

LONG TERM CARE COMMUNITY COALITION

Advancing Quality, Dignity & Justice

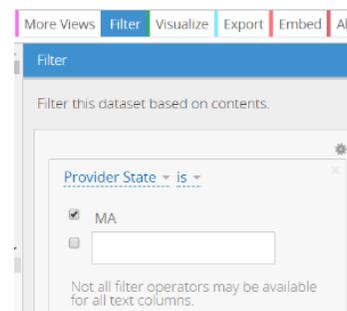
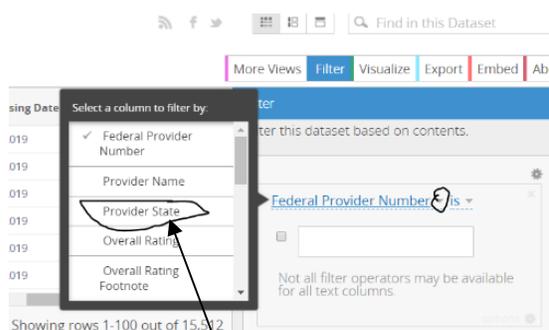
INSTRUCTIONS: DOWNLOADING NURSING HOME COMPARE DATA AND USING TEXAS A&M GEOSERVICES TO CREATE TABLEAU-FRIENDLY FILE*

Downloading Data

1. Visit <https://data.medicare.gov>, scroll down, and select “Nursing Home Compare data.”



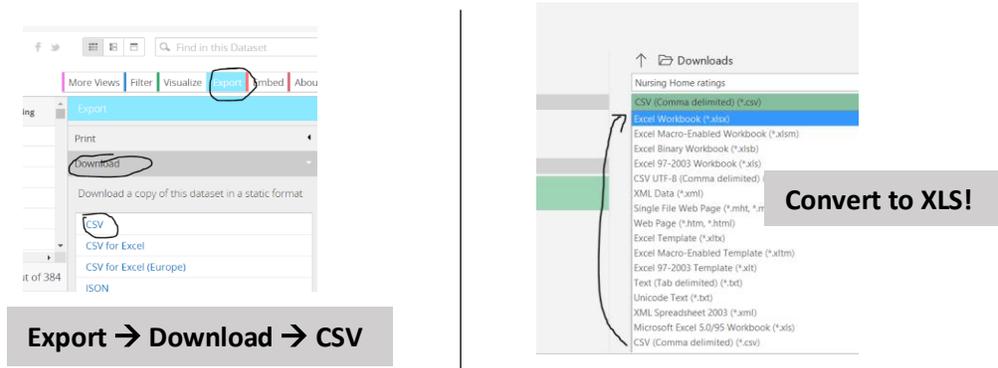
2. Use search function to find dataset of interest – in this case, “Provider Info.”
 - Select “Provider Info” and use the “Filter” feature to select data of interest.
 - Depending on dataset, data can be sorted by state, county, city, zip, etc. In this example, we will sort by state.
 - Select the arrow next to Federal Provider Number and select “Provider State.” Type “MA” and check the small square next to text box.



Sort by Provider State

* Note: A Tableau-friendly Nursing Home Compare dataset is available at <https://nursinghome411.org/tableau-friendly-nursing-home-compare-dataset/>.

- To download the file, select Export → Download → CSV. Next, **convert file from CSV to XLS** and **save** to appropriate location.



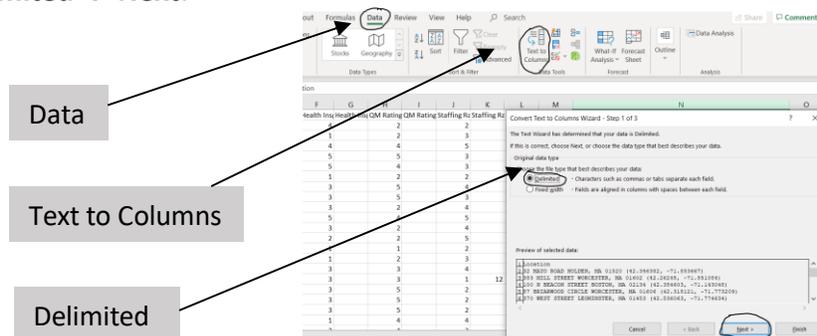
Organizing Spreadsheet

1. Before using Tableau, we will want to organize our spreadsheet and **create separate columns for Latitude and Longitude**.
 - Open file and scroll all the way to the right to identify the column called “Location.” Extend column to see each facility’s full address **and** geographic coordinates. Let’s split this up!
 - Create three (or more) new columns to the right of “Location.” Move column labeled “Processing date” out of the way or delete. The empty columns to the right of “Location” will be for Latitude and Longitude.

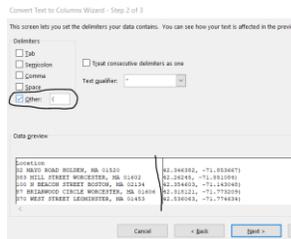
CG	CH	CI	CJ	CK	CL	CL
NumLocation						
0	500 WENWORTH AVENUE	LOWELL	MA 01852	#####		
1	17 LAHAYETTE AVENUE	LEWIS	MA 02150	#####		
3	90 WEST STREET	WILMINGTON	MA 01887 (42.540106	#####		
4	1561 COLD SPRING ROAD	WILLIAMSTOWN	MA 01267	#####		
0	30 WATER TOWN STREET	LEXINGTON	MA 02426	#####		
1	3 VISION DRIVE	NATICK	MA 01960	#####		
0	50 RECREATION PARK DRIVE	HINGHAM	MA 02043	#####		
2	75 NORUMBEGA ROAD	WESTON	MA 02493 (42.34872	#####		
0	559 PLANTATION STREET	WORCESTER	MA 01605	#####		
0	277 WASHINGTON STREET	ABINGTON	MA 02355	#####		
0	66 CENTRAL STREET EAST	BRIDGEWATER	MA 02333	#####		
0	51 HOSPITAL ROAD	BALDWINVILLE	MA 01436	#####		
0	150 FLANNERS ROAD	WESTBOROUGH	MA 01581 (42.	#####		
1	25 ADAMS ROAD	WILLIAMSTOWN	MA 01267	#####		
1	1801 TURBPIKE STREET	NORTH ANDOVER	MA 01845	#####		
3	115 HOLLISTON STREET	MEDWAY	MA 02053	#####		
0	233 MIDDLE STREET	BRAINTREE	MA 02184	#####		
1	49 THOMAS PATTERSON DRIVE	BRAINTON	MA 02368	#####		
0	34 AGASSI AVENUE	BELMONT	MA 02478	#####		
0	188 COMMONWEALTH ROAD	WAYLAND	MA 01778	#####		
1	255 CENTRAL AVENUE	CHELSEA	MA 02150 (42.38825	#####		
2	35 HOLY FAMILY ROAD	HOLYOKE	MA 01540	#####		
0	807 WILBERHAM ROAD	SPRINGFIELD	MA 01109	#####		
0	380 SUMMER STREET	STOUGHTON	MA 02072 (42.114	#####		
1	204 PROCTOR AVENUE	REVERE	MA 02151 (42.41542	#####		
1	579 BUICK ISLAND ROAD	WEST WINDSOR	MA 02073	#####		

New columns for Latitude and Longitude

- Move coordinates to new column by selecting: **Data → Text to Columns → Delimited → Next.**



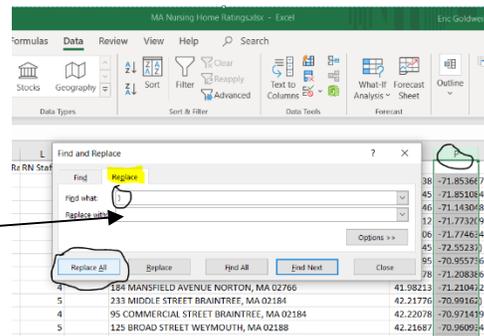
- On next screen, check “Other,” and type an open parenthesis, “(“ and select finish. The spreadsheet will now display one separate column with full coordinates.



Location	
32 MAYO ROAD HOLDEN, MA 01520	42.346382, -71.853667
383 MILL STREET WORCESTER, MA 01602	42.26245, -71.851084
100 N BEACON STREET BOSTON, MA 02134	42.354603, -71.143048
87 BRIARWOOD CIRCLE WORCESTER, MA 01606	42.318121, -71.773209
370 WEST STREET LEOMINSTER, MA 01453	42.536063, -71.774634
770 CONVERSE STREET LONGMEADOW, MA 01106	42.064501, -72.55237
96 FOREST STREET PEABODY, MA 01960	42.528947, -70.955736
30 WATERTOWN STREET LEXINGTON, MA 02420	42.419777, -71.208386
184 MANSFIELD AVENUE NORTON, MA 02766	41.982128, -71.210472
233 MIDDLE STREET BRAintree, MA 02184	42.217764, -70.99162
95 COMMERCIAL STREET BRAintree, MA 02184	42.220783, -70.971419
125 BROAD STREET WEYMOUTH, MA 02188	42.216873, -70.960934
121 NORTHBORO ROAD MARLBOROUGH, MA 01752	42.341303, -71.586471
146 DEAN STREET TAUNTON, MA 02780	41.90591, -71.070006

- Repeat above process to create two separate columns for latitude and longitude.
 - Highlight new column and select **Data → Text to Columns → Delimited → Next.**
 - On next screen under “Delimiters,” uncheck “Other” and select “Comma.” Then select Finish. Now there are two columns with coordinates.
- Next, highlight column with longitudinal coordinates and use “find and replace” to eliminate the closed parenthesis.

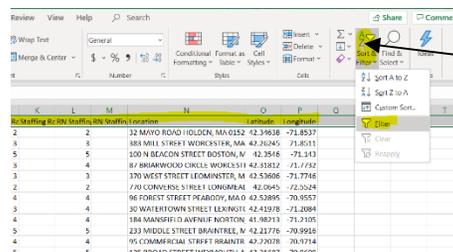
Leave “Replace with” box blank to eliminate closed parenthesis.



- Finally, label columns “Latitude” and “Longitude.” Save!

Checking for Missing Coordinates

1. Highlight top row and select filter on top right. This lets you sort each column.



Sort & Filter → Filter

- To identify facilities with missing coordinates, sort Latitude or Longitude columns by smallest to largest (or largest to smallest) and scroll down to the bottom of dataset to see if items are missing coordinates.

M	N	O	P
RN Staf	Location	Latitude	Longitude
2	Sort Smallest to Largest		-71.8537
3			-71.8511
5	Sort Largest to Smallest		-71.143
4	Sort by Color		-71.7732
3	Clear Filter From "Latitude"		-71.7746
2			-72.5524
4	Filter by Color		-70.9557
4	Number Filters		-71.2084
4	Search		-71.2105

225271	PORT HEALTHCARE (MA	3	3	2	3	3	6 HALE STREET NEWBURYPORT, M	42.8084	-70.893
225332	COUNTRY CENTER F MA	5	4	5	4	4	180 LOW STREET NEWBURYPORT,	42.81547	-70.8972
225229	MAPLEWOOD REHAB MA	1	2	1	3	4	6 MORRILL PLACE AMESBURY, MA	42.84917	-70.9321
225318	MERRIMACK VALLEY MA	2	3	2	1	12	12 23 MERRIMACK STREET	42.82795	-70.9425
225080	RIVERCHREST LONG T MA	4	3	3	3	4			
225395	LIFE CARE CENTER C MA	4	3	5	2	2			
225222	NEWTON WELLSIE MA	5	4	5	3	3	ONE GREAT ROAD ACTON, MA 01720		
225249	WILMINGTON CT CEN MA	4	4	4	3	3	ONE WORCESTER RD WELLESLEY FMS, MA 02181		
225250	FARVIEW COMMON MA	1	1	4	3	3	11 ST ANTHONY STREET CHICOPEE, MA 01013		
225337	CAPE HENRY REP REH MA	3	3	3	3	3	37 ROUTE SANDWICH, MA 02563		
225400	WAKEFIELD CENTER MA	1	2	1	3	3	ONE BATHOL STREET WAKEFIELD, MA 01880		
225409	NEVINS NURSING S & MA	3	3	2	3	3	TEN INGALLS COURT METHUEN, MA 01844		
225483	COURTNEYSPICE HEAL MA	2	1	2	4	4			
225630	WINDSORHILL REH MA	4	5	2	1	12	ONE HOSPITAL BLVD OAK BLUFFS, MA 02557		
225692	EMERSON REHABILIT MA	5	5	5	5	5	NINE ACRES		
225772	OUR ISLAND HOME MA	1	3	1	1	12	111 WEST CONCORD, MA 01742		

Empty columns show that the highlighted facilities are missing coordinates.

- If there are no missing coordinates, you're set and ready for Tableau.
 - If a large number are missing coordinates (greater than ≈ 20), go to **Step 4: Adding missing coordinates using Texas A&M GeoServices**.
 - If a small number are missing coordinates (< 20), **skip Step 4** and go to **Step 5: Adding missing coordinates using Google Maps**.

Adding Missing Coordinates Using Texas A&M GeoServices. Use for Large Batches ($> \approx 20$).

***Note: datasets must have separate columns for Street Address, City, State, and Zip Code to use this service.**

- Some datasets will be missing large batches of coordinates. In this case, you can find those coordinates using a process called **Batch Geocoding**. Texas A&M GeoServices offers this service free for up to 2,500 items (and more if you register as a partner).
- Prepare the CSV file for batch geocoding
 - Duplicate current file, rename (i.e., batchgeocoding.MA) and save as **CSV!**

Duplicate XLS file then save as CSV

Name	Date modified	Type	Size
MA dataset example - Copy.xlsx	11/19/2019 10:07 AM	Microsoft Excel W...	202 KB
MA dataset example.xlsx	11/19/2019 10:07 AM	Microsoft Excel W...	202 KB

Desktop > LTCCC > Tableau > Tableau example folder

batchgeocodingexampleMA

CSV UTF-8 (Comma delimited) (*.csv)

Save

We didn't find anything to show here.

Name	Date modified	Type	Size
batchgeocodingexampleMA.csv	11/19/2019 10:11 AM	Microsoft Excel Co...	200 KB
MA dataset example.xlsx	11/19/2019 10:07 AM	Microsoft Excel W...	202 KB

- Create a new file for facilities that are missing coordinates.
 - In new CSV file, facilities should be organized as such that those with coordinates are on top and those without are on the bottom. Highlight all data from facilities with coordinates while leaving top row intact. Delete. And Save!

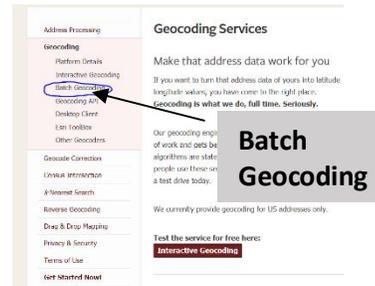
0	1	1	7413	0	1	1801 TURM	42.63592	-71.0763		
3	0	3	128136	0	3	1010 VARH	42.64374	-71.366		
0	0	0	0	0	0	1071 VARH	42.64467	-71.3682		
2	0	0	0	0	0	89 MORTC	42.655	-71.1294		
0	1	1	8518	0	1	140 PRESC	42.70467	-71.1177		
2	1	1	30654	0	1	172 LAWR	42.71356	-71.1637		
0	1	0	0	0	0	150 BERKE	42.72061	-71.1639		
2	1	2	44883	0	2	480 JACKS	42.73331	-71.1661		
0	0	1	38464	0	1	194 BOARI	42.77179	-71.0591		
1	1	2	12399	0	2	126 MONL	42.78707	-71.1088		
0	1	0	0	0	0	500 WENTWORTH AVENUE	LOWELL, MA 01852			
0	1	1	5863	0	1	17 LAFAYETTE AVENUE	CHELSEA, MA 02150			
6	8	2	293622	2	4	1561 COLD SPRING ROAD	WILLIAMSTOWN, MA 01267			
1	0	0	0	0	0	30 WATERTOWN STREET	LEXINGTON, MA 02420			
0	0	1	7036	0	1	3 VISION DRIVE	NATICK, MA 01760			
0	0	0	0	0	0	50 RECREATION PARK DRIVE	HINGHAM, MA 02043			
1	0	0	0	0	0	559 PLANTATION STREET	WORCESTER, MA 01605			
0	1	0	0	0	0	277 WASHINGTON STREET	ABINGTON, MA 02351			
0	2	0	0	0	0	66 CENTRAL STREET EAST	BRIDGEWATER, MA 02333			
0	0	0	0	0	0	51 HOSPITAL ROAD	BALDWINVILLE, MA 01436			

Delete!

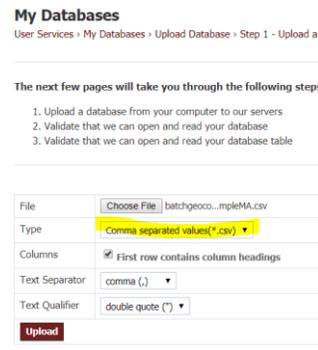
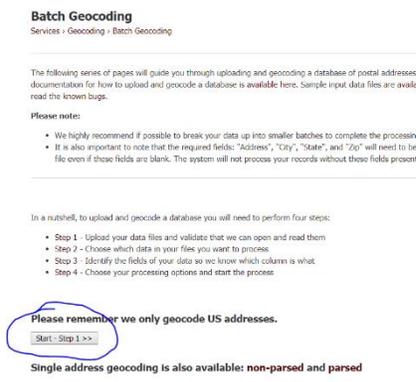
Don't delete!

3. Using Texas A&M GeoServices.

- Sign up for free account at <https://geoservices.tamu.edu/Signup/>.
- On the home page (geoservices.tamu.edu), select “Geocoding”; on the next page select “Batch Geocoding” in left column.



- Begin batch geocoding process by selecting “Start – Step 1 >>” and uploading the CSV database (batchgeocoding.MA).
- Make sure the file type is set to CSV. Select “Upload” then select “Validate Database” and “Validate Table.”



- Your dataset is now ready for geocoding. Scroll down and select “Geocoding,” then select database (this should be automatically set) for processing and advance to Step

ZZ9435	COLONY CENTER FOR HEALTH & REHABILITATION	277 WASHINGTON STREET	ABINGTON	MA
ZZ5322	SACHEM CENTER FOR HEALTH & REHABILITATION	66 CENTRAL STREET	LANSI BRIDGEWATER	MA
ZZ5388	ALLIANCE HEALTH AT BALDWINVILLE	51 HOSPITAL ROAD	BALDWINVILLE	MA

You may now use your database in the following services:

Address Processing
Services for processing postal addresses including address parsing, normalization, standardization, and validation

Geocoding
Services for turning postal addresses into geographic coordinates including parcel, non-parcel, and batch postal address database geocoding

Geocode Correction
Services for correcting geographic coordinates

Database

egoldwein|batchgeocoding.csv

Table

batchgeocoding

<< Previous - Step 1 Next - Step 3 >>

- On Step 3, select the appropriate Input fields (StreetAddress → ProviderAddress, City → Provider City, etc.).

Input Fields
(Do not change default ID - use AUTO_UNIQUE_ID_XXXX.. field)

AddressData	
Id	AUTO_UNIQUE_ID_2019-11-19_egoldwein_batchgeocoding
StreetAddress	FederalProviderNumber
City	FederalProviderNumber
State	FederalProviderNumber
Zip	FederalProviderNumber

Input Fields
(Do not change default ID - use AUTO_UNIQUE_ID_XXXX.. field)

AddressData	
Id	AUTO_UNIQUE_ID_2019-11-19_egoldwein_batchgeocoding
StreetAddress	ProviderAddress
City	ProviderCity
State	ProviderState
Zip	ProviderZipCode

- Advance to Step 4 and select “Start Process.” Once complete (this may take a few minutes), select View Process Status → Details → Download Database.

Process Details
User Services > My Processes > Process Details

id	a09c79bc-1215-4e0d-830c-192e0982698f
service	Geocoding
database	batchgeocoding.csv
table	batchgeocoding
total	253
completed	253
start	11/19/2019 9:37:14 AM
updated	11/19/2019 9:38:14 AM
don't store transaction details	False
notify	True
abort on error	False
state	Completed
result	Completed Successfully
actions	Display Data on Map Download Database Download as XML Print
Delete database	Delete

auto refresh: 10 seconds

Select “Download” to Download database

- As shown below, your new CSV file will now have coordinates for facilities previously missing locations.

Before Geocoding

id	location	latitude	longitude
0	0 150 BERKE	42.72091	-71.10339
2	1 2 44883 0	2 480 JACKS	42.73331 -71.1661
0	0 1 38464 0	1 194 BOARI	42.77179 -71.0591
1	1 2 12399 0	2 126 MONL	42.78707 -71.1088
0	1 0 0 0	0 500 WENTWORTH AVENUE LOWELL, MA 01852	
0	1 1 5863 0	1 17 LAFAYETTE AVENUE CHELSEA, MA 02150	
6	8 2 293622 2	4 1561 COLD SPRING ROAD WILLIAMSTOWN, MA 01267	
1	0 0 0 0	0 30 WATERTOWN STREET LEXINGTON, MA 02420	
0	0 1 7036 0	1 3 VISION DRIVE NATICK, MA 01760	
0	0 0 0 0	0 50 RECREATION PARK DRIVE WINGHAM, MA 02043	
1	0 0 0 0	0 559 PLANTATION STREET WORCESTER, MA 01605	
0	1 0 0 0	0 277 WASHINGTON STREET ABINGTON, MA 02351	
0	2 0 0 0	0 66 CENTRAL STREET EAST BRIDGEWATER, MA 02333	
0	0 0 0 0	0 51 HOSPITAL ROAD BALDWINVILLE, MA 01436	

Missing coordinates

After Geocoding

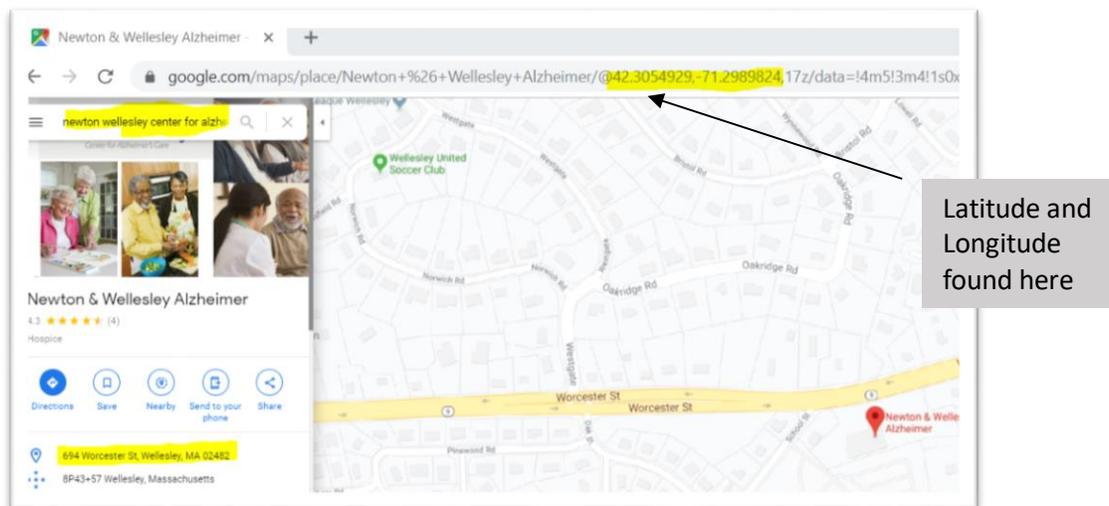
mi Location	Latitude	Longitude	Column
0	500 WENTWORTH AVENUE	42.63147	-71.2837
1	17 LAFAYETTE AVENUE CHELSEA	42.40034	-71.0306
4	1561 COLD SPRING ROAD	42.67788	-73.2349
0	30 WATERTOWN STREET LEXINGTON	42.42201	-71.209
1	3 VISION DRIVE NATICK, MA	42.30269	-71.3546
0	50 RECREATION PARK DRIVE WINGHAM	42.1759	-70.9029
0	559 PLANTATION STREET WORCESTER	42.29115	-71.7631
0	277 WASHINGTON STREET ABINGTON	42.10054	-70.9497
0	66 CENTRAL STREET EAST BRIDGEWATER	42.03161	-70.9571
0	51 HOSPITAL ROAD BALDWINVILLE	42.61143	-72.0614
1	25 ADAMS ROAD WILLIAMSTOWN	42.70188	-73.1857
3	115 HOLLISTON STREET MA	42.159	-71.4122
0	233 MIDDLE STREET BRAINARD	42.21755	-70.9923

Complete coordinates

- Let's combine the CSV data to the XLS data to complete the geocoding process. Do this by copy the coordinates from the CSV sheet and pasting them into the empty latitude and longitude cells in the XLS file. **Make sure that the coordinates and addresses align with the correct facilities. They *should* already be in the correct order but double check just in case.**
- Save the XLS file. **The file is now ready for Tableau!**

Adding Missing Coordinates Using Google Maps. Use for Small Batches (< 20).

1. Identify facilities missing coordinates by following steps in “Checking for Missing Coordinates” on Page 4.
2. Go to maps.google.com.
3. Enter facility or address on search bar;
 - Find Latitude and Longitude on URL located in address bar (see image below);
 - Copy and paste latitude and longitude into appropriate cells in Excel file.
4. Repeat process for all remaining coordinates until dataset is complete.
5. Save the XLS file. **The file is now ready for Tableau!**



For additional resources on nursing home information and data, please visit:

www.NursingHome411.org.