

Risks related to people represent the most numerous resource risks, constituting nearly 20 percent of the entire database and over half of the resource category. Any system subject to queues requires some excess capacity to maximize throughput. Total Project Impact by Resource Root Cause Subcategories

Outsourcing Late or Poor Output People Loss Money Limitation People Temp Loss People Queuing People Motivation People Late Start Outsourcing Delayed Start an earlier project. Most organizations optimize operations by investing the bare minimum in specialized (and expensive) expertise, and in costly facilities and equipment. Motivation issues are generally a consequence of diminishing interest on long duration projects or of interpersonal conflicts. The reasons for permanent staff loss included resignations, promotions, reassignments to other work or different projects, and staffing cutbacks. Queuing analysis is well understood, and it is relevant to a wide variety of manufacturing, engineering, computer networks, and many other business systems. Motivation: Loss of team cohesion and interest, typical of long projects Loss of staff permanently had by far the highest overall category impact, and an average slip of seven weeks. Most projects rely on at least some special expertise that is shared with other projects, such as system architects needed at the start, testing personnel needed at the end, and other specialists needed throughout the project. Discovering these risks in advance is difficult, but good record keeping and trend analysis are useful in setting realistic project expectations. A typical reason for short-term staff loss was a customer problem (a so-called hot site) related to the deliverable from 110 IDENTIFYING AND MANAGING PROJECT RISK American Management Association o www.amanet.org Figure 5-1. This leads to a potential scarcity of these individuals or facilities and to contention for access between projects. Queuing problems represented about another quarter of the people-related risks in the PERIL database. If an expert happens to be free when a project is ready for the work to start, there is no problem, but if he or she has five other projects queued up already when your project needs attention, you will come to a screeching halt while you wait in line. Optimizing organizational resources needed for projects based only on cost drives out necessary capacity and results in project delay. The rolling sledgehammer creates a cycle that self-perpetuates and is hard to break. Motivation issues were the smallest subcategory, at only a bit more than 5 percent of the people-related resource risks. However, these risks had an average impact in excess of nine weeks, among the highest for any of the subcategories in the PERIL database. Loss: Permanent staff member loss to the project due to resignation, promotion, reassignment, health, or other reasons 2. Queuing: Slip due to other commitments for needed resources or expertise 4. Other reasons for short-term staff loss included illness, travel problems, and organizational reorganizations. Staff joining the project late had a number of root causes, but the most common was a situation aptly described by one project leader as the rolling sledgehammer. As a consequence, any following project gets a slow and ragged start, with key people beginning their contributions to the new project only when they can break free of the earlier one. People risks are subdivided into five subcategories: IDENTIFYING PROJECT RESOURCE RISK 109

1. Late start: Staff not available at project start; often because of the late finish of previous projects
5. Even when these people become available, there may be additional delay because the staff members coming from a late project are often burned out from the stress and long hours typical of an overdue project.
- Temporary loss: Short-term staff loss due to illness, hot site, support priorities, or

other reasons 3. Permanent staff loss represented about one-third of the people risks. Temporary loss of project staff was the next most common people-related risk, with roughly another quarter of the total. Its overall impact was lower than for permanent staff loss, causing an average slip of just under four weeks. The average schedule impact due to queuing was four weeks. Late starts when key staff are unavailable at the beginning of a project also caused a good deal of project delay. Although only about 10 percent of the people-related resource risks, their average impact was well over six weeks. Whenever a prior project is late, some, perhaps even all, of the staff for the new project are still busy working to get it done.