

Lab 7: Thematic Maps

Connor Schultz
University of Victoria
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1.

A 4 class equal interval classification was chosen for the 2015 Apprentice Rates in Canada map. The histogram (Figure 1) and QQ-plot (Figure 2) show that the data follows a Gaussian curve with a slight skew in the negative direction as a larger portion of the values are distributed in the negative standard deviation regions of the distribution. Table 1 shows the apprenticeship rates in each province, sorted by rate and Table 2 shows the GVF values for the compared classifications. The 4 class equal interval classification was chosen due to its linearity and ease of understanding as well as the high GVF value. A classification using 3 classes resulted in a lower GVF value.

1.1 Tables and Figures:

Table 1: 2015 Apprenticeship Rates in Canada per 1000 persons per Province

Province/Territory	2015 Population	2015 Apprenticeship Rate
Nunavut	36500	4.36
New Brunswick	754300	7.15
Nova Scotia	943400	7.89
Prince Edward Island	146700	9.33
Manitoba	1296000	10.45
Ontario	13797000	10.5
Northwest Territories	44200	10.79
Saskatchewan	1132300	11.61
British Columbia	4693000	11.61
Quebec	8259500	13.2
Newfoundland and Labrador	528700	14.34
Yukon	37400	14.6
Alberta	4179700	22.25

Table 2: Classification Details and GVF Values

Classification	Number of Classes	Class 1 Upper Bound	Class 2 Upper Bound	Class 3 Upper Bound	Class 4 Upper Bound	GVF Value
Natural Breaks (Jenks)	3	9.33	14.6	22.25	N/A	0.86
Natural Breaks (Jenks)	4	7.89	11.61	14.6	22.25	0.91
Equal Interval	3	10.32	16.29	22.25	N/A	0.84
Equal Interval	4	8.83	13.31	17.78	22.25	0.91

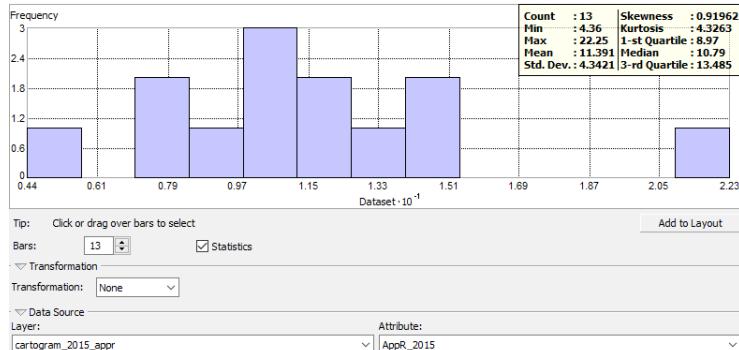


Figure 1: Histogram of 2015 Apprenticeship Rates per 1000 persons

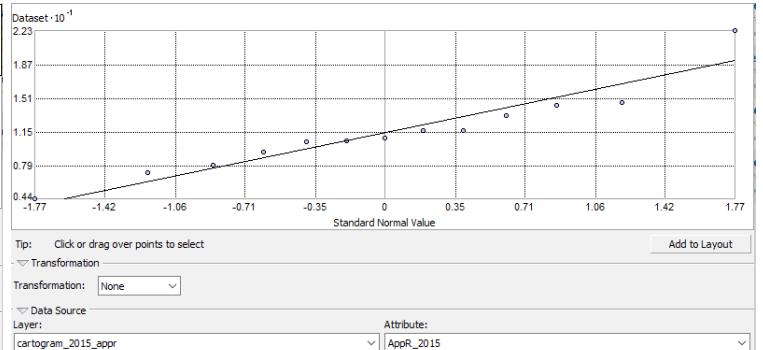


Figure 2: QQ-Plot of 2015 Apprenticeship Rates per 1000 persons

2.

Table 3: UK Export Maps Parameters

Map	Classification	Number of Classes	Minimum Symbol Size	Maximum Symbol Size
Radial UK Export Map	Natural Breaks (Jenks)	3	0.5pt	4pt
Distributive Flow UK Export Map	Natural Breaks (Jenks)	4	0.5pt	4pt

3.

A 4 class equal interval classification was chosen for the 2012 Mood Disorder Rates in Canada map. The histogram (Figure 3) and QQ-plot (Figure 4) show that the data does not follow a Gaussian curve and is skewed in the positive direction as more values are located in the positive standard deviation regions of the distribution. Table 4 shows the GVF values for the compared classifications. The 4 class natural breaks classification was chosen due to the non-Gaussian distribution and the higher variance between classes as shown by the GVF value.

3.1 Tables and Figures:

Table 4: Classification Details and GVF Values

Classification	Number of Classes	Class 1 Upper Bound	Class 2 Upper Bound	Class 3 Upper Bound	Class 4 Upper Bound	GVF Value
Natural Breaks (Jenks)	4	3051.87	4822.71	6601.52	7520.8	0.97
Equal Interval	4	4169.1	5286.33	6403.57	7520.8	0.95

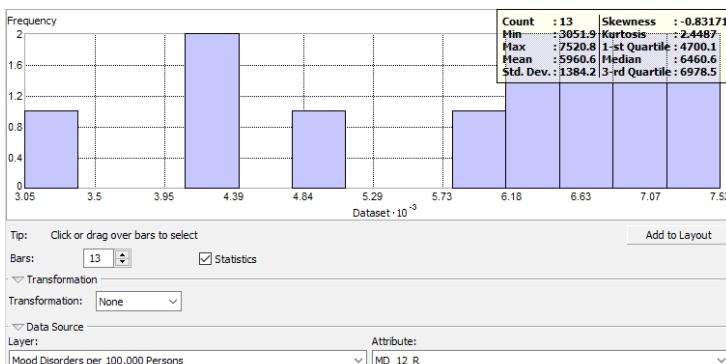


Figure 3: Histogram of 2012 Mood Disorder Rates per 100,000 persons

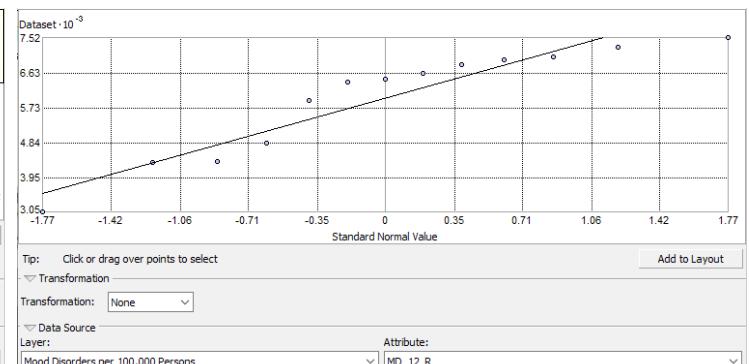
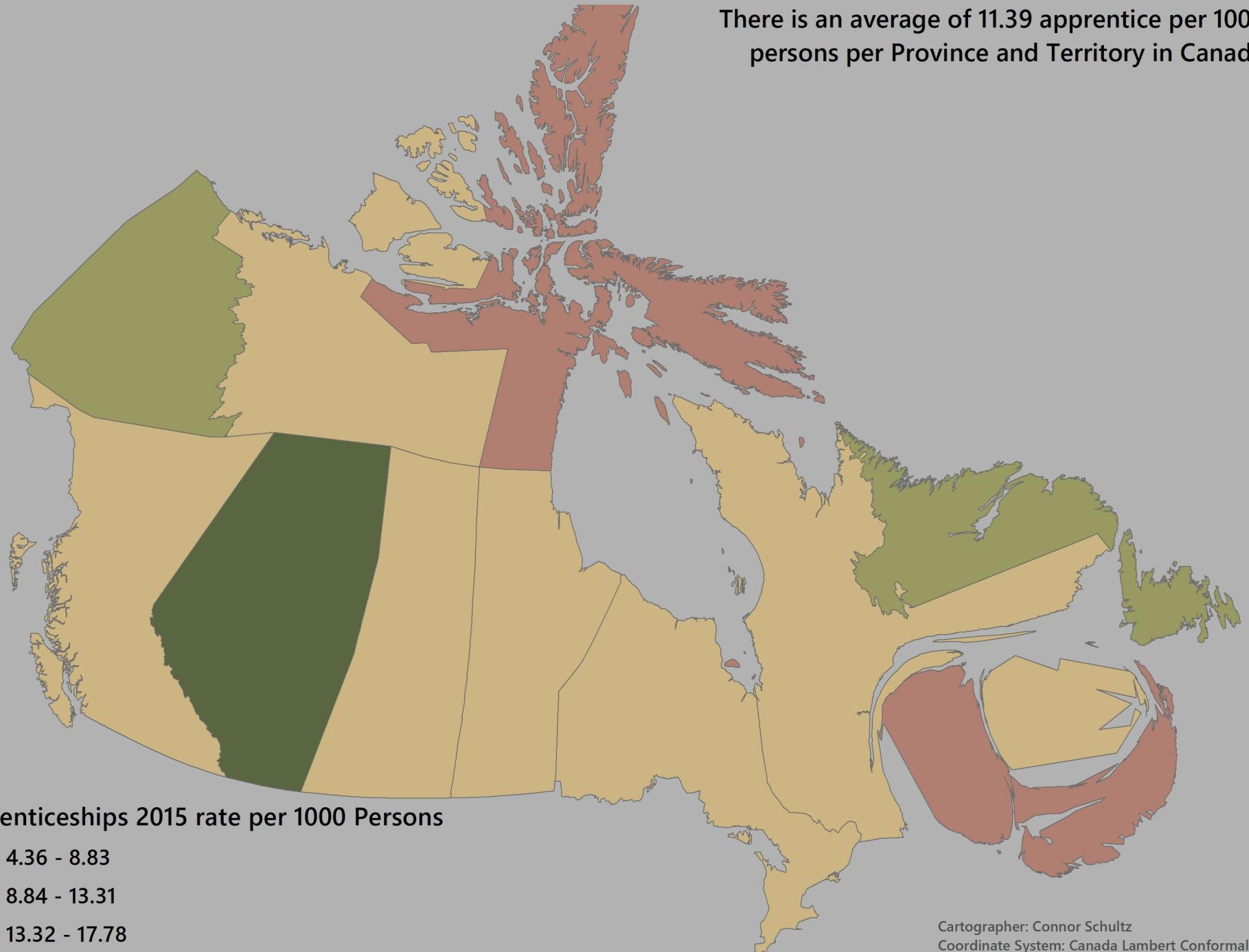


Figure 4: QQ-Plot of 2012 Mood Disorder Rates per 100,000 persons

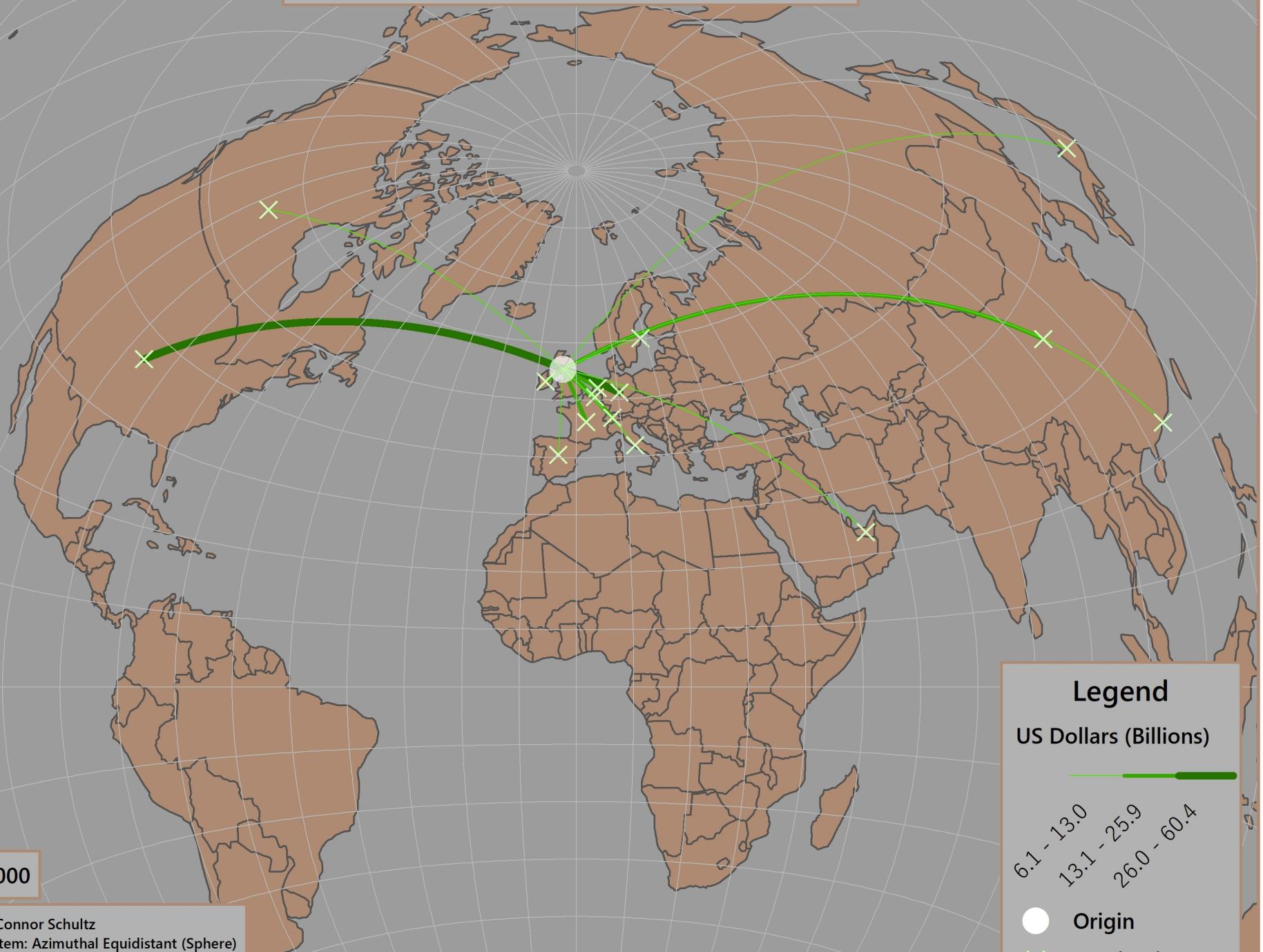
Cartogram of Apprenticeships 2015 rate per 1000 Persons in Canada

There is an average of 11.39 apprentice per 1000 persons per Province and Territory in Canada



Cartographer: Connor Schultz
Coordinate System: Canada Lambert Conformal Conic
Projection: Lambert Conformal Conic
Data Source: Statistics Canada

United Kingdom Export Profit in 2016



1:100,000,000

Cartographer: Connor Schultz
Coordinate System: Azimuthal Equidistant (Sphere)
Projection: Azimuthal Equidistant

United Kingdom Export Profit in 2016



2012 Rate of Mood Disorders in Canada

There is an average of 5961 mood disorders per 100,000 persons
per Province and Territory in Canada

