

How to use and update the interactive map

Using the map

We have provided the map as an HTML file, which can be used by web developers to put the map onto a live website. Unfortunately we do not have web development experience, so we can't provide direct guidance on this process.

Changing the map

To make changes to the map, the best method is to edit the primary source file, NC-Arts-Economy.Rmd using the programming language R in the application RStudio. The source files can be accessed on GitHub here: <https://github.com/gstammer/NC-Arts-Economy>

For further information on using R, and the Leaflet library in particular:

Learning R/RStudio: <https://education.rstudio.com/learn/>

Leaflet for R: <https://rstudio.github.io/leaflet/>

Leaflet JavaScript documentation: <https://leafletjs.com/>

Updating the data

To update the data, you must change lines 22 (population), 33 (GDP), and/or 34 (employment) in the NC-Arts-Economy.Rmd file. This will work best if the format of the dataset is the same as the original 2021 datasets taken from the BEA & OSBM. If the format is different, then further code alterations will be necessary in order to make the data work with the map

Population data should be from the NC OSBM's dataset "County Population Totals".

URL as of April, 2023:

<https://demography.osbm.nc.gov/explore/dataset/county-population-totals/export/?disjunctive.county&disjunctive.region&disjunctive.cog&disjunctive.msa&disjunctive.vintage&disjunctive.estimateprojection>

From this webpage, go to the Export tab, and locate the CSV option. RIGHT-CLICK "Whole dataset" next to CSV & choose to copy the link address. Paste this address in the quotations below (on line 22):

```
populationDataSource <-
```

```
"https://demography.osbm.nc.gov/api/explore/v2.1/catalog/datasets/county-population-totals/exports/csv?lang=en&timezone=America%2FNew_York&use_labels=true&delimiter=%3B"
```

GDP & employment data should be from the BEA's interactive data tables. Follow the URLs here (from April, 2023) and the steps below.

GDP data:

<https://apps.bea.gov/itable/?ReqID=70&step=1&acrdn=5#eyJhcHBpZCI6NzAsInN0ZXBzIjpbMSwyNCwyOSwyNSwzMSwyNiwyNywzMF0sImRh dGEiOltbIlRhYmxlSWQiLCI1MDEiXSxbIkNsYXNzaWZpY2F0aW9uliwiTkFJQ1MiXSxbIk1ham9yX0FyZWUiLCI0Il0sWyJTdGF0ZSIsWyIzNzAwMCJdXSxbIkFyZWUiLFsiWFgiXV0sWyJTdGF0aXN0aWMiLFsiNzYiXV0sWyJ Vbml0X29mX2I1YXN1cmUiLCJmZXZlbHMiXSxbIlIlYXIlLFsiMjAyMSJdXSxbIlIlYXJJCZW dpbiIsIi0xIl0sWyJZZWFyX0VuZCIsl0xIl1dfQ==>

Employment data:

<https://apps.bea.gov/itable/?ReqID=70&step=1&acrdn=5#eyJhcHBpZCI6NzAsInN0ZXBzIjpbMSwyNCwyOSwyNSwzMSwyNiwzNywzMF0sImRhdGEiOiIltbIlRhYmxlSWQiLCIzMyJdLFsiQ2xhc3NpZmljYXRpb24iLCJOQUlDUyJdLFsiTWFqb3JfQXJlYSIsIjQxSXBhIiN0YXRllixbIjM3MDAwIl1dLFsiQXJlYSIsWyJYWCIJdXSxbIiN0YXRpc3RpYyIsWyIxNzAwIl1dLFsiVW5pZDk5Zl9tZWZkdXJlIiwzTG9tZWxzIl0sWyJZZWZyIixbIjIwMjEiXV0sWyJZZWZyQmVnaW4iLCItMSJdLFsiWWVhcl9Fbmc9IiLCItMSJdXX0=>

If the URLs above do not work, go to the BEA's interactive data tables webpage, and find the section Regional Data: GDP and Personal Income. Select "Gross domestic product (GDP) by county and metropolitan area" for GDP data or "Personal income and employment by county and metropolitan area" for employment data. Then specify Major Area = County, State = NC, Area = All counties, Statistic = GDP/employment in Arts, Entertainment, and Recreation, & desired year.

When you have reached the desired BEA dataset, download it as a CSV and put this CSV into the "data" folder. Then, paste the file's name into the quotations below (line 33/34):

```
GDPDataSource <- "Arts-GDP-2021.csv"
JobsDataSource <- "Arts-Employment-2021.csv"
```

Note about data

As of April 2023, the most recent available data for population, GDP, and employment is from 2021. The sources (OSBM and BEA) are linked in the section above. Data on the geographic boundaries of counties was also obtained from the OSBM