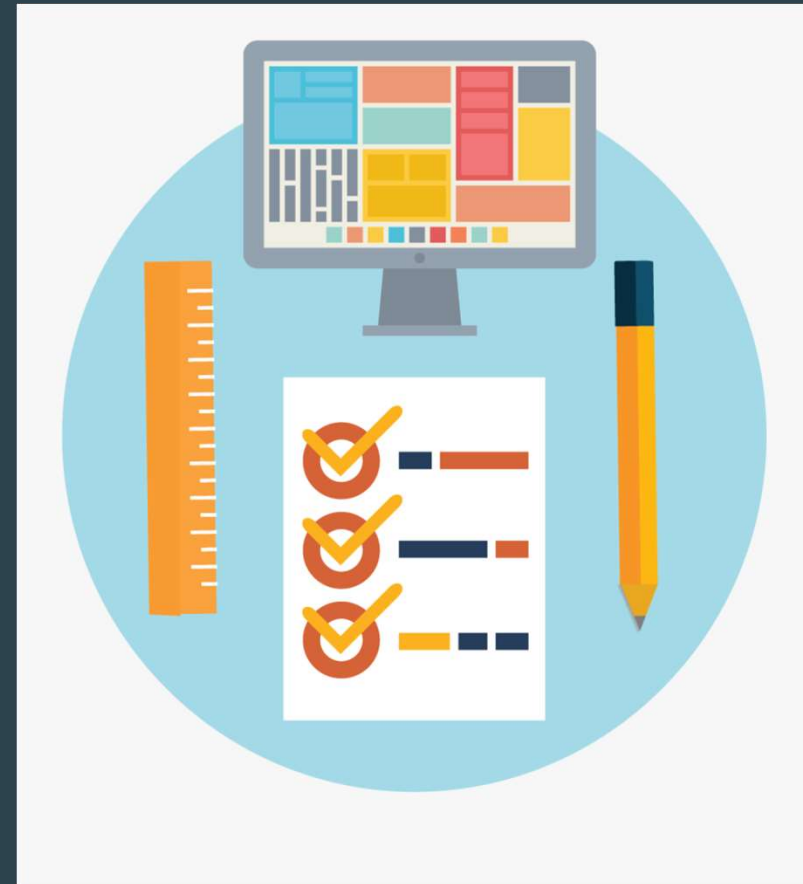


# DATA 101 – USE DATA TO YOUR ADVANTAGE

Mike Stolte - [mstolte@theCIEL.com](mailto:mstolte@theCIEL.com)  
[www.theCIEL.com](http://www.theCIEL.com) - January 24, 2024

ETSI-BC  
CFDC East Kootenay



A hand is shown from the bottom, holding a bright, glowing orb. The background is dark with several out-of-focus light spots (bokeh) in shades of orange and yellow. The overall mood is magical and hopeful.

# Making the Invisible Visible

Uncovering the Magic in Your Community

Oct. 27, 2022

**Power to the People**  
Bankstown, NSW

“Magic is the act of making  
the invisible visible”

Paulo Coelho

Mike Stolte  
[mstolte@theCIEL.com](mailto:mstolte@theCIEL.com)  
[www.theCIEL.com](http://www.theCIEL.com)  
Nelson, BC CANADA

# Agenda

1. Intro - Poll
- 2. Population Exercise**
3. "Can't measure, can't manage" - Why data is important
4. DFAP - Four important steps (Determine, Find, Analyze, Present)
5. Dirty Dozen - Intro to key concepts
- 6. Health of community exercise**
7. Challenges of data in small (and not-so-small) communities
8. Intro to data sources
9. Conclusion



# What is population of Rossland, BC? Or Armstrong, BC?

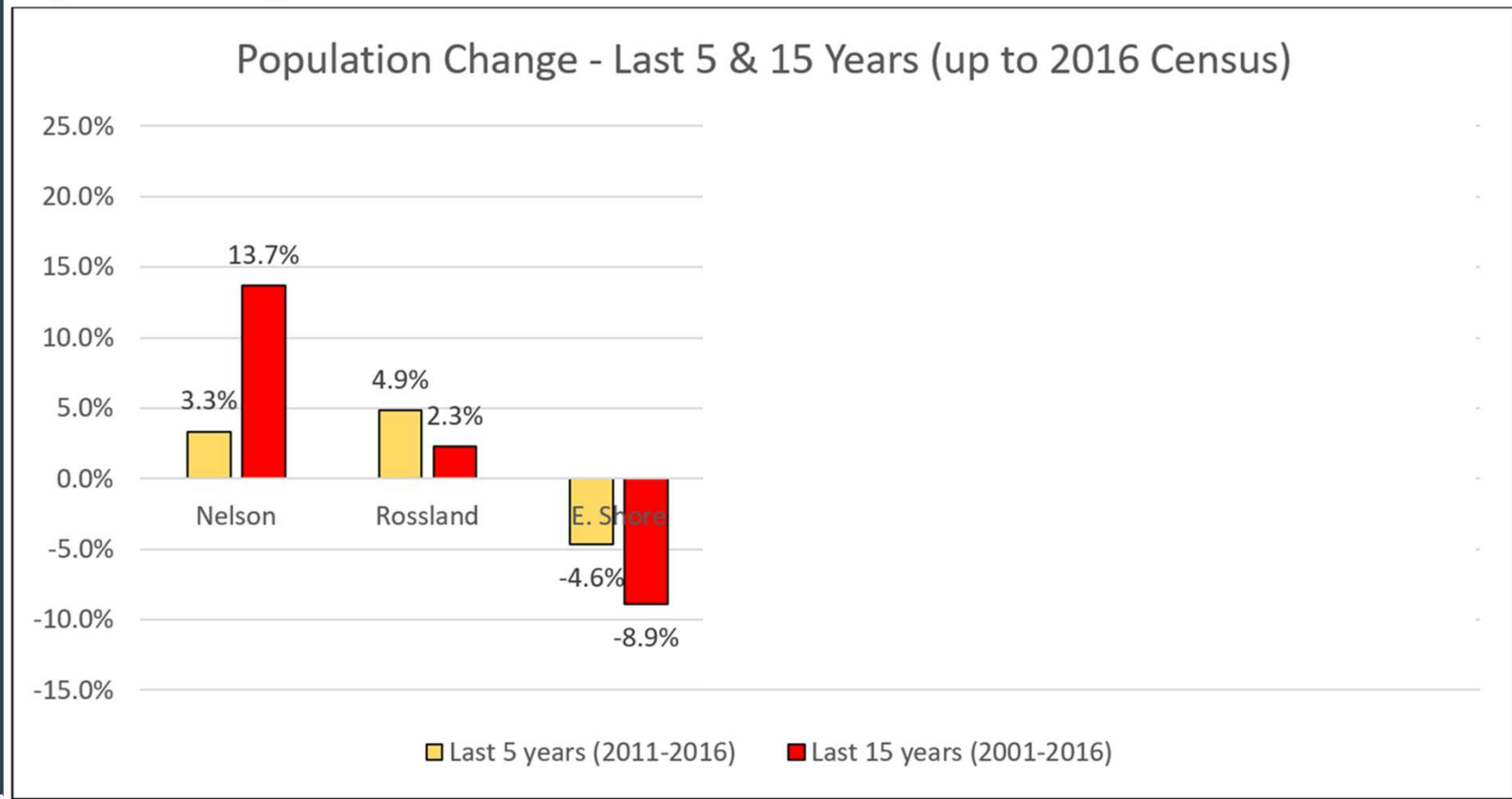
- What do you want data for?
  - Trading area
  - Catchment area
  - Old Census data (May 2021)
  - Undercount because people don't want to be counted
  - Are you looking at trends, growth, etc.





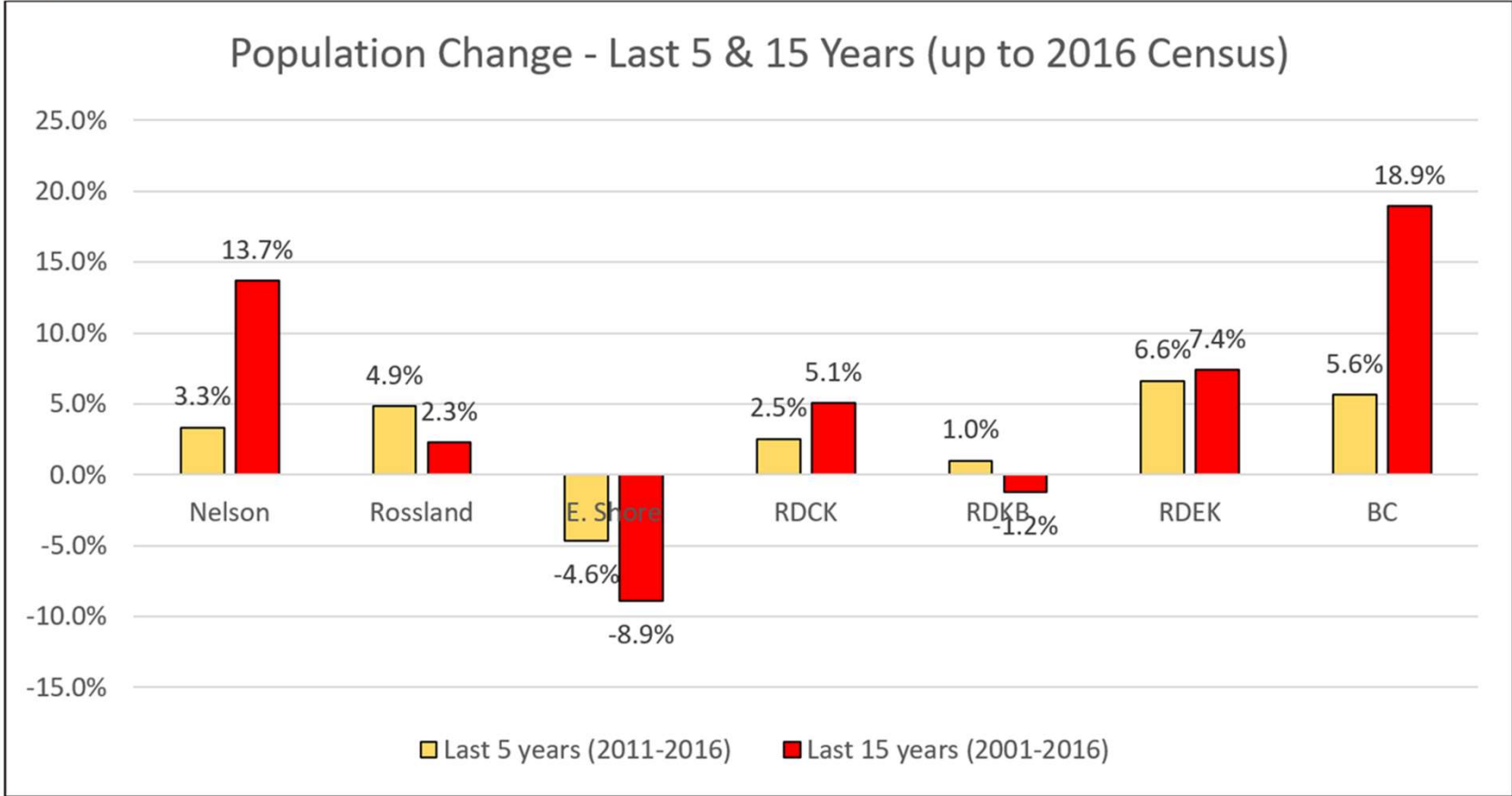
# Know what you want it for; Provide Context

## Population Change



# Know what you want it for; Provide Context

Population Change



## “Can’t measure, can’t manage.”

- Numbers, stats and data make life easier
- Increasingly, decision-makers demand/need data to support decisions
  - Covid impact locally
  - Performance & Evaluation - as you’re designing a program think of the end in mind (outcomes vs outputs - what key numbers can you move/impact?)
- First use of statistics use came in 1744 - Scottish Preachers Widows’ Pension Fund\*

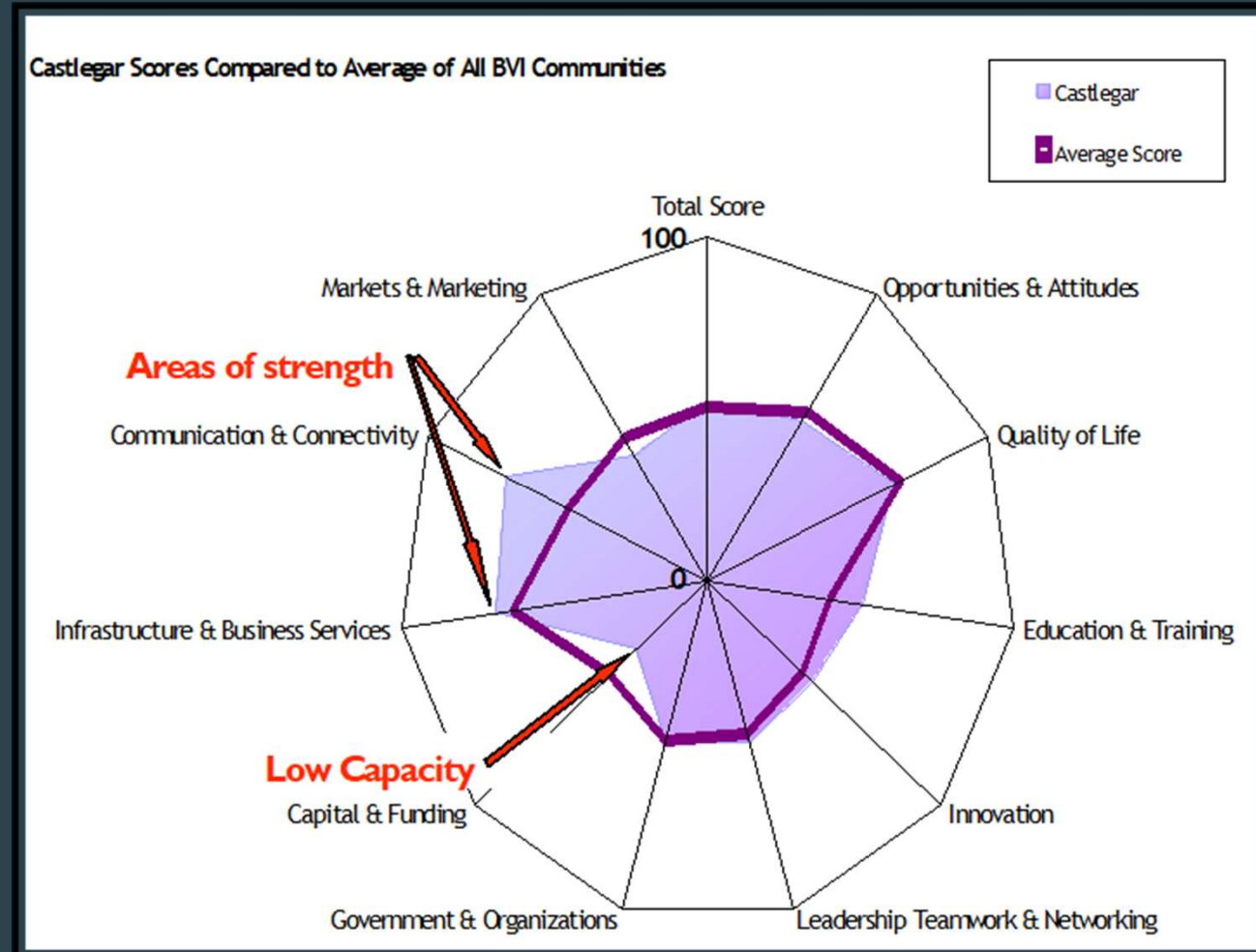


\* More on Scottish Widows' in *Sapiens* - Yuval Harari - <https://lookup.london/history-scottish-widows>

# Telling the Story with Data

## 4 Important Steps

- D – Determine what you need
  - F – Find it (or **create** it)
  - A – Analyze it
  - P – Present it
- 
- QUICK POLL!





# The Dirty Dozen of Data

PREMIUM COLLECTION  
BLU-RAY™ + DVD + DIGITAL DOWNLOAD

FIRST TIME ON BLU-RAY™.  
INCLUDES:  
BLU-RAY™, DVD, DIGITAL DOWNLOAD  
& EXCLUSIVE ARTCARDS

5000233609

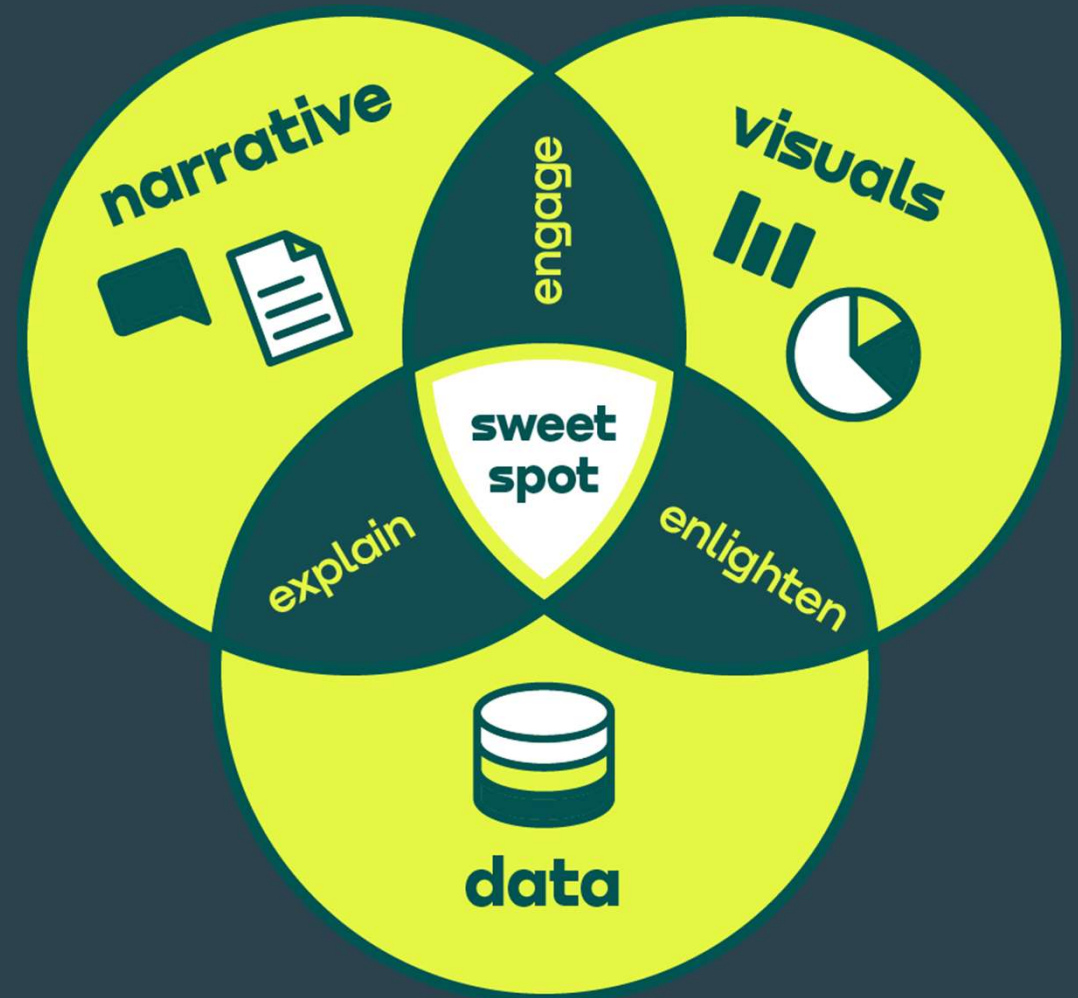
# The Dirty Dozen



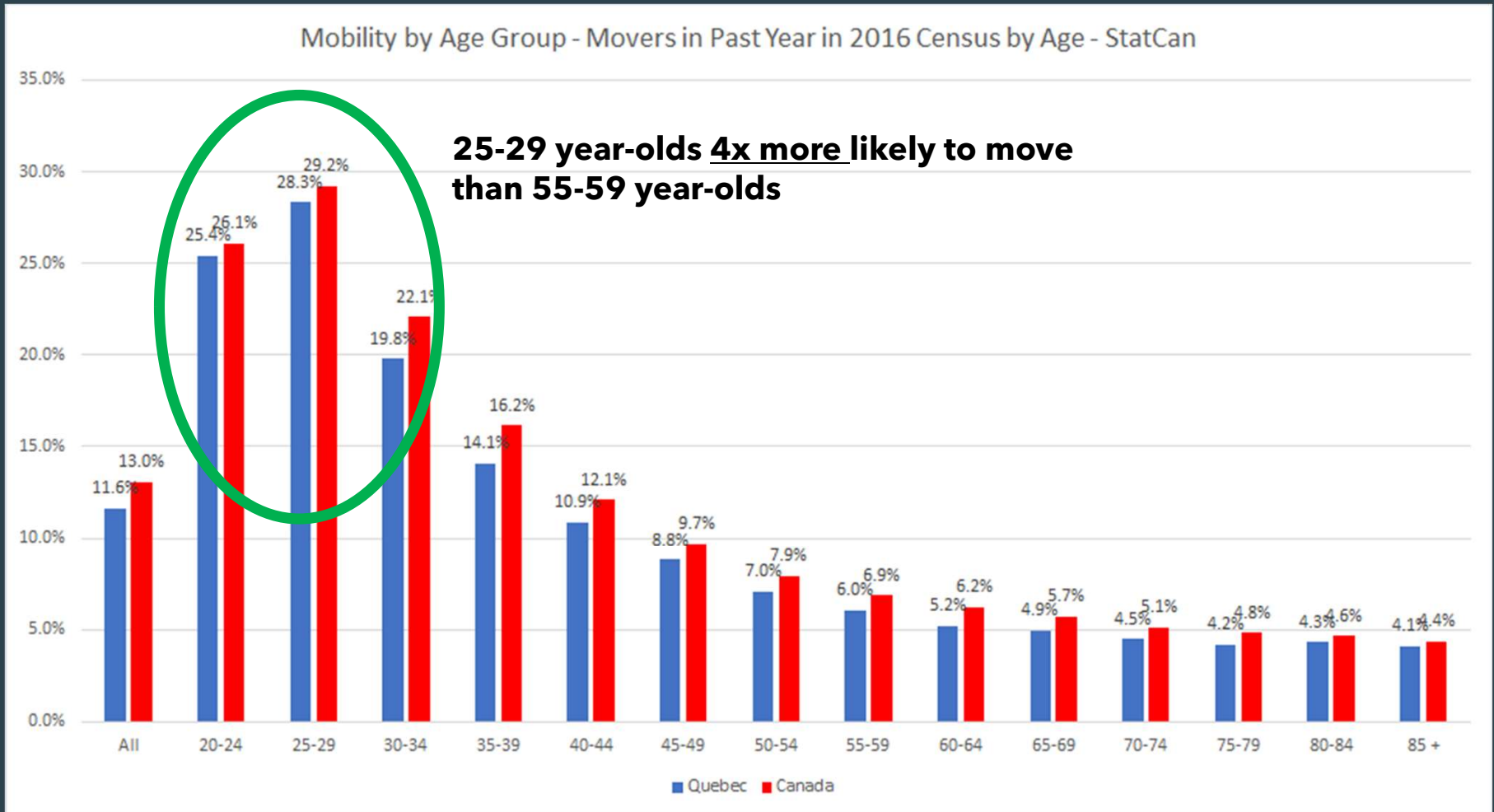
15

Starring LEE MARVIN ERNEST BORGNINE CHARLES BRONSON JIM BROWN  
JOHN CASSAVETES RICHARD JAECKEL GEORGE KENNEDY TRINI LOPEZ  
RALPH MEEKER ROBERT RYAN TELLY SAVALAS CLINT WALKER ROBERT WEBBER

# 1. Data is your friend!



## 2. Assume your audience is innumerate





### 3. Indicators only indicate

What I could find out:

- Low GDP/per capita
- High unemployment & welfare rates
- Poor air quality

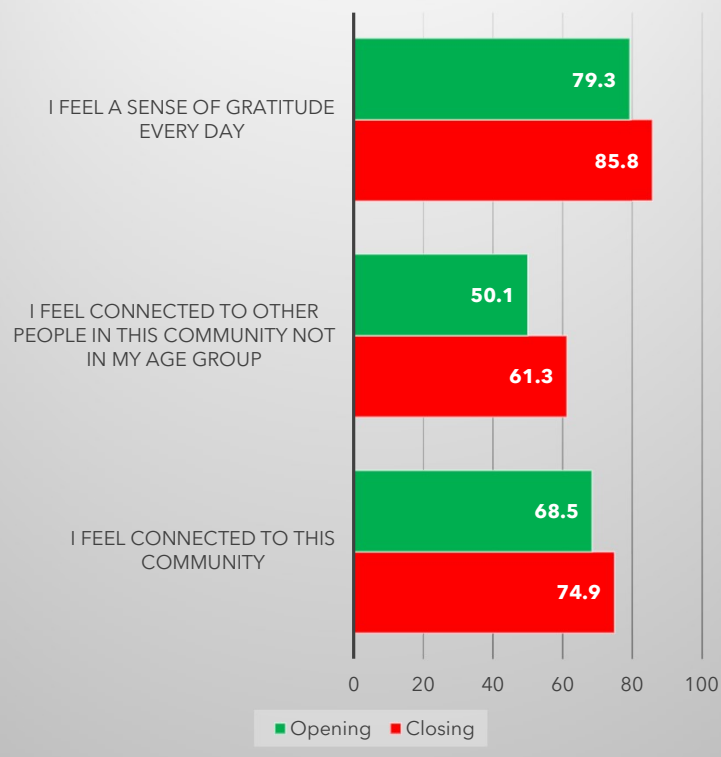
What I discovered:

- Energetic and vital
- Inclusive
- Super friendly





### CLICK - Evaluation Scores - Students and Elders - 2019/20



4. Be able to tell  
the story...

With stories  
& statistics



A photograph of a group of people in a room. In the foreground, a young woman with dark hair tied up, wearing a white t-shirt and sunglasses on her head, is smiling and speaking into a microphone. Behind her, several other people are seated, including a woman with short grey hair and glasses wearing a purple top, and a woman with long dark hair. The background shows a hallway with a door and some papers on a wall. There are three green brushstroke-like shapes in the upper left and three in the lower left of the image.

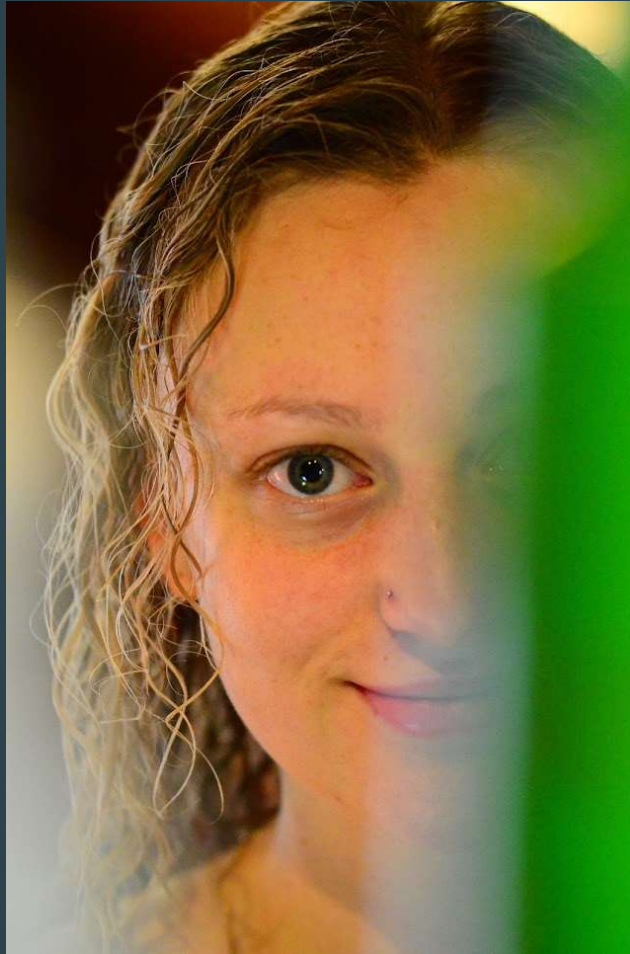
CLICK – building  
intergenerational  
connections to address  
social isolation



## 5. Stories should elicit emotions

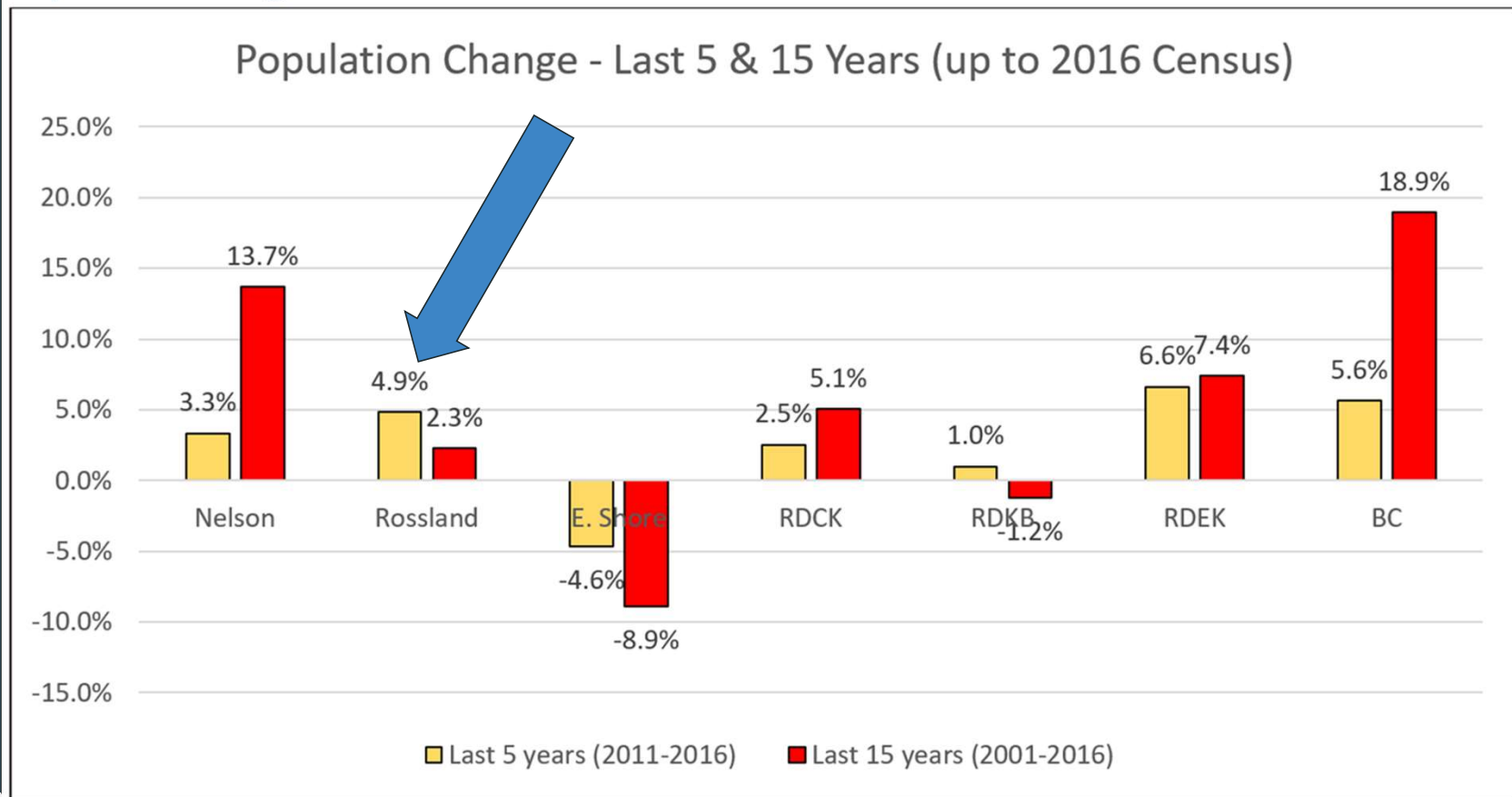
Social Isolation

6. We tend to overemphasize things we can count



# 7. Offer reference points

Population Change

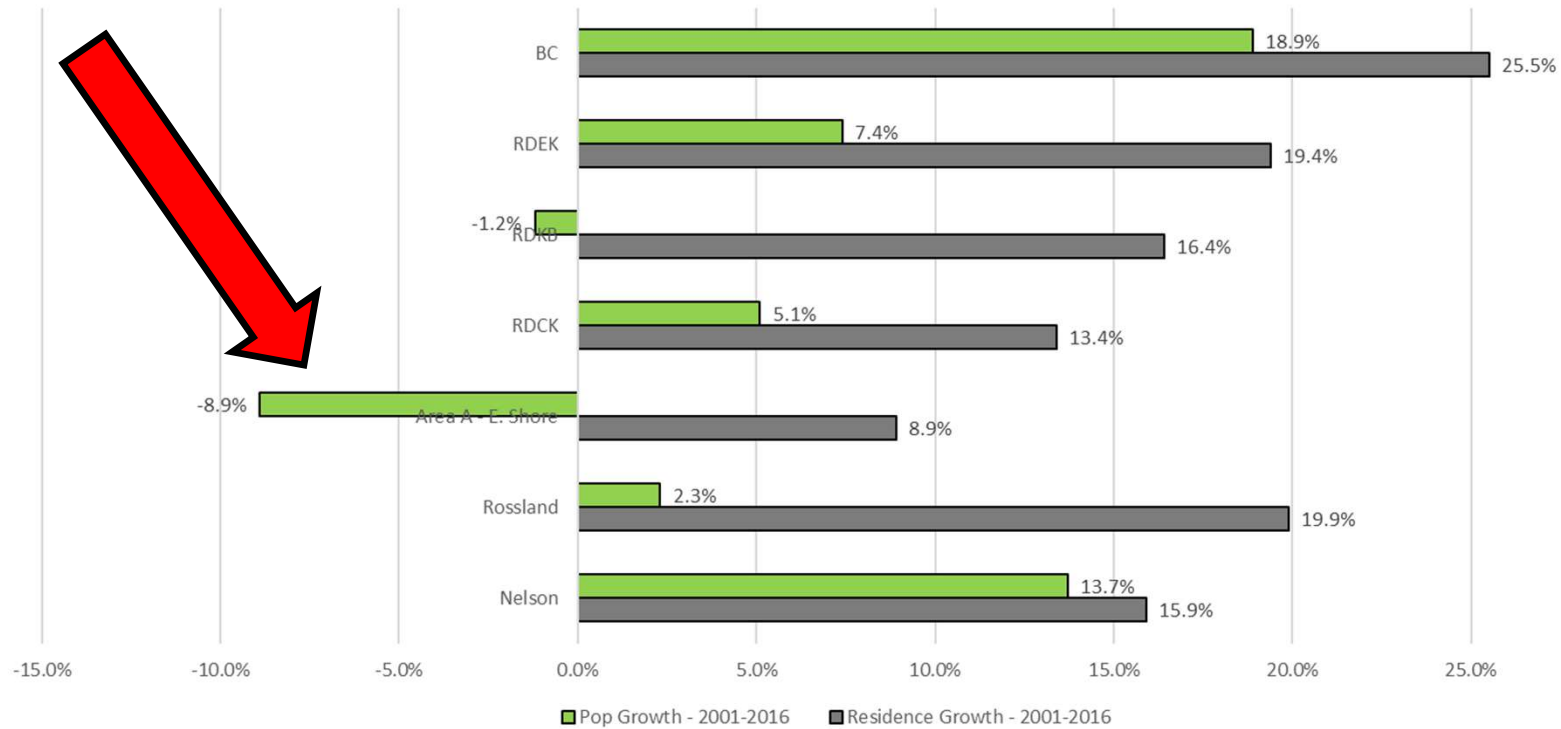


## 8. Stolte's 3 Sssss



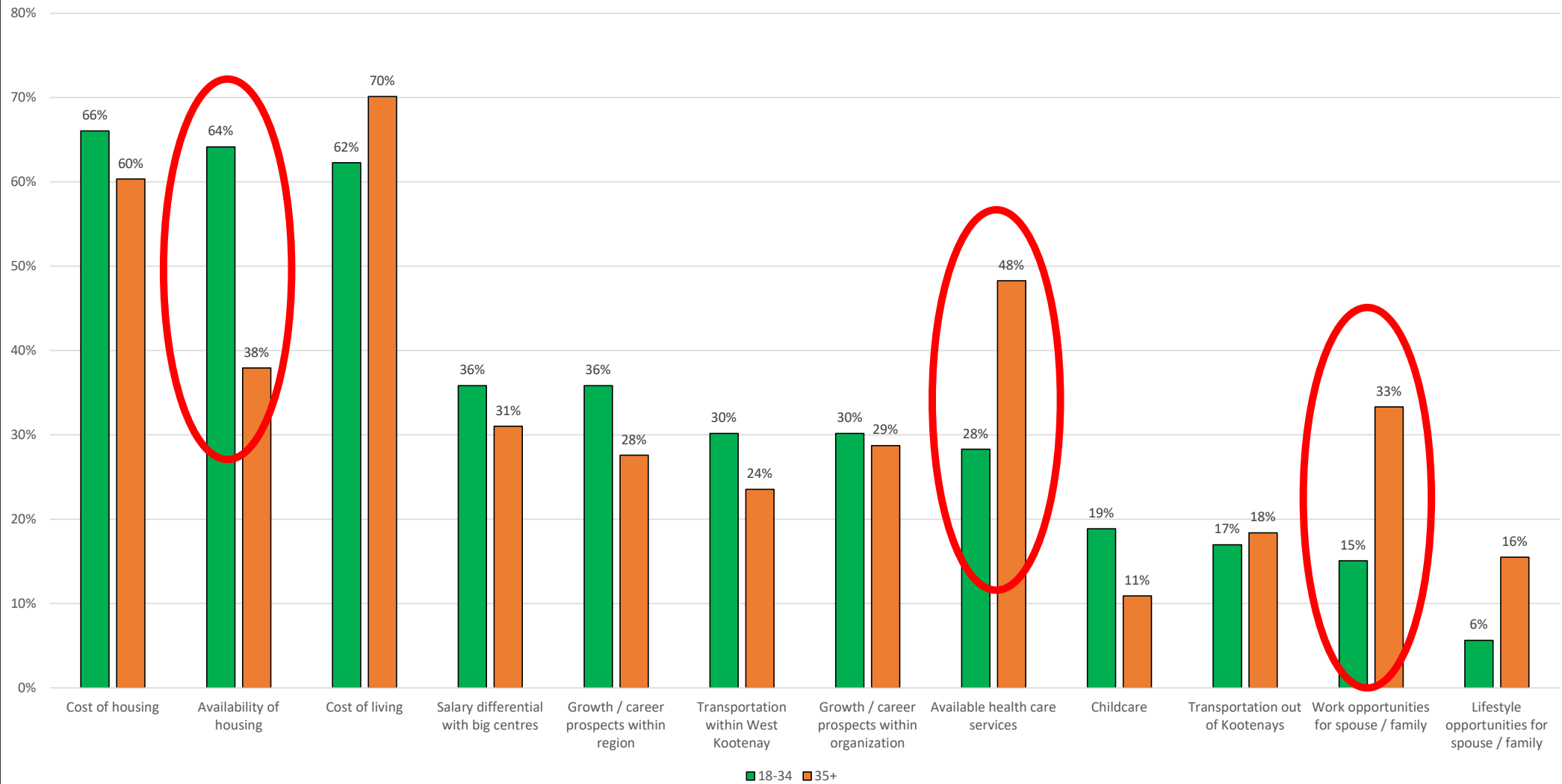
- Salient
- Surprising
- Sexy

Growth in Residences vs Growth in Population Over 15 years (2001-2016); Source Statistics Canada Census





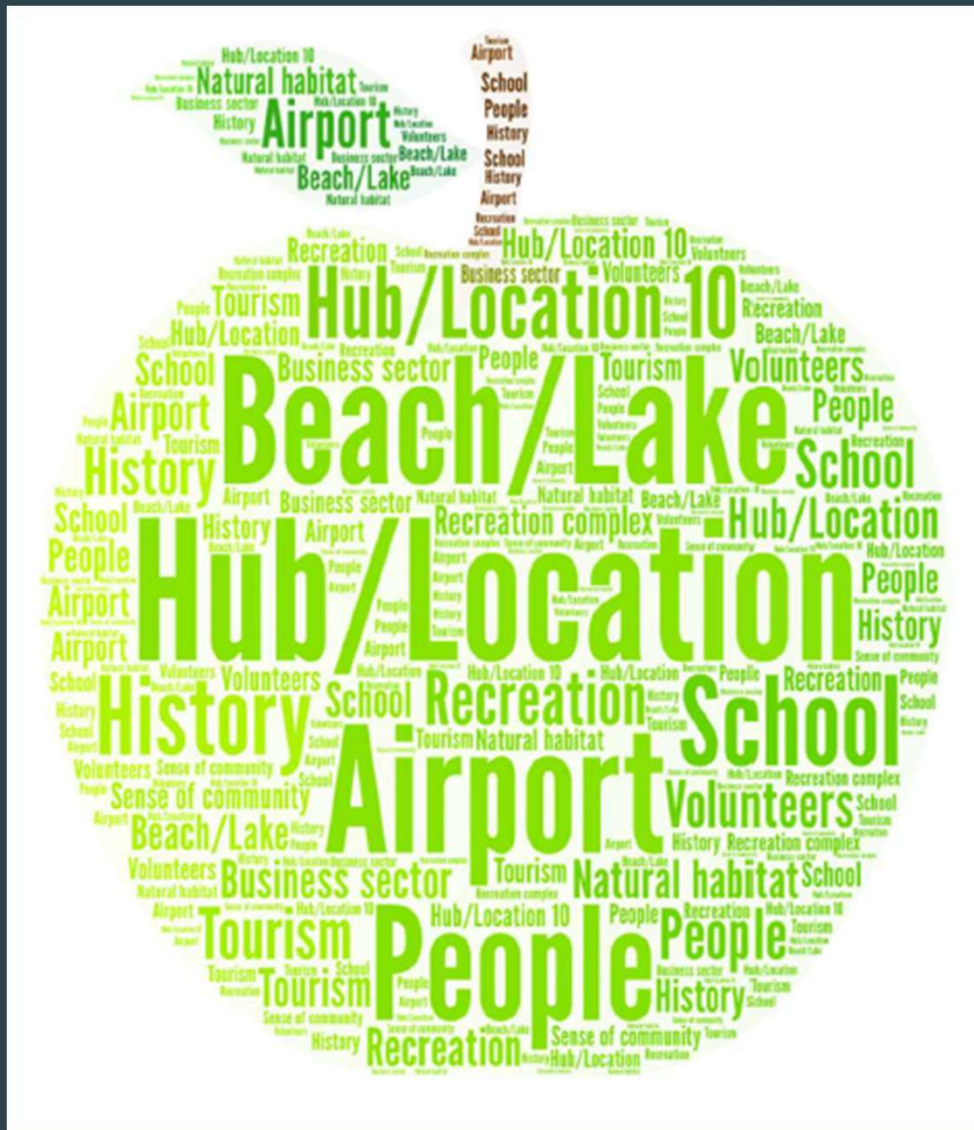
### What are your top concerns/ considerations about working in the region (Top 5)?



9. Not too much data; error on the side of less is more

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)



# 10. Know when to use mean, median and mode while talking about 'average'

CBC | MENU

NEWS Top Stories Local Climate World Canada Politics Indigenou


Canada Photos

## \$716K is the average house price in Canada. Here's what you can get for that

[f](#) [t](#) [e](#) [r](#) [in](#)

Depending on region, it could be a small condo or a large property with a wine cellar

CBC News - Posted: Apr 29, 2021 9:39 AM PDT | Last Updated: April 29, 2021

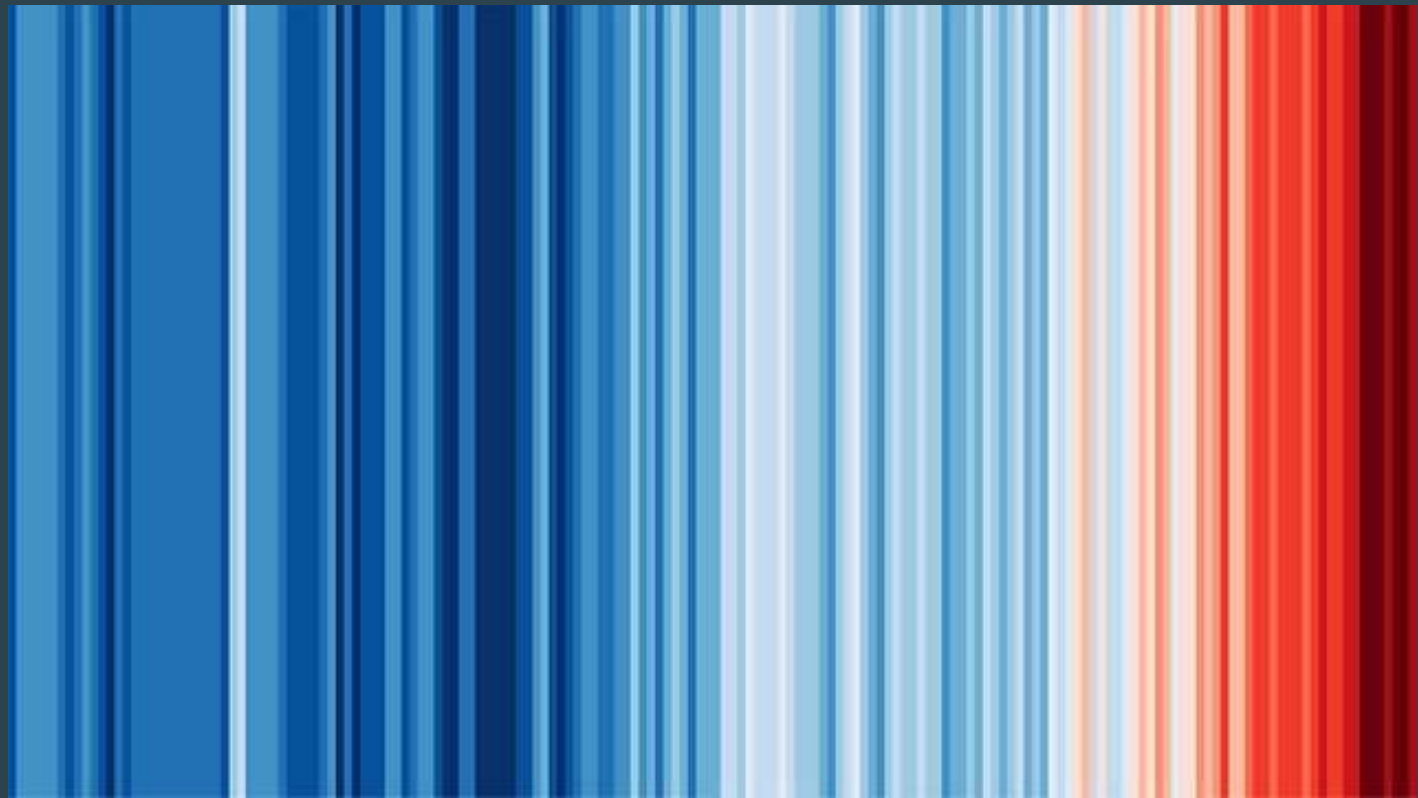


House hunters at a real-estate showing prepare to see how far their dollars can go. Buyers across the country seem unfazed by skyrocketing prices. Sales were up in March 70 per cent compared to a year ago. (Daniel Acker/Bloomberg)

# 11. Use cool graphs... supplement with short analysis

## **GAPS & NAPS**

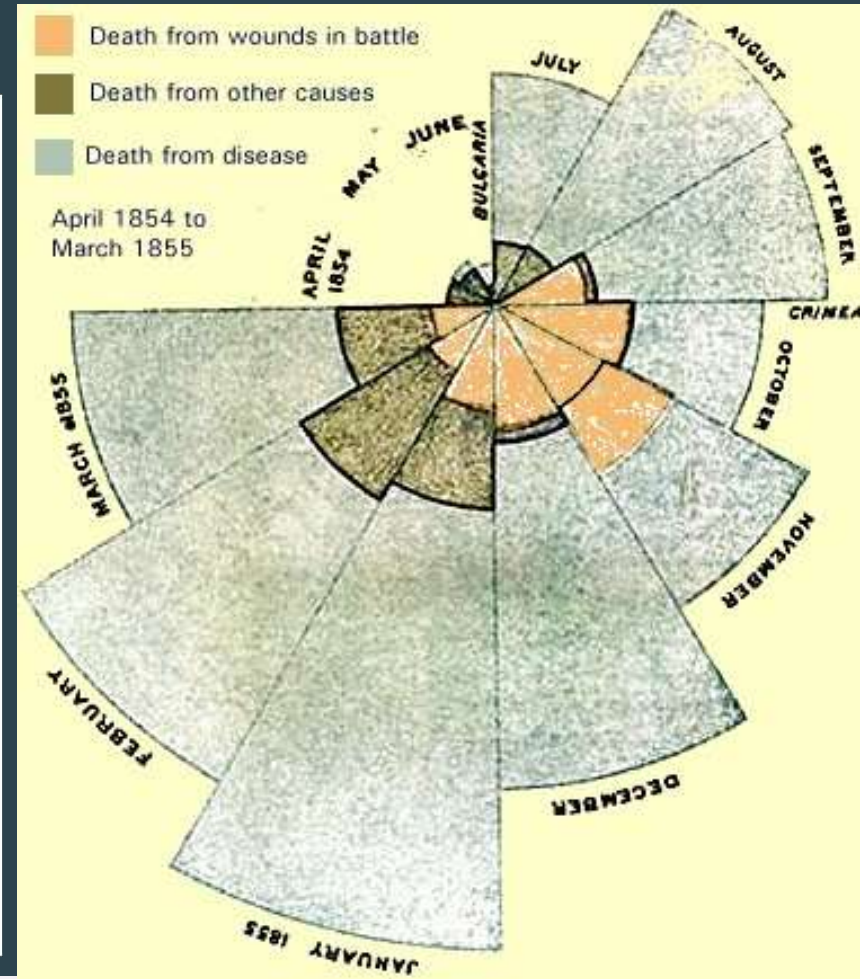
- Graphs
- Numbers
- Analysis
- Pictures
- Stories










[BBC Ideas - Five Charts that Changed the World](#)



12. Find ways to count what really matters... sometimes you have to create your own!



# From North Okanagan VitalSigns 2023 Report

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





- How does one measure that which is invisible, but important?

# What is the health of your community?

- Spend 3 minutes on your own brainstorming possible indicators
- Breakout room discussion for 7 minutes
- Quick report back





# What is the health & vitality of your community?

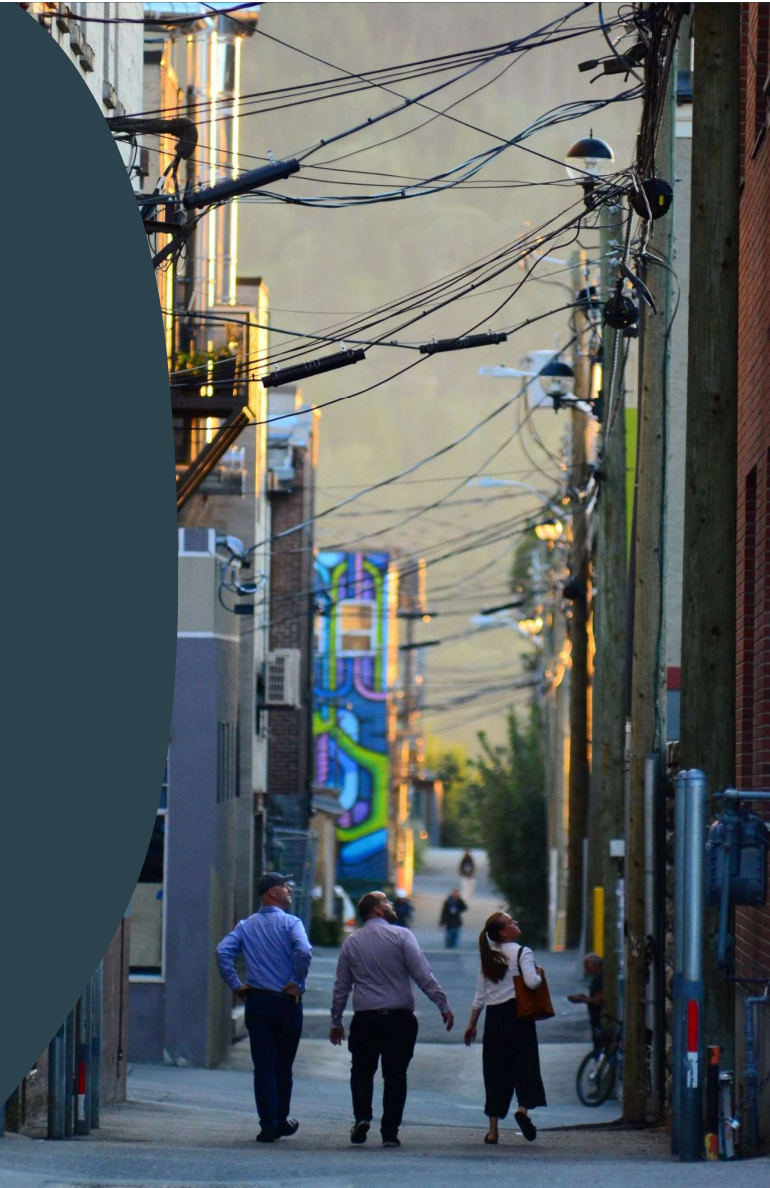
- Local middle-income earners can afford to buy a house in the community.
- Women consider it safe to walk alone downtown at night.
- We have at least one public festival that generates a feeling of magic and excitement.
- Citizens are motivated to learn new skills and develop existing ones.
- You see many active, healthy-looking seniors in this community.
- This town believes in itself. We think that with enough support, we can do anything.





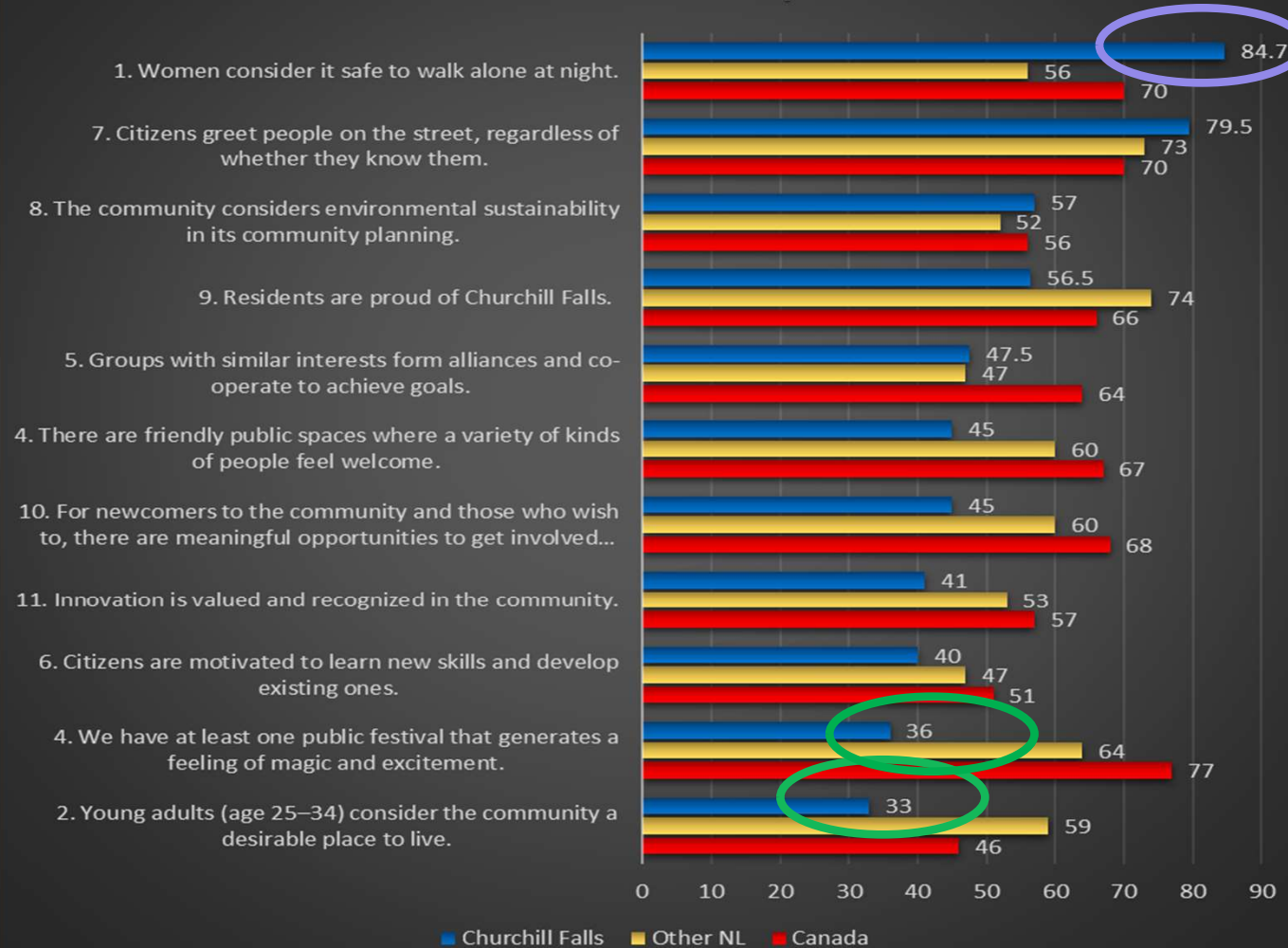
# Community health & vitality

- For newcomers to the community and those who wish to, there are meaningful opportunities to get involved and make a difference in the community.
- Groups with similar interests form alliances and co-operate to achieve goals.
- Young adults (age 25–34) consider the community a desirable place to live.
- Citizens greet people on the street, regardless of whether they know them.
- Innovation is valued and recognized in the community.
- There are friendly public spaces where a variety of kinds of people feel welcome: parks, squares, fountains, outdoor cafes, benches, playgrounds.



Be able to  
ASSESS,  
FOCUS and  
ACT

## Community Vitality Scores - Churchill Falls Compared to Canada and Other NL Communities - 89 Respondents



# The challenges of data in small communities

1. Some areas are unincorporated
2. Many jurisdictional lines - School District, Health Area, Regional District
3. Data suppression - only counts 1 in 4 households

<b>Visible Minority Population (Census 2016)</b>		
	<b>Total</b>	<b>% Of Pop'n</b>
<b>Total Visible Minority Population</b>	<b>535</b>	<b>5.1%</b>
Chinese	115	1.1%
South Asian	85	0.8%
Japanese	85	0.8%
Black	60	0.6%
Latin American	60	0.6%
Filipino	55	0.5%
Other (not included elsewhere)	45	0.4%
Southeast Asian	15	0.1%
Arab	10	0.1%
Korean	10	0.1%
Multiple visible minorities	10	0.1%

# You Need Data - Who ya Gonna Call?

## Intro to Data Sources



# Canadian Census: Statistics: Power from Data!

<https://www150.statcan.gc.ca/n1/edu/power-pouvoir/toc-tdm/5214718-eng.htm>

<https://www150.statcan.gc.ca/n1/edu/power-pouvoir/toc-tdm/5214718-eng.htm>

Statistics Canada Statistique Canada

Search website

Subjects Data Analysis Reference Geography Census Surveys and statistical programs About StatCan Canada.ca

Home > Census of Population > Data products, 2021 Census

## Census Profile, 2021 Census of Population

Release date: February 9, 2022 Updated on: March 29, 2023

Download data About this product

This profile presents information from the 2021 Census of Population for various levels of geography, including provinces and territories, census metropolitan areas, communities and census tracts. Using the search or browse options below, users can search for an area of interest by typing its place name, postal code<sup>OM</sup> or geographic code or by browsing a list.

Place name, postal code<sup>OM</sup> or geographic code

Search Help

### Browse

📄 Browse a list. View data for [Canada](#) or browse geographies by province or territory:

- [Newfoundland and Labrador](#)
- [New Brunswick](#)
- [Quebec](#)
- [Ontario](#)
- [Manitoba](#)
- [Saskatchewan](#)
- [Alberta](#)
- [British Columbia](#)
- [Yukon](#)
- [Northwest Territories](#)
- [Nunavut](#)

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





# BC Economic Atlas - <https://www2.gov.bc.ca/gov/content/employment-business/economic-development/industry/bc-economic-atlas>

 COVID-19 provincial restrictions are in place | [Get your booster dose](#) 

[Home](#) > [Employment, business and economic development](#) > [Economic development](#) > [Research Economic Activity](#) >

- BC Major Projects Inventory
- **BC Economic Atlas**
- Tutorials
- Economic Development Surveys
- BC Stats

## BC Economic Atlas

### Visualize Your Region's Potential With This Powerful Economic Data-Mapping Tool.

The [BC Economic Atlas](#) is a user friendly, publicly available web-based mapping application. It is a hub for business and investment information.

The BC Economic Atlas gives you a picture of what's happening with B.C.'s economy. Having easily accessible and integrated data allows you to access critical information quickly at no cost.

With the BC Economic Atlas you can select various types of data that are important for business investment decisions, investment opportunities identification and business case analysis:

- Natural resource data:
  - Land status
  - Proximity to services
  - Access to transportation, etc.
- Economic data:
  - Major projects inventory
  - Employment and investment information, etc.

Please review the [Disclaimer](#) prior to [launching the BC Economic Atlas](#).

**Launch the BC Economic Atlas**



### Quick Reference Guide



Check out this useful [Quick Reference Guide](#) (PDF 1.7 MB) to help you get up and running successfully.

### Useful Contacts

For more information please contact [bcea@gov.bc.ca](mailto:bcea@gov.bc.ca)

### Useful Links

- [Data BC](#)
- [Canadian Cluster Map](#)
- [Open Data Canada](#)



# Others - Look for Data Cl

- Local/ Regional Organizations
  - local/ regional tourism associations
  - municipal planning/ regional district planning
  - chambers/ ED orgs/ CFs
  - local/regional real estate associations
  - housing authorities
  - school districts
  - other orgs. in community that gather data
  - realtors - lease rates
- Local stats
  - building permits
  - hotel vacancy/ change in revenues from year to year
  - hotel room prices
  - water usage
  - parking revenues
  - late payments
  - recreation centre usage
  - business licenses

All other businesses	210		
<b>Top 25 Business Licenses in Nelson 2020 (Red - big Covid Impact)</b>			
1 Retail	115		
2 B and B	98		
3 General Contractor	92		
4 Restaurant/ Café/ Deli	52		
5 Consultant	45		
6 Massage/ Health Therapy	36		
7 Hairdresser/ Esthetician	34		
8 Home Occupation	17		
9 Electrician	16		
10 Healing/Accupuncture	16		
11 Physician/ Surgeons	16		
12 Daycare	15		
13 Dentist	15		
14 Engineer	15		
15 Physio/ OT	14		
16 Janitorial	13		
17 Landscaping	12		
18 Counselling	10		
19 Hotels/Motels	10		
20 Real Estate	9		
21 Fitness Centre	9		
22 Barrister/ Solicitor	9		
23 Bookkeeper	9		
24 Computer Consultant/ Repair	8		
25 Chiropractor	8		



"After nourishment, shelter and companionship, stories are the thing we need most in the world." — Philip Pullman

- Are you using stats and stories? (GAPS & NAPS)
- Are you making your invisible stories visible?
- Are you measuring what matters (MWM)?

## Q & A

Mike Stolte  
[mstolte@theCIEL.com](mailto:mstolte@theCIEL.com)  
[www.theCIEL.com](http://www.theCIEL.com)  
Nelson, BC













## What we learned

- Elders and youth have many of the same issues
- Elders have developed more coping skills
- Intergenerational connection works
- [Link to CLICK Video](#)











20



