

SUSTAINABILITY MODEL TEMPLATE INSTRUCTIONS

This document contains a sustainability model template for districts to use as a tool for testing local, Act 1-compliant compensation plans for sustainability over a three year period. Districts may tailor the model to reflect their own compensation system’s design.

This sample sustainability model differs from the sample compensation models previously provided by the Louisiana Department of Education because it allows the user to enter probabilities that teacher ratings will change and that current teachers will leave the district. The user will recalculate the workbook many times in order to estimate the likelihood that their model will be within budget.

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STEP ONE: Download the Microsoft Excel file containing the Sustainability Model template:

See attachments for ***Sustainability Model Template***

The template is color-coded to guide users through the process of entering data. For basic usage, only enter values into the green cells and columns.

	A	C	D
1	USERS ENTER VALUES IN GREEN CELLS ONLY		
2			
3	CURRENTLY INEFFECTIVE		
4	Probability that:	New rating will be:	Rating Description
5	20%	1	Ineffective
6	40%	2	Effective: Emerging
7	39%	3	Effective: Proficient
8	1%	4	Highly Effective
9			

Users should only enter values in the green cells or columns.

STEP TWO: Enter ratings probabilities based on local data

1. The first worksheet in the Microsoft Excel document is the “Rating Probabilities” sheet. Click on the tab for this sheet to open.
2. Enter the probability that a teacher will receive a rating based on their current rating. For example, in the first table, labeled “Currently Ineffective”, enter the likelihood that a currently ineffective teacher will be Ineffective, Effective: Emerging, Effective: Proficient, and Highly Effective in the next year.

Note: The sample probabilities included in the template are intended to produce higher costs. It is important for districts to examine their own teacher data in order to form these assumptions. Districts may choose to test multiple sets of probabilities in order to forecast high and low cost scenarios.

3. In the last table, enter the probability that a new teacher in the district will receive each rating.

	A	C	D	
1	USERS ENTER VALUES IN GREEN CELLS ONLY			
2				
3	CURRENTLY INEFFECTIVE			
4	Probability that:	New rating will be:	Rating Description	
5	20%	1	Ineffective	
6	40%	2	Effective: Emerging	
7	39%	3	Effective: Proficient	
8	1%	4	Highly Effective	
9				
10	CURRENTLY EFFECTIVE: EMERGING			
11	Probability that:	New rating will be:	Rating Description	
12	5%	1	Ineffective	
13	40%	2	Effective: Emerging	
14	50%	3	Effective: Proficient	
15	5%	4	Highly Effective	
16				
17	CURRENTLY EFFECTIVE: PROFICIENT			
18	Probability that:	New rating will be:	Rating Description	
19	5%	1	Ineffective	
20	5%	2	Effective: Emerging	
21	75%	3	Effective: Proficient	
22	15%	4	Highly Effective	
23				
24	CURRENTLY HIGHLY EFFECTIVE			
25	Probability that:	New rating will be:	Rating Description	
26	1%	1	Ineffective	
27	1%	2	Effective: Emerging	
28	18%	3	Effective: Proficient	
29	80%	4	Highly Effective	

STEP THREE: Input attrition probabilities based on local data

1. The next worksheet is the “Attrition Probabilities” sheet. Click on the tab for this sheet to open.
2. Input the probability that teachers will leave the district based on their years of experience and current evaluation rating. For example, a Highly Effective teacher with 15 years of experience may have a 1% likelihood of leaving the district.

Note: The sample probabilities included in the template are intended to produce higher costs. It is important for districts to examine their own teacher data in order to form these assumptions. Districts may choose to test multiple sets of probabilities in order to forecast high and low cost scenarios.

	A	B	C	D	E
1	USERS ENTER VALUES IN GREEN CELLS ONLY				
2					
3		Rating			
4	Experience	1	2	3	4
5	0	20%	15%	5%	5%
6	1	19%	14%	4%	3%
7	2	18%	13%	3%	2%
8	3	17%	12%	2%	2%
9	4	16%	11%	1%	1%
10	5	15%	10%	1%	1%
11	6	15%	10%	1%	1%
12	7	15%	10%	1%	1%
13	8	15%	10%	1%	1%
14	9	15%	10%	1%	1%
15	10	15%	10%	1%	1%
16	11	15%	10%	1%	1%
17	12	15%	10%	1%	1%
18	13	15%	10%	1%	1%
19	14	15%	10%	1%	1%
20	15	15%	10%	1%	1%
21	16	15%	10%	1%	1%
22	17	15%	10%	1%	1%
23	18	15%	10%	1%	1%
24	19	15%	10%	1%	1%
25	20	15%	10%	1%	1%
26	21	15%	10%	1%	1%
27	22	15%	10%	1%	1%
28	23	15%	10%	1%	1%
29	24	15%	10%	1%	1%

STEP FOUR: Input the probability that teachers will meet each Demand criteria

1. The next worksheet is the “Demand Component Probability” sheet. Click on the tab for this sheet to open.
2. Input the probability that teachers will meet each Demand component. For example, if 10% of teachers in the district will meet Demand component 1, input 10% in that row.

STEP FIVE: Input the district starting salary, base salary caps, and annual increase values

1. The next worksheet is the “Inputs” sheet. Click on the tab for this sheet to open.
2. *District Starting Salary:* Enter the desired starting salary amount.
3. *Pay Increase Amounts:* In this model, compensation increases are determined according to three criteria: Effectiveness, Experience, and Demand. Teachers receive larger increases as they receive consecutive years of Effective: Proficient and Highly Effective ratings. With this template, districts have the flexibility to modify the increase amount for each rating.

In this example, a teacher rated Effective: Proficient for the first time would receive the compensation increases inputted in the template on the “Proficient (1st Year)” row. The following year, if that teacher received another Effective: Proficient rating, the teacher would receive the increases captured in the row labeled “Proficient (2nd Year)”. This template is structured such that Effective: Proficient and Highly Effective teachers can receive rising increases for three years of consecutive performance. After the third year, if the teacher receives the same rating, the increase will be the same as the one earned in year three.

Act 1 specifies that no compensation increases will be awarded to teachers rated Ineffective, so these values are locked at \$0.

Note: Act 1 requires that no single criterion make up more than 50% of a teacher’s total compensation increase, so the model tests whether any of the criteria violate this rule. If all of the annual increase values for each criterion and rating comply with this rule, the words “MEETS 50% RULE” will display; if not, the words “SURPASSES 50% RULE” will display.

	A	B	C	D	E	F	G	H
1	USERS ENTER VALUES IN GREEN CELLS ONLY							
2								
3	Enter District Starting Salary:	\$46,100						
4								
5	Enter Pay Increase Amounts:							
6	Category Number	Name	Effectiveness	Experience	Demand 1	Demand 2	Demand 3	
7	1	Ineffective	\$0	\$0	\$0	\$0	\$0	
8	2	Emerging (1st Year)	\$50	\$50	\$50	\$0	\$0	MEETS 50% RULE
9	3	Emerging (2nd Year)	\$50	\$50	\$50	\$0	\$0	MEETS 50% RULE
10	4	Emerging (3rd Year)	\$50	\$50	\$50	\$0	\$0	MEETS 50% RULE
11	5	Proficient (1st Year)	\$200	\$100	\$100	\$0	\$0	MEETS 50% RULE
12	6	Proficient (2nd Year)	\$300	\$150	\$150	\$0	\$0	MEETS 50% RULE
13	7	Proficient (3rd Year)	\$400	\$200	\$200	\$0	\$0	MEETS 50% RULE
14	8	Highly Effective (1st Year)	\$400	\$200	\$200	\$0	\$0	MEETS 50% RULE
15	9	Highly Effective (2nd Year)	\$500	\$250	\$250	\$0	\$0	MEETS 50% RULE
16	10	Highly Effective (3rd Year)	\$600	\$300	\$300	\$0	\$0	MEETS 50% RULE
17								

4. *Pay Increase Types:* This model also includes the flexibility to choose which annual increases impact base salaries versus a one-time stipend, depending on a teacher’s effectiveness rating. This flexibility allows districts to choose the level of emphasis or importance for each criterion and allows the district to set different base salary trajectories for

	A	B	C	D	E	F	G
18	Enter Pay Increase Types:						
19	Category Number	Name	Effectiveness	Experience	Demand 1	Demand 2	Demand 3
20	1	Ineffective					
21	2	Emerging 1	Stipend Award	Stipend Award	Stipend Award	Stipend Award	Stipend Award
22	3	Emerging 2	Stipend Award	Stipend Award	Stipend Award	Stipend Award	Stipend Award
23	4	Emerging 3	Stipend Award	Stipend Award	Stipend Award	Stipend Award	Stipend Award
24	5	Proficient 1	Base Increase	Base Increase	Stipend Award	Stipend Award	Stipend Award
25	6	Proficient 2	Base Increase	Base Increase	Stipend Award	Stipend Award	Stipend Award
26	7	Proficient 3	Base Increase	Base Increase	Stipend Award	Stipend Award	Stipend Award
27	8	Highly Effective 1	Base Increase	Base Increase	Stipend Award	Stipend Award	Stipend Award
28	9	Highly Effective 2	Base Increase	Base Increase	Stipend Award	Stipend Award	Stipend Award
29	10	Highly Effective 3	Base Increase	Base Increase	Stipend Award	Stipend Award	Stipend Award

teachers of varying effectiveness levels. For example, a district may want to set all of the criteria for increases to stipends for Effective: Emerging teachers, and set base salary increases for Effective: Proficient and Highly Effective teachers (in order to reward high performing teachers with permanent pay increases).

5. *Base Salary Caps:* Enter the desired values for the maximum base salary amounts for each rating. For example, under this sample model teachers rated Effective: Emerging will not receive any base salary increases above \$47,000. Districts may set salary caps in order to lower costs and award higher performing teachers with the ability to earn higher salaries.

	A	B
31	Enter Salary Caps:	
32	Max Salary Emerging	\$47,000
33	Max Salary Proficient	\$60,000
34	Max Salary Highly Effective	\$75,000

STEP SIX: Input budget rules

1. The next worksheet is the “Budget” sheet. Click on the tab for this sheet to open.
2. Input the total amount of money available for teacher compensation in each year of the model. Note that this sample model contains 4 budget years. Districts using this template may choose to attempt to forecast what their total budget will be for teacher salaries in the coming years. It is recommended that districts test multiple budget scenarios.

	A	B	C	D	E
1	USERS ENTER VALUES IN GREEN CELLS ONLY				
2					
3	Budget :				
4	Year	Amount			
5	2012-2013	\$517,456			
6	2013-2014	\$517,456			
7	2014-2015	\$517,456			
8	2015-2016	\$517,456			
9					

STEP SEVEN: Input roster information

1. The next worksheet is the "Salary and Rating" sheet. Click on the tab for this sheet to open.
2. Input values for all teachers under the green columns. Use the following instructions for these columns:
 - a. Teacher Name – Input each teacher’s name.
 - b. Starting Salary – Enter the salary for each teacher upon entering the salary system. These values will not change year-over-year. New teachers in this sample compensation model have a starting salary of \$46,100.
 - c. Ratings – Enter predicted 2012-2013 rating values 0 – 4, according to the following list:
 - 0 – No rating (used for teachers not active in a given year)
 - 1 – Ineffective
 - 2 – Effective: Emerging
 - 3 – Effective: Proficient
 - 4 – Highly Effective
 - d. The model will automatically calculate ratings for the next two years according to the probabilities set in the previous tabs. Press F9 to recalculate the workbook. You will notice that the rating forecasts change with each recalculation. Each recalculation represents one model simulation.

Note: Be sure to enter "0" in rows without any teacher information.

	B	C	D	E	F	G
1	USERS ENTER VALUES IN GREEN COLUMNS. DO NOT FILL IN RATINGS FOR 2013-2014 AND 2014-2015.					
2						
3				Ratings		
4	Teacher Name	System Starting Salary	System Starting Experience	Rating SY 2012-13	Rating SY 2013-14	Rating SY 2014-15
5	Teacher 1	\$46,100	0	2	4	3
6	Teacher 2	\$47,134	8	3	4	3
7	Teacher 3	\$48,094	10	4	4	4
8	Teacher 4	\$50,974	16	3	3	2
9	Teacher 5	\$51,454	17	3	2	1
10	Teacher 6	\$52,414	19	3	3	3
11	Teacher 7	\$53,374	21	3	3	3
12	Teacher 8	\$54,614	21	1	2	1
13	Teacher 9	\$55,294	35	3	4	3
14	Teacher 10	\$58,094	40	4	4	3
15	0	0	0	0	0	0
16	0	0	0	0	0	0
17	0	0	0	0	0	0
18	0	0	0	0	0	0
19	0	0	0	0	0	0
20	0	0	0	0	0	0
21	0	0	0	0	0	0
22	0	0	0	0	0	0
23	0	0	0	0	0	0
24	0	0	0	0	0	0
25	0	\$0	0	0	0	0
26	0	\$0	0	0	0	0
27	0	\$0	0	0	0	0
28	0	\$0	0	0	0	0

STEP EIGHT: View the Salary Summary tab

1. Click on the tab "Salary Summary".
2. This tab displays each teacher's effectiveness rating, category, base salary, and total compensation for each year of the model. Note that these values reflect only the current simulation based on your probability inputs.
3. Click F9 to recalculate the workbook and view another simulation.

	A	B	C	D	E	F	G	H	I
1	USERS DO NOT EDIT THIS SHEET								
2									
3			Rating			Category			
4	Teacher ID	Teacher Name	Y1	Y2	Y3	Y2	Y3	Y4	Y1
5	1	Teacher 1	2	3	3	2	5	6	\$46,100
6	2	Teacher 2	3	3	3	5	6	7	\$47,134
7	3	Teacher 3	4	4	4	8	9	10	\$48,094
8	4	Teacher 4	3	1	4	5	1	8	\$50,974
9	5	Teacher 5	3	3	3	5	6	7	\$51,454
10	6	Teacher 6	3	3	3	5	6	7	\$52,414
11	7	Teacher 7	3	3	3	5	6	7	\$53,374
12	8	Teacher 8	1	4	2	1	8	2	\$54,614
13	9	Teacher 9	3	3	1	5	6	1	\$55,294
14	10	Teacher 10	4	4	4	8	9	10	\$58,094

STEP NINE: Check to see if the model is within budget

1. Click on the tab "Within Budget Summary".
2. This tab displays whether the model is within budget based on your budget inputs. It also provides the total teacher salary cost in each year.
3. Repeatedly press F9 to view how frequently the model is within budget.
4. Manually record the results. Run the simulation between 50 and 1,000 times to feel confident in the results.

	A	C
1		
2	Year	Within Salary Budget
3	2013-2014	YES
4	2014-2015	YES
5	2015-2016	YES
6		
7		
8	Year	Salary Cost
9	2013-2014	\$513,732
10	2014-2015	\$503,564
11	2015-2016	\$508,564
12		

STEP TEN (optional, for advanced users): Estimate the likelihood that the model is within budget

1. This tab allows districts to quickly run 1000 simulations in order to check how often the model is within budget. Excel 2007 or above is required for this step.
2. Follow these steps:
 - a. Highlight Cells A2 through B1001.
 - b. Click the Data Tab in the Excel ribbon at the top of the screen.
 - c. Click "What If Analysis", "Data Table".
 - d. Click in the "Column Input Cell" box and then click any empty cell on the sheet.
 - e. Click "OK".
 - f. The table will populate with the result of each simulation.
 - 1 indicates that the model is within budget.
 - 0 indicates that the model is not within budget.
 - g. The simulations will be complete when the words Data Table no longer appear in the bottom right of your Excel window. This may take several minutes depending on the number of teachers in the district.
 - h. The likelihood that your model will be within budget is displayed in the highlighted cell.
3. Districts may choose to repeat this process under different budget scenarios and with different assumptions for ratings changes and attrition in order to increase confidence in the sustainability of the model.

	A	B	C	D	E	F
1	Simulation Trial	Within Budget				
2	1	1			Probability System is Within Budget in 2015-2016	100.0%
3	2					
4	3					
5	4					
6	5					
7	6					
8	7					
9	8					
10	9					
11	10					
12	11					
13	12					