

Summer 2007

# REAP Rural Business Roundtable

Topic: Pricing Your Product Example

## Practical Exercise for Calculating the Price of a Product

Setting the correct price for a new product is best not left to guess work or hunches. This month we lead you through an example which REAP Panhandle Business Specialist *Jerry Terwilliger* created after attending a session on this topic at the Association for Enterprise Opportunity (AEO) conference in Kansas City, Missouri, last May.

---

### Example Business Situation:

Roller Specialties is a specialty small roller manufacturer that re-manufactures hard to find rollers for sale to specialty machinery part retailers. The owner is currently preparing to introduce a new part and needs help pricing it.

The company has four employees including the owner. All perform direct labor activities. Two employees are paid \$9.00/hr, one employee is paid \$11.00/hr, and the owner is paid \$20.00/hr. The Company averages 111 non-work days per year (365 less weekends -  $52 \times 2 = 104$ , plus 7-holidays per year). On a typical workday, the employees' average 6 1/2 hours in production-related activities and the owner averages 3 hours.

The company's business expenses are projected to be \$287,550 for the next 12 months. This includes \$69,000 for direct materials and \$70,009 for direct labor.

The owner has determined that one batch of rollers will require 4 person-hours of production time and will produce 160 units. Material and packaging will cost \$0.73 per unit.

### You Will Need this Information:

1. What is the average direct labor wage paid per hour?

Employee 1 -	\$9.00
Employee 2 -	9.00
Employee 3 -	11.00
Owner -	<u>20.00</u>
	\$49.00/ 4 employees = \$12.25/hr

2. How many workdays are available to Roller Specialties, assuming there are 365 days in this calendar year?

Calendar days -	365
Less non-workdays	<u>-111</u>
Total workdays available =	254

*Continued on other side*

3. What is the total number of direct labor person-hours projected to be billed during the work year for the owner and employees?

<b>Total workdays available</b>	<b>254</b>
Scheduled work hours	x 8
Hours available per employee	<u>2,032</u>
Number of employees	x 4
<b>Total hours available</b>	<b>8,128</b>
Less non-billable time *	- 2,413
Billable direct labor hours =	<u>5,715</u>

\*Note: Each employee averages 1 1/2 non-billable hour's per day (breaks, etc.) x 254 workdays. Owner averages 5 non-billable hours per day x 254 workdays.

1 1/2 hrs x 254 workdays x 3 employees =	1,143
5 hrs x 254 workdays x 1 owner	<u>+1,270</u>
Non-billable direct labor hours =	2,413

4. What is the projected overhead dollar expense for the work year?

Business Expenses for 12 months	\$287,550
Less:	
Direct labor	-\$70,009
Direct materials	<u>-\$69,000</u>
<b>Projected overhead expense =</b>	<b>\$148,541</b>

5. What is the annual overhead percentage for Roller Specialties?

$$\frac{\text{Annual overhead expense}}{\text{Annual direct labor cost}} = \text{Annual overhead percentage}$$

$$\frac{\$148,541}{\$70,009} = 2.12 \text{ or } 212\%$$

6. What will one roller cost to produce?

Average direct labor rate	\$12.25/person-hr
Overhead rate @ 212%	+ <u>\$25.97</u>
Direct labor cost =	\$38.22 1/person-hr

4 person-hours per batch = 240 minutes/ 160 units per batch = 1.5 minutes per unit

Direct labor cost/minute (\$38.22 / 60 minutes) = \$.64 x 1.5 minutes	\$0.96
Direct material costs	+ <u>\$0.73</u>
<b>Per unit cost for each roller =</b>	<b>\$1.69</b>

7. What should the selling price be for each roller if Roller Specialties wants to receive a 25% gross margin on sales?

**Margin on selling price = \$1.69 / .75 = \$2.25 established selling price.**

**Questions about pricing?** Contact Jerry Terwilliger, REAP Panhandle Business Specialist at 308.247.9926 or email him at [j414@charter.net](mailto:j414@charter.net)