

Hsm 260 – week – 4 fixed costs, variable costs and break even point



Assignment: Fixed Costs, Variable Costs, and Break-Even Point Exercise 10. 1

During the sixth month of the fiscal year, the program director of the Westchester HomeDelivered Meals (WHDM) program decides to again recompute fixed costs, variable costs, and the BEP using the high/low method. Here are the number of meals served and the total costs of the program for each of the first six months: Month July August September October November December Meals 3, 500 4, 000 4, 200 4, 600 4, 700 4, 900 Served Total Costs \$20, 500.

\$22, 600. \$23, 350. \$24, 500. \$25, 000. \$26, 000.

Recompute fixed costs, variable costs, and the BEP. What are the variable costs What are the fixed costs How many meals will the WHDM program need to provide during the fiscal year to reach the BEP How much profit will the program earn if it completes its 45, 000-meal contract with the City of Westchester Meals: High-Low= 4, 900 - 3, 500 = 1, 400 Cost: High-Low= \$26, 000 - \$20, 500 = \$5, 500 . The variable cost per meal: \$5, 500 / 1, 400 = \$3.93 The variable cost for the low month: \$1, 755 . Fixed cost: \$20, 500 .

$(3, 500 \times \$3.93) = \$6, 745$. $PX = A + BX$ $5.77 X = 6, 745 + 3.93 X$

$5.77 X - 3.93 X = 6, 745 + (3.93 \times 3, 500)$ $1.84 X = 6, 745 + 13, 755$

$1.84 X = 20, 500$ $X = 11, 196$ (Monthly BEP) $11, 196 \times 12 = 134, 352$ (Fiscal-year BEP) WHDM program profit analysis $4, 000 =$ meal contract 5039 Break Even Point (BEP) = \$4, 920 .

1,008 Revenue 1,008 Meals at \$5.77 = \$5,816.16 Total Cost Per meal 1,008 at \$3.93 = \$3,961.44 Total Profit = \$5,816.

16 ? \$3,961.44 = \$1,854.72 Exercise 10.2 It has been two years since the New River Community Council (NRCC) started its newsletter dealing with state and community funding opportunities for human service agencies.

The current number of subscribers to the newsletter is 525. During the second year, the NRCC hired a new part-time newsletter coordinator (social work student). The NRCC has raised the salary of the part-time newsletter coordinator to \$6,000 per year and has also hired another part-time student as an assistant for ten hours a week. The assistant is to be paid \$75 per week or \$3,900 per year. Together the newsletter coordinator and the part-time assistant believe they can handle up to 650 newsletter subscribers. Beyond this number, the newsletter program will require still more staff resources. In order to help cover the cost of the new part-time assistant, the executive director has also decided to increase the annual subscription price of the newsletter to \$20. Additionally, the variable costs of preparing, printing, and mailing six bimonthly issues of the newsletter have risen to \$4.

50. Recompute the BEP for the newsletter program. What is the new BEP Is the new BEP a feasible solution Why or why not Will any slack capacity exist If so, how much If not, why not"New River Community Council (NRCC) Break Even Point (BEP) $PX = A + BX$ $20X = 6,000 + 3,900 + 4X$

$50 \times 20 = 9,900 + 4 \times 50$ $20X = 9,900 + 4X$

$50X = 9,900 + (4.50X + 4.50X)15$
 $50X = 9,900 + 15 \cdot 9X$
 $50X = 9,900 + 135X$

$15 \cdot 9X = 639$
 Maximum Number = 650
 Break Even Point = 639
 Surplus Capacity = 11
 Newsletter Coordinator salary: \$6,000 per year
 Newsletter assistant salary: \$3,900 per year
 Since the two employees have the maximum capacity of 650, there is no slack capacity."Reference Martin, L. (2001). Financial management for human service administrators. Boston, MA: Allyn and Bacon.

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