

Performing Table Joins

QGIS Tutorials and Tips



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Translations by

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000000 00 00 000000 **shapefile** 00 000000 000000 00000. 00 00000 0000 00 00000000
 00 0000 0000 00 00 000000 0000 0000 00000. 0 0000 0000 00 `Table Join` 00 0000 00 0
 0000000 **QGIS** 00 0000 0000 0000 00000000.



US Census Bureau shapefile.



- CSVファイルは、テキスト形式で保存されたデータファイル。拡張子は **.csv** である。
- QGISは、CSVファイルを読み込んで、地図上に表示することができる。



US Census Bureau MAF/TIGER shapefile

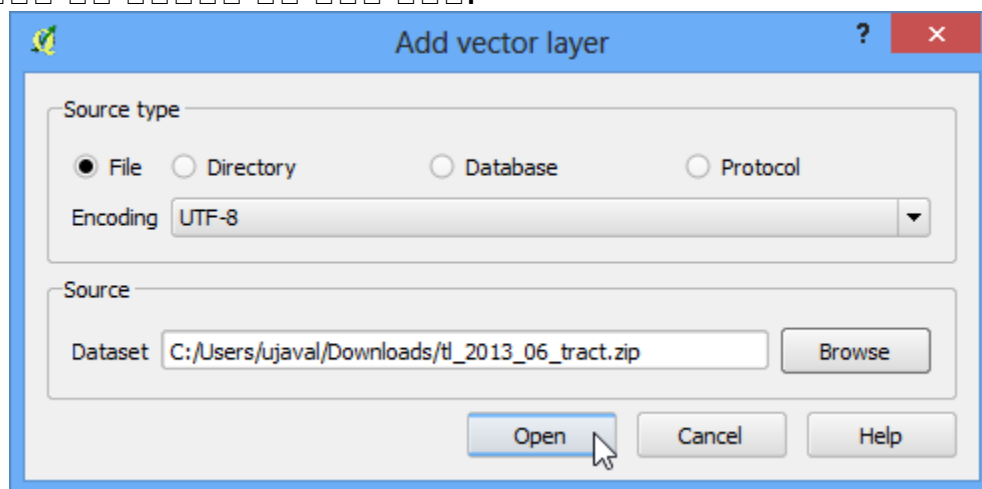
Americal FactFinder
 <<http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>>`_□
 □□□ □□ □□□ □□□□□. `Advanced Search` □ □□□ □ □□ □□□ CSV □ □□□ □□□□ □□
 □□ `Topic - Total Population` □ `Geographies - All Census Tracts in California` □ □□□ □
 □□□□. □ □□□□□ `Total Population 2010 Census Summary File 1` □ □□□□□.

□□□ □□ [TIGER] [USCENSUS]

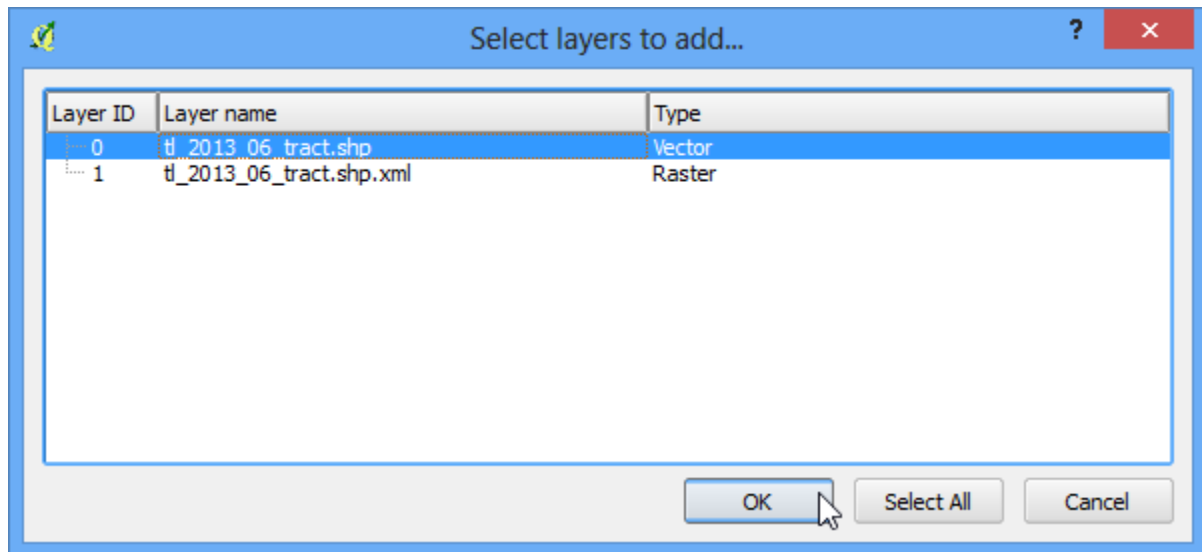
- ```
1. shapefile --> Add Vector Layer`
```



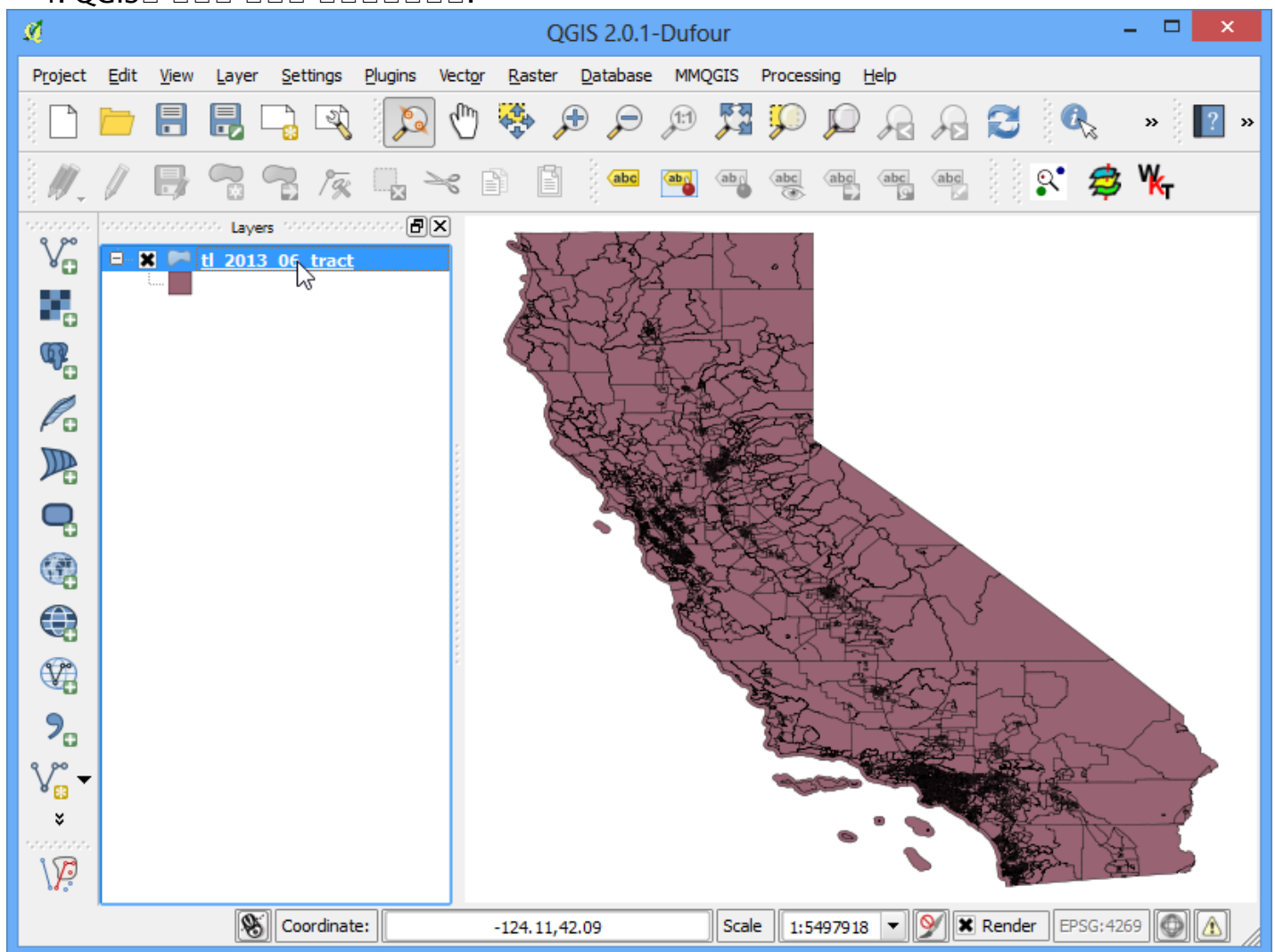
2. 파일을 불러와서 `tl\_2013\_06\_tract.zip`을 불러옵니다. QGIS에 불러오면 zip 파일이 아니라 shapefile로 인식됩니다. 이 때 shapefile을 불러오기 위해 'Add Vector Layer...' 메뉴를 클릭합니다.



3. `tl\_2013\_06\_tract.shp` 파일을 불러옵니다. :guilabel: `OK` 버튼을 클릭합니다.



4. QGIS □ □ □ □ □ □ □ □ □ □.



5. □ □ □ □ □ □ □ □ □ □ □ □ □ □ :guilabel: `Open Attribute Table` □ □ □ □ □ □.



6. □□ shapefile□ □□□ □□□□□□. □ shapefile□ □□□□ □□□□ □□□□ □ □□□ □□□□ □□□□ □□□□□□. □ □□□□ **\*\*GEOID\*\***□□□□ □ □□□□ □□□□□□ □□ ID□ □□□□ □□ □□ □□□□ □ shapefile□ '□□' □ □ □□□□.





ca\_tracts\_pop.csv - Notepad

File Edit Format View Help

POPGROUP.id,POPGROUP.display-label,GEO.id,GEO.id2,GEO.display-label,D001

001,Total population,1400000US06001400100,06001400100,"Census Tract 4001, Alameda County, California",2937

001,Total population,1400000US06001400200,06001400200,"Census Tract 4002, Alameda County, California",1974

001,Total population,1400000US06001400300,06001400300,"Census Tract 4003, Alameda County, California",4865

001,Total population,1400000US06001400400,06001400400,"Census Tract 4004, Alameda County, California",3703

001,Total population,1400000US06001400500,06001400500,"Census Tract 4005, Alameda County, California",3517

001,Total population,1400000US06001400600,06001400600,"Census Tract 4006, Alameda County, California",1571

001,Total population,1400000US06001400700,06001400700,"Census Tract 4007, Alameda County, California",4206

001,Total population,1400000US06001400800,06001400800,"Census Tract 4008, Alameda County, California",3594

001,Total population,1400000US06001400900,06001400900,"Census Tract 4009, Alameda County, California",2302

001,Total population,1400000US06001401000,06001401000,"Census Tract 4010, Alameda County, California",5678

001,Total population,1400000US06001401100,06001401100,"Census Tract 4011, Alameda County, California",4156

001,Total population,1400000US06001401200,06001401200,"Census Tract 4012, Alameda County, California",2416

001,Total population,1400000US06001401300,06001401300,"Census Tract 4013, Alameda County, California",3528

001,Total population,1400000US06001401400,06001401400,"Census Tract 4014, Alameda County, California",4314

001,Total population,1400000US06001401500,06001401500,"Census Tract 4015, Alameda County, California",2630

001,Total population,1400000US06001401600,06001401600,"Census Tract 4016, Alameda County, California",2163

001,Total population,1400000US06001401700,06001401700,"Census Tract 4017, Alameda County, California",2667

001,Total population,1400000US06001401800,06001401800,"Census Tract 4018, Alameda County, California",1703

001,Total population,1400000US06001402200,06001402200,"Census Tract 4022, Alameda County, California",2385

001,Total population,1400000US06001402400,06001402400,"Census Tract 4024, Alameda County, California",2351

001,Total population,1400000US06001402500,06001402500,"Census Tract 4025, Alameda County, California",1784

001,Total population,1400000US06001402600,06001402600,"Census Tract 4026, Alameda County, California",1151

001,Total population,1400000US06001402700,06001402700,"Census Tract 4027, Alameda County, California",1569

001,Total population,1400000US06001402800,06001402800,"Census Tract 4028, Alameda County, California",3345

001,Total population,1400000US06001402900,06001402900,"Census Tract 4029, Alameda County, California",1434

001,Total population,1400000US06001403000,06001403000,"Census Tract 4030, Alameda County, California",2788

001,Total population,1400000US06001403100,06001403100,"Census Tract 4031, Alameda County, California",2238

Ln 1, Col 1

- [illegible]



9. In QGIS, open the CSV file and load it into the project. Then, go to Layer --> Add Delimited Text Layer and click OK.





10. CSV file format. File format: CSV (comma separated values). No geometry (attribute only table). OK.

**Create a Layer from a Delimited Text File**

File Name:

Layer name:  Encoding:

File format: ☒ CSV (comma separated values) ☐ Custom delimiters ☐ Regular expression delimiter

Record options: Number of header lines to discard:  ☒ First record has field names

Field options: ☐ Trim fields ☐ Discard empty fields ☐ Decimal separator is comma

Geometry definition: ☐ Point coordinates ☐ Well known text (WKT) ☒ No geometry (attribute only table)

Layer settings: ☐ Use spatial index ☐ Use subset index ☐ Watch file

|   | POPGROUP.id | POPGROUP.display-label | GEO.id               | GEO.id2     | GEO.display-label                 |
|---|-------------|------------------------|----------------------|-------------|-----------------------------------|
| 1 | 001         | Total population       | 1400000US06001400100 | 06001400100 | Census Tract 4001, Alameda County |
| 2 | 001         | Total population       | 1400000US06001400200 | 06001400200 | Census Tract 4002, Alameda County |
| 3 | 001         | Total population       | 1400000US06001400300 | 06001400300 | Census Tract 4003, Alameda County |
| 4 | 001         | Total population       | 1400000US06001400400 | 06001400400 | Census Tract 4004, Alameda County |
| 5 | 001         | Total population       | 1400000US06001400500 | 06001400500 | Census Tract 4005, Alameda County |

11. CSV ☐ ☐ QGIS ☐ ☐ ☐ ☐ ☐.



12. Select the ***tl\_2013\_06\_tract*** layer. Right-click on it and select Properties.



13. Click on Layer Properties and Joins. Click on the Join icon in the Layer Properties dialog. Click on the Join icon in the Layer Properties dialog.



14. Add vector join Join layer` `ca\_tracts\_pop`  
 shapefile CSV id Join field` `Target field` `GEO.id2` `GEOID`  
 :guilabel:`Join field` :guilabel:`Target field` :guilabel:`OK`



15. Layer Properties QGIS CSV shapefile  
 `tl\_2013\_06\_tract` :guilabel:`Open  
 Attribute Table`



16. □□ ca\_tracts\_pop\_D001 □□□ □ □□□ □□□ □□□ □ □ □□□□. □□ CSV□□□□□ □ □□□ □□□□ □□□□□. □□ □□□□ □□ QGIS□ □□□□□.

Attribute table - tl\_2013\_06\_tract :: Features total: 8057, filtered: 8057, selected: 0

|    | INTPTLAT    | INTPTLON     | tracts_pop_POPGRC | op_POPGROURdi    | tracts_pop_GEC | pop_GEQdis    | ca_tracts_pop_D001 |
|----|-------------|--------------|-------------------|------------------|----------------|---------------|--------------------|
| 0  | +37.5371514 | -122.0081094 | 001               | Total population | 1400000US06... | Census Tra... | 2873               |
| 1  | +37.5293619 | -121.9931002 | 001               | Total population | 1400000US06... | Census Tra... | 2816               |
| 2  | +34.0175004 | -118.1974975 | 001               | Total population | 1400000US06... | Census Tra... | 2598               |
| 3  | +34.0245059 | -118.2142985 | 001               | Total population | 1400000US06... | Census Tra... | 3766               |
| 4  | +34.0187546 | -118.2117956 | 001               | Total population | 1400000US06... | Census Tra... | 3618               |
| 5  | +34.0682177 | -118.2320356 | 001               | Total population | 1400000US06... | Census Tra... | 3127               |
| 6  | +34.0571230 | -118.2311021 | 001               | Total population | 1400000US06... | Census Tra... | 7883               |
| 7  | +34.0299036 | -118.2244531 | 001               | Total population | 1400000US06... | Census Tra... | 2146               |
| 8  | +34.0561941 | -118.2466502 | 001               | Total population | 1400000US06... | Census Tra... | 1363               |
| 9  | +37.5184093 | -121.9748369 | 001               | Total population | 1400000US06... | Census Tra... | 7194               |
| 10 | +34.0798577 | -118.3181008 | 001               | Total population | 1400000US06... | Census Tra... | 3628               |
| 11 | +34.0798690 | -118.3068568 | 001               | Total population | 1400000US06... | Census Tra... | 3670               |
| 12 | +34.0799255 | -118.3024972 | 001               | Total population | 1400000US06... | Census Tra... | 5067               |
| 13 | +34.0813650 | -118.2961539 | 001               | Total population | 1400000US06... | Census Tra... | 4389               |
| 14 | +34.0800134 | -118.2881064 | 001               | Total population | 1400000US06... | Census Tra... | 3513               |
| 15 | +34.0781753 | -118.3695958 | 001               | Total population | 1400000US06... | Census Tra... | 2037               |
| 16 | +34.1022274 | -118.2669741 | 001               | Total population | 1400000US06... | Census Tra... | 4717               |
| 17 | +34.0992506 | -118.2836893 | 001               | Total population | 1400000US06... | Census Tra... | 3203               |
| 18 | +37.5184218 | -121.9515237 | 001               | Total population | 1400000US06... | Census Tra... | 2917               |
| 19 | +37.5168344 | -121.9605916 | 001               | Total population | 1400000US06... | Census Tra... | 5918               |
| 20 | +37.5071943 | -121.9271475 | 001               | Total population | 1400000US06... | Census Tra... | 4611               |
| 21 | +37.4707325 | -121.9129556 | 001               | Total population | 1400000US06... | Census Tra... | 4074               |

Show All Features

17. `tl_2013_06_tract` :guilabel: `Properties` .



18. Click Style in the Layer Properties dialog. The Style dialog box appears. :guilabel: `Graduated` is selected. :guilabel: `Column` is set to :guilabel: `ca\_tracts\_pop\_D001`. :guilabel: `Color ramp` is set to :guilabel: `Mode` and :guilabel: `Quantile (Equal Count)`. :guilabel: `Classify` is checked. :guilabel: `OK` is clicked.





19. `guiLabel: 'Zoom in'`



20. □□□□□□ □□□□ □□□ □□□□□ □□□ □□□□. □□□ □□□ □□□□ □□□ □□□ □□□ □□□ □□□ □□□ □□□□.

