

EDD USER GUIDE

Economic Dependencies Dashboard

Version 1, June 2024

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USER GUIDE—Economic Dependencies Dashboard (EDD)

What is the Economic Dependencies Dashboard (EDD)?

The ETSI-BC <u>Economic Dependencies Dashboard</u> – (EDD for short, found at <u>https://edd.etsi-bc.ca/</u>) is an economic visualization tool that we launched in June 2024. It can help you understand the economy at the following levels:

- Southern Interior Region of BC
- 8 regional districts (RDs) in the Southern Interior
- 32 local areas (census metropolitan areas) in the Southern Interior

Using EDD will enable users to gather a better understanding of the regional economy of the Southern Interior, at both the regional district and local levels. It is intended to provide all residents, including economic development practitioners and local governments with a tool to understand the impact of economic changes and industry transitions in their communities, to help them respond and adapt.

EDD was developed in 2024 for the <u>Economic Trust of the Southern Interior (ETSI-BC)</u> by Sasha Bogdanovic, founder of data visualization company, <u>CityViz</u>, an innovative company that provides economic development data platforms. This User Guide was written by Mike Stolte, president of <u>CIEL</u>. BC Stats has given ETSI-BC non-commercial copyright permission to use this data.

It's a new version of a report called the *Local Area Economic Dependencies*, last published by BC Stats in 2009. EDD combines Statistics Canada Census data (2016 and 2021) with the BC Stats macroeconomic model.

7 Key Questions EDD Can Help You Answer

Without good data, it's hard to get an understanding of your regional district or local area. We all know the old adage, "What you can't measure, you can't manage". Without this understanding, it's even harder to make good decisions. With EDD, you can quickly grasp the current situation, and what has been happening over time to help answer important economic development questions like:

- 1. How **vulnerable** is my community/RD to downturns in the forest sector (and other sectors, industries)?
- 2. Who is employing our residents? How is that changing?
- 3. What are the **industries** that punch above their weight? Underperform?
- 4. How diverse is our economy?
- 5. How is our **population changing** compared with our neighbouring communities/RDs?
- 6. How can **potential investors** better understand my community/RD? How do we amp up our **profile for investors**?
- 7. What makes us unique economically as a community/RD?



7 Cool Things About EDD

- 1. It provides a graphic story of the state of the economy.
 - At the Southern Interior, regional district and local area levels.
- 2. It's a powerful, easy-to-use dashboard.
 - Drop down menus, printable graphics, easy comparisons.
- 3. It shows more advanced indicators than other complementary tools:
 - <u>Community Information Tool (CIT Province of BC)</u>
 - <u>State of the Basin Community Reports</u> (Selkirk Innovates).
- 4. It provides both a **snapshot** in time AND the **change** over 5 years.
- 5. It is unique in BC and in Canada!
- 6. It can be used by a **member of the general public, a municipal councillor** or an **economist** with <u>key insights provided.</u>
- 7. Raw data is **downloadable** should you wish to perform a custom analysis.

Indicators Included in EDD (see the last page for detailed explanations)

Basic Data:

- **Population**, change in population
- Total jobs, jobs by industry, change in jobs

Data by industry

- Industry diversity index—How diverse is our economy? How do we compare to our neighbours and to the rest of BC?
- **Location quotient**—Do we have more of this industry than the BC average? A location quotient of 2 means we have double the jobs per capita than the BC average.
- Employment impact ratio—Do we rely more on this industry than the BC average?
- Local supply shares—Are we a net importer or an exporter?
- Income dependencies by industry—How much are we reliant on tourism, agriculture, etc.?
- **Basic income share**—This shows whether a regional district or local area is more productionoriented or service-oriented.
- Forest sector vulnerability index—How vulnerable is my community to a forest sector downturn?
- Forest sector income dependencies—How reliant are we on income from forest sector activities e.g. forestry, logging, value-added manufacturing, etc. relative to other RDs/ communities?

About this User Guide

This guide is provided to help you quickly get oriented and started in using EDD. Like EDD itself, this guide is laid out visually. With the guide, you should be able to harness the power of EDD and quickly make key insights about the Southern Interior region, your regional district or local area.

The best way to learn EDD is to jump right in and play with it. With an easy-to-use graphic interface and drop-down menus allowing for fast navigation, you can quickly drill down to find useful detailed data. A glossary of key terms is provided on the final page (and in EDD itself!).



APPENDIX 1 – GETTING TO KNOW EDD!

(Or the Big EDDy, if you're from Revelstoke...)

Before You Begin – Some Important Notes

- License Agreement Copyright permission for use of this data has been purchased from BC Stats by ETSI-BC and is provided by ETSI-BC for non-commercial purposes only.
- **Boundaries** This data is provided by BC Stats using Census Sub-division boundaries used by Statistics Canada (see About>Local Area Boundaries for more information on boundaries)
- **Covid-19 and the 2021 Census** The model uses data from the 2016 and 2021 Censuses. Covid-19 affected employment, income sources and other data. This should be considered when drawing inferences.
- Glossary and Key Terms A glossary of key terms is provided at the back of this User Guide.

Tip

There are several key features revealed if you hover your mouse above graphs.





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At Southern Interior Level

Economic & demographic data for the Southern Interior, Regional Districts or 32 'local areas'.



This is EDD's landing page. It's a great place to start your exploration. It defaults to the Entire Region view, where you can quickly get an understanding of the region by comparing the 8 regional districts or 32 local areas (see next section on how to use the dropdown menus at the top of the page for switching between and among many views).

1. The Navigation Bar

- This allows you to quickly switch among 5 views:
 - Entire (Southern Interior) Region view Depending on the view selected in the drop-down menus at the top of the page, you can compare all 8 regional districts or the 32 local areas
 - Regional District view You can view all the statistics of any of the 8 regional districts
 - Local Area view You can view all the statistics of any of the 32 local areas
 - Raw Data view Displays the data in chart form. This view also allows you to download any of the data displayed into an Excel spreadsheet so that you can perform your own custom analysis
 - About view Explains EDD's background, definitions and:



- Framework of the model
- Data sources
- Sector aggregations (e.g. which industries make up a sector?)
- Local area boundaries
- Limitations of EDD

2. Map View – Current Indicator Values

- This view shows the entire Southern Interior region broken down by 8 regional districts or 32 local areas. In the case above (Basic Stats, Total Jobs, Regional Districts), a darker colour indicates more jobs while a lighter colour shows fewer.
- You can click on the map to highlight a region. You can also zoom in or out. A scale is provided on the right-hand side.

3. <u>Polygon View – Current Indicator Values</u>

- This Polygon view shows the same data from the map in a polygon form (a graph) that allows for quick comprehension. The data (in this case jobs by regional district) is shown by its relative size (e.g. a smaller polygon represents fewer jobs).
- BC data is shown at the bottom left of the image for reference. A high quality image (PNG file) can be downloaded by clicking at the top right of the image on the camera icon that appears when you hover over it. The Notes (i) icon on the bottom left of the polygon displays important information (e.g. boundaries, definitions, etc.) when clicked on.

4. Change Between Census 2016 and 2021

- This view shows the gain or loss in this category from 2016 and 2021, the last two available censuses.
- BC data is shown at the bottom left of the image for reference. A high-quality image (PNG file) can be downloaded by clicking at the top right of the image on the camera icon that appears when you hover over it.

5. Topic Description

• This explains the topic of the current view

6. Key Insights

• Key insights, generated by AI, provide some analysis of the data.



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At Southern Interior Level



7. Drop-Down Menus

- There are 3 drop-down menus at the top of the page of the landing page (Entire Region or Southern Interior Level view). They allow you to look at data in many different ways:
 - **A** Allows you to choose among:
 - Basic Stats
 - Income dependencies
 - Jobs
 - Location quotients
 - Employment impacts (the impact of any industry relative to the BC average.
 A score of 1.3 would mean 30% more than the provincial average of 1.)
 - Local supply shares
 - **B** Allows you to choose among:
 - Total jobs (in up to 23 industries)
 - Population
 - Average employment income
 - Basic income share
 - Diversity index
 - Forest sector vulnerability index
 - **C** Allows you to choose between:
 - Regional district view (all 8 regional districts)
 - Local area view (all 32 local areas)
 - NOTE: A fourth dropdown, the RAC view, denotes the geographical make-up the two Regional Advisory Committees (RACs) which form an important part of the governance of ETSI-BC, the Economic Trust of the Southern Interior. See the <u>Governance page</u> of our website for more information.



Regional District View – A Profile of Your Regional District

By <u>Regional District</u>



Navigate to the Regional District view (highlighted by the green box on the left in the illustration above)

The drop-down menu at the top of the page allows you to select one of the eight different regional districts in the Southern Interion region. In this example it's the Regional District of East Kootenay (RDEK).

1. Basic Stats - The Regional District at a glance

- This view shows data in 6 key economic areas (in the red rectangle), with BC data shown at the bottom of each heading, to provide more context:
 - Population
 - Total jobs
 - Average employment income
 - **Basic income share.** This shows whether a regional district or local area is more production-oriented (BC's high is Port Alice with 96 as it largely focuses on the



production of wood) or service-oriented (BC's low is Richmond at 74). The BC average is 82.

- Industry diversity index. This shows whether the regional district is very diverse with many industries [most diverse would score 100] or very concentrated [score of 0]. The BC average is 69. The range for all regional districts in the province is 51 to 74.
- **Forst sector vulnerability index**. This shows which regional districts or local areas are most vulnerable to a forest sector downturn. The range in RDs is 0-43 in BC. BC's average is 6. A higher number indicates more vulnerability.

1. A) Basic Stats – Change from 2016-2021 (from last Census)

- This shows the same Basic Stats data from above (1) but in a graph format, showing the change from the last census. The BC average is also displayed to provide a handy reference point.
- If you click on the blue Data tab (top right above graph), the data is displayed as a data chart, rather than as a graph.

2. Location quotient

- Location quotient shows how much employment specialization your regional district or local area has in different industries compared with BC. A location quotient of 2 means that the RD/local area has double the jobs in an industry as the BC average (score of 1). A location quotient of 0.5 means that your RD/local area has half the jobs of the BC average in that industry.
- There are different views available by clicking at the top right of each graph. In this case, you can quickly switch from a bar graph view (Main Industries) to Polygon view (All) to a graph of the changes between censuses (Major changes)

3. Total Jobs by Industry

- This shows the total number of jobs in each industry.
- By clicking on the blue tabs at the top right of the graph, you can quickly see major changes and how the RD/local area compares with BC.

4. Employment Impact Ratio

- This estimates how many additional jobs are supported for each job in a basic industrial sector. For example, a ratio of 1.38 for forestry shows that, for 100 jobs directly in the forestry sector, 38 more are supported in non-basic industries supporting that sector such as truck transportation and wholesale trade. In addition to the Direct and Indirect jobs created, Induced jobs are also factored in. Induced adds jobs created through household spending.
- To continue the previous example, an induced EIR of 1.75 implies that when the 100 direct forestry employees and 38 indirect supporting employees spend their incomes, that



spending supports 37 additional jobs in non-basic sectors such as retail and FIRE (finance, insurance and real estate).

• By clicking on the blue tabs at the top right of the graph, you can quickly see major changes and how the RD/local area compares with BC.

5. Local Supply Shares

- Local supply shares help identify which local areas have strong non-basic sectors that supply services to the rest of the province.
- If the share is over 1, the area could be considered a net exporter of that service with the rest of the province and if it is under 1, a net importer.
- By clicking on the blue tab at the top right of the graph, you can quickly see major changes from 2016.

6. Income dependencies

- This indicator defines the components of an area's economic base and shows how dependent it is on the different sources.
- By clicking on the blue tabs at the top right of the graph, you can quickly see major changes and how the RD/local area compares with BC.



Local Area View – A Profile of Your Local Area

pare	neighbouri	ng commu	nities – e.g. C	ranbrook, Fe	ernie, Inverr	nere, Kimberle
	Population 11,701 8.C population: 5,000,879	Total Jobs 5,530 8.C. total jobs: 2,433,600	Average Employment Income (3) \$53,800 B.C. average: 599,900	Basic Income Share 87% 8.C. share: 82%	Industry Diversity Index (scale 0- 100) 71 B.C. Index: 69 All local areas range: 48-34	Forest Sector Vulnerability Index (scale 0-100) 17 8.C. index. 6 Al local areas range: 0-300
En tek	BASIC STATS Owner Invermere Indicator 201 Population 9,44 Total Jobs 4,77 Average Employment 549,50 Income (5) Basic income share 0.8 0.7 Forest Sector Yulnerability Index 7	tion 201. Duta 16 2021 12 11,701 10 553,800 16 0.87 13 17 11 17	Main Industries All Accemulation Mark Marketaristy Agriculture and And Processing Combines and Association Parties for dearwares for 4.5 Units in Grade and entertainment 4 Units in Grade and	TOTAL JOBS BY INDUSTING All Industries Retail Traile Agricolore and Broil Construction Public Inscript Utilities - 24 Unicessity Trailer -	Mejor changes E.C. High fields High fields	MACTENDO Altimatoria Marcharia
Parental lar	LOCAL SUPPLY SHARES (*) All Industries Finance, Immunoc and Real State Bittels Balanes Bervices Commications Tech Transect - Bala Immunotenergy Rear Transect - Uter Transect - Bala State Transect - Bala State State - Bala State State - Bala Sta	Changes from 204 Decome form 0.4.7 0.4.7 0.4.7 0.4.7 0.4.7 0.4.7 0.4.9 0.4.2	Al hourse Cauges from 50 K.C.C.C.S. Al hourse Cauges from 50 K.C. This hourse from 50 K.C. This hourse from 50 K.C. All hourse from 50 K.C. A			

This Local Area view is the same as the Regional District view but allows you to examine any one of the 32 local areas. In the example above, the default view for each of the graphs has been changed (by clicking on the blue tabs at the top of each graph) to demonstrate the variety of views available for each of the graphs.

There are 53 municipalities and 33 First Nations in the ETSI-BC service area, so why are there only 32 local areas in EDD? That's because Stats Can combines communities into Local Areas. In the About tab on the left sidebar of EDD, if you click on 'Local Area Boundaries', you'll see where your community falls.

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💡 Google Maps	M Inbox (2,291) - laure	🔪 Home » Economic T 🔟 804RD MEETINGS							
\otimes		Local Area Economic Profiles							
Entire Region		Background							
		The Local Area Economic Profile Report is a new edition of an economic model that was previous called the Local Area Economic Dependencies and was last published by BC Stats in 2009.							
Regional Districts		This project creates a consistent economic model for 103 local areas in British Columbia. It combines detailed census data with the province's macroeconomic model and is primarily intended to provide information on rural areas and to help estima economic changes.							
		Framework of the Model Data Sources Sector Aggregations Local Area Boundaries Limitations							
Local Areas		Geographical Boundaries for Local Areas in the 2020 LAED Model							
E		Castlegar-Arrow Lakes Salmo (5903011), Castlegar (5903045), Central Kootenay G (5903047), Central Kootenay I (5903056), Central Kootenay J (5903058)							
Raw Data	Columbia - Shuswap Columbia-Shuswap C (5939037), Columbia-Shuswap F (5939044), Chum Creek 2 (5939801), Hustalen 1 (5939802), North Bay 5 (5939803), Quaaout 1 (5939805), Scotch Creek 4 (5939807)								
About		Cranbrook Cranbrook (5901022), East Kootenay C (5901035), Isidore's Ranch 4 (5901802), Kootenay 1 (5901803), Cassimayooks (Mayook) 5 (5901805), St. Mary's (5901808)							
		Creston Creston (5903004), Central Kootenay A (5903010), Central Kootenay B (5903013), Central Kootenay C (5903017), Creston 1 (5903807)							
		Enderby Enderby (5937033), North Okanagan F (5937041), Enderby 2 (5937802)							



Conclusion

EDD is provided to help you better understand the economy of the Southern Interior region, your regional district or local area. The best way to get to know it is dive into the data for a regional district or local area you might be familiar with and play with it. Good luck!

About ETSI-BC

ETSI-BC is committed to collaboration with the economic development practitioners, business and innovation support organizations, industry groups and post-secondary institutions in the region. It provides value to the economic development ecosystem in the Southern Interior in many new ways:

- By using grant funding and by acting as a catalyst to help build economic development capacity, especially in the region's smaller and First Nations communities.
- Working with our partners to support business resilience, innovation and growth, to develop human capital and entrepreneurship, and encourage key sector development and the shift to a Net Zero economy.

ETSI-BC provides funding, resources and training to First Nations, local governments, and non-profit business support organizations to help communities realize their economic development aspirations. Our funding streams are:

- Building Economic Development Capacity
- Supporting Business Resilience and Competitiveness
- Innovating and Advancing Key Sectors
- Developing Human Capital
- Creating Value for the Economic Development Ecosystem

ETSI-BC is committed to helping build a strong economy and stronger Southern Interior communities.

We'd love to hear from you!

Economic Trust of the Southern Interior (ETSI-BC) 201 – 460 Doyle Ave., Kelowna BC V1Y 0C2 Phone: 236-420-3680 ext. 0 <u>info@etsi-bc.ca</u>



Quick Glossary of Key Terms

- **Basic income share** This shows whether a regional district or local area is more production-oriented (BC's high is Port Alice with 96 as it largely focuses on the production of wood and wood products) or service-oriented (BC's low is Richmond at 74). The BC average is 82.
- Diversity Index See Industry Diversity Index
- **Economic diversity index** How diverse is our economy? How do we compare to our neighbours and to the rest of BC?
- Employment impact ratio (EIR) This estimates how many additional jobs are supported for each job in a basic industrial sector. For example, a ratio of 1.38 for forestry shows that, for 100 jobs directly in the forestry sector, 38 more are supported in non-basic industries supporting that sector such as truck transportation and wholesale trade. In addition to the Direct and Indirect jobs created, Induced jobs are also factored in. Induced adds jobs created through household spending. To continue the previous example, an induced EIR of 1.75 implies that when the 100 direct forestry employees and 38 indirect supporting employees spend their incomes, that spending supports 37 additional jobs in non-basic sectors such as retail and FIRE (finance, insurance and real estate).
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- Income dependencies How much are we reliant on tourism, agriculture, etc.? Defines the components of an area's economic base and shows how dependent it is on the different sources. It is expressed as a number. 0.3 would represent 30%. 0.078 would be 7.8%.
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- Local supply shares Are we a net importer or an exporter? Local supply shares help identify which local areas have strong non-basic sectors that supply services to the rest of the province. If the share is over 1, the area could be considered a net exporter of that good/service compared with the rest of the province. If it is under 1, a net importer.
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