



# Counting Unique Instances of a Value in a Field

If you are presented with a large dataset and need to find out how many of a certain value is in a field there is a simple method you can use to find out. In this example we will use a large database of fake names and associated information to identify how many people in a set of 10,000 live in a given state.

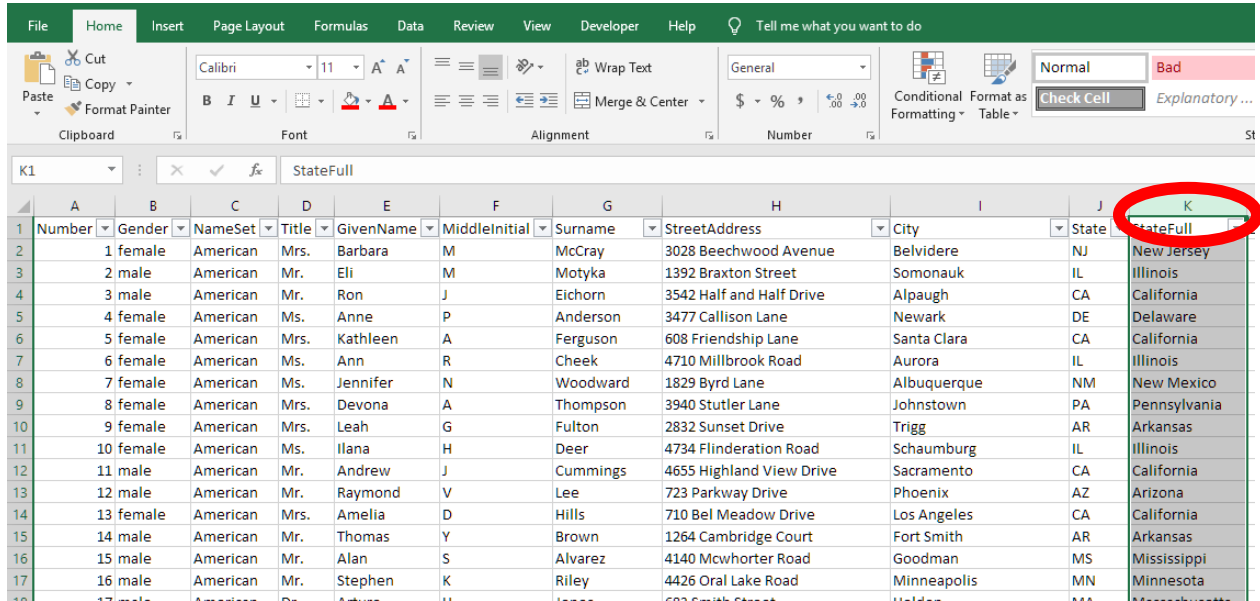
Here is our dataset:

	A	B	C	D	E	F	G	H	I	J	K
1	Number	Gender	NameSet	Title	GivenName	MiddleInitial	Surname	StreetAddress	City	State	StateFull
2	1	female	American	Mrs.	Barbara	M	McCray	3028 Beechwood Avenue	Belvidere	NJ	New Jersey
3	2	male	American	Mr.	Eli	M	Motyka	1392 Braxton Street	Somonauk	IL	Illinois
4	3	male	American	Mr.	Ron	J	Eichorn	3542 Half and Half Drive	Alpaugh	CA	California
5	4	female	American	Ms.	Anne	P	Anderson	3477 Callison Lane	Newark	DE	Delaware
6	5	female	American	Mrs.	Kathleen	A	Ferguson	608 Friendship Lane	Santa Clara	CA	California
7	6	female	American	Ms.	Ann	R	Cheek	4710 Millbrook Road	Aurora	IL	Illinois
8	7	female	American	Ms.	Jennifer	N	Woodward	1829 Byrd Lane	Albuquerque	NM	New Mexico
9	8	female	American	Mrs.	Devona	A	Thompson	3940 Stutler Lane	Johnstown	PA	Pennsylvania
10	9	female	American	Mrs.	Leah	G	Fulton	2832 Sunset Drive	Trigg	AR	Arkansas
11	10	female	American	Ms.	Ilana	H	Deer	4734 Flinderation Road	Schaumburg	IL	Illinois
12	11	male	American	Mr.	Andrew	J	Cummings	4655 Highland View Drive	Sacramento	CA	California
13	12	male	American	Mr.	Raymond	V	Lee	723 Parkway Drive	Phoenix	AZ	Arizona
14	13	female	American	Mrs.	Amelia	D	Hills	710 Bel Meadow Drive	Los Angeles	CA	California
15	14	male	American	Mr.	Thomas	Y	Brown	1264 Cambridge Court	Fort Smith	AR	Arkansas
16	15	male	American	Mr.	Alan	S	Alvarez	4140 Mcwhorter Road	Goodman	MS	Mississippi
17	16	male	American	Mr.	Stephen	K	Riley	4426 Oral Lake Road	Minneapolis	MN	Minnesota
18	17	male	American	Dr.	Arturo	H	Jones	683 Smith Street	Holden	MA	Massachusetts
19	18	female	American	Mrs.	Peggy	K	Welsh	375 Camden Place	Charleston	SC	South Carolina
20	19	female	American	Mrs.	Lillian	J	Mejia	4935 Melody Lane	Richmond	VA	Virginia
21	20	male	American	Mr.	Joshua	L	Newhall	3934 Fraggie Drive	Chicago	IL	Illinois
22	21	female	American	Mrs.	Christen	S	Moore	376 Del Dew Drive	Adelphi	MD	Maryland
23	22	female	American	Mrs.	Inez	L	Witcher	1667 Court Street	Chesterfield	MO	Missouri
24	23	male	American	Mr.	Mario	R	Sims	683 Philli Lane	Delaware	OK	Oklahoma
25	24	female	American	Ms.	Jennifer	H	McMahon	4207 Driftwood Road	San Francisco	CA	California
26	25	male	American	Mr.	Edward	C	Adams	1071 Fannie Street	Tunis	TX	Texas
27	26	female	American	Ms.	Marcia	F	Smith	2233 Clifford Street	Santa Rosa	CA	California
28	27	male	American	Mr.	Jessie	A	Jump	949 Sycamore Lake Road	Appleton	WI	Wisconsin
29	28	male	American	Mr.	Gary	E	Brown	2593 Dale Avenue	Tacoma	WA	Washington
30	29	male	American	Mr.	Seth	P	Hernandez	840 Dovetail Estates	Oklahoma City	OK	Oklahoma
31	30	female	American	Mrs.	Florence	H	Rauch	1201 Eagle Lane	Duluth	MN	Minnesota
32	31	female	American	Ms.	Catherine	L	Bowers	4105 Reynolds Alley	Cypress	CA	California
33	32	female	American	Ms.	Dollie	W	Pineiro	3259 Ersel Street	Dallas	TX	Texas
34	33	female	American	Ms.	Carmen	J	Holloway	1590 Barnes Avenue	Cincinnati	OH	Ohio
35	34	female	American	Mrs.	Helen	J	Courtney	3595 Westfall Avenue	Timberon	NM	New Mexico
36	35	male	American	Mr.	Kenneth	H	Naylor	4794 Yorkshire Circle	Kitty Hawk	NC	North Carolina
37	36	male	American	Mr.	Eduardo	D	Ortega	4628 Grand Avenue	Orlando	FL	Florida
38	37	female	American	Ms.	Jennifer	A	Spearman	2800 Pinnickinnick Street	Rochelle Park	NJ	New Jersey

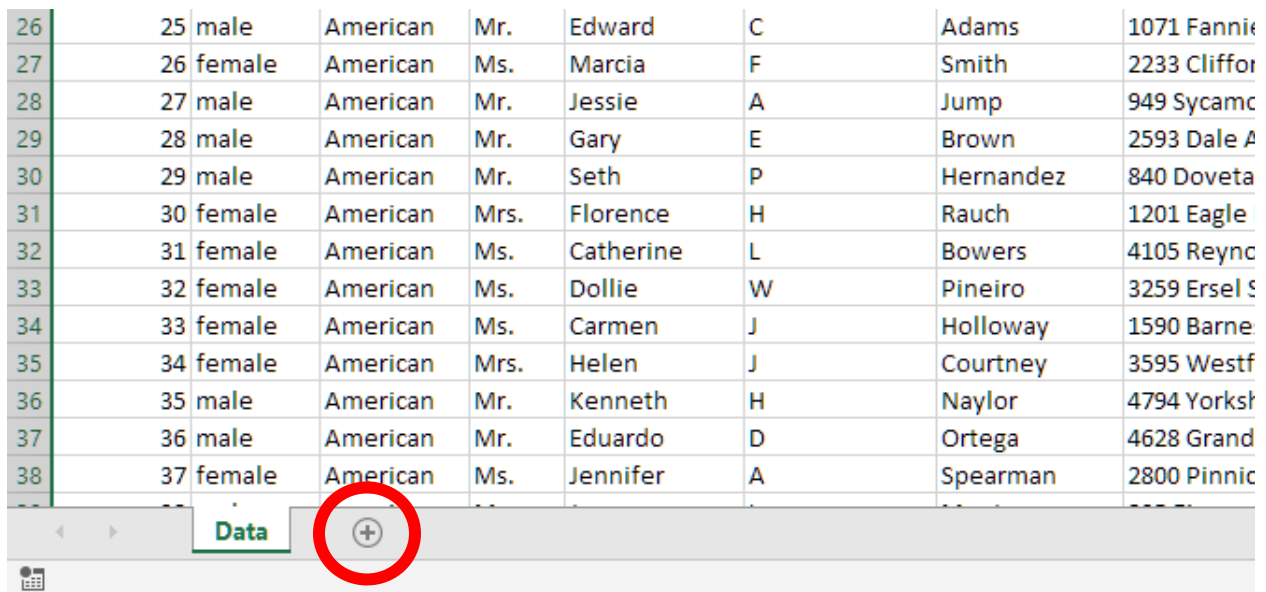


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1. Select the column with the state name by clicking on the letter above it (in this case it's K) and press Ctrl + C or right click and select "Copy"

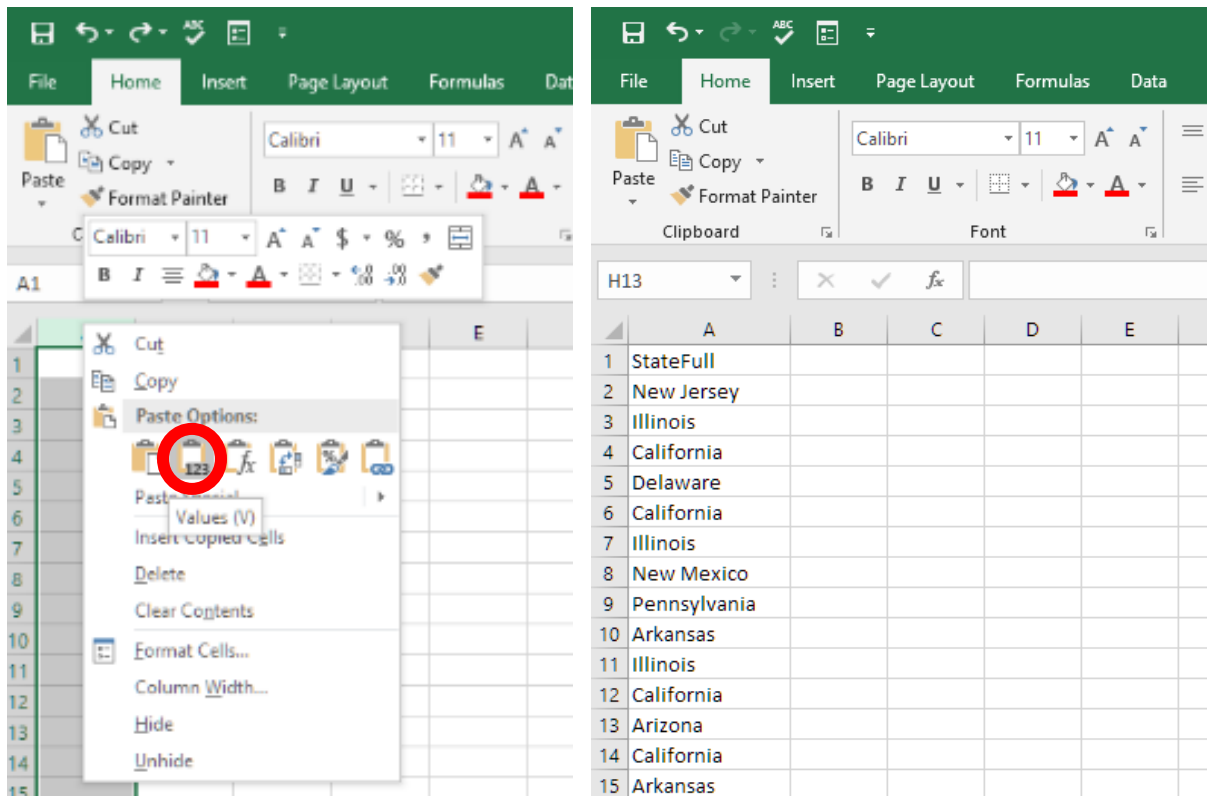


2. We then go to the bottom of the excel window and click the New Sheet Button

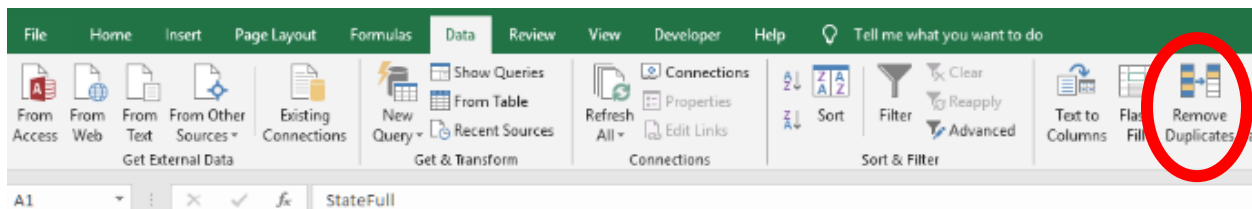


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3. On our new sheet right click on the "A" in the first column and press Ctrl+V or right click and select Paste Values.

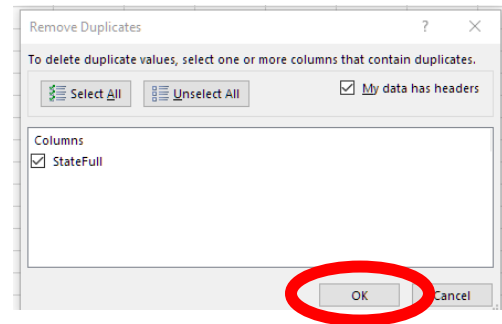


4. Select the column again by clicking on the A at the top and Click Data -> Remove Duplicates

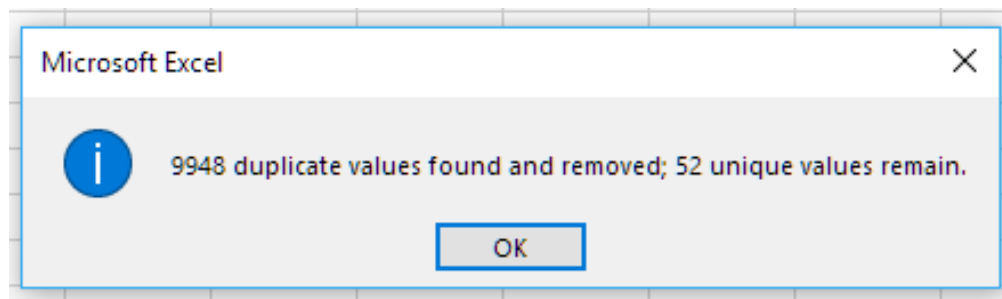


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5. A Box will pop up to confirm the field you want to remove duplicates from. In this case we have a header on the data so we want to make sure that the “My data has headers” box has a check mark in it.



6. After you click “OK” a summary of the number removed and remaining will come up (52 is expected in this case because the data set treats Washington D.C. and as a state and the blank row after the last state as a unique value).



7. Once you click ok on this sheet, we can begin entering the formula that will count the unique values.
8. Select cell B2, which should be adjacent to the first value in the dataset (if you have headers) and enter the countifs formula. The structure will be “=COUNTIFS(field\_to\_count\_from, value\_to\_count)” so in this case, because the field we copied was Column K we enter “=COUNTIFS(Data!K:K,A2)” which tells Excel to look at Column K on the “Data” sheet and count how many times the value in cell A2 is there. (You may know that Excel also has a COUNTIF formula that can take only one value\_to\_count while COUNTIFS takes more than one. COUNTIFS is more flexible and

	A	B	C	D	E	F
1	StateFull					
2	New Jersey	326				
3	Illinois					
4	California					

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allows us to add additional criteria without changing the formula we use so we will use it here).

	A	B
1	StateFull	
2	New Jersey	326
3	Illinois	
4	California	
5	Delaware	
6	New Mexico	
7	Pennsylvania	
8	Arkansas	
9	Arizona	
10	Mississippi	
11	Minnesota	
12	Massachusetts	
13	South Carolina	
14	Virginia	
15	Maryland	

9. After you have the formula entered in cell B2 move your cursor to the green square in the corner of the cell until you see a black plus sign (+) show in the corner of it and double-click. This will populate the formula in cell B2 all the way down, substituting the value\_to\_count for the cell next to the formula in column A.

	A	B
1	StateFull	
2	New Jersey	326
3	Illinois	458
4	California	1128
5	Delaware	34
6	New Mexico	50
7	Pennsylvania	387
8	Arkansas	114
9	Arizona	139
10	Mississippi	114
11	Minnesota	216
12	Massachusetts	303
13	South Carolina	96
14	Virginia	209
15	Maryland	184

10. Now you can see the number of records for every state in your dataset.