

TheDataWeb

Hands-on Exercise Using DataFerrett
American Community Survey
5-Year Summary File: 2006-2010
Foreign Born by Age by Sex

U.S. Census Bureau

DataFerrett Help
<http://dataferrett.census.gov/>
1-866-437-0171 (toll free)
dsd.ferrett@census.gov

Task: Using the 5-year ACS Summary File, produce a table breaking out the foreign born populations by age less than 18 years and sex for all census tracts in Montgomery and Prince George’s Counties, MD.

START DATAFERRETT

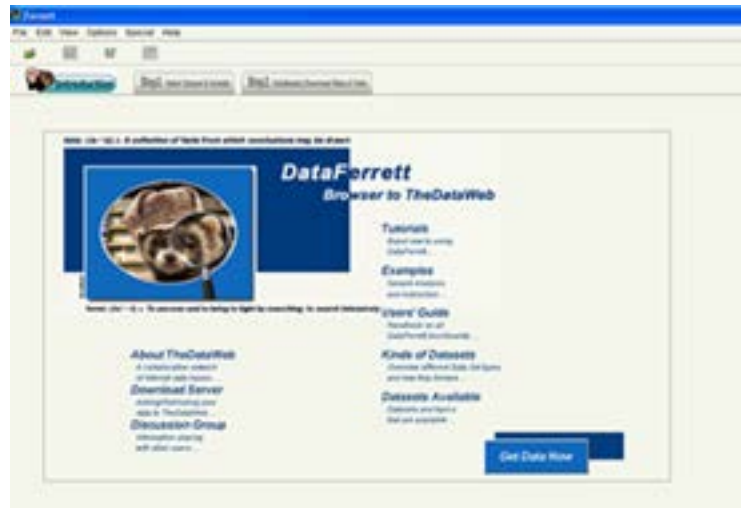
1. GO TO [HTTP://DATAFERRETT.CENSUS.GOV/](http://DATAFERRETT.CENSUS.GOV/), CLICK ON “GET DATA ~ RUN: DATAFERRETT, AND LAUNCH DATAFERRETT
2. ENTER YOUR E-MAIL ADDRESS WHEN PROMPTED

NOTE: The DataFerrett Team only uses the email address when returning downloaded data or responding to help messages and on occasion to send out an announcement regarding special notices. It does not give your email address out. Passwords are only necessary and issued to users to access their own data or private data.

The Introduction Tab is the screen you arrive at after you log in. Step 1 and Step 2 are the data application tabs.

The Introduction Screen has the Get Data Now link to go straight into the DataFerrett application.

Note: Select the links to access the users’ guide, tutorials, frequently asked questions and other information about using DataFerrett.



STEP1: SELECT DATASET & VARIABLE TAB

1. SELECT THE “**STEP 1: SELECT DATASET & VARIABLES**” TAB.
2. CLICK ON THE **PLUS SIGN** NEXT TO THE **AMERICAN COMMUNITY SURVEY** FOLDER.
3. CLICK ON THE **PLUS SIGN** NEXT TO THE **SUMMARIZED DATA** FOLDER.
4. CLICK ON THE **PLUS SIGN** NEXT TO THE **2006-2010** FOLDER.
5. CLICK ON THE **PLUS SIGN** NEXT TO THE **5-YEAR SUMMARY FILE** FOLDER.
6. CLICK ON THE **B05003. SEX BY AGE BY NATIVITY AND CITIZENSHIP STATUS** BULLET.
7. A **DESCRIPTION / VIEW VARIABLES/ADD ALL TO DATA BASKET** FLY-OUT WILL ALLOW YOU TO CHOOSE THE DATASET DESCRIPTION, VIEW VARIABLES, OR ADD ALL OF THE TABLE’S VARIABLES AT ONCE.
8. CLICK THE **VIEW VARIABLES** OPTION SINCE YOU WANT TO SELECT SPECIFIC VARIABLES FROM THE TABLE.

You will need the following variables:

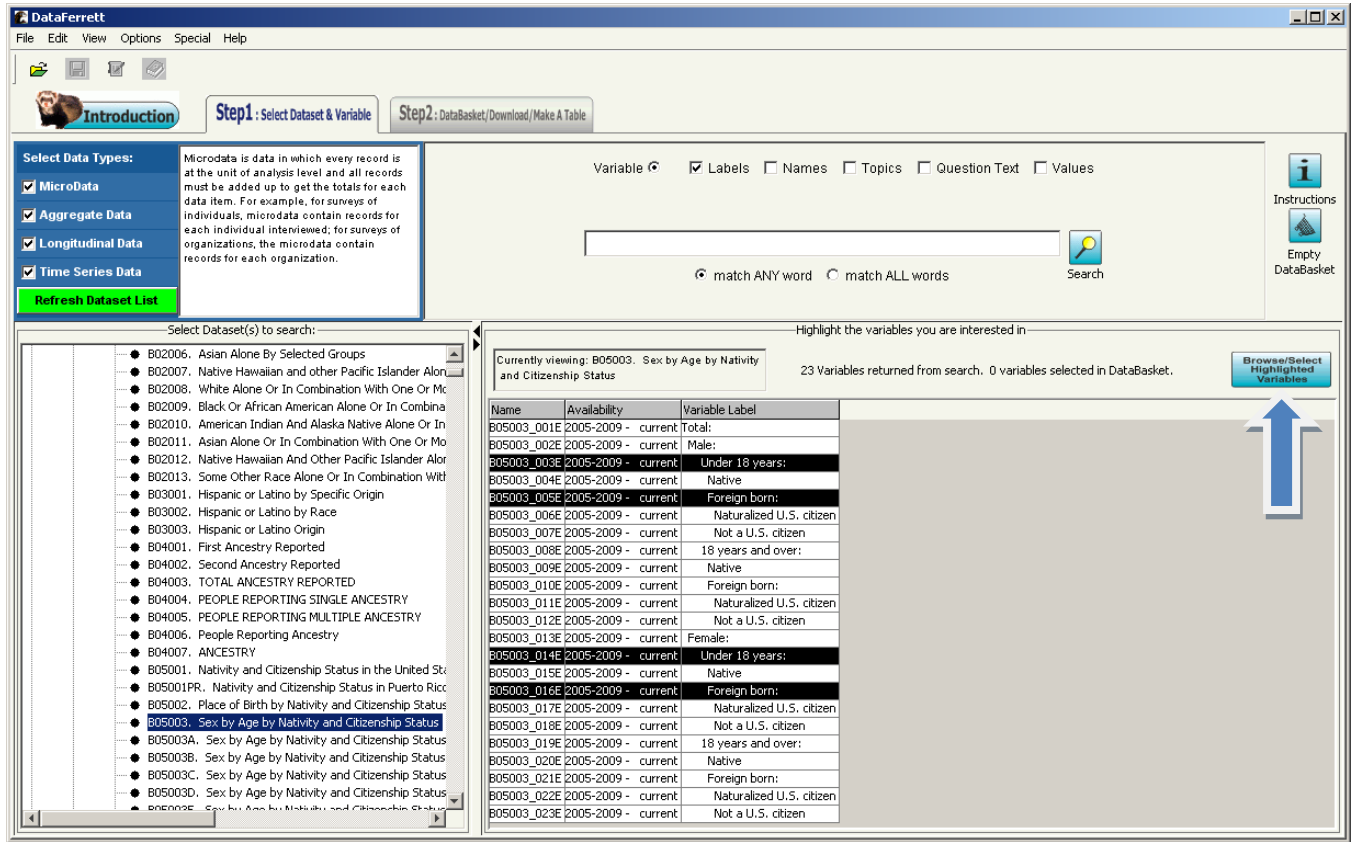
- MALE: UNDER 18 YEARS: (B05003-003E),
- MALE: UNDER 18 YEARS: FOREIGN BORN: (B05003_005E),
- FEMALE: UNDER 18 YEARS: (B05003_014E),
- FEMALE: UNDER 18 YEARS: FOREIGN BORN: (B05003016E), AND
- GEOGRAPHY(GEOGRAPHIC ITEMS)=ALL CENSUS TRACTS IN MONTGOMERY AND PRINCE GEORGE’S COUNTIES, MD.

NOTE: For this exercise, selecting the required population variables from the “**variable label**” column is best.

9. HIGHLIGHT THE **MALE: UNDER 18 YEARS:** VARIABLE
10. SCROLL DOWN TO THE NEXT VARIABLE, **MALE: UNDER 18 YEARS: FOREIGN BORN:**, HOLD DOWN THE CTRL KEY AND HIGHLIGHT IT.
11. CONTINUE HOLDING DOWN THE CTRL KEY AND HIGHLIGHT THE REMAINING VARIABLES NEEDED FOR THIS EXERCISE: **FEMALE: UNDER 18 YEARS:** AND **FEMALE: UNDER 18 YEARS: FOREIGN BORN:**

Once you highlight a variable the Browse/Select Highlighted Variables button becomes active.

12. CLICK THE **BROWSE / SELECT HIGHLIGHTED VARIABLES** BUTTON



Note: You can also double click on a variable to pop up the Browse Variable window.

Selecting the Browse/Select Highlighted Variables button will open a new window that allows you to browse variable descriptions if available for the items that you selected in the Select Dataset & Variables tab. This window is where you select the specific variables that you want to put into your DataBasket.

13. Check the box marked **Select ALL Variables** for the variables you have chosen
14. Click **OK** in the upper, right corner
15. Confirm the addition of 4 variables to your data basket by clicking **OK** in the pop-up window that appears.

You have added:
MALE!!!UNDER 18 YEARS: (B05003_003E),
MALE!!!UNDER 18 YEARS!!!FOREIGN BORN: (B05003_005E),
FEMALE!!!UNDER 18 YEARS: (B05003_014E), and
FEMALE!!!UNDER 18 YEARS!!!FOREIGN BORN: (B05003_016E) variables to your data basket.

16. After clicking “OK” in the pop-up window from step 15 above, a Ferrett Warning window appears with the message “**You must select required variables for this dataset.**” A pre-tabulated, or aggregated, dataset requires geography be selected since the tabulation occurs based on a geographic level, i.e. one value per geography (block group, census tract, county, etc.)



17. Click **OK** in the Ferrett Warning pop-up window.

18. The following Required Variables list will appear:

REQUIRED VARIABLES					
Selected	Topic	Name	Availability	Variable Label	
<input checked="" type="checkbox"/>	Default value selected for you	Selectable Geographies	COMPONENT	2005-2009 - current	Geographic Component
<input checked="" type="checkbox"/>	Needs to be selected	Selectable Geographies	Geography	2005-2009 - current	Geographic Items

Next, choose your geography variable:

DOUBLE CLICK THE -> Needs to be selected -> FROM THE VARIABLE LIST (NOTE: THE NAME OF THE VARIABLE IS “GEOGRAPHY”).

1. CLICK ON **TRACT** IN THE ‘TYPES OF GEOGRAPHY AVAILABLE:’ SECTION ON THE LEFT.
2. HIGHLIGHT THE **STATE (FIPS CODE)> COUNTY > CENSUS TRACT** IN THE ‘HIERARCHIES:’ SECTION OF THE FERRETT GEOGRAPHY CODEBOOK WINDOW AND CLICK ON THE **USE HIERARCHY** BUTTON AT THE BOTTOM OF THE SCREEN.
3. THE LIST OF STATES APPEARS IN THE LEFT SECTION. HIGHLIGHT AND DRAG **MARYLAND** TO THE CENTER SECTION AND CLICK THE **NEXT LEVEL** BUTTON.
4. THE LIST OF MARYLAND COUNTIES APPEARS IN THE LEFT SECTION. HIGHLIGHT **MONTGOMERY COUNTY, MARYLAND**, HOLD DOWN THE SHIFT KEY AND HIGHLIGHT **PRINCE GEORGE’S COUNTY, MARYLAND** AND DRAG THE SELECTIONS TO THE CENTER SECTION. CLICK THE **NEXT LEVEL** BUTTON.
5. THE LIST OF ALL CENSUS TRACTS IN MONTGOMERY AND PRINCE GEORGE’S COUNTIES, MD IS NOW DISPLAYED IN THE LEFT SECTION.
6. HIGHLIGHT AND DRAG THE **SELECT ALL** FROM THE LEFT SECTION OF THE CODEBOOK WINDOW TO THE *FAR RIGHT* ‘SELECTED GEOGRAPHIC AREAS:’ SECTION.
7. CLICK THE **FINISH** BUTTON.

You have now selected all of the census tracts in Montgomery and Prince George’s counties in Maryland and added the Census Tract variable to your DataBasket.

STEP 2: DATA BASKET/DOWNLOAD/MAKE A TABLE

1. CLICK THE “**STEP 2: DATA BASKET / DOWNLOAD / MAKE A TABLE**” TAB

This is the window where a user creates a table, performs analysis on the selected data, and creates basic maps and graphs.

After clicking on the **STEP 2** tab, the selected variables in the DataBasket are displayed as a list – this list is your *DataBasket*.

2. CLICK ON THE “**MAKE A TABLE**” ICON AT THE TOP OF THE SCREEN. A FERRETT TABULATION SPREADSHEET WILL OPEN AS A SEPARATE WINDOW.
3. DRAG THE **GEOG-101 CENSUS TRACT** VARIABLE TO THE **R2,C1** CELL TO DEFINE THE ROWS
4. HIGHLIGHT AND DRAG THE **B05003_003E MALE:!!UNDER 18 YEARS:** VARIABLE TO THE **R1,C2** CELL TO DEFINE THE FIRST COLUMN
5. HIGHLIGHT THE **B05003_005E MALE:!!UNDER 18 YEARS:!!FOREIGN BORN:** VARIABLE , AND HOLD DOWN THE SHIFT KEY TO HIGHLIGHT THE REMAINING POPULATION VARIABLES IN THE LIST: **B05003_014E FEMALE:!!UNDER 18 YEARS:** AND **B05003_016E FEMALE:!!UNDER 18 YEARS:!!FOREIGN BORN:.** HOLD DOWN THE RIGHT MOUSE BUTTON AND DRAG THE VARIABLES TO THE **R1,C3** CELL TO DEFINE THE REMAINING COLUMNS
6. CLICK THE **GO GET DATA** BUTTON ON THE TOOLBAR

The screenshot shows the Ferrett Tabulation software window. The main area displays a table with the following data:

R1	C1	C2	C3	C4	C5	C6
R2	Census Tract 7001.01, Montgomery County, Maryland	606	0	462	16	
R3	Census Tract 7001.03, Montgomery County, Maryland	821	0	822	34	
R4	Census Tract 7001.04, Montgomery County, Maryland	497	35	585	63	
R5	Census Tract 7001.05, Montgomery County, Maryland	1,066	60	923	89	
R6	Census Tract 7002.04, Montgomery County, Maryland	223	18	185	0	
R7	Census Tract 7002.05, Montgomery County, Maryland	866	13	808	63	
R8	Census Tract 7002.06, Montgomery County, Maryland	765	21	1,103	22	
R9	Census Tract 7002.07, Montgomery County, Maryland	731	5	1,010	17	
R10	Census Tract 7002.08, Montgomery County, Maryland	348	0	288	0	
R11	Census Tract 7003.04, Montgomery County, Maryland	1,217	45	814	59	
R12	Census Tract 7003.06, Montgomery County, Maryland	1,120	48	860	66	
R13	Census Tract 7003.08, Montgomery County, Maryland	957	153	814	247	
R14	Census Tract 7003.09, Montgomery County, Maryland	755	74	678	41	
R15	Census Tract 7003.10, Montgomery County, Maryland	495	15	484	12	
R16	Census Tract 7003.11, Montgomery County, Maryland	824	73	609	39	
R17	Census Tract 7003.12, Montgomery County, Maryland	850	27	526	35	
R18	Census Tract 7004, Montgomery County, Maryland	352	0	181	0	
R19	Census Tract 7005, Montgomery County, Maryland	795	41	778	0	
R20	Census Tract 7006.04, Montgomery County, Maryland	953	92	854	28	

The right-hand pane shows the DataBasket list with variables: B05003_003E Male:!!Under 18 years:!!Foreign born:; B05003_005E Male:!!Under 18 years:!!Foreign born:; B05003_014E Female:!!Under 18 years:; B05003_016E Female:!!Under 18 years:!!Foreign born:; COMPONENT Geographic Component; GEOG-101 Census Tract. Below the list, the software settings are shown: Universe: (COMPONENT=00) AND ((...)); Weight used: Unweighted; DataSet(s) selected: 2006-2010.

Create a Formula

To create a formula to calculate the percentage of the male and female foreign born population under 18 years of age, do the following:

1. CLICK IN THE GRAY COLUMN HEADER OF THE NEXT EMPTY COLUMN – IN THIS TABLE IT IS COLUMN C6.
2. CLICK IN THE FORMULA BAR DIRECTLY BELOW THE “GO GET DATA” BUTTON.
3. TO CALCULATE THE PERCENTAGE OF FOREIGN BORN MALES UNDER THE AGE OF 18 TYPE:

=comp(c3/c2*100)

4. HIT THE ENTER KEY AND YOUR FORMULA SHOULD CALCULATE IN COLUMN C6.
5. FORMAT THE COLUMN WITH A DECIMAL BY HIGHLIGHTING THE COLUMN BY CLICKING IN THE GRAY C6 COLUMN HEADER. IN THE MENU BAR, CHOOSE **FORMAT > DECIMALS** AND THEN SELECT “**TWO DECIMAL PLACES**” FROM THE DIALOG BOX AND HIT OK.
6. CLICK IN THE R1,C6 CELL TO ENTER A HEADING FOR OUR CALCULATED COLUMN – **PCT MALE <18YRS FOREIGN BORN**
7. NEXT, CLICK IN THE GRAY COLUMN HEADER OF THE NEXT EMPTY COLUMN – COLUMN C7.
8. CLICK IN THE FORMULA BAR DIRECTLY BELOW THE “GO GET DATA” BUTTON .
9. TO CALCULATE THE PERCENTAGE OF FOREIGN BORN FEMALES UNDER THE AGE OF 18 TYPE:

=comp(c5/c4*100)

10. HIT THE ENTER KEY AND YOUR FORMULA SHOULD CALCULATE IN COLUMN C7.
11. FORMAT THE COLUMN WITH A DECIMAL BY HIGHLIGHTING THE COLUMN BY CLICKING IN THE GRAY C7 COLUMN HEADER. IN THE MENU BAR, CHOOSE **FORMAT > DECIMALS** AND THEN SELECT “**TWO DECIMAL PLACES**” FROM THE DIALOG BOX AND HIT OK.
12. CLICK IN THE R1,C7 CELL TO ENTER A HEADING FOR OUR CALCULATED COLUMN – **PCT FEMALE <18YRS FOREIGN BORN**

13. TO DISPLAY THE MARGINS OF ERROR (MOE) PROVIDED WITH THE DATA FILE, CLICK ON **OPTIONS** IN THE MENU BAR AND HIGHLIGHT **VARIANCES**. SELECT **MARGINS OF ERROR – 90% CONFIDENCE LEVEL** IN THE FLY-OUT WINDOW. THE MARGINS OF ERROR WILL AUTOMATICALLY APPEAR ALONGSIDE THE CORRESPONDING DATA IN EACH DATA CELL. TO TURN OFF THE MOES GO TO **OPTIONS → VARIANCES → No VARIANCE** FROM THE FLY-OUT MENU.

Col C1	C2	C3	C4	C5
R1		Male!!Under 18 years: Male!!Under 18 years:!!Foreign born: Female!!Under 18 years: Female!!Under 18 years:!!Foreign born:		
R2	Census Tract 7001.01, Montgomery County, Maryland	606 (139)	0 (127)	462 (114)
R3	Census Tract 7001.03, Montgomery County, Maryland	821 (133)	0 (127)	822 (124)
R4	Census Tract 7001.04, Montgomery County, Maryland	497 (180)	35 (44)	585 (180)
R5	Census Tract 7001.05, Montgomery County, Maryland	1,066 (281)	60 (71)	923 (174)
R6	Census Tract 7002.04, Montgomery County, Maryland	223 (73)	18 (25)	185 (79)
R7	Census Tract 7002.05, Montgomery County, Maryland	866 (133)	13 (19)	808 (121)
R8	Census Tract 7002.06, Montgomery County, Maryland	765 (137)	21 (23)	1,103 (223)
R9	Census Tract 7002.07, Montgomery County, Maryland	731 (184)	5 (26)	1,010 (233)
R10	Census Tract 7002.08, Montgomery County, Maryland	348 (62)	0 (127)	288 (95)
R11	Census Tract 7003.04, Montgomery County, Maryland	1,217 (197)	45 (44)	814 (164)
R12	Census Tract 7003.06, Montgomery County, Maryland	1,120 (215)	48 (55)	860 (174)
R13	Census Tract 7003.08, Montgomery County, Maryland	957 (167)	153 (88)	814 (238)
R14	Census Tract 7003.09, Montgomery County, Maryland	755 (190)	74 (66)	678 (195)
R15	Census Tract 7003.10, Montgomery County, Maryland	495 (176)	15 (18)	484 (181)
R16	Census Tract 7003.11, Montgomery County, Maryland	824 (163)	73 (45)	609 (148)
R17	Census Tract 7003.12, Montgomery County, Maryland	850 (95)	27 (25)	526 (148)
R18	Census Tract 7004, Montgomery County, Maryland	352 (118)	0 (127)	181 (61)
R19	Census Tract 7005, Montgomery County, Maryland	795 (174)	41 (65)	778 (166)
R20	Census Tract 7006.04, Montgomery County, Maryland	953 (154)	92 (60)	854 (161)
R21	Census Tract 7006.06, Montgomery County, Maryland	693 (123)	54 (42)	550 (129)
R22	Census Tract 7006.07, Montgomery County, Maryland	1,448 (217)	136 (90)	1,187 (178)
R23	Census Tract 7006.08, Montgomery County, Maryland	955 (159)	39 (38)	832 (149)
R24	Census Tract 7006.10, Montgomery County, Maryland	262 (85)	0 (127)	275 (140)
R25	Census Tract 7006.11, Montgomery County, Maryland	1,101 (208)	54 (42)	1,142 (167)
R26	Census Tract 7006.13, Montgomery County, Maryland	1,135 (170)	76 (60)	838 (157)
R27	Census Tract 7006.14, Montgomery County, Maryland	492 (188)	43 (32)	460 (143)

NOTE: WHEN ACCESSING THE VARIANCES FLY-OUT MENU UNDER **OPTIONS → VARIANCES**, THE FOLLOWING CALCULATIONS ARE MADE AVAILABLE ON THE FLY, IN ADDITION TO THE STANDARD MOES THAT ARE PROVIDED WITH THE DATA FILE: **STANDARD ERROR – 68% CONFIDENCE LEVEL**; **CONFIDENCE INTERVAL – 90% CONFIDENCE LEVEL**; AND **COEFFICIENT OF VARIATION (CV)**.

14. TO SAVE THE TABLE CLICK **FILE > SAVE AS** ON THE MENU BAR.
15. SAVE THE TABLE AS **ACS_SEX_AGE_FOREIGN_BORN.FTF**. THIS IS THE DEFAULT FORMAT AND IS THE TABLE SHELL (OR LAYOUT) FOR RE-USE WITHIN DATAFERRETT ONLY.

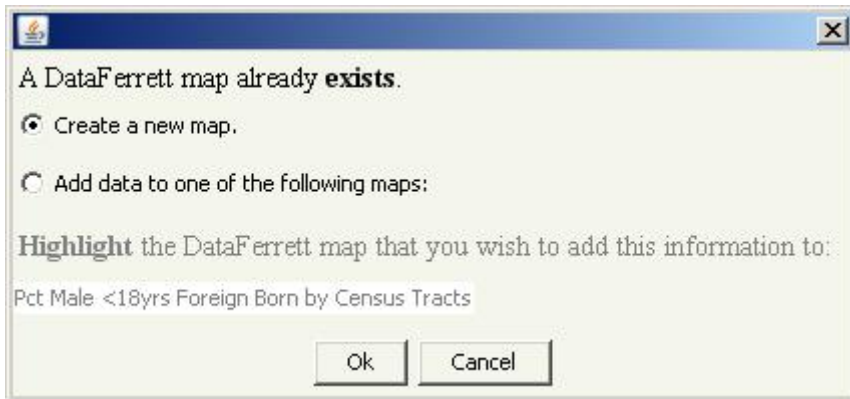
Create a Map

1. TO CREATE A MAP, HIGHLIGHT A SINGLE COLUMN CONTAINING DATA (DO NOT INCLUDE THE GEOGRAPHIC ROW LABELS). IN OUR EXAMPLE, HIGHLIGHT THE DATA CELLS IN OUR CALCULATED COLUMN 6 – “PCT MALE <18YRS FOREIGN BORN” BY CLICKING IN THE FIRST DATA CELL, HOLDING DOWN THE SHIFT KEY, SCROLLING TO THE LAST CELL AND CLICKING TO HIGHLIGHT ALL CELLS.

NOTE:

- THE GEOGRAPHIC VARIABLE MUST BE IN A DIMENSION BY ITSELF, EITHER DEFINING THE ROWS OR COLUMNS OF THE TABLE.

- IN ORDER TO RETAIN THE TITLE OF THE COLUMN IN THE MAP DO NOT HIGHLIGHT THE ENTIRE COLUMN BY CLICKING IN THE HEADER OR INCLUDE THE COLUMN LABEL. ONLY SELECT THE CELLS CONTAINING DATA.
2. CLICK THE **MAP BUTTON** IN THE TOOLBAR (IT IS THE BUTTON WITH THE YELLOW US SHAPE).
 3. A SEPARATE MAP WINDOW WILL OPEN WITH YOUR MAP
 4. NEXT, CREATE A NEW MAP. *NOTE: DO NOT CLOSE THE CURRENT MAP WINDOW.* IN THE TABULATION WINDOW HIGHLIGHT THE SINGLE COLUMN CONTAINING DATA FOR “PCT FEMALE <18YRS FOREIGN BORN”, THE DATA CELLS IN OUR CALCULATED COLUMN 7, BY CLICKING IN THE FIRST DATA CELL, HOLDING DOWN THE SHIFT KEY, SCROLLING TO THE LAST CELL AND CLICKING TO HIGHLIGHT ALL CELLS.
 5. CLICK THE **MAP BUTTON** IN THE TOOLBAR (IT IS THE BUTTON WITH THE YELLOW US SHAPE).
 6. A POP-UP WINDOW WILL OPEN WITH THE FOLLOWING MESSAGE: “A DATAFERRETT MAP ALREADY EXISTS” WITH OPTIONS TO SELECT “CREATE A NEW MAP” OR “ADD DATA TO ONE OF THE FOLLOWING MAPS:” SELECT “CREATE A NEW MAP” AND CLICK “OK”



7. A SEPARATE MAP WINDOW WILL OPEN WITH YOUR MAP

TO SEE THE MAPS SIDE BY SIDE TO COMPARE THE DISTRIBUTION OF FOREIGN BORN MALES UNDER 18 YEARS OF AGE WITH THAT OF FOREIGN BORN FEMALES UNDER 18 YEARS OF AGE FOR MONTGOMERY AND PRINCE GEORGE’S COUNTIES, DO THE FOLLOWING:

1. CLICK AND DRAG THE “PCT FEMALE <18YRS FOREIGN BORN BY CENSUS TRACTS MAP” TO THE TOP OF THE COMPUTER SCREEN.
2. USE THE WINDOWS TASK BAR TO ALSO DISPLAY THE “PCT MALE <18YRS FOREIGN BORN BY CENSUS TRACTS”.
3. CLICK AND DRAG THE “PCT MALE <18YRS FOREIGN BORN BY CENSUS TRACTS MAP” NEXT TO THE “PCT FEMALE” MAP AND COMPARE THE DISTRIBUTION OF EACH POPULATION FOR THE SELECTED CENSUS TRACTS.

Note: Within each map window, the legends can be manipulated by selecting different legend classes (View ->Legends->Legend Classes) or map type (View ->Map Type->Quantile). Additional layers can be turned on by selecting View ->Layers.

The maps can be saved as jpeg files for use in presentations and other documents.