

# Linking the Summary Files to the TIGER/Line Shapefiles

- Each piece of geography in the TIGER/Line shapefiles has a unique identifier to which the summary file demographic data can be linked.
- The unique ID field is titled GEOID
- This ID is also present in the summary file but requires a modification to the summary file before joining the data.

# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- The GEOID in the summary file is embedded within the field titled “Id”
- To generate the GEOID from this field it is necessary to remove all of the characters to the left of and including the “S”
- A simple method for removing these characters is available in Excel.

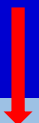
# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- Open the file in Excel. (example uses block level data)

	A	B	C	D	E	
1	Id	Geography	Total:	Total:	Total:	Total:
2				Population of one race:	Population of one race:	Populat
3					White alone	Black or
4						
5	1000000US010010201001000	Block 1000, Block Gr	16	16		13
6	1000000US010010201001001	Block 1001, Block Gr	40	40		40
7	1000000US010010201001002	Block 1002, Block Gr	284	281		278
8	1000000US010010201001003	Block 1003, Block Gr	47	47		46
9	1000000US010010201001004	Block 1004, Block Gr	18	18		18
10	1000000US010010201001005	Block 1005, Block Gr	73	73		63
11	1000000US010010201001006	Block 1006, Block Gr	44	44		40
12	1000000US010010201001007	Block 1007, Block Gr	157	157		133
13	1000000US010010201001008	Block 1008, Block Gr	14	11		11
14	1000000US010010201001009	Block 1009, Block Gr	0	0		0

# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

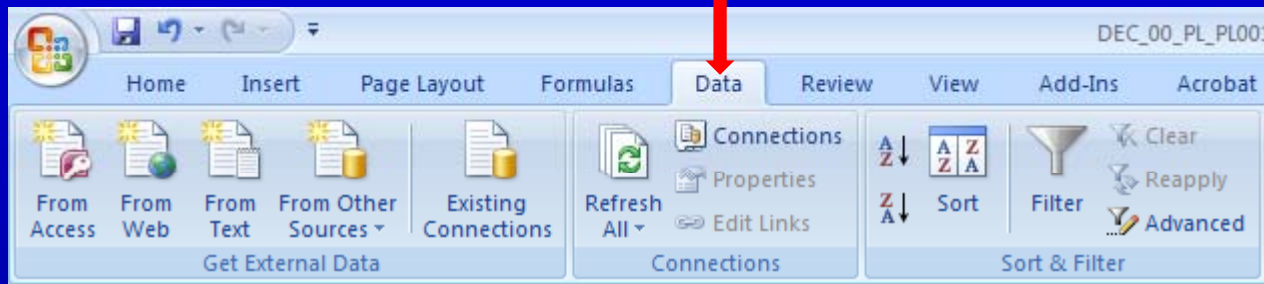
- Select the first data column "Id"



	A	B	C	D	E	
1	Id	Geography	Total:	Total:	Total:	Total:
2				Population of one race:	Population of one race:	Populat
3					White alone	Black or
4						
5	1000000US010010201001000	Block 1000, Block Gr	16	16	13	
6	1000000US010010201001001	Block 1001, Block Gr	40	40	40	
7	1000000US010010201001002	Block 1002, Block Gr	284	281	278	
8	1000000US010010201001003	Block 1003, Block Gr	47	47	46	
9	1000000US010010201001004	Block 1004, Block Gr	18	18	18	
10	1000000US010010201001005	Block 1005, Block Gr	73	73	63	
11	1000000US010010201001006	Block 1006, Block Gr	44	44	40	
12	1000000US010010201001007	Block 1007, Block Gr	157	157	133	
13	1000000US010010201001008	Block 1008, Block Gr	14	11	11	
14	1000000US010010201001009	Block 1009, Block Gr	0	0	0	

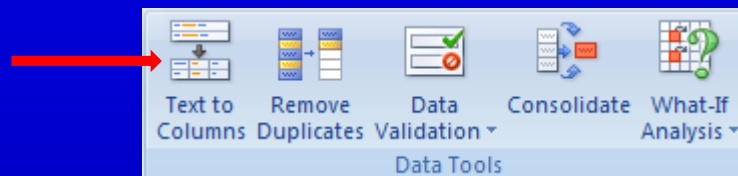
# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- Click on the “Data” tab from the top menus

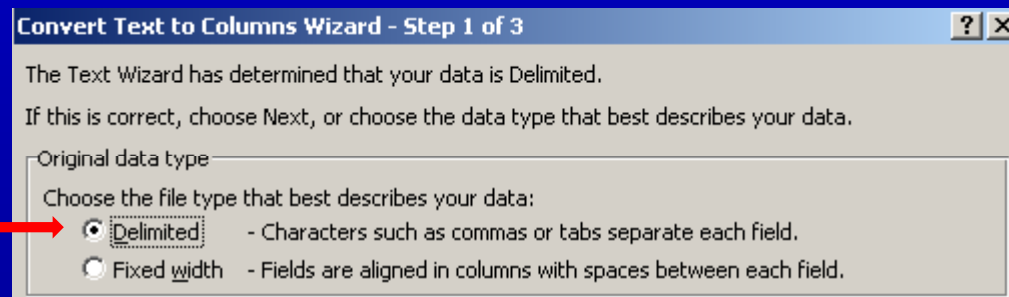


# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- Choose "Text to Columns" from Data menu

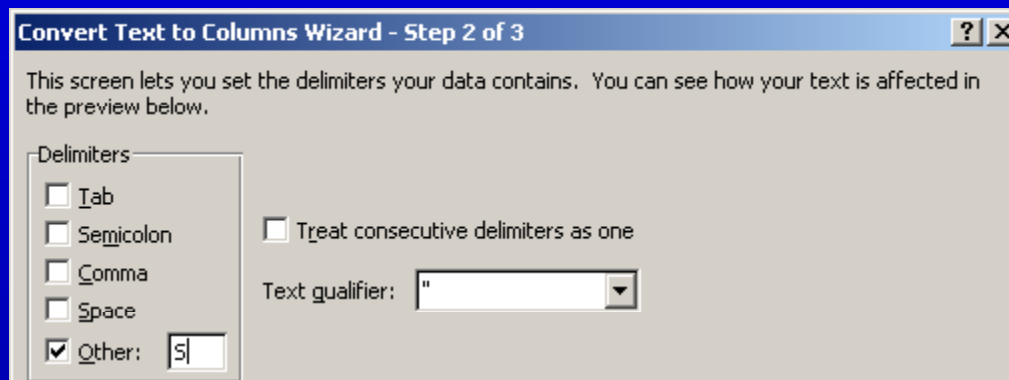


- Select Delimited



# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

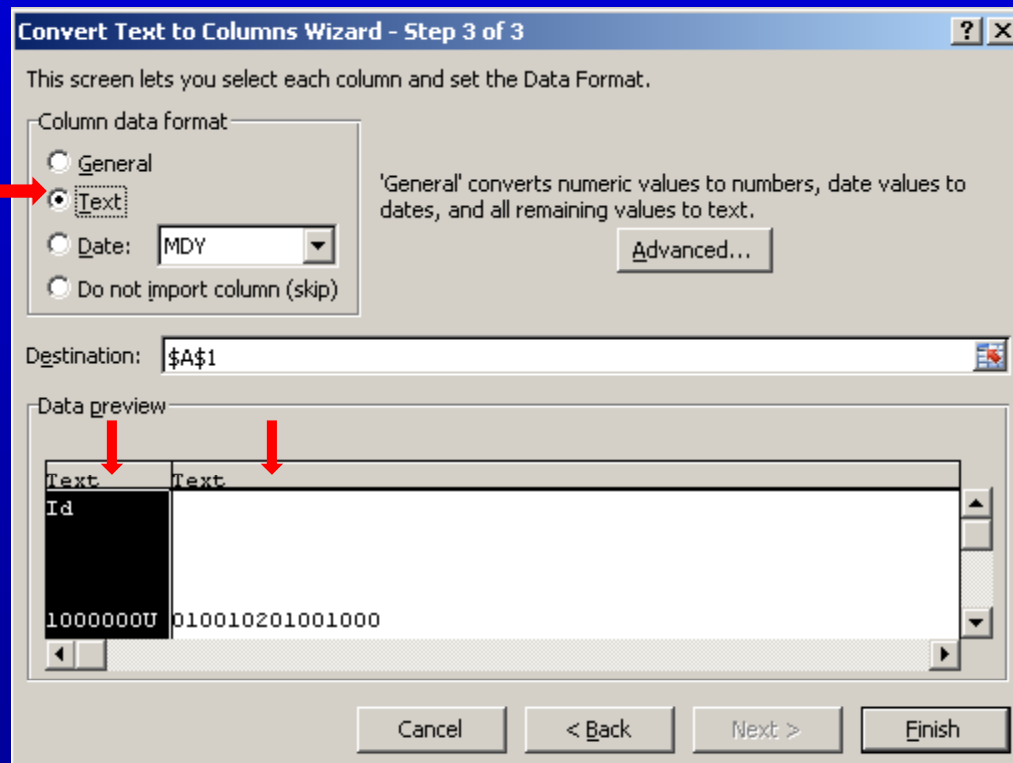
- Setting the delimiter to other: S



- Select Next

# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

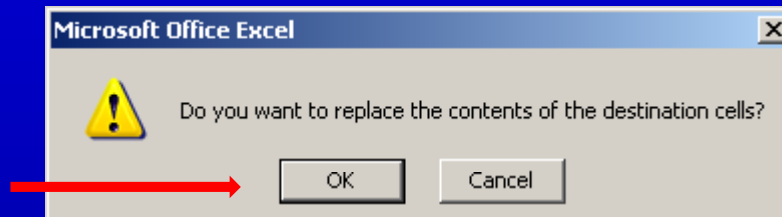
- Click on the top of each new column in the data preview window and set them to Text using the Column Data Format buttons





# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

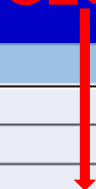
- Click Finish
- Click OK (on the warning pop up)



# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- You now have a table with the GEOID that can be linked to the geography in the TIGER/Line shapefiles.

**GEOID**



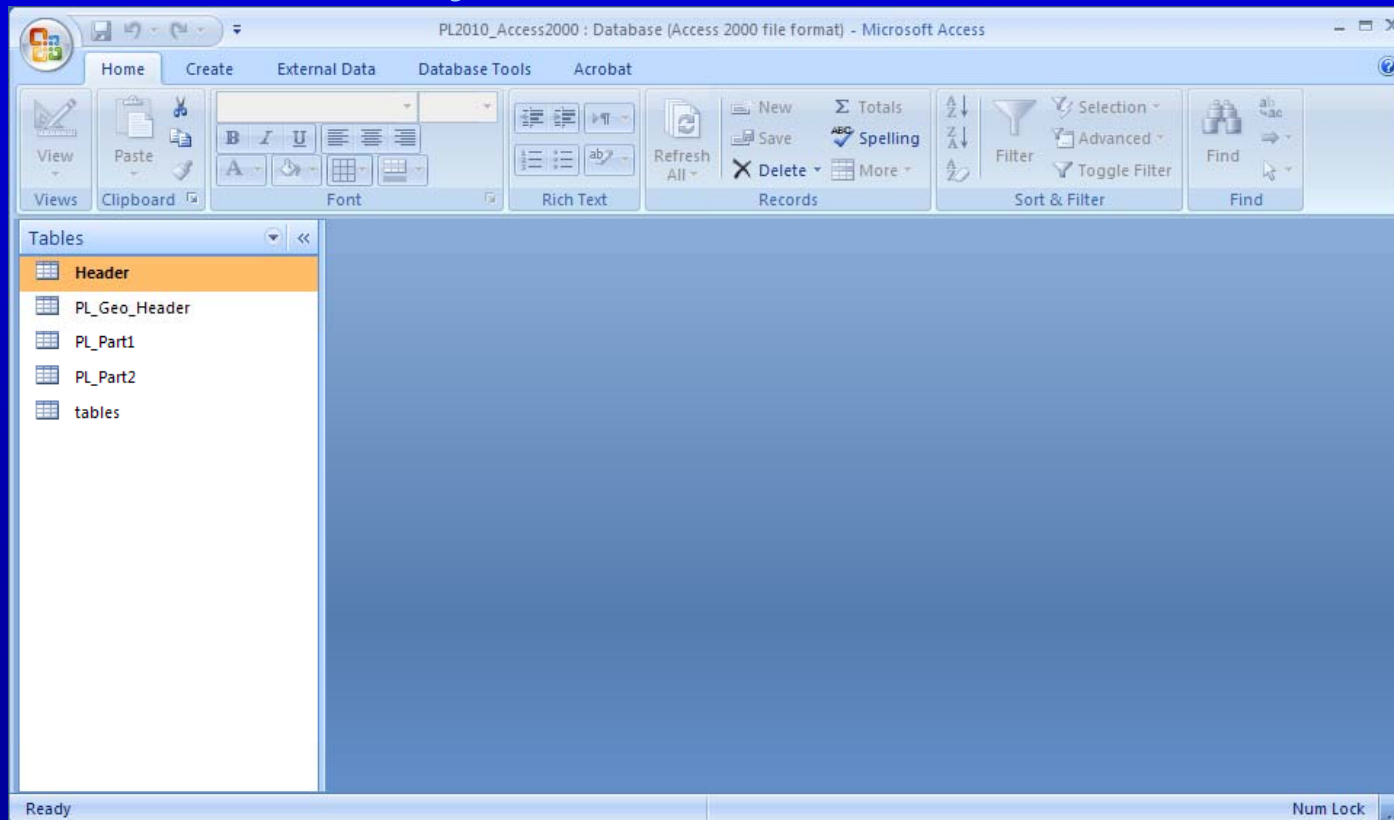
	A	B	C	D	E	
1	Id		Total:	Total:	Total:	Total:
2				Population of one race:	Population of one race:	Populati
3					White alone	Black or
4						
5	1000000U	010010201001000	16	16	13	
6	1000000U	010010201001001	40	40	40	
7	1000000U	010010201001002	284	281	278	
8	1000000U	010010201001003	47	47	46	
9	1000000U	010010201001004	18	18	18	
10	1000000U	010010201001005	73	73	63	
11	1000000U	010010201001006	44	44	40	
12	1000000U	010010201001007	157	157	133	
13	1000000U	010010201001008	14	11	11	
14	1000000U	010010201001009	0	0	0	

# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- If you prefer to use the raw summary files, a Microsoft Access database shell will also be provided that includes the import specifications
- The native Access tools can then be used to extract a summary level and create the GEOID.

# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- The shell will contain example tables and data dictionary files.



# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- One data dictionary file will contain the demographic field header explanations.

STUBS	ITEM	SEGMENT	ITEM_POS
Total:	P0010001	P1	21
Population of one race:	P0010002	P1	30
White alone	P0010003	P1	39
Black or African American alone	P0010004	P1	48
American Indian and Alaska Native alone	P0010005	P1	57
Asian alone	P0010006	P1	66
Native Hawaiian and Other Pacific Islander alone	P0010007	P1	75
Some Other Race alone	P0010008	P1	84
Two or More Races:	P0010009	P1	93
Population of two races:	P0010010	P1	102
White; Black or African American	P0010011	P1	111
White; American Indian and Alaska Native	P0010012	P1	120
White; Asian	P0010013	P1	129
White; Native Hawaiian and Other Pacific Islander	P0010014	P1	138

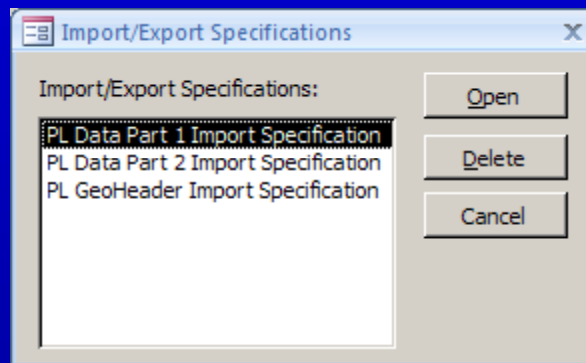
# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- The other data dictionary file will contain the geographic field header explanations.

FIELD_DESC	FIELD_NAME	FIELD_LEN
File Identification	FILEID	6
State/US-Abbreviation (USPS)	STUSAB	2
Summary Level	SUMLEV	3
Geographic Component	GEOCOMP	2
Characteristic Iteration	CHARITER	3
Characteristic Iteration File Sequence Number	CIFSN	2
Logical Record Number	LOGRECNO	7
Region	REGION	1
Division	DIVISION	1
State (FIPS)	STATE	2
County	COUNTY	3
FIPS County Class Code	COUNTYCC	2
County Size Code	COUNTYSC	2
County Subdivision (FIPS)	COUSUB	5
FIPS County Subdivision Class Code	COUSUBCC	2
County Subdivision Size Code	COUSUBSC	2
Place (FIPS)	PLACE	5
FIPS Place Class Code	PLACECC	2
Place Size Code	PLACESC	2
Census Tract	TRACT	6
Block Group	BLKGRP	1
Block	BLOCK	4

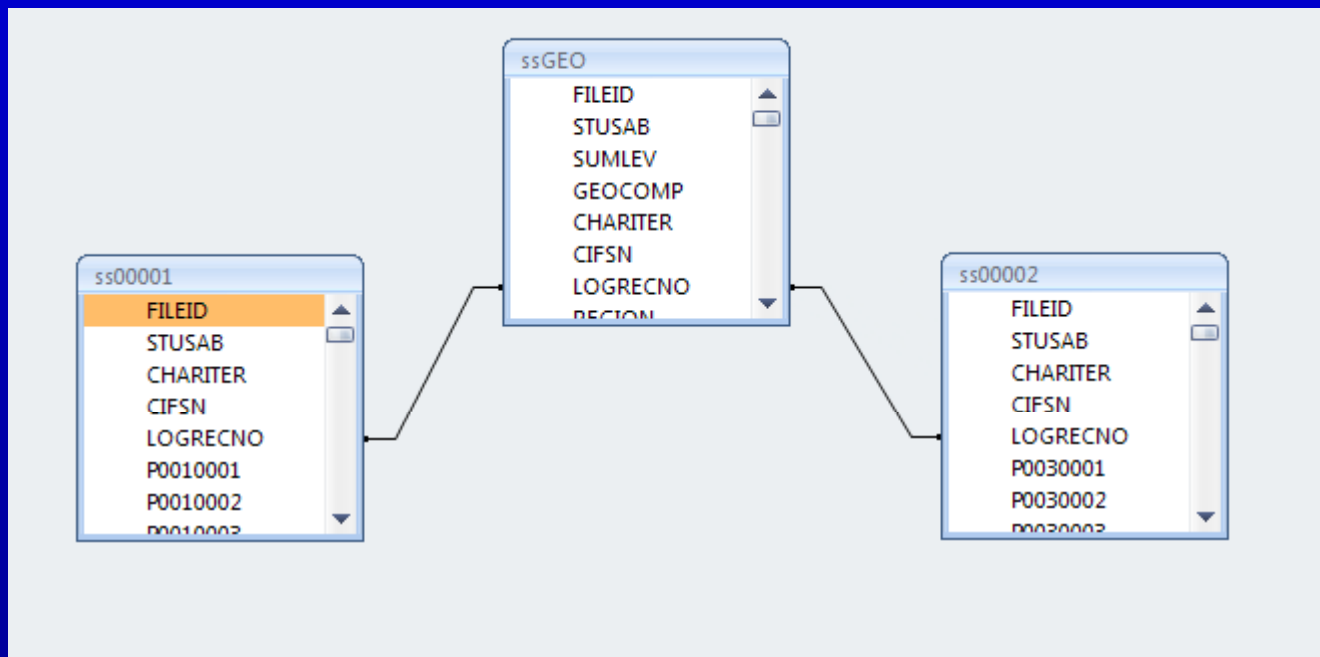
# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- The import specifications will be embedded for each of the fixed length data text files provided.



# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- Once imported, the table relationships can be established using the LOGRECNO field.





# Linking the Summary Files to the TIGER/Line Shapefiles (cont.)

- Using the query function you can then build a new table.
- In the construction of that table, you would build the GEOID and include the desired data elements.
- In this same query you can filter for the exact summary level in which you are interested.
- A list of the fields needed to generate a specific geography type's GEOID will be provided on the [www.census.gov/rdo](http://www.census.gov/rdo) website