



Finger Lakes Council Underwriting Roundtable

Business Interruption

May 4, 2011



Agenda

1. Basic Business Income Theory
2. Calculate Lost Sales
3. Lost Gross Profits
4. Continued & Discontinued Expenses
5. Calculating the Loss
6. Coinsurance
7. Extra Expense



Basic Business Income Theory

1. Lost Gross Earnings/Sales
2. Saved or Discontinued Expenses
3. Reduce Lost Sales by the Discontinued Expenses to determine the Lost Business Income (Top Down)
4. Most policies state the lost business income is based on Net Income plus Continued Expenses (Bottom Up)
5. **Both methods will arrive at the same number.**



Income Statement

Sales	\$ 1,000
Cost of Sales	600
Gross Profit	<hr/> 400
Variable Expenses	150
Fixed Expenses	200
Total Expenses	<hr/> 350
Net Income	<hr/> \$ 50



Top Down

Loss Summary

Lost Sales	\$ 1,000
Lost Gross Profits	400
Less: Discontinued Expenses (Variable)	150
Lost Business Income	<u>\$ 250</u>



Bottom Up

Loss Summary

Lost Sales	\$ 1,000
Lost Net Income	50
Plus: Continued Expenses (Fixed)	200
Lost Business Income	<u>\$ 250</u>



Top Down vs. Bottom Up

Top down approach – gross profit less discontinued expenses.

Bottom up approach – net income plus continued expenses.

Both methods arrive at the same figure.

\$250 in Lost Business Income



Calculating Lost Sales

1. Income Tax Returns & NYS Sales Tax Returns
2. Monthly Profit & Loss Statements (Cash vs. Accrual Concerns)
3. Sales Journals, Cash Receipts Journals, etc....
4. What is the current economic climate and industry trends?
5. Are there seasonality or “Idle Period” issues?
6. Look for one time aberrations in historical sales.
7. Is there potential for Sales Make Up or Offsets?
8. Is there a waiting period deductible?
9. Is there Extended BI Coverage?
10. Bottom line – What is reasonable?



Compute Lost Sales

<u>Week Beg.</u>	<u>Mon</u>	<u>Tue</u>	<u>Wed</u>	<u>Thu</u>	<u>Fri</u>
Aug 10 th	500	1,000	1,000	1,000	1,500
Aug 17 th	750	1,250	900	1,200	1,750
Aug 24 th	1,000	1,000	1,000	1,500	1,700
Aug 31 st	750	Loss Period --		Sep 1 st to Sep 4 th	
Sep 7 th	1,000	1,000	1,200	1,200	1,800
Sep 14 th	500	1,000	1,000	1,500	1,500
Sep 21 st	1,000	1,000	1,200	1,500	1,750





Expected & Lost Sales

<u>Week Beg.</u>	<u>Mon</u>	<u>Tue</u>	<u>Wed</u>	<u>Thu</u>	<u>Fri</u>	<u>Total</u>
Aug 10 th	\$500	\$1,000	\$1,000	\$1,000	\$1,500	
Aug 17 th	750	1,250	900	1,200	1,750	
Aug 24 th	1,000	1,000	1,000	1,500	1,700	
Aug 31 st	750	Loss Period -- Sep 1 st to Sep 4 th				
Sep 7 th	1,000	1,000	1,200	1,200	1,800	
Sep 14 th	500	1,000	1,000	1,500	1,500	
Sep 21 st	<u>1,000</u>	<u>1,000</u>	<u>1,200</u>	<u>1,500</u>	<u>1,750</u>	
Sample Totals	\$5,500	\$6,250	\$6,300	\$7,900	\$10,000	
Sample Days	<u>n/a</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	
Expected Sales		\$1,042	\$1,050	\$1,317	\$1,667	\$5,076
Actual Sales		<u>---</u>	<u>---</u>	<u>(500)</u>	<u>(1,267)</u>	<u>(1,767)</u>
Lost Sales		<u>\$1,042</u>	<u>\$1,050</u>	<u>\$817</u>	<u>\$400</u>	<u>\$3,309</u>

BST





Lost Sales Alternatives

Prior Year's Sales	\$ 250,000
Work Days Per Year (52 weeks x 5 days/week)	<u>260</u>
Average Sales Per Day	962
Days in Loss Period	<u>4</u>
Expected Sales	3,848
Actual Sales	<u>(1,767)</u>
Lost Sales	<u><u>\$ 2,081</u></u>



Which Lost Sales Estimate is Best?

- *Is there a right or wrong answer here?*
- *Based on the specific circumstances, what answer is the most reasonable?*





Lost Gross Profits

1. The Gross Profits are the Sales less the Cost of Sales, calculated as a Percentage of Sales.
2. Gross Profit Percentage typically obtained from Income Tax Returns, Financial Statements or Profit & Loss Statements
3. What is the Historical Gross Profit Percentage? Is that Percentage Appropriate?
4. Is there more than one product line with varying Gross Profit Percentages?



Layout the P&L Statement

Net Sales	\$ 250,000
Cost of Sales	<u>100,000</u>
Gross Profit	150,000
Salary	20,000
Hourly wages	5,000
Utilities	10,000
Rent	13,000
Bad debts	2,000
Selling supplies	<u>500</u>
Total Expenses	<u>50,500</u>
Net Profit	<u><u>\$ 99,500</u></u>



Compute the P&L as a Percent of Sales

		<u>Pct.</u>
Net Sales	\$ 250,000	100.0%
Cost of Sales	<u>100,000</u>	<u>40.0%</u>
Gross Profit	150,000	60.0%
Salary	20,000	8.0%
Hourly wages	5,000	2.0%
Utilities	10,000	4.0%
Rent	13,000	5.2%
Bad debts	2,000	0.8%
Selling supplies	<u>500</u>	<u>0.2%</u>
Total Expenses	<u>50,500</u>	<u>20.2%</u>
Net Profit	<u><u>\$ 99,500</u></u>	<u><u>39.8%</u></u>



Discontinued Expenses

1. Expenses that are saved as a result of a business interruption.
2. Examples include supplies, repairs, utilities, potentially payroll, etc.....
3. Calculated as a Percentage of Sales.
4. Based on review of annual expenses reported on income tax returns and monthly operating expenses (Cash vs. Accrual Concerns).
5. Each expense is analyzed separately to determine if the expense continued or discontinued.
6. For short-term losses, assumptions are made regarding the continued or discontinued expenses.
7. Payroll expenses are typically analyzed based on a review of Weekly/Bi-Weekly payroll reports.



Continue or Discontinue?

		<u>Pct.</u>	<u>Discontinued Expenses</u>	<u>Continued Expenses</u>
Net Sales	\$ 250,000	100.0%		
Cost of Sales	<u>100,000</u>	<u>40.0%</u>		
Gross Profit	150,000	60.0%		
Salary	20,000	8.0%	\$ -	\$ 20,000
Hourly wages	5,000	2.0%	5,000	-
Utilities	10,000	4.0%	5,000	5,000
Rent	13,000	5.2%	-	13,000
Bad debts	2,000	0.8%	2,000	-
Selling supplies	<u>500</u>	<u>0.2%</u>	<u>500</u>	<u>-</u>
Total Expenses	<u>50,500</u>	<u>20.2%</u>	\$ <u>12,500</u>	\$ <u>38,000</u>
Net Profit	<u>\$ 99,500</u>	<u>39.8%</u>	<u>5.0%</u>	<u>15.2%</u>





		<u>Pct.</u>	<u>Continued Expenses</u>	<u>Pct.</u>	<u>BI Rate</u>
Net sales	\$ 250,000	100.0%			
Cost of sales	<u>100,000</u>	<u>40.0%</u>			
Gross profit	150,000	60.0%			
Salary	20,000	8.0%	\$ 20,000	8.0%	
Hourly wages	5,000	2.0%	n/a		
Utilities	10,000	4.0%	5,000	2.0%	
Rent	13,000	5.2%	13,000	5.2%	
Bad debts	2,000	0.8%	n/a		
Selling supplies	<u>500</u>	<u>0.2%</u>	<u>n/a</u>		
Total Expenses	<u>50,500</u>	20.2%	<u>\$ 38,000</u>	15.2%	15.2%
Net Profit	<u>\$ 99,500</u>	39.8%			39.8%

Net Income plus Continued Expenses

55.0%



		<u>Pct.</u>	<u>Discontinued Expenses</u>	<u>Pct.</u>	<u>BI Rate</u>
Net sales	\$ 250,000	100.0%			
Cost of sales	<u>100,000</u>	<u>40.0%</u>			
Gross profit	150,000	60.0%			60.0%
Salary	20,000	8.0%	n/a		
Hourly wages	5,000	2.0%	5,000	2.0%	
Utilities	10,000	4.0%	5,000	2.0%	
Rent	13,000	5.2%	n/a		
Bad debts	2,000	0.8%	2,000	0.8%	
Selling supplies	<u>500</u>	<u>0.2%</u>	<u>500</u>	<u>0.2%</u>	
Total Expenses	<u>50,500</u>	<u>20.2%</u>	<u>\$ 12,500</u>	5.0%	-5.0%
Net Profit	<u>\$ 99,500</u>	<u>39.8%</u>			
Gross Profit less Discontinued Expenses					<u>55.0%</u>





Calculate the Loss

Lost Sales	\$ 3,309
Business Income Rate	<u>x 55%</u>
Business Income Loss	<u>\$ 1,820</u>



Evaluate Coinsurance

With the hardening insurance market, most underwriters say that agreed value coverage will be issued less often.

Underwriters want to know if the reported values are realistic.

Addressed in the policy as an “Additional Condition”.

Using the P&L, determine the annual “insurable value” to fit the policy.
(Usually net income plus continued expenses).

Apply the coinsurance % to the insurable value to compute the coinsurance requirement and compare the result with the limit of insurance to determine the % (or portion) of the recoverable loss.



Costs Excluded from Insurable Value (CP 00 30)

1. Prepaid freight - outgoing
2. Returns and allowances
3. Discounts
4. Bad debts
5. Collection expenses
6. Cost of raw stock & factory supplies (including transportation)
7. Cost of merchandise sold (including transportation)
8. Costs of other supplies consumed (including transportation)
9. Costs of services purchased to resell that do not continue under contract
10. Power, heat & refrigeration expenses that do not continue under contract (If Form CP1511 is attached)
11. Ordinary payroll (If Form CP1510 is attached)
12. Special deductions for mining properties



Compute Insurable Value

Exclude the expenses listed in the coinsurance condition

		<u>Insurable Value</u>
Net Sales	\$250,000	
Cost of Sales	<u>100,000</u>	-
Gross Profit	150,000	
Salary	20,000	20,000
Hourly wages	5,000	5,000
Utilities	10,000	10,000
Rent	13,000	13,000
Bad debts	2,000	-
Selling supplies	500	-
Total Expenses	<u>50,500</u>	<u>48,000</u>
Net Profit	<u>\$ 99,500</u>	<u>99,500</u>

\$ 147,500



Calculate Portion of Loss Covered by the Policy

Limit of Insurance \$ 100,000 (a)

Insurable Value \$ 147,500

Coinsurance % (listed in declarations) 90%

Coinsurance Requirement \$ 132,750 (b)

Portion of Loss Covered by Policy (a divided by b) **75.3%**

Note: Coinsurance penalty is 24.7% (100.0% - 75.3%)



Calculate Amount Recoverable from Policy

Business Income Loss	\$	1,820
Portion of Loss Covered by the Policy		<u>75.3%</u>
Amount Recoverable From the Policy	\$	<u><u>1,371</u></u>



Extra Expense

1. Additional expenses incurred to mitigate the effects of a business interruption.
2. Examples of Extra Expense Include:
 - ◆ Cost of Labor
 - ◆ Temporary Location
 - ◆ Outsourcing
 - ◆ Advertising
 - ◆ Equipment for Temporary Use
 - ◆ Extra Costs to Obtain Stock
3. Is the expense reasonable?
4. Is the Extra Expense required to reduce the BI loss?