

Appendix J1: Socio Economic Baseline Information

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1 Introduction

The baseline provides the necessary indicators for answering the question; what effects will the project have on the community or other interest? The baseline indicators are what we measure anticipated changes against. In YESAB's *Guide to Socio-economic Effects Assessments*, the following direction on selecting baseline indicators is given:

The social and economic assessment indicators are derived from the VSECs and point to measurable change in human population, communities and social and economic relationships resulting from a proposed project. The delineation of socio-economic assessment indicators defines categories of social and economic change and selects the most suitable measures from which to describe current conditions and predict change. It achieves the goals of scoping by focusing on the most important categories of change and on useful and meaningful indicators.¹

Thus, the community socio-economic baselines presented here have not been put together simply to provide a backdrop for the effects assessment or as a background primer for those not familiar with the communities. Rather, all of the data on the communities, and for the Yukon that make up the baseline has been selected to provide useful indicators for measuring the anticipated effects on each of the identified valued socio-economic components (VSECs) for the proposed development, operation and closure of Mactung mine. The baseline indicators will also provide the means for longer term socio-economic effects monitoring as the project proceeds. It is also important to note that the anticipated effects of the project on the baseline indicators assist in devising effective mitigation and enhancement measures during the effects assessment itself.

However, there is not always a clear and direct indicator for each of the VSECs. Where this is the case, we have either selected indicators that, singly or together, can provide indirect or proxy means of measurement or we have not provided a quantifiable indicator at all where there is no value in doing so. In these cases we acknowledge the VSEC (it is often the case in the social sciences that the things we have no means of measuring are given insufficient weight in an assessment), and describe any indirect or anecdotal evidence for our assumptions of how the Mactung project will affect it. Providing an indicator that has only a tenuous or tangential relationship to the VSEC at best will not assist in the assessment and may distract from what is actually valued. We are trying to avoid including data simply because it is available.

The table below summarizes the linkages between the VSECs, the interests associated with each VSEC and the baseline indicator.

<i>VSEC</i>	<i>Interest</i>	<i>Indicator</i>
Sustainable livelihood		
Traditional economic activities — hunting, fishing, gathering, trapping	Yukon Environment Ross River Dena Council Liard First Nation Traditional land stewards Ross River group trappers	Trapping harvest data (<i>Yukon Environment</i>)

¹ YESAB. June 2006. *Guide to Socio-economic Effects Assessments*.p.49

Employment	Gregory Keating & Neilson Sisson Rick Charlebois & Rainer Russman, Yukon Economic Development Ross River/RRDC Faro/Town of Faro Liard First Nation/Watson Lake Nacho Nyak Dun/Mayo	Employment rate Unemployment rate Participation rate (<i>Census 2006</i>)
Employability		
Education	Yukon Education Yukon Women's Directorate Ross River/RRDC Faro/Town of Faro	Highest level of education (<i>Census 2006</i>)
Training	HRSDC Yukon College Yukon Women's Directorate Ross River/RRDC Faro/Town of Faro Liard First Nation Yukon Mine Training Association	Number of courses & completion rates for selected training courses (<i>Yukon Mine Training Association</i>)
Experience	Ross River/RRDC Faro/Town of Faro	Occupational breakdown (<i>Census 2006</i>)
Infrastructure		
Transportation infrastructure	Yukon Highways Ross River/RRDC	Description Traffic count data (<i>Yukon Highways</i>)
Power & communication infrastructure	Yukon Energy NorthwesTel	Description
Municipal infrastructure	Town of Faro	Description
Economic development		
Economic growth	INAC Yukon Economic Development Ross River/RRDC Faro/Town of Faro Liard First Nation/Watson Lake	Yukon GDP (<i>Yukon Bureau of Stats</i>) Personal income by community (<i>Canada Revenue Agency</i>)
Broad participation in economic development	Yukon Economic Development Yukon Women's Directorate Ross River/RRDC	Women's and First Nation's employment, participation rates, and incomes (<i>Census 2006</i>) Availability of daycare spaces
Government revenues	Federal government Yukon government Ross River Dena Council Liard First Nation Town of Faro	Municipal YTG property taxes by community Federal and YTG income taxes by community GST data by community (<i>Canada Revenue Agency</i>)

Economic diversification	INAC Yukon Economic Development Yukon Tourism Ross River/RRDC Faro/Town of Faro Liard First Nation/Watson Lake Koser Outfitters Ltd. Denchenla Lodge	Employment by industry (<i>Census 2006</i>) Description
Minimizing boom & bust cycles	Ross River/RRDC Faro/Town of Faro	Personal income by community over time (<i>Canada Revenue Agency</i>)
Healthy business sector	Yukon Economic Development Ross River/RRDC Faro/Town of Faro	GST data by community (<i>Canada Revenue Agency</i>) Description
Business opportunities, short & long term	Yukon Economic Development Ross River/RRDC Faro/Town of Faro Liard First Nation/Watson Lake	Description
Business capacity	Ross River/RRDC Faro/Town of Faro Liard First Nation/Watson Lake	Description
Community vitality		
Community population	Ross River/RRDC Faro/Town of Faro	Community population & growth pattern (<i>Yukon Bureau of Stats</i>)
Demographics	Ross River/RRDC Faro/Town of Faro	Demographic profile (families, children) Ethnicity (<i>Census 2006</i>)
Housing & land availability	Ross River/RRDC Faro/Town of Faro Faro Real Estate Ltd.	Dwelling units (occupied & available) Housing prices (<i>Real estate listings</i>) Available lots (<i>Yukon EMR</i>)
Safety & security		
Reduced crime levels	Yukon Justice Ross River/RRDC Faro/Town of Faro	Community crime rates (broad all, violent, property) (<i>Yukon Bureau of Stats</i>)
Social cohesion		
Social/community events	Ross River/RRDC Faro/Town of Faro	Description
Volunteerism	Ross River/RRDC Faro/Town of Faro	Description
Reducing discrimination & racism	Ross River Dena Council	Income differentials between FN & others & over time (<i>Census 2006</i>)

Quality of life		
Recreation opportunities	Ross River/RRDC Faro/Town of Faro	Description
Recreation facilities	Ross River/RRDC Faro/Town of Faro	Description
Community infrastructure & aesthetic		
Municipal services	Town of Faro	Description
Decent place to live	Ross River/RRDC Faro/Town of Faro	Description
Governance, political structure and decision-making capacity	Ross River/RRDC Faro/Town of Faro	Description
Health & socio-cultural well-being		
Best possible health		
Individual & family	Health Canada Yukon Health and Social Services Ross River/RRDC Faro/Town of Faro	Yukon morbidity rates Smoking rates Diabetes rates (<i>Yukon Health & Health Canada</i>)
Sense of purpose in life	Ross River/RRDC Faro/Town of Faro	Description
Reducing alcohol and drug abuse	Yukon Health and Social Services Yukon Women's Directorate Ross River/RRDC Faro/Town of Faro	Description
Reducing domestic abuse and violence	Yukon Health and Social Services Yukon Women's Directorate Yukon Justice Ross River/RRDC	Domestic violence statistics (<i>Yukon Bureau of Stats</i>)
Public health and safety	Natural Resources Canada Yukon Energy, Mines and Resources Yukon Environmental Health Ross River/RRDC	Traffic accident rates (<i>Yukon Highways</i>)
Workplace health & safety	Yukon WCHSB Ross River/RRDC Nacho Nyak Dun	Mining accident rate (<i>Yukon WCHSB</i>)
Family resilience & self-sufficiency	Ross River/RRDC	Ratio of single parent families to all families (<i>Census 2006</i>)
Food security	Ross River/RRDC	Inflation rate, food (<i>Yukon Bureau of Stats</i>)
Cultural continuity		
Heritage sites	Yukon Heritage Branch Ross River Dena Council	Description
Land-based social and cultural activities	Ross River Dena Council Traditional land stewards Ross River group trappers	Description
Language preservation	Ross River Dena Council	Description

& restoration		
Sharing traditional knowledge and stories	Ross River Dena Council	Description

1.1 Valued socio-economic components

Valued socio-economic components, or VSECs, are defined by the Yukon Environmental and Socio-economic Assessment Board as those parts of the socio-economic fabric that are valued because of their importance to the community, specifically because of their:

- Integral connection to, or reflection of, the socio-economic system;
- Commercial or economic value; and/or,
- Their role in maintaining quality of life in a community.²

Some VSECs are specific to a particular community or interest, but many overlap among communities and interests. All of the VSECs identified for the Mactung project have been grouped into three clusters below:

- Sustainable livelihood in Section 1.1.1;
- Community vitality in Section 1.1.2; and,
- Health and socio-cultural well-being in Section 1.1.3.

The VSECs have been identified through a variety of means:

- Existing community plans and strategies including the Integrated Community Sustainability Plans for Faro and the Ross River Dena Council;
- Community meetings/workshops held to identify and validate VSECs for the Mactung mine held in Faro and Ross River;
- Meetings between North American Tungsten and representatives of the Nacho Nyak Dun and Liard First Nations;
- Community meetings/workshops held to identify and validate VSECs for the Ketzza mine held in Faro and Ross River in 2007; and,
- Responses by many interests (and especially government interests) to YESAB's assessment of the Carmacks Copper mine project.

1.1.1 Sustainable livelihood

The sustainable livelihood cluster of VSECs includes most of those factors normally considered to fall in to the economic sphere — all those things that are about people making a living or helping to make that happen.

- Traditional economic activities — hunting, fishing, gathering, trapping
- Employment
- Employability
 - Education
 - Training
 - Experience
- Infrastructure
 - Transportation
 - Power & communication
 - Municipal services

² Yukon Environmental and Socio-economic Assessment Board. *Guide to Socio-economic Effects Assessments*. June 2006. p.36.

- Economic development
 - Economic growth
 - Broad participation in economic development
 - Government revenues
- Economic diversification
 - Minimizing boom and bust cycles
- Healthy business sector
 - Business opportunities, immediate and long-term
 - Business capacity

1.1.2 Community vitality

The community vitality cluster VSECs are those that speak directly to life in the community and how to make it better.

- Community population
 - Community demographics
 - Housing & land availability
- Safety and security
 - Reduce crime level
- Social cohesion
 - Social/community events
 - Volunteerism
 - Reducing discrimination & racism
- Quality of life
 - Recreation opportunities
 - Recreation facilities
- Community infrastructure & aesthetic
 - Municipal services
 - Decent place to live
- Governance, political structure
 - Decision making capacity

1.1.3 Health and socio-cultural well-being

The health and socio-cultural well-being VSEC cluster covers a broad range of issues that, although frequently raised as important or fundamental, are often very difficult to measure.

- Best possible health
 - Individual and family
 - Sense of purpose in life
- Reducing alcohol and drug abuse
- Reducing domestic abuse and violence
- Public health and safety
- Workplace health and safety
- Family resilience and self-sufficiency
 - Food security
- Cultural continuity
 - Heritage sites
 - Land-based social and cultural activities
 - Language preservation and restoration

- Sharing traditional knowledge and stories

1.2 Data Sources

This baseline relies almost entirely on published data. A large number of the indicators here stem from the 2006 Census. A special run on community Census data profiles was requested. In addition to data on the Ross River Settlement, the Towns of Faro and Watson Lake and the village of Mayo, we also obtained data on what we call “Liard First Nation”, which combines data on the communities of Upper Liard, Two-Mile-Village and Two-and-One-half-Mile Village. The “Watson Lake Area” data includes the LFN communities and the Town of Watson Lake.

The baseline also makes extensive use of information published by the Yukon Bureau of Statistics, notably data on population, some economic variables and social data. As well, Canada Revenue Agency data on income and GST is used to estimate certain economic variables.

Finally, where data from those agencies was not available to develop indicators for certain VSECs, we used information from a number of web sites.

2 SUSTAINABLE LIVELIHOOD

2.1 Traditional economic activities

2.1.1 Hunting, Fishing, & Gathering

Other than trapping, there are no available data on traditional hunting, fishing and gathering activities by First Nations. Some information will be provided through the Traditional Knowledge gathering process, but that information will relate mainly to the mine site and most will have to be kept confidential.

There are two traplines potentially affected by the mine: the Ross River Group Trapline and the one held by Gregory Keating and Neilson Sisson. Trapping data is provided by the Yukon Department of the Environment, which regulates commercial trapping in the Yukon. Individual trapline data is confidential, but the department provided the following data on trapping harvest in the area which presumably includes the two

Table 1 Fur Harvest in North Canol area

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Beaver	44	26	71	85	70	80	56	17	39	57
Coyote	0	0	3	12	1	5	2	1	8	3
Fisher	0	0	0	1	0	0	0	0	0	1
Red fox	6	3	32	15	0	3	12	22	16	0
Lynx	54	76	112	0	0	0	0	85	103	54
Marten	1,055	239	347	413	23	41	159	238	408	217
Mink	14	13	15	5	0	6	5	12	2	2
Muskrat	17	0	5	4	11	13	6	1	0	0
Otter	1	1	1	12	0	0	0	0	0	0
Squirrel	384	479	348	53	0	969	50	166	390	66

Weasel	13	11	38	39	0	2	12	7	2	2
Wolf	5	6	7	0	0	0	0	7	23	10
Wolverine	19	8	21	0	0	0	0	9	12	5
Total	1,612	862	1,000	639	105	1,119	302	565	1,003	417

Source: Yukon Department of the Environment

2.2 Employment

Employment indicators include total employment, the employment rate, the unemployment rate and the labour force participation rate. At the community level, the only available labour force data are from the quinquennial census. The last census was held in May 2006. For the Yukon, in addition to the census, a monthly labour force survey is conducted that provides the required statistics.

Employment

Employment means those who did any work for pay or profit or who had a job and were absent from work.

Labour force

The labour force is the sum of the employed and the unemployed.

	<i>Yukon</i>	<i>Ross River</i>	<i>Faro</i>	<i>Watson Lake</i>	<i>Liard FN</i>	<i>Mayo</i>
Total population 15+ years	24,490	225	280	670	290	190
In the labour force	19,125	165	180	545	185	155
Employed	17,315	125	155	475	100	125
Unemployed	1,805	35	25	65	85	25

Employment rate

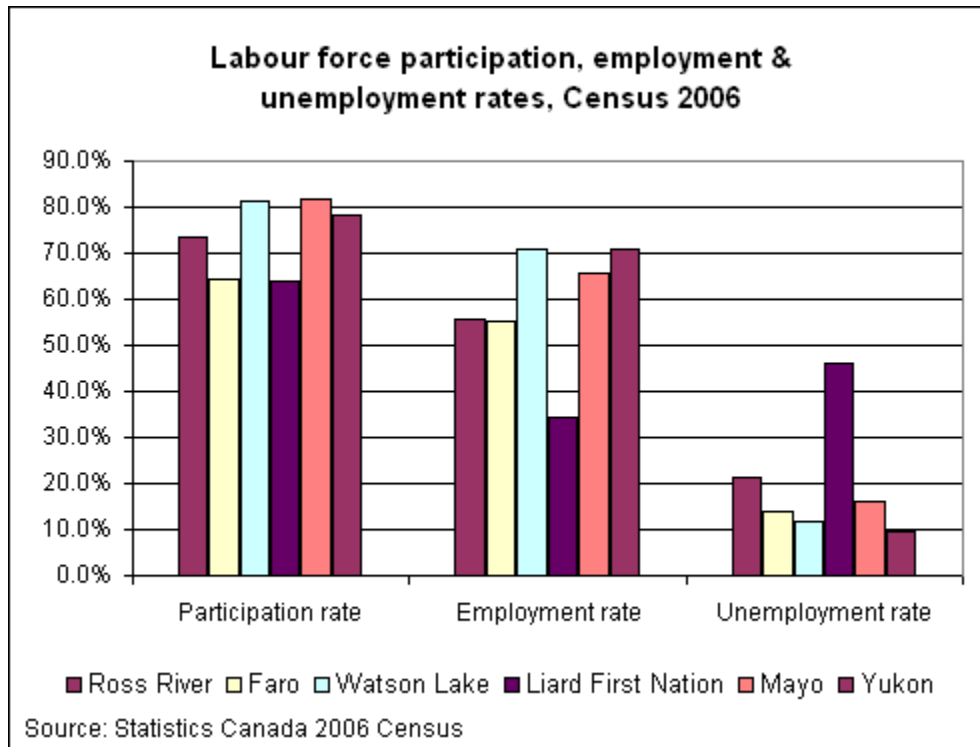
The employment rate is the percentage of the working age population (15 years old and older) who is employed.

Unemployment rate

The unemployment rate is the percentage of the labour force actively looking for work.

Participation rate

The participation rate is the percentage of the working age population that is either employed or actively looking for work (unemployed).



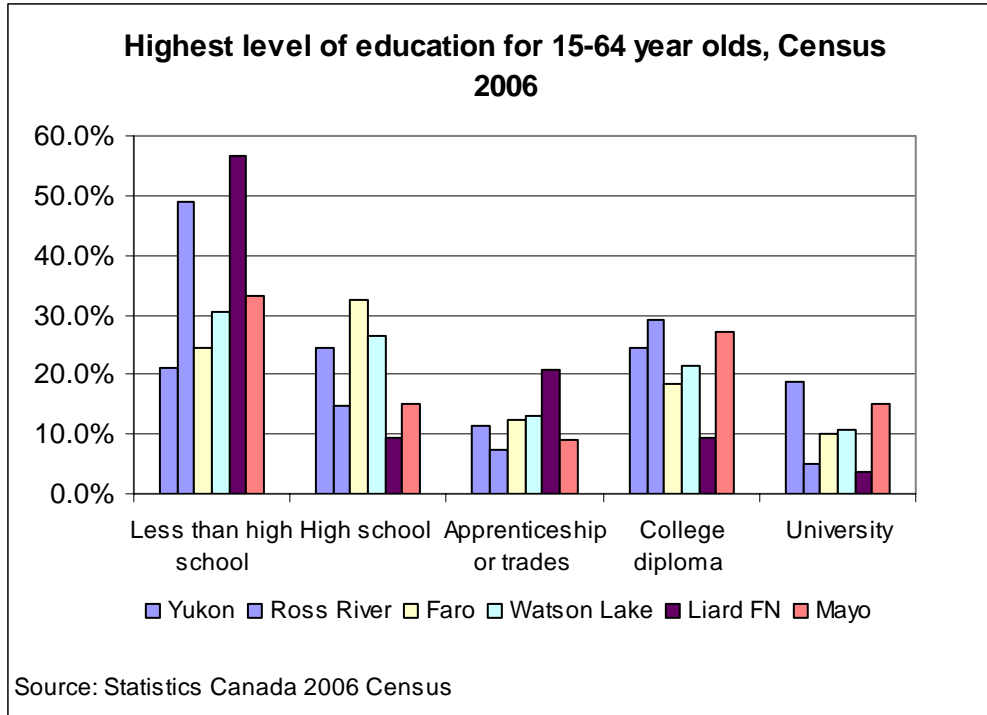
2.3 Employability

Employability can be measured by the level of training and education, as well as work experience of the subject population.

2.3.1 Education

Highest level of education

At the community and territorial level, the highest level of education achieved can be obtained from the Census.



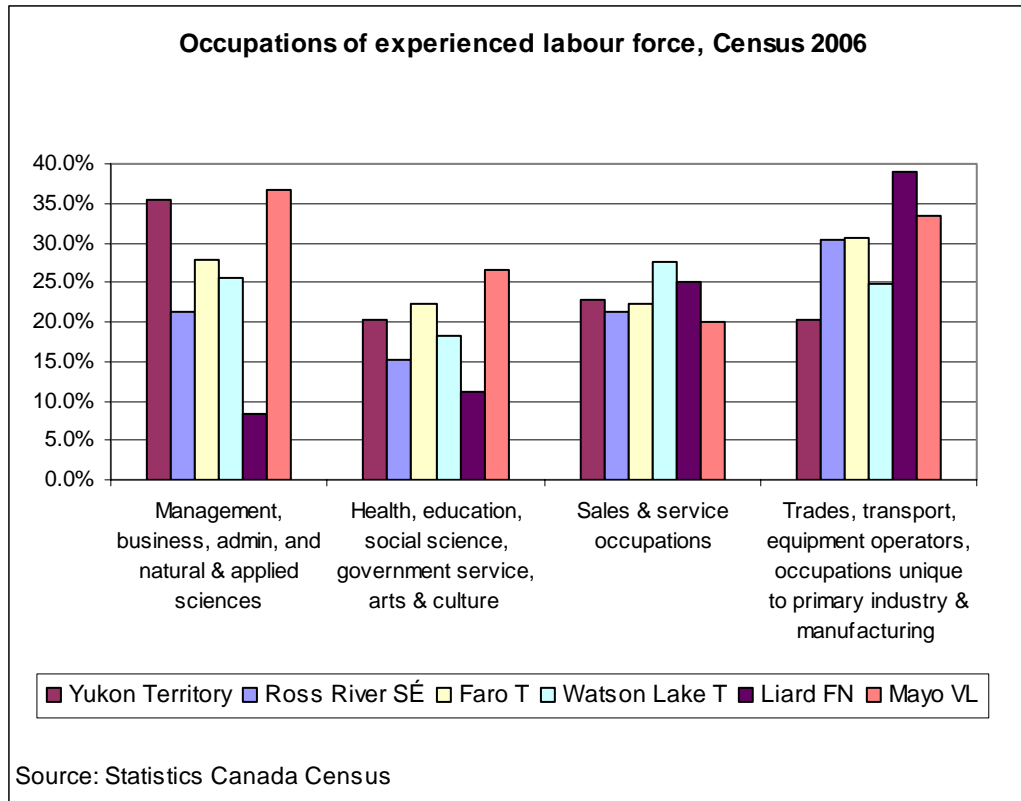
2.3.2 Training

While the number of courses offered and completion rates for selected training courses would provide good indicators of training activity, there is no data on these. While they are not included in the baseline, they should be monitored in the future.

2.3.3 Experience

Occupational breakdown

At the community and territorial level, occupational data is available from the Census. However, data for small communities is highly aggregated to protect confidentiality.



2.4 Infrastructure

Infrastructure includes transportation, power and municipal infrastructure.

2.4.1 Transportation

The transportation infrastructure includes roads and truck transport, and airports and air traffic.

The mine will be served by the North Canal Road, a 235km long unpaved road starting from the ferry over the Pelly River in Ross River. As well the mine will make use of the 583 km-long partially surfaced Campbell Highway that stretches from Watson Lake on the Alaska Highway to Carmacks on the Klondike Highway (mainly from Watson Lake). Relevant traffic data is as follows:

Ross River ferry, 1983 to 2007

Average opening date	May 23
Average closing date	October 14
Average number of days	145
Average daily traffic count	28

KM 355.2 Campbell Highway (Jack Fish Lake Road, South Canal Intersection)

1996 to 2007 Average daily traffic (May to Oct)	66
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Km 364.4 Campbell Highway (Lapie River Bridge West of Ross River)

1989 to 2007 Average daily traffic (May to Oct)	85
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The mine will be served by the 50 ft. by 1,500 ft airstrip along the Canol Road near the Macmillan pass. Other Yukon aerodromes that may be affected include the following:

<i>Aerodrome</i>	<i>Maintenance</i>	<i>Runway size</i>	<i>Runway surface</i>	<i>CARS</i>	<i>Terminal building</i>
Faro Airport	Year Round	4,000' x 100'	Gravel	Yes	Yes
MacMillan Pass	On Demand	1,500' x 50'	Gravel	No	No
Ross River	Year Round	5,113' x 100'	Gravel	No	Yes
Watson Lake Airport	Year Round	5,500' x 150'	Asphalt	Yes	Yes
Whitehorse International Airport*	Year Round	9,497' x 150'	Asphalt	FFS/ATS	Yes

As well, there is a helicopter base (Trans North Helicopters) at the Ross River Airport.

2.4.2 Power

There is no power available at the mine site and will have to be generated at the mine. Ross River and Faro are served by Yukon Energy Corporation's WAF (Whitehorse-Aishihik-Faro) grid, with three back-up diesel generators in Faro. The Yukon Energy Corporation also distributes electricity in Faro. The privately-owned Yukon Electrical Corporation owns a back-up generator in Ross River and is responsible for electricity distribution in that community.

2.4.3 Municipal

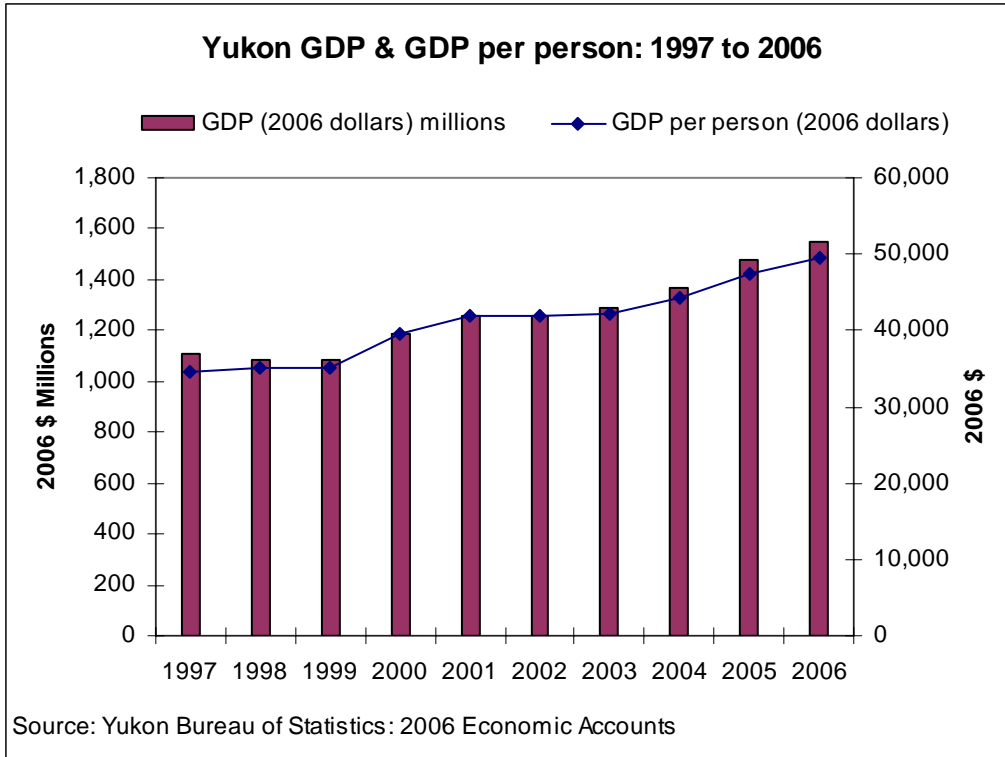
Ross River depends on trucked water supply from a community well and either on septic systems or individual holding tanks for sewage disposal. There is a primary treatment lagoon. Problems have occurred with the water supply and residents are leery of using the trucked water.

Faro has an underground piped water and sewer system. However, the system dates back to the late 1960s/early 1970s and requires upgrading.

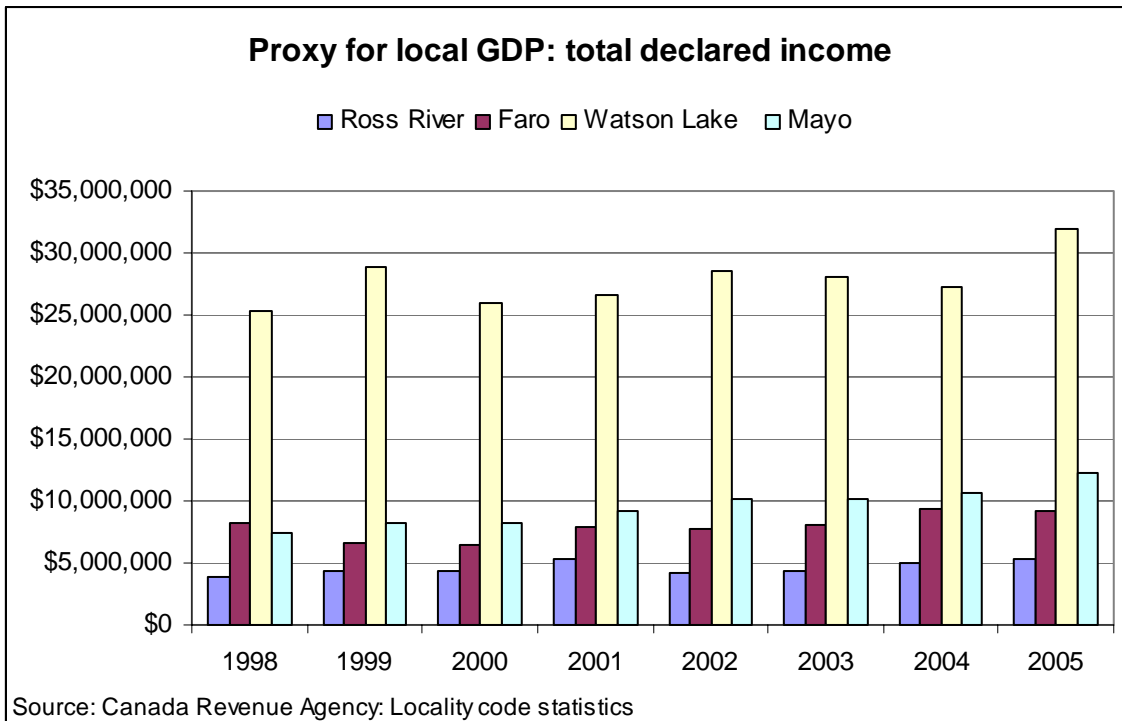
2.5 Economic development

2.5.1 Economic growth

Economic growth and the size of the economy are typically measured by Gross Domestic Product (GDP). Territorial GDP is calculated annually by the Statistics Canada and also republished by the Yukon Bureau of Statistics. At the community level, Statistics on the GDP of individual Yukon communities are not kept, but a reasonably good indicator of the size of the local money economy is aggregate personal income obtainable from income tax statistics published by the Canada Revenue Agency.

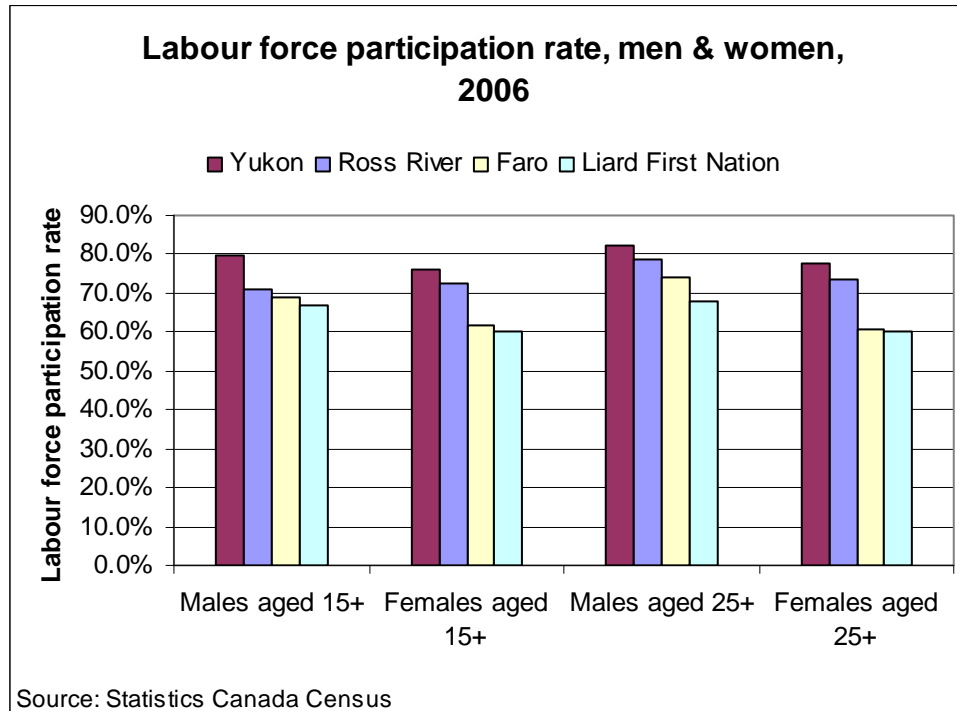


Personal income by community (Canada Revenue Agency)



2.5.2 Broad participation

Broad participation in the economy can be measured by a number of indicators including: Women versus men employment rates, participation rates, unemployment rates, income distribution, dependency ratios. The availability of daycare spaces also indicates the ability of women to participate in paid employment.



Daycare spaces

As of October 2008, based on data published by the Yukon Department of Health and Social Services, there is one licensed daycare in Ross River with space for 30 children and one in Mayo licensed for 27 children. There are apparently no licensed daycares or day homes in Faro or Watson Lake.³ However, the business directory lists one day home in Faro and a daycare in Watson Lake.

2.5.3 Government revenues

Relevant government revenues include property taxes, federal and territorial income taxes paid by residents in each community and indirect taxes collected in each community. The GST is the main indirect tax, but others include federal and territorial excise taxes on fuel, tobacco and alcohol, and royalties on natural resource products.

Municipal & YTG property taxes by community

There is no readily available data on property taxes paid in Ross River. However, property taxes paid in Faro in 2007 amounted to \$448,000. In addition, \$97,000 was paid in grants in lieu of property taxes by senior governments.

³ Yukon Department of Health and Social Services, *Yukon Licenced Child Care Centres and Family Day Home Programs* - Oct. 23/08 (PDF, 144 KB), <http://www.hss.gov.yk.ca/downloads/cccentres.pdf>, Accessed 28 Nov. 2008.

Federal and Yukon income taxes by community

	<i>Federal</i>	<i>Territorial</i>
Ross River	375,000	173,000
Faro	867,000	401,000
Mayo	1,230,000	567,000
Watson Lake	2,648,000	1,217,000
Yukon	89,152,000	41,043,000

Source: Canada Revenue Agency special request

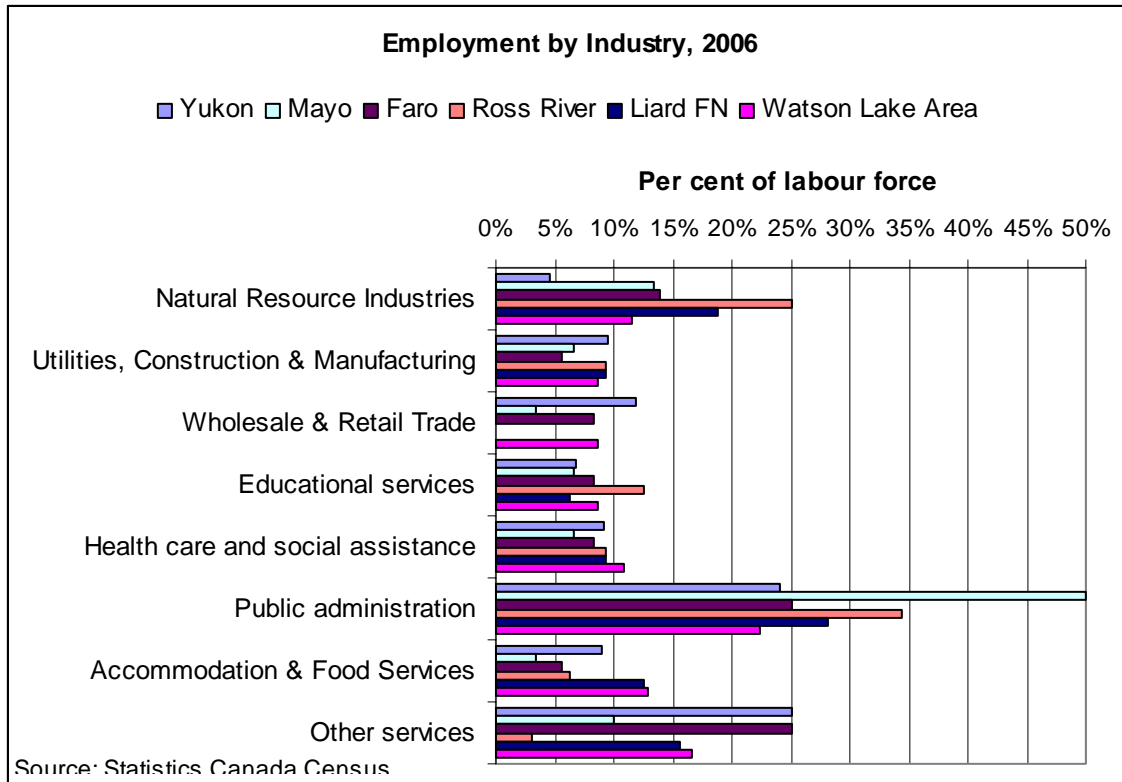
GST collected by community

	<i>Ross River</i>	<i>Faro</i>	<i>Mayo</i>	<i>Watson Lake</i>	<i>Yukon</i>
1991	54,967	348,178	145,421	1,188,309	37,630,552
1992	83,622	425,346	209,646	1,170,679	45,294,678
1993	76,225	187,403	170,551	1,191,611	46,852,341
1994	81,926	127,962	180,136	1,296,287	47,153,184
1995	106,594	249,996	264,452	1,759,341	56,534,925
1996	82,449	234,784	235,333	1,762,738	62,178,781
1997	75,571	172,296	301,895	1,944,797	65,020,583
1998	77,663	161,807	293,099	1,164,484	60,729,296
1999	69,167	153,209	262,100	1,275,090	62,423,689
2000	90,922	117,364	238,540	1,476,005	65,528,237
2001	115,171	117,934	282,868	1,305,060	68,589,326
2002	92,773	179,392	252,951	1,344,229	69,151,774
2003	108,965	142,776	234,341	1,300,740	70,173,767
2004	154,538	160,268	298,316	1,349,267	75,023,652
2005	153,030	170,314	348,363	1,341,041	86,030,884
2006	112,920	104,712	244,469	1,119,546	83,232,579

Source: Canada Revenue Agency special request

2.6 Economic diversification

Diversification has two components: the array of industries present in the area and the lack of dependence of the local economy on any one industry. There are no direct indicators of dependence on one industry; however, the census provides some information on the industrial distribution of employment, albeit at a fairly aggregated level.

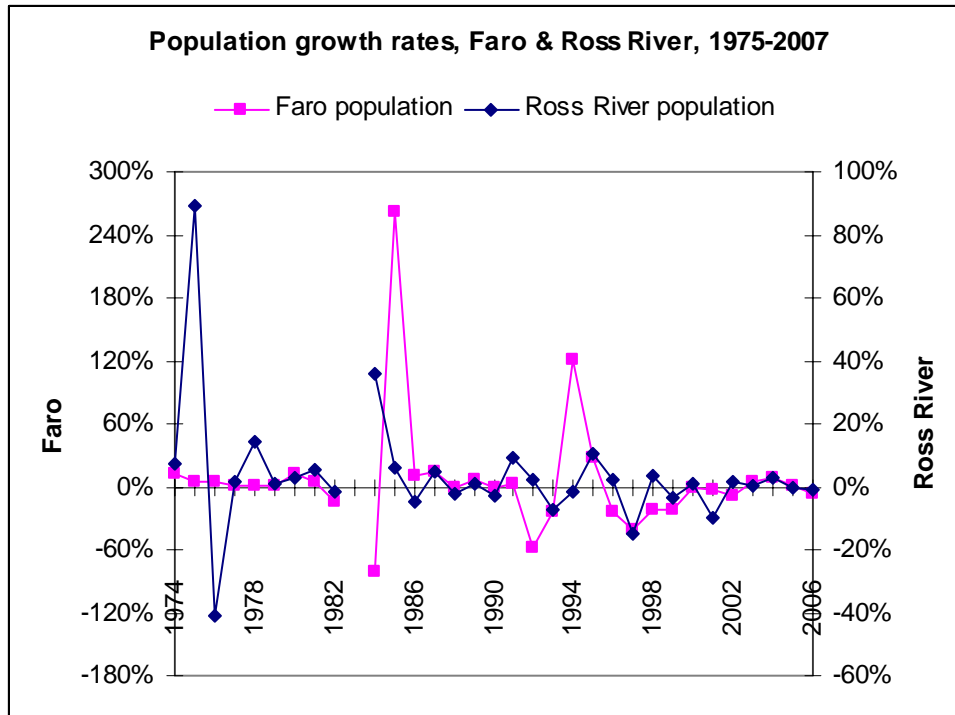


2.6.1 Minimizing boom & bust

Fairly volatile fluctuations in population and total community income are reasonably good indicators of booms and bust. Volatility can be measured by year to year growth rates.

Population over time

See Section 3.1 for total numbers. Population in Faro has fluctuated considerably depending on the fortunes of the mine. In the early 80s, it reached almost 2000 people while it dropped to barely more than 100 in the late 1990s. Except for 1974 and 1975, Ross River has had less wild population fluctuations, but they follow a similar pattern to Faro's since the late 1980s.



Personal income by community over time

2.7 Healthy business sector

2.7.1 Healthy local businesses

GST data by community

The size of the local private business sector can be estimated by total sales of local businesses. This information is available from GST data kept by the Canada Revenue Agency.

	Ross River	Faro	Mayo	Watson Lake	Yukon
1991	6,193,000	18,074,022	12,628,893	65,844,496	4,102,702,967
1992	6,578,400	19,580,515	13,014,970	60,313,795	4,290,198,089
1993	6,624,400	17,033,529	12,598,245	60,131,209	4,837,574,161
1994	6,614,100	15,403,039	13,098,245	75,545,846	4,611,765,480
1995	7,484,081	16,555,300	12,139,453	85,795,022	5,239,294,409
1996	7,383,054	14,514,737	13,118,260	88,931,316	5,101,998,479
1997	6,840,079	10,533,124	12,788,802	75,903,918	4,955,733,238
1998	6,393,080	7,236,188	12,215,696	66,787,401	4,997,337,043
1999	6,531,114	6,123,585	12,302,698	66,022,318	4,997,791,158
2000	6,378,114	6,115,577	11,744,647	68,936,691	4,997,348,801
2001	7,172,179	4,977,568	12,232,676	69,145,672	4,713,514,620
2002	7,254,189	6,186,080	12,698,162	69,690,131	4,875,524,657
2003	6,984,156	4,830,074	7,381,554	67,439,358	4,617,955,072

2004	6,302,101	4,590,161	5,778,578	67,956,486	4,594,738,709
2005	7,870,157	4,776,155	5,868,587	69,690,548	4,885,379,171
2006	6,384,102	3,205,325	4,624,479	62,305,137	4,965,780,541

2.7.2 Business opportunities, long & short term

List of local businesses that can offer goods and services to development projects

Ross River:

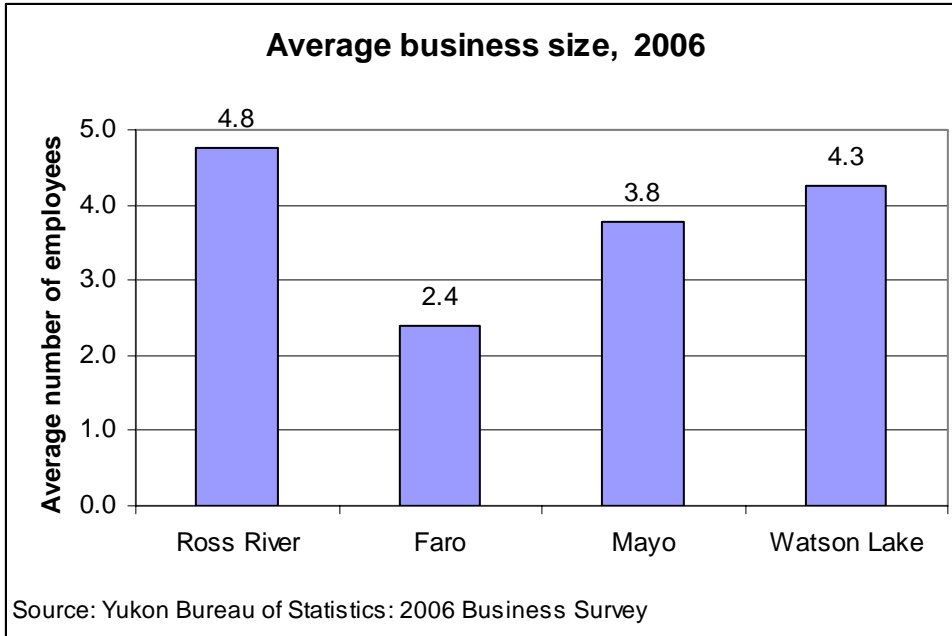
- C McLeod Contracting (Heavy Equipment)
- Canol Mobile Welding (Welding)
- Dena General Store (Groceries)
- Jackfish Lake B&B (accommodation)
- Ross River Service Centre (Groceries, expediting)
- T Moon Construction (Heavy Equipment)
- TND Hotel (Accommodation, restaurant)
- Tulidlini Petroleum (Fuel)

Faro

- Bear's Den B&B (accommodation)
- Blue House B&B (accommodation)
- Coldwell Banker Redwood Realty (Real estate broker)
- Discovery Store (Groceries)
- Faro Real Estate (housing)
- Faro Studio Hotel (accommodation, restaurant)
- Nature Friends B&B (accommodation)
- North Star B&B (accommodation)
- Valley B&B (accommodation)

2.7.3 Business capacity

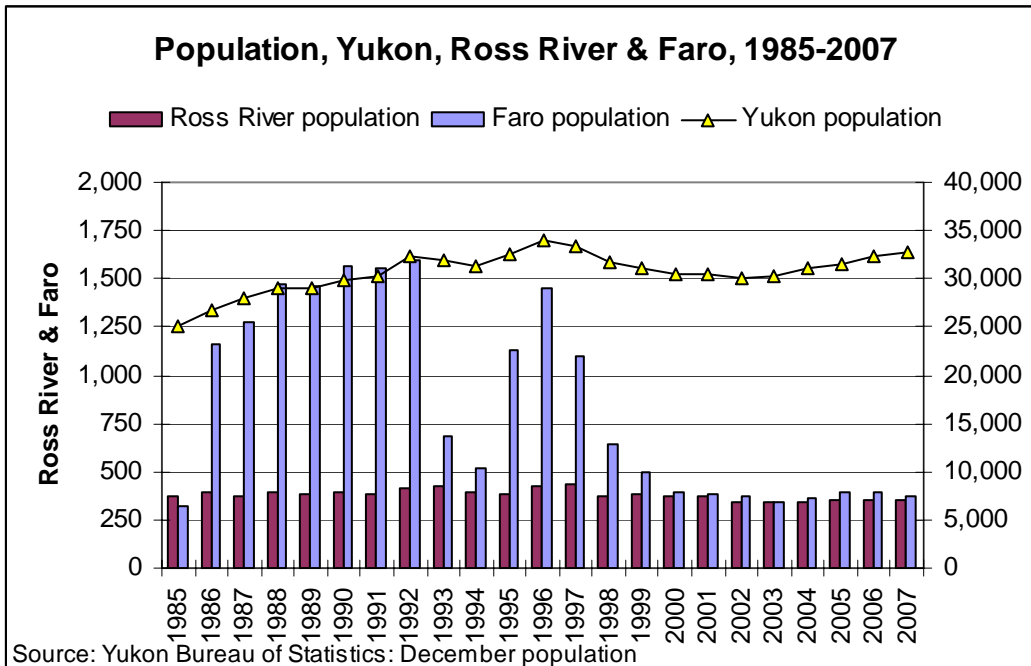
One measure of business capacity is the average number of employees. Businesses with fewer employees have less capacity than larger ones. As well, the diversity of businesses in each community is an indicator of potential capacity. Unfortunately, there is very little data on the industrial structure of smaller communities other than the Census data on employment by industry presented in Section 2.6 above.



3 COMMUNITY VITALITY

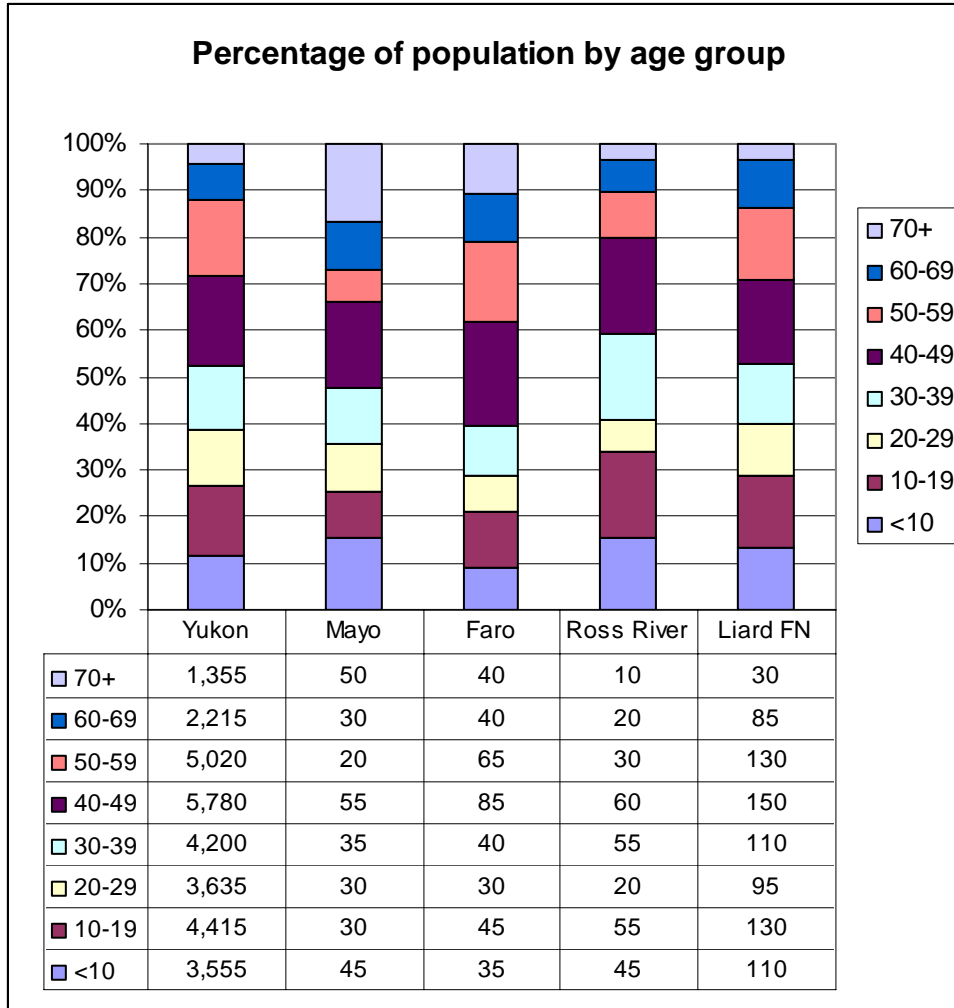
3.1 Population

Yukon & Community population & growth pattern

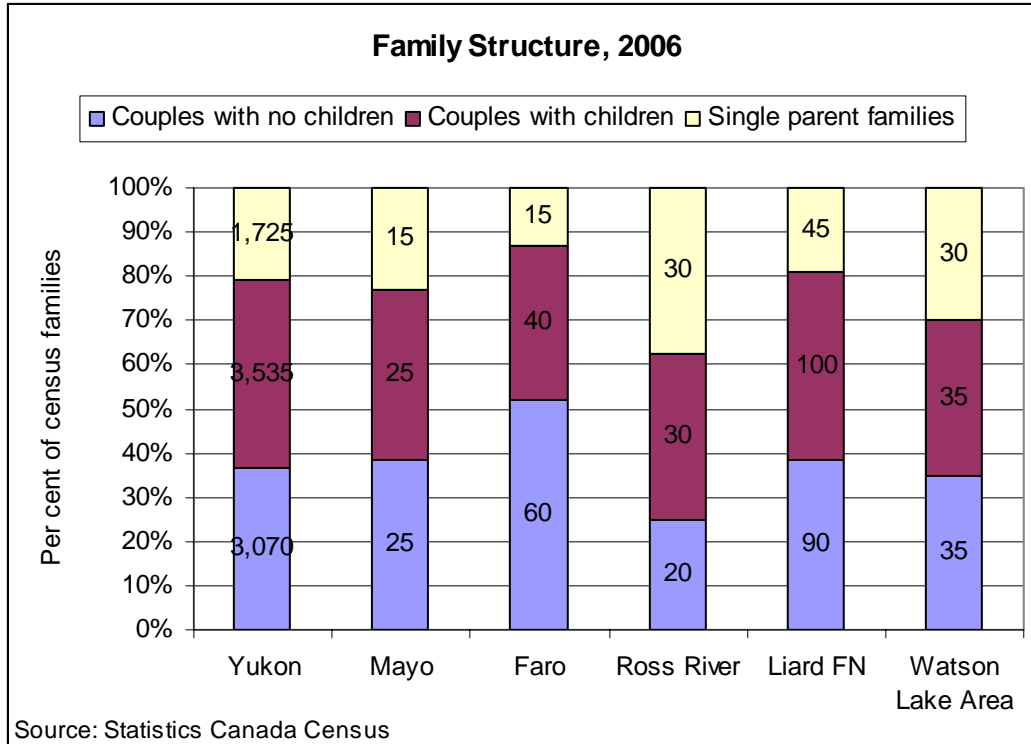


3.1.1 Demographics

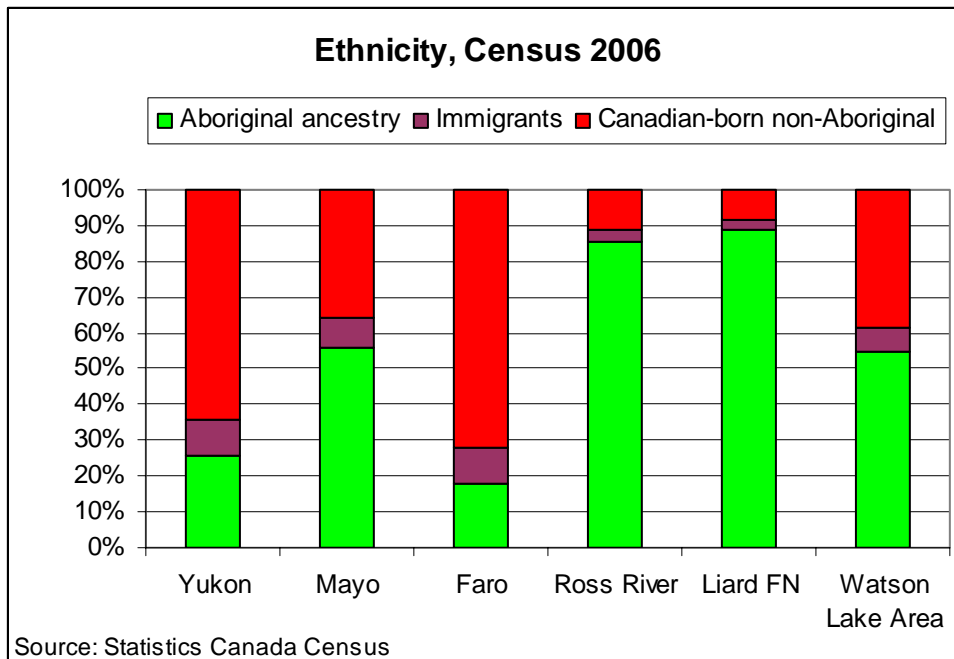
Age structure



Families and Children



Ethnicity



3.1.2 Housing & land availability

Dwelling units (occupied & available)

Ross River

- 175 total dwellings
- 128 occupied private dwellings, May 2006

Faro

- 463 total dwellings
- 149 occupied private dwellings, May 2006

Housing prices, rents

No data is published on rental costs or housing prices. The 2006 Census has an estimate of the value of owned dwellings:

<i>Community</i>	<i>Average dwelling value</i>
Ross River	\$98,652
Faro	\$64,755

Available lots

As of Sept. 30, 2008:

	Faro	Ross River
Total lots for sale Sept. 30, 2008	4	2
Country residential	4	
Industrial		2

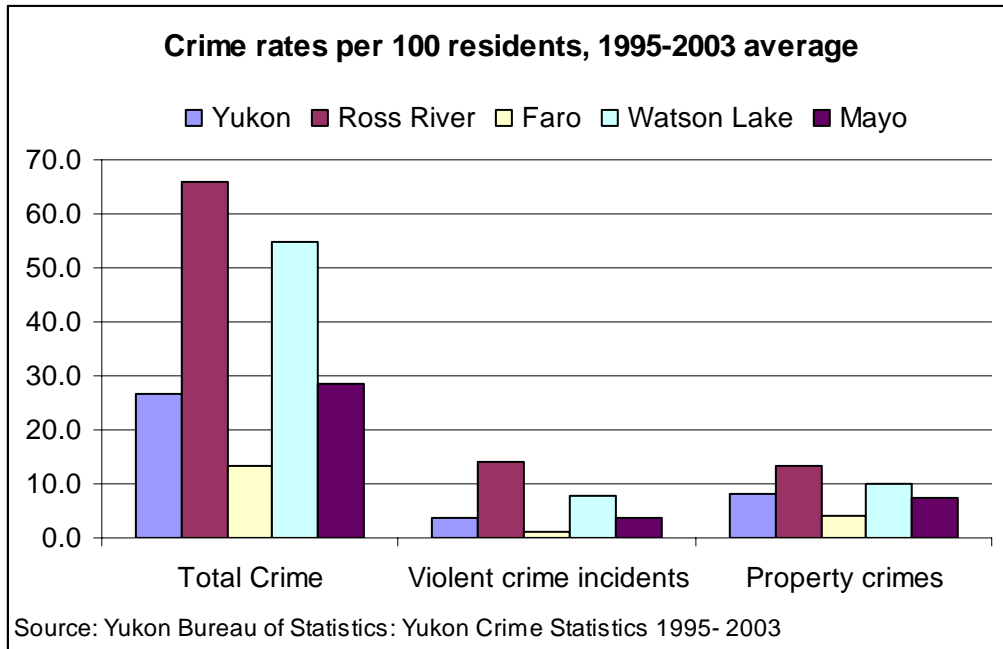
Zero real estate listings in Ross River, two in Faro and a number of multiple housing buildings/units (townhouses, duplexes) available from Faro Real Estate in Faro.

3.2 Safety & security

3.2.1 Reduced crime levels

The only available published crime data dates back to 2003. No data has been published since.

Yukon & Community crime rates (broad all, violent, property)



3.3 Social cohesion

3.3.1 Social/community events

No data on social/community events as they vary from year to year, other than the annual gathering for the Ross River Dena at Coffee Lake.

3.3.2 Discrimination & racism

The long-standing economic technique to analyse earnings differentials is to estimate an earnings function on large-scale databases of individual incomes and characteristics. An earnings function is a regression equation with a minimum of age, sex, and education as explanatory variables for the logarithm of earnings.

The earnings function technique has been mainly used to explore male/female wage and income differentials, but has also been used to examine racial income differences in the United States. Any unexplained difference is usually ascribed to “discrimination” or “privilege”.

Despite the large literature on racial income differences in the US, we know of only three published studies done on aboriginal/non-aboriginal differences in Canada. All three studies examine the effect of readily measurable characteristics such as sex, education and location.

The first, published in 1994, and based on 1986 Census data (1985 income), found an unexplained wage gap of about 11% between Aboriginal working full time and full year and non-aboriginal Canadians.⁴ Pendakur and Pendakur examined total wage earnings rather than wage

⁴ George, Peter & Kuhn, Peter (1994). “The size and structure of native-white wage differentials in Canada.” *Canadian Journal of Economics*, XXVII, No. 1, February 1994, 20-42.

rates using 1990 income data from the 1991 Census.⁵ They found a gap of 12.5% between Aboriginal men and Canadian-born white men and a gap of 9.9% with the overall male average. However, the study excluded the Atlantic provinces and the territories because of the small number of cases in the Census Public Use database they used. A third study by Bernier confirmed the findings of George and Kuhn and Pendakur and Pendakur.⁶

Simple income differentials are not necessarily evidence of discrimination; other factors need to be accounted for, such as age, education, location, attachment to the labour force, etc. These are complicated in that they can also be affected by discrimination: e.g. because they are discriminated against, a certain group gets smaller rewards from education and there is therefore less of an incentive to get higher education.

Income differentials

Median incomes for Aboriginal identity people over 15 years old and the entire population above that age are presented below. Data is not available for the other affected communities for confidentiality reasons as the aboriginal population is too small.

<i>Median income</i>	<i>Yukon</i>	<i>Ross River</i>	<i>Watson Lake</i>
Aboriginals	\$20,690	\$16,640	\$22,112
Entire population	\$31,352	\$18,498	\$29,205
Pct Aboriginal population	26%	85%	40%

3.3.3 Volunteerism

No data is available on volunteerism and participation in the affected communities.

3.4 Quality of life

3.4.1 Recreation opportunities

All affected communities are in wilderness areas that offer hunting, fishing, hiking and outdoor adventure. There is a 67.6 km multi-use recreation trail hiking trail on the northern side of the Pelly River between Faro and Ross River: the Dena Cho trail.

Faro offers hiking trails, an arboretum, and a number of wildlife/scenic-viewing stations. Fannin Sheep, which are particular to the region, can be studied from these stations. Johnson Lake and Fish Eye Lake provide opportunity for outdoor recreation, including swimming, water-skiing, fishing, and boating.

3.4.2 Recreational facilities

In Faro, there are softball diamonds, squash, a seasonal pool, cross-country skiing, hockey, figure skating, curling. Faro also has a nine-hole golf course in the middle of the town. Access to gym and weight room is available at the recreation centre as well as the squash courts.

⁵ Pendakur, Krishna & Pendakur, Ravi (1998). "The colour of money: earnings differentials among ethnic groups in Canada." *Canadian Journal of Economics*, XXXI, No. 3, August 1998, 518-548.

⁶ Bernier, Rachel (1997). "The dimensions of wage inequality among Aboriginal peoples." Statistics Canada, Catalogue No. 11F0019MPE97109, Analytical Studies Branch research paper series No. 109, December 1997.

In addition to a number of softball diamonds, Ross River also has an enclosed hockey rink, but no ice-making ability.

3.5 Community infrastructure & aesthetic

3.5.1 Municipal services

Municipal services are provided by the Town government in Faro, including garbage, recycling, parks & playgrounds, traffic control, street cleaning/litter pickup.

In Ross River, some of these services are offered by the Ross River Dean Council (e.g. garbage pick-up) while other are provided by the Yukon government.

3.5.2 Decent place to live

No media are published in the affected communities.

Ross River is home to a number of locally well known artists including a former and a current chief: Jack Caesar and Gordon Peter.

3.6 Governance, political structure

3.6.1 Political structure

Faro has a municipal government; it is recognized as a Town under the Yukon Municipal Act. Ross River has the Ross River Dena Council, an Indian Act band. As well, the community has indicated a desire to create a municipal structure, such as a hamlet or local advisory council/

3.6.2 Decision making capacity

No data or indicators are available on decision-making capacity.

4 HEALTH & WELL-BEING

4.1 Best possible health

4.1.1 Individual and family

There is no health data available at the community level. Morbidity and mortality rates are published for the Yukon only, since most of the statistics are collected at the Whitehorse General hospital.

There are Community Health Centres in Faro, Ross River, and Mayo as well as a 12-bed hospital In Watson Lake. The health centres are staffed by one or more nurses and auxiliary staff. Community Nurse Practitioners (CNP), in the absence of a physician, provide daily clinics for medical treatment, community health programs and 24-hour emergency services. Clients requiring more specialized care are referred to a hospital.

The hospital in Watson Lake provides 24-hour emergency medical treatment, short term admissions and respite care. Patients who need specialized care are referred to Whitehorse General Hospital or to hospitals out of the territory.

4.1.2 Sense of purpose in life

No published indicators available for this VSEC.

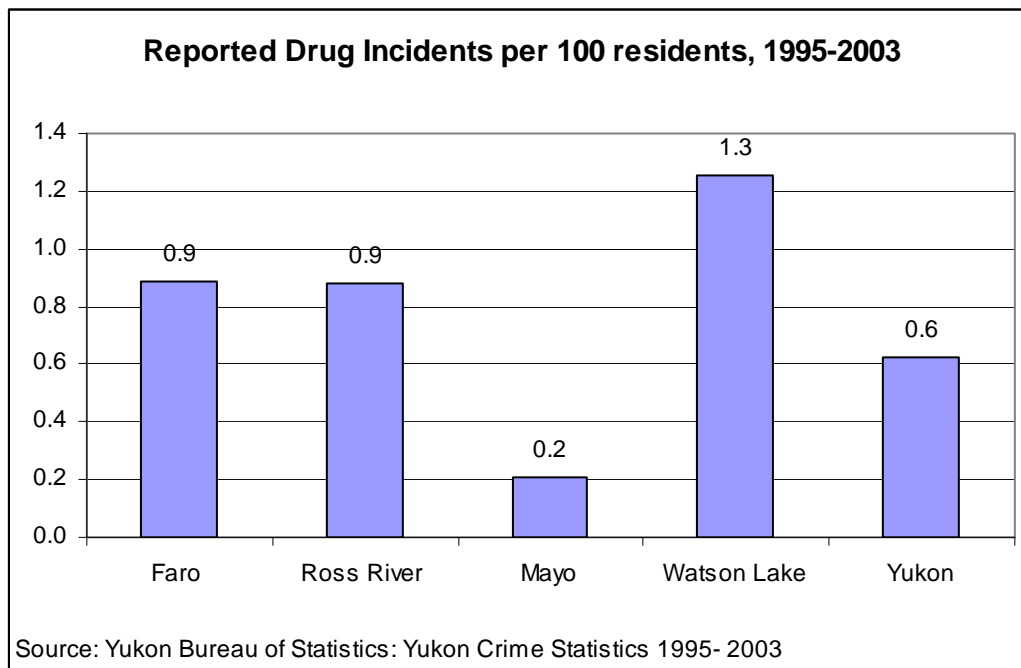
4.2 Reducing alcohol and drug abuse

Ideally, indicators for alcohol & drug use would be consumption per capita. However, there are no such numbers. Indirect indicators include drug-related and alcohol-related crime statistics and alcohol sales. Note that the crime statistics are somewhat dated as they go back to 2003. There is some self-reported consumption information data from two addiction surveys

	1990	2005
Heavy & frequent alcohol use (once per week or more drinking 5 drinks or more)	14%	10%
Drinking occasions per month	6.5	6.7
Number of drinks per occasion	4.2	3.8
Cannabis use in the past 12 months	16%	21%
Cocaine use in the past 12 months	n/a	3%

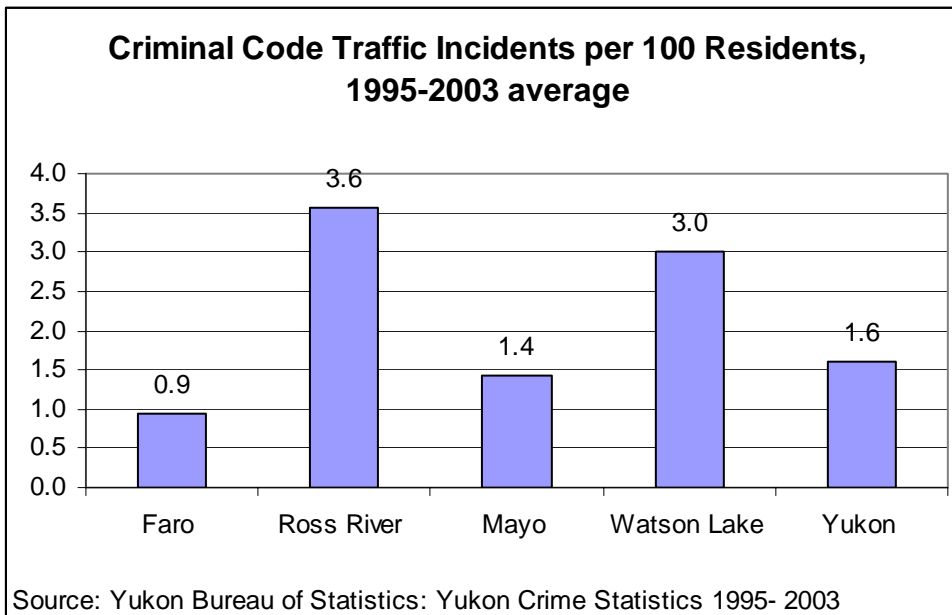
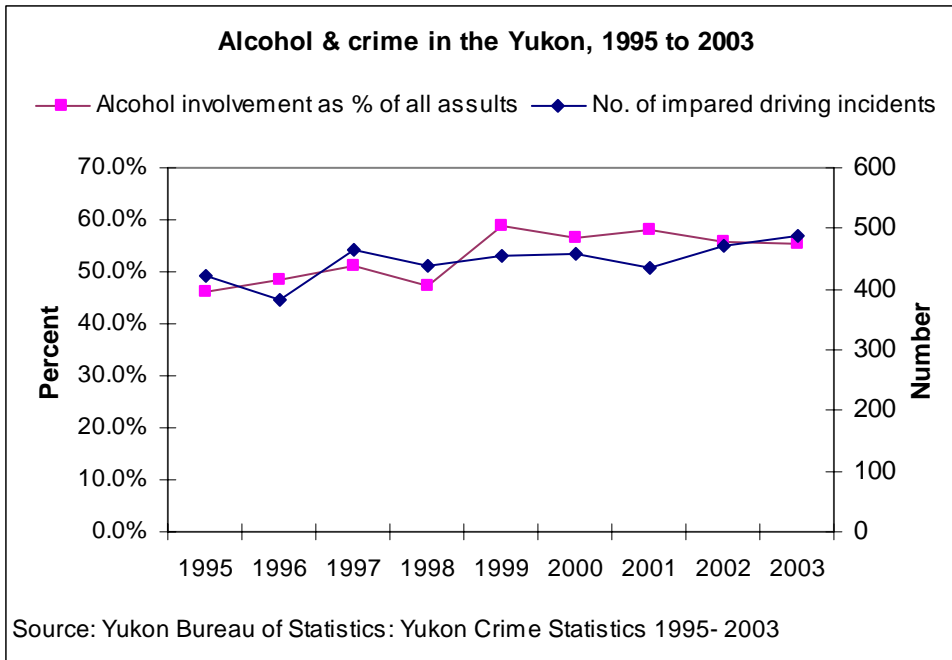
Source: Yukon Health & Social Services and Yukon Bureau of Statistics, Yukon Addictions Surveys, 1990 & 2005.

Drug related crime statistics



Alcohol related crime stats

Alcohol related crime statistics include assaults that involve alcohol and impaired driving incidents. Unfortunately, because of the way the data is presented, these cannot be combined to obtain a total alcohol-related incident indicator. Also, there is no data at the community level for alcohol-related assaults. The best that can be done at the community level is criminal code traffic incidents, which are mostly impaired driving incidents (close to or above 90%) and a small number of criminal negligence.



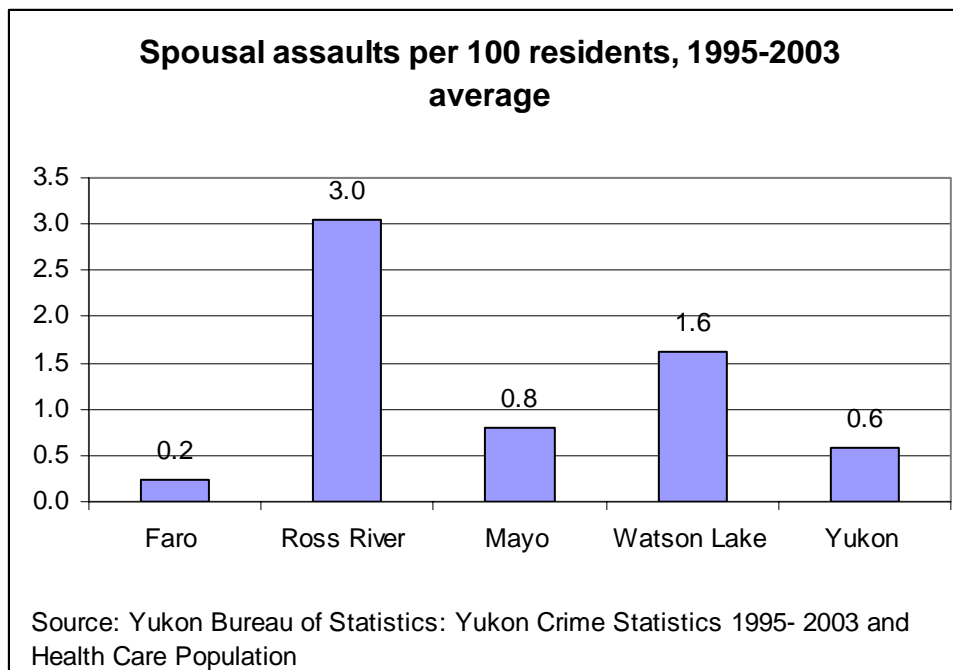
Alcohol sales

Yukoners, with an average annual per capita consumption of 139.1 litres of pure alcohol and per capita spending of \$1,159 in 2007, drink more and spend more on alcohol than the residents of any other province or territory.⁷ This compares to the Canadian average of \$667 and 84.3 litres.

While no specific data is available for total community alcohol consumption, the amount sold by liquor stores in Faro, Mayo and Watson Lake are published: In 2007, 108,000 litres of alcoholic beverages were sold at the Faro liquor store, 98,200 at the Mayo liquor store, and 318,800 litres at the Watson Lake liquor store. There is no liquor store in Ross River; liquor sales happen mainly at the bar. Further, many of the businesses serving liquor in the other communities buy their liquor directly from the Yukon Liquor Corporation warehouse in Whitehorse.

4.3 Reducing domestic abuse and violence

Reported spousal abuse rates are a good indicator of domestic abuse and violence. These have been calculated from the number of reported spousal abuses in each community and population data.



4.4 Public health and safety

Traffic accident rates for the Campbell and North Canol are not published.

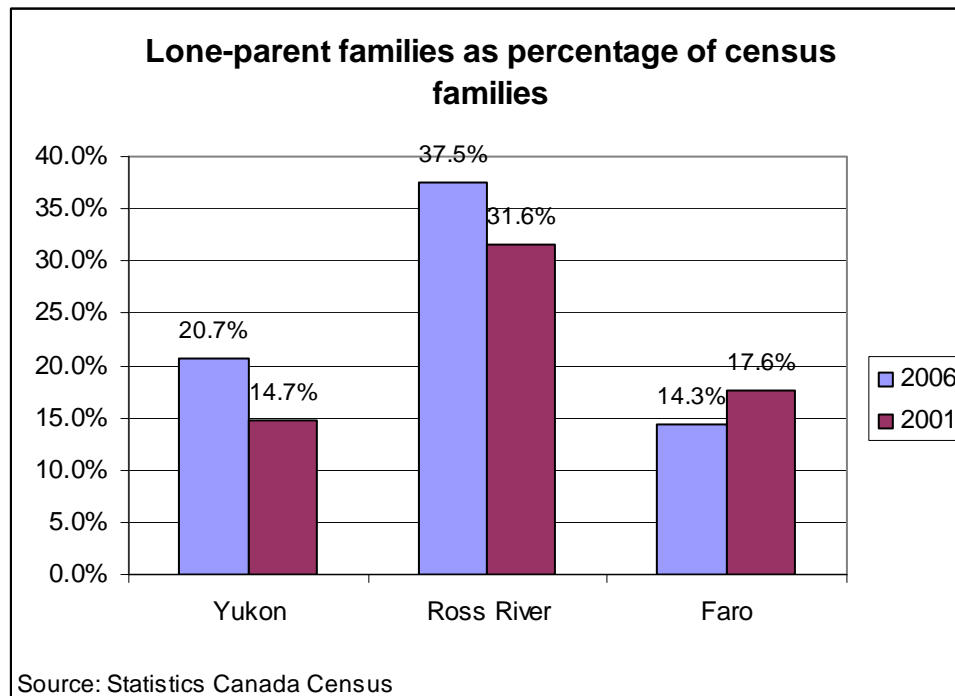
⁷ Statistics Canada The Control and Sale of Alcoholic Beverages in Canada: Fiscal year ended March 31, 2007 Catalogue no. 63-202-X, Tables 4-1 and 4-2, pp. 27 & 28

4.5 Workplace health and safety

The US National Institute of Occupational Safety and Health (NIOSH) presents number and rate of lost-time injuries in mining, 2002-2006 per 100 full-time equivalent employees. For underground metal mining that figure was 3.6 injuries per 100 FTEs for underground operations and 0.5 for above-ground work.⁸

4.6 Family resilience and self-sufficiency

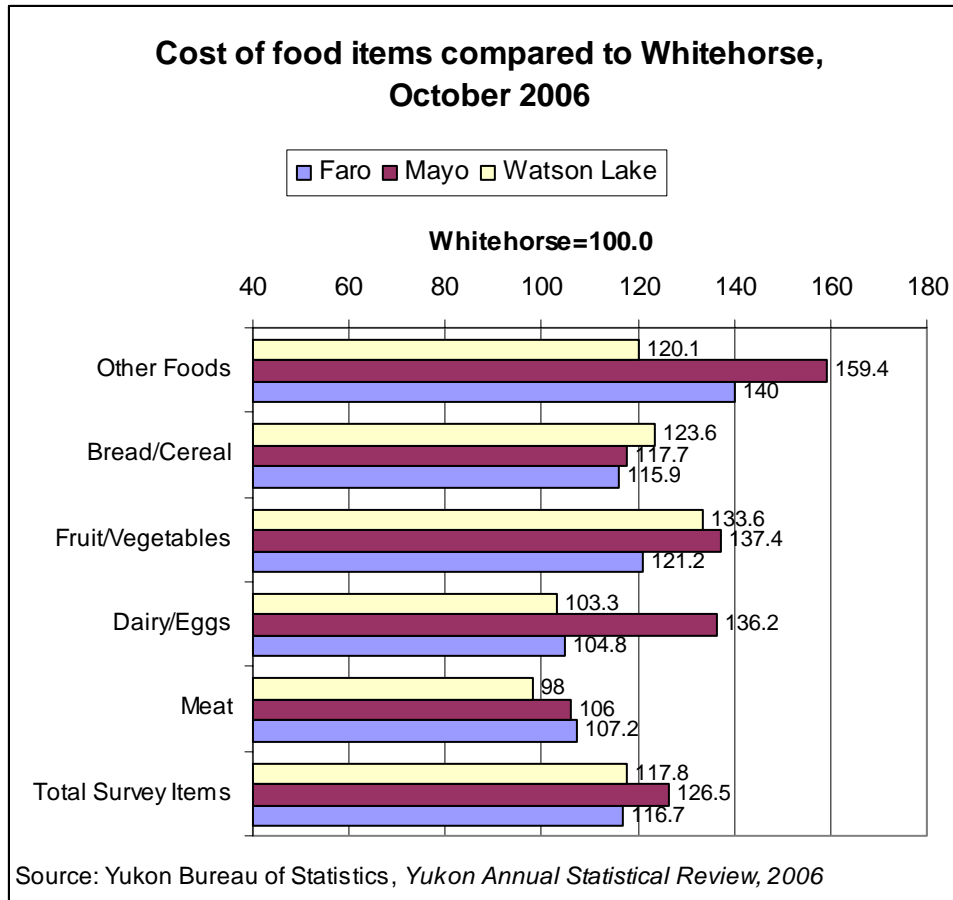
It is difficult to measure family resilience and self-sufficiency. However, the ratio of single parent families might provide an indicator.



4.6.1 Food security

Food security is also difficult to measure. Part of it is the availability and price of store-bought food and another part is access to and the safety of country foods such as game, fish, and wild plants. Also, the cost of food is a major issue. The Yukon Bureau of Statistics published a spatial price index which compared the price of certain food items in a number of communities with Whitehorse. The latest published numbers are for 2006.

⁸ National Institute of Occupational Safety and Health (NIOSH), *NIOSH Mining Safety and Health Research, Number and Rate of Lost-time Injuries in Mining, 2002-2006 Per 100 Full-time Equivalent Employees by Type of Employer, Commodity, and Work Location (Excludes office employees)*, <http://www.cdc.gov/niosh/mining/statistics/tables/InjRate.html>, Accessed 29 November 2008.



4.7 Cultural continuity

4.7.1 Land-based social and cultural activities

Community activities

The main land-based community activity in Ross River is the annual gathering at Coffee Lake. As well, Ross River Dena people participate in and occasionally host Stick Gambling gatherings. There is a group of traditional drummers who officiate at most ceremonies involving the Ross River Dena.

Language preservation and restoration courses, workshops

Johnson Elementary School in Watson Lake, the Watson Lake High School, and the Ross River School offer Kaska language school programs with two teachers in Ross River and five in Watson Lake.⁹

The Yukon Native Language Centre offers teaching materials in Kaska and the Kaska Tribal Council published a noun dictionary in 1997.

⁹ Yukon Native Language Centre, Kaska page, <http://www.ynlc.ca/languages/ks/ks.html>, accessed 29 November 2008.

Proportion of speakers of aboriginal language

There is no reliable data on the number of speakers of Kaska.

Sharing traditional knowledge and stories

There is no reliable published information on this issue.

4.7.2 Heritage sites

No known heritage sites in the mine area.