Teaching an Old Dataset New Tricks

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TEACHING AN OLD DATASET NEW TRICKS

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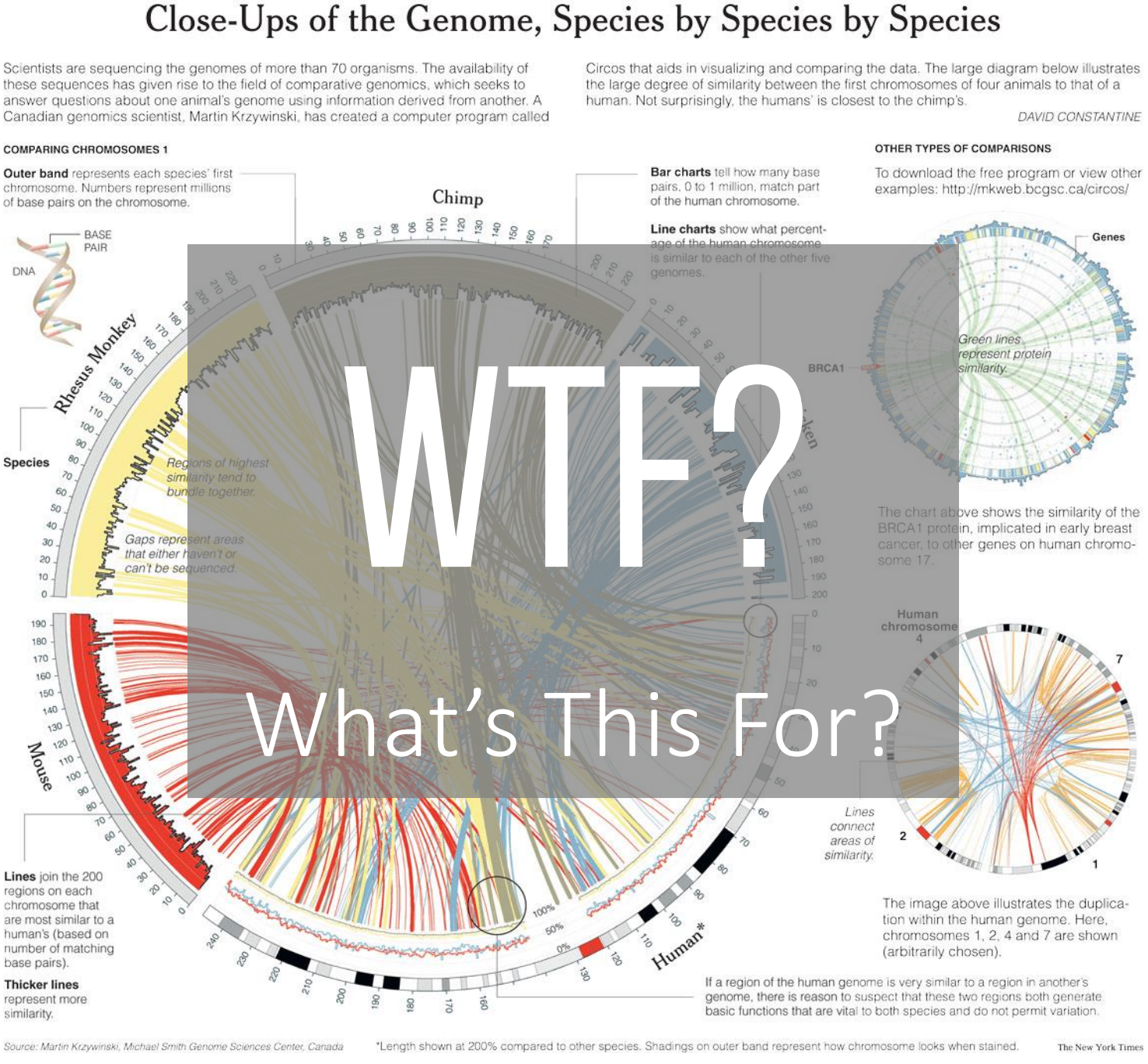
ENVIRONICS
ANALYTICS



WTF?

What's This For?

AGENDA

1. The TravelCanada dataset

2. Visualizing the TravelCanada data

3. Applying the TravelCanada data

1. THE TRAVELCANADA DATASET

WHAT IS TRAVELCANADA?

- A dataset based on the 2014 TSRC that models values to every postal code in Canada

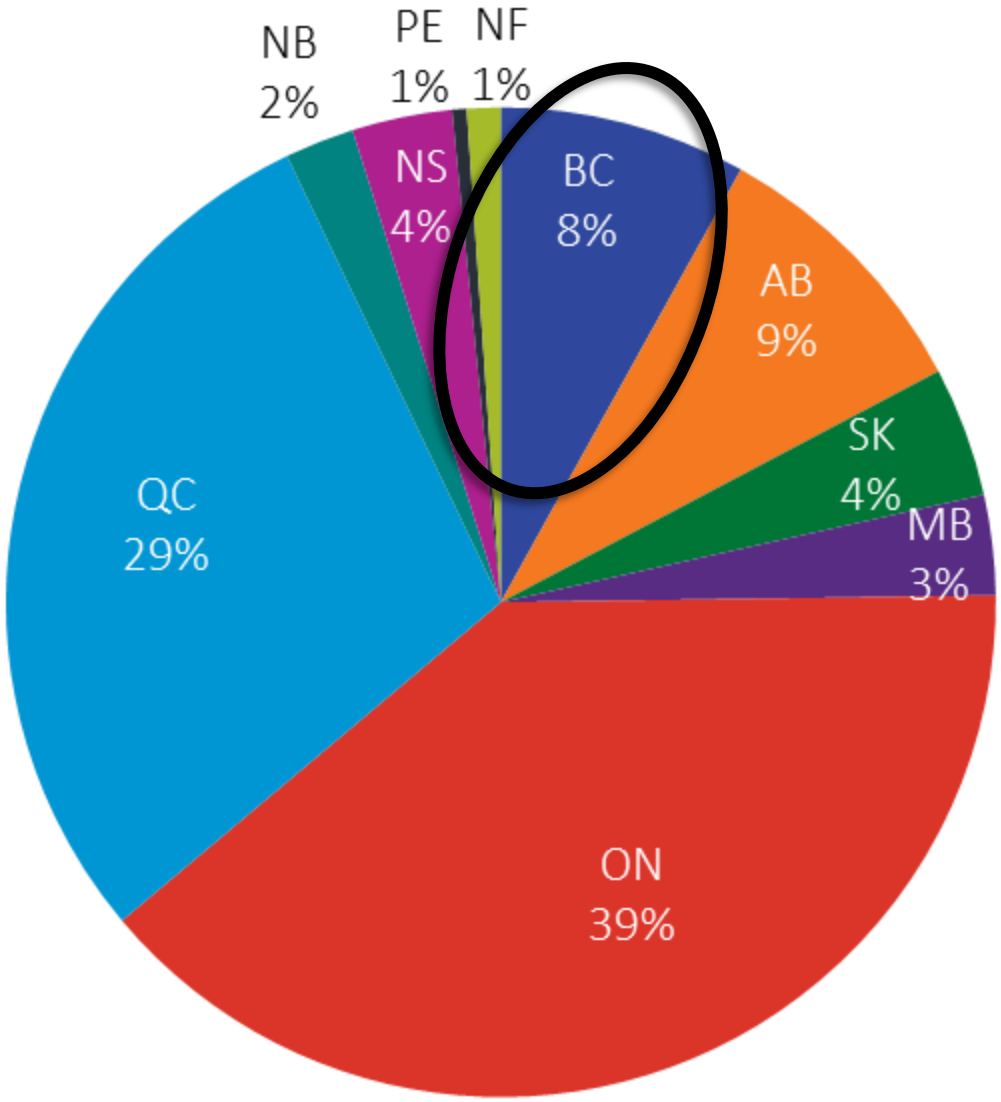
- Allows us to make inferences about travel behaviours at the local level

2. VISUALIZING THE TRAVELCANADA DATA

TRADITIONAL VISUALIZATIONS

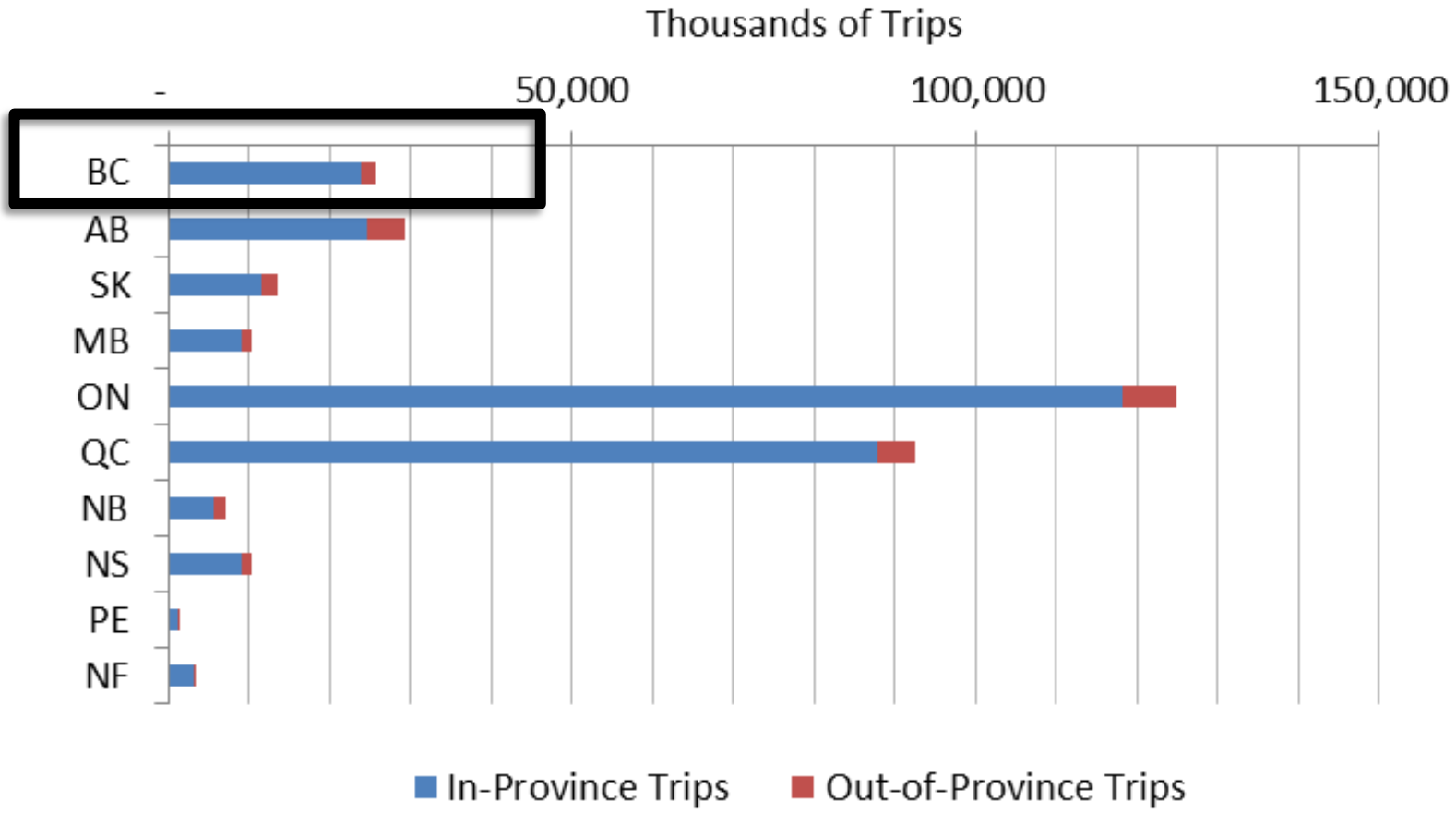
319,475,443 TRIPS TAKEN BY CANADIANS IN 2016

TOTAL TRIPS BY PROVINCE



BREAKING IT DOWN

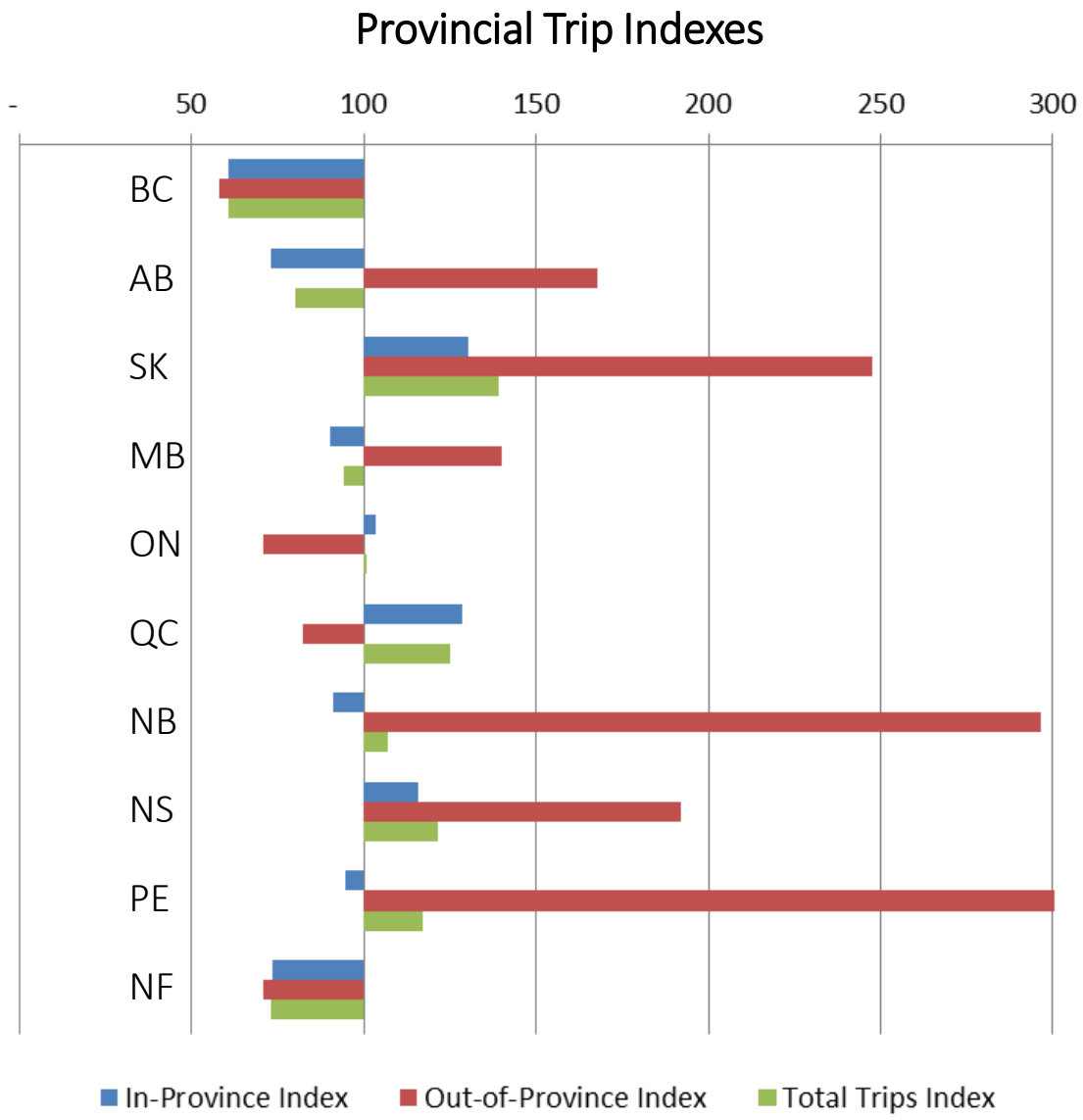
Trips by Province
(In vs. Out of Province)

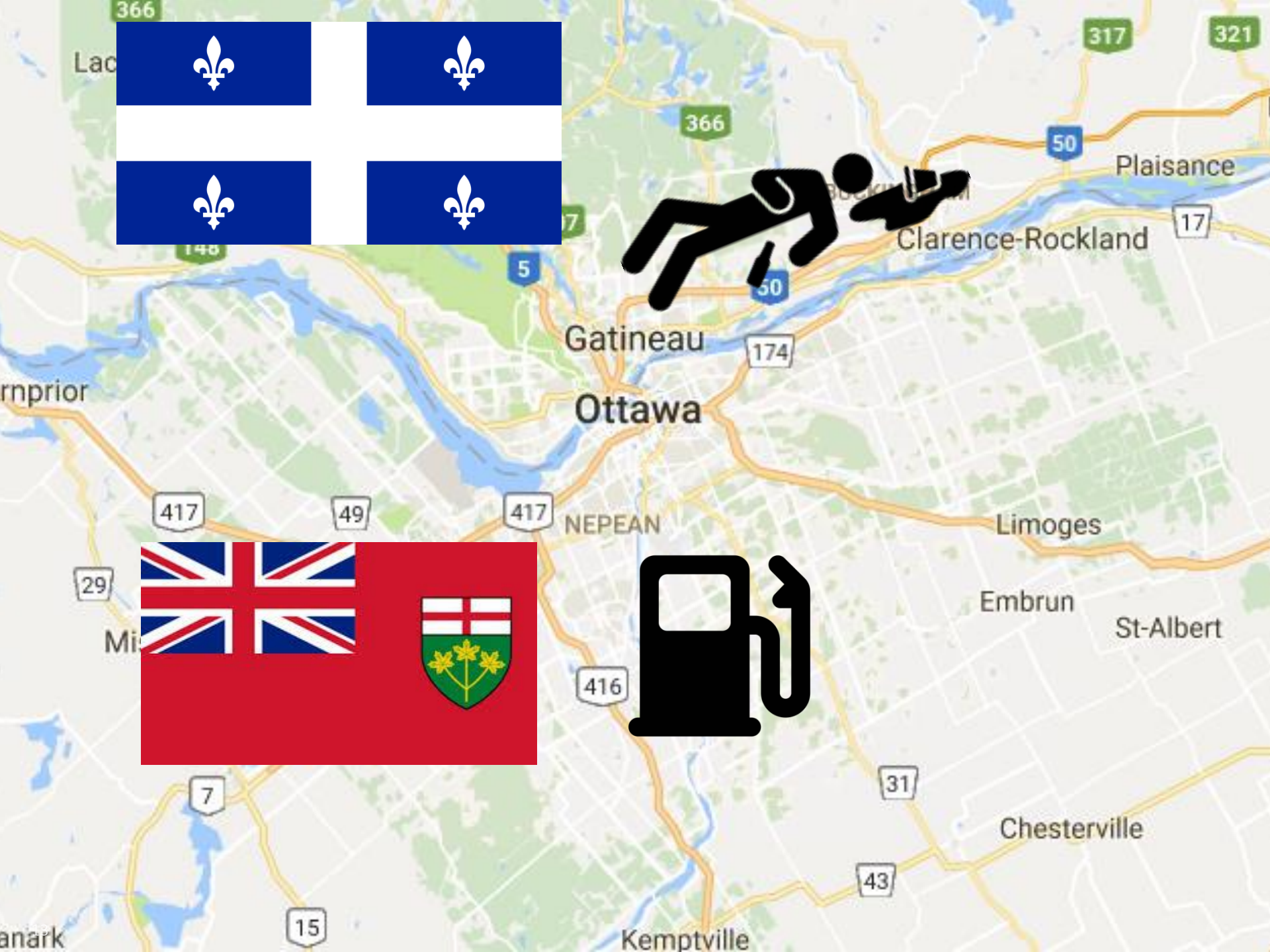


INDEXES HELP COMPLETE THE PICTURE

Province	Trips	% of Canadian Trips (319 Mil)	Pop 18+	% of Canadian Pop 18+ (28 Mil)	Index
Alberta	29.4 Mil	9.2%	3.3 Mil	11.5%	80

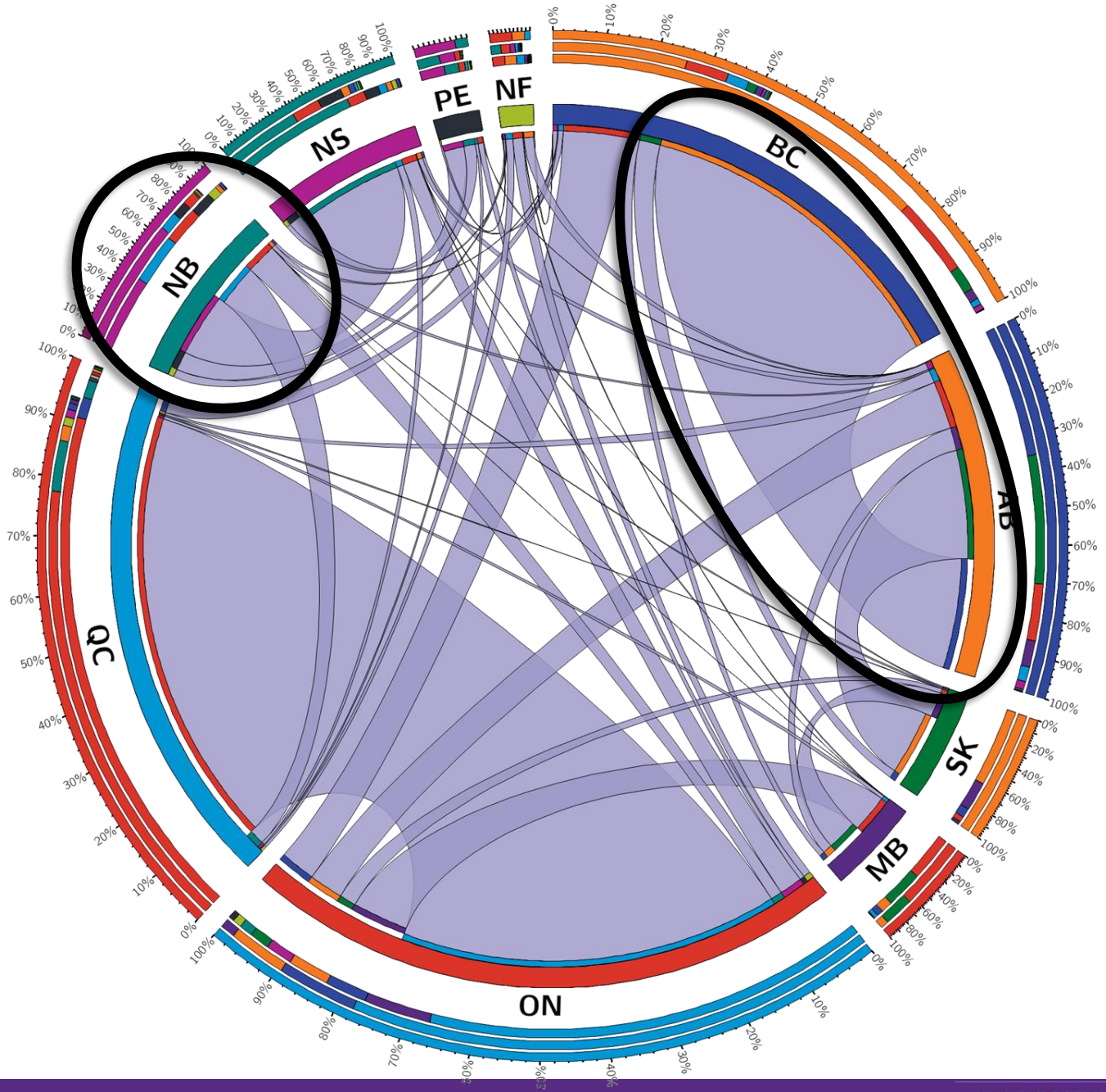
INDEXES HELP COMPLETE THE PICTURE




366
317
321
366
50
Plaisance
17
Clarence-Rockland
5
50
Gatineau
174
Ottawa
417
49
417
NEPEAN
Limoges
29
Embrun
St-Albert
416
31
Chesterville
7
43
15
Kemptville

CHORD DIAGRAMS

- Size/colour at end of ribbon is inbound contribution
- Inside ring = inbound tourism
- Middle ring = outbound tourism



HOW TO CREATE CHORD DIAGRAMS

- www.circos.ca for offline tool

- http://mkweb.bcgsc.ca/tableviewer/visualize/ for online tool
  - Upload tab separated file – options for visualization

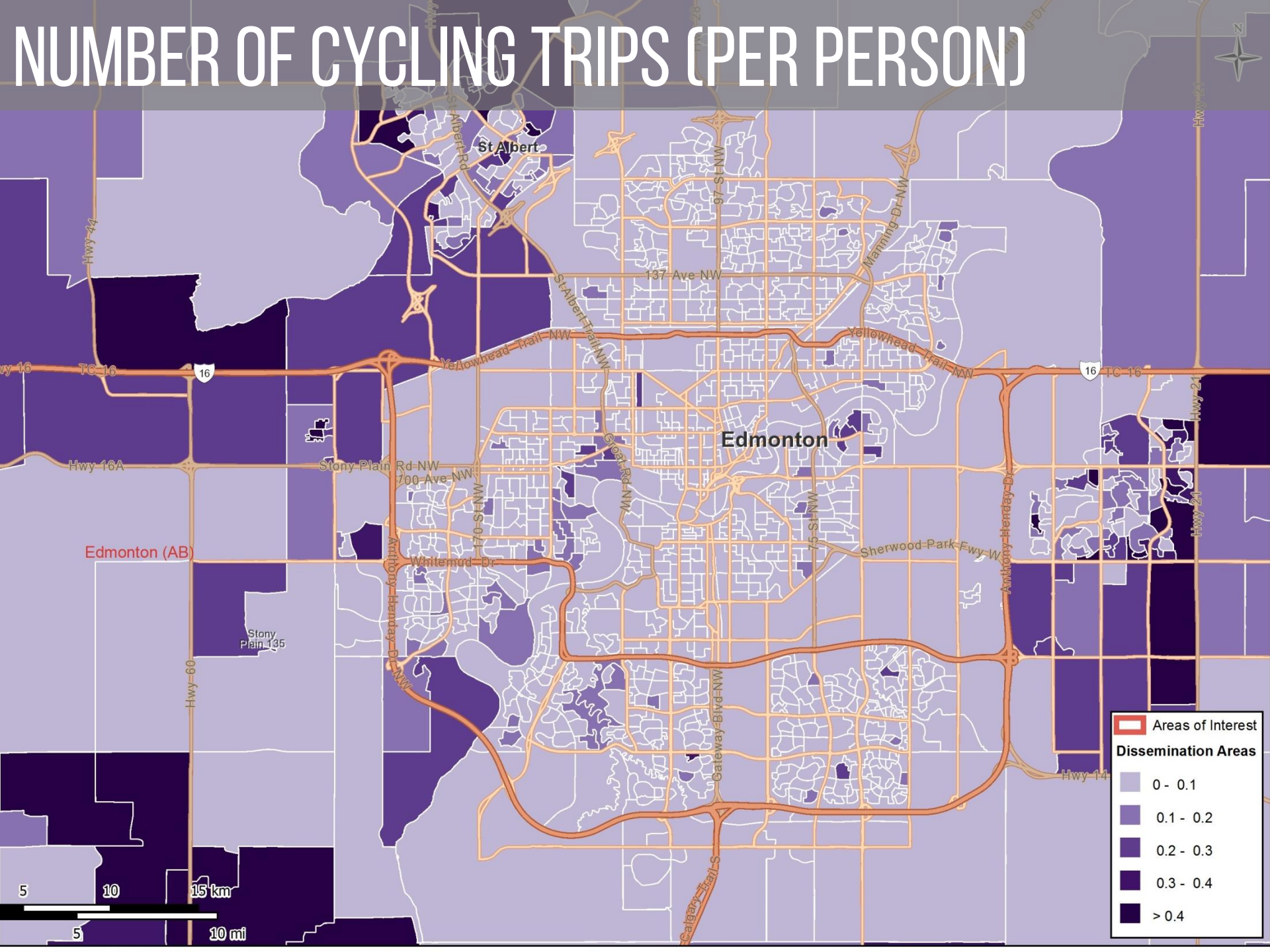
3. APPLYING THE TRAVELCANADA DATA

CYCLING TOURISM

RANKING MARKETS ON TRIPS THAT INCLUDED CYCLING

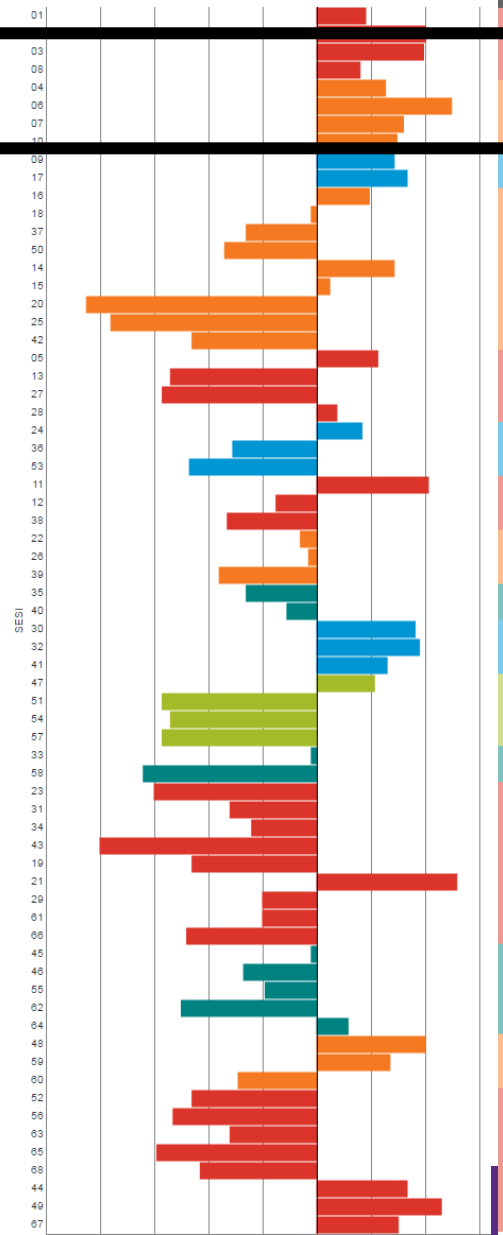
Geographic Name	Count	%	Base Count	Base %	% Pen	Index
Lloydminster (SK/AB)	6,430	0.81	25,801	0.34	0.25	237
Calgary (AB)	215,349	27.17	1,128,305	14.96	0.19	182
Okotoks (AB)	3,158	0.40	21,510	0.29	0.15	140
Sylvan Lake (AB)	1,607	0.20	11,114	0.15	0.14	138
Medicine Hat (AB)	8,256	1.04	60,877	0.81	0.14	129
Brooks (AB)	2,247	0.28	18,394	0.24	0.12	116
Wood Buffalo (AB)	7,008	0.88	64,670	0.86	0.11	103
Red Deer (AB)	8,163	1.03	81,302	1.08	0.10	96
Strathmore (AB)	1,011	0.13	10,574	0.14	0.10	91
Lacombe (AB)	860	0.11	10,122	0.13	0.08	81
Lethbridge (AB)	7,383	0.93	89,478	1.19	0.08	78
Cold Lake (AB)	875	0.11	12,107	0.16	0.07	69
Edmonton (AB)	69,804	8.81	1,056,007	14.00	0.07	63
Wetaskiwin (AB)	706	0.09	10,922	0.15	0.06	61
Grande Prairie (AB)	3,204	0.40	49,758	0.66	0.06	61
High River (AB)	719	0.09	12,338	0.16	0.06	55
Camrose (AB)	785	0.10	14,653	0.19	0.05	51
Canmore (AB)	334	0.04	11,474	0.15	0.03	28

NUMBER OF CYCLING TRIPS (PER PERSON)



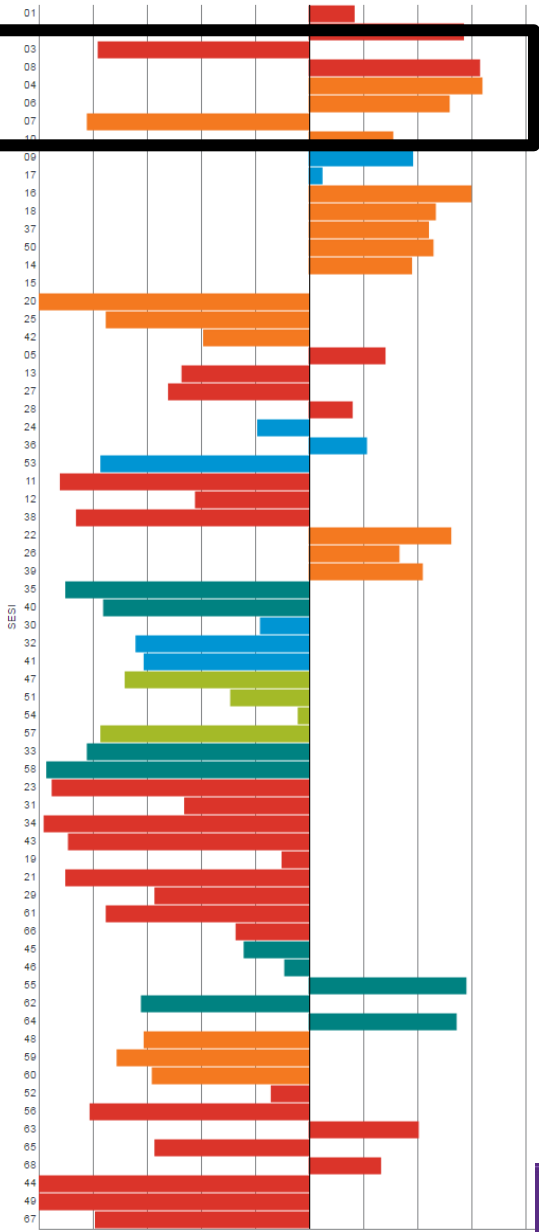
WENT CYCLING ON A TRIP

SG	SE	Name	Count	%	Base Count	Base %	% Pen	Index
U1	1	Cosmopolitan Elite	32,453	0.85	197,684	0.70	0.16	122
U1	3	Arts & Affluence	52,868	1.38	236,848	0.83	0.22	165
U1	8	Boomerang City	114,862	2.99	713,959	2.51	0.16	119
S1	4	Suburban Success	49,649	1.29	274,774	0.97	0.18	134
S1	6	Kids & Careers	229,628	5.98	852,706	3.00	0.27	199
S1	7	Nouveaux Riches	44,350	1.16	222,912	0.79	0.20	147
S1	10	Emptying Nests	51,033	1.33	265,662	0.94	0.19	142
E1	9	Satellite Burbs	154,308	4.02	818,421	2.88	0.19	140
E1	17	Exurban Wonderland	101,870	2.65	504,303	1.77	0.20	150
S2	16	Pets & PCs	147,253	3.84	880,914	3.10	0.17	124
S2	18	Management Material	42,602	1.11	322,652	1.14	0.13	98
S2	37	Trucks & Trades	61,385	1.60	612,143	2.15	0.10	74
S2	50	Suburban Scramble	40,746	1.06	455,514	1.60	0.09	66
S3	14	Diversity Heights	88,413	2.30	468,572	1.65	0.19	140
S3	15	Heritage Hubs	88,153	2.30	622,548	2.19	0.14	105
S3	20	South Asian Achievers	6,360	0.17	305,712	1.08	0.02	15
S3	25	South Asian Society	12,174	0.32	377,994	1.33	0.03	24
S3	42	Home Sweet Rows	38,200	0.99	520,824	1.83	0.07	54
U2	5	Asian Sophisticates	71,678	1.87	411,645	1.45	0.17	129
U2	13	Asian Avenues	30,133	0.79	481,930	1.70	0.06	46
U2	27	Diverse City	26,586	0.69	458,234	1.61	0.06	43
U2	28	Metro Multiculturals	86,838	2.26	593,832	2.09	0.15	108
E2	24	Fresh Air Families	127,101	3.31	786,514	2.77	0.16	120
E2	36	Exurban Homesteaders	30,674	0.80	331,359	1.17	0.09	69
E2	53	Outdoor Originals	20,993	0.55	295,792	1.04	0.07	53
U3	11	Urban Digerati	101,132	2.63	441,263	1.55	0.23	170
U3	12	Street Scenes	53,824	1.40	469,377	1.65	0.11	85
U3	38	Grads & Pads	24,924	0.65	276,332	0.97	0.09	67
S4	22	Aging in Suburbia	81,067	2.11	641,686	2.26	0.13	94
S4	26	Second City Retirees	76,775	2.00	588,043	2.07	0.13	97
S4	39	Our Time	28,004	0.73	323,587	1.14	0.09	64
R1	35	Country Acres	39,515	1.03	394,894	1.39	0.10	74
R1	40	Wide Open Spaces	75,985	1.98	634,243	2.23	0.12	89
E3	30	La Vie est Belle	59,054	1.54	279,341	0.98	0.21	157
E3	32	Mini Van & Vin Rouge	147,390	3.84	676,301	2.38	0.22	161
E3	41	Vieille École	110,259	2.87	605,539	2.13	0.18	135
T1	47	Traditional Town Living	54,447	1.42	316,695	1.11	0.17	127
T1	51	Aging & Active	18,096	0.47	312,216	1.10	0.06	43
T1	54	Serenity Springs	36,866	0.96	599,407	2.11	0.06	46
T1	57	First Nations Families	16,032	0.42	275,814	0.97	0.06	43
R2	33	Heartland Retirees	49,006	1.28	370,029	1.30	0.13	98
R2	58	Rustic Roads	21,416	0.56	439,288	1.55	0.05	36
U4	23	Asian New Wave	10,011	0.26	183,857	0.65	0.05	40
U4	31	New World Symphony	41,678	1.09	451,546	1.59	0.09	68
U4	34	Rooms with a View	23,500	0.61	229,980	0.81	0.10	76
U4	43	Newcomers Rising	11,268	0.29	424,761	1.50	0.03	20
U5	19	Grey Pride	9,452	0.25	129,524	0.46	0.07	54
U5	21	Beau Monde	77,656	2.02	277,471	0.98	0.28	207
U5	29	Silver Linings	18,965	0.49	176,515	0.62	0.11	80
U5	61	Les Seniors	15,452	0.40	142,871	0.50	0.11	80
U5	66	Sunset Towers	27,313	0.71	388,056	1.37	0.07	52
R3	45	Jeunes d'Esprit	21,506	0.56	161,987	0.57	0.13	98
R3	46	Villes Tranquilles	25,104	0.65	254,919	0.90	0.10	73
R3	55	La Vie Bucolique	46,230	1.21	423,706	1.49	0.11	81
R3	62	Terre à Terre	13,959	0.36	204,902	0.72	0.07	50
R3	64	Fête au Village	36,035	0.94	236,293	0.83	0.15	113
S5	48	Variété Suburbaine	82,811	2.16	366,947	1.29	0.23	167
S5	59	Locataires en Banlieues	37,728	0.98	204,407	0.72	0.18	137
S5	60	Bons Vivants	33,826	0.88	352,345	1.24	0.10	71
U6	52	Striving Startups	21,973	0.57	303,692	1.07	0.07	54
U6	56	Single City Jazz	20,196	0.53	317,791	1.12	0.06	47
U6	63	Lunch at Tim's	86,397	2.25	936,375	3.30	0.09	68
U6	65	Young & Connected	16,334	0.43	291,584	1.03	0.06	41
U6	68	Low-Rise Renters	47,637	1.24	615,474	2.17	0.08	57
U7	44	Jeunes et Actifs	78,736	2.05	388,376	1.37	0.20	150
U7	49	Enclaves Multiethniques	129,035	3.36	516,162	1.82	0.25	185
U7	67	Survivre en Ville	86,492	2.25	448,568	1.58	0.19	143



MOST IMPORTANT ACTIVITY ON A TRIP WAS CYCLING

Count	%	Base Count	Base %	% Pen	Index
4,664	0.83	197,684	0.70	0.02	120
1,039	0.18	236,848	0.83	0.00	22
38,394	6.85	713,959	2.51	0.05	272
15,031	2.68	274,774	0.97	0.05	277
35,023	6.25	852,706	3.00	0.04	208
785	0.14	222,912	0.79	0.00	18
7,600	1.35	265,662	0.94	0.03	145
26,171	4.67	818,421	2.88	0.03	162
10,474	1.87	504,303	1.77	0.02	105
43,236	7.71	880,914	3.10	0.05	249
11,983	2.14	322,652	1.14	0.04	188
21,686	3.87	612,143	2.15	0.04	179
16,626	2.96	455,514	1.60	0.04	185
14,887	2.65	468,572	1.65	0.03	161
12,257	2.19	622,548	2.19	0.02	100
29	0.01	305,712	1.08	0.00	0
1,892	0.34	377,994	1.33	0.01	25
6,239	1.11	520,824	1.83	0.01	61
11,310	2.02	411,645	1.45	0.03	139
5,034	0.90	481,930	1.70	0.01	53
4,358	0.78	458,234	1.61	0.01	48
13,965	2.49	593,832	2.09	0.02	119
12,627	2.25	786,514	2.77	0.02	81
8,319	1.48	331,359	1.17	0.03	127
1,332	0.24	295,792	1.04	0.00	23
664	0.12	441,263	1.55	0.00	8
5,334	0.95	469,377	1.65	0.01	58
758	0.14	276,332	0.97	0.00	14
26,598	4.74	641,686	2.26	0.04	210
17,397	3.10	588,043	2.07	0.03	150
11,008	1.96	323,587	1.14	0.03	172
791	0.14	394,894	1.39	0.00	10
3,043	0.54	634,243	2.23	0.00	24
4,523	0.81	279,341	0.98	0.02	82
4,824	0.86	676,301	2.38	0.01	36
4,632	0.83	605,539	2.13	0.01	39
2,025	0.36	316,695	1.11	0.01	32
4,398	0.78	312,216	1.10	0.01	71
11,353	2.02	599,407	2.11	0.02	96
1,260	0.23	275,814	0.97	0.00	23
1,312	0.23	370,029	1.30	0.00	18
268	0.05	439,288	1.55	0.00	3
190	0.03	183,857	0.65	0.00	5
4,854	0.87	451,546	1.59	0.01	54
97	0.02	229,980	0.81	0.00	2
911	0.16	424,761	1.50	0.00	11
2,307	0.41	129,524	0.46	0.02	90
555	0.10	277,471	0.98	0.00	10
1,482	0.26	176,515	0.62	0.01	43
693	0.12	142,871	0.50	0.00	25
5,578	0.99	388,056	1.37	0.01	73
2,425	0.43	161,987	0.57	0.01	76
4,569	0.81	254,919	0.90	0.02	91
19,926	3.55	423,706	1.49	0.05	238
1,542	0.28	204,902	0.72	0.01	38
10,249	1.83	236,293	0.83	0.04	220
2,835	0.51	366,947	1.29	0.01	39
1,172	0.21	204,407	0.72	0.01	29
2,946	0.53	352,345	1.24	0.01	42
5,134	0.92	303,692	1.07	0.02	86
1,193	0.21	317,791	1.12	0.00	19
31,042	5.54	936,375	3.30	0.03	168
2,475	0.44	291,584	1.03	0.01	43
16,501	2.94	615,474	2.17	0.03	136
35	0.01	388,376	1.37	0.00	0
26	0.01	516,162	1.82	0.00	0
1,850	0.33	448,568	1.58	0.00	21



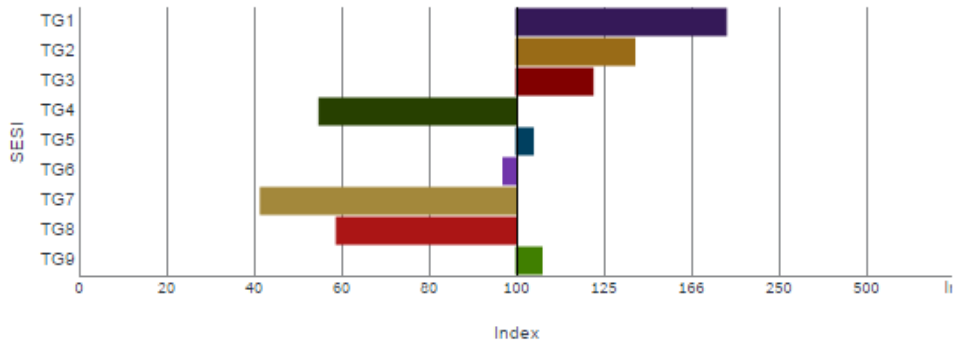
LINKING TRAVELCANADA TO EQ

Authentic Experiencers

Rejuvenators

Most Important -- Go cycling - Trips (Aggregate) : Canada

SG	SE	Name	Count	%	Base Count	Base %	% Pen	Index
TG		Authentic Experiencers	120,161	21.43	3,163,908	11.14	3.80	192
TG		Cultural Explorers	57,481	10.25	2,123,916	7.48	2.71	137
TG		Cultural History Buffs	47,771	8.52	1,997,180	7.03	2.39	121
TG		Free Spirits	46,193	8.24	4,260,576	15.00	1.08	55
TG		Gentle Explorers	119,793	21.36	5,836,835	20.54	2.05	104
TG		No Hassle Travellers	67,373	12.01	3,519,091	12.38	1.91	97
TG		Personal History Explorers	21,124	3.77	2,575,384	9.06	0.82	42
TG		Rejuvenators	28,084	5.01	2,416,171	8.50	1.16	59
TG		Virtual Travellers	52,825	9.42	2,520,458	8.87	2.10	106
Total			560,805	100.0	28,413,51	100.0	1.97	100



ENVIRONICS ANALYTICS

SO, IN SUMMARY, 3 POINTS

1. Chord diagrams are an interesting way to show travel flow data

2. Even well explored datasets can be used in new ways

3. Buy your booze in Quebec!

THANK YOU!

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