ASSIGNMENT 04 – PROPORTIONAL SYMBOLS

TASK:

Make a series of proportional symbol maps showing the age index and population composition using complex structural proportional figural symbol (Map 1) and the age index, population composition and total population using complex compound proportional figural symbol (Map 2)

DATA SOURCES:

- polygon layer *CensusDivision_Quebec_Statistics* (or similar) from previous lecture

SUBMISSION FORM:

- technical report
- 2 maps in PDF format
- ppkx

INSTRUCTIONS:

Part 1a – Complex Structural Proportional Figural Symbols (Map 1)

- Add a layer *CensusDivision_Quebec_Statistics* to Map
- Export the original polygon layer to point layer (name it *CensusDivision_Quebec_Statistics_point* or similar) using *Feature To Point* tool
- For the polygon layer *CensusDivision_Quebec_Statistics* set parameters in the *Symbology* as follows:
    - Symbolization Method: Graduated Colors
    - Field: set an expression (in Arcade) →

    *$feature.pop_65_years_and_over/$feature.pop_0_to_14_years *100*

    - Normalization: None
    - Classification Method: Natural Breaks (recommended)
    - Classes: 5
    - Color Scheme: select the most appropriate one
- For the point layer *CensusDivision_Quebec_Statistics_point* set parameters in the *Symbology* as follows:
    - Symbolization Method: Charts*
    - Fields: pop_0_to_14_years, pop_15_to_64_years, pop_65_years_and_over
    - Symbols: fill color, select appropriate qualitative color scheme (see ColorBrewer)
    - Size type: Fixed size
    - Size: according to set reference scale
- In *New Layout* (A4 Landscape) insert the Map Title, North Arrow, Legend, Scale and Credits
- Export *Layout* in PDF Format

** if you want to make a donut chart instead of a default pie chart, follow these steps:*

- Copy the layer CensusDivision_Quebec_Statistics_point in Table of Contents
- Rename the duplicite layer to CensusDivision_Quebec_Statistics_point_Mask or similar
- For the point layer CensusDivision_Quebec_Statistics_point_Mask set parameters in the Symbology in the same way as for the background polygon layer showing the age index
- Click *More-Format all symbols* and choose *Circle 1* symbol from default ArcGIS style in *Gallery, and set its size properly to make a donut chart*
- Use the same color scheme as for the background polygon layer showing the age index

Part 1b – Complex Compound Proportional Figural Symbols (Map 2)

- Add a layer *CensusDivision_Quebec_Statistics* to Map
- Export the original polygon layer to point layer (name it *CensusDivision_Quebec_Statistics_point*) using *Feature To Point* tool
- For the polygon layer *CensusDivision_Quebec_Statistics* set parameters in the *Symbology* as follows:
  - Symbolization Method: Graduated Colors
  - Field: set an expression →

  *$feature.pop_65_years_and_over/$feature.pop_0_to_14_years *100*

  - Normalization: None
  - Classification Method: Natural Breaks (recommended)
  - Classes: 5
  - Color Scheme: select the most appropriate one
- For the point layer *Obce_SLDB_points* set parameters in the *Symbology* as follows:
  - Symbolization Method: Charts
  - Fields: pop_0_to_14_years, pop_15_to_64_years, pop_65_years_and_over
  - Symbols: outline color, select the same qualitative color scheme as above
  - Size type: Field
  - Field: Population__2021
  - Normalization: optional
  - Size: according to set reference scale
- In *New Layout* (A4 Landscape) insert the Map Title, North Arrow, Legend, Scale and Credits
- Export *Layout* in PDF Format