the six departments at the top of the organization chart are labeled *staff agencies*. In general, line agencies deliver services directly to the public, whereas staff agencies provide services to the line agencies and each other. By this point, it should be clear what *Emergency Management* does, so that department will not be discussed further. Among the other staff agencies, *Intergovernmental/Public Relations* provides information about the jurisdiction’s activities to those outside the organization. The *Human Resources* department develops and oversees the jurisdiction’s systems for personnel recruitment, selection, training, and performance evaluation. *Finance & Administration* is responsible for budget preparation and control, accounting, property assessment, taxes and licenses, procurement, and property and records management. *Planning* assesses population and economic trends, develops the comprehensive plan and the capital improvements plan, formulates policies for land use regulation, and grants permits for land development. *Legal Counsel* is responsible for drafting ordinances, resolutions, and business contracts, as well as rendering legal opinions about proposed administrative actions and representing the jurisdiction in lawsuits.

Among the line agencies, *Law Enforcement* conducts patrols and criminal investigations, and operates jails. *Fire/Rescue* is responsible for fire prevention, fire suppression, hazmat response, and EMS. *Public Works* is responsible for constructing and maintaining public buildings, streets, and lights; traffic engineering; sewers and storm drains; and garbage and trash collection. The *Social Services* department administers public housing and welfare programs such as Aid to Families with Dependent Children and food stamps. *Public Health* monitors environmental contamination, epidemics, and immunizations. *Parks & Recreation* maintains public parks and administers programs for children’s athletics and some noncredit adult education. The department of *Building Construction* reviews and approves building blueprints, inspects new construction at critical points in the construction process, and inspects existing buildings to determine if they must be condemned as unsafe for habitation. In some communities, an *Electric Utility* that purchases power and operates the electric distribution system would be added to this organization chart. The figure includes no *Education* department because this function is usually performed by an independent school district.

**An Overview of Community Disaster Recovery**

Disaster recovery is the phase of the emergency management cycle that begins with the stabilization of the incident and ends when the community has recovered from the disaster’s impacts. The term *incident stabilization* refers to the point in time at which the immediate threats to human safety and property resulting from the physical impacts of the primary and secondary hazard agents have been resolved. Thus, the sense of uncertainty and urgency that is the hallmark of the emergency response is beginning to be replaced by thoughts about how to rebuild damaged structures, restore infrastructure services, and return the community to its normal patterns of activity. For example, earthquake recovery could be said to begin after most buried victims have been extricated, buildings in danger of collapse have been shored up, and fires have been extinguished.

As Chapter 6 indicated, most people’s objective in disaster recovery is to restore the patterns of household, business, and government activity exactly as they existed before the disaster struck. To do this, they typically assume they must rebuild the buildings and infrastructure as it was. Of course, it is now understood that restoring the community to its previous status will also reproduce the hazard exposure, physical vulnerability, and social vulnerability that led to the disaster. Thus, there are four questions that must be addressed. First, do stricken communities recover from disasters and, if so, how do they acquire the resources needed to replace those that were destroyed? Second, what happens to households, businesses, and government agencies as they struggle to recover? Third, can communities do to promote a more rapid, complete, and equitable recovery? Finally, what can communities do to reduce their hazard exposure and make themselves more resilient when extreme environmental events occur?

The answer to the first question is that US communities clearly do recover relatively quickly from disasters. There is general agreement with the explanation offered by Friesma, et al. (1979) that the local economic costs of disasters are redistributed over the entire country by means of an extensive network of social, economic, and political linkages. The paths to recovery appear to be determined by the physical characteristics of the disaster agent, the types and quantities of community resources that survive the disaster, the external aid the community can obtain, and the reconstruction strategies these communities adopt and implement. However, the fact that communities

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Week 1 | | | | Week 2 and beyond | | | |
| Emer-gency Shelter | Temp-orary Shelter | Temp-orary Housing | Perm-anent Housing | Emer-gency Shelter | Temp-orary Shelter | Temp-orary Housing | Perm-anent Housing |
| Emergency  Shelter | .60 | .40 | .00 | .00 | .50 | .50 | .00 | .00 |
| Temporary  Shelter | .00 | .90 | .10 | .00 | .00 | .90 | .10 | .00 |
| Temporary  Housing | .00 | .00 | .95 | .05 | .00 | .00 | .95 | .05 |
| Permanent  Housing | .03 | .05 | .00 | .92 | .00 | .00 | .00 | 1.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Problem Perceived To Be Large | Anglo | Black | Hispanic | Total |
| Dealing with mortgage companies about insurance money | 68 | 49 | 68 | 64\* |
| Dealing with building inspectors | 52 | 38 | 76 | 63\* |
| Living in damaged home | 59 | 63 | 59 | 60 |
| Neighborhood conditions | 55 | 60 | 39 | 47\* |
| Living in temporary quarters | 45 | 61 | 38 | 46\* |
| Dealing with insurance companies | 33 | 26 | 48 | 40\* |
| Dealing with contractors | 38 | 18 | 45 | 37\* |
| Unemployment | 11 | 29 | 30 | 25\* |
| Household finances | 14 | 40 | 20 | 22\* |
| Neighborhood crime | 34 | 23 | 16 | 22\* |
| Transportation | 2 | 28 | 17 | 16\* |
| Job relocation | 7 | 21 | 17 | 15 |
| Dealing with agencies | 11 | 20 | 13 | 15 |
| Behavioral problems with children | 19 | 18 | 10 | 14 |
| Family violence | 17 | 11 | 5 | 9\* |
| Gain of member(s) | 14 | 0 | 4 | 5\* |
| Loss of member(s) | 4 | 0 | 13 | 4 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Businesses Change (%) | | Employees Change (%) | | Sales Volume Change (%) | |
| Industry | Florida City | Homestead | Florida City | Homestead | Florida City | Homestead |
| Agriculture | -71 | +4 | -92 | +74 | -93 | +66 |
| Construction | 0 | -20 | +12 | -20 | +12 | -59 |
| Manufacturing | 0 | -12 | -67 | -19 | -59 | -32 |
| Transportation/  communication | -50 | +9 | -100 | +4 | -26 | +51 |
| Wholesale trade | -60 | -4 | -50 | +6 | -84 | +57 |
| Retail trade | -64 | -2 | -84 | +16 | -84 | -5 |
| Finance/  insurance/real estate | -20 | 0 | -59 | -1 | -32 | -32 |
| Business services | -63 | +6 | -94 | -5 | -65 | -14 |
| Professional services | -45 | -3 | -73 | +16 | -69 | +1 |
| Public administration | -50 | +38 | -69 | +7 | n/a\* | n/a\* |

|  |  |
| --- | --- |
| *Disaster Assessment* |  |
| Rapid assessment | Victims’ needs assessments |
| Preliminary damage assessment | “Lessons learned” |
| Site assessment |  |
| *Short Term Recovery* |  |
| Impact area security | Emergency demolition |
| Temporary shelter/housing | Repair permitting |
| Infrastructure restoration | Donations management |
| Debris management | Disaster assistance |
| *Long Term Reconstruction* |  |
| Hazard source control and area protection | Infrastructure resilience |
| Land use practices | Historic preservation |
| Building construction practices | Environmental recovery |
| Public health/mental health recovery | Disaster memorialization |
| Economic development |  |
| *Recovery Management* |  |
| Agency notification and mobilization | Public information |
| Mobilization of recovery facilities and equipment | Recovery legal authority and financing |
| Internal direction and control | Administrative and logistical support |
| External coordination | Documentation |

|  |  |
| --- | --- |
| Damage Assessment | Routine Construction Cost Estimation |
| Rapid Damage Assessment |  |
| Preliminary Damage Assessment |  |
| Site Assessment | Preliminary Cost Estimate |
|  | Detailed Cost Estimate |