

PUTTING STUDENTS FIRST



TeaTime
A Resource for District
Treasurers
June 2024

State Aid and Financial Planning Service



Areas to be Discussed Today

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- ❑ Basics of Function and Formulas
- ❑ Aggregation Functions
 - ❑ SUMIF
 - ❑ COUNTIF
- ❑ Lookup & Reference Functions
 - ❑ VLOOKUP
- ❑ Date & Time Functions
 - ❑ DATEDIF

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Basics of Functions and Formulas

How to find, interpret and use Excel's
Functions

Function vs. Formula in Excel

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- A Function is built-in calculation within the spreadsheet application
 - ▣ Enabled when a user types an equals sign followed by predefined names, or clicks on the Σ sign, and/or *fx* symbol
 - ▣ Building blocks of a formula
- A Formula is a user defined equation
 - ▣ Also denoted by an equal sign in the Formula Bar
 - ▣ Uses a function, or functions, to perform a specified task

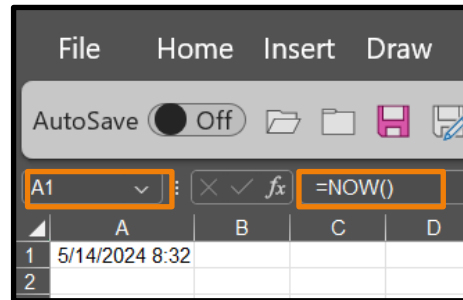
Built-in Functions

- ❑ Excel contains over 500 built-in functions that allow us to perform actions to evaluate data.
- ❑ These built-in functions cover topics such as, but not limited to:
 - ▣ Finance, Logic, Text, Date & Time, Lookup & Reference, Math & Trig., Statistical, Engineering, Cube, etc.

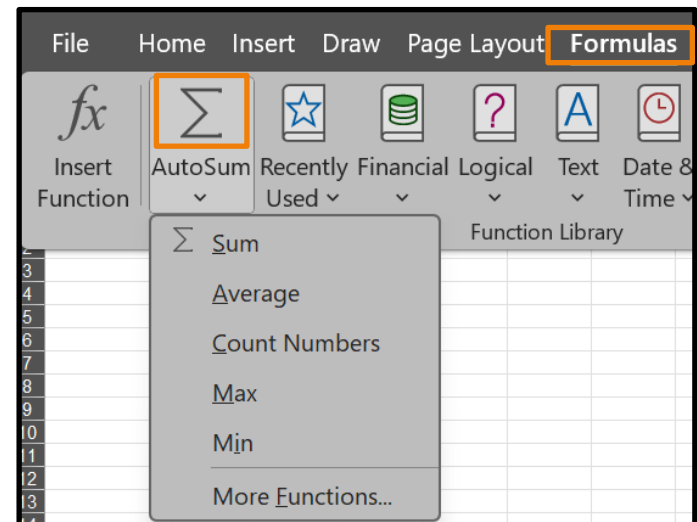
Built-in Functions (*cont.*)

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- Worksheet formulas can be entered by typing an equal sign in a cell and typing out the function's name.



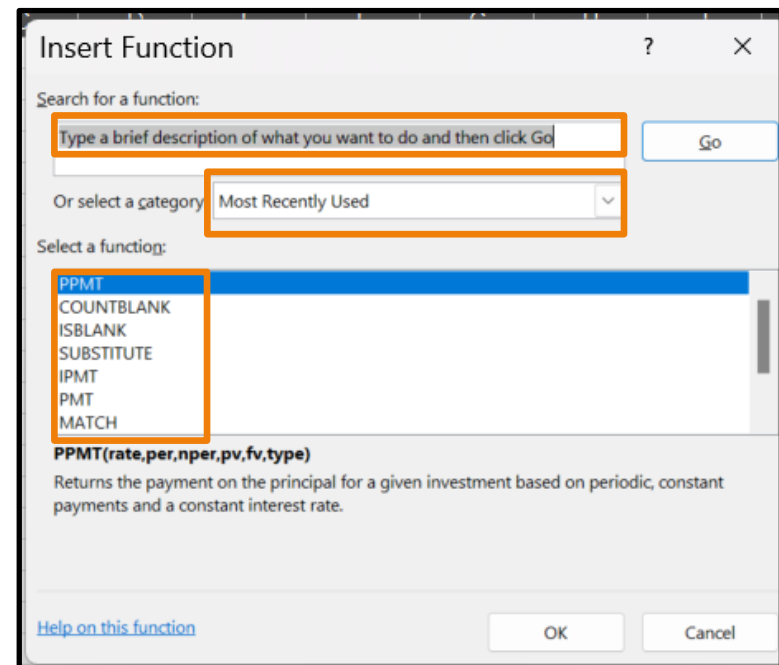
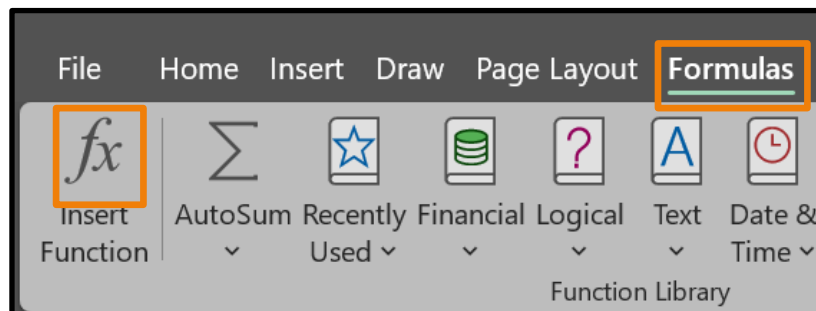
- The Sigma symbol, Σ , on the Formula Tab gives us a list of commonly used functions.



Built-in Functions (*cont.*)

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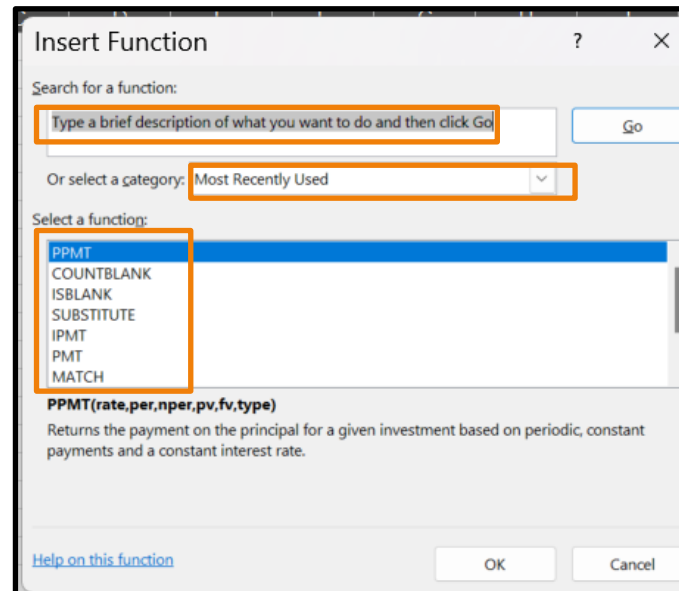
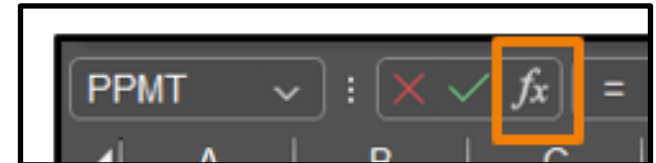
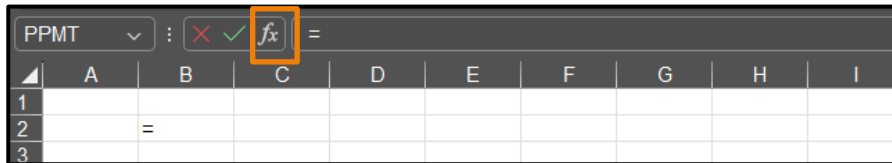
- The Insert Functions icon, fx , on the Formula Tab can also be used to insert functions. It will provide a list of functions to choose from.



Built-in Functions (*cont.*)

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- Built-in Functions can also be accessed when a user clicks on the fx (Insert Function) button in the “Formula Bar” on the Home Tab.



Built-in Functions Syntax

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- **=*Function_Name***(*Cell Reference Beginning: Cell Reference End, Criteria1, ...*)
- All functions start with =
- The ***Function_Name*** tells Excel what calculation we're performing.
- Functions contain "arguments" that tell Excel what information to gather when doing calculations.
 - ▣ Arguments are separated by a comma (,).
- Cell references are separated by the colon (:)
 - ▣ represent the range of cells evaluated
 - ▣ can be either columns, row or both.

Built-in Functions Syntax (*Cont.*)

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□ **=SUM(*number1*,[*number2*],...)**

- ▣ *number 1*: The first argument we want to add. The number can be a number like 4, a cell reference like B6, or a cell range like B2:B8
- ▣ *number 2*: This is the second argument we want to add
 - We can specify up to 255 numbers, cells and/or cell ranges in this way

□ **=SUM(C3:C33,E3:E33)**

- ▣ A formula to sum the values in the cell ranges C3 through C33 and E3 through E33

Nested Functions

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- Using a function as one of the arguments within another function is called “nesting”
 - ▣ We can nest up to 64 levels of functions in a formula
- Nesting functions allows for complex calculations to be performed in one cell
 - ▣ Drawbacks – auditing formula for operator’s errors
 - The more complex the string of functions becomes within Excel’s tiny Formula Bar, the harder it will become to pick out a typo like a period instead of a comma being used to separate arguments

Nested Functions (Cont.)

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- Example of nested functions:
 - ▣ **=IF(AND(OR(\$C\$51="HOLD HARMLESS", \$C\$51="N/A - SUPPRESSED"),\$E\$51="HOLD HARMLESS"),"", TRUNC(G21*E31,0))**
- Doesn't make much sense at first glance, but let's translate the formula to plain language
 - ▣ If Cell C51 contains the text "HOLD HARMLESS" or "N/A – SUPPRESSED", and Cell E51 contains the text "HOLD HARMLESS", return a blank (""), otherwise truncate (**TRUNC**) the product of Cells G21 and E31 with no decimal places
- Four functions combined to perform logical evaluations and mathematics within one cell

Cell References & Ranges

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- A Cell Reference denotes a cell's location within an Excel worksheet
 - A1 = A cell located in Column A, Row 1
- A Cell Range is a block of data in a range of cells, denoted by a colon (:) between two cell references
 - A1:A10 = A cell range to be examined inclusive of cells A1 through A10
- Types of Cell References:
 - Relative, Mixed and Absolute

Types of Cell References

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- Relative Cell References
 - ▣ Cell A12 contains the following: **SUM**(A1:A11)
 - ▣ If we copy this formula to Cell E24, the formula will change to **SUM**(E13:E23)
- Mixed Cell References
 - ▣ Cell A12 contains the following: **SUM**(A\$1:A\$11)
 - ▣ If we copy this formula to Cell E24, the formula will become **SUM**(E\$1:E\$11)
- Absolute Cell References
 - ▣ Cell A12 contains the following: **SUM**(\$A\$1:\$A\$11)
 - ▣ If we copy this formula to Cell E24, the formula will remain as **SUM**(\$A\$1:\$A\$11)

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Aggregation Functions

Summations, Averages and Counts

Aggregation Functions

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- Today we will examine two basic aggregation functions
 - ▣ ***SUMIF*** and ***COUNTIF***
- Level of Difficulty = Beginner
- These functions add or count values based upon criteria set by the user
 - ▣ Most useful when we want to add up or count similar items in a large dataset without the need to manipulate the dataset
 - Each time we manipulate a dataset, there is the possibility of corrupting the data

SUMIF Syntax

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- **=SUMIF(range, criteria, [sum_range])**
 - ▣ **range** = The range of cells that you want evaluated by criteria
 - Where do we want to look?
 - ▣ **criteria** = The criteria in the form of a number, expression, a cell reference, text, or a function that defines which cells will be added
 - What are we looking for?
 - ▣ **sum_range** = The actual cells to add
 - What values are we adding together once we find the criteria?
- **Example: =SUMIF(B2:B5, "John", C2:C5)**
 - ▣ **Translation:** Look for the text label “John” in the cell range B2 through B5, and add the corresponding cells in the range C2 through C5

COUNTIF Syntax

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- **=COUNTIF(range, criteria)**
 - ▣ *range* = The range of cells that you want evaluated by criteria
 - Where do we want to look?
 - ▣ *criteria* = The criteria in the form of a number, expression, a cell reference, text, or a function that defines which cells will be counted
 - What are we looking for?
- Example: **=COUNTIF(B2:B5, "John")**
 - ▣ Translation: Look for the text label “John” in the cell range B2 through B5, and count the number of times it occurs in that range

Application of Aggregation Functions

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- Let's use a randomly generated dataset to answer some questions
 - ▣ What is the % Of Unassigned F/B to 2024-25 Approved Operating Budget for Alpha County Schools? (Hint: use **SUMIF**)
 - ▣ How many High Needs Schools are within the Sample Population? (Hint: use **COUNTIF**)
 - ▣ The Superintendent of Evergreen CSD wants to know the district's, the County's (Lambda) and the Low Needs Schools' Per Pupil Amounts of Property Tax Revenues, State Aid and Costs of Instruction (Hint: use **SUMIF ×12**)

SUMIF & COUNTIF Dataset

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						6/30/2024 GENERAL FUND BALANCE SHEET							
STATE ID#	DISTRICT NAME	COUNTY	POVERTY INDEX	ENROLLMENT	2024-25 APPROVED OPERATING BUDGET	ASSETS	LIABILITIES	RESERVES	OTHER FUND BALANCE	UNASSIGNED FUND BALANCE	SCHOOL TAXES AND TAX ITEMS	STATE AID	INSTRUCTION
000001	ALBANY CSD	ZETA COUNTY	HIGH NEEDS SCHOOL	5,351	110,987,506	52,633,713	15,093,256	24,056,360	4,718,854	8,765,243	62,257,223	42,718,238	55,409,257
000002	ALEXANDER CSD	OMEGA COUNTY	AVERAGE NEEDS SCHOOL	5,073	106,914,570	47,672,659	14,053,822	21,171,456	4,326,474	8,120,907	58,012,438	43,313,995	51,640,557
000003	ALLEN CSD	OMEGA COUNTY	HIGH NEEDS SCHOOL	20,190	415,439,472	151,486,102	43,979,396	68,120,071	13,756,904	25,629,731	226,119,988	166,125,432	205,813,948
000004	ALPINE CSD	OMEGA COUNTY	HIGH NEEDS SCHOOL	40,579	830,878,944	315,457,477	90,772,333	142,382,508	28,686,547	53,616,089	452,759,200	331,247,796	417,532,113
000005	AMHERST CSD	RHO COUNTY	HIGH NEEDS SCHOOL	14,095	292,233,158	124,087,089	36,329,717	55,329,000	11,393,076	21,035,296	158,874,557	116,655,056	147,806,899
000006	ANDERSON CSD	RHO COUNTY	HIGH NEEDS SCHOOL	33,759	693,417,354	246,804,463	70,672,009	111,625,175	22,391,201	42,116,078	376,998,432	276,813,993	348,789,042
000007	ANDOVER CSD	LAMBDA COUNTY	HIGH NEEDS SCHOOL	49,042	1,009,069,894	425,131,310	122,635,206	191,487,730	38,559,926	72,448,448	549,290,806	402,424,549	505,147,914
000008	ARLINGTON CSD	OMEGA COUNTY	AVERAGE NEEDS SCHOOL	7,445	151,716,866	64,915,614	18,861,239	29,013,351	6,031,710	11,009,314	83,252,581	59,329,177	78,352,629
000009	ASHLAND CSD	OMEGA COUNTY	HIGH NEEDS SCHOOL	30,407	624,177,442	248,794,602	71,380,393	112,482,294	22,604,978	42,326,937	338,669,096	250,725,362	315,588,577
000010	ATHENS CSD	ZETA COUNTY	HIGH NEEDS SCHOOL	41,587	856,334,794	320,941,735	92,720,340	144,347,802	29,175,482	54,698,111	467,273,817	340,906,466	430,737,261
000011	AUBURN CSD	LAMBDA COUNTY	HIGH NEEDS SCHOOL	24,502	508,098,766	175,861,278	50,657,561	79,018,803	16,000,606	30,184,308	277,016,925	202,973,707	253,975,905
000012	AUGUSTA CSD	RHO COUNTY	HIGH NEEDS SCHOOL	17,419	361,473,070	158,746,508	45,352,732	71,811,976	14,369,205	27,212,595	196,354,786	144,478,990	180,832,418
000013	AVON CSD	GAMMA COUNTY	AVERAGE NEEDS SCHOOL	8,309	168,008,610	75,790,502	21,823,383	34,346,108	6,824,482	12,796,522	91,256,718	67,204,189	84,853,470
000014	BALDWIN CSD	DELTA COUNTY	AVERAGE NEEDS SCHOOL	5,994	124,224,548	54,880,051	15,933,300	24,595,768	5,023,297	9,327,686	68,208,915	48,951,325	62,754,742
000015	BEDFORD CSD	SIGMA COUNTY	AVERAGE NEEDS SCHOOL	7,829	161,899,206	71,301,101	20,543,885	32,236,831	6,470,484	12,049,901	87,092,270	65,795,014	82,411,049
000016	BELLEVUE CSD	ALPHA COUNTY	LOW NEEDS SCHOOL	1,163	25,455,850	10,559,892	3,372,882	4,316,796	893,092	1,977,122	15,378,879	8,729,440	14,059,383
000017	BENTON CSD	OMICRON COUNTY	AVERAGE NEEDS SCHOOL	9,463	195,500,928	88,380,062	25,773,194	39,423,275	8,114,477	15,069,116	107,303,748	77,074,908	97,974,641
000018	BERLIN CSD	OMICRON COUNTY	HIGH NEEDS SCHOOL	30,408	625,195,676	261,922,959	75,260,890	118,164,102	23,791,041	44,706,926	339,879,505	249,856,793	312,842,358
000019	BETHEL CSD	ALPHA COUNTY	LOW NEEDS SCHOOL	1,592	33,601,722	15,963,775	4,314,256	7,658,782	1,471,421	2,519,316	17,865,771	13,697,725	15,679,133
000020	BLOOMFIELD CSD	ZETA COUNTY	AVERAGE NEEDS SCHOOL	1,873	38,692,892	19,035,576	5,251,325	8,579,203	1,742,804	3,462,244	20,743,988	16,054,165	19,360,231
000021	BRADFORD CSD	RHO COUNTY	HIGH NEEDS SCHOOL	36,150	740,256,118	272,223,386	78,396,757	122,904,837	24,630,198	46,291,594	400,168,999	298,457,510	372,703,741
000022	BRISTOL CSD	DELTA COUNTY	LOW NEEDS SCHOOL	2,464	50,911,700	27,273,449	7,645,154	12,824,860	2,460,475	4,342,960	28,928,908	19,415,661	24,731,567
000023	BURLINGTON CSD	LAMBDA COUNTY	AVERAGE NEEDS SCHOOL	7,301	149,680,398	60,660,139	17,488,202	27,220,084	5,481,460	10,470,393	82,230,700	59,422,008	72,889,088
000024	BUTLER CSD	ZETA COUNTY	HIGH NEEDS SCHOOL	23,839	489,770,554	192,243,770	55,319,539	86,523,504	17,499,841	32,900,886	268,012,143	194,153,766	244,340,475
000025	CALDWELL CSD	SIGMA COUNTY	AVERAGE NEEDS SCHOOL	5,559	115,060,442	50,914,308	14,991,603	22,336,688	4,718,688	8,867,329	61,736,987	47,204,335	57,819,801
000026	CALHOUN CSD	ZETA COUNTY	AVERAGE NEEDS SCHOOL	7,872	163,935,674	74,812,293	21,649,282	33,376,107	6,873,604	12,913,300	90,067,684	64,929,536	81,095,577
000027	CAMBRIDGE CSD	EPSILON COUNTY	HIGH NEEDS SCHOOL	14,902	307,506,668	111,871,081	32,059,077	50,140,629	10,354,968	19,316,407	167,377,004	122,385,333	153,703,848
000028	CAMPBELL CSD	LAMBDA COUNTY	AVERAGE NEEDS SCHOOL	9,239	190,409,758	83,560,856	24,065,368	37,882,511	7,410,738	14,202,239	103,446,456	76,355,486	97,400,669
000029	CANTON CSD	LAMBDA COUNTY	AVERAGE NEEDS SCHOOL	2,522	53,966,402	25,156,676	7,238,743	11,184,883	2,341,741	4,391,309	28,451,944	22,486,535	25,796,188
000030	CARLISLE CSD	ZETA COUNTY	HIGH NEEDS SCHOOL	37,944	780,985,478	279,885,610	80,211,807	126,586,182	25,346,117	47,741,504	424,532,143	312,470,715	392,161,753
000031	CARROLL CSD	RHO COUNTY	HIGH NEEDS SCHOOL	8,761	180,227,418	77,339,414	22,222,291	34,832,495	7,092,329	13,192,299	98,906,483	71,541,980	91,567,069
000032	CENTERVILLE CSD	PI COUNTY	HIGH NEEDS SCHOOL	47,416	974,449,938	407,750,062	117,729,486	183,106,491	37,081,301	69,832,784	529,909,566	389,113,016	489,216,811
000033	CHESTER CSD	LAMBDA COUNTY	AVERAGE NEEDS SCHOOL	1,336	28,510,552	12,812,882	4,014,013	5,755,069	1,165,700	1,878,100	15,125,413	11,382,695	12,522,293
000034	CLAY CSD	ZETA COUNTY	HIGH NEEDS SCHOOL	41,923	863,462,432	320,685,344	92,453,069	144,206,576	29,224,509	54,801,190	469,516,970	345,045,222	433,598,528
000035	CLAYTON CSD	EPSILON COUNTY	HIGH NEEDS SCHOOL	6,204	131,352,186	54,797,502	16,057,191	24,295,683	5,054,949	9,389,679	71,477,317	52,259,916	63,031,804
000036	CLEVELAND CSD	TAU COUNTY	HIGH NEEDS SCHOOL	18,443	377,764,814	152,666,083	43,804,791	69,098,178	13,828,454	25,934,660	205,388,204	150,472,906	189,259,956
000037	CLINTON CSD	SIGMA COUNTY	AVERAGE NEEDS SCHOOL	3,505	74,331,082	38,585,387	10,930,553	17,407,732	3,507,512	6,739,590	43,047,700	27,527,994	38,347,064
000038	COLUMBIA CSD	OMEGA COUNTY	HIGH NEEDS SCHOOL	46,109	950,012,322	382,262,851	110,268,176	172,051,688	34,786,263	65,156,724	515,794,439	380,238,394	475,131,966
000039	COLUMBUS CSD	ZETA COUNTY	LOW NEEDS SCHOOL	1,319	28,510,552	12,829,333	3,940,443	5,797,242	1,146,463	1,945,185	17,419,516	9,098,645	12,246,589
000040	COVINGTON CSD	TAU COUNTY	LOW NEEDS SCHOOL	538	13,237,042	4,996,965	1,211,894	2,411,165	590,329	783,577	6,811,568	6,275,779	5,064,721
000041	CRAWFORD CSD	GAMMA COUNTY	AVERAGE NEEDS SCHOOL	4,413	91,641,060	37,122,195	10,563,717	17,148,045	3,309,632	6,100,801	49,605,816	37,340,842	43,917,881
000042	CUMBERLAND CSD	DELTA COUNTY	LOW NEEDS SCHOOL	706	16,291,744	6,832,941	2,150,660	2,802,456	705,791	1,174,034	10,117,303	4,885,105	8,266,740

SUMIF & COUNTIF Dataset

Unassigned F/B as a % Budget

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- What is the % of Unassigned F/B to 2024-25 Approved Operating Budget for Alpha County Schools?
- Solution: =**SUMIF**(\$D\$4:\$D\$169,\$H\$178,\$L\$4:\$L\$169) divided by **SUMIF**(\$D\$4:\$D\$169,\$H\$178,\$G\$4:\$G\$169)
 - ▣ Translation: find “Alpha County” (Cell H178) in Column D. Sum the Unassigned F/Bs for Alpha County in Column L. Divide by the sum of Operating Budget for Alpha County in Column G.
 - ▣ Answer: 5.65%

AutoSave Off

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H179

How many High Needs Schools are within the Dataset?

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- How many High Needs Schools are within the Sample Population?

- Solution: =**COUNTIF**(E4:E169,H184)
 - ▣ Translation: find the number of occurrences of “High Needs Schools” (Cell H184) within Column E
 - ▣ Answer: 88

AutoSave Off



H185

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A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
6/30/2024 GENERAL FUND BALANCE SHEET																			
STATE ID#	DISTRICT NAME	COUNTY	POVERTY INDEX	ENROLLMENT	2024-25 APPROVED OPERATING BUDGET	ASSETS	LIABILITIES	RESERVES	OTHER FUND BALANCE	UNASSIGNED FUND BALANCE	SCHOOL TAXES AND TAX ITEMS	STATE AID	INSTRUCTION						
000013	ROOSEVELT CSD	ALPHA COUNTY	HIGH NEEDS SCHOOL	47,758	979,541,108	352,061,908	101,346,537	158,799,853	31,967,604	59,947,914	534,255,366	390,240,023	492,994,598						
000039	SALEM CSD	DELTA COUNTY	HIGH NEEDS SCHOOL	35,680	732,110,246	308,486,634	89,218,885	138,538,093	28,036,439	52,693,217	399,280,095	291,192,420	368,095,393						
000014	SCOTT CSD	ALPHA COUNTY	AVERAGE NEEDS SCHOOL	5,348	110,987,506	50,355,004	14,474,553	22,377,031	4,688,347	8,815,073	60,776,382	44,000,398	52,953,804						
000015	SHERIDAN CSD	ALPHA COUNTY	HIGH NEEDS SCHOOL	45,316	932,702,344	360,993,721	104,370,103	162,191,516	32,986,351	61,445,751	506,611,404	373,360,204	465,147,006						
000150	SIDNEY CSD	SIGMA COUNTY	HIGH NEEDS SCHOOL	31,575	647,596,824	241,360,580	69,535,269	108,425,295	22,020,952	41,379,064	350,506,993	260,391,168	325,594,493						
000085	SOMERSET CSD	LAMBDA COUNTY	HIGH NEEDS SCHOOL	36,216	743,310,820	285,384,674	82,431,220	128,136,851	25,937,271	48,879,332	404,188,620	296,651,634	374,425,123						
000086	SPARTANBURG CSD	LAMBDA COUNTY	LOW NEEDS SCHOOL	1,651	35,638,190	15,994,742	4,335,264	7,583,522	1,543,317	2,532,639	19,178,551	14,877,632	19,250,637						
000016	SPRINGFIELD CSD	ALPHA COUNTY	HIGH NEEDS SCHOOL	38,205	783,021,946	322,689,183	92,826,336	145,659,799	29,305,603	54,897,445	426,897,976	311,886,641	392,092,422						
000053	STERLING CSD	ZETA COUNTY	AVERAGE NEEDS SCHOOL	4,511	95,713,996	38,103,656	11,110,551	16,856,554	3,457,348	6,679,203	53,376,316	37,491,285	44,042,473						
000101	STRATFORD CSD	LAMBDA COUNTY	HIGH NEEDS SCHOOL	7,763	161,899,206	66,118,800	19,055,825	30,110,035	5,984,246	10,968,694	88,671,097	64,264,188	78,414,106						
000114	TAYLOR CSD	OMICRON COUNTY	HIGH NEEDS SCHOOL	41,166	845,134,220	319,980,762	91,741,276	144,387,033	29,091,677	54,760,776	460,071,998	336,992,256	423,820,546						
000026	TIPTON CSD	GAMMA COUNTY	LOW NEEDS SCHOOL	1,676	33,601,722	17,148,047	4,603,886	8,130,500	1,483,673	2,929,988	17,601,774	14,360,278	16,957,948						
000141	TROY CSD	RHO COUNTY	HIGH NEEDS SCHOOL	9,212	190,409,758	82,757,769	23,673,204	37,472,482	7,509,960	14,102,123	104,353,311	75,217,718	97,048,183						
000087	WARREN CSD	LAMBDA COUNTY	HIGH NEEDS SCHOOL	6,206	129,315,718	53,569,175	14,845,054	24,527,569	4,890,404	9,306,148	69,701,433	52,770,441	64,755,919						
000126	WASHINGTON CSD	PI COUNTY	HIGH NEEDS SCHOOL	14,946	305,470,200	127,349,311	36,781,878	57,458,416	11,483,626	21,625,391	166,592,930	121,089,482	154,791,025						
000115	WAYNE CSD	OMICRON COUNTY	HIGH NEEDS SCHOOL	23,726	487,734,086	195,624,150	56,507,855	87,855,337	17,820,380	33,440,578	264,777,150	195,271,422	243,530,038						
000017	WEBSTER CSD	ALPHA COUNTY	HIGH NEEDS SCHOOL	40,026	822,733,072	297,311,816	85,297,876	134,606,437	26,925,610	50,481,893	447,478,140	329,062,983	411,178,842						
000116	WESTWOOD CSD	OMICRON COUNTY	HIGH NEEDS SCHOOL	21,800	450,059,428	159,474,821	45,862,661	71,560,561	14,644,465	27,407,134	246,027,654	178,704,326	223,464,971						
000049	WILLIAMSBURG CSD	EPSILON COUNTY	HIGH NEEDS SCHOOL	6,167	127,279,250	55,360,097	15,976,287	24,965,437	4,977,154	9,441,219	68,486,427	50,995,451	62,460,553						
000054	WILSON CSD	ZETA COUNTY	HIGH NEEDS SCHOOL	24,618	506,062,298	203,463,282	58,412,956	91,833,757	18,584,958	34,631,611	277,499,041	200,358,140	255,798,535						
000127	WINDHAM CSD	PI COUNTY	AVERAGE NEEDS SCHOOL	9,359	191,427,992	93,584,380	26,872,114	42,327,301	8,391,720	15,993,245	104,754,555	75,459,493	97,474,076						
000142	WINDSOR CSD	RHO COUNTY	LOW NEEDS SCHOOL	575	14,255,276	5,687,372	1,624,120	2,927,289	423,155	712,808	8,503,866	5,162,829	3,631,910						
000040	WOODLAND CSD	DELTA COUNTY	LOW NEEDS SCHOOL	1,761	35,638,190	16,707,437	4,642,048	7,630,878	1,517,895	2,916,616	20,281,584	13,739,368	17,873,077						
000063	YORK CSD	ZETA COUNTY	AVERAGE NEEDS SCHOOL	8,169	169,026,844	81,706,758	23,262,025	37,176,427	7,466,958	13,801,348	94,129,713	65,157,681	85,113,903						
2,723,593						56,066,000,508	22,249,602,185	6,404,719,634	10,026,263,061	2,023,678,885	3,794,940,605	30,540,605,494	22,356,785,335	28,102,127,142					
WHAT IS THE % OF UNASSIGNED F/B TO 2024-25 APPROVED OPERATING BUDGET FOR ALPHA COUNTY SCHOOLS?						(COLUMN D)													
UNASSIGNED FUND BALANCE						(COLUMN L)													
2024-25 APPROVED OPERATING BUDGET						(COLUMN G)													
						ALPHA COUNTY													
						\$444,833,394													
						\$6,780,420,206													
						6.56%													
HOW MANY HIGH NEEDS SCHOOLS ARE WITHIN THE SAMPLE POPULATION?						(COLUMN E) HIGH NEEDS SCHOOL													
THE SUPERINTENDENT OF EVERGREEN CSD WANTS TO KNOW THE DISTRICT'S PER PUPIL AMOUNTS OF:						(COLUMN C)	(COLUMN D)	(COLUMN E)											
SCHOOL TAXES AND TAX ITEMS						EVERGREEN CSD	LAMBDA COUNTY	LOW NEEDS SCHOOL											
ENROLLMENT																			
STATE AID																			
ENROLLMENT																			
INSTRUCTION																			
ENROLLMENT																			

Per Pupil Amounts

25

- The Superintendent of Evergreen CSD wants to know the district's, the County's (Lambda) and Low Needs Schools' Per Pupil Amounts of Property Tax Revenues, State Aid and the Costs of Instruction
- Solution: =**SUMIF**(C\$4:C\$169,I\$185,\$M\$4:\$M\$169) divided by **SUMIF**(C\$4:C\$169,I\$185,\$F\$4:\$F\$169)
 - Translation: Find Evergreen CSD (Cell I185) in Column C. Add the value(s) for Evergreen CSD's School Tax Revenues in Column M. Divide by Evergreen CSD's Enrollment in Column F
 - Answer: \$12,683
 - We'll perform the same action for State Aid/Pupil and Instructional Expenses/Pupil, and the County and Poverty Index measurements

The first two arguments are mixed cell references

			(COLUMN D)		
	WHAT IS THE % OF UNASSIGNED F/B TO 2024-25 APPROVED OPERATING BUDGET FOR ALPHA COUNTY SCHOOLS?		ALPHA COUNTY		
	UNASSIGNED FUND BALANCE (COLUMN L)		\$444,833,394		
	2024-25 APPROVED OPERATING BUDGET (COLUMN G)		\$6,780,420,206		
			6.56%		
			(COLUMN E) HIGH NEEDS SCHOOL		
	HOW MANY HIGH NEEDS SCHOOLS ARE WITHIN THE SAMPLE POPULATION?		88		
			(COLUMN C) (COLUMN D) (COLUMN E) EVERGREEN CSD LAMBDA COUNTY LOW NEEDS SCHOOL		
	THE SUPERINTENDENT OF EVERGREEN CSD WANTS TO KNOW THE DISTRICT'S PER PUPIL AMOUNTS OF:				
	SCHOOL TAXES AND TAX ITEMS (COLUMN M)				
	ENROLLMENT (COLUMN F)				
	STATE AID ENROLLMENT (COLUMN P) (COLUMN F)				
	INSTRUCTION ENROLLMENT (COLUMN T) (COLUMN F)				

[SUMIF & COUNTIF Dataset](#)
[VLOOKUP Dataset](#)
[DATEDIF Dataset](#)
[SUMIF & COUNTIF Solutions](#)
[VLOOKUP Solution Set](#)

28

Lookup Functions

Look up values in an array

Lookup Functions

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- Today we will examine the **VLOOKUP** function
 - ▣ Looks in the first column of an array and moves across the row to return the value of a cell
- Level of Difficulty = Intermediate
- Useful when data is arranged in an array (table) with the first (leftmost) column containing the lookup value of the comparison
 - ▣ The format of the lookup value is important
 - ▣ The lookup value and the first column in the array must be formatted as the same type of value
 - An issue when numbers are stored as text

VLOOKUP Syntax

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- **=VLOOKUP** (*lookup_value*, *table_array*, *col_index_num*, [*range_lookup*])
 - ▣ *lookup_value* = The value you want to look up
 - What are we looking for?
 - ▣ *table_array* = The range of cells in which the VLOOKUP will search for the *lookup_value* and the return value
 - Where should we look?
 - ▣ *col_index_num* = The column number (starting with 1 for the left-most column of *table_array*) that contains the return value
 - What column should we look within to find the match for the *lookup_value*?
 - ▣ [*range_lookup*] = A logical value that specifies whether you want VLOOKUP to find an approximate or an exact match
 - “TRUE” for an approximate match and “FALSE” for an exact match

VLOOKUP Syntax (Cont.)

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- Example: =**VLOOKUP**(\$C\$2,'District Validation'!\$A\$2:\$B\$674,2,FALSE)
 - ▣ Translation: Look for the value in Cell C2 within the range A2:B674 on the worksheet tab labeled “District Validation”. Look within the second column of the array on “District Validation” and return an exact match.

Application of the VLOOKUP Function

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- Here's our scenario:
 - ▣ We're the new Treasurer at our small city school district tasked with preparing the ESSA Report
 - ▣ We have last year's template that was prepared by our predecessor
 - ▣ We have 2023-24 A Fund and F Fund expenditures from the Appropriation Status Report as an Excel file
 - ▣ How can we identify new account codes that will need to be labeled for the report and as well as labeling preexisting account code consistently with the prior year's report (Hint: use **VLOOKUP**)

Application of the VLOOKUP Function (*Cont.*)

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- Solution #1: =**VLOOKUP**(\$K5,\$B\$5:\$H\$1222,3,FALSE)
 - ▣ Translation: Find the match for Cell K5 in Column B of the array B5:H1222 and return the exact match from the third column (Column D) should the match for Cell K5 and a cell between B5:B1222 exist
- We can copy this formula throughout the cell range M5:Q1255
 - ▣ The only necessary change to the formula will be to change the column reference in the *table-array* as copy the formulas to the right.
 - Column M would reference Column 3, Column N would reference Column 4, etc.

Dataset for the VLOOKUP Function

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From Appropriation Status Detail Report By Function From 7/1/2022 To 6/30/2023:										From Appropriation Status Detail Report By Function From 7/1/2023 To 6/30/2024:									
Account	Description	3. col_index_num = Column D = 3, etc.	tail	Funding	Expensed	Account	Optional:	Object of	Report View	Program Detail	Funding	Expensed							
			pry	Source				ense	One Category	Area Category	Source								
A 1010 4000-00-0000	CONTRACTED SERVICES	4	G3	SL	860.00	A 1010 4000-00-0000	1. lookup_value = Cell K5....K1255					880.00							
A 1010 4091-00-0000	DUES-SCHOOL ASSOCIATIONS	4	G3	SL	17,530.00	A 1010 4091-00-0000						17,890.00							
A 1010 4100-00-0000	CONFERENCES & WKSHOPS	4	E4	SL	4,810.00	A 1010 4100-00-0000	CONFERENCES & WKSHOPS					4,910.00							
A 1010 4500-00-0000	MATERIALS & SUPPLIES	4	G3	SL	3,510.00	A 1010 4500-00-0000	MATERIALS & SUPPLIES					3,580.00							
A 1010 4531-00-0000	FOOD MEETINGS	4	G3	SL	7,970.00	A 1010 4531-00-0000	FOOD MEETINGS					8,130.00							
A 1040 1610-00-0000	CLERICAL SALARY	1	G1	SL	192,690.00	A 1040 1610-00-0000	CLERICAL SALARY					196,540.00							
A 1040 1700-00-0000	CSEA (OTHER) STIPENDS	1	G1	SL	4,000.00	A 1040 1700-00-0000	CSEA (OTHER) STIPENDS					4,080.00							
A 1040 1770-00-0000	SICK INCENTIVE STIPEND	1	G1	SL	2,700.00	A 1040 1770-00-0000	SICK INCENTIVE STIPEND					2,750.00							
A 1040 1900-00-0000	OVERTIME	1	G1	SL	19,050.00	A 1040 1900-00-0000	OVERTIME					19,430.00							
A 1040 4000-00-0000	CONTRACTED SERVICES	4	G3	SL	90.00	A 1040 4000-00-0000	CONTRACTED SERVICES					90.00							
A 1040 4100-00-0000	CONFERENCES & WKSHOPS	4	E4	SL	2,010.00	A 1040 4100-00-0000	CONFERENCES & WKSHOPS					2,050.00							
A 1040 4500-00-0000	MATERIALS & SUPPLIES	4	G3	SL	540.00	A 1040 4500-00-0000	MATERIALS & SUPPLIES					550.00							
A 1060 1900-00-0000	OVERTIME	1	G1	SL	11,260.00	A 1060 1900-00-0000	OVERTIME					11,490.00							
A 1060 4000-00-0000	CONTRACTED SERVICES	4	G3	SL	100,470.00	A 1060 4000-00-0000	CONTRACTED SERVICES					102,480.00							
A 1060 4400-00-0000	POSTAGE - ELECTION	4	G3	SL	90.00	A 1060 4400-00-0000	POSTAGE - ELECTION					90.00							
A 1060 4531-00-0000	MEETING SUPPLIES	4	G3	SL	1,400.00	A 1060 4531-00-0000	MEETING SUPPLIES					1,430.00							
A 1060 4900-00-0000	BOCES SERVICES	4	G3	SL	13,710.00	A 1060 4900-00-0000	BOCES SERVICES					13,980.00							
A 1240 1500-00-0000	CERTIFIED SALARIES	1	G1	SL	321,030.00	A 1240 1500-00-0000	CERTIFIED SALARIES					327,450.00							
A 1240 1610-00-0000	CLERICAL SALARIES	1	G1	SL	241,720.00	A 1240 1610-00-0000	CLERICAL SALARIES					246,550.00							
A 1240 1680-00-0000	PER DIEM SALARIES	1	G1	SL	5,250.00	A 1240 1680-00-0000	PER DIEM SALARIES					5,360.00							
A 1240 1770-00-0000	SICK INCENTIVE STIPEND	1	G1	SL	3,920.00	A 1240 1770-00-0000	SICK INCENTIVE STIPEND					4,000.00							
A 1240 1900-00-0000	OVERTIME	1	G1	SL	6,070.00	A 1240 1900-00-0000	OVERTIME					6,190.00							
A 1240 4000-00-0000	CONTRACTED SERVICES	4	G3	SL	4,960.00	A 1240 4000-00-0000	CONTRACTED SERVICES					5,060.00							
A 1240 4009-00-0000	CONTRACTED SERVICES - MISC. OTHER	4	G3	SL	84,040.00	A 1240 4009-00-0000	CONTRACTED SERVICES - MISC. OTHER					85,720.00							
A 1240 4100-00-0000	CONFERENCES & WKSHOPS	4	E4	SL	1,780.00	A 1240 4100-00-0000	CONFERENCES & WKSHOPS					1,820.00							
A 1240 4500-00-0000	MATERIALS & SUPPLIES	4	G3	SL	33,500.00	A 1240 4500-00-0000	MATERIALS & SUPPLIES					34,170.00							
A 1240 4531-00-0000	MEETING SUPPLIES	4	G3	SL	12,440.00	A 1240 4531-00-0000	MEETING SUPPLIES					12,690.00							
A 1240 4591-00-0000	STUDENT ASSEMBLIES & TRIPS	4	G3	SL	7,870.00	A 1240 4591-00-0000	STUDENT ASSEMBLIES & TRIPS					8,030.00							
A 1241 1500-00-0000	ADMIN/INSTRUCTIONAL SALARY	1	G1	SL	242,490.00	A 1241 1500-00-0000	ADMIN/INSTRUCTIONAL SALARY					247,340.00							
A 1241 1610-00-0000	CLERICAL SALARY	1	G1	SL	82,160.00	A 1241 1610-00-0000	CLERICAL SALARY					83,800.00							
A 1241 1900-00-0000	OVERTIME	1	G1	SL	1,530.00	A 1241 1900-00-0000	OVERTIME					1,560.00							
A 1241 4100-00-0000	CONFERENCES AND WORKSHOP	4	E4	SL	1,860.00	A 1241 4100-00-0000	CONFERENCES AND WORKSHOP					1,900.00							
A 1241 4500-00-0000	MATERIALS & SUPPLIES	4	G3	SL	240.00	A 1241 4500-00-0000	MATERIALS & SUPPLIES					240.00							
A 1310 1500-00-0000	BUSINESS ADMINISTRATOR	1	G1	SL	230,500.00	A 1310 1500-00-0000	BUSINESS ADMINISTRATOR					235,110.00							
A 1310 1610-00-0000	TREASURER & CLERICAL SAL	1	G1	SL	577,760.00	A 1310 1610-00-0000	TREASURER & CLERICAL SAL					589,320.00							
A 1310 1614-00-0000	EXEMPT	1	G1	SL	142,160.00	A 1310 1614-00-0000	EXEMPT					145,000.00							
A 1310 1700-00-0000	CSEA (OTHER) STIPENDS	1	G1	SL	11,500.00	A 1310 1700-00-0000	CSEA (OTHER) STIPENDS					11,730.00							
A 1310 1770-00-0000	SICK INCENTIVE STIPEND	1	G1	SL	450.00	A 1310 1770-00-0000	SICK INCENTIVE STIPEND					460.00							
A 1310 1900-00-0000	OVERTIME	1	G1	SL	101,830.00	A 1310 1900-00-0000	OVERTIME					103,870.00							
A 1310 4000-00-0000	CONTRACTED SERVICES	4	G3	SL	27,630.00	A 1310 4000-00-0000	CONTRACTED SERVICES					28,180.00							
A 1310 4010-00-0000	CONTRACTED SERVICES - TAX COLLECTION	4	G3	SL	1,410.00	A 1310 4010-00-0000	CONTRACTED SERVICES - TAX COLLECTION					1,440.00							
A 1310 4057-00-0000	WORKERS COMP. EXAMINER/COORD	4	G3	SL	151,000.00	A 1310 4057-00-0000	WORKERS COMP. EXAMINER/COORD					154,020.00							
A 1310 4091-00-0000	DUES-SCHOOL ASSOCIATIONS	4	G3	SL	1,500.00	A 1310 4091-00-0000	DUES-SCHOOL ASSOCIATIONS					1,530.00							

VLOOKUP Dataset

June 2024 TeaTime Dataset

Search

John Tamburello JT

File Home Insert Draw Page Layout Formulas Data Review View Developer Automate Help Data Streamer Inquire Power Pivot Comments Share

AutoSave Off

M5

Detail Report By Function From 7/1/2022 To 6/30/2023:

Description	Optional: School	Object of Expense	Report View One Category	Program Detail Area	Funding Source	Expensed
CONTRACTED SERVICES		4	G3		SL	860.00
DUES-SCHOOL ASSOCIATIONS		4	G3		SL	17,530.00
CONFERENCES & WKSHOPS		4	G3		SL	4,810.00
MATERIALS & SUPPLIES		4	G3		SL	3,510.00
FOOD MEETINGS		4	G3		SL	7,970.00
CLERICAL SALARY		1	G1		SL	192,690.00
CSEA (OTHER) STIPENDS		1	G1		SL	4,000.00
SICK INCENTIVE STIPEND		1	G1		SL	2,700.00
OVERTIME		1	G1		SL	19,050.00
CONTRACTED SERVICES		4	G3		SL	90.00
CONFERENCES & WKSHOPS		4	G3		SL	2,010.00
MATERIALS & SUPPLIES		4	G3		SL	540.00
OVERTIME		1	G1		SL	11,260.00
CONTRACTED SERVICES		4	G3		SL	100,470.00
POSTAGE - ELECTION		4	G3		SL	90.00
MEETING SUPPLIES		4	G3		SL	1,400.00
BOCES SERVICES		4	G3	Y	SL	13,710.00
CERTIFIED SALARIES		1	G1		SL	321,030.00
CLERICAL SALARIES		1	G1		SL	241,720.00
PER DIEM SALARIES		1	G1		SL	5,250.00
SICK INCENTIVE STIPEND		1	G1		SL	3,920.00
OVERTIME		1	G1		SL	6,076.00
CONTRACTED SERVICES		4	G3		SL	4,960.00
CONTRACTED SERVICES - MISC. OTHER		4	G3		SL	84,040.00
CONFERENCES & WKSHOPS		4	G3		SL	1,780.00
MATERIALS & SUPPLIES		4	G3		SL	33,500.00
MEETING SUPPLIES		4	G3		SL	12,440.00
STUDENT ASSEMBLES & TRIPS		4	G3		SL	7,870.00
ADMIN/INSTRUCTIONAL SALARY		1	G1		SL	242,490.00
CLERICAL SALARY		1	G1		SL	82,160.00
OVERTIME		1	G1		SL	1,530.00
CONFERENCES AND WORKSHOP		4	G3		SL	1,860.00
MATERIALS & SUPPLIES		4	G3		SL	240.00
BUSINESS ADMINISTRATOR		1	G1		SL	230,500.00
TREASURER & CLERICAL SAL		1	G1		SL	577,760.00
EXEMPT		1	G1		SL	142,160.00
CSEA (OTHER) STIPENDS		1	G1		SL	11,500.00
SICK INCENTIVE STIPEND		1	G1		SL	450.00
OVERTIME		1	G1		SL	101,830.00
CONTRACTED SERVICES		4	G3		SL	27,630.00
CONTRACTED SERVICES - TAX COLLECTION		4	G3		SL	1,410.00
WORKERS COMP. EXAMINER/COORD		4	G3		SL	151,000.00
DUES-SCHOOL ASSOCIATIONS		4	G3		SL	1,500.00
CONFERENCES AND WORKSHOP		4	G3		SL	4,490.00
MATERIALS & SUPPLIES		4	G3		SL	7,510.00
BOCES SERVICES		4	G3	Y	SL	33,660.00
CONTRACTED SERVICES		4	G3		SL	86,400.00
AUDITING SERVICES		4	G3		SL	90,100.00
SALARY		1	G1		SL	231,830.00
STIPENDS		1	G1		SL	139,120.00
SICK INCENTIVE STIPEND		1	G1		SL	700.00
OVERTIME		1	G1		SL	23,660.00
CONTRACTED SERVICES		4	G3		SL	430.00
DUES-SCHOOL ASSOCIATIONS		4	G3		SL	290.00
CONFERENCES & WKSHOPS		4	G3		SL	190.00
CONTRACTED SERVICES		4	G3		SL	905,650.00
SALARIES		1	G1		SL	188,620.00
CLERICAL SALARIES		1	G1		SL	345,710.00
SICK INCENTIVE STIPEND		1	G1		SL	1,500.00
OVERTIME-SUB COVERAGE		1	G1		SL	38,390.00
CONTRACTED SERVICES		4	G3		SL	26,410.00
TRAVEL		4	E4		SL	990.00
MATERIALS & SUPPLIES		4	G3		SL	1,500.00
BOCES SERVICES		4	G3	Y	SL	63,170.00
BOCES SERVICES		4	G3	Y	SL	16,850.00
CONTRACTED SERVICES		4	G3		SL	100,530.00
CONFERENCES & WORKSHOPS		4	E4		SL	320.00
POSTAGE		4	G3		SL	52,400.00
MATERIALS & SUPPLIES		4	G3		SL	1,220.00
B&G CLERICAL STAFF		1	G1		SL	163,730.00
CUSTODIAN SALARIES		1	G1		SL	596,100.00
CUSTODIAN SALARIES		1	G1		SL	407,260.00

From Appropriation Status Detail Report By Function From 7/1/2023 To 6/30/2024:

Description	Optional: School	Object of Expense	Report View One Category	Program Detail Area	Funding Source	Expensed
CONTRACTED SERVICES		4	G3		SL	860.00
DUES-SCHOOL ASSOCIATIONS		4	G3		SL	17,880.00
CONFERENCES & WKSHOPS		4	G3		SL	4,910.00
MATERIALS & SUPPLIES		4	G3		SL	3,580.00
FOOD MEETINGS		4	G3		SL	8,130.00
CLERICAL SALARY		1	G1		SL	196,540.00
CSEA (OTHER) STIPENDS		1	G1		SL	4,080.00
SICK INCENTIVE STIPEND		1	G1		SL	2,750.00
OVERTIME		1	G1		SL	19,430.00
CONTRACTED SERVICES		4	G3		SL	90.00
CONFERENCES & WKSHOPS		4	G3		SL	2,050.00
MATERIALS & SUPPLIES		4	G3		SL	540.00
OVERTIME		1	G1		SL	11,490.00
CONTRACTED SERVICES		4	G3		SL	102,480.00
POSTAGE - ELECTION		4	G3		SL	90.00
MEETING SUPPLIES		4	G3		SL	1,430.00
BOCES SERVICES		4	G3		SL	13,980.00
CERTIFIED SALARIES		1	G1		SL	327,450.00
CLERICAL SALARIES		1	G1		SL	246,550.00
PER DIEM SALARIES		1	G1		SL	5,360.00
SICK INCENTIVE STIPEND		1	G1		SL	4,000.00
OVERTIME		1	G1		SL	6,190.00
CONTRACTED SERVICES		4	G3		SL	5,060.00
CONTRACTED SERVICES - MISC. OTHER		4	G3		SL	85,720.00
CONFERENCES & WKSHOPS		4	G3		SL	1,820.00
MATERIALS & SUPPLIES		4	G3		SL	34,170.00
MEETING SUPPLIES		4	G3		SL	12,690.00
STUDENT ASSEMBLES & TRIPS		4	G3		SL	8,030.00
ADMIN/INSTRUCTIONAL SALARY		1	G1		SL	247,340.00
CLERICAL SALARY		1	G1		SL	83,160.00
OVERTIME		1	G1		SL	1,560.00
CONFERENCES AND WORKSHOP		4	G3		SL	1,900.00
MATERIALS & SUPPLIES		4	G3		SL	240.00
BUSINESS ADMINISTRATOR		1	G1		SL	235,110.00
TREASURER & CLERICAL SAL		1	G1		SL	589,320.00
EXEMPT		1	G1		SL	145,000.00
CSEA (OTHER) STIPENDS		1	G1		SL	11,730.00
SICK INCENTIVE STIPEND		1	G1		SL	460.00
OVERTIME		1	G1		SL	103,870.00
CONTRACTED SERVICES		4	G3		SL	28,160.00
CONTRACTED SERVICES - TAX COLLECTION		4	G3		SL	1,440.00
WORKERS COMP. EXAMINER/COORD		4	G3		SL	154,020.00
DUES-SCHOOL ASSOCIATIONS		4	G3		SL	1,530.00
CONFERENCES AND WORKSHOP		4	G3		SL	4,580.00
MATERIALS & SUPPLIES		4	G3		SL	7,660.00
BOCES SERVICES		4	G3		SL	34,330.00
CONTRACTED SERVICES		4	G3		SL	88,240.00
AUDITING SERVICES		4	G3		SL	91,900.00
SALARY		1	G1		SL	236,470.00
STIPENDS		1	G1		SL	141,900.00
SICK INCENTIVE STIPEND		1	G1		SL	710.00
OVERTIME		1	G1		SL	24,130.00
CONTRACTED SERVICES		4	G3		SL	440.00
DUES-SCHOOL ASSOCIATIONS		4	G3		SL	300.00
CONFERENCES & WKSHOPS		4	G3		SL	190.00
CONTRACTED SERVICES		4	G3		SL	923,760.00
SALARIES		1	G1		SL	192,390.00
CLERICAL SALARIES		1	G1		SL	352,620.00
SICK INCENTIVE STIPEND		1	G1		SL	1,530.00
OVERTIME-SUB COVERAGE		1	G1		SL	39,160.00
CONTRACTED SERVICES		4	G3		SL	26,940.00
TRAVEL		4	E4		SL	1,010.00
MATERIALS & SUPPLIES		4	G3		SL	1,530.00
BOCES SERVICES		4	G3		SL	64,430.00
BOCES SERVICES		4	G3		SL	16,860.00
CONTRACTED SERVICES		4	G3		SL	102,540.00
CONFERENCES & WORKSHOPS		4	E4		SL	330.00
POSTAGE		4	G3		SL	53,450.00
MATERIALS & SUPPLIES		4	G3		SL	1,240.00
B&G CLERICAL STAFF		1	G1		SL	167,000.00
CUSTODIAN SALARIES		1	G1		SL	608,020.00
CUSTODIAN SALARIES		1	G1		SL	415,410.00

SUMIF & COUNTIF Dataset VLOOKUP Dataset DATEDIF Dataset SUMIF & COUNTIF Solutions VLOOKUP Solution Set

Ready Accessibility: Investigate

Display Settings 75%

Application of the VLOOKUP Function (*Cont.*)

36

□ Solution #2:

=**IFERROR(VLOOKUP(\$K5,\$B\$5:\$I\$1222,3,FALSE),"NO MATCH")**
or =**IFNA(VLOOKUP(\$K5, \$B\$5:\$I\$1222,3,FALSE),"NO MATCH")**

- Translation: Find the match for Cell K5 in Column B of the array B5:I1222 and return the exact match from the third column (Column D) should the match for cell K5 and a cell between B5:B1222 exist. Should no match exist, replace the error code or #N/A with the text "NO MATCH".
- If we were preparing a report to be shared with others, it doesn't look good having #N/As in the cells with no matches within the array. We can use **IFERROR** or **IFNA** to replace the error codes with a label we prefer.

AutoSave Off

M223 : X ✓ fx =VLOOKUP(\$K223,\$B\$5:\$H\$1222,3,FALSE)

37

Detail Report By Function From 7/1/2022 To 6/30/2023:										From Appropriation Status Detail Report By Function From 7/1/2023 To 6/30/2024:									
	Optional: School	Object of Expense	Report View One Category	Program Detail Area	Funding Source	Expensed	Account	Description		Optional: School	Object of Expense	Report View One Category	Program Detail Area	Funding Source	Expensed				
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SUMIF & COUNTIF Dataset

VLOOKUP Dataset

DATEDIF Dataset

SUMIF & COUNTIF Solutions

VLOOKUP Solution Set

Ready Accessibility: Investigate

Display Settings

75%

Date & Time Functions

Functions that allow us to perform calculations of date and time

Date & Time Functions

39

- Today we will examine the ***DATEDIF*** function
 - ▣ Calculates the number of days, months, and/or years between two dates
- Level of Difficulty = Intermediate
- Useful for situations where we need to know the time elapsed between two dates
 - ▣ Such as determine an employee's age or service time

DATEDIF Syntax

40

- ❑ **DATEDIF**(*start_date*, *end_date*, *unit*)
 - ❑ *start_date* = A date that represents the first, or starting date of a given period
 - ❑ *end_date* = A date that represents the last, or ending, date of the period
 - ❑ *unit* = The type of information that you want returned, where:

Unit	Returns
"Y"	The number of complete years in the period.
"M"	The number of complete months in the period.
"D"	The number of days in the period.
"MD"	The difference between the days in start_date and end_date . The months and years of the dates are ignored. Important: We don't recommend using the "MD" argument, as there are known limitations with it. See the known issues section below.
"YM"	The difference between the months in start_date and end_date . The days and years of the dates are ignored
"YD"	The difference between the days of start_date and end_date . The years of the dates are ignored.

Application of the DATEDIF Function

41

- Here's our scenario:
 - As the Treasurer we have been tasked with calculating the liability for compensated absences for a secondary retirement incentive
 - Employees eligible for retirement who retire before age 58 receive a non-elective deferral to a 403b equal 20% of their final year's salary/wages
 - Employees eligible for retirement who retire on or after age 58 will receive a payout of \$55/accumulated sick day for NYSUT members and \$40/accumulated sick day for CSEA members
 - We will calculate the liability for each bargaining unit for employees aged 58 or older

Application of the DATEDIF Function (*Cont.*)

42

- Solution #1: **DATEDIF**(A5,B6, "y")
 - ▣ Translation: Evaluate the time elapsed between two dates at cell B5 (birth date) and cell C5 (separation date) and return the time elapsed in years ("y")
 - ▣ Once we have the calculated number of years, we can sort on two criteria, age and bargaining unit, to determine the rates (\$55/day, \$40/day, or \$0)
 - ▣ Answer: \$116,003.75

Dataset for the DATEDIF Function

43

	A	B	C	D	E	F	G	H	I
1									
2							TOTAL		
3			AGE				SICK DAYS		AMOUNT
4	DOB	FYE	@ 6/30/2024	EE#	EMPLOYEE NAME	EMPLOYEE TYPE	@ 6/30/2024	RATE	ACCRUED
5	12/7/1967	6/30/2024		717	ADAMS, JAMES	NYSUT	117.75		\$0.00
6	11/3/1982	6/30/2024		1010	ALLEN, ERIC	NYSUT	62.75		\$0.00
7	5/21/1987	6/30/2024		1131	ALVAREZ, SHARON	CSEA	95.75		\$0.00
8	10/19/1973	6/30/2024		810	ANDERSON, CAROL	NYSUT	95.25		\$0.00
9	10/13/1993	6/30/2024		1274	BAILEY, NANCY	NYSUT	32.00		\$0.00
10	1/24/1962	6/30/2024		581	BAKER, JASON	CSEA	200.00		\$0.00
11	2/26/1998	6/30/2024		1452	BENNET, RYAN	CSEA	18.75		\$0.00
12	5/12/1983	6/30/2024		1022	BROOKS, REBECCA	NYSUT	61.50		\$0.00
13	11/2/1968	6/30/2024		726	BROWN, ANDREW	CSEA	186.25		\$0.00
14	11/13/1966	6/30/2024		695	CAMPBELL, JERRY	NYSUT	120.50		\$0.00
15	6/15/1988	6/30/2024		1161	CARTER, JOHN	NYSUT	45.00		\$0.00
16	8/25/1977	6/30/2024		866	CASTILLO, SHIRLEY	CSEA	140.50		\$0.00
17	12/8/1985	6/30/2024		1089	CHAVEZ, RICHARD	CSEA	97.25		\$0.00
18	4/23/1999	6/30/2024		1476	CLARK, DONNA	CSEA	13.50		\$0.00
19	9/25/1991	6/30/2024		1215	COLLINS, KIMBERLY	CSEA	79.25		\$0.00
20	9/27/1997	6/30/2024		1420	COOK, MARIA	NYSUT	11.25		\$0.00
21	5/14/1977	6/30/2024		859	COOPER, MICHAEL	CSEA	141.50		\$0.00
22	3/10/1965	6/30/2024		670	COX, PATRICK	NYSUT	125.75		\$0.00
23	1/31/1972	6/30/2024		801	CRUZ, KENNETH	CSEA	163.00		\$0.00
24	10/26/1967	6/30/2024		713	DAVIS, ASHLEY	CSEA	188.00		\$0.00
25	10/14/1967	6/30/2024		711	DIAZ, KATHERINE	CSEA	194.50		\$0.00
26	3/29/1987	6/30/2024		1096	EDWARDS, KEVIN	NYSUT	50.75		\$0.00
27	4/29/1959	6/30/2024		539	EVANS, JUSTIN	NYSUT	147.50		\$0.00
28	2/24/1976	6/30/2024		837	FLORES, JACK	NYSUT	81.00		\$0.00
29	3/15/1987	6/30/2024		1092	FOSTER, TIMOTHY	CSEA	97.25		\$0.00
30	9/9/1992	6/30/2024		1250	GARCIA, ANNA	CSEA	60.00		\$0.00
31	10/13/1994	6/30/2024		1285	GOMEZ, JOSEPH	NYSUT	22.50		\$0.00
32	10/3/1962	6/30/2024		624	GONZALES, BRENDA	CSEA	200.00		\$0.00
33	2/19/1976	6/30/2024		834	GRAY, SAMANTHA	CSEA	150.75		\$0.00
34	12/30/1979	6/30/2024		922	GREEN, JACOB	CSEA	131.50		\$0.00
35	5/27/1999	6/30/2024		1485	GUTIERREZ, MARY	NYSUT	4.25		\$0.00

DATEDIF Dataset

June 2024 TeaTime Dataset

Search

John Tamburello JT

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C5

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	DOB	FYE	AGE @ 6/30/2024	EE#	EMPLOYEE NAME	EMPLOYEE TYPE	TOTAL SICK DAYS @ 6/30/2024	RATE	AMOUNT ACCRUED						
5	12/7/1967	6/30/2024		717	ADAMS, JAMES	NYSUT	117.75		\$0.00						
6	11/3/1982	6/30/2024		1010	ALLEN, ERIC	NYSUT	62.75		\$0.00						
7	5/21/1987	6/30/2024		1131	ALVAREZ, SHARON	CSEA	95.75		\$0.00						
8	10/19/1973	6/30/2024		810	ANDERSON, CAROL	NYSUT	95.25		\$0.00						
9	10/13/1993	6/30/2024		1274	BAILEY, NANCY	NYSUT	32.00		\$0.00						
10	1/24/1962	6/30/2024		581	BAKER, JASON	CSEA	200.00		\$0.00						
11	2/26/1998	6/30/2024		1452	BENNET, RYAN	CSEA	18.75		\$0.00						
12	5/12/1983	6/30/2024		1022	BROOKS, REBECCA	NYSUT	61.50		\$0.00						
13	11/2/1968	6/30/2024		726	BROWN, ANDREW	CSEA	186.25		\$0.00						
14	11/13/1966	6/30/2024		695	CAMPBELL, JERRY	NYSUT	120.50		\$0.00						
15	6/15/1988	6/30/2024		1161	CARTER, JOHN	NYSUT	45.00		\$0.00						
16	8/25/1977	6/30/2024		866	CASTILLO, SHIRLEY	CSEA	140.50		\$0.00						
17	12/8/1985	6/30/2024		1089	CHAVEZ, RICHARD	CSEA	97.25		\$0.00						
18	4/23/1999	6/30/2024		1476	CLARK, DONNA	CSEA	13.50		\$0.00						
19	9/25/1991	6/30/2024		1215	COLLINS, KIMBERLY	CSEA	79.25		\$0.00						
20	9/27/1997	6/30/2024		1420	COOK, MARIA	NYSUT	11.25		\$0.00						
21	5/14/1977	6/30/2024		859	COOPER, MICHAEL	CSEA	141.50		\$0.00						
22	3/10/1965	6/30/2024		670	COX, PATRICK	NYSUT	125.75		\$0.00						
23	1/31/1972	6/30/2024		801	CRUZ, KENNETH	CSEA	163.00		\$0.00						
24	10/26/1967	6/30/2024		713	DAVIS, ASHLEY	CSEA	188.00		\$0.00						
25	10/14/1967	6/30/2024		711	DIAZ, KATHERINE	CSEA	194.50		\$0.00						
26	3/29/1987	6/30/2024		1096	EDWARDS, KEVIN	NYSUT	50.75		\$0.00						
27	4/29/1959	6/30/2024		539	EVANS, JUSTIN	NYSUT	147.50		\$0.00						
28	2/24/1976	6/30/2024		837	FLORES, JACK	NYSUT	81.00		\$0.00						
29	3/15/1987	6/30/2024		1092	FOSTER, TIMOTHY	CSEA	97.25		\$0.00						
30	9/9/1992	6/30/2024		1250	GARCIA, ANNA	CSEA	60.00		\$0.00						
31	10/13/1994	6/30/2024		1285	GOMEZ, JOSEPH	NYSUT	22.50		\$0.00						
32	10/3/1962	6/30/2024		624	GONZALES, BRENDA	CSEA	200.00		\$0.00						
33	2/19/1976	6/30/2024		834	GRAY, SAMANTHA	CSEA	150.75		\$0.00						
34	12/30/1979	6/30/2024		922	GREEN, JACOB	CSEA	131.50		\$0.00						
35	5/27/1999	6/30/2024		1485	GUTIERREZ, MARY	NYSUT	4.25		\$0.00						
36	8/5/1999	6/30/2024		1500	HALL, JEFFREY	CSEA	2.25		\$0.00						
37	5/14/1997	6/30/2024		1406	HARRIS, DENNIS	NYSUT	11.25		\$0.00						
38	1/18/1996	6/30/2024		1326	HERNANDEZ, BETTY	CSEA	29.75		\$0.00						
39	3/3/1996	6/30/2024		1341	HILL, HELEN	NYSUT	19.50		\$0.00						
40	10/17/1996	6/30/2024		1377	HOWARD, OLIVIA	CSEA	27.00		\$0.00						
41	12/7/1984	6/30/2024		1057	HUGHES, SARAH	NYSUT	51.50		\$0.00						
42	8/27/1989	6/30/2024		1198	JACKSON, CHRISTOPHER	CSEA	87.00		\$0.00						
43	8/9/1997	6/30/2024		1408	JAMES, RONALD	CSEA	21.50		\$0.00						
44	12/1/1997	6/30/2024		1429	JIMENEZ, WILLIAM	CSEA	20.75		\$0.00						
45	11/29/1958	6/30/2024		526	JOHNSON, AMANDA	NYSUT	144.25		\$0.00						
46	12/26/1962	6/30/2024		634	JONES, ANGELA	CSEA	198.25		\$0.00						
47	10/26/1960	6/30/2024		568	KELLY, NICOLE	CSEA	200.00		\$0.00						
48	4/1/1964	6/30/2024		655	KIM, PATRICIA	CSEA	197.25		\$0.00						
49	7/8/1978	6/30/2024		870	KING, FRANK	CSEA	139.25		\$0.00						
50	3/17/1975	6/30/2024		813	LEE, DANIEL	CSEA	152.75		\$0.00						
51	8/1/1980	6/30/2024		944	LEWIS, EDWARD	NYSUT	69.75		\$0.00						
52	12/8/1981	6/30/2024		958	LONG, SUSAN	CSEA	122.25		\$0.00						
53	12/6/1978	6/30/2024		873	LOPEZ, BRANDON	NYSUT	76.50		\$0.00						
54	2/1/1967	6/30/2024		711	MARTIN, CYNTHIA	CSEA	195.25		\$0.00						
55	4/22/1993	6/30/2024		1269	MARTINEZ, BENJAMIN	CSEA	57.50		\$0.00						
56	10/2/1993	6/30/2024		1270	MENDOZA, SAMUEL	CSEA	55.25		\$0.00						
57	8/23/1997	6/30/2024		1417	MILLER, ANTHONY	CSEA	20.00		\$0.00						

VLOOKUP Dataset DATEDIF Dataset SUMIF & COUNTIF Solutions VLOOKUP Solution Set DATEDIF Solution Set

Ready Accessibility: Investigate Display Settings 100%

Application of the DATEDIF Function (*Cont.*)

45

- Solution #2: **DATEDIF**(A5,B5, "y") & " years, " & **DATEDIF**(A5,B5, "ym") & " months, " & **DATEDIF**(A5,B5, "md") & " days"
- Translation: Evaluate the time elapsed between two dates at cell A5 (birth date) and cell B5 (separation date) and return the time elapsed in years ("y"), months ("ym") and days ("md"). Use the ampersand sign to connect the text "_years,_", "_months,_", and "_days" to the value for years, months and days

AutoSave Off



C5

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1															
2							TOTAL								
3							SICK DAYS		AMOUNT						
4	DOB	FYE	AGE 6/30/2024	EE#	EMPLOYEE NAME	EMPLOYEE TYPE	@ 6/30/2024	RATE	ACCURED						
5	12/7/1967	6/30/2024		717	ADAMS, JAMES	NYSUT	117.75		\$0.00						
6	11/3/1982	6/30/2024		1010	ALLEN, ERIC	NYSUT	62.75		\$0.00						
7	5/21/1987	6/30/2024		1131	ALVAREZ, SHARON	CSEA	95.75		\$0.00						
8	10/19/1973	6/30/2024		810	ANDERSON, CAROL	NYSUT	95.25		\$0.00						
9	10/13/1993	6/30/2024		1274	BAILEY, NANCY	NYSUT	32.00		\$0.00						
10	1/24/1962	6/30/2024		581	BAKER, JASON	CSEA	200.00		\$0.00						
11	2/26/1998	6/30/2024		1452	BENNET, RYAN	CSEA	18.75		\$0.00						
12	5/12/1983	6/30/2024		1022	BROOKS, REBECCA	NYSUT	61.50		\$0.00						
13	11/2/1968	6/30/2024		728	BROWN, ANDREW	CSEA	186.25		\$0.00						
14	11/13/1966	6/30/2024		695	CAMPBELL, JERRY	NYSUT	120.50		\$0.00						
15	6/15/1988	6/30/2024		1161	CARTER, JOHN	NYSUT	45.00		\$0.00						
16	8/25/1977	6/30/2024		866	CASTILLO, SHIRLEY	CSEA	140.50		\$0.00						
17	12/8/1985	6/30/2024		1089	CHAVEZ, RICHARD	CSEA	97.25		\$0.00						
18	4/23/1999	6/30/2024		1476	CLARK, DONNA	CSEA	13.50		\$0.00						
19	9/25/1991	6/30/2024		1215	COLLINS, KIMBERLY	CSEA	79.25		\$0.00						
20	9/27/1997	6/30/2024		1420	COOK, MARIA	NYSUT	11.25		\$0.00						
21	5/14/1977	6/30/2024		859	COOPER, MICHAEL	CSEA	141.50		\$0.00						
22	3/10/1965	6/30/2024		670	COX, PATRICK	NYSUT	125.75		\$0.00						
23	1/31/1972	6/30/2024		801	CRUZ, KENNETH	CSEA	163.00		\$0.00						
24	10/26/1967	6/30/2024		713	DAVIS, ASHLEY	CSEA	188.00		\$0.00						
25	10/14/1967	6/30/2024		711	DIAZ, KATHERINE	CSEA	194.50		\$0.00						
26	3/29/1987	6/30/2024		1096	EDWARDS, KEVIN	NYSUT	50.75		\$0.00						
27	4/29/1959	6/30/2024		539	EVANS, JUSTIN	NYSUT	147.50		\$0.00						
28	2/24/1976	6/30/2024		837	FLORES, JACK	NYSUT	81.00		\$0.00						
29	3/15/1987	6/30/2024		1092	FOSTER, TIMOTHY	CSEA	97.25		\$0.00						
30	9/9/1992	6/30/2024		1250	GARCIA, ANNA	CSEA	60.00		\$0.00						
31	10/13/1994	6/30/2024		1285	GOMEZ, JOSEPH	NYSUT	22.50		\$0.00						
32	10/3/1962	6/30/2024		624	GONZALES, BRENDA	CSEA	200.00		\$0.00						
33	2/19/1976	6/30/2024		834	GRAY, SAMANTHA	CSEA	150.75		\$0.00						
34	12/30/1979	6/30/2024		922	GREEN, JACOB	CSEA	131.50		\$0.00						
35	5/27/1999	6/30/2024		1485	GUTIERREZ, MARY	NYSUT	4.25		\$0.00						
36	8/5/1999	6/30/2024		1500	HALL, JEFFREY	CSEA	2.25		\$0.00						
37	5/14/1997	6/30/2024		1406	HARRIS, DENNIS	NYSUT	11.25		\$0.00						
38	1/18/1996	6/30/2024		1326	HERNANDEZ, BETTY	CSEA	29.75		\$0.00						
39	3/3/1996	6/30/2024		1341	HILL, HELEN	NYSUT	19.50		\$0.00						
40	10/17/1996	6/30/2024		1377	HOWARD, OLIVIA	CSEA	27.00		\$0.00						
41	12/7/1984	6/30/2024		1057	HUGHES, SARAH	NYSUT	51.50		\$0.00						
42	8/27/1989	6/30/2024		1198	JACKSON, CHRISTOPHER	CSEA	87.00		\$0.00						
43	8/9/1997	6/30/2024		1408	JAMES, RONALD	CSEA	21.50		\$0.00						
44	12/1/1997	6/30/2024		1429	JIMENEZ, WILLIAM	CSEA	20.75		\$0.00						
45	11/29/1958	6/30/2024		526	JOHNSON, AMANDA	NYSUT	144.25		\$0.00						
46	12/26/1962	6/30/2024		634	JONES, ANGELA	CSEA	198.25		\$0.00						
47	10/26/1960	6/30/2024		568	KELLY, NICOLE	CSEA	200.00		\$0.00						
48	4/1/1964	6/30/2024		655	KIM, PATRICIA	CSEA	197.25		\$0.00						
49	7/8/1978	6/30/2024		870	KING, FRANK	CSEA	139.25		\$0.00						
50	3/17/1975	6/30/2024		813	LEE, DANIEL	CSEA	152.75		\$0.00						
51	8/1/1980	6/30/2024		944	LEWIS, EDWARD	NYSUT	69.75		\$0.00						
52	12/8/1981	6/30/2024		958	LONG, SUSAN	CSEA	122.25		\$0.00						
53	12/6/1978	6/30/2024		873	LOPEZ, BRANDON	NYSUT	76.50		\$0.00						
54	2/1/1967	6/30/2024		711	MARTIN, CYNTHIA	CSEA	195.25		\$0.00						
55	4/22/1993	6/30/2024		1269	MARTINEZ, BENJAMIN	CSEA	57.50		\$0.00						
56	10/2/1993	6/30/2024		1270	MENDOZA, SAMUEL	CSEA	55.25		\$0.00						
57	8/21/1997	6/30/2024		1417	MILLER, ANTHONY	CSEA	20.00		\$0.00						

VLOOKUP Dataset

DATEDIF Dataset

SUMIF & COUNTIF Solutions

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Application of the DATEDIF Function (*Cont.*)

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- Instead of sorting the dataset we will use a nested function perform the rate evaluation
- ***IF(DATEDIF(A5,B5,"y")>=58,IF(F5="NYSUT",55,40),0)***
 - ▣ Translation: If the age returned by the ***DATEDIF*** is greater than or equal to 58, look at Column F for the bargaining unit. If the bargaining unit is NYSUT, return 55, otherwise return 40. If the ***DATEDIF*** returns a value less than 58, return 0.
 - ▣ Answer: \$116,003.75

June 2024 TeaTime Dataset

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John Tamburello JT

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
			AGE				TOTAL								
			@ 6/30/2024	EE#	EMPLOYEE NAME	EMPLOYEE TYPE	SICK DAYS	RATE	AMOUNT						
	DOB	FYE					@ 6/30/2024		ACCRUED						
5	12/7/1967	6/30/2024	56 years, 6 months, 23 days	717	ADAMS, JAMES	NYSUT	117.75		\$0.00						
6	11/3/1982	6/30/2024	41 years, 7 months, 27 days	1010	ALLEN, ERIC	NYSUT	62.75		\$0.00						
7	5/21/1987	6/30/2024	37 years, 1 months, 9 days	1131	ALVAREZ, SHARON	CSEA	95.75		\$0.00						
8	10/19/1973	6/30/2024	50 years, 8 months, 11 days	810	ANDERSON, CAROL	NYSUT	95.25		\$0.00						
9	10/13/1993	6/30/2024	30 years, 8 months, 17 days	1274	BAILEY, NANCY	NYSUT	32.00		\$0.00						
10	1/24/1962	6/30/2024	62 years, 5 months, 6 days	581	BAKER, JASON	CSEA	200.00		\$0.00						
11	2/26/1998	6/30/2024	26 years, 4 months, 4 days	1452	BENNET, RYAN	CSEA	18.75		\$0.00						
12	5/12/1983	6/30/2024	41 years, 1 months, 18 days	1022	BROOKS, REBECCA	NYSUT	61.50		\$0.00						
13	11/2/1968	6/30/2024	55 years, 7 months, 28 days	726	BROWN, ANDREW	CSEA	186.25		\$0.00						
14	11/13/1966	6/30/2024	57 years, 7 months, 17 days	695	CAMPBELL, JERRY	NYSUT	120.50		\$0.00						
15	6/15/1988	6/30/2024	36 years, 0 months, 15 days	1161	CARTER, JOHN	NYSUT	45.00		\$0.00						
16	8/25/1977	6/30/2024	46 years, 10 months, 5 days	866	CASTILLO, SHIRLEY	CSEA	140.50		\$0.00						
17	12/8/1985	6/30/2024	38 years, 6 months, 22 days	1089	CHAVEZ, RICHARD	CSEA	97.25		\$0.00						
18	4/23/1999	6/30/2024	25 years, 2 months, 7 days	1476	CLARK, DONNA	CSEA	13.50		\$0.00						
19	9/25/1991	6/30/2024	32 years, 9 months, 5 days	1215	COLLINS, KIMBERLY	CSEA	79.25		\$0.00						
20	9/27/1997	6/30/2024	26 years, 9 months, 3 days	1420	COOK, MARIA	NYSUT	11.25		\$0.00						
21	5/14/1977	6/30/2024	47 years, 1 months, 16 days	859	COOPER, MICHAEL	CSEA	141.50		\$0.00						
22	3/10/1965	6/30/2024	59 years, 3 months, 20 days	670	COX, PATRICK	NYSUT	125.75		\$0.00						
23	1/31/1972	6/30/2024	52 years, 4 months, 30 days	801	CRUZ, KENNETH	CSEA	163.00		\$0.00						
24	10/26/1967	6/30/2024	56 years, 8 months, 4 days	713	DAVIS, ASHLEY	CSEA	188.00		\$0.00						
25	10/14/1967	6/30/2024	56 years, 8 months, 16 days	711	DIAZ, KATHERINE	CSEA	194.50		\$0.00						
26	3/29/1987	6/30/2024	37 years, 3 months, 1 days	1096	EDWARDS, KEVIN	NYSUT	50.75		\$0.00						
27	4/29/1959	6/30/2024	65 years, 2 months, 1 days	539	EVANS, JUSTIN	NYSUT	147.50		\$0.00						
28	2/24/1976	6/30/2024	48 years, 4 months, 6 days	837	FLORES, JACK	NYSUT	81.00		\$0.00						
29	3/15/1987	6/30/2024	37 years, 3 months, 15 days	1092	FOSTER, TIMOTHY	CSEA	97.25		\$0.00						
30	9/9/1992	6/30/2024	31 years, 9 months, 21 days	1250	GARCIA, ANNA	CSEA	60.00		\$0.00						
31	10/13/1994	6/30/2024	29 years, 8 months, 17 days	1285	GOMEZ, JOSEPH	NYSUT	22.50		\$0.00						
32	10/3/1962	6/30/2024	61 years, 8 months, 27 days	624	GONZALES, BRENDA	CSEA	200.00		\$0.00						
33	2/19/1976	6/30/2024	48 years, 4 months, 11 days	834	GRAY, SAMANTHA	CSEA	150.75		\$0.00						
34	12/30/1979	6/30/2024	44 years, 6 months, 0 days	922	GREEN, JACOB	CSEA	131.50		\$0.00						
35	5/27/1999	6/30/2024	25 years, 1 months, 3 days	1485	GUTIERREZ, MARY	NYSUT	4.25		\$0.00						
36	8/5/1999	6/30/2024	24 years, 10 months, 25 days	1500	HALL, JEFFREY	CSEA	2.25		\$0.00						
37	5/14/1997	6/30/2024	27 years, 1 months, 16 days	1406	HARRIS, DENNIS	NYSUT	11.25		\$0.00						
38	1/18/1996	6/30/2024	28 years, 5 months, 12 days	1326	HERNANDEZ, BETTY	CSEA	29.75		\$0.00						
39	3/3/1996	6/30/2024	28 years, 3 months, 27 days	1341	HILL, HELEN	NYSUT	19.50		\$0.00						
40	10/17/1996	6/30/2024	27 years, 8 months, 13 days	1377	HOWARD, OLIVIA	CSEA	27.00		\$0.00						
41	12/7/1984	6/30/2024	39 years, 6 months, 23 days	1057	HUGHES, SARAH	NYSUT	51.50		\$0.00						
42	8/27/1989	6/30/2024	34 years, 10 months, 3 days	1198	JACKSON, CHRISTOPHER	CSEA	87.00		\$0.00						
43	8/9/1997	6/30/2024	26 years, 10 months, 21 days	1408	JAMES, RONALD	CSEA	21.50		\$0.00						
44	12/1/1997	6/30/2024	26 years, 6 months, 29 days	1429	JIMENEZ, WILLIAM	CSEA	20.75		\$0.00						
45	11/29/1958	6/30/2024	65 years, 7 months, 1 days	526	JOHNSON, AMANDA	NYSUT	144.25		\$0.00						
46	12/26/1962	6/30/2024	61 years, 6 months, 4 days	634	JONES, ANGELA	CSEA	198.25		\$0.00						
47	10/26/1960	6/30/2024	63 years, 8 months, 4 days	588	KELLY, NICOLE	CSEA	200.00		\$0.00						
48	4/1/1964	6/30/2024	60 years, 2 months, 29 days	655	KIM, PATRICIA	CSEA	197.25		\$0.00						
49	7/8/1978	6/30/2024	45 years, 11 months, 22 days	870	KING, FRANK	CSEA	139.25		\$0.00						
50	3/17/1975	6/30/2024	49 years, 3 months, 13 days	813	LEE, DANIEL	CSEA	152.75		\$0.00						
51	8/1/1980	6/30/2024	43 years, 10 months, 29 days	944	LEWIS, EDWARD	NYSUT	69.75		\$0.00						
52	12/8/1981	6/30/2024	42 years, 6 months, 22 days	958	LONG, SUSAN	CSEA	122.25		\$0.00						
53	12/6/1978	6/30/2024	45 years, 6 months, 24 days	873	LOPEZ, BRANDON	NYSUT	76.50		\$0.00						
54	2/1/1967	6/30/2024	57 years, 4 months, 29 days	711	MARTIN, CYNTHIA	CSEA	195.25		\$0.00						
55	4/22/1993	6/30/2024	31 years, 2 months, 8 days	1269	MARTINEZ, BENJAMIN	CSEA	57.50		\$0.00						
56	10/2/1993	6/30/2024	30 years, 8 months, 28 days	1270	MENDOZA, SAMUEL	CSEA	55.25		\$0.00						
57	8/31/1997	6/30/2024	26 years, 9 months, 20 days	1417	MILLER, ANTHONY	CSEA	20.00		\$0.00						

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Conclusion



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- ❑ Being able to understand the syntax of the built-in functions will assist the user in making use of the right tools for the job, and help with troubleshooting should errors occur
- ❑ Learning how to use Excel's built-in functions can provide tremendous ROI in hours saved in performing analysis
- ❑ Proficiency in using more powerful built-in functions allows a user to find answers within large datasets in small amount of time

Index to TeaTime Topics

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March 2023	June 2023	September 2023	December 2023	March 2024
Overview of double entry bookkeeping	Food Service bad debts and subsequent collections	Accounting for Summer 4408 activity	Due To/From accounting and how to reconcile	Reviewing (F) Fund grants – tasks to do now
Areas to check mid-year	Accounting for BANS		Grossing up TRS/State Aid	Accounting for May 2024 Propositions
Recording Deferred Taxes	Accounting for fund balance reserves		Accounting for ERS payment	23-24 waiver for C Fund bad debt
Recording budget with funding/use from reserves in it			Cleaning up old payables	Accounting for 2020-21 State Aid recoveries
			Cleaning up old receivables	



Questions?



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