

How to Calculate the Average of Positive Numbers in Excel

Authored by
stats writer

November 27, 2025

RECOMMENDED CITATION

stats writer (2025). *How to Calculate the Average of Positive Numbers in Excel*.
PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=100627>

In analytical and data processing tasks within Excel, calculating the central tendency of a dataset is often paramount. The most common statistical measure used for this purpose is the average, or arithmetic mean, easily determined using the built-in AVERAGE function. This powerful tool efficiently processes a specified range of cells, returning a single value that represents the typical magnitude of the numbers within that selection. However, simple averaging assumes that all data points are equally relevant to the desired calculation. In practical business or scientific applications, datasets frequently contain entries--such as zero sales, null returns, or negative measurements--that, while technically present, should be excluded from the final average to produce a meaningful metric.

The indiscriminate inclusion of zero values or negative figures can significantly distort performance metrics. For instance, if you are tracking employee sales performance, including employees who registered zero sales (perhaps because they were on leave or inactive) might artificially depress the average productivity rate for the active sales team. This necessitates a mechanism for conditional averaging--calculating the mean only for those values that meet a specific standard, such as being strictly greater than zero. Addressing this requirement requires moving beyond the basic **AVERAGE** function and utilizing more specialized conditional formulas designed for selective data aggregation.

Fortunately, Excel provides the ideal solution in the form of the AVERAGEIF function. This function allows users to apply criteria to a specified range before calculating the mean, ensuring that only qualifying data points contribute to the final result. Specifically, to calculate the average only when the values are positive, we utilize the criterion ">0". This targeted approach ensures that statistical summaries accurately reflect the performance or measure being analyzed, excluding non-contributory or biasing entries.

Understanding the Need for Conditional Averaging

When analyzing quantitative data, the standard AVERAGE function is usually the starting point for determining the central tendency. However, real-world data frequently contains outliers, error values, or, critically for many business cases, zeroes that represent lack of activity rather than true performance metrics. If a dataset contains entries that should be statistically ignored--such as instances where a metric is not applicable or recorded as zero--the arithmetic mean becomes skewed, offering a misleading representation of typical performance among the active subset of the population.

Consider a logistics company tracking delivery times. A delivery that was canceled might be recorded as zero minutes. Including this zero in the overall average delivery time would suggest that the process is faster than it truly is for successful deliveries. By selectively calculating the average based on a condition--in this case, only including values that are strictly greater than zero--

-we ensure that the resulting metric, often referred to as the **conditional mean**, accurately reflects the true operational efficiency or performance level of the measurable group. This distinction is paramount in finance, operations, and quality control where accurate baseline measurements are required.

To implement this precise statistical filtering in Excel, we move away from simple aggregation toward conditional functions. The solution lies in applying a specific criterion to the data range being analyzed. Specifically, to calculate the average only for positive numbers, you must instruct Excel to evaluate each cell against the logical test: is this value greater than zero? This method ensures that all non-positive values (zero and negative numbers) are effectively filtered out of the summation and count used in the average calculation.

Introducing the AVERAGEIF Function

The specialized tool required for this conditional calculation is the AVERAGEIF function. Unlike its simpler counterpart, **AVERAGEIF** is designed to calculate the average of a range of cells that meet a single, specific criterion. This capability makes it indispensable for tasks requiring data segmentation and focused statistical analysis, such as excluding non-contributing entries like zero sales figures or cancelled orders from performance calculations.

The structure of the **AVERAGEIF** function requires three essential arguments, although the third argument is optional in specific scenarios. Understanding these arguments is key to mastering its application:

Range: This is the set of cells (the data range) where you want the criteria to be applied. In our case, this is where Excel checks if the value is greater than zero.

Criteria: This is the condition or expression that determines which cells will be averaged. Criteria must always be enclosed in double quotation marks, such as ">0", "<100", or "<>0" (not equal to zero).

Average_range (Optional): This is the actual set of cells to average. If this argument is omitted, Excel uses the cells specified in the first argument (Range) both for checking the condition and for calculating the average.

For the specific goal of averaging values only if they are greater than zero within the same column or range, the range and the average range are identical. Therefore, the function simplifies slightly, requiring the range to be listed twice. This ensures clarity: the criteria are tested against the specified cells, and those same cells (if they pass the test) are used in the final computation of the mean. This structure yields the highly effective formula used for selective averaging.

Syntax Breakdown: Applying the Criteria ">0"

The core mechanism for filtering out zero and negative values is the criteria argument ">0". This logical expression tells Excel to only include numbers that are strictly positive. If the cell contains 5, it is included. If it contains 0, it is excluded. If it contains -2, it is excluded. The strict inequality ensures that only active, measurable data points contribute to the arithmetic mean.

Here is the fundamental structure necessary to perform this calculation, using a sample range of **B2:B14**. The formula calculates the average value in this range, contingent upon each cell containing a value greater than zero. It is crucial that the criteria, in this case ">0", is enclosed in quotation marks, as this is how Excel interprets text strings and logical conditions within the function's syntax.

The resulting formula is both powerful and remarkably concise. You can use the following standard formula structure to calculate the average in Excel only for values that are strictly greater than zero:

The specific formula using the example range **B2:B14** is presented below:

```
=AVERAGEIF(B2:B14, ">0", B2:B14)
```

This particular formula calculates the average value in the range **B2:B14** only for the cells that have a value greater than zero. Note that since the criteria range (where the values are checked) and the average range (where the values are averaged) are identical, we list **B2:B14** twice. This detailed definition ensures the formula executes as intended, providing highly accurate conditional statistics.

Step-by-Step Practical Example Implementation

To fully illustrate the necessity and utility of the AVERAGEIF function, let us walk through a typical business scenario. Suppose we have a dataset tracking the total monthly sales performance (in thousands of dollars) for various employees within a large corporation. This dataset, spanning cells B2 through B14, includes several instances where sales were zero, representing employees who either failed to meet the minimum threshold or were inactive during the period.

Dataset Setup:

Suppose we have the following dataset in Excel that shows the total sales made by various employees at a company:

	A	B	C	D	E
1	Employee Sales				
2	A	10			
3	B	0			
4	C	4			
5	D	4			
6	E	3			
7	F	9			
8	G	0			
9	H	2			
10	I	1			
11	J	1			
12	K	4			
13	L	0			
14	M	5			
15					
16					
17					
18					
19					
20					
21					

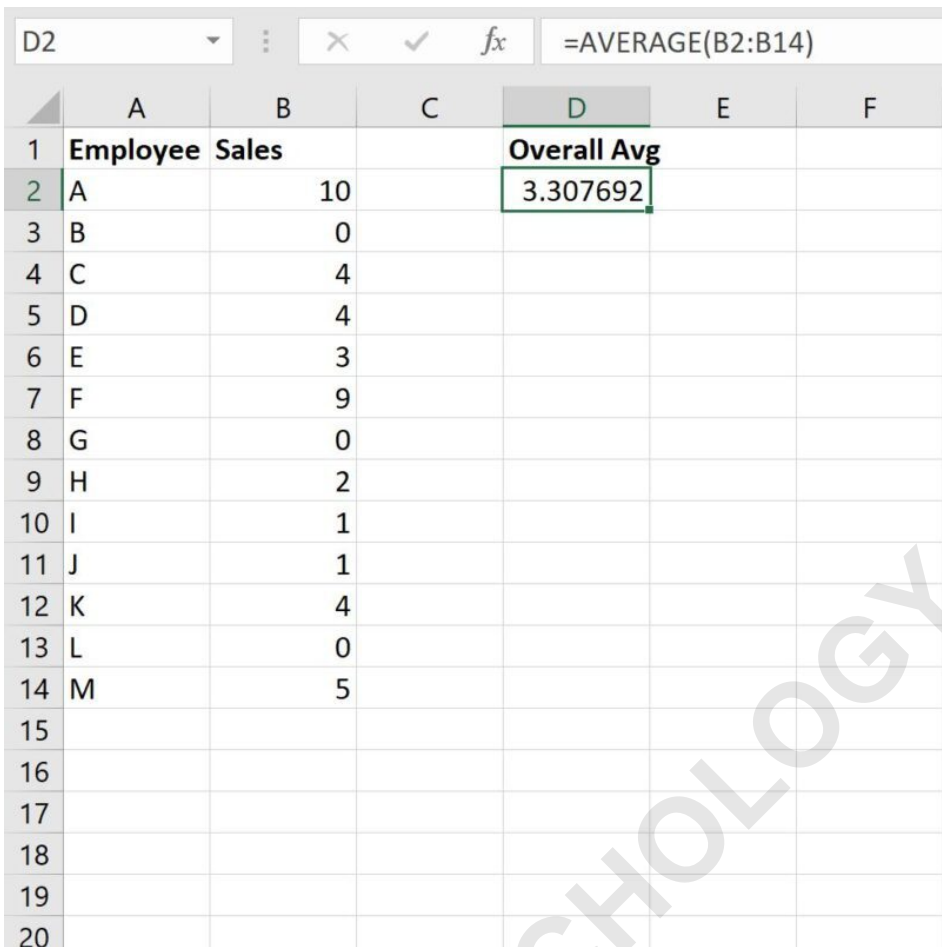
In this data, we can observe that several employees (rows 5, 8, and 12) have a sales figure of 0. If we aim to assess the average productivity solely among employees who actively contributed measurable sales, these zero entries must be excluded from the final calculation.

Analyzing the Results and Comparison with Simple AVERAGE

First, let's examine what happens when we use the standard AVERAGE function on the entire range **B2:B14**. This function includes all numeric values, including the zeroes, in both the summation and the count of items:

=AVERAGE(B2:B14)

If we simply used the **AVERAGE()** formula, we would find the average sales for all of the employees, resulting in a value that is artificially lower than the true performance average of contributing employees:



The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F
1	Employee	Sales		Overall Avg		
2	A	10		3.307692		
3	B	0				
4	C	4				
5	D	4				
6	E	3				
7	F	9				
8	G	0				
9	H	2				
10	I	1				
11	J	1				
12	K	4				
13	L	0				
14	M	5				
15						
16						
17						
18						
19						
20						

The formula bar at the top shows the formula `=AVERAGE(B2:B14)` entered in cell D2.

The average sales per employee, calculated indiscriminately across all thirteen entries, is approximately **3.307**. This figure represents the mean across the entire list, including the three entries of zero sales. However, if our goal is to measure the efficiency of the sales process or the typical output of an employee who actually made a sale, this number is misleading.

Now, let us apply the targeted AVERAGEIF function. Suppose we wanted to only calculate the average for employees who had greater than zero sales. We would utilize the conditional formula, which instructs Excel to only consider positive values in its calculation:

We could type the following formula into an output cell, such as cell D2:

=AVERAGEIF(B2:B14, ">0", B2:B14)

The following screenshot demonstrates the application of this formula and the resulting conditional average:

	A	B	C	D	E	F
1	Employee	Sales		Average if > 0		
2	A	10		4.3		
3	B	0				
4	C	4				
5	D	4				
6	E	3				
7	F	9				
8	G	0				
9	H	2				
10	I	1				
11	J	1				
12	K	4				
13	L	0				
14	M	5				
15						
16						
17						
18						

The resulting average sales for employees who had greater than zero sales was precisely **4.3**. This formula successfully calculated the average by only using the values that were strictly greater than zero, filtering out the three entries of 0. This higher number provides a much more accurate representation of the active sales team's performance than the general average of 3.307.

We can verify this calculation manually. The sum of all positive sales figures is $10 + 4 + 4 + 3 + 9 + 2 + 1 + 1 + 4 + 5 = 43$. Since there are 10 positive sales figures (the zeroes were excluded from the count), the conditional average is $43 / 10 = 4.3$. This manually verified result matches the value precisely calculated by our AVERAGEIF function.

Average of Values Greater than Zero: $(10+4+4+3+9+2+1+1+4+5) / 10 = 4.3$.

This matches the value calculated by our formula, confirming the function's precision in conditional data handling.

Advanced Methods: Using AVERAGE and IF (Array Formulas)

While the AVERAGEIF function is the simplest and most recommended approach for single criteria, advanced Excel users often need to employ more flexible methods, particularly when

dealing with complex logical tests or when multiple conditions must be met. This is where the combination of the AVERAGE function and the **IF** function, executed as an array formula, proves invaluable.

An array formula allows operations to be performed on multiple items in a range simultaneously, bypassing the cell-by-cell processing typical of standard functions. To average only positive numbers using this method, the **IF** function is used to create an array of values where non-positive numbers are replaced with a logical value that the AVERAGE function ignores, typically **FALSE** or an empty string. The key advantage here is the ability to handle conditions that are too complex for a simple **AVERAGEIF** structure.

The structure of the array formula for the range **B2:B14** looks like this. Note that this formula must be entered by pressing **Ctrl+Shift+Enter** (rather than just Enter) to activate its array functionality, causing curly braces **{}** to appear around the formula automatically:

```
{=AVERAGE(IF(B2:B14>0, B2:B14))}
```

When executed, the **IF** statement checks each cell in B2:B14. If the value is greater than zero, the value itself is returned; if it is not greater than zero (i.e., zero or negative), the IF function returns **FALSE**. The outer AVERAGE function is designed to ignore logical values like **FALSE**, thus only averaging the actual numbers that satisfied the criteria, achieving the same result as AVERAGEIF but with greater underlying flexibility for future adaptations.

Extending Conditional Calculations with AVERAGEIFS

While the AVERAGEIF function handles a single condition perfectly, many data analysis requirements demand filtering based on two or more simultaneous criteria. For scenarios where you need to calculate the average of values greater than zero, but only for data associated with a specific department or region, the AVERAGEIFS function becomes necessary. AVERAGEIFS allows for unlimited condition pairings, offering immense power for complex filtering operations.

The syntax for AVERAGEIFS differs slightly from AVERAGEIF, primarily because the required average range is listed first, followed by the criterion ranges and their respective criteria. If we wanted to average sales figures (in B2:B14) only if they are greater than zero AND if the corresponding employee is in the "East" region (listed in column A), the formula would look like this:

```
=AVERAGEIFS(B2:B14, B2:B14, ">0", A2:A14, "East")
```

In this structure, the first condition (B2:B14, ">0") ensures that we only include sales figures above

zero, and the second condition (A2:A14, "East") restricts the calculation exclusively to employees matching that textual criteria. Utilizing AVERAGEIFS maintains the integrity of the conditional average by allowing for granular control over which data points are included, moving beyond simple numerical filtering to incorporate categorical variables as well.

Handling Zeroes Versus Blanks and Errors

An important distinction must be made regarding how Excel functions treat zero values (0), blank cells, and text entries. The goal of using ">0" is specifically to exclude the numerical value zero from the averaging process. However, both the standard AVERAGE function and the Excel conditional functions handle blanks and text differently.

When calculating the arithmetic mean, the AVERAGE function automatically ignores cells that contain text, logical values (like TRUE/FALSE), and blank cells. It only calculates the mean of numerical values. This behavior is usually desirable, as a blank cell (representing missing data) should not be treated as a zero (representing recorded inactivity or null performance). Therefore, if your dataset contains truly blank cells, they will not skew the average either way.

The power of the AVERAGEIF function, especially with the ">0" criteria, is its ability to specifically target and exclude numerical zeroes, which the base **AVERAGE** function would otherwise include. By employing this conditional filtering, analysts ensure that their summaries reflect true productivity based on measurable, positive outputs, leading to far more reliable and actionable business intelligence.

Summary of Key Concepts and Best Practices

Mastering conditional calculations is fundamental to accurate data analysis in Excel. The simple shift from the standard AVERAGE function to the AVERAGEIF function, using the criteria ">0", provides immediate statistical clarity by isolating and measuring positive data points.

Best practices for implementing conditional averaging include:

Clarity of Criteria: Always enclose the criteria (e.g., ">0") in quotation marks to ensure proper textual interpretation by the function parser.

Range Definition: Ensure the criterion range and the average range are correctly specified. If they are the same, list them both clearly in the **AVERAGEIF** syntax.

Use AVERAGEIFS for Complexity: If multiple conditions are needed (e.g., greater than zero AND less than 100, or greater than zero AND in Department X), always transition to the AVERAGEIFS function for superior control.

By applying these robust conditional techniques, analysts can transform raw data into targeted, insightful metrics, thereby enhancing the quality and relevance of their statistical reporting and decision-making processes.

ARABPSYCHOLOGY.COM