

Module 3 Case Study: Cost

Ben Hanson

University of Minnesota Crookston

## **1. Cost Model**

Project Management:

1. Project manager
2. Project team members

Website Design:

1. Registration for recreational programs
2. Registration for classes and programs
3. Tracking/Incentive system

Website Dev:

1. Registration for recreational programs
2. Registration for classes/programs
3. Tracking system
4. Incentive system
5. Testing

Training, rollout, and support:

1. Network operating
2. Network management
3. Network maintains and support
4. Internet
5. Training

Cost Model

<b>Project Cost Baseline by month</b>							
<b>WBS Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>Total</b>
<b>1. Project management</b>							
<b>Project manager</b>	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$96,000
<b>Project team members</b>	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$115,200
<b>2. Website Design</b>							
<b>Registration for recreational programs</b>	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500		\$12,500
<b>Registration for classes and programs</b>	\$60,000						\$60,000
<b>Tracking system &amp; Incentive System</b>	\$60,00	\$60,00	\$60,00	\$60,00	\$60,00	\$60,00	\$36,000
<b>3. Web site development</b>							
<b>Registration for recreational programs</b>					\$16,000		\$16,000
<b>Registration for classes and programs</b>		\$20,000	\$20,000	\$20,000			\$60,000
<b>Tracking system &amp; Incentive System</b>		\$9,000	\$9,000	\$9,000			\$27,000

<b>4. Testing</b>							
<b>New network installation</b>					\$7,200		\$7,200
<b>Units testing</b>						\$3,600	\$3,600
<b>5. Training, Rollout, and Support</b>							
<b>Network Operating</b>						\$9,600	\$9,600
<b>Network management</b>						\$16,000	\$16,000
<b>Network maintains and support</b>						\$9,600	\$9,600
<b>Internet</b>						\$10,000	\$10,000
<b>Training</b>						\$21,000	\$21,000
<b>Total</b>	<b>\$103,700</b>	<b>\$72,700</b>	<b>\$72,700</b>	<b>\$72,700</b>	<b>\$66,900</b>	<b>\$111,000</b>	<b>\$499,700</b>

## 2. Cost Baseline

	Units/hr.	Cost/unit/hr.	Subtotal	WBS level1 Total	% of Total
<b>WBS Items</b>					
<b>Project Management</b>				<b>\$ 211,200</b>	<b>42%</b>
Project manager	960	\$100	\$96,000		
Project team members	1920	\$60	\$115,200		
<b>Website Design</b>				<b>\$108,500</b>	<b>22%</b>
Registration for recreational programs	2500	\$5	\$12,500		
Registration for classes and programs	1	\$60,000	\$60,000		
Tracking system & Incentive System	12	\$3,000	\$36,000		
<b>Website development</b>				<b>\$103,000</b>	<b>21%</b>
Registration for recreational programs	1	\$16,000	\$16,000		
Registration for classes and programs	300	\$200	\$60,000		
Tracking system & Incentive System	300	\$90	\$27,000		
Testing	180	\$120	\$10,800	\$10,800	2%

<b>Training, Rollout and Support</b>				<b>\$105,200</b>	<b>13%</b>
Network Operating	100	60	6000		
Network management	160	100	9,600		
Network maintains and support	160	100	16,000		
Internet	160	60	9,600		
Training	600	60	60,000		
<b>Total project cost estimate</b>				<b>\$499,700</b>	<b>100%</b>

The assumptions are listed below:

BAC	\$200,000
Time	6 months
PV	\$120,000
EV	\$100,000
AC	\$90,000

### 3. Variances & Indices

The cost variance (CV), schedule variance (SV), cost performance index (CPI), and schedule performance index (SPI) are shown below:

CV	\$10,000
SV	-\$20,000
CPI	111.1%
SPI	83.33%

### 4. Status

According to the value of the schedule performance index shown above, the project is behind schedule by 83.33%. Furthermore, the project is over budget because the cost performance index states the project is 11.1% more than the full value of the project.

### 5. EAC

The formula for calculating the EAC is equals  $BAC/CPI$ .

$$EAC = 200,000/111.1\%$$

$$= \$180,000 \text{ roughly}$$

Based on these results, it is clear that the project is performing better than planned.

## 6. Completion

To calculate the estimated time it will take to finish the project, divide: original estimated time/SPI. This formula equals out to 7.2 months, meaning that there are 1.2 more months required to complete the project.

## 7. Earned Value.

Earned Value Chart

