

People often tend to underestimate the cost of developing and delivering effective Web-based services. This may be due to the fact that there are so many different kinds of investments that need to be made that it is easy to forget a few key expenses. We find that it is very useful to make an effort to identify explicitly as many of the costs as possible, even when you cannot be absolutely exact or certain about every amount. To make these estimations as straightforward as possible for the three levels of service you have described, we have constructed a model cost worksheet; a blank copy is provided for your use on page 12.

There are five cost categories listed in the worksheet: organizational readiness, access for agency staff and other users, end user support, content development and maintenance, and host of site infrastructure. In each category, the worksheet allows for two levels of costs: "one-time" and "annual." One-time costs are incurred during development and implementation only, while annual costs recur for as long as the service continues to be delivered.

Most categories also partition costs in a second way: costs for human resources and costs for other purposes. You are likely to find that the human resources costs dwarf the cost of the electronic infrastructure. In making your estimates, you should account for all the staff time necessary to launch and operate the Web-based services. For example, we identify two costs you should consider in estimating training expenditures: the cost to buy or develop and deliver the training program, as well as the cost of staff time needed to attend the training classes.

Some of these activities may be done by agency staff, others may be outsourced. When outsourcing, you need to anticipate costs for identifying potential vendors, selecting vendors, and managing the contract. On the other hand, if you plan to do activities in-house, but don't have appropriate staff, you should include costs for recruiting and hiring staff or for retraining existing staff in your estimates.

The cost worksheet can be a useful tool for planning the evolution of your Web site. A worksheet should be completed to represent the costs for various levels of aspiration: modest, moderate, and elaborate. In this way, you can assess rather explicitly what the start-up costs might be for these three different versions. Sometimes it makes a great deal of sense to undertake substantial one-time investments in aiming for an elaborate level of service objectives from the very beginning. In other situations, enormous first-year costs can be daunting, so that more modest investments may be more feasible. In any case, the point here is to be able to compare the costs of at least three alternative plans as thoroughly and explicitly as possible.

Figure 3. Blank Cost Worksheet, 3 column

Cost assessment for developing and delivering services

Cost Worksheet						
	MODEST		MODERATE		ELABORATE	
	First Year Cost	Subseq. Annual	First Year Cost	Subseq. Annual	First Year Cost	Subseq. Annual
Organizational Readiness						
Training for Technology Awareness						
Planning for Internet Presence						
Access for Agency Staff and Other Users						
Hardware for End Users						
Software for End Users						
Network and Internet Access for End Users						
Other Vendor Service						
Human Resources						
Start-up Process for Equipment Procurement						
Establish and Manage Vendor and ISP Contracts						
End User Support						
Vendor Services						
Human Resources						
Establish and Manage Vendor Contractsx						
Development and Delivery of User Training						
User Time in Training						
Help Desk for Users						
Content Development and Maintenance Host of Site-Infrastructure						
Hardware for Content Developers						
Software for Content Developers						
Network and Internet Access for Content Developers						
Other Vendor Services						
Human Resources						
Start-up Process for Equipment Procurement						
Establish and Manage Vendor Contracts						
Development and Delivery of Staff Training						
Staff Time in Training						
Webmaster						

Cost assessment for developing and delivering services

Editorial Review						
Content Creation and Coordination						
Web Site Design and Development						
Staff Support for Service						
Programming Support						
Database Administration						
Other Management Support						
Other Clerical Support						
Content Development and Maintenance Host of Site-Infrastructure						
Hardware						
Software						
Network and Internet Access						
Other Vendor Services						
Human Resources						
Front-end Research and Technical Evaluation						
Start-up Process for Equipment Procurement						
Establish and Manage Vendor and ISP Contracts						
Development and Delivery of Staff Training						
Staff Time in Training						
Network and Systems Administration						
Web Server Management						
Operations Support						
Clerical Support						
INFRASTRUCTURE AND OTHER SUBTOTAL						
HUMAN RESOURCES SUBTOTAL						
TOTAL COSTS						

It's never too early to begin this analysis, even though you will not have comprehensive estimates until more design work has been done. You should start as early as possible to identify and estimate these costs, and then refine the numbers as you go along. Complete instructions for this activity are included in *Appendix A*.