

management estimate; this represented about a 20 percent overrun! Furthermore, the bottom-up time estimate based on the project network was four months longer than the top management time estimate. Another meeting was scheduled with the significant stakeholders to check the estimates and to brainstorm for alternative solutions. At this meeting everyone agreed the bottom-up cost and time estimates appeared to be accurate. Following are some of the suggestions from the brainstorming session.

- Change scope.
- Outsource technology design.
- Use the priority matrix (found in Chapter 4) to get top management to clarify their priorities.
- Partner with another organization or build a research consortium to share costs and to share the newly developed technology and production methods.
- Cancel the project.
- Commission a break-even study for the laser printer.

Very little in the way of concrete savings was identified, although there was consensus that time could be compressed to the market launch date, but at additional costs.

Lauren met with the marketing (Connor), production (Kim), and design (Gage) managers, who yielded some ideas for cutting costs, but nothing significant enough to have a large impact. Gage remarked, "I wouldn't want to be the one to deliver the message to top management that their cost estimate is \$1,250,000 off! Good luck, Lauren."

- 1. At this point, what would you do if you were the project manager?
- 2. Was top management acting correctly in developing an estimate?
- 3. What estimating techniques should be used for a mission-critical project such as this?



## **Case 5.2**

## Post-Graduation Adventure

Josh and Mike met as roommates during freshman year at Macalester College in St. Paul, Minnesota. Despite a rocky start they became best friends. They are planning a two-week adventure together to celebrate their graduation in June. Josh has never been to Europe and wants to visit France or Spain. Mike spent a semester abroad in Aarhus, Denmark, and traveled extensively in northern Europe. Even though Mike has never been to France or Spain, he wants to go to someplace more exotic, like South Africa or Vietnam. For the past week they have been arguing over where they should go. Josh argues that it will cost too much to fly to South Africa or Vietnam, while Mike counters that it will be much cheaper to travel in Vietnam or South Africa once they are there. They agree that they can spend no more than \$3,500 each on the trip and could be gone for only two weeks.

One evening when they were arguing with each other over beers with friends, Sara said, "Why don't you use what you learned in your project management class to decide what to do?" Josh and Mike looked at each other and agreed that made perfect sense.

- 1. Assume you are either Mike or Josh; how would you go about making a decision using project management methodology?
- 2. Looking first at only cost, what decision would you make?
- 3. After cost, what other factors should be considered before making a decision?





