

State Broadband Initiative & Form 477

Data collected through [NTIA's State Broadband Initiative](#) are used to populate the [National Broadband Map](#). We've extracted selected fields from the published **June 30, 2014** data and stored them in **Microsoft Access** format in an effort to make them easier to use. The data are located [here](#).

Fixed broadband providers included in this dataset can pull from these data - by sorting, filtering, or running queries on the table in each file - a list of census blocks where they made service available as of midyear 2014 and use this as a starting point for generating their [FCC Form 477 Fixed Broadband Deployment data](#).

This document will explain how to open, query and export data from these Access databases.

Format

There are 56 Access databases available, one for each state, the District of Columbia, and each of the five island areas. Each database contains a single table with the following six fields:

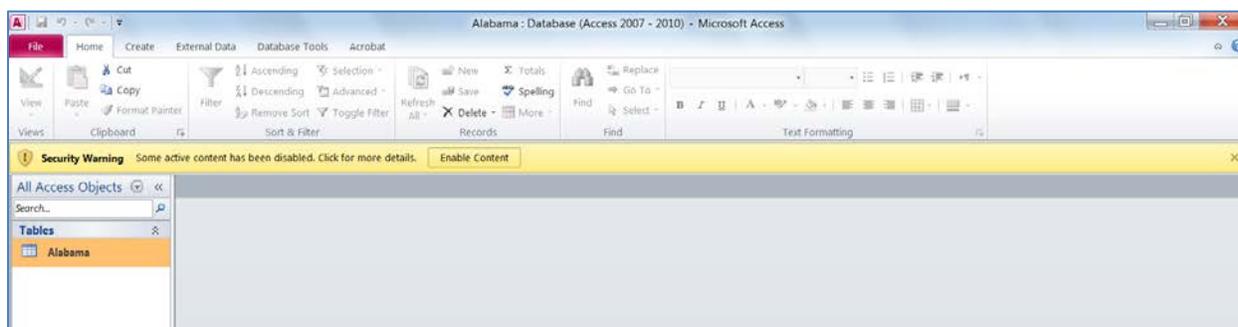
Field Name	Description	Type	Example
fm	The provider FRN from the SBI data. This FRN will usually, but not always match the FRN used for Form 477 purposes.	Text	0023718420
areakey	The 15-digit 2010 census block code. See More About Census Blocks .	Text	110010062021037
dbaname	Doing-business-as name.	Text	CableTown
transtech	<p>Category of technology for the provision of Internet access service used by the portion of the connection that would terminate at the end-user location (premises). <u>These codes are similar but not identical to those used for Form 477 Fixed Broadband Deployment</u> (see How Should I Format My Fixed Broadband Deployment Data?)</p> <p>10 = Asymmetric xDSL 20 = Symmetric xDSL 30 = Other Copper Wire 40 = Cable Modem - DOCSIS 3.0 41 = Cable Modem - Other than DOCSIS 3.0 50 = Optical Carrier/Fiber to the End User 60 = Satellite 70 = Terrestrial Fixed - Unlicensed 71 = Terrestrial Fixed - Licensed 90 = Electric Power Line 0 = All Other</p>	Integer	41
maxaddown	<p>Maximum Advertised Downstream Bandwidth Code. <u>For Form 477, you'll need to enter the maximum advertised downstream bandwidth available in the census block in Mbps.</u></p> <p>2 = Greater than 200 kbps and less than 768 kbps 3 = Greater than 768 kbps and less than 1.5 Mbps 4 = Greater than 1.5 Mbps and less than 3 Mbps 5 = Greater than 3 Mbps and less than 6 Mbps 6 = Greater than 6 Mbps and less than 10 Mbps 7 = Greater than 10 Mbps and less than 25 Mbps 8 = Greater than 25 Mbps and less than 50 Mbps 9 = Greater than 50 Mbps and less than 100 Mbps 10 = Greater than 100 Mbps and less than 1 Gbps 11 = Greater than 1 Gbps</p>	Integer	7

Maximum Advertised Upstream Bandwidth Code. For Form 477, you'll need to enter the maximum advertised upstream bandwidth that is offered with the above maximum advertised downstream bandwidth available in the census block in Mbps.

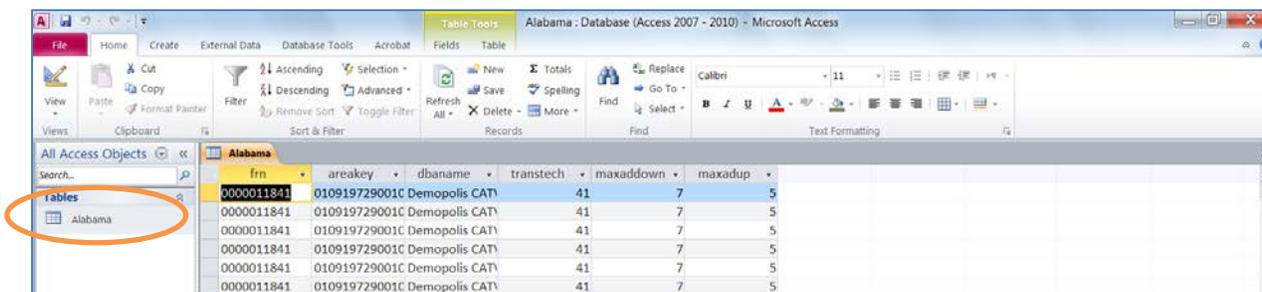
maxadup	2 = Greater than 200 kbps and less than 768 kbps 3 = Greater than 768 kbps and less than 1.5 Mbps 4 = Greater than 1.5 Mbps and less than 3 Mbps 5 = Greater than 3 Mbps and less than 6 Mbps 6 = Greater than 6 Mbps and less than 10 Mbps 7 = Greater than 10 Mbps and less than 25 Mbps 8 = Greater than 25 Mbps and less than 50 Mbps 9 = Greater than 50 Mbps and less than 100 Mbps 10 = Greater than 100 Mbps and less than 1 Gbps 11 = Greater than 1 Gbps	Integer	5
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Getting Around in Access

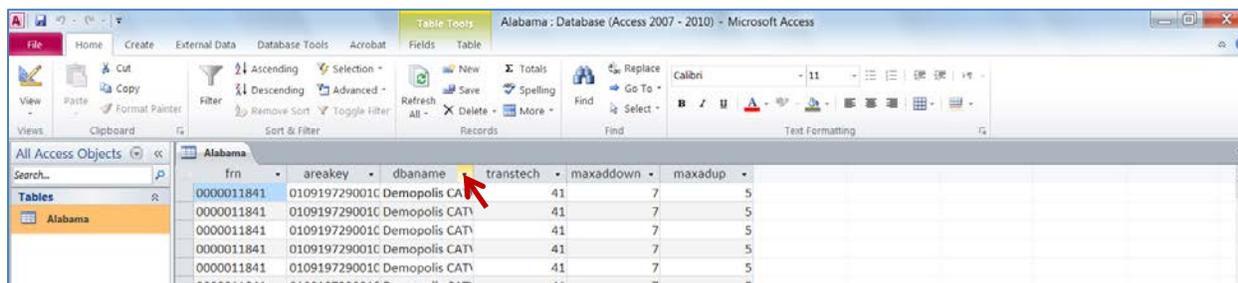
After downloading an Access database to your local drive, just double-click the file to open it. When you first open the database, you'll see the following:



To view the data, double-click the table name on the left.

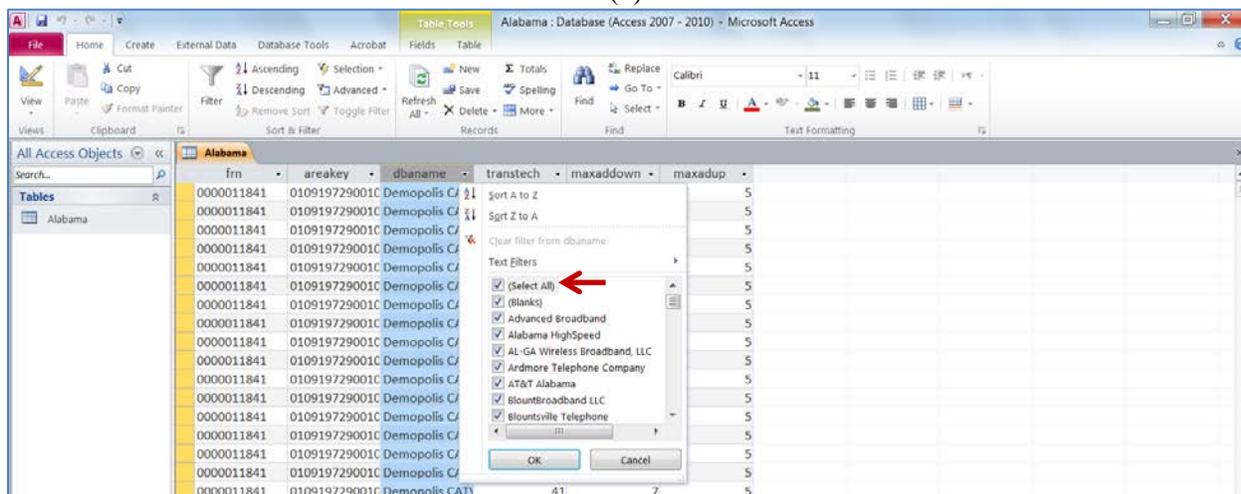


Let's say that we'd like to see and then export the data for a particular DBA name. To see all the records in the table with that DBA name, first click the arrow to the right of the field name, "dbaname."

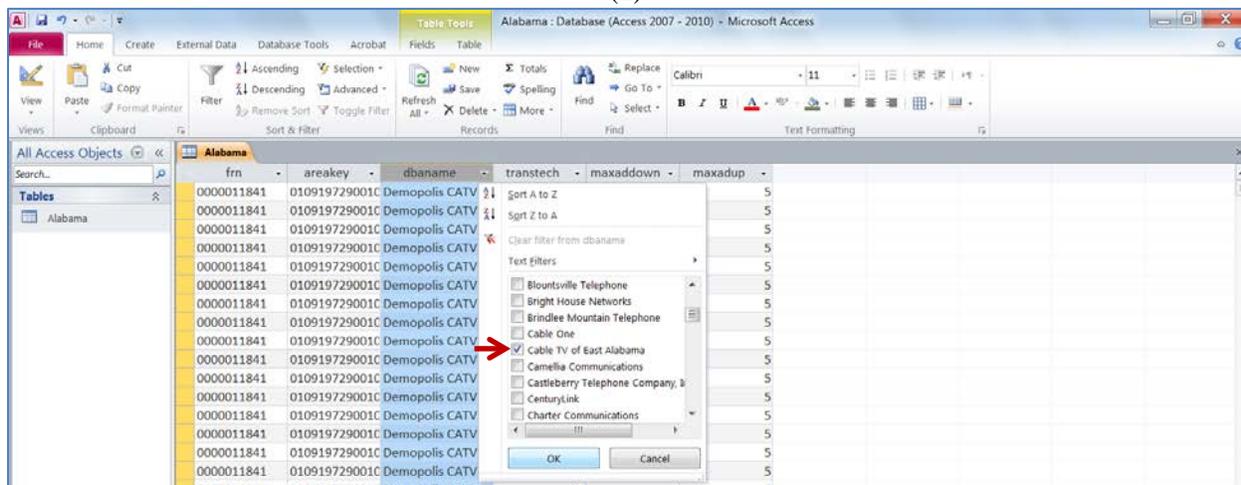


A dialog box will open as shown below. (1) First click (**Select All**) to uncheck all the names, then (2) scroll down and click to check the box next to the DBA name you'd like to see. When you click **OK**, Access will filter the data, displaying only those records that contain the DBA name you selected (3).

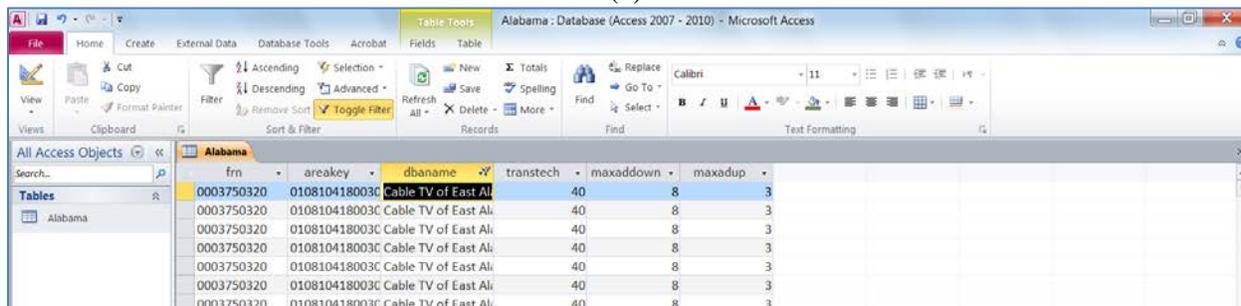
(1)



(2)

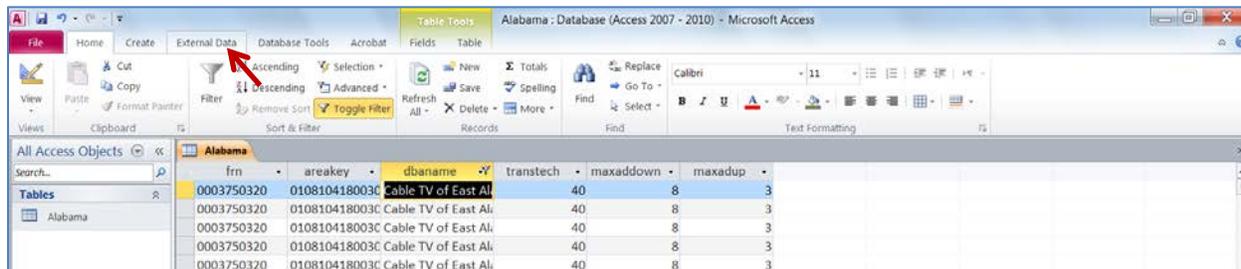


(3)

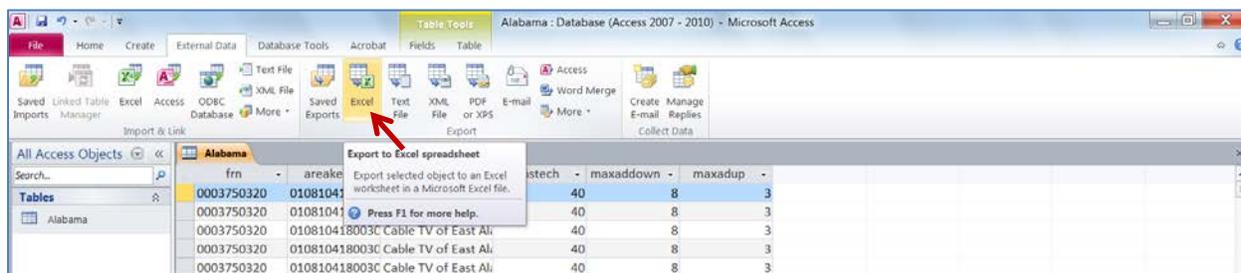


You could use the same steps to filter the data to show a particular FRN. Beware that a particular DBA name could be associated with more than one FRN.

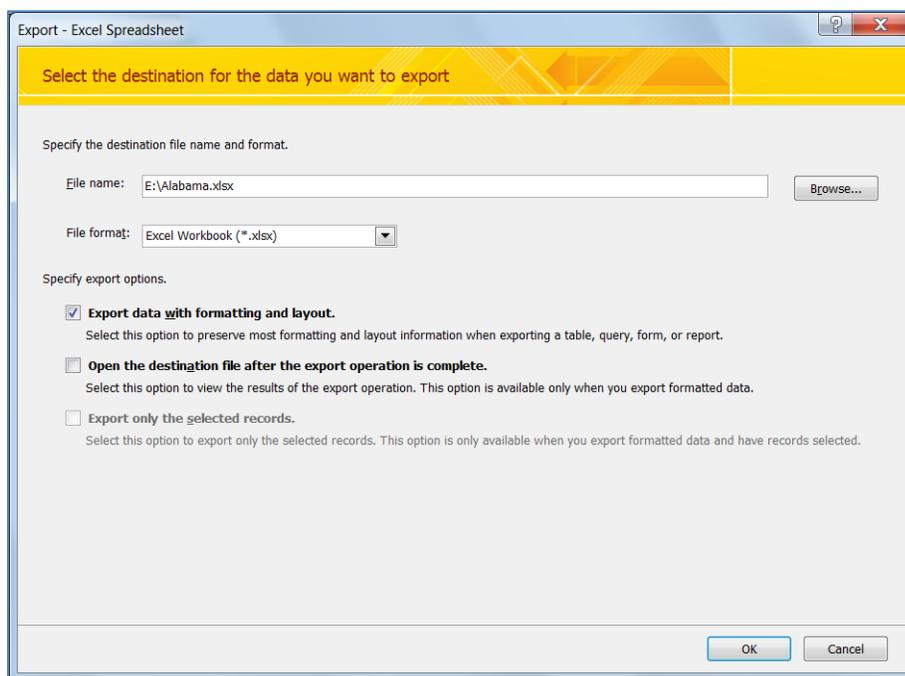
To export the selected data from Access to another platform like Excel, start by clicking **External Data** on the ribbon.



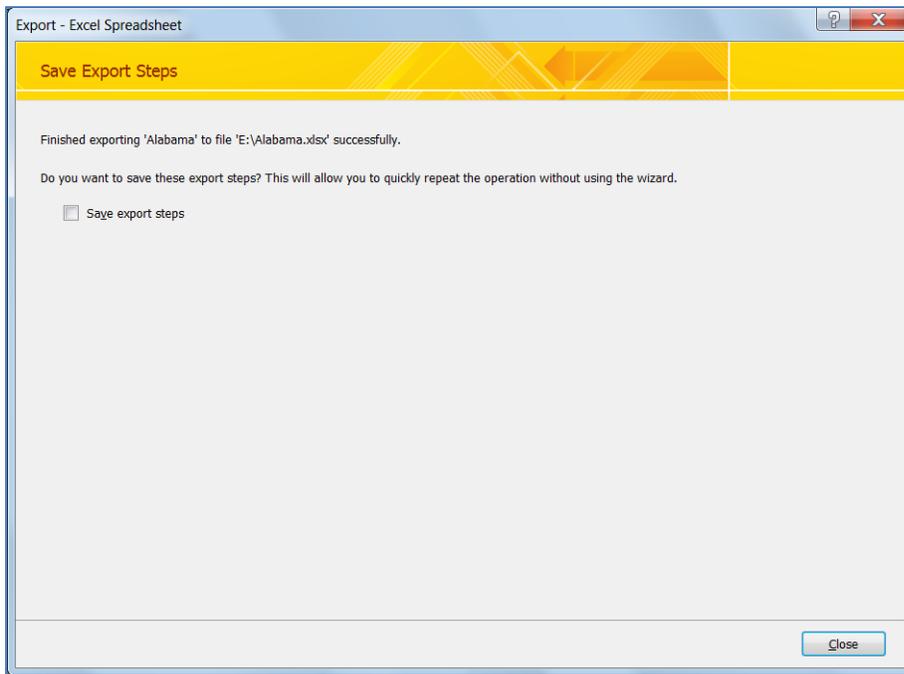
Next, click on **Excel**.



You'll then see the export dialog box below. Find a spot on your local drive where you'd like to save the workbook; give it a name; check the box next to **Export data with formatting and layout**; then click **OK**.



If everything goes well, you'll see the screen below. You can save the export steps for later or simply close the dialog box.



When you open the new file in Excel, you'll see something like this:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	frn	areakey	dbaname	transtech	maxaddown	maxadup									
2	0003750320	0108104180030	Cable TV of East Alabama	41	40	8	3								
3	0003750320	0108104180030	Cable TV of East Alabama	43	40	8	3								
4	0003750320	0108104180030	Cable TV of East Alabama	53	40	8	3								
5	0003750320	0108104180030	Cable TV of East Alabama	54	40	8	3								
6	0003750320	0108104180030	Cable TV of East Alabama	62	40	8	3								
7	0003750320	0108104180030	Cable TV of East Alabama	63	40	8	3								
8	0003750320	0108104180030	Cable TV of East Alabama	64	40	8	3								
9	0003750320	0108104180030	Cable TV of East Alabama	65	40	8	3								
10	0003750320	0108104180030	Cable TV of East Alabama	66	40	8	3								
11	0003750320	0108104180030	Cable TV of East Alabama	67	40	8	3								
12	0003750320	0108104180030	Cable TV of East Alabama	68	40	8	3								
13	0003750320	0108104180030	Cable TV of East Alabama	69	40	8	3								
14	0003750320	0108104180030	Cable TV of East Alabama	70	40	8	3								
15	0003750320	0108104180030	Cable TV of East Alabama	71	40	8	3								
16	0003750320	0108104180030	Cable TV of East Alabama	72	40	8	3								

Modifying the Information to Create the Form 477 Upload File

Now, to create the correctly formatted Form 477 upload file, you will need to convert the 6 columns of data shown above into the 9 columns required for Form 477 (see [How Should I Format My Fixed Broadband Deployment Data?](#) for the correct format). For each of the 9 columns, the table below shows a suggested name and definition. You can name the columns anything you'd like, since, you'll need to remove the names before you save the data to a plain-text, comma-delimited file.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
areakey	dbaname	transtech	consumer	maxaddown	maxadup	business	CIRdown	CIRup
Block Code	DBA Name	Technology of Transmission	Consumer Flag	Maximum Advertised Downstream Bandwidth, Consumer	Maximum Advertised Upstream Bandwidth, Consumer	Business /Government Flag	Maximum Contractual Downstream Bandwidth (Business /Government)	Maximum Contractual Upstream Bandwidth (Business /Government)

1. Delete the column containing the frn so that the block code / areakey will be in column 1.
2. Confirm the dbaname and transtech in columns 2 and 3. The transtech codes in the SBI data are similar but not identical to those used for Form 477 Fixed Broadband Deployment.
3. Insert a column – after the transtech column – for the consumer flag (column 4). Insert 1 in every row (census block) where you offer consumer grade service and a 0 (zero) in every row (census block) where you don't.
4. Next, correct the speed information – maxaddown and maxadup – in columns 5 and 6 to show the best (fastest) consumer grade service you offer in the census block. Note that the maximum advertised bandwidths in the SBI data are expressed as integer codes for the bandwidth tier in which the services lies. For Form 477, these codes must be converted into the actual maximum advertised bandwidth in Mbps. You can use up to 3 decimal places to express the bandwidth (e.g., 768 kbps would be expressed as 0.768).
5. Next, add three columns at end of the row: Business Flag, CIRdown, and CIRup. (These terms are explained in the formatting document.)
6. In the Business Flag column, put a 1 in every row (census block) where you do or could sell service – of this particular technology – to businesses, even if it is only your consumer grade service that is available.
7. In the CIRdown column, report the fastest service – of this particular technology – that you offer business in this census block and the service has a contractual or guaranteed data throughput rate. Express the bandwidth in Mbps up to 3 decimal places. If you do not offer such a service, enter 0 (zero).
8. In the CIRup column, report the fastest contractual or guaranteed data throughput rate of the service reported in the CIRdown column. Express the bandwidth in Mbps up to 3 decimal places. If you do not offer such a service, enter 0 (zero).

Once your Excel spreadsheet has been completed in the required Form 477 format, save a copy with a name you will recognize as being for this particular Form 477 filing. Finally, there are two more steps:

1. Delete the entire first row (header Row) – do not simply delete the contents of the cells in that row.
2. Use File . . . Save As and select CSV or TXT format.

Related Resources

- The SBI data in MS Access format are posted [here](#).
- Only the Fixed Broadband Deployment section of Form 477 requires census block data. More information about populating this part of the form can be found in Section 5.3 of the [Instructions](#).
- For additional info about census blocks and geocoding see [More About Census Blocks](#).
- In addition to taking advantage of the SBI data, you can also [Find Service Area Census Blocks Using QGIS](#).
- You can [download](#) the complete SBI dataset from the [National Broadband Map](#).
- A complete list of valid 2010 census block codes is available [here](#).
- Maps of 2010 census blocks are available [here](#) (the maps are arranged by place, county and other geographies – just select a state from one of the drop-down menus on the right).