

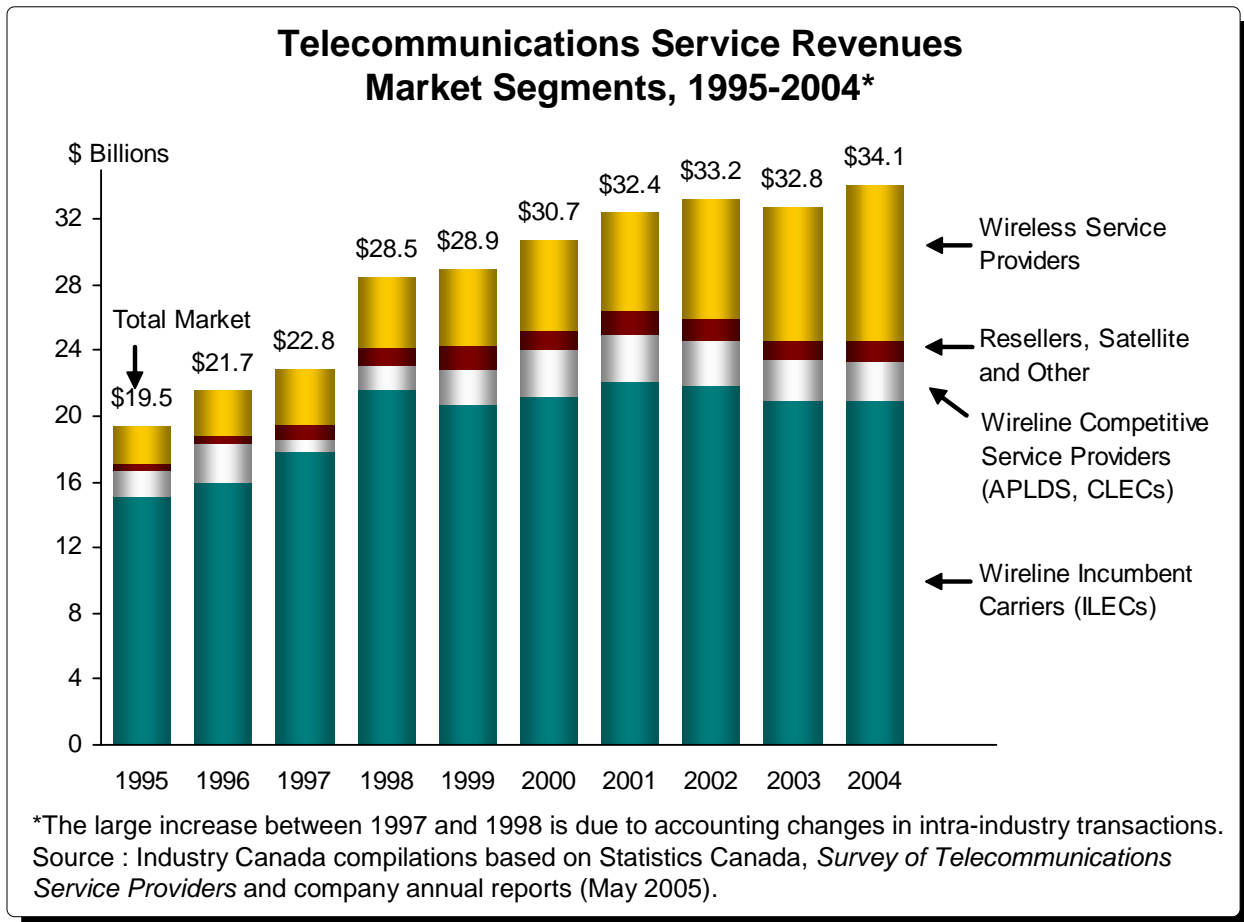
## 2.2 Telecommunications Services

This section provides a description of the telecommunications service industry's different segments with a focus on operating revenues, operating profits, capital investment, employment, salaries and access lines.

### Canadian Telecommunications Service Market

In 2004, the total annual operating revenue for the telecommunications service industry was \$34.1 billion, an increase of 4.1 percent compared to 2003 (Figure 2.2-1). From 1998 to 2004, total telecommunications service revenues grew at an average annual rate of 2.9 percent.<sup>1</sup> Since 1998, the majority of the increases in total revenues stem from growth in the wireless segment, which has increased at an average annual rate of 14 percent. Conversely, the revenues generated by the wireline incumbents and competitor segments, as well as the resellers, satellite and other market segments, have been relatively stagnant since 1999, and in some cases these segments have witnessed small declines.

Figure 2.2-1

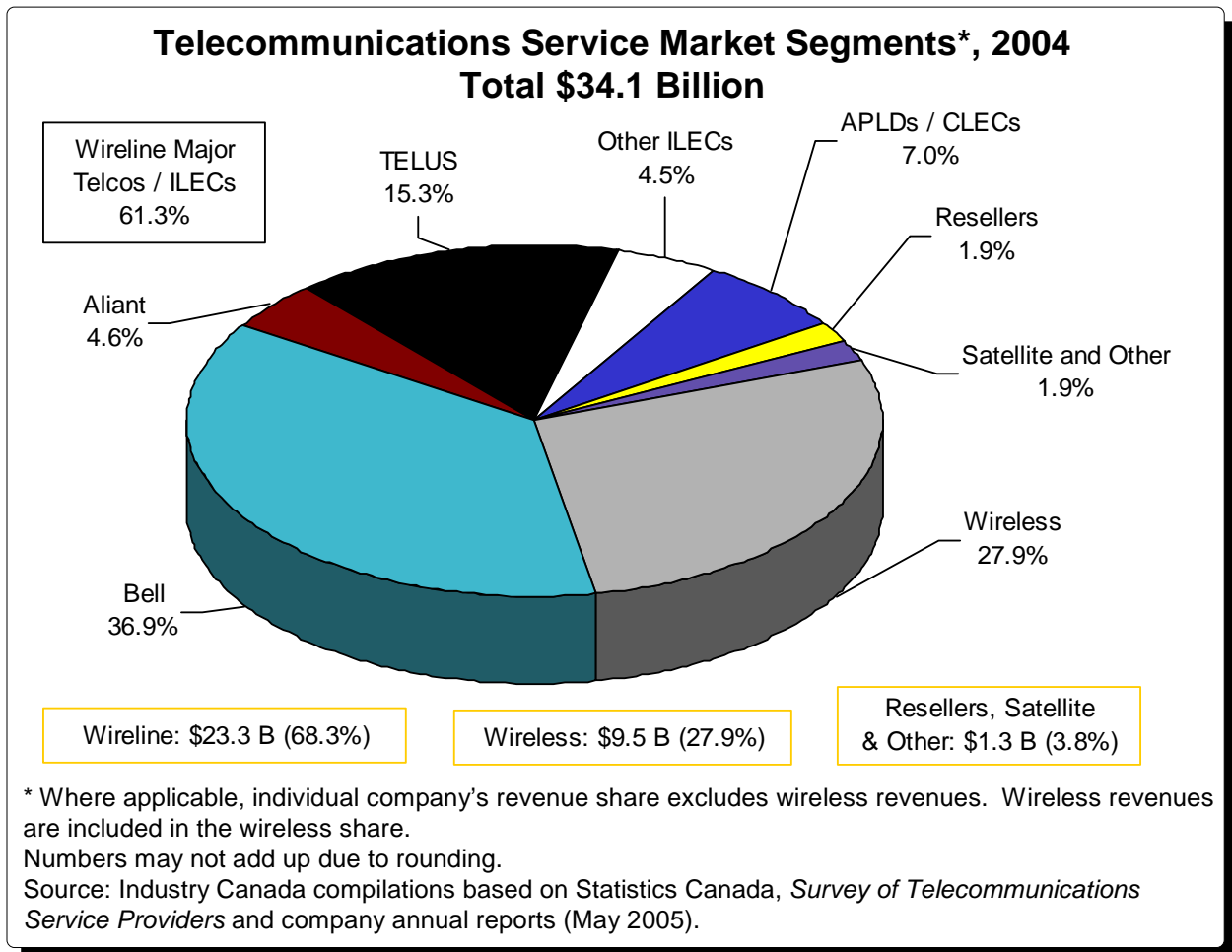


<sup>1</sup> The large increases in revenues between 1997 and 1998 are due to accounting changes, specifically the treatment of intra-industry transactions (i.e. interconnection, contribution). Since 1998, these transactions were reported on a gross basis, as opposed to a net basis.

In 2004, wireless service providers were the segment that saw the largest increase in revenues, growing by \$1.4 billion, or almost 18 percent, when compared to 2003. Revenues for the wireline competitive service providers, on the other hand, decreased by 5.0 percent, or \$126 million, over the same period. Revenues earned by the wireline incumbent carriers remained relatively flat at \$20.9 billion in 2004. Resellers, satellite and other telecommunications service providers' revenues increased 4.1 percent or \$51 million in 2004 (Figure 2.2-1).

Between 2003 and 2004, changes occurred in the shares held by the wireline and wireless market segments. The wireless service providers increased their share of total telecommunications service revenues by 3.2 percentage points, at the expense of the wireline incumbent and competitive carriers. In this regard, the wireline incumbent carriers fell by 2.6 percentage points while the wireline competitive carriers decreased by 0.6 percentage points (Figure 2.2-2). The decline in the share of the revenue held by the ILECs stemmed primarily from Bell Canada and TELUS, whose shares decreased by 1.6 percentage points and 0.5 percentage points respectively.<sup>2</sup> The resellers/satellite segment remained stable at approximately 3.8 percent of total revenue.

Figure 2.2-2



<sup>2</sup> Where applicable, an individual company's revenue share excludes wireless revenues. Wireless revenues are included in the wireless share.

## **Consolidation in the Canadian Telecommunications Industry**

2004 marked an important year in the Canadian telecom market. Consolidation brought fundamental change to the industry as several incumbent carriers acquired competitive providers. Specifically, MTS acquired Allstream, Bell Canada purchased the Canadian assets of 360networks, and Rogers Wireless acquired Microcell.

### *MTS-Allstream*

In June 2004, MTS completed its acquisition of Allstream in a deal worth approximately \$1.6 billion. Under the terms of the agreement, MTS acquired all of the shares of Allstream at an offering price of \$23.00 in cash per Allstream share plus 1.0909 MTS shares. The acquisition allowed MTS to move from a regionally-focussed ILEC to a national player with local exchanges throughout Canada.

### *Bell Canada-360networks*

In November 2004, Bell Canada completed its acquisition of the Canadian assets of Vancouver-based 360networks Corporation for \$275 million. The purchase included the assets of 360networks' subsidiary, GT Group Telecom, and certain related U.S. interconnection assets. Bell retained 360networks' business, facilities and customer base in Western Canada. Coincident with the transaction, Bell sold 360networks' retail customer contracts and certain network assets in Eastern Canada to Call-Net Enterprises. Through this acquisition, Bell gained a fibre network that includes local facilities in Vancouver, Victoria, Calgary, Edmonton and other cities in Western Canada.

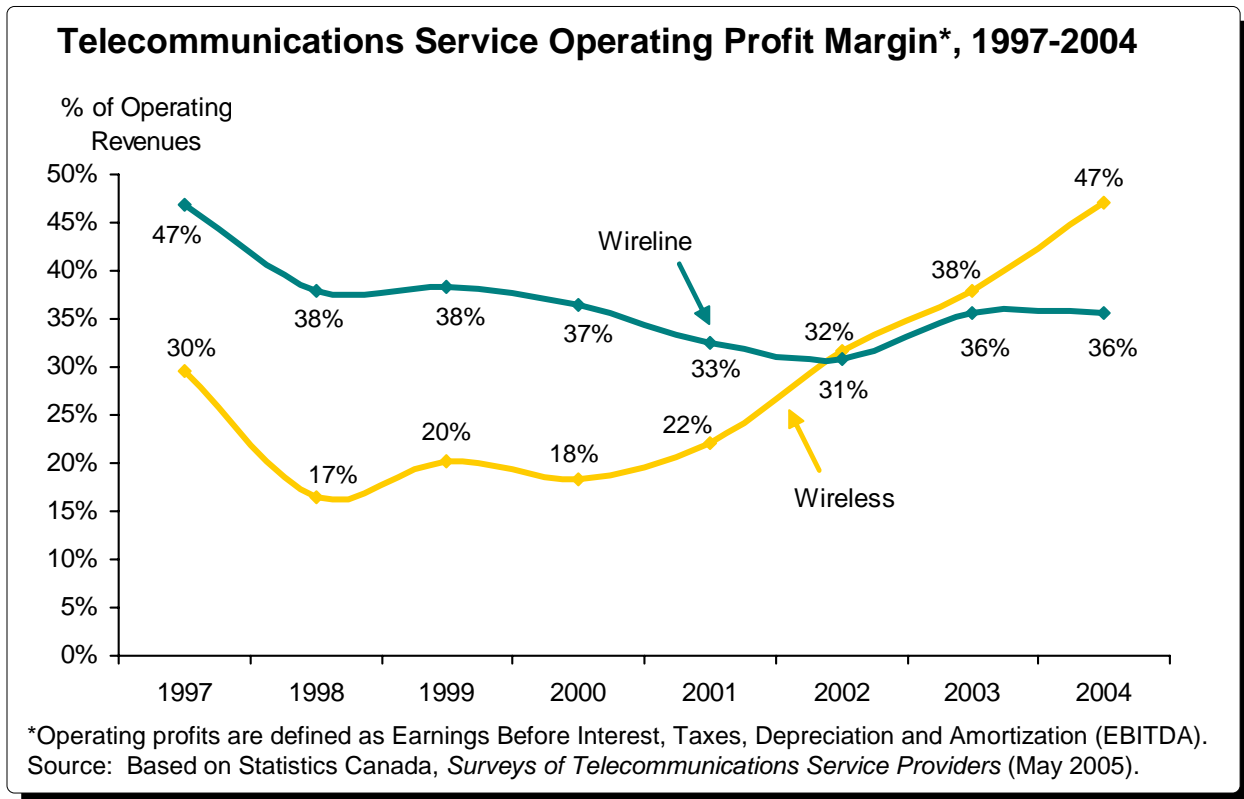
### *Rogers Wireless-Microcell*

In November 2004, Rogers Wireless announced the successful acquisition of Microcell Telecommunications for approximately \$1.4 billion, following a bid for the company in September. Under the terms of the agreement, Rogers Wireless acquired all of the outstanding shares of Microcell at a price of \$35.00 per share. The combined company uses a wireless network that operates on the GSM/GPRS technology platform.

### 2.2.2 Operating Profit -- Earnings Before Interest, Taxes, Depreciation & Amortization (EBITDA)

In 2004, the operating profit of the telecommunications service industry was approximately \$12.8 billion, or 39 percent of operating revenues.<sup>3</sup> Figure 2.2-3 shows that the positive result can be attributed to the wireless segment which increased 9.1 percent in 2004. In the late 1990s, the wireless segment experienced lower operating margins than the wireline segment due in part to the significant start-up costs associated with the introduction of Personal Communications Services (PCS). In 2002, the wireless operating margin surpassed that of wireline for the first time, and continued to do so in 2004, improving to 47 percent. The wireline segment's operating margin remained unchanged at 36 percent in 2004 (Figure 2.2-3).

Figure 2.2-3

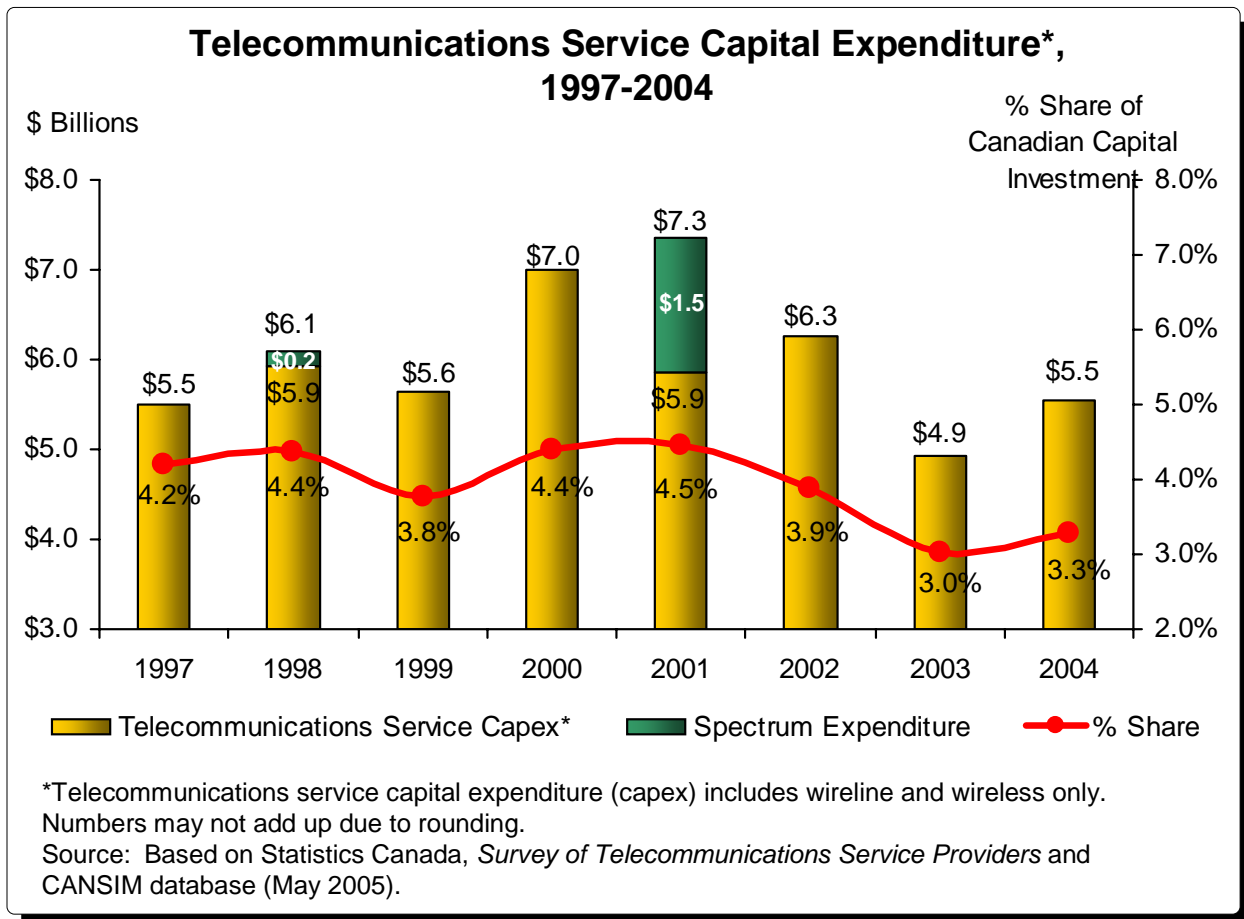


<sup>3</sup> Telecommunications services' operating profit includes wireline and wireless only.

### 2.2.3 Capital Investment

In 2004, capital expenditures for wireline and wireless telecommunications services were \$5.5 billion (in current dollars). Telecommunications services' capital expenditures increased by 12 percent compared to 2003. Relative to the total economy, the telecommunications service industry's share of the economy's capital investment was 3.3 percent in 2004, its first increase since 2001 (Figure 2.2-4).

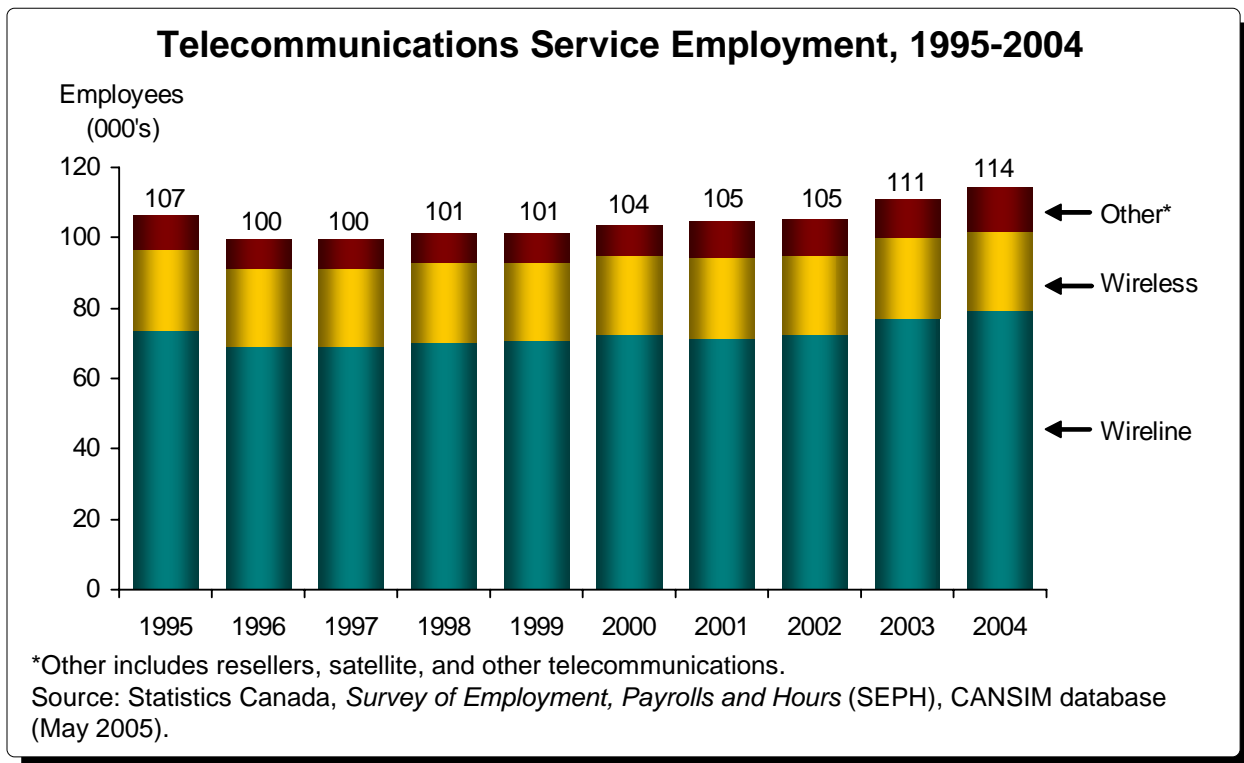
Figure 2.2-4



### 2.2.4 Employment

In 2004, the telecommunications service industry employed 114,346 persons, an increase of 3.2 percent over 2003. Since 1994 the composition of telecommunications services employment has remained relatively stable with approximately 69 percent coming from the wireline segment, 20 percent from wireless, and the remaining 11 percent from the resellers, satellite and other segment. Employment increased for the wireline market segment by 2.8 percent to 78,991 persons in 2004, while the number of employees marginally decreased by 0.3 percent for the wireless market segment to 23,142 persons. Satellite, resellers and other employment increased 13 percent to 12,213 persons in 2004 (Figure 2.2-5). This increase was mainly due to an 8.8 percent increase in employment within the resellers segment, as well as a 17 percent increase in satellite employment.

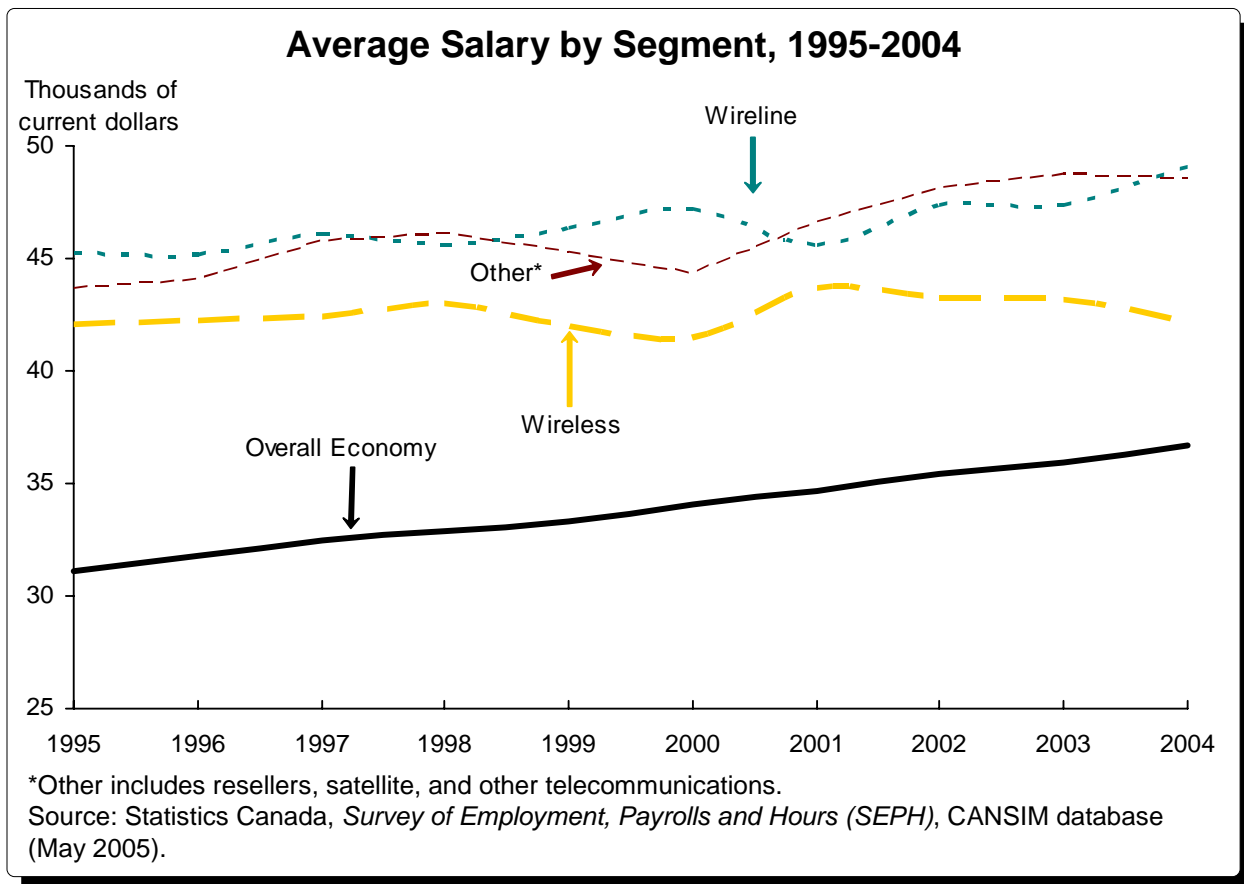
Figure 2.2-5



### 2.2.5 Salaries

Since 1994, average annual salaries in telecommunications services have been well above the average annual salary in the Canadian economy as a whole. The wireline and wireless segments' average salaries were 32 percent and 20 percent higher, respectively, than the average annual salary for the total economy in 2004. In particular, the annual average salary in the wireline segment increased 3.4 percent in 2004 to \$49,038, while in the wireless segment the annual average salary decreased 2.3 percent to \$47,588. Between 2000 and 2004, the resellers, satellite and other telecommunications segment saw its annual salary increase 2.3 percent, on average, per year to \$48,560 in 2004, primarily due to an increase in employment in higher paying jobs (Figure 2.2-6).

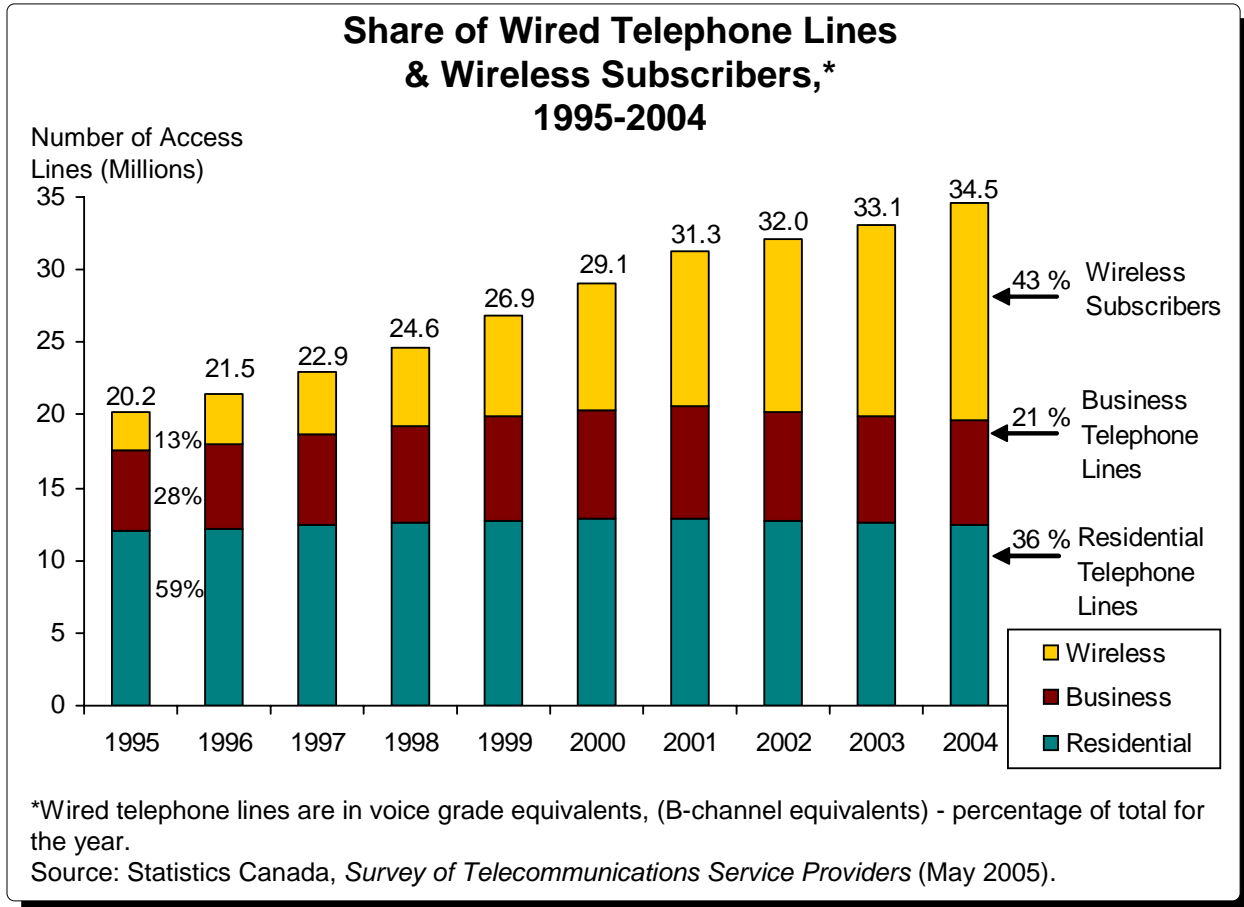
Figure 2.2-6



2.2.6 Access Lines

Telecommunications access lines grew at an average annual rate of 6.1 percent from 1994 to 2004, as the number of PSTN wired telephone lines and wireless subscribers went from an estimated 19.1 million to 34.5 million (Figure 2.2-7).<sup>4</sup>

Figure 2.2-7



The share of residential wired telephone lines declined from 62 percent (11.8 million) of the total lines in 1994, to 36 percent (12.5 million) at year-end 2004. To a lesser degree, the share of business wired telephone lines decreased as well over this period, from 28 percent (5.4 million) in 1994 to 21 percent (7.1 million). The largest change has occurred in the share of wireless subscribers, which increased from 10 percent (1.9 million) in 1994 to 43 percent (14.9 million) in 2004 (Figure 2.2-7).

<sup>4</sup> The term **access line** throughout this section refers to a wireline or wireless transmission path that connects a customer of a telecommunications service provider.



### 2.2.7 The Teledensity Indicator

International organizations, such as the International Telecommunication Union (ITU), compare international telecommunications development by means of the number of residential and business individual access lines per 100 inhabitants, also referred to as teledensity. Figure 2.2-8 shows the evolution of teledensity in Canada over time. It has increased significantly in recent years, from 65.8 access lines per 100 inhabitants in 1994, to 107.8 access lines per 100 inhabitants at year-end 2004, representing a greater than one-to-one ratio of total telecommunications access lines to population.<sup>5</sup> Specifically, there were 39.0 residential and 22.3 business wired telephone lines per 100 inhabitants in 2004. The corresponding teledensity indicator of wireless subscribers was 46.5 subscribers per 100 inhabitants. The rise in total teledensity has been primarily a result of the wireless component which has increased by 40.1 subscribers per 100 inhabitants since 1994. Conversely, wireline business teledensity had a more modest increase of 3.7 access lines per 100 inhabitants over this period, while wireline residential teledensity has fallen by 1.8 lines per 100 inhabitants, due to the recent decline in residential wired telephone lines (Figure 2.2-8).

#### Teledensity Indicator

The number of main lines per 100 inhabitants (i.e. teledensity) has traditionally been used as an indicator of a country's telecommunications network's deployment and the degree to which its households and businesses are connected to that network. In its original version, this indicator provided a measure of the development of the wireline public switched telephone network (PSTN) in a specific country or region.<sup>6</sup> In the 1990s, the definition of the teledensity indicator was broadened to include mobile (wireless) subscribers to the PSTN to reflect the introduction and importance of wireless access.<sup>7</sup>

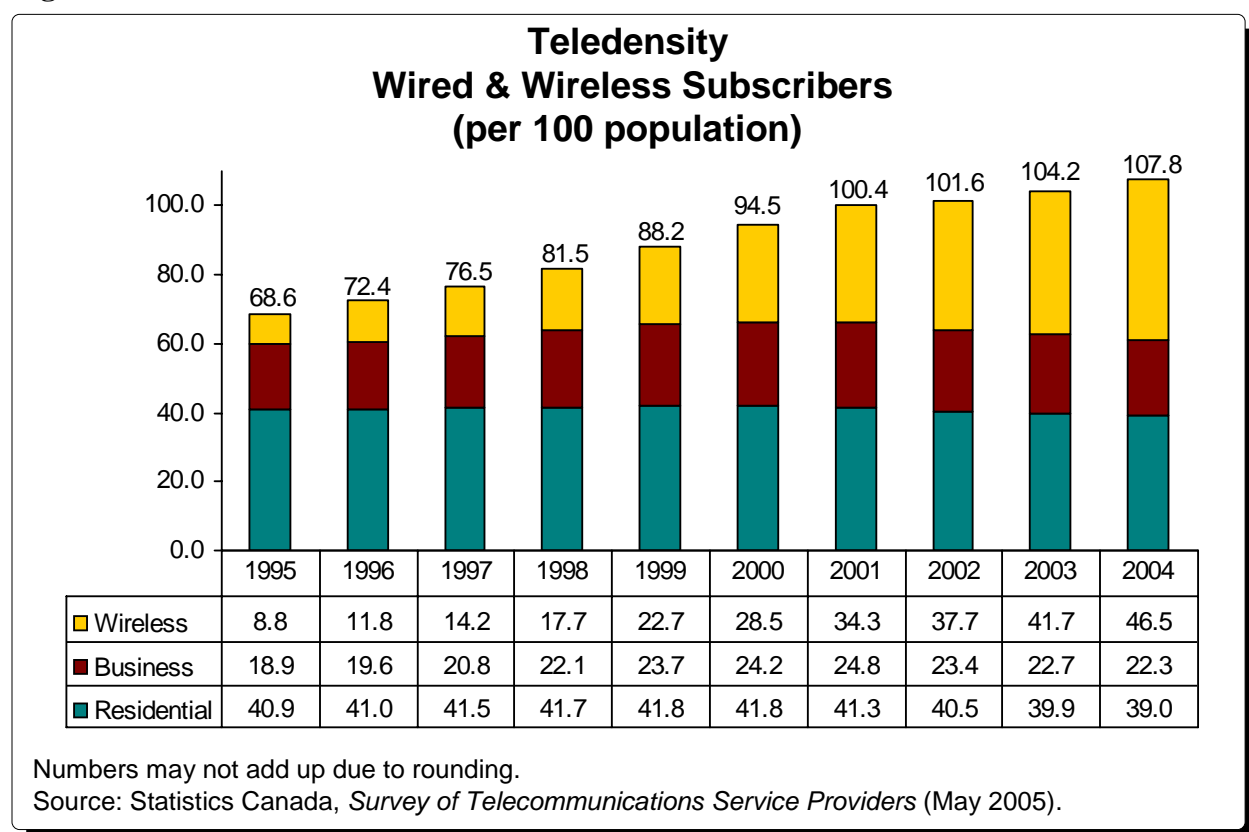
---

<sup>5</sup> The 107.8 access lines per 100 inhabitants reflects an average over the country. Some Canadians may have multiple lines while other Canadians may not have access. Statistics Canada reported that 97.5 percent of Canadian households had a telephone in 2003 (CANSIM database, December 2004).

<sup>6</sup> Public Switched Telephone Network (PSTN) is defined by Statistics Canada as, "the world-wide dial-up network (switching, circuits, transmissions and access services) or a portion of that network, used to establish voice and non-voice (text, audio or data) communications carried over a path initially established using normal telephone signaling and ordinary switched long-distance telephone circuits." – Statistics Canada, *Quarterly Telecommunications Statistics*, 56-002-XIE.

<sup>7</sup> International Telecommunication Union (ITU), *World Telecommunications Development Report*, 1998, and Organization for Economic Co-operation and Development (OECD), *Communications Outlook*.

Figure 2.2-8



Other measures of teledensity include the number of wired residential telephone lines per 100 households and wired business telephone lines per 100 persons employed. All these indicators demonstrate the slow decline in wired residential and business teledensities in Canada that has occurred since 1999 (Table 2.2-1).

Table 2.2-1 Other Teledensity Indicators\*

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Wired residential telephone lines per 100 households</b>	111	111	110	111	111	110	110	108	106	104	101
<b>Wired business telephone lines per 100 persons employed</b>	50.8	51.1	53.0	55.1	57.6	59.6	59.0	60.9	55.6	54.0	52.6

\*As of period end, 1994-2004.

Source: Statistics Canada, *Survey of Telecommunications Service Providers* (May 2005).