Centre for Innovative & Entrepreneurial Leadership

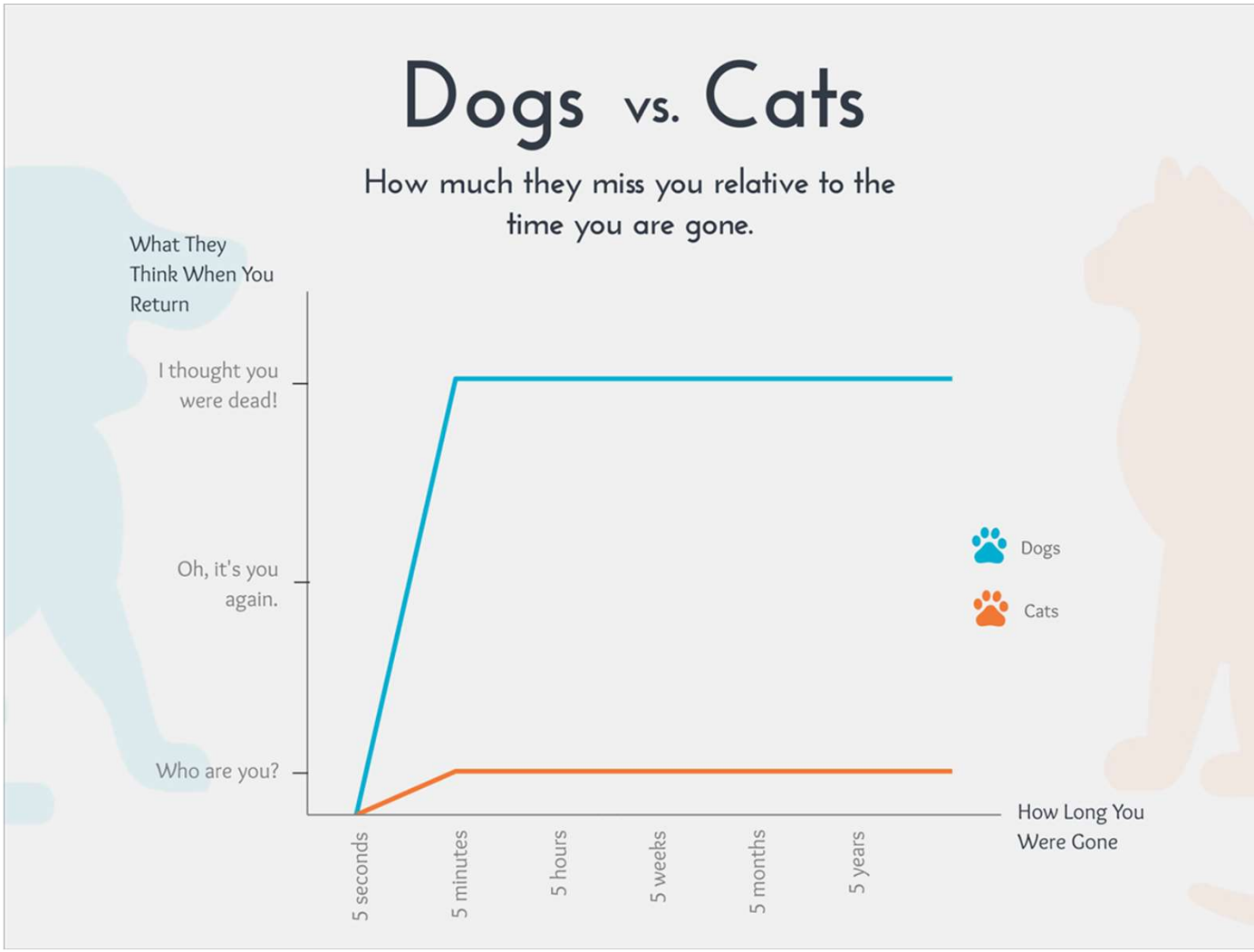
Presenting the Data & Telling the Story

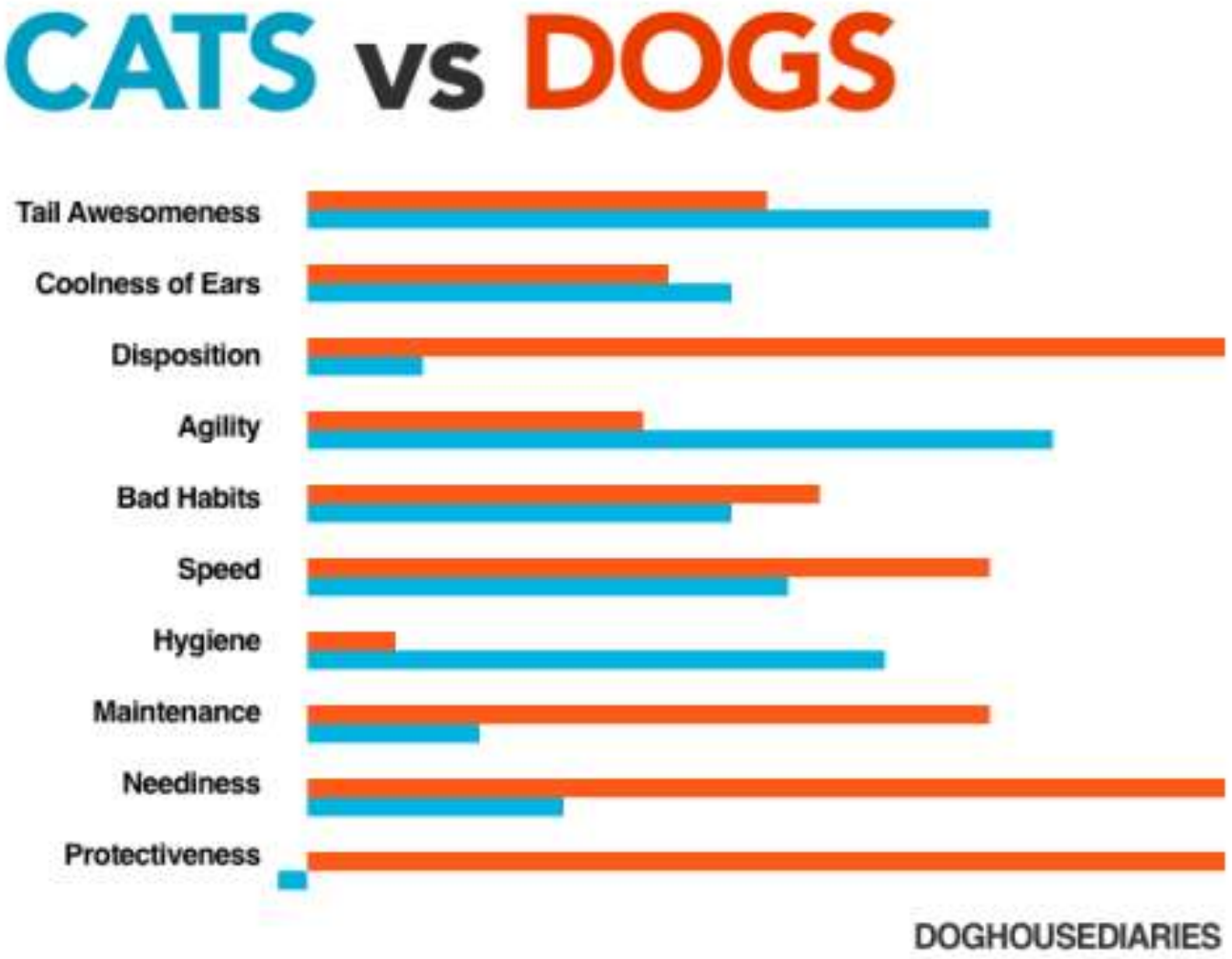
Session 5 of the Data Series

Mike Stolte - mstolte@the CIEL.com
www.theCIEL.com

ETSI-BC
CFDC East Kootenay

You can graph anything




CATS vs DOGS
Tail Awesomeness
Coolness of Ears
Disposition
Agility
Bad Habits
Speed
Hygiene
Maintenance
Neediness
Protectiveness
DOGHOUSEDIARIES

CATS VS DOGS:

THE CITIES WITH THE HIGHEST RATIO OF CAT/DOG-FRIENDLY RENTALS

In 72 of the 100 largest cities, landlords are more likely to allow dogs than cats. In many of the largest cities, where people live in close quarters and space is tight – Chicago, Boston, and San Francisco, for example – more rentals allow cats than dogs. By contrast, rentals in smaller, less dense cities in the South and West – Reno, Bakersfield, and El Paso – are more likely to allow dogs, and by a large margin.

DOG-FRIENDLY RENTALS

San Jose, CA	84.1%
Reno, NV	82.5%
Bakersfield, CA	60.9%
El Paso, TX	60.2%
Corpus Christi, TX	59.2%
Scottsdale, AZ	59.1%
Stockton, CA	58.3%
Boise, ID	58.1%
Fresno, CA	56.0%
Santa Clarita, CA	55.9%

CAT-FRIENDLY RENTALS

Boston, MA	70.0%
Plano, TX	63.6%
Buffalo, NY	60.2%
Chicago, IL	57.7%
Oakland, CA	56.8%
Minneapolis, MN	56.3%
Pittsburgh, PA	56.3%
Milwaukee, WI	54.4%
San Francisco, CA	54.4%
Santa Ana, CA	54.3%

Methodology

To determine whether landlords prefer cats or dogs, we cataloged the

Agenda

1. DFAP - Four important steps (Determine, Find, Analyze, **Present**)
2. Best Practices in Presenting Data - Features to Employ
3. Infographics
4. CityViz & ETSI–BC Collaboration – Sasha
5. Breakout Groups
6. Q & A
7. Next Steps
8. Conclusion

The Important 4 Steps

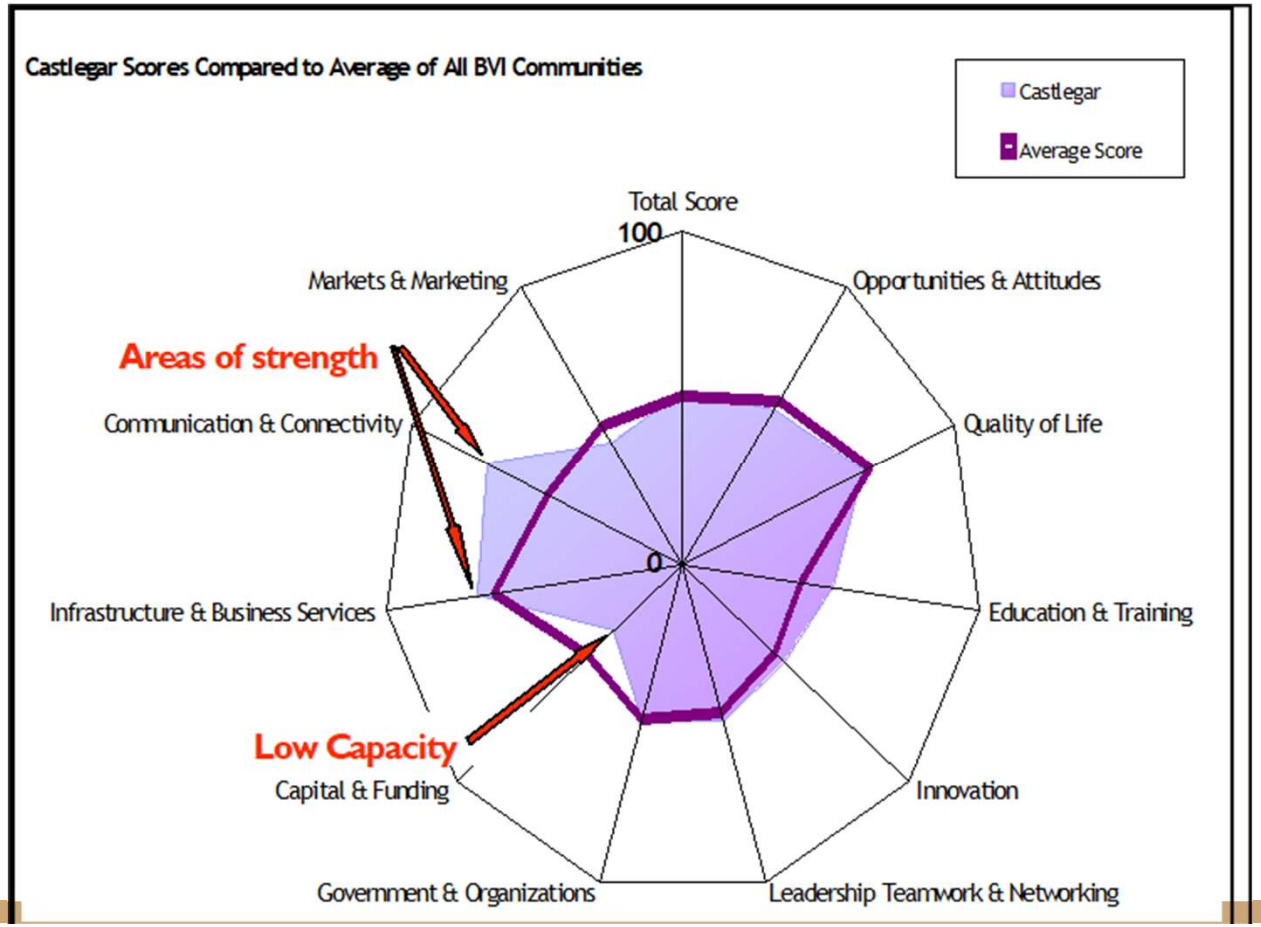
Give context; make it look simple

D - Determine what you need and what you need it for

F - Find it (or create it)

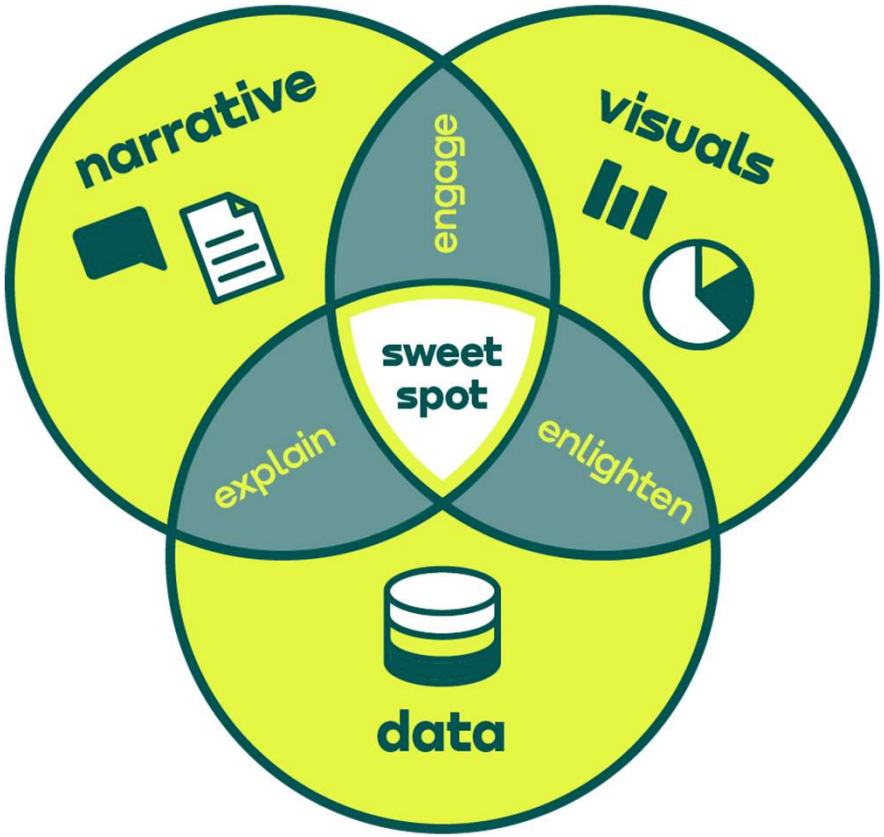
A - Analyze it

P - **Present it**



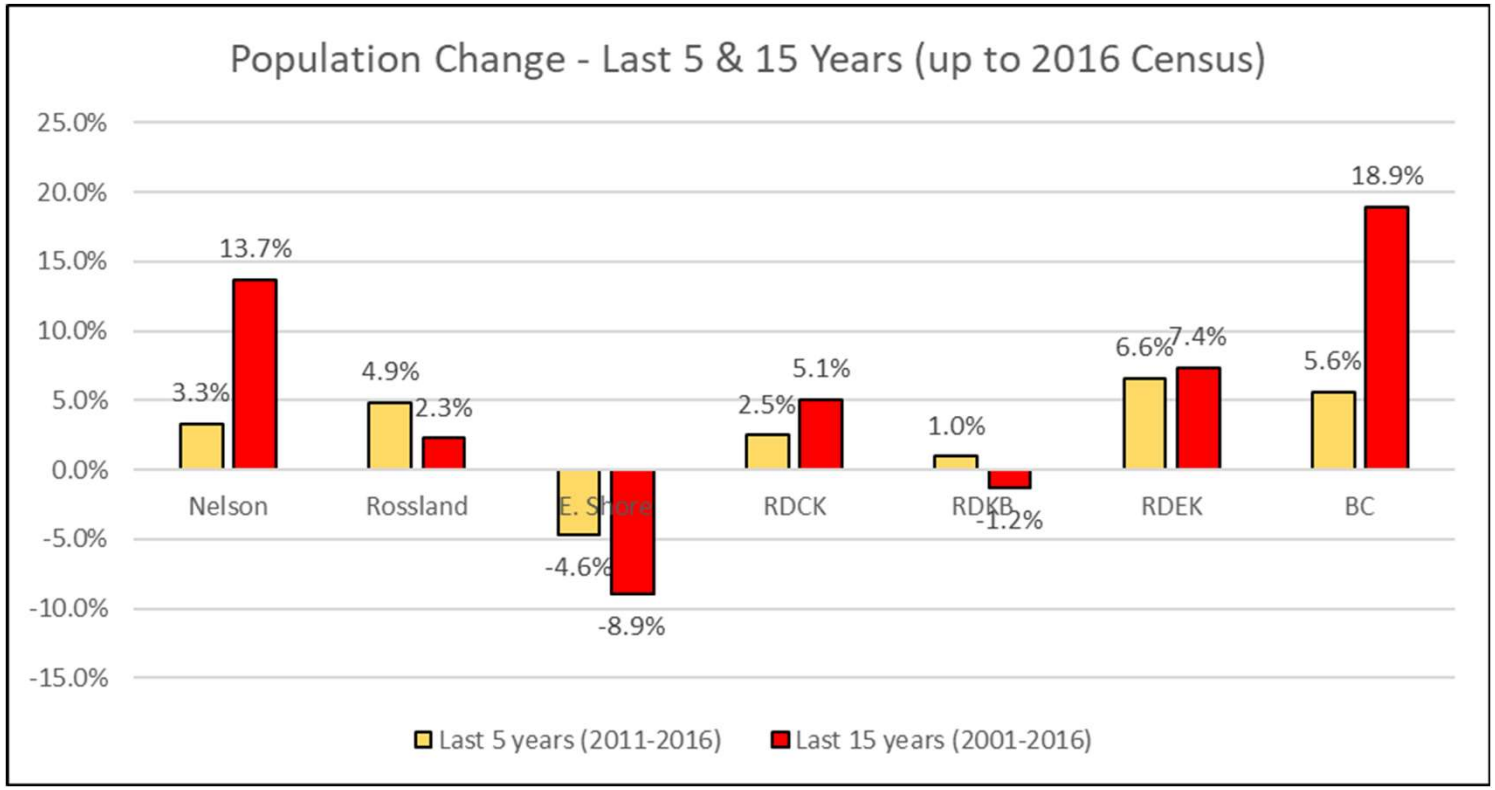
Some things to consider

1. Keep it simple (no acronyms, technical terms)
2. Provide multiple ways of displaying data
    1. Data
    2. Graphs
    3. Photos
    4. Stories
3. Use anecdotes, humour and thought-provoking questions
4. Frame your story with reference points & context
5. Tell a compelling story – beginning to end – explain what the data signifies



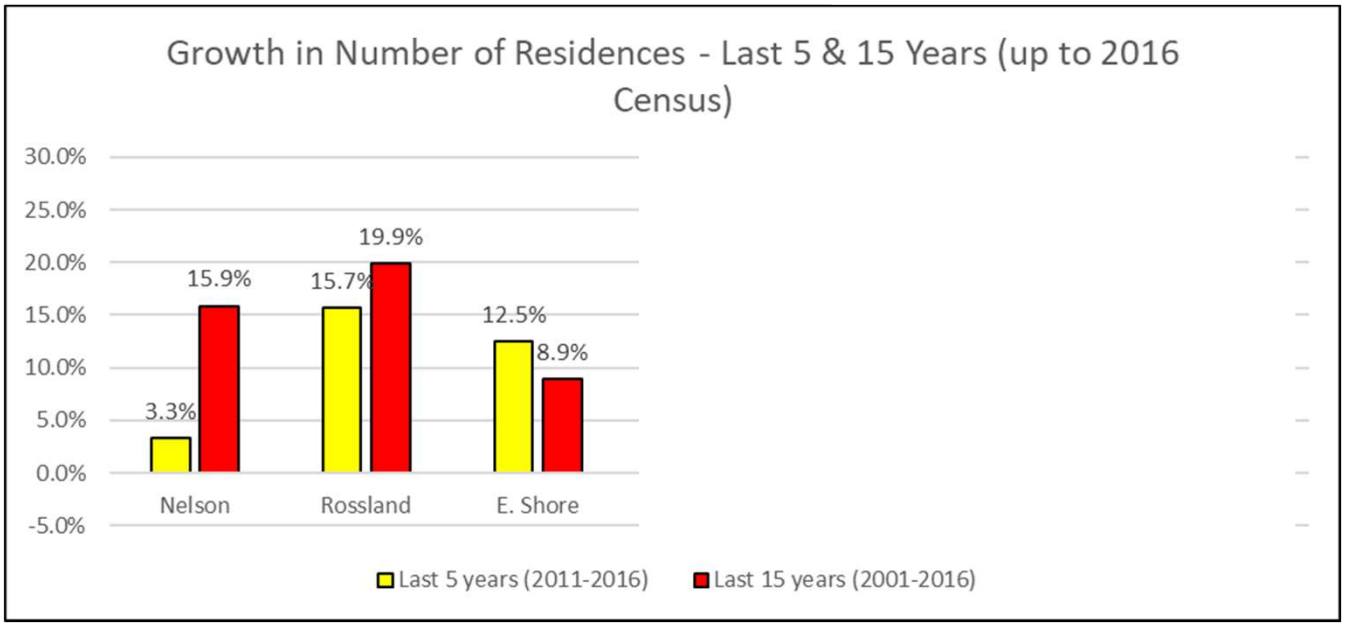
Graphing can aid in analysis

Population Changes Over Time	Nelson	Rossland	E. Shore	RDCK	RDKB	RDEK	BC
Last 5 years (2011-2016)	3.3%	4.9%	-4.6%	2.5%	1.0%	6.6%	5.6%
Last 15 years (2001-2016)	13.7%	2.3%	-8.9%	5.1%	-1.2%	7.4%	18.9%



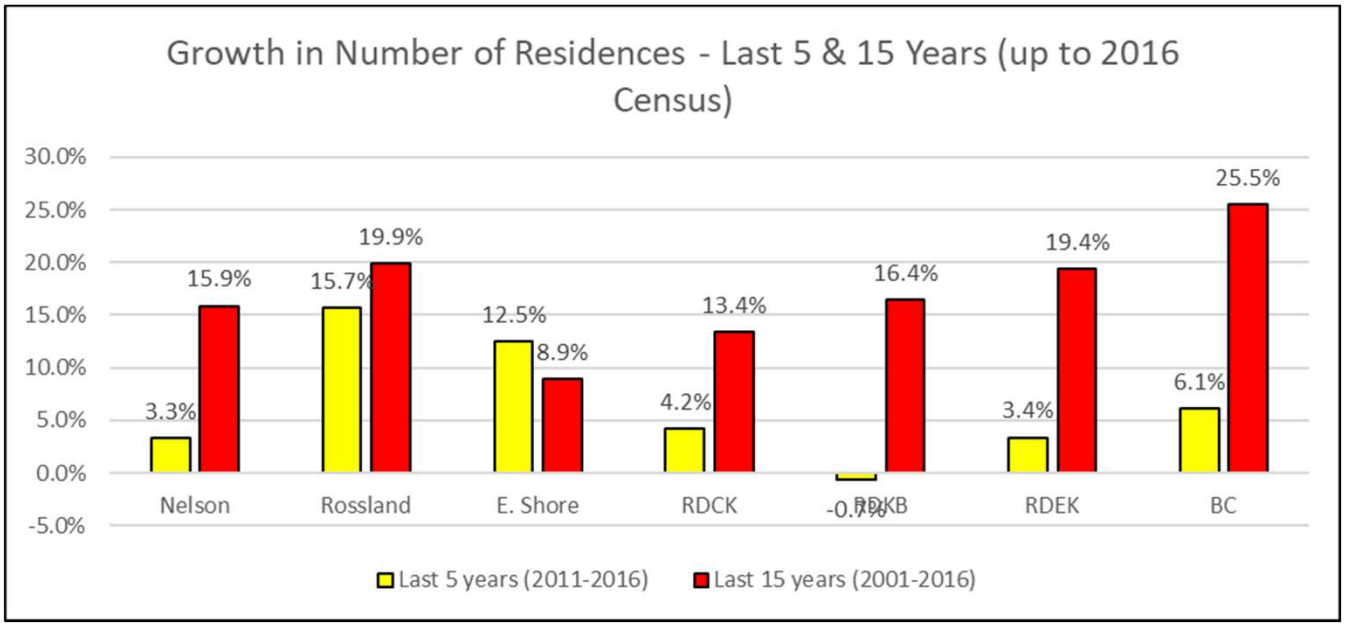
Provide useful comparisons

Growth in Number of Residences	Nelson	Rossland	E. Shore
Last 15 years (2001-2016)	15.9%	19.9%	8.9%
Last 5 years (2011-2016)	3.3%	15.7%	12.5%

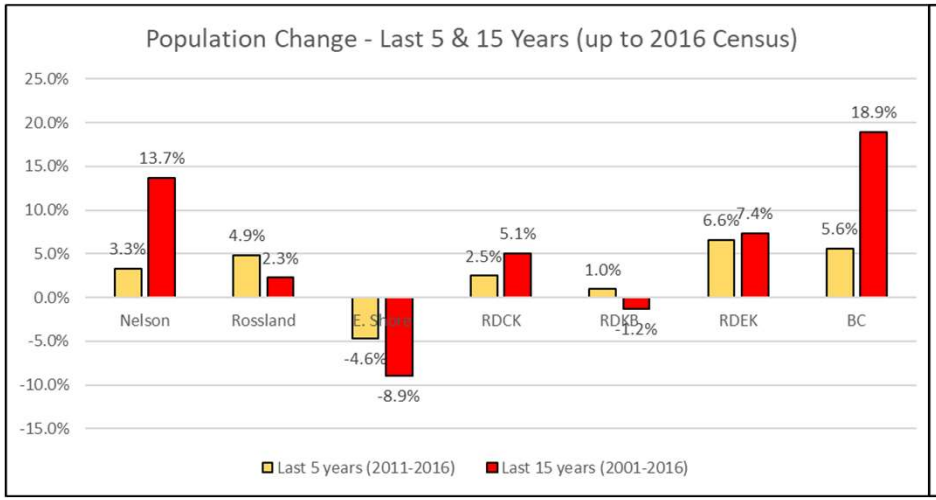


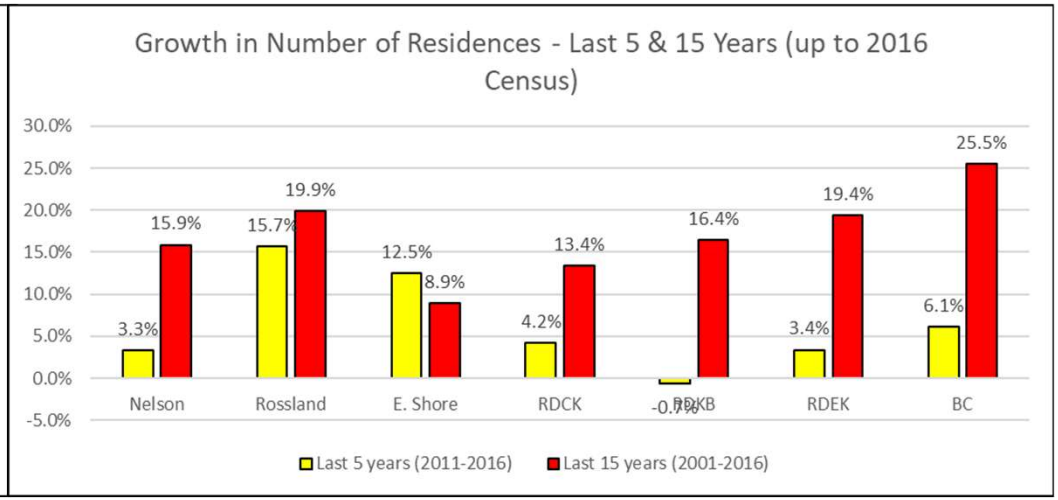
Provide useful comparisons

Growth in Number of Residences	Nelson	Rossland	E. Shore	RDCK	RDKB	RDEK	BC
Last 15 years (2001-2016)	15.9%	19.9%	8.9%	13.4%	16.4%	19.4%	25.5%
Last 5 years (2011-2016)	3.3%	15.7%	12.5%	4.2%	-0.7%	3.4%	6.1%

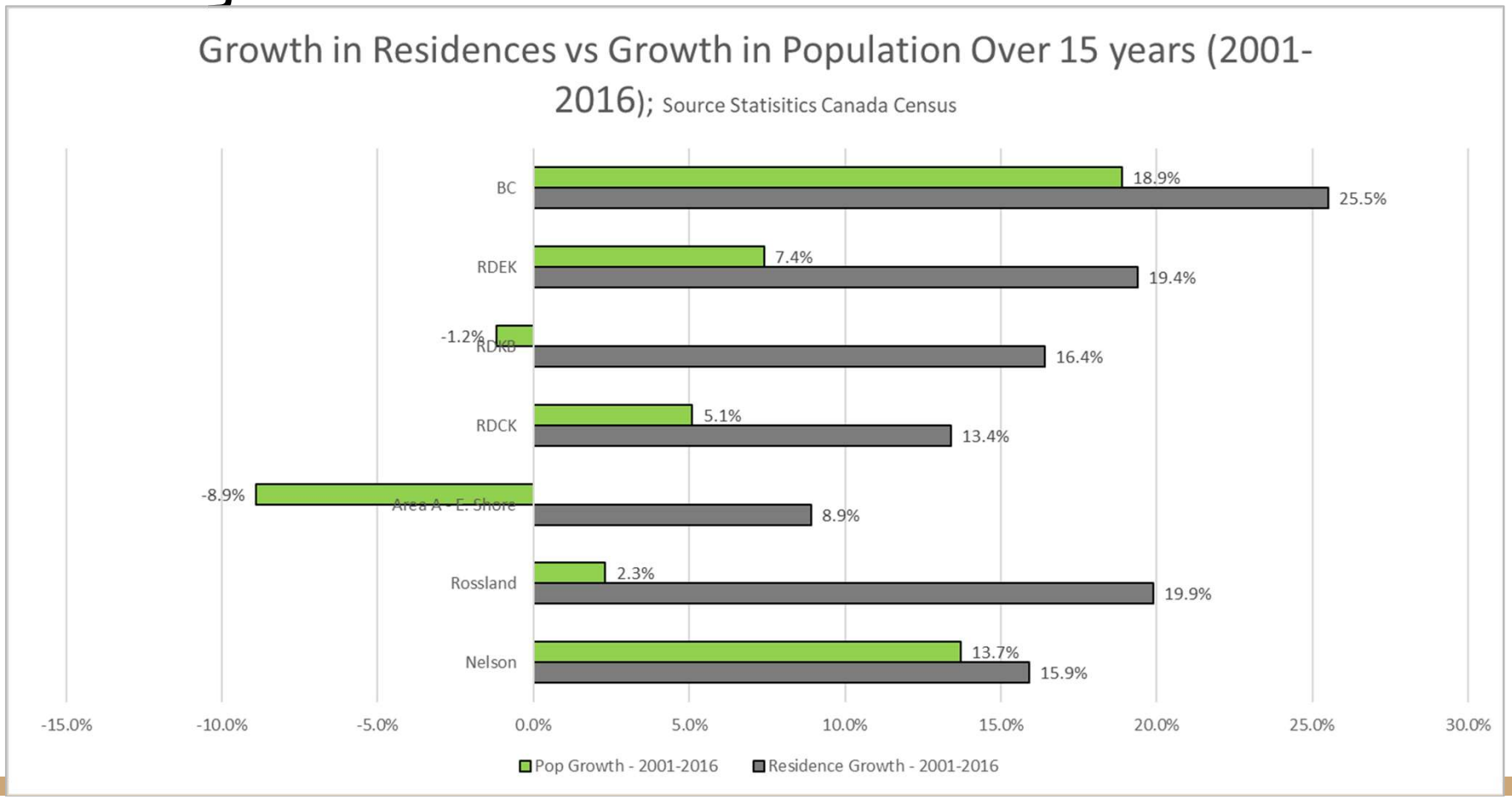


Playing with Data

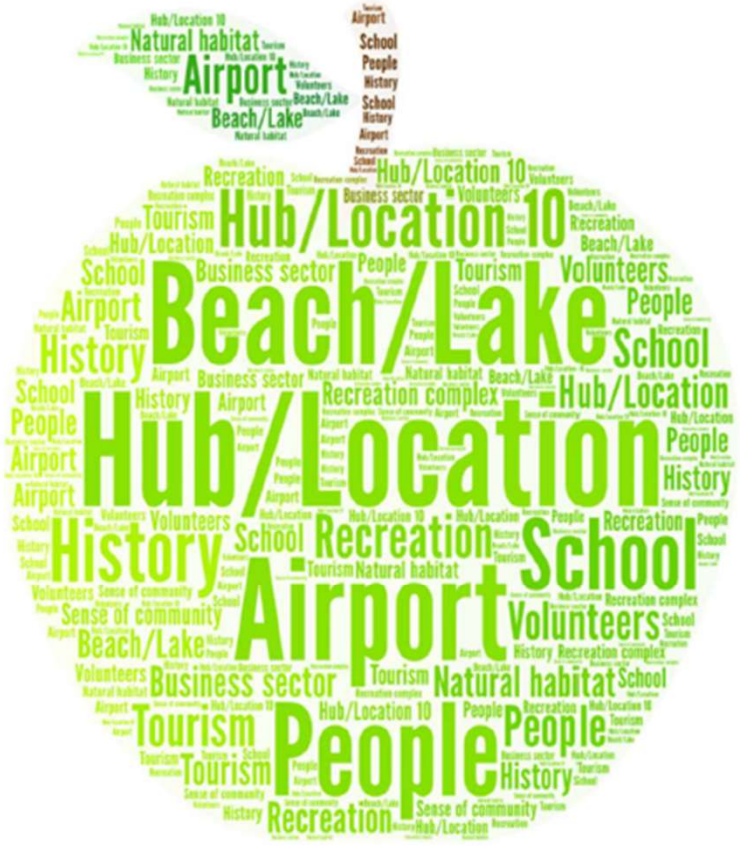


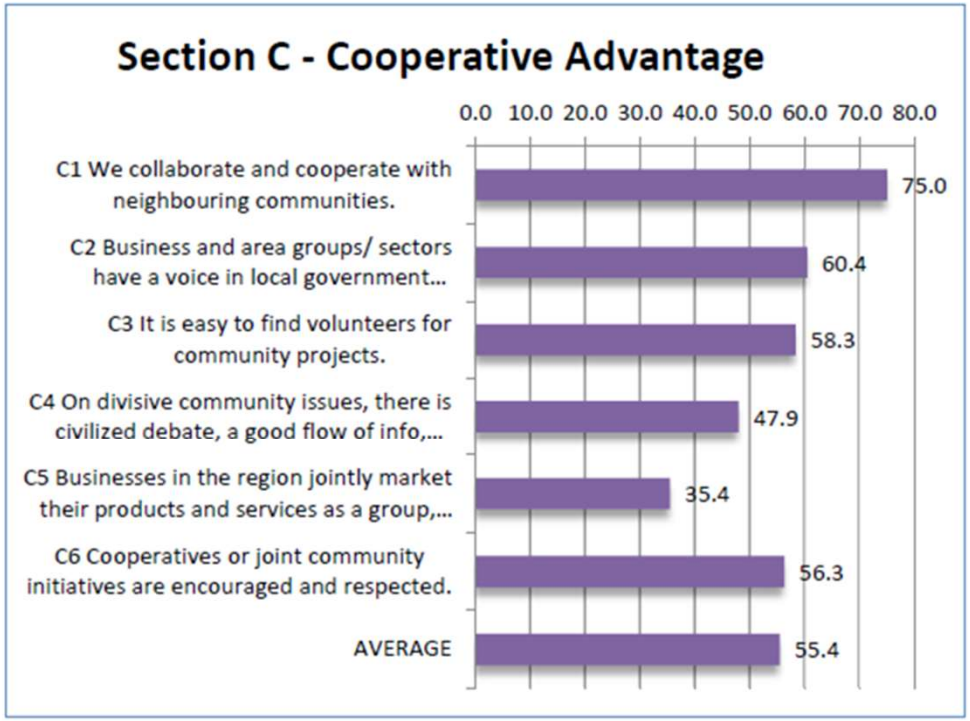


Linking Data

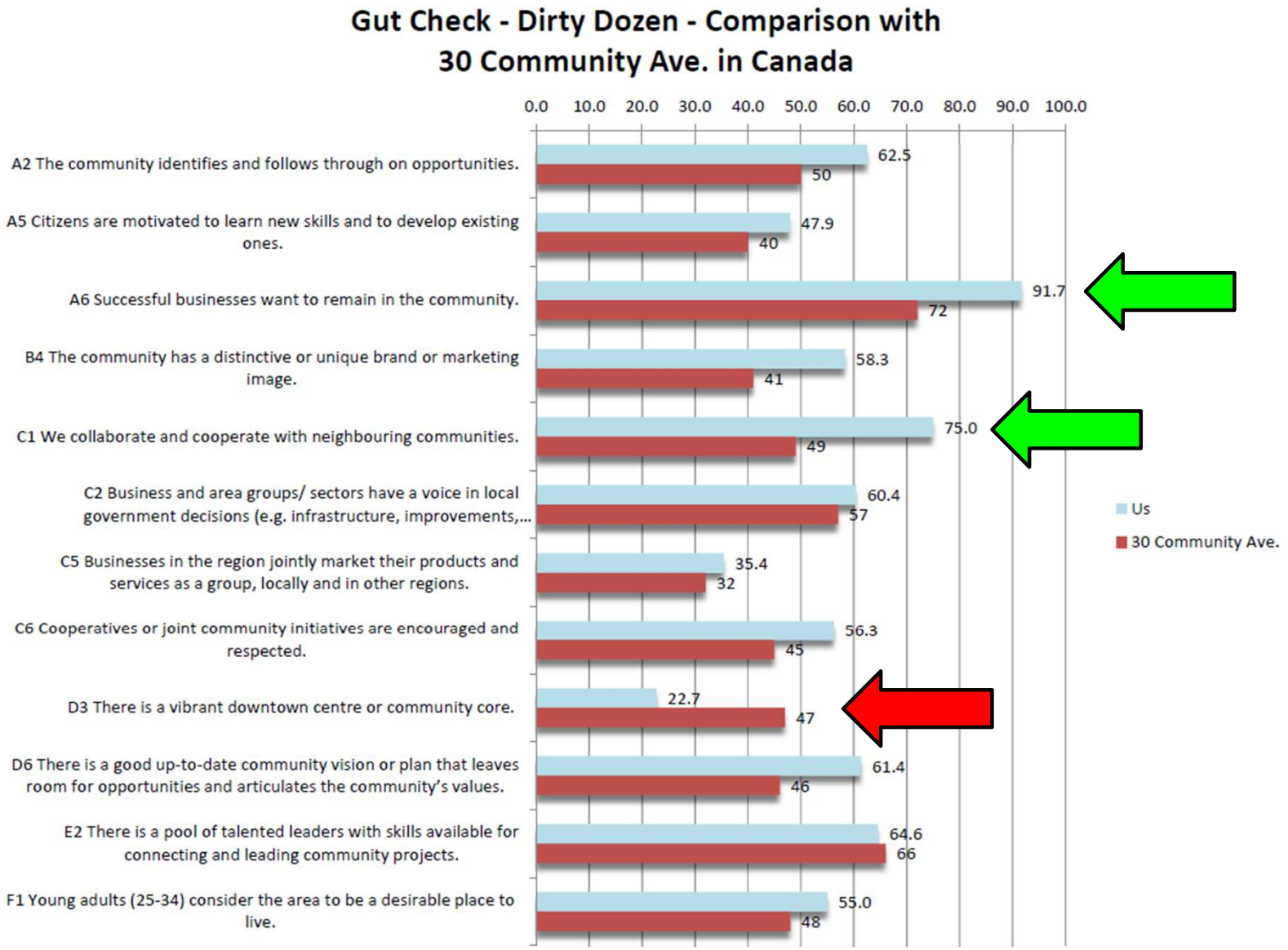


Present data different ways

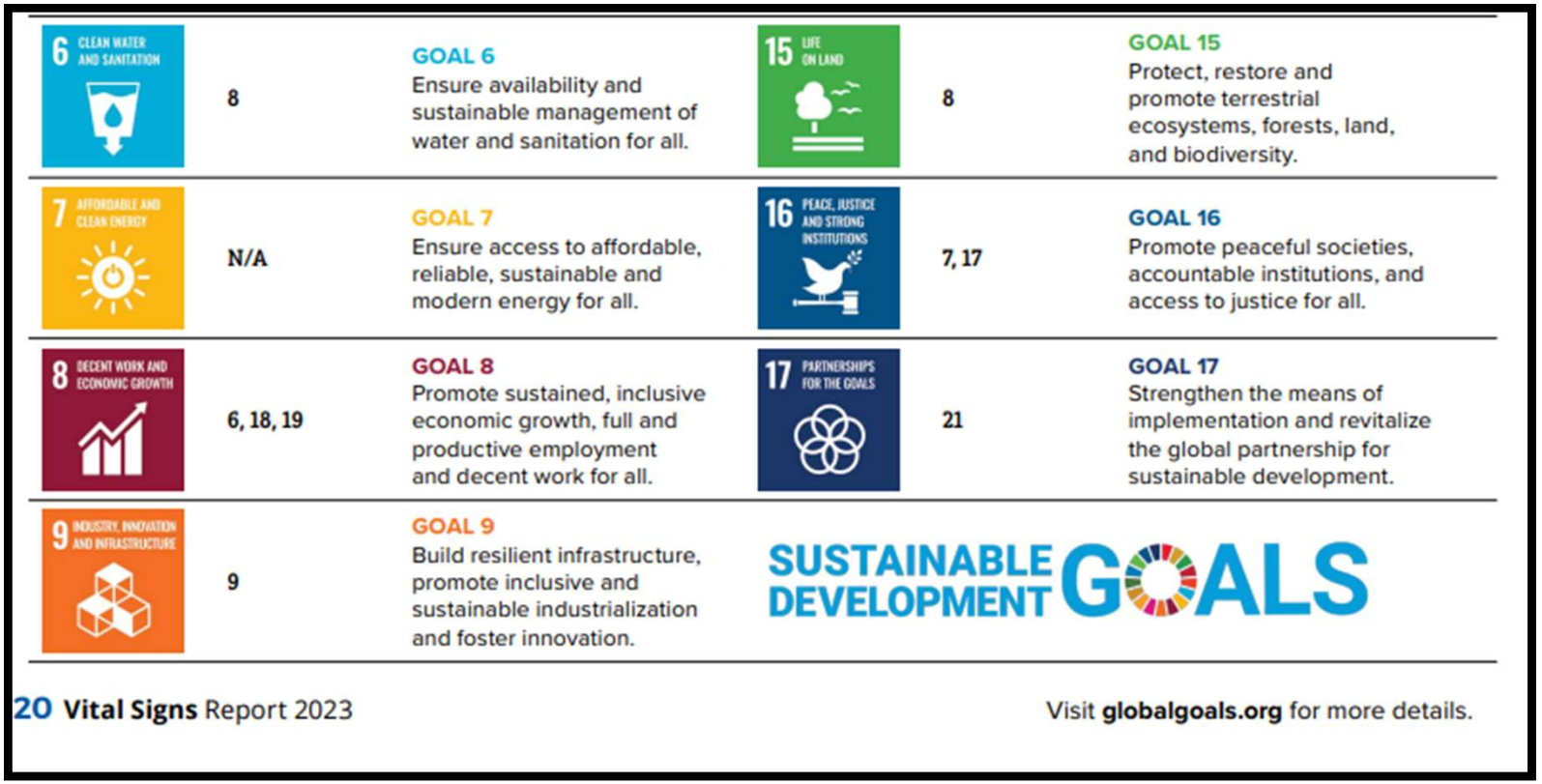




Reference points, Animation, & Call out arrows



From North Okanagan **Vital**Signs 2023 Report

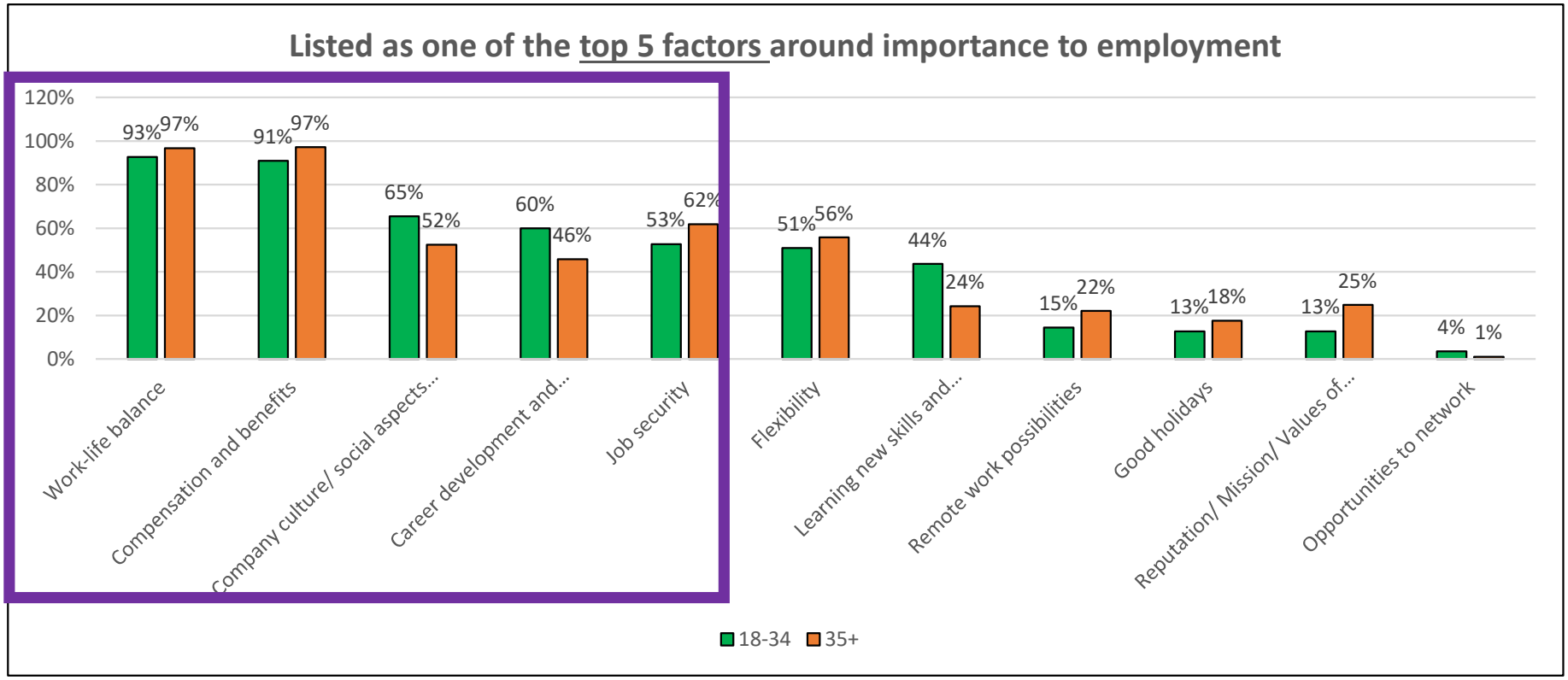


6 CLEAN WATER AND SANITATION	8	**GOAL 6** Ensure availability and sustainable management of water and sanitation for all.	15 LIFE ON LAND	8	**GOAL 15** Protect, restore and promote terrestrial ecosystems, forests, land, and biodiversity.
7 AFFORDABLE AND CLEAN ENERGY	N/A	**GOAL 7** Ensure access to affordable, reliable, sustainable and modern energy for all.	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	7, 17	**GOAL 16** Promote peaceful societies, accountable institutions, and access to justice for all.
8 DECENT WORK AND ECONOMIC GROWTH	6, 18, 19	**GOAL 8** Promote sustained, inclusive economic growth, full and productive employment and decent work for all.	17 PARTNERSHIPS FOR THE GOALS	21	**GOAL 17** Strengthen the means of implementation and revitalize the global partnership for sustainable development.
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	9	**GOAL 9** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.			

SUSTAINABLE DEVELOPMENT GOALS

Visit **globalgoals.org** for more details.

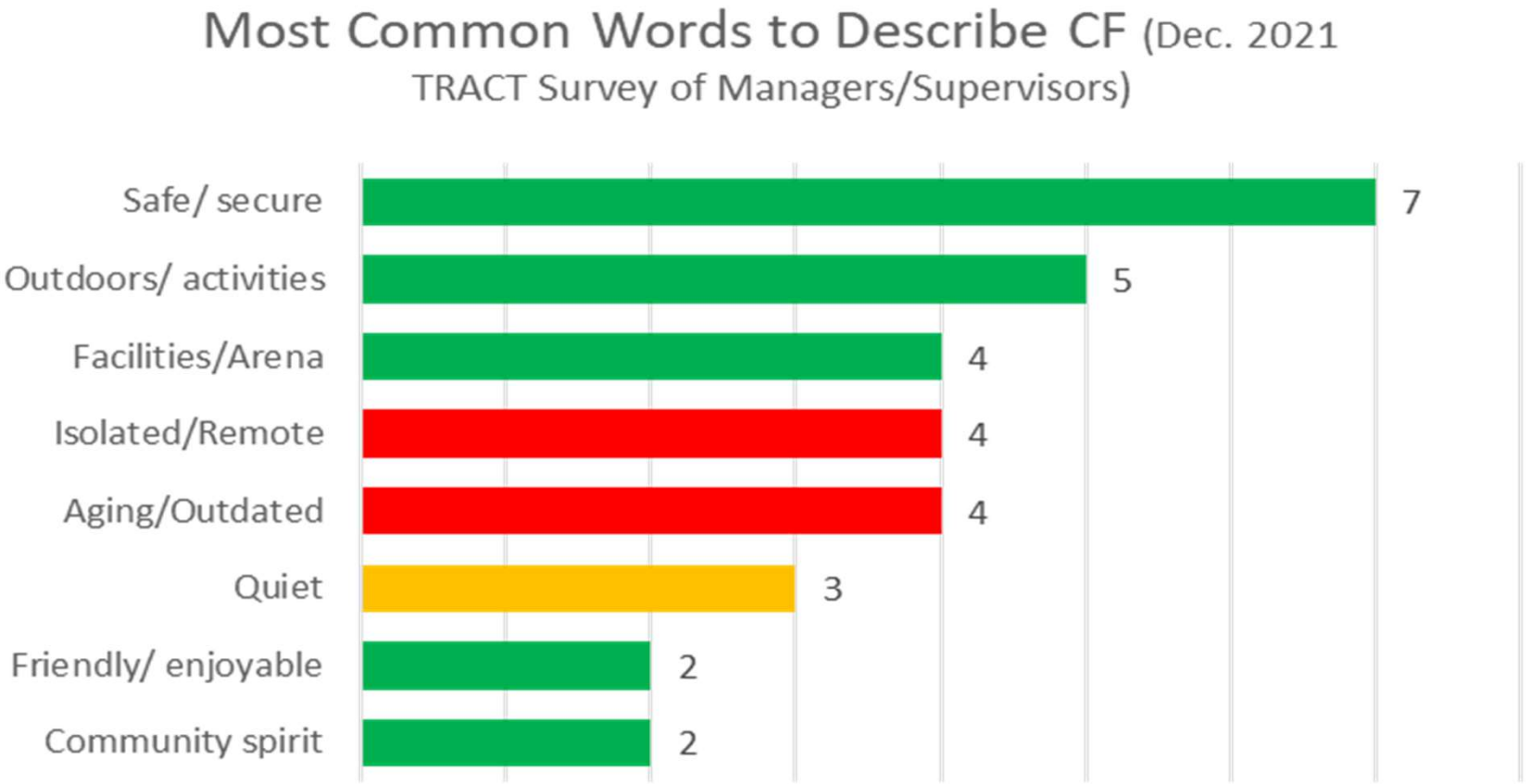
10 – Importance to Employment (Ranked)



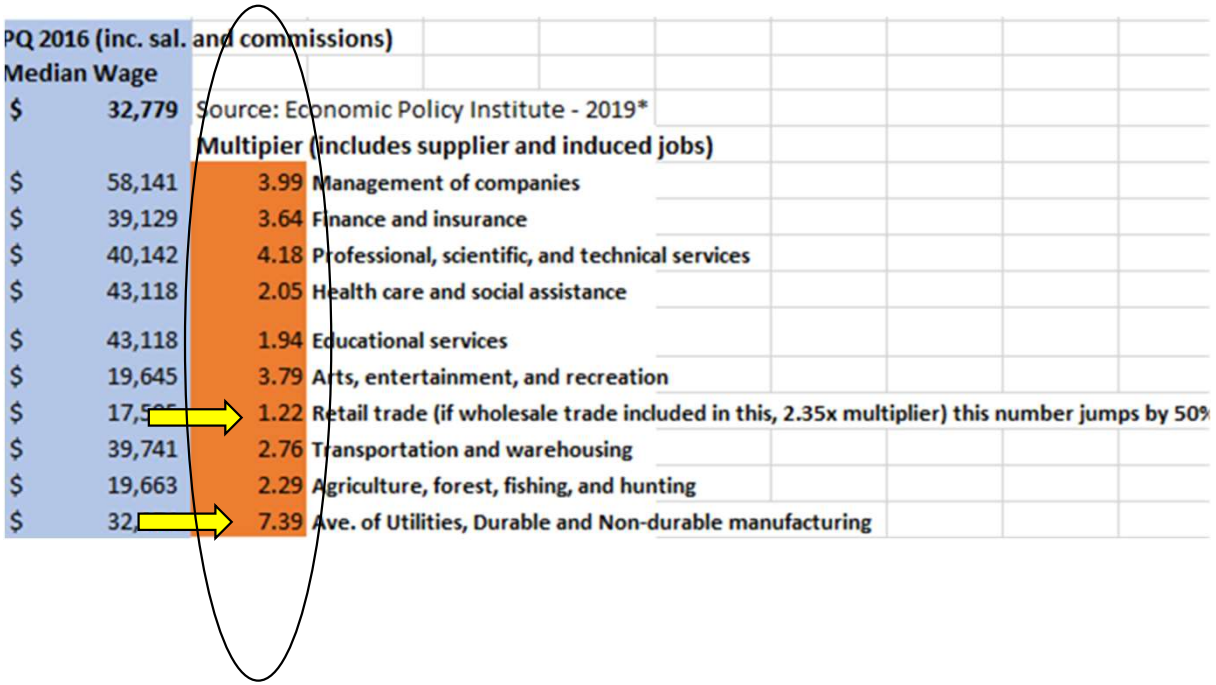
Most Important Needs – Top 5 for Each Age Group

18-34	35+
1. Work-Life Balance	1. Compensation and Benefits
2. Compensation and Benefits	2. Work-Life Balance
3. Company Culture/ Social Aspects of Work	3. Job Security
4. Career Development and Promotional Opportunities	4. Flexibility
5. Job Security	5. Company Culture/ Social Aspects of Work

Use colours strategically/ Use simple questions
Negative: Positive Ratio



Find useful references; Highlight them



PQ 2016 (inc. sal. and commissions) Median Wage		
$ 32,779	Source: Economic Policy Institute - 2019*	
	Multipier (includes supplier and induced jobs)	
$ 58,141	3.99	Management of companies
$ 39,129	3.64	Finance and insurance
$ 40,142	4.18	Professional, scientific, and technical services
$ 43,118	2.05	Health care and social assistance
$ 43,118	1.94	Educational services
$ 19,645	3.79	Arts, entertainment, and recreation
$ 17,5	1.22	Retail trade (if wholesale trade included in this, 2.35x multiplier) this number jumps by 50%
$ 39,741	2.76	Transportation and warehousing
$ 19,663	2.29	Agriculture, forest, fishing, and hunting
$ 32,	7.39	Ave. of Utilities, Durable and Non-durable manufacturing

Highlight what is important, make a 2nd slide if really important

1.22x to 7.39x

Multiplier effect of one job using economic multipliers for different industries (direct & indirect jobs created by 1 new job; Multipliers ranged from 1.22x for retail to 7.39x for manufacturing & utilities)

Economic Policy Institute (EPI), 2019; and Statistics Canada, 2016

$500,000 - $1,133,245

Estimates of **Total Economic Impact** of 1 new resident earning median wages ($31,000) on local economy over 5 years (using 2 different approaches)

16x - 36x

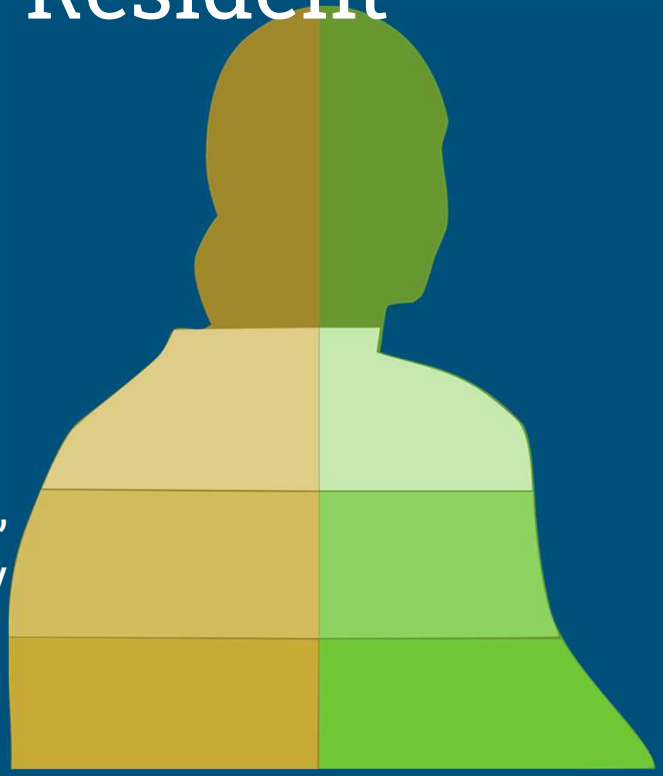
Total Economic Impact of recruiting and retaining one new resident over 5 years
(Impact is Total Economic Impact/Median CEDEC 5 Yearly Salary of $31,000)

Don’t forget intangible value; Use animation to pace presentaiton

Value of a New Resident

Tangible Value ($)

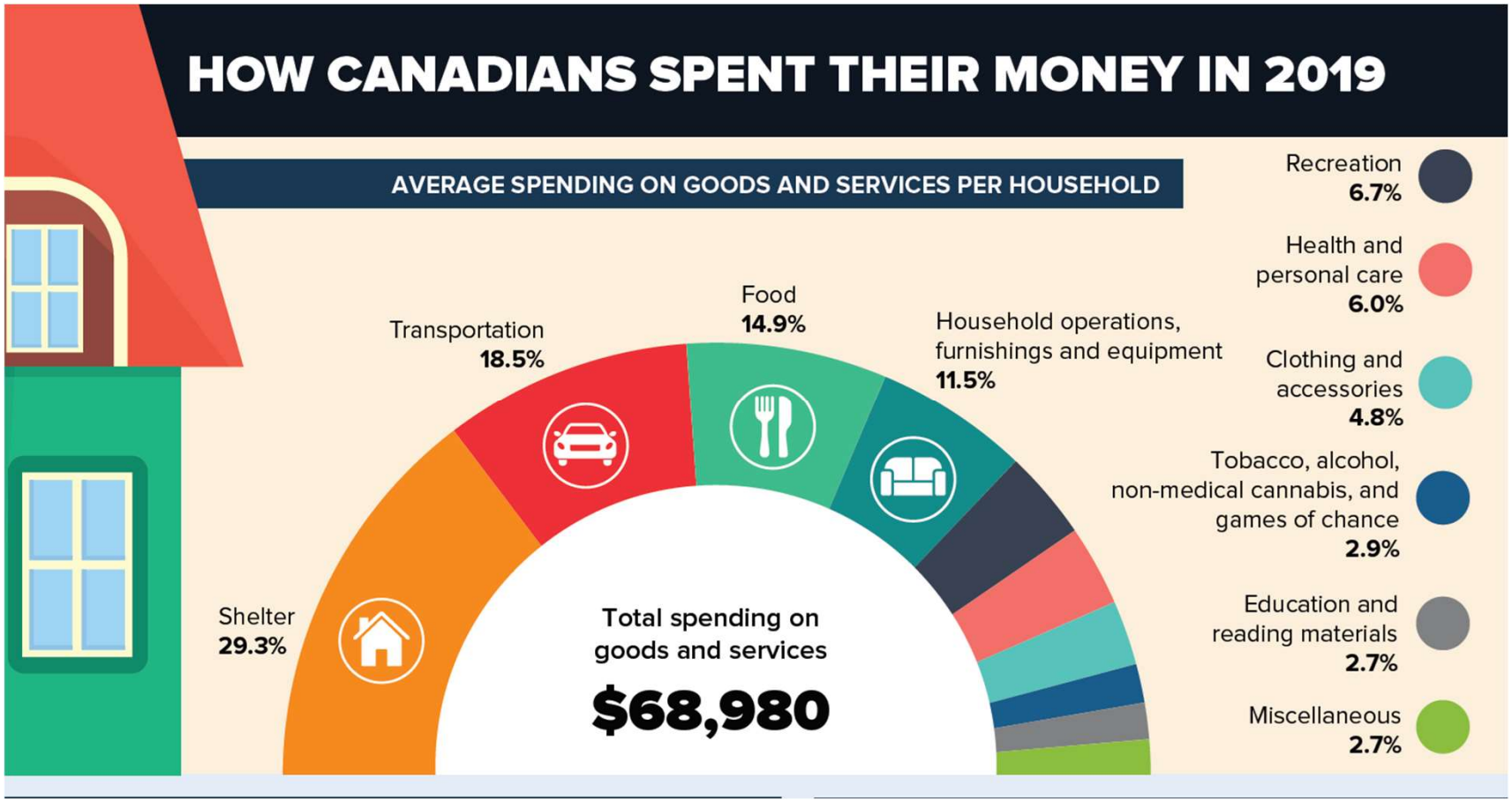
- Salary
- Spending on Housing, Food, Household, Recreation, Services
- Lower dependency ratios, more resilient community
- Increased tax base
- Stimulation of local businesses



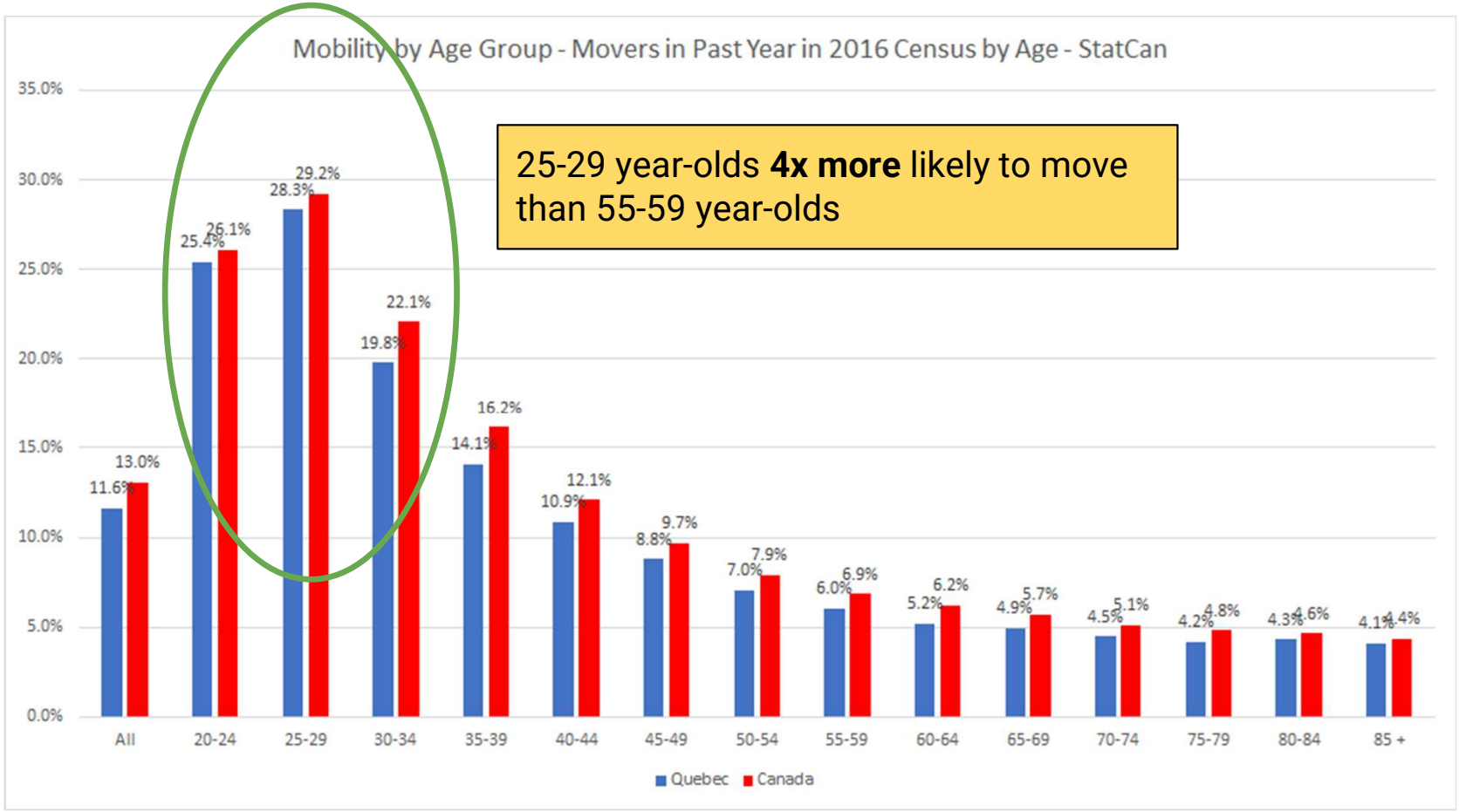
Intangible Value (non $)

- Volunteering
- Energy
- Skills
- Knowledge
- Culture
- Community Renewal
- Diversity

Borrow infographics that relate to your subject; Use camera tool on pdfs, print screen & free images



Use the right kind of graph; highlight the trends; state the obvious



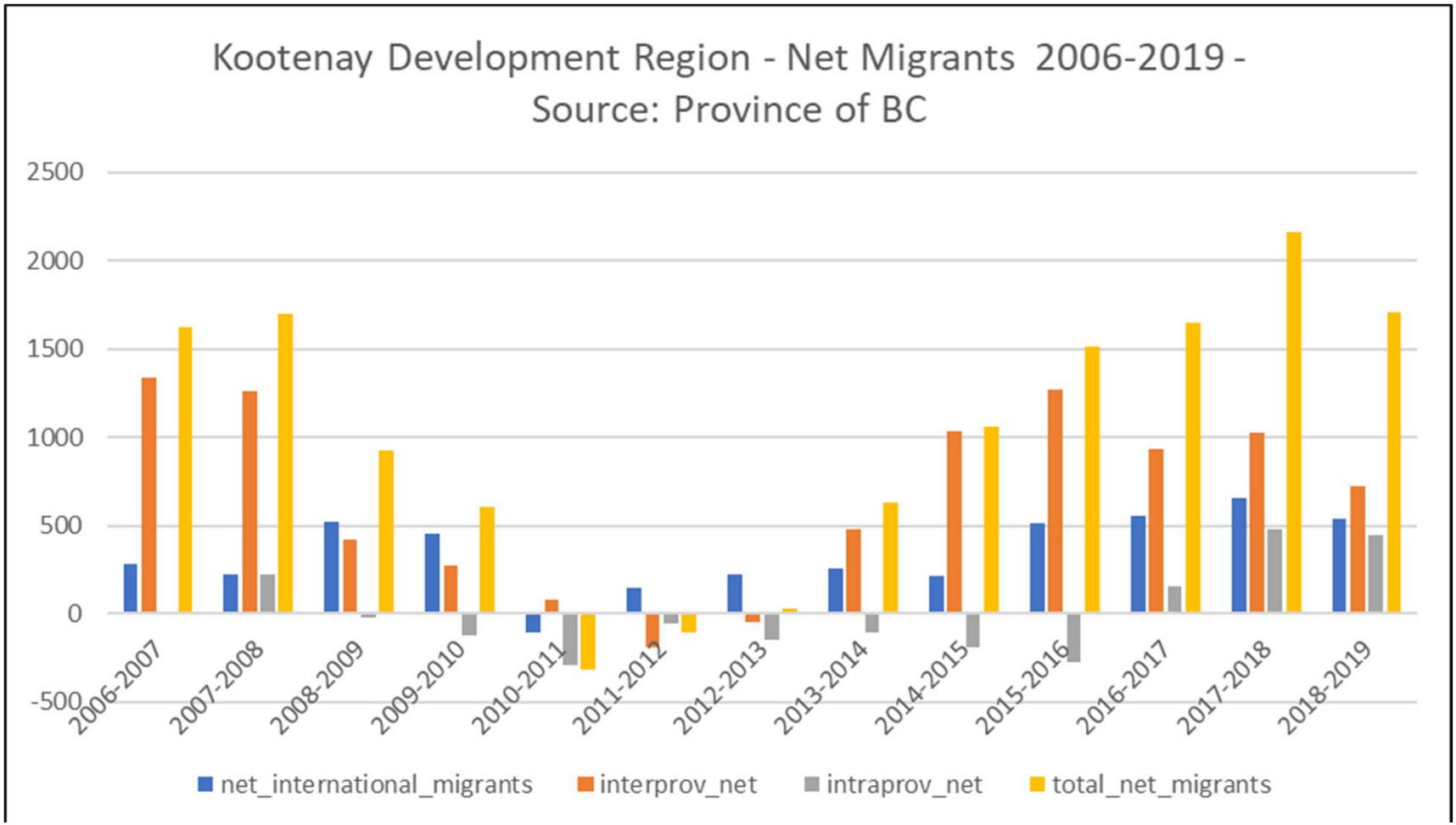
My assignment

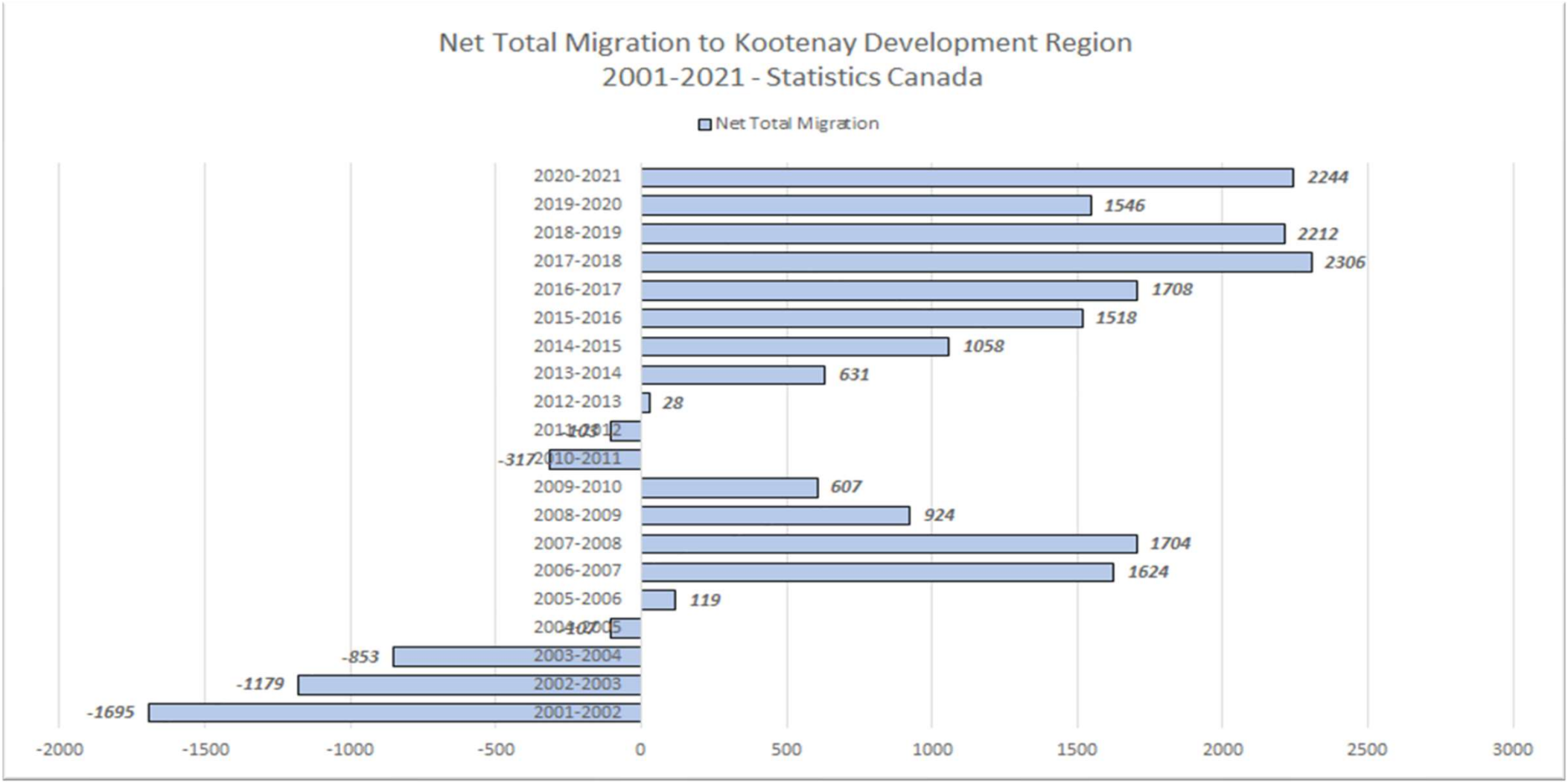
KMC 38 – The Phoenix Issue

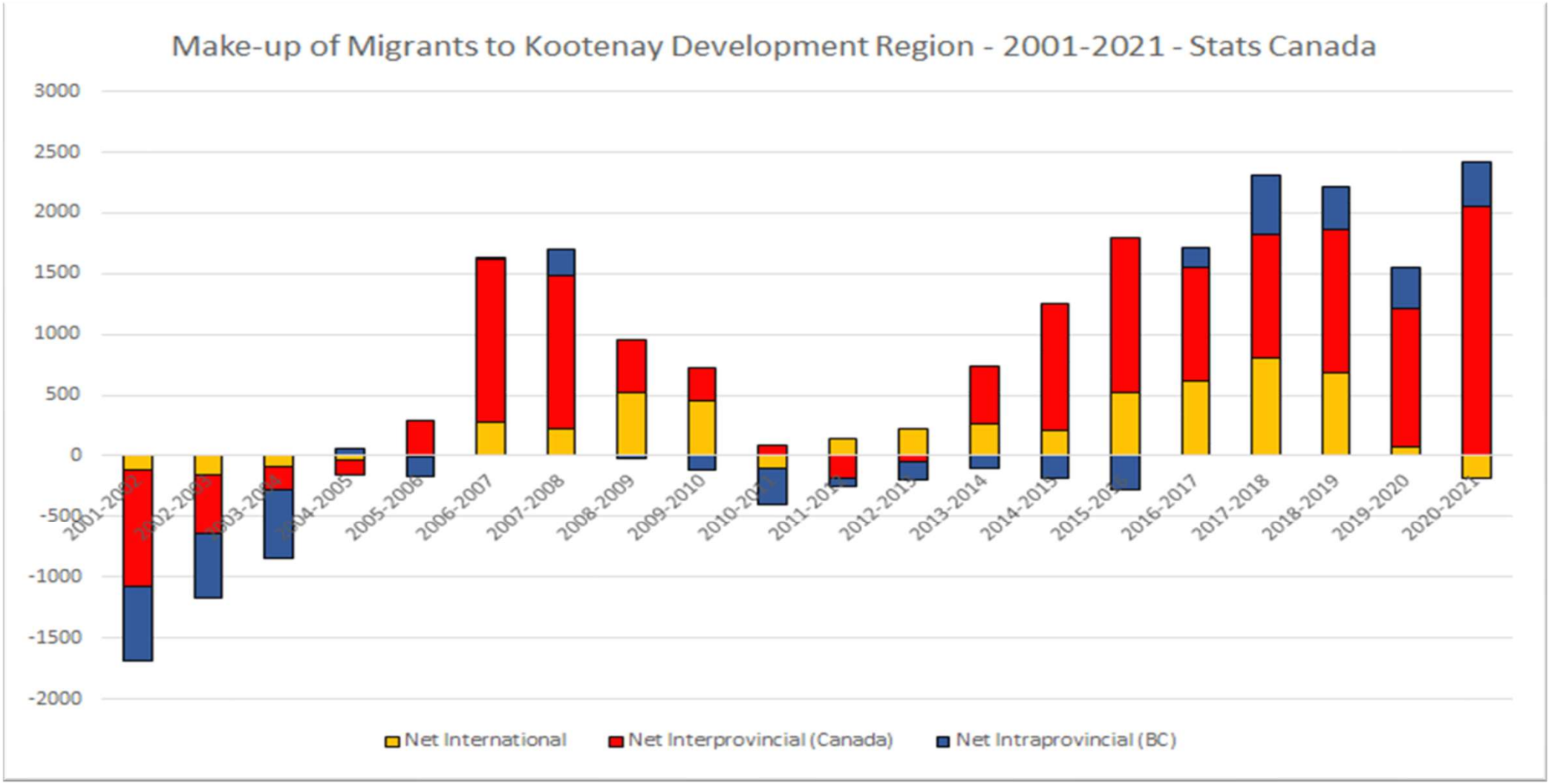
Browse KMC Issues / Browsing Kootenay Mountain Culture Magazine

Kootenay Mountain Culture Magazine rose up from the impacts of a global pandemic and has launched the Winter 2020/21 edition. Appropriately, it's the "Phoenix Issue."

The overall picture in our region



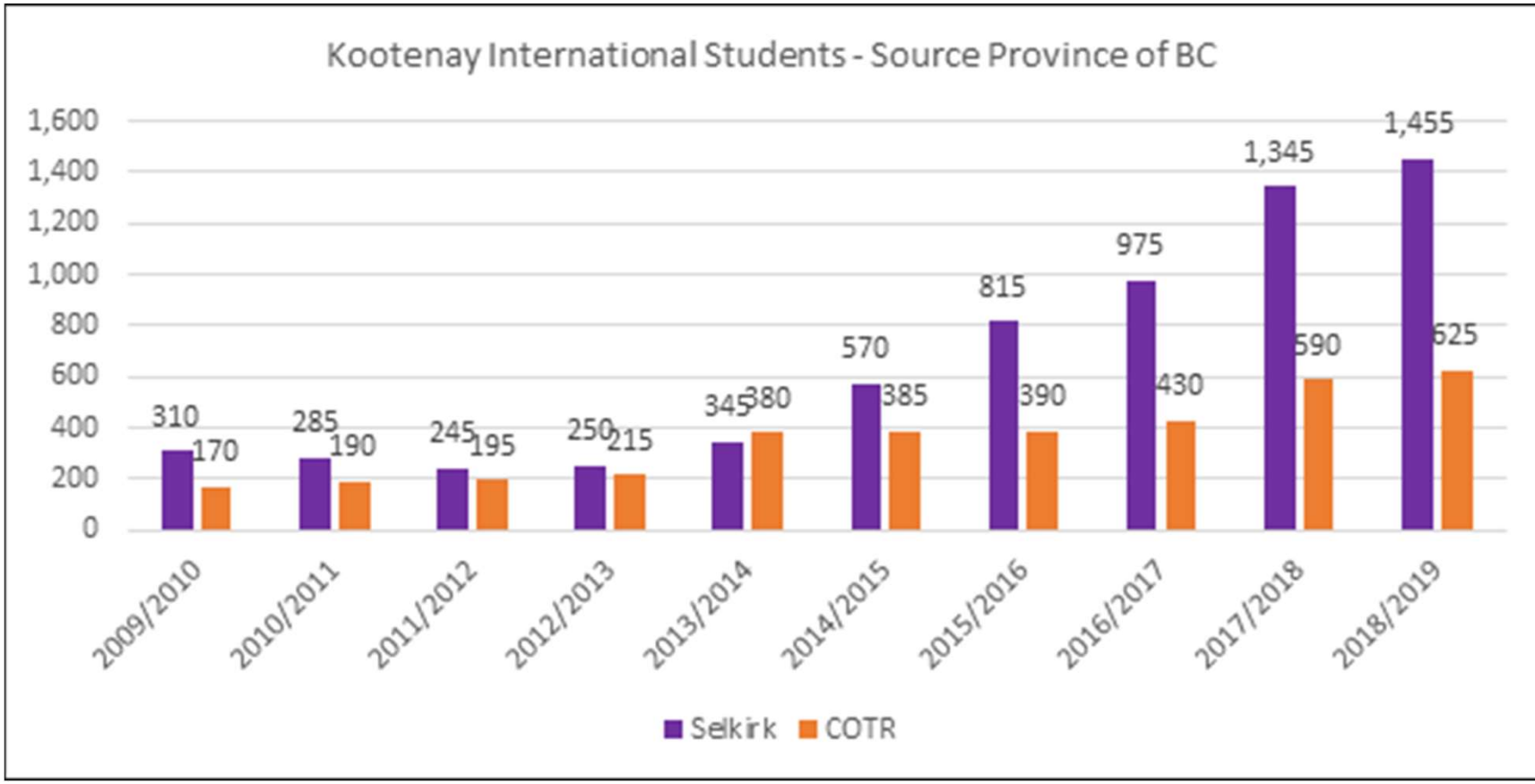

Net Total Migration to Kootenay Development Region
2001-2021 - Statistics Canada
Net Total Migration
2020-2021
2019-2020
2018-2019
2017-2018
2016-2017
2015-2016
2014-2015
2013-2014
2012-2013
2011-2012
2010-2011
2009-2010
2008-2009
2007-2008
2006-2007
2005-2006
2004-2005
2003-2004
2002-2003
2001-2002
2244
1546
2212
2306
1708
1518
1058
631
28
-103
-317
607
924
1704
1624
119
-107
-853
-1179
-1695
-2000
-1500
-1000
-500
0
500
1000
1500
2000
2500
3000


Make-up of Migrants to Kootenay Development Region - 2001-2021 - Stats Canada
3000
2500
2000
1500
1000
500
0
-500
-1000
-1500
-2000
2001-2002
2002-2003
2003-2004
2004-2005
2005-2006
2006-2007
2007-2008
2008-2009
2009-2010
2010-2011
2011-2012
2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
Net International
Net Interprovincial (Canada)
Net Intraprovincial (BC)

Piecing together a picture

Nelson Mother Tongue - Top Countries (Census 2016)		
1	German	140
2	Russian	110
3	Italian	85
4	Dutch	50
5	Cantonese	40
6	Tagalog	40
7	Punjabi	35
8	Spanish	35
9	Portuguese	30
10	Japanese	20

What is the story happening in your community/region?

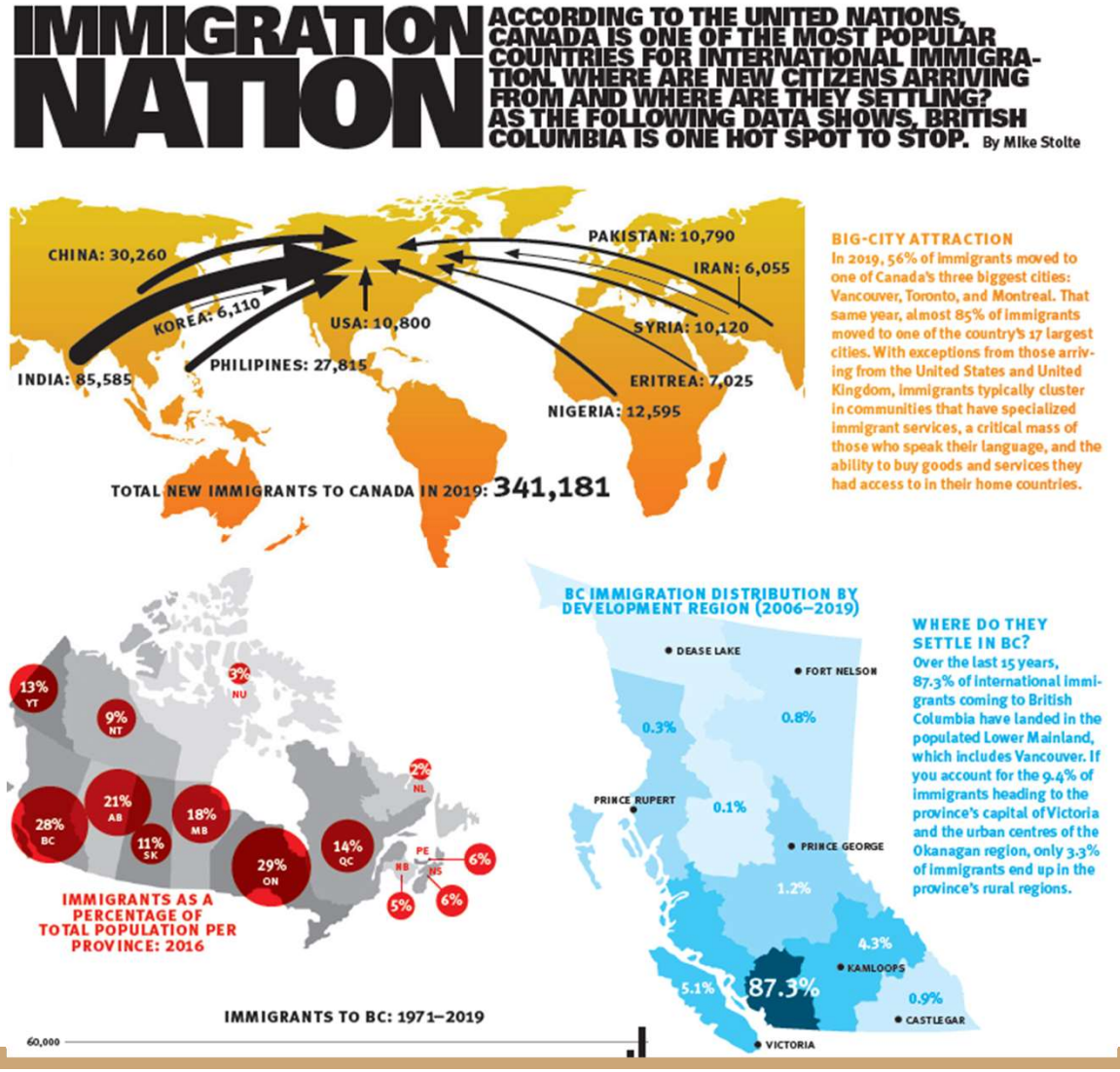


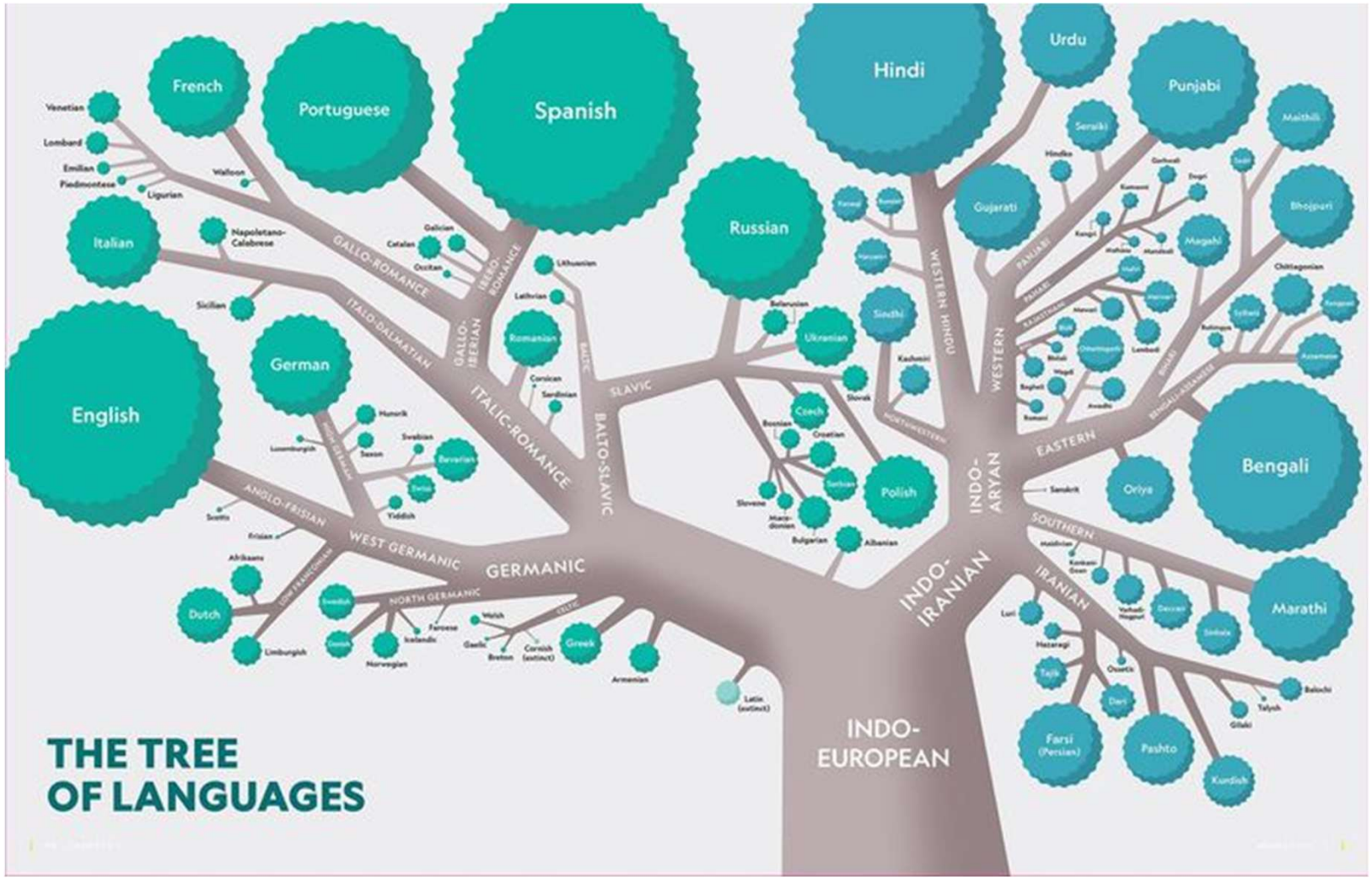
Beware of data (not checking into anomalies)

	Selkirk College - International Headcount, Where Students are From (Oct. 31st of Each Yr.)					
	Country	**2015**	**2016**	**2017**	**2018**	**2019**
1	India	216	308	322	496	549
2	China	121	143	244	265	273
3	Philippines	0	10	39	59	60
4	Japan	61	46	37	35	20
5	Viet Nam	1	1	7	20	15
6	Korea, Rep. of	19	27	24	17	21
7	Brazil	7	9	12	12	11
8	United Kingdom	3	6	8	10	10

The story from the stats

Using Infographics




THE TREE
OF LANGUAGES
INDO-
EUROPEAN
INDO-
IRANIAN
INDO-
ARYAN
IRANIAN
WESTERN
EASTERN
SOUTHERN
WESTERN HINDU
PANJABI
RAJASTHANI
PAHARI
BIHARI
BENGALI-ASSAMESE
ODIA
MARATHI
ITALIC-ROMANCE
GALLO-ROMANCE
GALLO-IBERIAN
IBERO-ROMANCE
ITALO-DALMATIAN
SLAVIC
BALTIC
BALTO-SLAVIC
GERMANIC
WEST GERMANIC
NORTH GERMANIC
ANGLO-FRISIAN
CELTIC
ALBANIAN
ARMENIAN
GREEK
Hindi
Urdu
Punjabi
Maithili
Seraiki
Gujarati
Bhojpuri
Magahi
Chittagonian
Assamese
Bengali
Oriya
Marathi
Sinhala
Dhivehi
Romani
Kashmiri
Sindhi
Nepali
Awadhi
Marwari
Gujarati
Kumaoni
Garhwali
Pahari
Kangri
Mandeali
Bhili
Dhundhari
Lambadi
Sylheti
Rohingya
Chakma
Kokborok
Konkani
Vaghri
Dakhini
Varhadi-Nagpuri
Russian
Belarusian
Ukrainian
Rusyn
Czech
Slovak
Polish
Slovene
Croatian
Bosnian
Serbian
Macedonian
Bulgarian
Lithuanian
Latvian
Romanian
Corsican
Sardinian
Spanish
Portuguese
French
Italian
Venetian
Lombard
Emilian
Piedmontese
Ligurian
Walloon
Napoletano-Calabrese
Sicilian
Galician
Catalan
Occitan
English
German
Dutch
Afrikaans
Limburgish
Luxemburgish
Low Saxon
Low German
Low Franconian
Frisian
Scots
Yiddish
Bavarian
Swabian
Alsatian
Hunsrik
Swedish
Danish
Norwegian
Icelandic
Faroese
Greek
Armenian
Welsh
Gaelic
Breton
Cornish (extinct)
Latin (extinct)
Farsi (Persian)
Pashto
Kurdish
Balochi
Tajik
Hazaragi
Ossetic
Dari
Talysh
Gilaki
Luri
Sanskrit

NATIONAL GEOGRAPHIC CHANNEL

EAT: THE STORY OF FOOD

SPECIAL EVENT PREMIERES NOVEMBER 2014

THE WORLD OF FOOD...

In six ready-to-watch portions

Meat, your Maker

McDonald's sells 75 hamburgers per second. That's 4,500 hamburgers per minute!

Mad Science of Junk Food

Junk food makes up 1/4 of the U.S. diet.

Slaves to Sugar

High-fat/high-sugar foods stimulate the brain in the same way that drugs do.

Hooked on Grass

90 million acres of corn are produced each year in the U.S., but less than 1% is sweet corn, which people actually eat.

Man vs. Fish

Eight foods account for 90% of all allergic reactions: milk, eggs, peanuts, tree nuts, soy, wheat, fish and shellfish.

Cash Crops

Globally, it is estimated that approximately 1/3 of food produced is wasted before it reaches consumers.

Hungry for More?

So is chef Eric Greenspan

Don't miss

ERIC GREENSPAN IS HUNGRY
NEW SERIES
PREMIERING
NOVEMBER 2014

IN 1492 COLUMBUS

Sailed the Ocean Blue

Columbus was actually looking for spices when he discovered the Americas.

A TIMELINE OF GREAT EVENTS *in Food History*

2500 2000 1500 1000 500 BC | AD 500 1000 1500 2000 2500

c. 2575-c. 2465 BCE

Bread was used as the currency to pay the people who helped build the pyramids in ancient Egypt.

1438-1533 AD

Incas used to worship the potato. They were known to bury potatoes with their dead.

1500 AD

Many Europeans thought that the tomato was poisonous because of the high lead content in plates and flatware. Acidic foods like tomatoes caused lead to leach into the foods, resulting in lead poisoning.

1620 AD

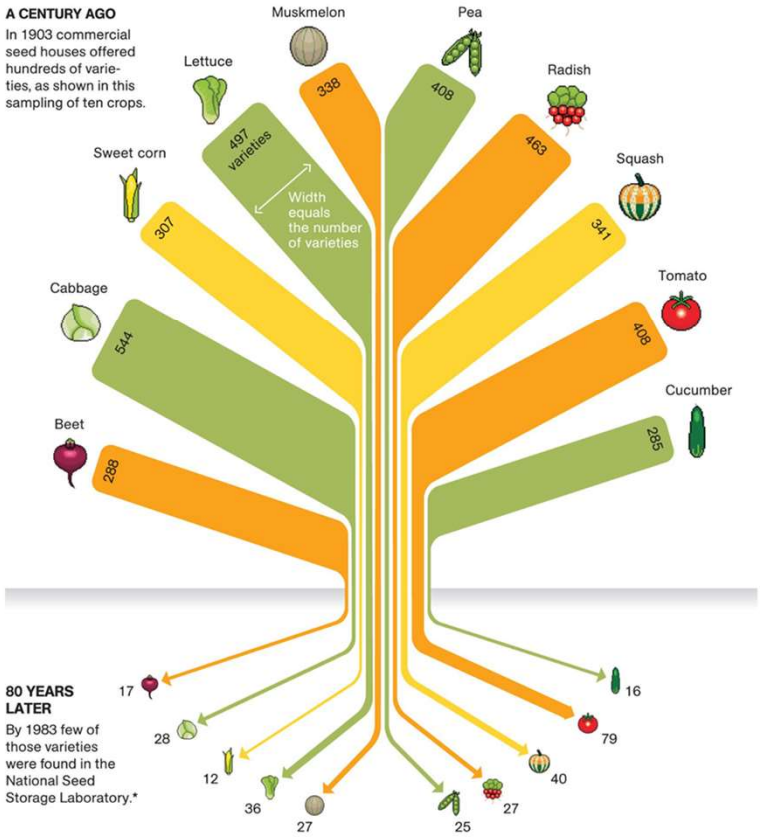
The Pilgrims aboard the Mayflower settled at Plymouth Rock in part because they were running out of beer.

1980 AD

The drive-through restaurant changed the food industry but also had an effect on cars. Cup holders were once a rarity in auto design, but by the late 1980s it was common for cars to feature more cup holders than passengers.

OUR DWINDLING FOOD VARIETY

As we've come to depend on a handful of commercial varieties of fruits and vegetables, thousands of heirloom varieties have disappeared. It's hard to know exactly how many have been lost over the past century, but a study conducted in 1983 by the Rural Advancement Foundation International gave a clue to the scope of the problem. It compared USDA listings of seed varieties sold by commercial U.S. seed houses in 1903 with those in the U.S. National Seed Storage Laboratory in 1983. The survey, which included 66 crops, found that about 93 percent of the varieties had gone extinct. More up-to-date studies are needed.



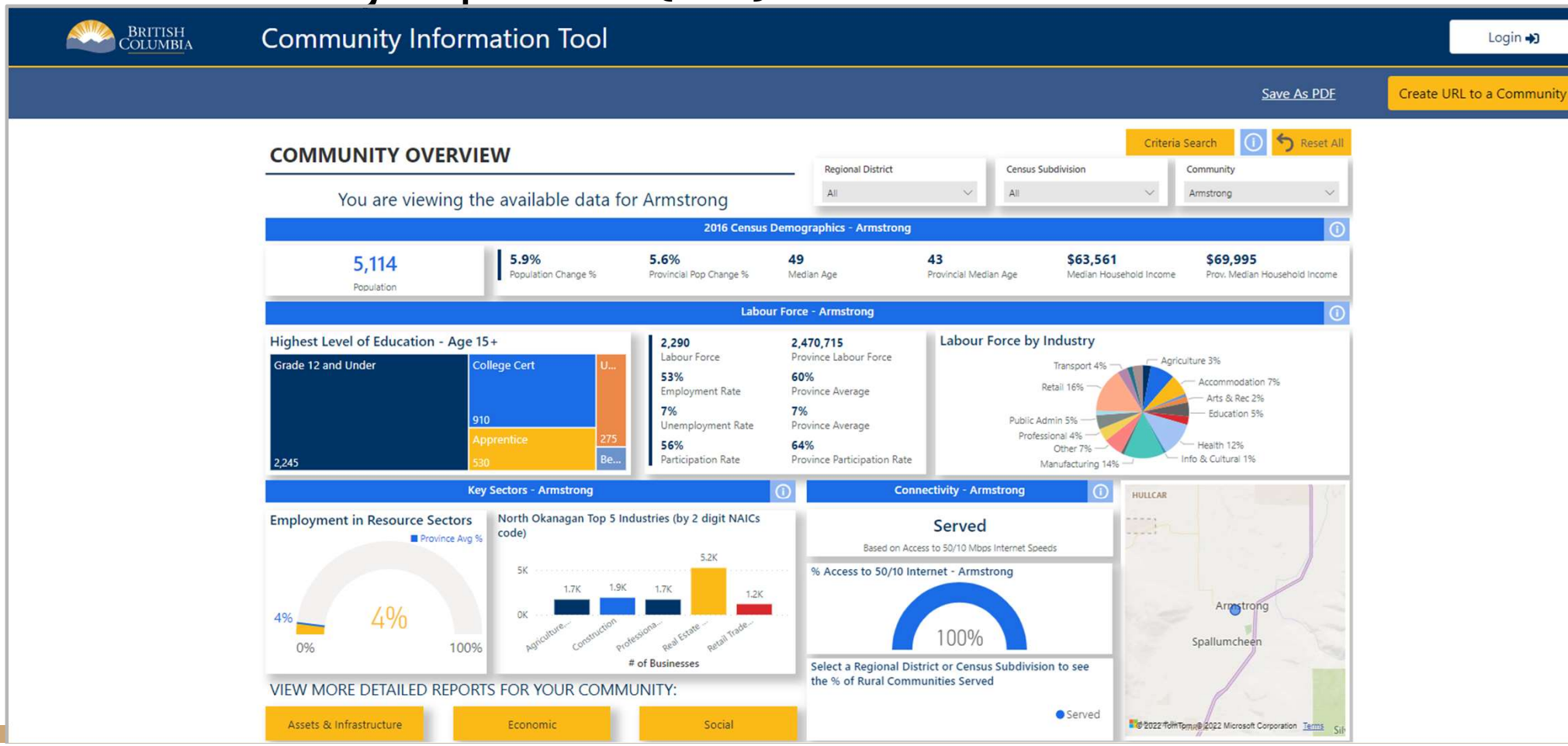
*CHANGED ITS NAME IN 2001 TO THE NATIONAL CENTER FOR GENETIC RESOURCES PRESERVATION.

JOHN TOMANIO, NGM STAFF. FOOD ICONS: QUICKHONEY
SOURCE: RURAL ADVANCEMENT FOUNDATION INTERNATIONAL

Cool Ways to Present Data

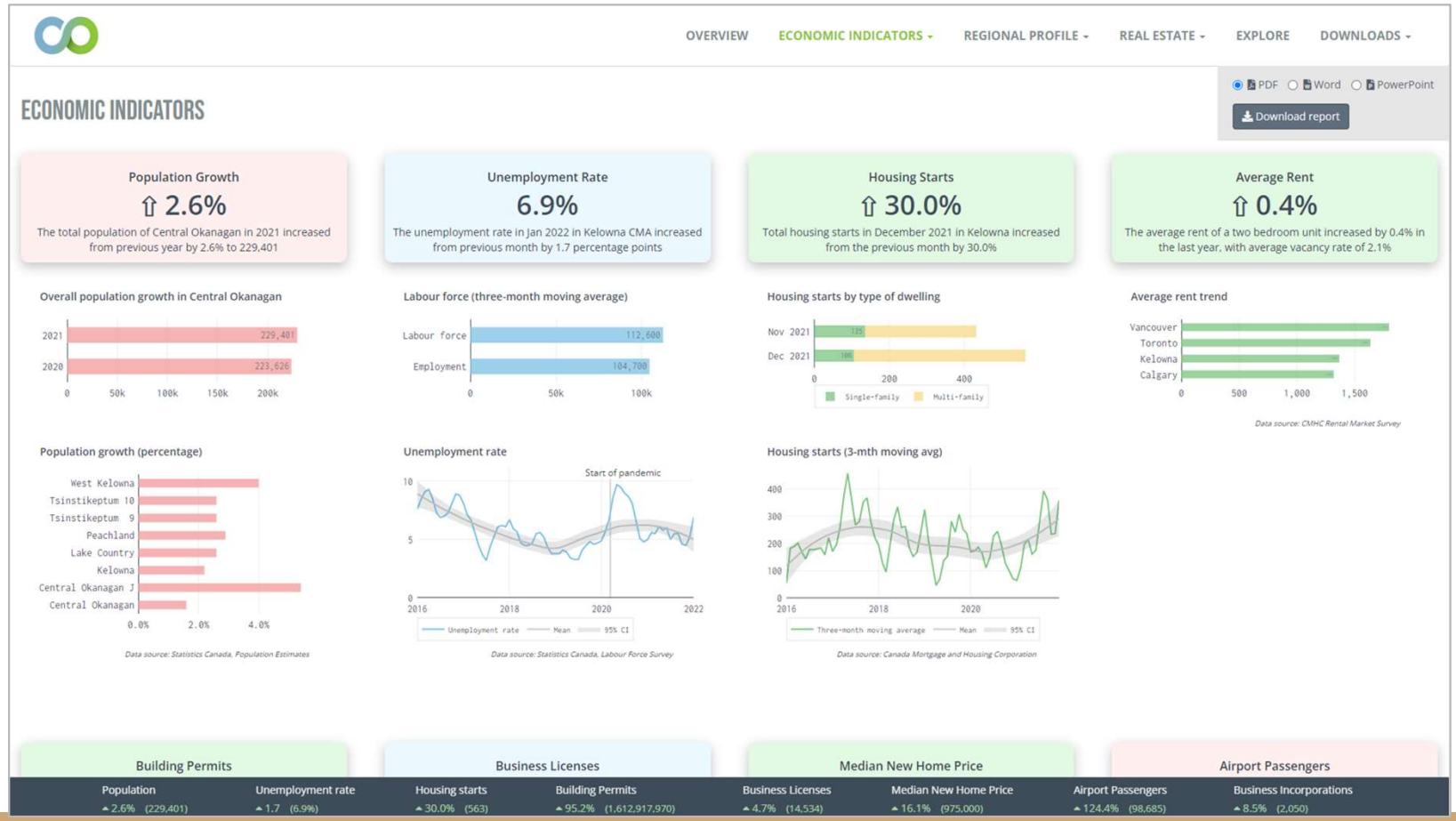
- https://ourworldindata.org/
- https://www.census.gov/popclock/
- https://www.nationalgeographic.org/graphic/
- Smart Draw https://www.smartdraw.com/infographic/examples/
  $9.95/mo.
- 13 Infographic Maker Softwares Compared
  https://blog.templatetoaster.com/infographic-maker-software-best/#

BC Community Info Tool (CIT): https://communityinformationtool.gov.bc.ca/cit-dashboard/public/search-communities



Check out Dashboards - cityviz.ca

https://data.investkelowna.com/economic-indicators



Conclusion/ Q & A

Mike Stolte - mstolte@the CIEL.com
www.theCIEL.com

ETSI-BC
CFDC East Kootenay