

Assignment – What if Scenario Analysis

Using What-If Scenario Analysis

This assignment involves using Scenario Analysis (**Tools → Scenarios**) to analyze **what** the result will be **if** employees are given a percentage increase in their hourly rate. We wish to analyze different scenarios corresponding to different rates.

Create this spreadsheet:

	A	B	C	D	E	F	G	H
1	LIGHTENING MEDIA PRODUCTION							
2								
3	Payroll Analysis Report							
4								
5		CURRENT	CURRENT	PROPOSED	PROPOSED			
6	EMPLOYEE	HOURLY	WEEKLY	HOURLY	WEEKLY			
7	NAME	PAY RATE	PAY	PAY RATE	PAY			
8								
9	Baker, Susan	\$12.00					HOURS Per Week:	40
10	Caldwell, Michael	\$18.00					% OF PAY RATE INCREASE:	5%
11	Davis, George	\$14.75					TOTAL COST OF RAISE:	
12	Franks, Mark	\$21.00						
13	Grayson, Kelly	\$17.00						
14	Harris, Victor	\$24.00						
15	Jackson, Danielle	\$19.00						
16	Johnson, Carl	\$14.00						
17	Lawson, Frank	\$13.50						
18	Michaels, William	\$17.00						
19	Patterson, George	\$20.00						
20	Steiner, Roberta	\$27.00					YEARLY COST OF RAISE:	
21								
22	TOTAL:							
23								

DO NOT LOSE POINTS! - - NOTE THE FOLLOWING (failure to do exactly what is required will result in loss of points):

- Cell C9 is to be computed using a formula that can be **copied** to all of the cells in subsequent rows 10 through 20 in column C. Current Weekly Pay is computed as Current Hourly Pay Rate * Hours per Week. Note that in order to copy this formula and a few others in the spreadsheet you must **fix** a cell address. In this case, you must fix the cell address for Hours per Week! (**absolute** cell reference)
- Cell C22 is to contain a formula that computes the sum of the values in column C
- Cell D9 is to be computed using a formula that can be **copied** to all of the cells in subsequent rows 10 through 20 in column D. Proposed Hourly Pay Rate is computed as the product of the Current Hourly Pay Rate and the % of Pay Increase found in the right side portion of the spreadsheet.

- Cell E9 is to be computed using a formula that can be **copied** to all of the cells in subsequent rows 10 through 20 in column E. Proposed Weekly Pay is computed as Proposed Hourly Pay Rate * Hours per Week.
- Cell E22 is to contain a formula that computes the sum of the values in column E.
- The *Total Cost of the Raise* in cell H14 is to be computed as the different in the two Weekly Pay Totals.
- The *Yearly Cost of the Raise* in cell H20 is to be computed using the Total Cost of the Raise multiplied by 52 (52 weeks in the year).
- Format the cells with a currency format wherever appropriate.

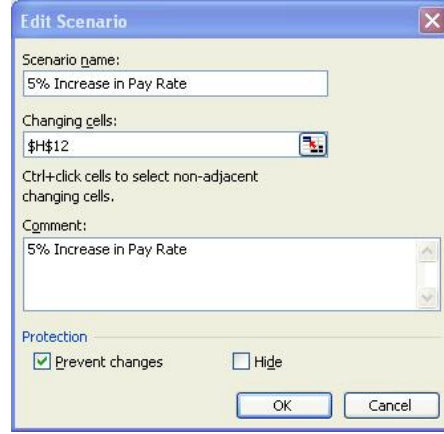
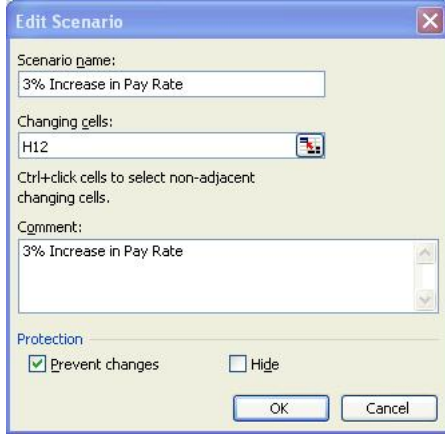
The results of these calculations should display as follows. Again make certain that you have used copy-able formulas!

	A	B	C	D	E	F	G	H
1	LIGHTENING MEDIA PRODUCTION							
2								
3	Payroll Analysis Report							
4								
5		CURRENT	CURRENT	PROPOSED	PROPOSED			
6	EMPLOYEE	HOURLY	WEEKLY	HOURLY	WEEKLY			
7	NAME	PAY RATE	PAY	PAY RATE	PAY			
8								
9	Baker, Susan	\$12.00	\$480.00	\$12.60	\$504.00			
10	Caldwell, Michael	\$18.00	\$720.00	\$18.90	\$756.00			
11	Davis, George	\$14.75	\$590.00	\$15.49	\$619.50			
12	Franks, Mark	\$21.00	\$840.00	\$22.05	\$882.00			
13	Grayson, Kelly	\$17.00	\$680.00	\$17.85	\$714.00			
14	Harris, Victor	\$24.00	\$960.00	\$25.20	\$1,008.00			
15	Jackson, Danielle	\$19.00	\$760.00	\$19.95	\$798.00			
16	Johnson, Carl	\$14.00	\$560.00	\$14.70	\$588.00			
17	Lawson, Frank	\$13.50	\$540.00	\$14.18	\$567.00			
18	Michaels, William	\$17.00	\$680.00	\$17.85	\$714.00			
19	Patterson, George	\$20.00	\$800.00	\$21.00	\$840.00			
20	Steiner, Roberta	\$27.00	\$1,080.00	\$28.35	\$1,134.00			
21								
22	TOTAL:		\$8,690.00		\$9,124.50			
23								

HOURS Per Week:	40
% OF PAY RATE INCREASE:	5%
TOTAL COST OF RAISE:	\$434.50

YEARLY COST OF RAISE:	\$22,594.00
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Now, we are ready to do **Scenario Analysis**, or what is often referred to as *what if* analysis. Using the **Scenario Manager (Tools → Scenario)**, create the following scenarios:



(a) Scenario for a 3% Hourly Pay rate increase (b) Scenario for a 5% Hourly Pay rate increase

(c) Scenario for a 6% Hourly Pay Rate increase

(d) Scenario for a 7% Hourly Pay Rate increase

Then produce a Scenario Summary that selects the cells C22, E22, H14 and H20 for display. The Scenario Summary worksheet produced should look like this:

	A	B	C	D	E	F	G	H
1								
2		Scenario Summary						
3		Current Values: 3% Increase in Pay Rate 5% Increase in Pay Rate 6% Pay Rate increase 7% Pay Rate Increase						
4		Changing Cells:						
5			\$H\$12	5%	3%	5%	6%	7%
6		Result Cells:						
7		\$C\$22	\$8,690.00	\$8,690.00	\$8,690.00	\$8,690.00	\$8,690.00	\$8,690.00
8		\$E\$22	\$9,124.50	\$8,950.70	\$9,124.50	\$9,211.40	\$9,298.30	\$9,298.30
9		\$H\$14	\$434.50	\$260.70	\$434.50	\$521.40	\$608.30	\$608.30
10		\$H\$20	\$22,594.00	\$13,556.40	\$22,594.00	\$27,112.80	\$31,631.60	\$31,631.60
11		Notes: Current Values column represents values of changing cells at time Scenario Summary Report was created. Changing cells for each scenario are highlighted in gray.						
12								
13								
14								
15								

The Questions Below will appear in Blackboard as part of this assignment.

Write the answers obtained by this analysis below.

1. With a 7% raise, what is the total weekly cost of the raise? _____
2. With a 7% raise, what would the annual cost be? _____
3. What is the annual cost at 5% if we lower the hours per week input to 30? _____
4. Compromise with the employees and offer an 5% raise, but cut the per-week hours to 36.
 - a. What is the weekly cost to the company? _____
 - b. What is the annual cost? _____
 - c. What is Frank Lawson's proposed weekly pay under this scenario? _____