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1999 ANNUAL SURVEY OF TELECOMMUNICATIONS SERVICE PROVIDERS

This is a preliminary release of data in advance of the annual publication. Data from facilities-based carriers (wireline, wireless and satellite) and resellers are presented.

1999 Statistical highlights

1999 **operating revenues** for the telecommunications industry (NAICS 5133) were \$29.0 billion, a 1.8% increase from the previous year.

Operating expenses increased 1.7% to \$25.1 billion. The end result was an **operating profit** of \$3.9 billion, 100 million dollars higher than last year.

Of the five NAICS telecommunications industries, only the wireline telephone industry and satellite/other service industry showed operating profits in 1999. For the third consecutive year, resellers posted operating losses whereas the wireless industry (cellular phone, paging and radio communications companies) has had operating losses for two

consecutive years. Operating losses as a percentage of operating revenue declined for the wireless industry between 1998 and 1999 (4.0% to 2.0%) however, but have increased substantially for resellers (from 7.1% to 22.0%).

Industry net income improved dramatically in 1999. The industry as a whole posted a gain of \$825 million compared to a \$329 million loss in 1998. This change is largely due to the wireline industry reporting much larger write-offs in 1998 than in 1999, a result of its restructuring, in preparation for pending market liberalizations.

Full-time **employment** continued its downward trend, slipping 3% from levels reported in 1998. In contrast, part-time employment increased 2.9%. Overall, there were 2.3% fewer persons working in the industry. The decrease in employment did not lead to lower labour expenses however, as salaries, wages and benefits increased 8.9% over the same period last year.

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Perhaps justifying increased labour expenses in the face of a smaller workforce were the higher returns per employee reported in 1999. **Revenue per employee** (based on full-time equivalents) increased 5.3% from 1998. The wireless sector led the way reaching almost \$382,000. The wired sector reported the highest average full time remuneration at \$70,723.

The telecommunications industry continued its high level of **capital expenditures** (\$5.98 billion) in 1999, although this amounted to a drop of 7.2% from the previous year. Construction expenditures dropped 28.2% from 1998 while machinery and equipment expenditures increased 3.5 %.

There were almost 27 million voice-grade **access paths to the public switched telephone network (PSTN)**, an increase of 9.3% over 1998. This was comprised of 20.1 million voice-grade access lines and 6.9 million mobile (wireless) telephone subscribers. Most of the growth in PSTN access in 1999 came from mobile services, which increased 29.1% over the previous year. Almost 38% of mobile services were digital at the end of 1999 (2.6 million subscribers), up from 26% (1.4 million subscribers) in 1998.

Assets for the entire industry were nearly \$50.7 billion at the 1999 year end, an 8.0% increase from 1998. Most of this increase was realized in the wireline industry. The increase in assets was primarily debt financed. Liabilities were up by 10.8% whereas equity increased only 1.3%. The higher debt load is also reflected by higher interest payments, which rose 6.6% over the 1998 level. The large losses posted by wireless carriers are evident in this industry's negative equity position (-\$1.0 billion).

History of Survey

The Telecommunications Industry (NAICS 5133) is playing a critical role in the social and economic development of Canada. Clearly, its influence is expanding as Canadians increase their use of new products and services employing telecommunications applications, such as electronic media, e-commerce and mobile communications.

Significant technological innovations and deregulation in recent years led to the introduction of many new services and service providers necessitating changes to the 'Telephone survey', designed in 1971. The Annual Survey of Telecommunications Service Providers was introduced in 1997 in response to these changes. The new survey focuses on providing meaningful measures of the telecommunications industry's financial performance as well as aspects of the industry's network infrastructure. In addition, statistical changes such as the introduction of the North American Industry Classification System (NAICS) and the need to harmonize the redesigned annual survey with a new quarterly survey has had an impact on the nature of the data collected.

The North American Industry Classification System

The North American Industry Classification System (NAICS) was released in 1998 to reflect the industrial structure of the North American economy for reference year 1997. NAICS is the most up-to-date industry classification in use, jointly developed by Canada, the United States and Mexico.

Reporting units were classified according to the activity in which they were primarily engaged and the main technology they employed. For the telecommunications industry this meant classification was based on the kind of telecommunications service provided and whether the service provider owned any

telecommunications facilities as defined by the Telecommunications Act. Each telecommunications service provider was classified to one of the five NAICS telecommunications industries (Wired, Wireless, Resellers, Satellite and Other).

The **wired** (or wireline) **industry (NAICS 51331)** comprises establishments primarily engaged in operating and maintaining switching and transmission facilities to provide direct communications via land lines, microwave, or a combination of land lines, microwave and satellite link-ups. The **wireless** telecommunications **industry (NAICS 51332)** comprises establishments engaged in operating and maintaining switching and transmission facilities to provide direct communications via the airwaves, including cellular, personal communications services (PCS), enhanced specialized mobile radio (ESMR), air-to-ground telecommunications, messaging (paging) and radio common carriage (dispatch).

A telecommunications service provider is a **reseller (NAICS 51333)** if it is primarily engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling telecommunications services to their clients.

The **satellite industry (NAICS 51334)** comprises establishments primarily engaged in operating, maintaining and providing access to fixed and mobile satellite telecommunications facilities for the transmission of voice, data, text, sound and full motion videos. Resellers of satellite communications are included in this industry group rather than the Reseller group.

The **'Other telecommunications' industry (NAICS 51339)** includes companies providing telecommunications services not covered by the industries described above (e.g., telemetry, satellite tracking, radar stations operations).

For further details about NAICS and for industry concordance between NAICS and the SIC at all levels, consult the Statistics Canada publication 12-501-XPE, issue number 97001.

About the data

The data supplied by industry respondents relates to their financial and operating systems and are of good accounting quality. In instances where respondents were unable to provide the requested data, tax records were consulted to complete missing data. Where this was not possible, data was imputed based upon: data provided by the respondent relating to the missing data, their previous reports, reports from respondents that had similar operating profiles to those firms with missing data, or a combination of the above. Imputation was required for some smaller sized respondents whose operations had a limited impact on aggregate results, or for larger firms to provide missing secondary detail (subsets of higher level data). Data sets that consisted of a high level of imputed data points have not been published.

Annual data published for 1996 or earlier is not always comparable to data collected for the 1997 and subsequent reporting periods due to changes in the survey introduced in 1997. Infrastructure relating to access lines and wireless subscribers is comparable across survey periods however.

Feedback

Any suggestions, comments or requests for further information on this survey should be sent to Haig McCarrell (613-951-5948) or Michael Lynch (613-951-2201), Telecommunications Section, Science, Innovation and Electronic Information Division, Statistics Canada, Ottawa, Ontario; K1A 0T6.

Note of appreciation

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Year	Wired	Wireless	Reseller	Sat/Other	1999	1998	Annual
NAICS Industry	51331	51332	51333	51334/9	5133	5133	%
Income Statement (\$ 000)							
Operating revenue	22,847,592	4,700,430	939,347	532,403	29,019,772	28,493,121	1.8
Operating expenses	18,673,231	4,792,720	1,145,645	482,428	25,094,024	24,667,583	1.7
Operating profit	4,174,361	(92,290)	(206,298)	49,975	3,925,748	3,825,538	2.6
Operating profit margin (%)	18.3	(2.0)	(22.0)	9.4	13.5	13.4	0.7
Non-Operating Revenues and Expenses							
Investment income	499,407	17,546	3,824	2,761	523,538	259,293	
Gains (losses) from asset sales, for exchange, etc.	77,052	2,880	384	2,098	82,414	58,338	..
Interest expense	(1,430,336)	(582,588)	(21,171)	(18,835)	(2,052,930)	(1,926,018)	6.6
Write-offs and valuation adjustments	(309,547)	(45,834)	(306)	(5,168)	(360,855)		
Other non-operating revenues and expenses	26,566	(78,536)	(17,575)	(3,068)	(72,613)	(981,550)	..
Other non-operating revenues and expenses - Total	(1,136,858)	(686,532)	(34,844)	(22,212)	(1,880,446)	(2,589,937)	..
Income tax	(1,244,463)	(10,901)	72,561	(37,148)	(1,219,951)	(1,564,325)	...
Net income (losses)	1,793,040	(789,723)	(168,581)	(9,385)	825,351	(328,724)	351.1
Balance Sheet (\$ thousands)							
Assets	41,235,188	7,148,604	839,954	1,523,668	50,747,414	46,991,676	8.0
Liabilities	26,884,837	8,150,752	802,177	983,347	36,821,113	33,240,186	10.8
Equity	14,350,351	(1,002,148)	37,777	540,321	13,926,301	13,751,490	1.3
Employment (persons)							
Full-time	65,170	11,103	3,006	1,470	80,749	83,272	(3.0)
Part-time	9,113	2,962	439	20	12,534	12,185	2.9
Total	74,283	14,065	3,445	1,490	93,283	95,457	(2.3)
Total full-time equivalent employees	70,803	12,308	3,196	1,484	87,791	90,753	(3.3)
Labour Expenses (\$ thousands):							
Full-time	4,608,990	696,292	112,565	98,603	5,516,450	5,058,170	9.1
Part-time	398,358	75,573	7,116	932	481,979	451,562	6.7
Total	5,007,348	771,865	119,681	99,535	5,998,429	5,509,732	8.9
Average full-time remuneration (salaries, wages and benefits) (\$)	70,723	62,712	37,447	67,077	68,316	60,743	12.5
Average part-time remuneration	43,713	25,514	16,210	46,600	38,454	37,059	3.8
Revenue per employee (full-time equivalent) (\$)	322,692	381,900	293,913	358,762	330,555	313,963	5.3
Capital Expenditures (\$ thousands)							
Construction	1,170,679	214,484	25,093	154,877	1,565,133	2,180,550	(28.2)
Machinery and equipment	3,092,202	1,159,571	110,894	56,112	4,418,779	4,268,404	3.5
Total	4,262,881	1,374,055	135,987	210,989	5,983,912	6,448,954	(7.2)
Wireline Network							
PSTN access lines	19,187,283	...	...	...	19,187,283	18,771,356	2.2
PSTN access lines (voice-grade equivalents)	20,050,952	...	...	...	20,050,952	19,293,717	3.9
PSTN access lines per 100 persons (voice grade)					65.5	63.6	2.3
Mobile Telephony Subscribers							
Digital	...	2,592,725	...	...	2,592,725	1,406,403	84.4
Analogue	...	4,318,313	...	...	4,318,313	3,947,730	9.4
Total	...	6,911,038	...	...	6,911,038	5,354,133	29.1
Mobile telephony subscribers per 100 persons					22.6	17.6	28.4
Access paths to the PSTN					26,098,321	24,125,489	8.2
Access paths to the PSTN (voice-grade equivalents)					26,961,990	24,647,850	9.4
Access paths to the PSTN per 100 persons (voice grade)					88.1	81.2	8.5

.. Figures not available

... Figures not appropriate or not applicable

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