

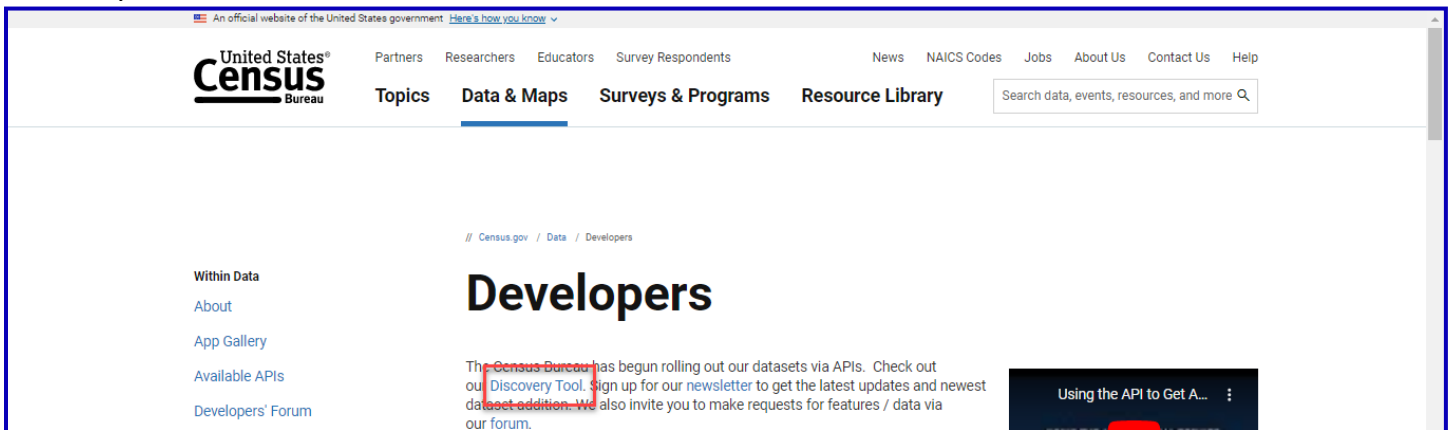
Accessing Data from the 2020 Detailed Demographic and Housing Characteristics File A in the Census Data API

Step by step instructions for accessing the data in the Census Data API

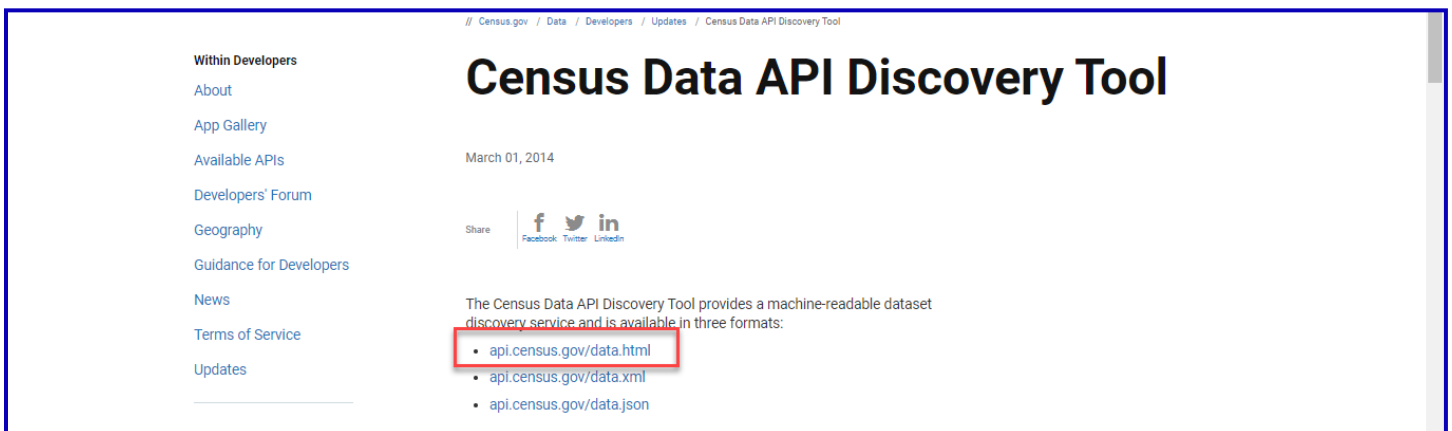
The 2020 Decennial Census Detailed Demographic and Housing Characteristics File A, or Detailed DHC-A, provides population counts and age and sex statistics for detailed racial and ethnic groups and American Indian and Alaska Native tribes and villages. The Census Data API allows you to locate data for these detailed groups.

The goal with this example is to use the Census Data API to find data for males and females aged 18 to 44 years who reported being Chamorro alone or in any combination for all counties in Washington.

Step 1: Using your web browser, go to the census.gov Developers page at <https://www.census.gov/data/developers.html>. Under the Developers heading, click on the link to the Discovery Tool.



Step 2: Then click on the format that you'd like to view the Discovery Tool in. For this example, click on the html version.



The Discovery Tool houses all the different datasets found in the Census Data API. To locate the 2020 Detailed Demographic and Housing Characteristics dataset, click on “Ctrl + F” and type “Detailed Demographic and Housing Characteristics File A” into the search bar that appears. This will take you directly to the correct dataset.

2020 Detailed Demographic and Housing Characteristics File A	This product provides the population counts and sex and age statistics for detailed racial and ethnic groups and American Indian and Alaska Native tribes and villages.	2020	dec> ddhca	Aggregate	geographies	variables	groups	sorts	examples	documentation
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Step 3: To isolate the information for this dataset from the other datasets found on this page, click on the “API Base” URL found in the last column and add “.html” to the end of it. The resulting URL should be <http://api.census.gov/data/2020/dec/ddhca.html>.

← → ↻ 🏠

Census API: Datasets in /data/2020/dec/ddhca and its descendants

Title	Description	Vintage	Dataset Name	Dataset Type	Geography List	Variable List	Group List	SortList	Examples	Developer Documentation
2020 Detailed Demographic and Housing Characteristics File A	This product provides the population counts and sex and age statistics for detailed racial and ethnic groups and American Indian and Alaska Native tribes and villages.	2020	dec> ddhca	Aggregate	geographies	variables	groups	sorts	examples	documentation

Step 4: Find the variables that you need. To get the full list of variables, right-click on the “Variables” link and choose “Open link in new tab.”

Census API: Datasets in /data/2020/dec/ddhca and its descendants

Title	Description	Vintage	Dataset Name	Dataset Type	Geography List	Variable List	Group List	SortList	Examples	Developer Documentation	API
2020 Detailed Demographic and Housing Characteristics File A	This product provides the population counts and sex and age statistics for detailed racial and ethnic groups and American Indian and Alaska Native tribes and villages.	2020	dec> ddhca	Aggregate	geographies	variables	groups	sorts	examples	documentation	http://

Step 5: Find the age group variables that you need. Click on “Ctrl + F” and type “18 to 44” in the resulting text box. There are two variables that match this that you want to take note of: T02001_004N (Total Male 18 to 44 years) and T02001_009N (Total Female 18 to 44 years).

T02001_003N	!!Total:!!Male:!!Under 18 years	SEX BY AGE (4 AGE CATEGORIES)	not required	18 to 44	2/2	^ v x	T02001
T02001_004N	!!Total:!!Male:!!18 to 44 years	SEX BY AGE (4 AGE CATEGORIES)	not required	T02001_004NA	0	int	T02001
T02001_005N	!!Total:!!Male:!!45 to 64 years	SEX BY AGE (4 AGE CATEGORIES)	not required	T02001_005NA	0	int	T02001
T02001_006N	!!Total:!!Male:!!65 years and over	SEX BY AGE (4 AGE CATEGORIES)	not required	T02001_006NA	0	int	T02001
T02001_007N	!!Total:!!Female:	SEX BY AGE (4 AGE CATEGORIES)	not required	T02001_007NA	0	int	T02001
T02001_008N	!!Total:!!Female:!!Under 18 years	SEX BY AGE (4 AGE CATEGORIES)	not required	T02001_008NA	0	int	T02001
T02001_009N	!!Total:!!Female:!!18 to 44 years	SEX BY AGE (4 AGE CATEGORIES)	not required	T02001_009NA	0	int	T02001
	!!Total:!!Female:!!45 to 64						

Step 6: The only other variable you will need for this is the one called POPGROUP. You will need this because you want to get data for the people who reported themselves as being Chamorro alone or in any combination. Take note of this variable name, as well as its related label variable, POPGROUP_LABEL.

NATION	Geography		not required		0	predicate)	N/A
PLACE	Geography		not required		0	(not a predicate)	N/A
POPGROUP	Race/Ethnic Group	SEX BY AGE (23 AGE CATEGORIES);TOTAL POPULATION;SEX BY AGE (4 AGE CATEGORIES);SEX BY AGE (9 AGE CATEGORIES)	default displayed	POPGROUP_LABEL	0	string	T02001, T01001, T02002, T02003
STATE	Geography		not required		0	(not a	N/A

Step 7: Now that you have the variables you need, return to the information page where you initially selected the variables link (<http://api.census.gov/data/2020/dec/ddhca.html>). To get a list of example queries, right-click on the “Examples” link and choose “Open link in new tab.”

Census API: Datasets in /data/2020/dec/ddhca and its descendants

Title	Description	Vintage	Dataset Name	Dataset Type	Geography List	Variable List	Group List	SortList	Examples	Developer Documentation	API
2020 Detailed Demographic and Housing Characteristics File A	This product provides the population counts and sex and age statistics for detailed racial and ethnic groups and American Indian and Alaska Native tribes and villages.	2020	dec> ddhca	Aggregate	geographies	variables	groups	sorts	examples	documentation	http://

Step 8: Here you can find example links for all the geographies that are available with the 2020 Detailed Demographic and Housing Characteristics File A dataset. For this example, you are looking at county-level data, so you will want to focus on the queries found for Geography Level (or Summary Level) 050.

Census API: Examples for /data/2020/dec/ddhca

Geography Hierarchy	Geography Level	Example URL	Number
us	010	https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=us:*&key=YOUR_KEY_GOES_HERE	1
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=us:1&key=YOUR_KEY_GOES_HERE	2
state	040	https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=state:*&key=YOUR_KEY_GOES_HERE	3
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=state:06&key=YOUR_KEY_GOES_HERE	4
state> county	050	https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=county:*&key=YOUR_KEY_GOES_HERE	5
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=county:*&in=state:*&key=YOUR_KEY_GOES_HERE	6
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=county:037&in=state:06&key=YOUR_KEY_GOES_HERE	7
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=tract:*&in=state:06&key=YOUR_KEY_GOES_HERE	8

The “&for” portion of the query dictates the geography. The first two queries are going to give you data for all counties in the United States. You can tell that they are going to give data for all counties because they use the wildcard (represented by an asterisk). The difference between the two is that the second query spells it out for all counties in all states. This second query is useful because you could change the asterisk for the state to a two-digit FIPS code that is associated with each state.

Census API: Examples for /data/2020/dec/ddhca

Geography Hierarchy	Geography Level	Example URL	Number
us	010	https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=us:*&key=YOUR_KEY_GOES_HERE	1
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=us:1&key=YOUR_KEY_GOES_HERE	2
state	040	https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=state:*&key=YOUR_KEY_GOES_HERE	3
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=state:06&key=YOUR_KEY_GOES_HERE	4
state> county	050	https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=county:*&key=YOUR_KEY_GOES_HERE	5
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=county:*&in=state:*&key=YOUR_KEY_GOES_HERE	6
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=county:037&in=state:06&key=YOUR_KEY_GOES_HERE	7
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=tract:*&in=state:06&key=YOUR_KEY_GOES_HERE	8

The last query allows you to look at data for a single county within a given state.

Census API: Examples for /data/2020/dec/ddhca

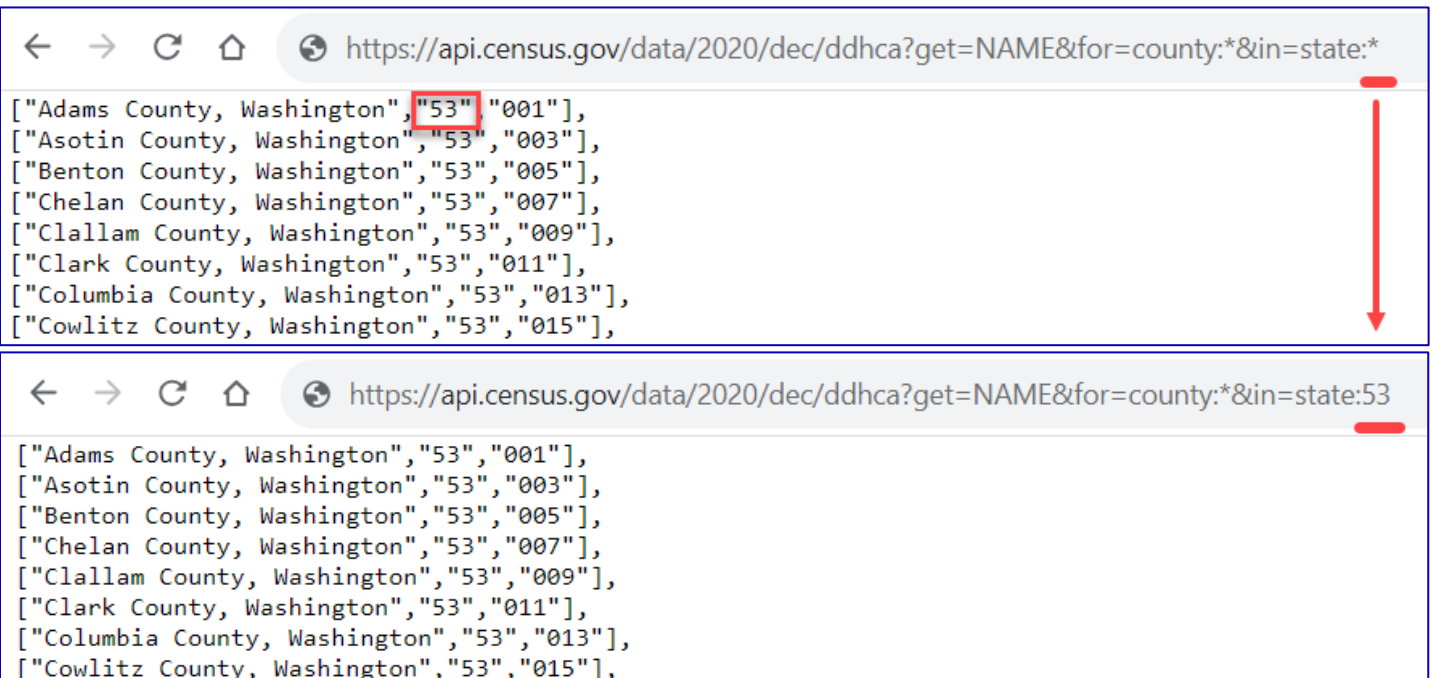
Geography Hierarchy	Geography Level	Example URL	Number
us	010	https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=us:*&key=YOUR_KEY_GOES_HERE	1
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=us:1&key=YOUR_KEY_GOES_HERE	2
state	040	https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=state:*&key=YOUR_KEY_GOES_HERE	3
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=state:06&key=YOUR_KEY_GOES_HERE	4
state> county	050	https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=county:*&key=YOUR_KEY_GOES_HERE	5
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=county:*&in=state:*&key=YOUR_KEY_GOES_HERE	6
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=county:037&in=state:06&key=YOUR_KEY_GOES_HERE	7
		https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=tract:*&in=state:06&key=YOUR_KEY_GOES_HERE	8

Step 9: For this example, let's use the second query:

https://api.census.gov/data/2020/dec/ddhca?get=NAME&for=county:*&in=state:*. Right-click on the second query and choose "Open link in new tab." When it opens, you will observe that it is listing all the counties in the United States (first portion of each line, labeled as "NAME"), along with their respective state FIPS code (second portion of each line, labeled as "state") and county code (last portion of each line, labeled as "county").

```
[["NAME","state","county"],  
["Autauga County, Alabama","01","001"],  
["Baldwin County, Alabama","01","003"],  
["Barbour County, Alabama","01","005"],  
["Bibb County, Alabama","01","007"],  
["Blount County, Alabama","01","009"],  
["Bullock County, Alabama","01","011"],  
["Butler County, Alabama","01","013"],  
["Calhoun County, Alabama","01","015"],  
["Chambers County, Alabama","01","017"],  
["Cherokee County, Alabama","01","019"],  
["Chilton County, Alabama","01","021"],  
["Choctaw County, Alabama","01","023"],  
["Clarke County, Alabama","01","025"],  
["Clay County, Alabama","01","027"],  
["Cleburne County, Alabama","01","029"]]
```

Step 10: Since you want data for all the counties in Washington, you need to first determine what the state FIPS code is for Washington. Click on "Ctrl + F" and type "Washington." When you locate the lines for Washington, you will observe that the state FIPS code is 53. Navigate to the top of the query and replace the asterisk after **state:** with "53." Then, click on "Enter." This isolates the geographies so that you only observe the counties in Washington.



The image shows two screenshots of a web browser displaying the results of a query to the Census API. The first screenshot shows the query results for all counties in the United States, with the state FIPS code "53" highlighted in a red box. A red arrow points down to the second screenshot, which shows the query results for only the counties in Washington, with the state FIPS code "53" replaced by "53" in the URL.

```
["Adams County, Washington","53","001"],  
["Asotin County, Washington","53","003"],  
["Benton County, Washington","53","005"],  
["Chelan County, Washington","53","007"],  
["Clallam County, Washington","53","009"],  
["Clark County, Washington","53","011"],  
["Columbia County, Washington","53","013"],  
["Cowlitz County, Washington","53","015"],
```

```
["Adams County, Washington","53","001"],  
["Asotin County, Washington","53","003"],  
["Benton County, Washington","53","005"],  
["Chelan County, Washington","53","007"],  
["Clallam County, Washington","53","009"],  
["Clark County, Washington","53","011"],  
["Columbia County, Washington","53","013"],  
["Cowlitz County, Washington","53","015"],
```


Step 11: Next, look for the pop group code for the Chamorro alone or in any combination population. To get the full list of available pop groups and their respective codes, type in “,POPGROUP,POPGROUP_LABEL” right after “NAME” in the URL. Make sure to include commas to separate each variable, but do not include any spaces. Once you do this, the query should be https://api.census.gov/data/2020/dec/ddhca?get=NAME,POPGROUP,POPGROUP_LABEL&for=county:*&in=state:53. Once you click “Enter” to run this new query, you should observe a list of all the different population groups and their respective codes.

```

< > ↻ 🏠 https://api.census.gov/data/2020/dec/ddhca?get=NAME,POPGROUP,POPGROUP_LABEL&for=county:*&in=state:53

[[{"NAME", "POPGROUP", "POPGROUP_LABEL", "state", "county"},
["Adams County, Washington", "3096", "Lummi Tribe alone or in any combination", "53", "001"],
["Adams County, Washington", "3273", "Sac and Fox Nation of Missouri in Kansas and Nebraska alone or in any combination", "53", "001"],
["Adams County, Washington", "2962", "Crow Creek Sioux Tribe of the Crow Creek Reservation, South Dakota alone or in any combination", "53", "001"],
["Adams County, Washington", "2968", "Delaware Tribe of Indians, Oklahoma alone or in any combination", "53", "001"],
["Adams County, Washington", "3102", "Maliseet alone or in any combination", "53", "001"],
["Adams County, Washington", "3103", "Manchester Band of Pomo Indians of the Manchester Rancheria, California alone or in any combination", "53", "001"],
["Adams County, Washington", "3111", "Mattaponi Indian Tribe alone or in any combination", "53", "001"],
["Adams County, Washington", "3113", "Mechoopda Indian Tribe of Chico Rancheria alone or in any combination", "53", "001"],
["Adams County, Washington", "3289", "Santa Rosa Band of Cahuilla Indians alone or in any combination", "53", "001"],
["Adams County, Washington", "3290", "Santa Rosa Indian Community alone or in any combination", "53", "001"],
["Adams County, Washington", "2974", "Eastern Creek alone or in any combination", "53", "001"],
["Adams County, Washington", "2978", "Eastern Shawnee Tribe of Oklahoma alone or in any combination", "53", "001"],
["Adams County, Washington", "2981", "Edisto Natchez-Kusso Tribe of South Carolina (Natchez Indian Tribe) alone or in any combination", "53", "001"],
["Adams County, Washington", "3129", "Moapa Band of Paiute Indians of the Moapa River Indian Reservation, Nevada alone or in any combination", "53", "001"],
["Adams County, Washington", "32R", "Hopi tribal grouping alone", "53", "001"],
["Adams County, Washington", "3304", "Seminole Tribe of Florida alone or in any combination", "53", "001"],
["Adams County, Washington", "2984", "Elnu Abenaki Tribe alone or in any combination", "53", "001"],
["Adams County, Washington", "2985", "Ely Shoshone Tribe alone or in any combination", "53", "001"]]]

```

Step 12: Click on “Ctrl + F” and type “Chamorro alone or in any combination” in the resulting text box. There are multiple matches for this, but the only two that you need to worry about are the ones for “Chamorro alone or in any combination.” One of the POPGROUP codes for this is 3938 and the other is 929. Since the population group codes have changed from three-characters to four-digits for 2020, for this example, you’re only going to need the four-digit code of 3938.

```

["Adams County, Washington", "4051", "Healy Lake Village alone", "53", "001"],
["Adams County, Washington", "3716", "Zoque alone or in any combination", "53", "001"],
["Adams County, Washington", "3717", "Mexican Indian alone or in any combination, not elsewhere classified", "53", "001"],
["Adams County, Washington", "3936", "Micronesian alone or in any combination", "53", "001"],
["Adams County, Washington", "3938", "Chamorro alone or in any combination", "53", "001"],
["Adams County, Washington", "9999", "Chuukese alone or in any combination", "53", "001"],
["Adams County, Washington", "417", "Colombian", "53", "001"],
["Adams County, Washington", "3949", "Yapese alone or in any combination", "53", "001"],

```

Chamorro alone or in any 1/117

Step 13: To add this code to the query, delete “POPGROUP,” from its current position in the URL. After POPGROUP_LABEL, type “&POPGROUP=3938.” When you are done, it should look like https://api.census.gov/data/2020/dec/ddhca?get=NAME,POPGROUP_LABEL&POPGROUP=3938&for=county:*&in=state:53. Click “Enter” to run this new query.

```

< > ↻ 🏠 https://api.census.gov/data/2020/dec/ddhca?get=NAME,POPGROUP_LABEL&POPGROUP=3938&for=county:*&in=state:53

[[{"NAME", "POPGROUP_LABEL", "POPGROUP", "state", "county"},
["Adams County, Washington", "Chamorro alone or in any combination", "3938", "53", "001"],
["Asotin County, Washington", "Chamorro alone or in any combination", "3938", "53", "003"],
["Benton County, Washington", "Chamorro alone or in any combination", "3938", "53", "005"],
["Chelan County, Washington", "Chamorro alone or in any combination", "3938", "53", "007"],
["Clallam County, Washington", "Chamorro alone or in any combination", "3938", "53", "009"],
["Clark County, Washington", "Chamorro alone or in any combination", "3938", "53", "011"],
["Columbia County, Washington", "Chamorro alone or in any combination", "3938", "53", "013"],
["Cowlitz County, Washington", "Chamorro alone or in any combination", "3938", "53", "015"],
["Douglas County, Washington", "Chamorro alone or in any combination", "3938", "53", "017"],
["Ferry County, Washington", "Chamorro alone or in any combination", "3938", "53", "019"],

```

Step 14: Now you can add in the two age group variables. Directly after “POPGROUP_LABEL” in the URL, type in “,T02001_004N,T02001_009N.” Make sure to include commas to separate each variable, but do not include any spaces. Once you do this, the query should be

https://api.census.gov/data/2020/dec/ddhca?get=NAME,POPGROUP_LABEL,T02001_004N,T02001_009N&POPGROUP=3938&for=county:*&in=state:53. Once you click “Enter,” you will receive data back for the requested age group variables for the counties in Washington that they are available for.

```
← → ↻ 🏠 🌐 https://api.census.gov/data/2020/dec/ddhca?get=NAME,POPGROUP_LABEL,T02001_004N,T02001_009N&POPGROUP=3938&for=county:*&in=state:53

[[{"NAME", "POPGROUP_LABEL", "T02001_004N", "T02001_009N", "POPGROUP", "state", "county"},
{"Clark County, Washington", "Chamorro alone or in any combination", "318", "353", "3938", "53", "011"},
{"King County, Washington", "Chamorro alone or in any combination", "863", "823", "3938", "53", "033"},
{"Kitsap County, Washington", "Chamorro alone or in any combination", "453", "464", "3938", "53", "035"},
{"Snohomish County, Washington", "Chamorro alone or in any combination", "258", "215", "3938", "53", "061"},
{"Thurston County, Washington", "Chamorro alone or in any combination", "338", "346", "3938", "53", "067"}]]
```

Step 15: Let’s review the output. The first portion is the NAME of the geography:

```
[[{"NAME", "POPGROUP_LABEL", "T02001_004N", "T02001_009N", "POPGROUP", "state", "county"},
{"Clark County, Washington", "Chamorro alone or in any combination", "318", "353", "3938", "53", "011"},
{"King County, Washington", "Chamorro alone or in any combination", "863", "823", "3938", "53", "033"},
{"Kitsap County, Washington", "Chamorro alone or in any combination", "453", "464", "3938", "53", "035"},
{"Snohomish County, Washington", "Chamorro alone or in any combination", "258", "215", "3938", "53", "061"},
{"Thurston County, Washington", "Chamorro alone or in any combination", "338", "346", "3938", "53", "067"}]]
```

The next portion is the POPGROUP_LABEL (in this case it is Chamorro alone or in any combination).

```
[[{"NAME", "POPGROUP_LABEL", "T02001_004N", "T02001_009N", "POPGROUP", "state", "county"},
{"Clark County, Washington", "Chamorro alone or in any combination", "318", "353", "3938", "53", "011"},
{"King County, Washington", "Chamorro alone or in any combination", "863", "823", "3938", "53", "033"},
{"Kitsap County, Washington", "Chamorro alone or in any combination", "453", "464", "3938", "53", "035"},
{"Snohomish County, Washington", "Chamorro alone or in any combination", "258", "215", "3938", "53", "061"},
{"Thurston County, Washington", "Chamorro alone or in any combination", "338", "346", "3938", "53", "067"}]]
```

Next are the individual counts for the four age group variables: T02001_004N (Total Male 18 to 44 years) and T02001_009N (Total Female 18 to 44 years).

```
[[{"NAME", "POPGROUP_LABEL", "T02001_004N", "T02001_009N", "POPGROUP", "state", "county"},
{"Clark County, Washington", "Chamorro alone or in any combination", "318", "353", "3938", "53", "011"},
{"King County, Washington", "Chamorro alone or in any combination", "863", "823", "3938", "53", "033"},
{"Kitsap County, Washington", "Chamorro alone or in any combination", "453", "464", "3938", "53", "035"},
{"Snohomish County, Washington", "Chamorro alone or in any combination", "258", "215", "3938", "53", "061"},
{"Thurston County, Washington", "Chamorro alone or in any combination", "338", "346", "3938", "53", "067"}]]
```

Next is the POPGROUP code, which in this case is 3938.

```
[[{"NAME", "POPGROUP_LABEL", "T02001_004N", "T02001_009N", "POPGROUP", "state", "county"},
{"Clark County, Washington", "Chamorro alone or in any combination", "318", "353", "3938", "53", "011"},
{"King County, Washington", "Chamorro alone or in any combination", "863", "823", "3938", "53", "033"},
{"Kitsap County, Washington", "Chamorro alone or in any combination", "453", "464", "3938", "53", "035"},
{"Snohomish County, Washington", "Chamorro alone or in any combination", "258", "215", "3938", "53", "061"},
{"Thurston County, Washington", "Chamorro alone or in any combination", "338", "346", "3938", "53", "067"}]]
```

Next is the state FIPS code, which in this case is 53 for Washington.

```
[["NAME", "POPGROUP_LABEL", "T02001_004N", "T02001_009N", "POPGROUP", "state", "county"],  
["Clark County, Washington", "Chamorro alone or in any combination", "318", "353", "3938", "53", "011"],  
["King County, Washington", "Chamorro alone or in any combination", "863", "823", "3938", "53", "033"],  
["Kitsap County, Washington", "Chamorro alone or in any combination", "453", "464", "3938", "53", "035"],  
["Snohomish County, Washington", "Chamorro alone or in any combination", "258", "215", "3938", "53", "061"],  
["Thurston County, Washington", "Chamorro alone or in any combination", "338", "346", "3938", "53", "067"]]
```

And last is the county code for the counties in Washington.

```
[["NAME", "POPGROUP_LABEL", "T02001_004N", "T02001_009N", "POPGROUP", "state", "county"],  
["Clark County, Washington", "Chamorro alone or in any combination", "318", "353", "3938", "53", "011"],  
["King County, Washington", "Chamorro alone or in any combination", "863", "823", "3938", "53", "033"],  
["Kitsap County, Washington", "Chamorro alone or in any combination", "453", "464", "3938", "53", "035"],  
["Snohomish County, Washington", "Chamorro alone or in any combination", "258", "215", "3938", "53", "061"],  
["Thurston County, Washington", "Chamorro alone or in any combination", "338", "346", "3938", "53", "067"]]
```

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