NO CONSUMER LEFT BEHIND:

A CANADIAN AFFORDABILITY FRAMEWORK FOR COMMUNICATIONS SERVICES IN A DIGITAL AGE

PUBLIC INTEREST ADVOCACY CENTRE

LE CENTRE POUR LA DÉFENSE DE L'INTÉRÊT PUBLIC

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No Consumer Left Behind:
A Canadian Affordability Framework
for Communications Services in a Digital Age

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EXECUTIVE SUMMARY

In this report, the Public Interest Advocacy Centre sought to develop a framework for defining "affordability" of communications services in the digital age.

Citizens need to be able to participate fully in society—and they need communication in order to do so. However, as communications services become increasingly central to the everyday activities of Canadians, are they affordable for low-income Canadians, or do these consumers struggle to retain service?

This report examines the way affordability is perceived by regulators, academic researchers, and corporate stakeholders, both in Canada and in other jurisdictions.

However, most importantly, this report sought to determine the low-income consumer's perspective on the affordability of communications services. This was primarily carried out in three ways:

(1) Focus groups held with members of ACORN Canada, a national advocacy organization of low and moderate income families;
(2) Interviews with local organizations who work with low-income clients on a day-to-day basis; and
(3) Aggregate data of low-income consumers gathered from Credit Canada Debt Solutions.

Although low-income Canadian consumers were subscribed to a variety of different combinations of communications services, each service was critical for different groups of consumers. It was important for them to stay connected with the outside world and be able to participate in society.

When asked to rank the importance of each communication service, participants almost unanimously ranked telephone service – whether fixed wireline or wireless – as the most important. Although this was partly because mobile phones especially allowed consumers to carry out a variety of activities, it was above all because telephones kept consumers in contact with the rest of society—family and friends, but also doctors, social workers, employers, clients, and service providers.

The majority of participants who were subscribed to home Internet service were extremely reluctant to cancel the service. Many had come to carry out their day-to-day activities through this service, and families in particular faced significant pressure for children in school to have Internet access at home.

Television service was considered essential by some low-income groups, including supportive housing residents, consumers who were less mobile, older Canadians, and families with children.

Average monthly communications expenses began at over $100 and ran up to $212 per month depending on household size. For many low-income households, communications expenses used up, on average, 7.67% of their monthly income, with smaller households of between 1 to 4 persons spending the greatest proportion – up to 8.09% – of their monthly income on communications services. In cases where low-income clients had ongoing communications debts, these debts constituted up to one-fifth of their total debt.

Generally, consumers were reluctant to cancel their communications services, even in the face of increasing costs and tight household budgets. Those who were not willing to further reduce or cancel their communications services said that money would have to come from other expenses, such as occasional cinema movie trips for children, holiday and Christmas gifts, smoking, and any personal spending for the adults. Some consumers were even willing to cut other basic expenses, including food, clothing and health care, rather than cancel their communications services. Others insisted that they would not know where they could cut back in their household budget.

In PIAC's view, citizens need to be able to: **(1) communicate with others**, including family and friends or agencies and organizations, and **(2) engage in cultural society** by accessing news and information and enjoying cultural programming.

The core communications functionalities viewed by low-income consumers to be important are:

- Voice communication, including features such as call display and voicemail;
- Readily available contact with emergency and helpline services free-of-charge;
- Access to local news, national news and entertainment;
- Ability to find information—particularly information needed to fulfill other basic necessities and activities such as government services and applications, education, health care, job searches, and housing searches.

At the very minimum, a service can be described to be affordable where its cost does not require a household to cut back its expenditures on other basic necessities such as food, shelter, clothing, transportation and health care. This relative threshold can be quantified as a percentage of household income. We suggest that communications services are "affordable" where, as a guideline, they make up about **4% to 6%** of a household's income.

However, affordability in our view must also incorporate a subjective quality because **it is related to *control*** – the ability of an individual or a household to control their expenditures in order to fulfill their needs. Therefore, because affordability concerns a household's control over their budget, affordability is also about *choice* which allows a household to access a service offering which meets their needs. An assessment of affordability, therefore, should take into account the choice and preferences of low-income consumers in meeting their needs.

A qualitative assessment of the affordability of a communications service should examine:

- Cost of each individual communications service, as well as the group of communications services as a whole;
- Total cost of ownership, including the cost of credit, rather than merely the monthly service cost;
- A service offering which at minimum – to the extent that technology allows – enables a low-income individual to fulfill the four core functions of communications services: (i) voice communication; (ii) readily available contact with emergency and helpline services; (iii) access to news and entertainment; and (iv) ability to find information;
- For mobile phone and home Internet service especially, costs of heavy levels of usage; and
- Costs which low-income Canadians say they feel comfortable paying.

This report proposes baseline definitions and metrics to help create a framework for the assessment of affordability of communications services in the digital age. Further research on the nature of affordability problems in Canada and the development of an appropriate policy framework to address those problems clearly is necessary. However, given the research in this report, the authors feel comfortable in advancing the following recommendations at this stage:

Recommendation 1: That Canada explicitly adopt in its communications legislation (*Telecommunications Act*, *Broadcasting Act*, *Radiocommunication Act*) a specific, enforceable universal service obligation (USO), which shall include a requirement to provide all Canadians with "affordable" communications services.

Recommendation 2: That any affordability requirement in a USO be defined as calculated relevant to other essential services such that communications costs not require Canadians to forgo or reduce other essential services (*e.g.*, heat or food).

Recommendation 3: That any affordability requirement in a USO be defined as respecting consumer control of expenses and choice of services, to the maximum extent possible.

Recommendation 4: That any policy or regulatory initiatives addressing communications affordability for low-income consumers be designed to respect and implement the above-noted definition – and in particular facilitate and maximize consumer cost control and choice of services.

Recommendation 5: That the Canadian Radio-television and Telecommunications Commission (CRTC) undertake yearly, comparable and repeatable, quantitative research on affordability of all major communications services (wireline and wireless telephone; broadband Internet and broadcasting services) to Canadians. This research should be made public and the raw data provided to the public to enable policy research.

Special thanks are owed to all stakeholders, researchers, and local organizations, including ACORN Canada and Credit Canada, who participated in this study.

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GLOSSARY & TABLES AND FIGURES

Glossary

BSO	Basic Service Objective
CRTC	Canadian Radio-television and Telecommunications Commission
EU	European Union
FCC	Federal Communications Commission
GB	Gigabyte
GNI	Gross National Income
IP	Internet Protocol
ITU	International Telecommunication Union
LICO	Low Income Cut-Off
LIM	Low Income Measure
MB	Megabyte
Mbps	Megabits per second
OECD	Organisation for Economic Co-operation and Development
PES	Primary Exchange Service
PIAC	Public Interest Advocacy Centre
POTS	Plain Old Telephone Service
PPP	Purchasing Power Parity
UKRN	UK Regulators Network
UN	United Nations
USO	Universal Service Obligation

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I. INTRODUCTION

Citizens need to be able to participate fully in society – and they need communication in order to do so. However, as communications services become increasingly central to the everyday activities of Canadians, are they affordable for low-income Canadians, or do these consumers struggle to retain service?

The first step to assessing a problem of affordability is to set out a definition of affordability. This report proposes a framework for defining "affordability" of communications services in the digital age from the consumer's perspective.[1]

It begins by setting out the need for a definition of affordability, including the importance of communications services and growing household expenditures on communications services.

The report also examines the way affordability is perceived by regulators, academic researchers, and corporate stakeholders, both in Canada and in other jurisdictions.

Most importantly, the crux of this report is a determination of the consumer's perspective on the affordability of communications services. This was primarily carried out in three ways:

(1) Focus groups held with members of ACORN Canada, a national advocacy organization of low and moderate income families;
(2) Interviews with local organizations who work with low-income clients on a day-to-day basis; and
(3) Aggregate data of low-income consumers gathered from Credit Canada Debt Solutions.

The goal of the results and discussion of this report is to assist a wide range of stakeholders, including consumer groups and policy decision-makers, in assessing and addressing problems of the affordability of communications services in Canada.

[1] The scope of this report is limited to defining affordability from a consumer standpoint. Although many programs to alleviate consumer affordability problems require a subsidy from either general tax revenues, levies on the entire body of communications subscribers to some or all relevant services and/or levies on, or contributions from, communications providers, we have not directly addressed in this paper the further questions of "who pays for it?" and "how is it structured?".

II. METHODOLOGY

The results of this report were gathered from PIAC consultations with eight local organizations, academic and industry stakeholders, as well as a discussion with CRTC Chief Consumer Officer. Our findings were also gathered from six focus groups organized by ACORN Canada[2] (ACORN) across three Canadian cities and supplemented by average household expenditure data of low-income households provided by the non-profit credit counseling agency, Credit Canada.

The local organizations PIAC interviewed worked with low-income clients on a day-to-day basis. Some operated local shelters or supportive housing, others provided budget counseling services, and some provided general assistance to specific groups of vulnerable consumers. The organizations were:

- Daybreak Housing (Ottawa, ON);[3]
- Disability Alliance BC (Vancouver, BC);[4]
- EBO Financial Education Centre (Ottawa, ON);[5]
- Food Banks BC (Surrey, BC);[6]
- Old Age Pensioners Organization, Matsqui 69 Branch (Old Age Pensioners Organization) (Matsqui, BC);
- Options Bytown (Ottawa, ON);[7]
- Salvation Army Ottawa Booth Centre MoneyWise Program (Moneywise) (Ottawa, ON);[8] and
- Shepherds of Good Hope (Ottawa, ON).[9]

Many clients of these local organizations were on some form of social assistance, whether welfare or disability benefits. Some lived in supportive housing or local shelters and many were single.

ACORN's members consist of low and moderate income families. The organizations interviewed 45 participants in total, hosting two focus groups in each city of Toronto, Ottawa/Gatineau, and Vancouver (six focus groups in total). Five focus groups were carried out in English, and one focus group in the Ottawa/Gatineau area was carried out in French.

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[2] ACORN Canada is an independent national organization of low and moderate income families, with over 50,000 members in over 20 neighbourhood chapters across 9 Canadian cities. See: https://www.acorncanada.org/.
[3] For more information, see: http://www.daybreakhousing.com/.
[4] Formerly the BC Coalition of People with Disabilities. For more information, see: http://www.disabilityalliancebc.org/.
[5] Formerly Entraide budgétaire. For more information, see: http://www.ebottawa.org/en/.
[6] For more information, see: http://www.foodbanksbc.com/.
[7] For more information, see: http://www.optionsbytown.com/.
[8] For more information, see: http://www.ottawaboothcentre.org/programs/moneywise/.
[9] For more information, see: http://shepherdsofgoodhope.com/.

Participants in the ACORN focus groups had mixed socioeconomic backgrounds. Some participants were on some form of social assistance, while others were typically self-employed or held low-wage positions. The participants included single individuals, individuals with partners or roommates, and others with families, including young children. Some participants were also immigrants with family members in other countries.

Credit Canada Debt Solutions[10] provided averaged data on 5,000 clients it considered to be "low-income" – that is, those whose annual surplus income fell below the limits set by the Office of the Superintendent of Bankruptcy. The annual surplus income limits for 2014[11] were:

Household Size	Annual Surplus Income Limit
1	$2,014
2	$2,508
3	$3,083
4	$3,743
5	$4,245
6	$4,788
7	$5,331

These clients all had levels of income and expenses above $0 and had a first counseling session with Credit Canada within the last two years. The average monthly incomes for these clients ranged from $1,315.68 for one-person households to $3,537.78 for seven or more-person households. The overall average monthly income of all 5,000 low-income clients was $1,776.83.

[10] Credit Canada Debt Solutions is a national non-profit credit counselling agency. See: https://creditcanada.com/.

[11] Office of the Superintendent of Bankruptcy Canada, Directive No. 11R2-2014 (18 March 2014), online: Industry Canada <http://www.ic.gc.ca/eic/site/bsf-osb.nsf/eng/br03249.html>, Appendix A.
See: *Bankruptcy and Insolvency Act*, RSC 1985, c B-3, s 68(2).

> "surplus income" means the portion of a bankrupt individual's total income that exceeds that which is necessary to enable the bankrupt individual to maintain a reasonable standard of living, having regard to the applicable standards established under subsection (1).

III. COMMUNICATIONS SERVICES IN CANADA

3.1 Importance of communications services

Citizens need to be able to participate fully in society – and they need communication in order to do so.

Ronald B. Adler and George Rodman write that communication is necessary for maintaining good physical health: socially isolated people have four times the risk of contracting the common cold than those who have active social networks,[12] and are more often diagnosed with terminal cancer than those who have close personal relationships.[13] Social isolation has also been identified as a major risk factor for coronary disease, on par with other factors such as diet, smoking and obesity.[14] Communication is the only way through which humans can shape and understand their identity.[15] According to Adler and Rodman, a person's identity is formed by the messages he or she creates, and by the messages he or she receives from others.[16] Communication helps satisfy social needs, including pleasure, affection, inclusion, relaxation and control.[17] And, communication is needed to meet the everyday practical needs of contacting a doctor, plumber or employer.[18]

The first United Nations World Summit on the Information Society in 2003 declared that "***communications is a fundamental social process, a basic human need and the foundation of all social organization***. It is central to the Information Society. Everyone, everywhere should have the opportunity to participate and no one should be excluded from the benefits the Information Society offers."[19] The WSIS Declaration of Principles at the time already foresaw the potential importance of

[12] Sheldon Cohen, William J. Doyle, David P. Skoner, Bruce S. Rabin & Jack M. Gwaltney, "Social Ties and Susceptibility to the Common Cold" (1997) 277:24 J American Medical Association 1940, online: University of South California <http://www.stat.sc.edu/~hansont/stat770/CohenEtAl.pdf> at 1944.
[13] Ronald B. Adler & George Rodman, *Understanding Human Communication*, 9th ed. (New York: Oxford University Press, 2006) at 9.
[14] *Ibid.* See also: R. B. Case, A.J. Moss, N. Case, M. McDermott & S. Eberly, "Living Alone after Myocardial Infarction" (1992) 267:4 J American Medical Association 515; R. B. Williams, J. C. Barefoot, R. M. Calif., T. L. Haney, W B. Saunders, D. B. Pryon, M.A. Hlatky, I. C. Siegler, & D. B. Mark, "Prognostic Importance of Social and Economic Resources among Medically Treated Patients with Angiographically Documented Coronary Artery Disease" (1992) 267:4 J American Medical Association 520; and W. Ruberman, "Psychosocial Influences on Mortality of Patients with Coronary Heart Disease" (1992) 267:4 J American Medical Association 559.
[15] Ronald B. Adler & George Rodman, *Understanding Human Communication*, 9th ed. (New York: Oxford University Press, 2006) at 10.
[16] *Ibid.*
[17] *Ibid*. at 11.
[18] *Ibid.*
[19] World Summit on the Information Society, *Declaration of Principles* (12 December 2003), Document WSIS-03/GENEVA/DOC/4-E, online: ITU <http://www.itu.int/dms_pub/itu-s/md/03/wsis/doc/S03-WSIS-DOC-0004!!PDF-E.pdf> at para. 4.

information communication technologies in government services, health care, education, employment, cultural identity and diversity, and the eradication of poverty.[20]

A 2011 UN *Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression* declared that "cutting off users from Internet access, regardless of the justification provided, including on the grounds of violating intellectual property rights law, to be disproportionate and thus a violation of [the right to freedom of expression, including the right to seek, receive and impart information]."[21] Finland and Spain made a 1 Mbps (megabit per second) broadband connection a legal right in 2011, with a 100 Mbps connection to become a legal right in Finland by the end of 2015.[22]

The CRTC has said that "the communications system… is an important feature in the lives of all Canadians. It provides a means for Canadians – as consumers, citizens, and creators – to participate in the economic, cultural, and social life of their country."[23]

Tony Eardley, Jasmine Bruce and Gerard Goggin, in a review on the relationship between telecommunications and community wellbeing commissioned by the Low Income Measures Assessment Committee (LIMAC) in Australia, write that:

> Human wellbeing is an elusive concept, but in recent years it has moved from being one primarily measured in economic terms to one with a more multi-dimensional interpretation, in line with the broader human progress measures of the United Nations 2000 Millennium Development Goals.
>
> These are relevant to this review because they touch directly on the claimed applications of communications technologies, including their ability to link people to essential services and to educational or employment opportunities, and to foster social participation and connectedness.[24]

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[20] *Ibid*. at para. 51.

[21] As expressed in article 19(3) of the UN *International Covenant on Civil and Political Rights*, *Adopted and opened for signature, ratification and accession by General Assembly resolution 2200A (XXI) of 16 December 1966 entry into force 23 March 1976, in accordance with Article 49*. See: United Nations General Assembly, Human Rights Council 17th session, *Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression*, online: Office of the High Commissioner for Human Rights <http://www2.ohchr.org/english/bodies/hrcouncil/docs/17session/A.HRC.17.27_en.pdf> at para. 78.

[22] See: CBC, "Spain makes broadband a universal right" (18 November 2009), online: CBC <http://www.cbc.ca/news/technology/spain-makes-broadband-a-universal-right-1.855626>; International Telecommunication Union, "Broadband now a legal right in Finland" (July-August 2010), *ITU News*, online: ITU < http://www.itu.int/net/itunews/issues/2010/06/34.aspx>; and Reuters, "Spain govt to guarantee legal right to broadband" (17 November 2009), online: Reuters <http://www.reuters.com/article/2009/11/17/spain-telecoms-idUSLH61554320091117>.

[23] CRTC *Communications Monitoring Report* (October 2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2014/cmr.pdf> at p. i.

[24] Tony Eardley, Jasmine Bruce & Gerard Goggin, "Telecommunications and Community Wellbeing: A review of the literature on access and affordability for low-income and disadvantaged groups" (2009), University of New South Wales Consortium SPRC Report 09/09, online: University of New South Wales <http://www.crr.unsw.edu.au/media/File/Telecommunications_and_communitywellbeing.pdf> at p. ii.

And, Louis-François Pau, the Vice Chair of the European Cooperation in Science and Technology COST Action IS0605[25] initiative on telecommunications economics, writes that:

> Over the past 20 years, running in parallel with the deregulation of communications and media suppliers, as well as with the widespread development of e-business, but above all to the individualism and social identity drives, the traffic volumes and expenses devoted by households and companies alike to [communications and media] services has grown tremendously.
>
> Actually, looking at the share of the total costs of communications and media services to household disposable income (after taxes), as well as for corporations to the equivalent ratio to general and administration expenses (assumed to be budgetized), it is found to be in a range of 15-30% comparable to equally critical items such as housing costs for households or facilities costs to corporations.[26]

The OECD writes that "all stakeholders consider communication infrastructures and services to be critical for economic and social development. Governments, in particular, are increasingly aware that widespread availability of broadband networks, including fixed and wireless broadband networks, is crucial for competitive economies and the creation of opportunities across all types of social and civic activity."[27]

The CRTC reports that the average number of communications connections per household[28] was 4.5 in 2013, up from 4.2 in 2008.[29] Penetration rates for communications services are generally high, particularly for telephone service.

[25] See: http://www.cost605.org/home/ (accessed 21 July 2014).
[26] Louis-François Pau, "Enabling Mobile Communications for the Needy: Affordability Methodology, and Approaches to Requalify Universal Service Measures" (2009) 13:2 Informatica Economică 128, online: Informatica Economică <http://revistaie.ase.ro/content/50/015%20-%20Pau.pdf>.
[27] OECD, "Recent communication policy developments," in *OECD Communications Outlook 2013* (2013), online: OECD < http://www.oecd-ilibrary.org/science-and-technology/oecd-communications-outlook-2013_comms_outlook-2013-en> at p. 36.
[28] A subscription to one or more of: local telephone service, Internet access service, wireless service, and broadcast distribution (television) service.
[29] CRTC, *Communications Monitoring Report* (October 2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2014/cmr.pdf>,Table 2.0.3; and CRTC *Communications Monitoring Report* (2013), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/policymonitoring/2013/cmr2013.pdf>, Table 2.2.1.

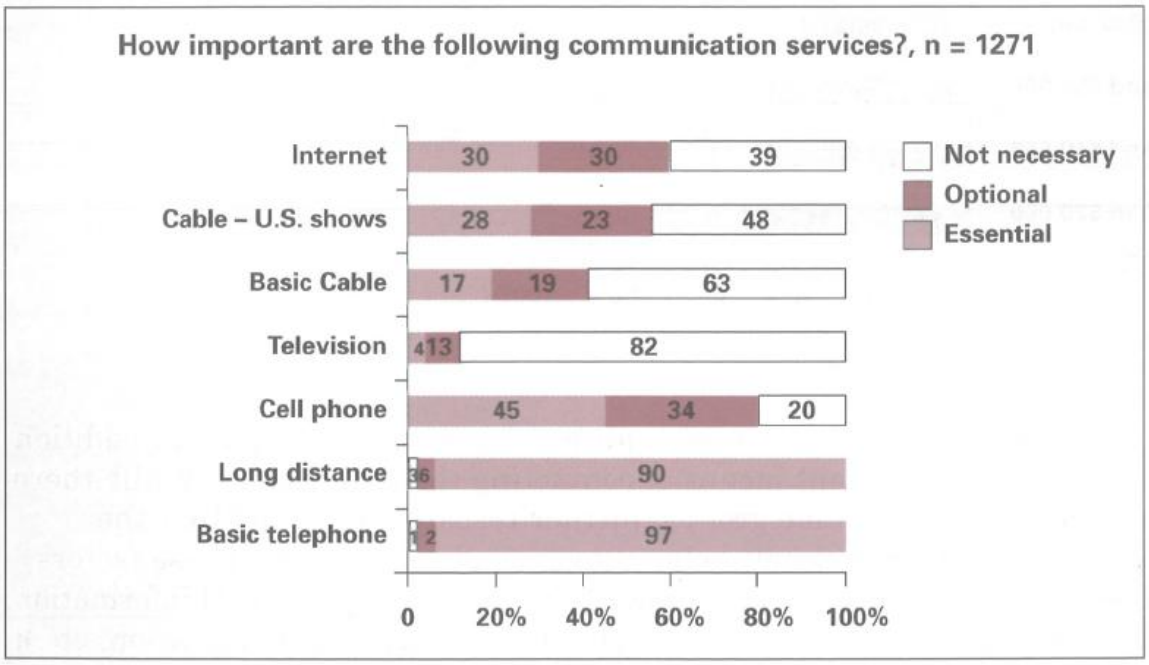
Table 1: Canadian penetration rates by communications service[30]

	Penetration Rate (%)	
Year	**2008**	**2012**
Telephone Service	**99.1%**	**99.2%**
Wireline Telephone	91.1%	83.5%
Wireless Telephone	74.3%	81.4%
Internet Service	74.0%	79.0%
Television (Cable, DTH or IPTV) Service	**83.2%**	**85.6%**

The importance of communications services to Canadians has been well established by past PIAC research studies which have regularly sought to define a basic and essential service and affordability. For instance, a June 1998 Ekos Research Associates poll commissioned by PIAC of 2,201 Canadians aged 18 or over found at that time that 97% of respondents thought that basic telephone was essential, and 90% thought that long distance was essential. Similarly, 45% of respondents at the time already thought that a cell phone was essential and 30% thought that home Internet access was as well.

[30] CRTC, *Communications Monitoring Report* (October 2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2014/cmr.pdf>,Tables 2.0.8, 4.3.4 and 5.3.0; and
CRTC *Communications Monitoring Report* (2013), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/policymonitoring/2013/cmr2013.pdf>, Tables 2.2.3, 4.4.4 and 5.3.2; and p. 143.

Figure 1: Ekos Research Associates results on essential communications services (1998)[31]



Ekos Research Associates, 1998.

A 2012 survey[32] of 2,462 adults aged 16 or over in Britain and Northern Ireland carried out by the National Centre for Social Research (NatCen) and the Northern Ireland Statistics and Research Agency (NISRA) was designed to determine the items and activities deemed to be "necessities of life." Of these respondents, 77% overall deemed a telephone at home (landline or mobile) to be a necessity. It is interesting to note that the phone was considered a necessity especially by seniors (89% described the phone as a necessity), those who were economically inactive (84%) and those who had no educational qualifications (84%). Sixty-six percent of all respondents said that a computer and Internet for homework was a necessity, including 74% of households with dependent children. And 51% of respondents said that television was a necessity, although this number was much higher for seniors (70%), those with a limiting long-term illness (65%) and those with no educational qualifications (71%).

[31] Andrew Reddick, *The Dual Digital Divide: The Information Highway in Canada* (Ottawa: Public Interest Advocacy Centre, 2000), Figure 15.

[32] See: Poverty and Social Exclusion, "Heatmap of attitudes to necessities by groups: UK 2012," online: PSE <http://www.poverty.ac.uk/pse-research/attitudes-necessities-groups-uk-2012> (accessed 17 July 2014).

Table 2: Communications services deemed as necessities by NatCen-NISRA respondents (2012)[33]

Item	Respondents who identified item as necessity (%)	Top 3 groups which identified item as necessity (%)
Telephone at home (landline or mobile)	**77%**	• Older (65+ years) (89%) • Economically inactive (84%) • No qualifications (84%)
Computer and Internet for homework	**66%**	• Household with dependent children (74%) • Non-white (74%) • Has limiting long-term illness (72%)
Television	**51%**	• No qualifications (71%) • Older (65+ years) (70%) • Has limiting long-term illness (65%)
Internet connection at home	**41%**	• Non-white (58%) • Household with dependent children (53%) • Younger (16-24 years) (48%)
Mobile phone (for Adult)	**40%**	• Non-white (64%) • Younger (16-24 years) (53%) • Single/never married (48%)
Home computer	**40%**	• Non-white (57%) • Household with dependent children (50%) • Has degree or higher (47%)
Mobile phone (for Children aged 11 or older)	**27%**	• Bottom 40% households (33%) • Semi-routine and routine occupations (33%) • Older (65+ years) (33%) • Non-white (33%)

More recently, a Futuresight report for Ofcom[34], the UK communications regulator, found that, when presenting a range of services, consumers always included communications services in the basket of services considered "essential."[35] Futuresight also concluded that "there was no overall ranking of essential services" and that "different groups of people regarded different services as essential depending on their

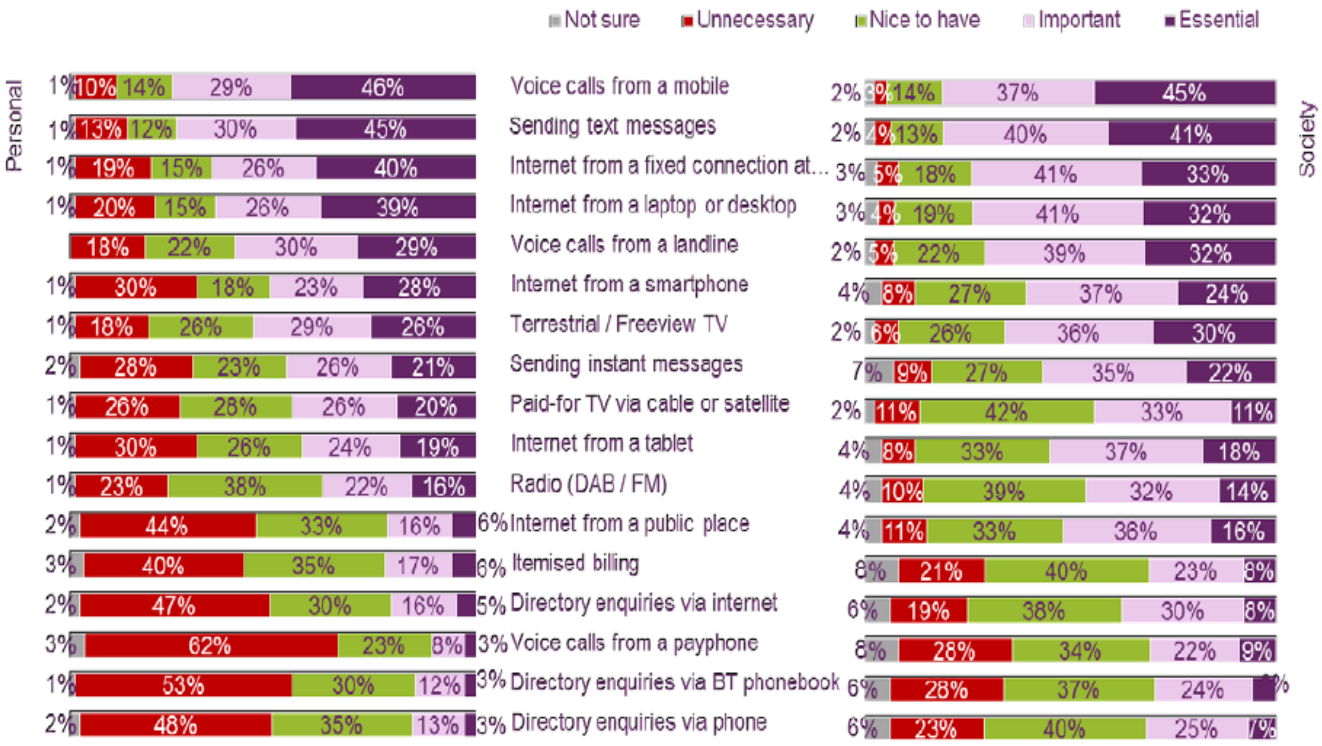
[33] Poverty and Social Exclusion, "Heatmap of attitudes to necessities by groups: UK 2012," online: PSE <http://www.poverty.ac.uk/pse-research/attitudes-necessities-groups-uk-2012> (accessed 17 July 2014).
[34] Ofcom regulates the "TV and radio sectors, fixed line telecoms, mobiles, postal services, plus the airwaves over which wireless devices operate." See: Ofcom, "What is Ofcom?" online: Ofcom <http://www.ofcom.org.uk/about/what-is-ofcom/> (accessed 20 January 2015).
[35] Futuresight, *Affordability of Essential Communications Services: A Qualitative Research Study – Final Report* (July 2014), online: Ofcom <http://stakeholders.ofcom.org.uk/binaries/research/affordability/Futuresight-Report.pdf> at p. 19.

circumstances, skills, capabilities, and preferences."[36] According to Ofcom, those services which consumers viewed to be essential were:

- Voice services, and mobile services in particular (voice and text);
- Access to the Internet, particularly fixed Internet; and
- Depending on demographic factors: free-to-view television, landline voice and mobile Internet.[37]

The following table summarizes Ofcom's findings:

Figure 2: Services and devices seen as essential, personally in day to day life (2014)[38]



Source: Jigsaw Research, 2014

Finally, a 2013 study[39] carried out in Japan used a stated preference survey to gauge consumer willingness to pay to retain different combinations of telecommunications services, including voice communication such as Plain Old Telephone Service (POTS), Mobile phone service, and IP telephony service; and data

[36] *Ibid*. at p. 23.
[37] Ofcom, *Results of research into consumer views on the importance of communications services and their affordability* (22 July 2014), online: Ofcom <http://stakeholders.ofcom.org.uk/binaries/research/affordability/affordability_report.pdf> at para. 4.25.
[38] *Ibid*., Figure 4.3.
[39] Akihiro Nakamura, "Retaining telecommunication services when universal service is defined by functionality: Japanese consumers' willingness-to-pay" (2013) 37 Telecommunications Policy 662.

transmission such as FTTH[40] broadband services, and non-FTTH broadband services. Because the study's purpose was to explore the concept of universal service, participants rated their acceptance of different tax increases required to prevent the discontinuation of individual or combinations of services. The study found four main conclusions:

- Respondents were more willing to pay to retain voice communication services rather than data transmission services;
- Respondents were willing to accept IP telephony as a substitute for POTS, and were willing to pay more than Japan's current Universal Service Fund charge;
- Even where mobile phone service was available, respondents would still pay to retain their fixed wireline or IP voice services; and
- Under the present definition of POTS as a universal service, FTTH could be considered a basic telecommunication service.[41]

However, in all cases – except one which posited that IP telephony would be discontinued but that POTS and mobile phone service would still be available – respondents were willing to accept a tax increase in order to ensure the continuation of telecommunications services which researchers proposed terminating.[42]

Therefore, communications services are generally considered to be essential to consumers and households – but they are even more important, or less substitutable, for low-income households.

3.2 The low-income household and communications services

According to Statistics Canada's after-tax low income cut-offs (LICOs)[43], 3 million Canadians, or 9.0% of the population, were living in low income in 2010 and 8.8% in 2011.[44] The National Household Survey estimated, based on the after-tax Low Income

[40] Fibre-to-the-home
[41] *Ibid*. at p. 670.
[42] *Ibid*. at p. 668.
[43] See: Library of Parliament, *A Statistical Profile of Poverty in Canada* (2009), PRB 09-17E, online: Parliament of Canada <http://www.parl.gc.ca/content/lop/researchpublications/prb0917-e.pdf>, footnote 2.

> The LICO is an income threshold below which a family spends at least 20 percentage points more of its income on food, shelter and clothing than the average family. LICOs are calculated according to family size and population density and are reported on a before- and after-tax basis.

[44] Statistics Canada, "Persons in low income after tax (In percent, - 2007 to 2011" (2013), online: Statistics Canada <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/famil19a-eng.htm?sdi=low%20income>.

Measure (LIM)[45], that there were 4.8 million Canadians, or 14.9% of the population, living in low income in 2010.[46]

According to the Library of the Parliament of Canada, certain groups of people are more likely to be living in low income than others. These include:

- Children;
- Lone-parent families (particularly those headed by females);
- Women;
- Unattached individuals;
- Seniors;
- Aboriginal people;
- Persons with disabilities;
- Recent immigrants and visible minorities; and
- The working poor.[47]

For instance, about 571,000 children less than 18 years old, or 8.5% of Canadian children, were living in low income in 2011,[48] although 23.0% of those who lived in female lone-parent families were living in low income. More than a quarter – 27.7% – of Canadians living alone were considered to be living in low in income in 2011, including 14.9% of seniors aged 65 or over.[49] About 23.5% of people with disabilities and 17.3% of off-reserve Aboriginal Canadians were also living in low income.[50] Low-income rates

[45] Statistics Canada, *NHS in Brief: Persons living in low-income neighbourhoods* (2013), Catalogue no. 99-014-X2011003, online: Statistics Canada <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-014-x/99-014-x2011003_3-eng.pdf> at p. 9.

> Individuals are defined as having low income if the after-tax income of their household falls below 50% of the median adjusted household after-tax income in 2010. Adjusted household after-tax income is calculated using the after-tax income of a household divided by the square root of the household size. The median adjusted after-tax income is the income that divides all individuals into two equal parts.
>
> In 2010, the [after-tax LIM] threshold for a single person was $19,460. For any other household size, the threshold is equal to the single-person threshold multiplied by square root of the household size. For example, the LIM-AT threshold for a household with two members is $27,521 and for four members is $38,920.

[46] *Ibid*. at p. 3.
[47] Library of Parliament, *A Statistical Profile of Poverty in Canada* (2009), PRB 09-17E, online: Parliament of Canada <http://www.parl.gc.ca/content/lop/researchpublications/prb0917-e.pdf> at p. 7.
[48] Statistics Canada, "Income of Canadians, 2011" (2013), online: Statistics Canada <http://www.statcan.gc.ca/daily-quotidien/130627/dq130627c-eng.htm>.
[49] Statistics Canada, "Persons in low income after tax (In percent, - 2007 to 2011" (2013), online: Statistics Canada <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/famil19a-eng.htm?sdi=low%20income>.
[50] Employment and Social Development Canada, "Financial Security – Low Income Incidence," online: HRSDC <http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=23> (accessed 17 July 2014).

were higher in large urban areas (10.3%) and provinces such as British Columbia (10.7%), Quebec (9.5%) and Ontario (9.0%).[51]

The "working poor" – or those households whose main income recipient worked for pay at least 910 hours in 2011 – were also more susceptible to living in low income. Employment and Social Development Canada reports that about 1,289,000 Canadians, or 6.4% of the Canadian population, were affected by "low income conditions" in 2011.[52] In other words, their family income from all sources was lower than the cost of needs for basic necessities such as food, shelter and clothing.[53]

Our study on affordability of communications services included participants from a range of incomes, from those living in local shelters and supported by some form of social assistance to those working full-time in low-wage positions. The concern of this report is for all Canadian households who generally have trouble affording basic household items required for maintaining a reasonable standard of living. Therefore, we consider our study to broadly encompass the Canadian households which make up the lowest income quintile.

In 2011, the lowest Canadian quintile – that is, the fifth of Canadian households with the lowest income – had an average annual income of $17,300.[54] Employment and Social Development Canada puts the after-tax annual income for this quintile at $15,100 in the same year.[55] The highest annual pre-tax income for this quintile was $27,900.[56] The lowest quintile had an average of 1.47 members per household and 25.6% had recently moved between 2010 and 2011.[57]

Some are employed, and some require support from social assistance. The Caledon Institute of Social Policy reports that welfare incomes in 2012 ranged according to province from:

- Single employable households: $7,037 to $10.813 per year;
- Single persons with disabilities: $9,640 to $13,773 per year;
- Single-parent households with one two-year old child: $15,018 to $20,811 per year; and

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[51] *Ibid.*
[52] *Ibid.*
[53] *Ibid.*
This is determined by the Market Basket Measure (MBM), which compares the cost of a basket of goods and services for a basic standard of living (including food, clothing, footwear, transportation and shelter) to a family's disposable income.
See: Statistics Canada, "Market Basket Measure (2011 base)" (2013), online: Statistics Canada <http://www.statcan.gc.ca/pub/75f0002m/2013002/mbm-mpc-eng.htm>.
[54] CRTC *Communications Monitoring Report* (2013), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/policymonitoring/2013/cmr2013.pdf> at p. 7.
[55] Employment and Social Development Canada, *Financial Security – Income Distribution*, online: HRSDC <http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=22> (accessed 15 July 2014).
[56] CRTC *Communications Monitoring Report* (2013), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/policymonitoring/2013/cmr2013.pdf> at p. 7.
[57] *Ibid*, Table 2.2.8.

- Two-parent households with two children: $21,819 to $26,384.[58]

Nonetheless, the Survey of Household Spending (SHS) shows that the lowest quintile spent, on average, $29,129 in 2011 and $29,921 in 2012.[59] Of this amount, 51.8% in 2012 went to shelter, food, and clothing and accessories.[60] The following table shows the SHS breakdown of average expenditures per household made by the lowest quintile in 2012.

[58] Anne Tweddle, Ken Battle & Sherri Torjman, *Welfare in Canada 2012* (2013), online: Caledon Institute of Social Policy <http://www.caledoninst.org/Publications/Detail/?ID=1031>.
This report will further examine expenditures for Canadians on social assistance later in this report.
[59] Statistics Canada, *Survey of household spending (SHS), household spending, Canada, regions and provinces, by household income quintile: Canada, Average expenditure per household, Lowest quintile*, CANSIM Table 2013-0022, online: Statistics Canada <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=2030022&pattern=203-0021..203-0028&tabMode=dataTable&srchLan=-1&p1=-1&p2=31> (accessed 15 July 2014).
[60] Statistics Canada, *Survey of Household Spending, 2012* (2014), online: Statistics Canada <http://www.statcan.gc.ca/daily-quotidien/140129/dq140129a-eng.htm>.

Table 3: Various annual household expenditures made by lowest quintile (2010-2012) [61]

Type of Expenditure	Average Annual Expenditure		
	2010	**2011**	**2012**
Shelter	$9,227	$9,257	$9,729
Transportation	$4,541	$4,595	$4,126
Food	$4,447	$4,112	$4,205
Communications services	**$1,484**	**$1,506**	**$1,538**
Rental of cablevision and satellite services	$450	$453	$474
Cell phone, pager and handheld text messaging services	$379	$395	$419
Landline telephone services	$416	$401	$379
Internet access services	$239	$257	$266
Clothing and accessories	$1,448	$1,333	$1,562
Health care	$1,415	$1,186	$1,280
Recreation (excluding rental of cablevision and satellite services)	$972	$901	$846
Household furnishings and equipment	$796	$807	$943
Education	$642	$738	$801
Income taxes	$231	$348	$327
Child care	$89	$55	$124
Total expenditure	**$29,215**	**$29,129**	**$29,921**

Given that the average total expenditure of the lowest quintile well surpasses their average annual income, affordability of a particular household expenditure is a key issue for low-income households.

Communications service expenses tend to make up a lowest quintile household's fourth largest expense, behind only shelter, transportation and food expenses – and edging out other expenses such as clothing, health care and education. In fact, the CRTC notes that Canadian households in the lowest quintile spent about 8.4% of their annual income on communications services in 2012, while those in the middle quintile

[61] Statistics Canada, *Survey of household spending (SHS), household spending, Canada, regions and provinces, by household income quintile: Canada, Average expenditure per household, Lowest quintile*, CANSIM Table 2013-0022, online: Statistics Canada <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=2030022&pattern=203-0021..203-0028&tabMode=dataTable&srchLan=-1&p1=-1&p2=31> (accessed 15 July 2014).

spent 3.6% and those in the highest quintile only spent about 1.7%.[62] According to the SHS numbers, households in the lowest quintile tended to spend the most on their television and wireless services.

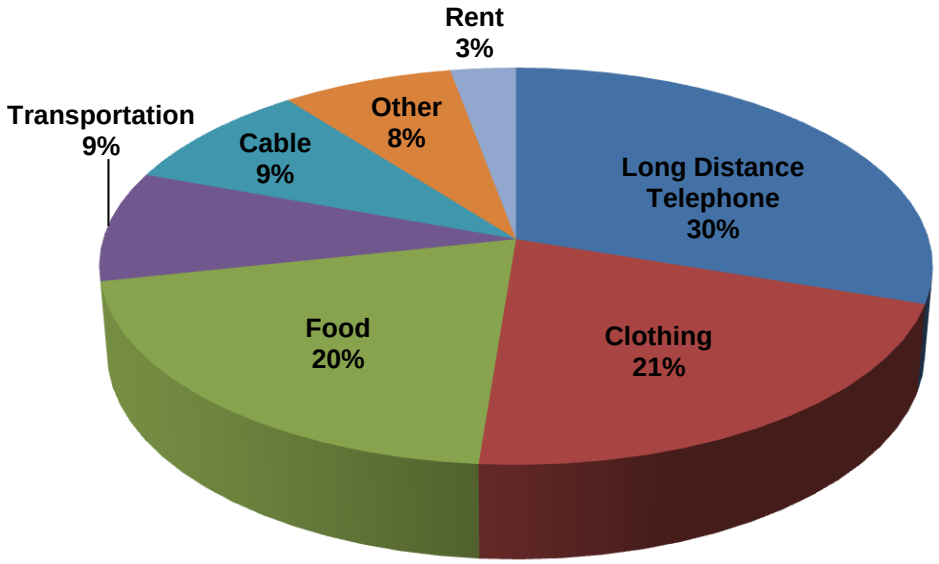
Moreover, while expenditures on communications services have steadily risen, other household expenditures have actually dropped. As it is unlikely, given general inflation and Consumer Price Index figures, that the general costs of household goods and services decrease, the more likely explanation is that a household on a fixed income will cut some expenses in order to accommodate others. Therefore, for instance, while household expenditures on cablevision and satellite services increased between 2010 and 2012, expenditures on other recreational services fell during the same period.

A 1995 survey of 881 low-income Canadians undertaken by La fédération nationale des associations de consommateurs du Québec and the National Anti-Poverty Organization, with assistance from PIAC, asked those Canadians who had telephone service how they would cope with a $6 increase in the price of local telephone service. Sixty-nine percent (69%) of respondents said that they would have to cut back on other goods and services, including essential ones, while only 15% said they would cancel their telephone service.[63]

Whereas about 28% of the Canadian respondents in PIAC's 1998 Ekos survey found some form of cable television service to be essential, it was especially noteworthy that television service seemed to be much more greatly valued by the low-income respondents to the 1995 Fédération nationale des associations de consommateurs du Québec survey. When asked what they would cut back on in order to cope with an increase in local telephone rates, 20.4% of low-income Canadians said they would cut back on food, and 21.1% said they would cut back on clothing, whereas only 8.9% said they would cut back on their basic cable services.[64]

[62] CRTC, *Communications Monitoring Report* (October 2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2014/cmr.pdf>,Table 2.0.10.
[63] Andrew Reddick, *The Information Superhighway: Will Some Canadians Be Left on the Side of the Road?* (Ottawa: Public Interest Advocacy Centre, 1995) at p. 29.
[64] *Ibid.*

Figure 3: Household expenses low-income Canadians would cut back when faced with a price increase in local telephone service (1995)[65]



Therefore, demand for communications services among low-income consumers has historically been high. Communications services also make up a large expenditure for low-income households, consistently ranking the fourth largest over the last three years. Therefore, the affordability of communications services is an essential question in communications policy.

The ITU states in its vision that it works with various stakeholders "to ensure that [information and communications technology] access and services are affordable, equitable and universal."[66] And the federal government of Canada, in recently launching a program to make high-speed Internet available to rural households, said that:

> Connecting Canadians is about ensuring that Canadians, whether they live in urban centres or remote regions of the country, have access to the latest

[65] *Ibid*. at p. 30.
[66] International Telecommunications Union, "Our vision: Committed to connecting the world," online: ITU <http://www.itu.int/en/about/Pages/vision.aspx> (accessed 1 August 2014).

wireless technologies and high-speed networks at the most affordable prices possible.[67]

The CRTC has said that "The communications system, which includes broadcasting and telecommunications, is an important feature in the lives of all Canadians. The communications system provides a means for Canadians – as consumers, citizens, or creators – to participate in the economic, cultural and social aspects of their country."[68]

Are communications services affordable in Canada? Who are the key service providers?

3.3 Market for communications services in Canada

In Canada, the communications service industry generated $61.9 billion in revenue in 2013, including $44.8 billion in telecommunications and $9.0 billion from broadcasting distribution.[69] The following table displays communications revenues by type of service.

[67] Government of Canada, "Harper Government launches program to bring high-speed Internet to an additional 280,000 Canadian households" (22 July 2014), online: Government of Canada <http://news.gc.ca/web/article-en.do?nid=869539>.
[68] CRTC, *Communications Monitoring Report* (October 2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2014/cmr.pdf> at p. i.
[69] CRTC, *Communications Monitoring Report* (October 2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2014/cmr.pdf>, Table 3.0.1.

Table 4: Canadian communications revenues ($ billions)[70]

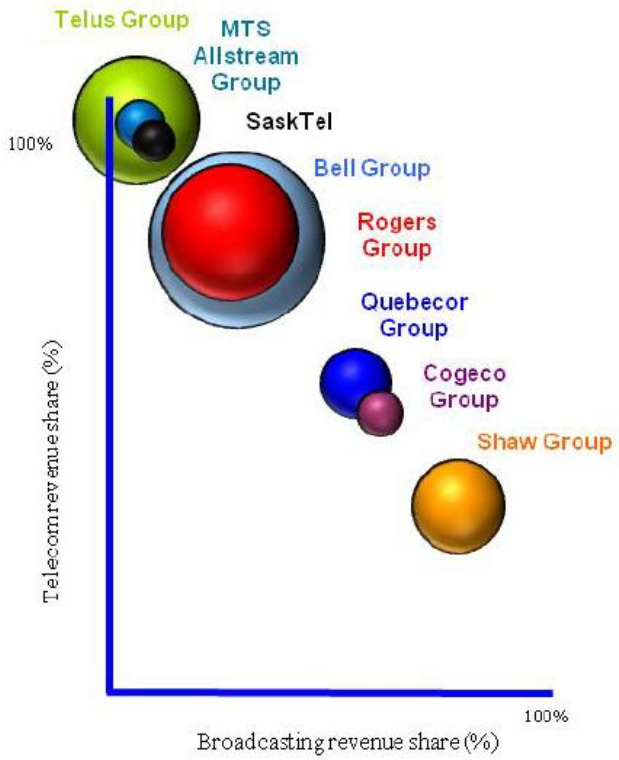
	2009	2010	2011	2012	2013	*CAGR 2009-2013*
Telecommunications						
Wireline	24.0	23.6	23.6	23.6	23.7	*-0.4%*
Percentage growth	*-0.6*	*-1.7*	*0.0*	*-0.3*	*0.4*	
Wireless	16.9	18.0	19.1	20.4	21.2	*5.8%*
Percentage growth	*5.3*	*6.6*	*6.2*	*6.5*	*3.8*	
Subtotal	40.9	41.6	42.8	43.9	44.8	*2.3%*
Percentage growth	*2.2*	*1.7*	*2.7*	*2.8*	*2.0*	
Broadcasting						
Radio AM/FM	1.5	1.6	1.6	1.6	1.6	0.4%
Percentage growth	*-5.4%*	*2.9%*	*3.9%*	*0.4%*	*0.2%*	
Television	5.5 #	6.1 #	6.4 #	6.5	6.5	4.4%
Percentage growth	*0.1%*	*10.6%*	*5.4%*	*1.9%*	*-0.2%*	
BDU	7.4 #	8.1 #	8.6 #	8.8 #	9.0	5.9%
Percentage growth	*7.6%*	*9.3%*	*5.6%*	*2.0%*	*2.7%*	
Subtotal	14.4	15.7	16.6	16.9	17.1	4.7%
Percentage growth	*3.2%*	*9.1%*	*5.3%*	*1.8%*	*1.3%*	
Total revenues	55.3	57.4	59.3	60.8	61.9	2.8%
Percentage growth	*2.1%*	*3.7%*	*3.4%*	*2.5%*	*1.9%*	

Source: CRTC data collection

The revenues of incumbent telecommunications service providers and cable companies made up 50% and 32% of total communications revenues respectively in 2013.[71] Three companies reported operating in 11 communications sectors[72] and together controlled 63% of the broadcasting and telecommunications revenues,[73] and the top five companies controlled over 85%.[74]

[70] *Ibid*.
[71] *Ibid*., Figure 3.0.3.
[72] These sectors include 5 broadcasting sectors (radio, television, BDU, specialty, video-on-demand, and pay and PPV) and 6 telecommunications sectors (local and access, long distance, Internet, wireless, data and private line).
[73] *Ibid.*, Table 3.0.4.
[74] *Ibid*., Figure 3.0.2.

Figure 4: Canadian broadcasting and telecommunications revenue composition for a select number of large companies[75]



Source: CRTC data collection

The following table provided by the CRTC presenting the number of wireless service providers available to consumers in different Canadian regions is an example of the number of communications providers typically available to Canadian consumers in different markets. It is also appropriate to note that there are also regional gaps, as some service providers in a province may only serve specific, small regions.

[75] CRTC, *Communications Monitoring Report* (October 2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2014/cmr.pdf>, Figure 3.0.6.

Table 5: Percentage of population with access to various numbers of facilities-based wireless service providers, by province (2012)[76]

	Number of facilities-based wireless service providers				
	none	1 only	2 only	3 only	4 or more
British Columbia	1%	2%	32%	6%	59%
Alberta	0%	1%	32%	11%	55%
Saskatchewan	1%	16%	75%	8%	0%
Manitoba	2%	2%	18%	78%	0%
Ontario	0%	1%	3%	33%	63%
Quebec	1%	4%	6%	8%	82%
New Brunswick	0%	4%	73%	22%	0%
Nova Scotia	0%	4%	53%	43%	0%
Prince Edward Island	0%	4%	96%	0%	0%
Newfoundland and Labrador	4%	39%	18%	40%	0%
The North[1]	30%	63%	7%	0%	0%
Canada	1%	3%	17%	22%	57%

1. The North includes Yukon, the Northwest Territories, and Nunavut.
Source: CRTC data collection

More than a fifth of Canadian households have two or fewer wireless service providers to choose from to begin with. A restricted number of service providers available in a region already restricts consumer choice when he or she is looking for an affordable package. Therefore, it is all the more important that existing communications service providers offer affordable retail options for low-income Canadian households especially.

Consumers can benefit from more than one aspect of their communications services, including through the availability and quality of a service. However, as this report focuses on the affordability of communications services and because entry-level service packages must be affordable in order for a consumer to subscribe to a service at all, has the financial success of the communications service industry created retail price benefits for consumers? Are low-income consumers especially able to access a range of affordable options which meet their uses and needs?

The 2014 Wall Report,[77] a price comparison of wireline, wireless and Internet services in Canada and internationally prepared for the CRTC and Industry Canada, generally found that the price increase from 2013 to 2014 of the most basic service package offered for wireline, wireless and broadband Internet was significantly larger than those of the higher-level baskets of services.[78] In fact, the price of Level 2 and 3

[76] CRTC *Communications Monitoring Report* (2013), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/policymonitoring/2013/cmr2013.pdf>, Table 5.5.11.
[77] Wall Communications Inc., *Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions: 2014 Update* (2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/rp140714.pdf>.
[78] *Ibid*. at pp. ii-iv.

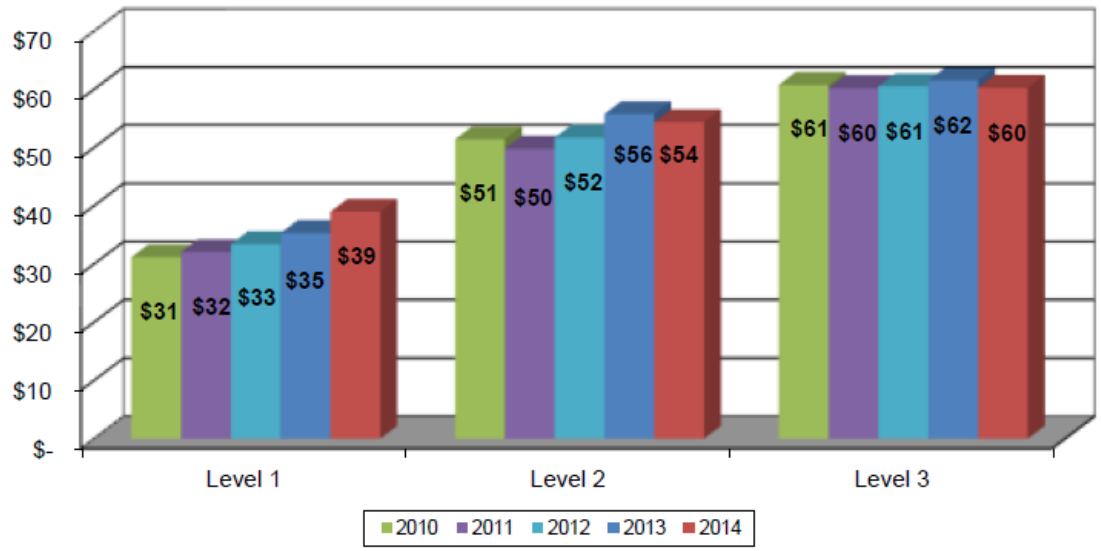
services for both wireline and wireless service either stayed the same or actually declined.[79]

Table 6: Price increases from 2013 to 2014[80]

Basket Level	Wireline	Wireless	Broadband Internet
1	10%	16%	29%
2	-3%	1%	8%
3	-2%	-15%	5%
4	N/A	N/A	4%

The following graphs provide the average monthly cost of each service basket for each telecommunications service.

Figure 5: Average monthly wireline prices by service basket and year[81]



[79] *Ibid.* at pp. ii-iii.
[80] *Ibid.*, Tables A2.1, A2.2 and A2.4.
[81] *Ibid.*, Figure 1.

***Figure 6: Average monthly wireless prices by service basket and year*[82]**

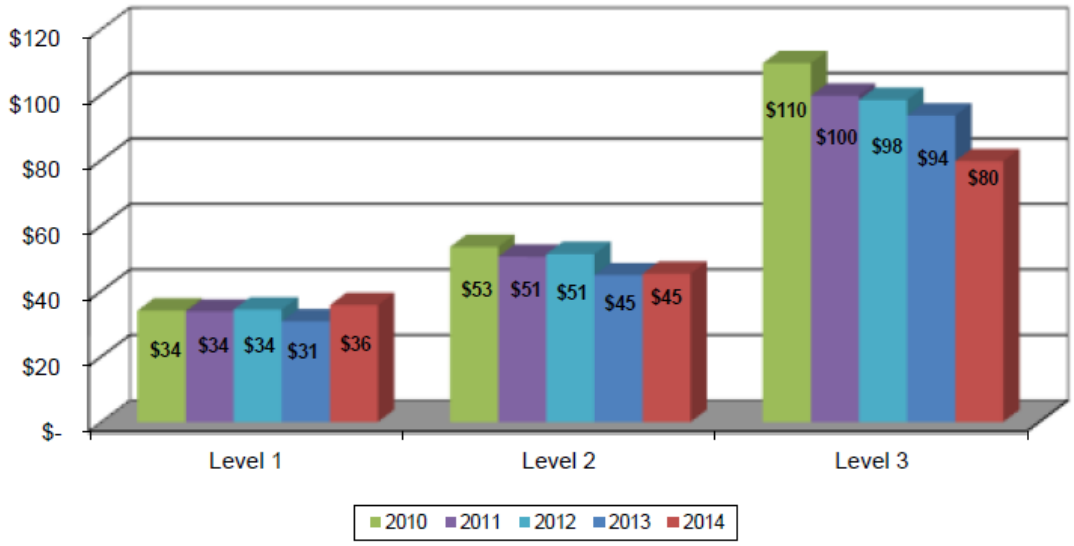
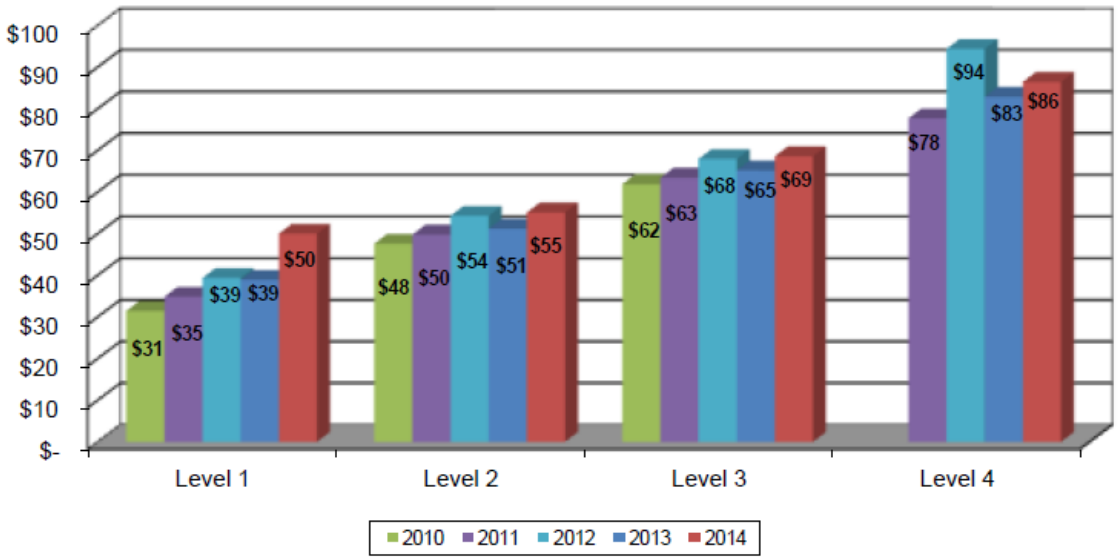


***Figure 7: Average monthly broadband Internet prices by service basket and year*[83]**



The Wall Report also compared Canadian retail prices with those in the U.S., U.K., France, Germany, Italy, Australia and Japan. With regards to the Level 1 baskets, the Wall Report found Canadian prices to be:

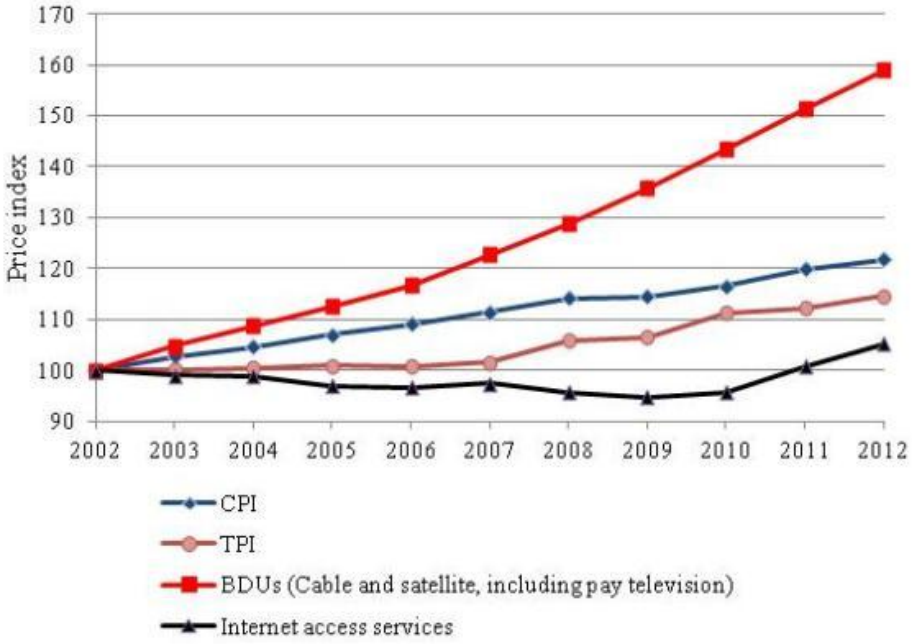
- Wireline: In the middle of the group, slightly higher than those in the U.K., France, Germany and Japan[84];

[82] *Ibid.*, Figure 3.
[83] *Ibid.*, Figure 6.

- Wireless: The highest in the group, with prices in all other countries considerably lower[85]; and
- Broadband Internet: Lowest among the countries where the Level 1 basket is offered, and just above average in the group for the Level 2 service basket.[86]

With regards to broadcasting distribution – or television service – a recent CRTC report to the Governor in Council on the ability of Canadian subscribers to "pick and pay" for individual television services found that while the Consumer Price Index has increased by about 1.8% annually since 2005, the price of television service increased annually by about 5% over the same period.[87]

***Figure 8: Price indices – BDU (cable and satellite, including pay television), Consumer Price Index (CPI), telephone price index (TPI) and Internet access services*[88]**



The Wall Report also provides an international comparison of bundles of communications services, in which:

- Bundle 1: Wireline, mobile wireless and broadband Internet;

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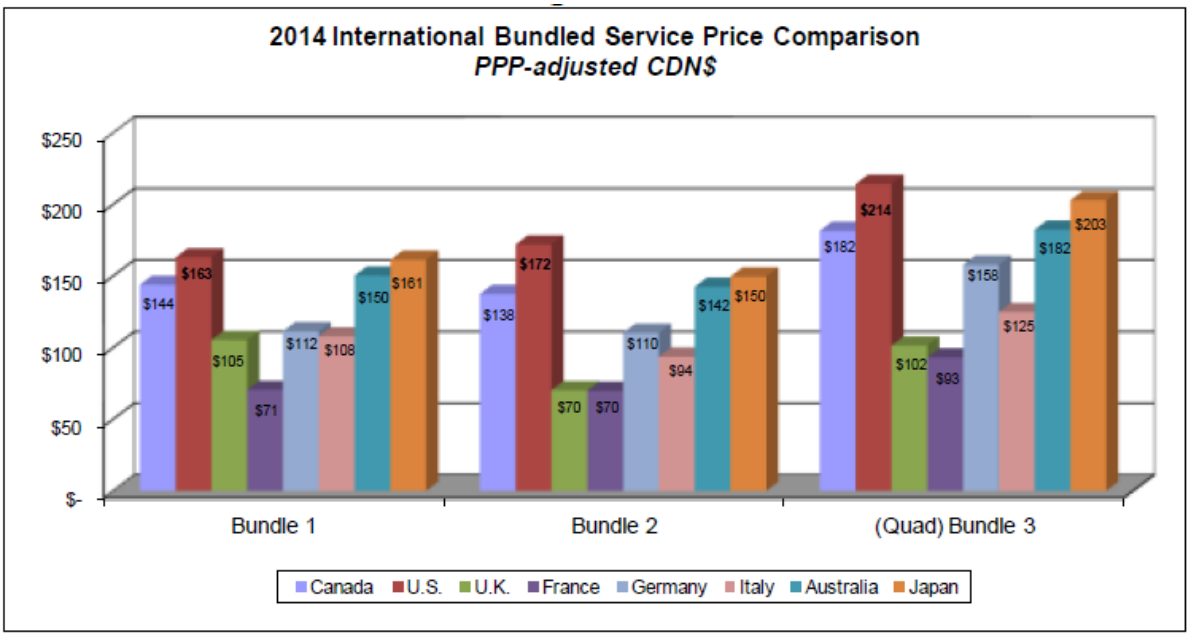
[84] *Ibid.* at p. 14.
[85] *Ibid.* at p. 23.
[86] *Ibid.* at p. 35.
[87] CRTC, *Maximizing the ability of Canadian consumers to subscribe to discretionary services on a service by service basis* (24 April 2014), CRTC Response to Order in Council P.C. 2013-1167, online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/rp140424e.htm> at footnote 15.
[88] *Ibid.*

- Bundle 2: Wireline, broadband Internet and digital TV; and
- Bundle 3: Wireline, mobile wireless, broadband Internet and digital TV.

The following graph shows the Wall Report's comparison, in which Canada's all three bundle prices fall on the "middle to high side"[89] of the country prices measured, lower than those in the U.S., Australia and Japan, but far higher than those in U.K., France, Germany and Italy.

Figure 9: International comparison of communications bundle prices (2014)[90]



Wall Communications Inc. 2014

Therefore, Canadians – and particularly those subscribed to the most basic communications service baskets – appear to be paying comparative or higher prices than consumers in other countries. Moreover, Canadian subscribers to Level 1 baskets tend to experience much steeper price increases than those subscribed to higher-level baskets. However, households who can only afford to subscribe to Level 1 service baskets are also the ones whose budgets would be even more greatly affected by these price increases.

Wall Communications Inc., *Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions: 2014 Update* (2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/rp140714.pdf> at p. 52.

[90] *Ibid.*, Figure 11.

IV. UNIVERSAL SERVICE AND ITS RELATIONSHIP TO AFFORDABILITY

4.1 The concept of Universal Service

No discussion of affordability of communications services can ignore the concept of "universal service" which was first used in relation to provision of landline telephone service but recently has been extended, at the very least conceptually, to broadband internet connections (wired and wireless) as well as wireless voice and even broadcasting distribution services (TV). This is because the pursuit of universal service implicates the ideas of provision of essential access to all – which in turn raises the question of costs and affordability of the services.

The concept of universal service is "convoluted" and "its mix of ingredients also vary from sector to sector and country to country" but "certain common patterns are discernible".[91] These elements are, according to a Directive from the European Commission, "a minimum set of services of specified quality to which all end-users have access, at an affordable price in the light of specific national conditions, without distorting competition."[92] The basic elements of a universal service objective are however, according to a recent OECD paper, quite variable between various advanced economies.[93]

Most conceptions of universal service also require an element of minimal service quality. Within each of these categories also are nuances, such as the concept of "equality" or "equity", that is, that service in even more remote or rural areas should be not only available but priced at relatively equal rates to urban or easier to serve areas.

However, it appears that the societal goals of universal service are generally accepted. For example, academic expert Claire Milne identifies them as:

- Availability (meaning that service can be obtained in a geographical area).
- Accessibility (meaning that service is accessible to differently abled people).

[91] Burri, Mira, The New Concept of Universal Service in a Digital Networked Communications Environment (September 1, 2006). I/S: A Journal of Law and Policy for the Information Society, Vol. 3, No. 1, pp. 117-146, 2007; NCCR Trade Regulation Working Paper No. 2006/10. Available at SSRN: http://ssrn.com/abstract=1120282 or http://dx.doi.org/10.2139/ssrn.1120282

[92] DIRECTIVE 2002/22/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services ("EU Universal Service Directive").

[93] Calvo, A.G. (2012), "Universal Service Policies in the Context of National Broadband Plans", OECD Digital Economy Papers, No. 203, OECD Publishing, esp. at p. 10. Online: http://dx.doi.org/10.1787/5k94gz19flq4-en

- Affordability (meaning broadly, in the words tautological words of the ITU, that "telephone service should be priced so that most people can afford it").

Gerrard Goggin of ACCAN, an Australian consumer group concerned with universal service, adds two goals, which he believes are established at least in that country:

- social inclusion and participation; and
- access to essential new technologies.

In addition, Goggin sees "one or two potentially new principles, or at least novel aspects" to a current, 21st century definition, that are worth consideration. These include:

- the role of content, and where it fits into policies of universal communications; this a reprise of an old topic in debates on universal service, and also information society — but a new, urgent emphasis is ushered in with the role played by issues of intellectual property, copyright, and digital rights management;
- affordable access and use of applications as well as platforms and technologies; for instance, search is ubiquitously provided by the good offices of Google and competitors, but in the future other applications may arise that form part of essential services."

Thus, advocates studying the concept of universal service in similar countries to Canada see a wider conception of universal service emerging, driven by the Internet and specifically broadband data service.

However, those same commentators likewise have noticed the challenge being created by the growing deregulation of telecommunications and broadcasting industries in various countries, with the result that universal service goals, policies and laws are being shifted from formal, enforceable commitments to voluntary ones.[94] This tension between unstated or at best aspirational universal service goals and well-defined, legally required actions to achieve similarly well-defined goals is nowhere more starkly demonstrated than in the difference between Canada and the United States. Therefore we turn now to an in-depth consideration of universal service in these two countries and briefly the European Union and other countries.

4.2 Universal Service in Canada

The story of universal service arguably begins in Canada with the Mulock Commission, a Parliamentary inquiry into the Bell Telephone Company of Canada and

[94] *Ibid.*

its tactics and shortcomings at the dawn of the 20th century.[95] This inquiry heard many complaints of unaffordable service from customers of the company and in particular, Bell's reticence to build out service to rural and remote portions of the country (largely though not exclusively the northwest). One result of the inquiry, eventually, was the effective takeover of Bell's operations in the western provinces by those provincial governments in the name of providing affordable, ubiquitous service. These western telephone companies were specifically mandated, by their charters, to deliver telephone service to rural areas at comparable rates to those same services in cities.

Another effect of the Mulock Commission was the regulation of telephone and telegraph service by an independent regulator (previously there had been oversight by the Railway Committee of the Cabinet) – at first, the Railway Board of Commissioners and then the Canadian Radio-Television Commission, later the Canadian Radio-television and Telecommunications Commission. During this early period, the regulator applied sections of the *Railway Act* that were specific to telephone and telegraph as well as the *Bell Canada Act*. Nowhere in the *Railway Act* sections was there any explicit mention of universal service, let alone the subcategory of "affordability" of communications.

The *Bell Canada Act* did, however, have certain proto-elements of universal service, namely the obligation of the company to provide service to customers along streets where the company already had facilities (telephone lines) or to any residence within 200 feet of those lines.[96]

While the Board of Railway Commissioners does not appear to have addressed the concept of universal service, this does not mean that later the CRTC ignored the issue. Rather, the CRTC creatively used its jurisdiction to set "just and reasonable rates" to ensure a high level of accessibility with some more or less targeted efforts at affordability of service – at least for the costs of installation of service in "high-cost serving areas". As described by Ryan, author of the leading telecommunications law textbook in Canada, the CRTC explicitly used ratemaking to achieve universal service:

A review of the decisions of federal regulatory authorities prior to 1976 -- the year that jurisdiction over telecommunications was transferred to the CRTC -- suggests that the Commission's predecessors did not see the promotion of universal access to telephone service as a regulatory objective. These agencies construed their mandate narrowly: it was to ensure that rates were just and reasonable and free of unjust discrimination and undue preferences; and consideration of the telephone companies' duty to serve were addressed only within the context of disputes over individual service issues. The CRTC brought a fresh approach to regulation and a concern for broader social issues. The CRTC made the universal availability of telephone service at affordable prices, now endorsed as an objective of Canadian telecommunications policy

[95] Armstrong C. and H.V. Nelles, Monopoly's Moment: The Organization and Regulation of Canadian Utilities, 1830-1930 (Toronto: University of Toronto Press), 1986 at ch. 8.
[96] Bell Canada Act, s. 6.

by the Telecommunications Act, one of its prime objectives. The absence of a statutorily mandated duty to serve and a power to require the construction of extensions to facilities to implement it does not seem to have impeded the CRTC in pursuing that objective. It did so principally by incorporating consideration of accessibility to a carrier's telephone services in its assessment of the justness and reasonableness of the carrier's rates. The Commission made it clear that, where it regarded the level of availability of telephone service as unsatisfactory, it would be reluctant to authorize rate increases until the carrier could demonstrate significant progress towards improving the situation. Under this regime, telephone companies were allowed to recover the costs of improved access through rate increases for other services sanctioned by regulation -- and in particular long distance telephone services.[97]

While this era of regulated prices at "just and reasonable rates" with an implicit requirement to make service at the least accessible, if not affordable on an income-tested basis, was perhaps imperfect and hid to some extent affordability problems due to inelasticity of demand for telephone service, it was at the least a somewhat limited problem.[98]

This equilibrium was upset by the advent of competition in telephone services that was introduced in a series of CRTC decisions in the early 1990s. As noted by Ryan above, the CRTC, like other regulators such as the FCC in the United States, explicitly allowed incumbent telephone providers to cross-subsidize local service with high long distance rates to keep local service affordability and drive local service accessibility. When first long-distance and then eventually local service was opened to competition, this implicit cross-subsidy was removed and the CRTC was forced to address the funding of universal service and to reaffirm its commitment to the idea.

Although the CRTC appears to have started with a certain resolve to follow the basic tenets of universal service as defined in other countries (quality service, available to all on an equitable basis, at affordable rates) it appears to have lost its resolve or perhaps even lost its way in the following few years, as evidenced by a series of decisions and policy statements. The CRTC appears to have suffered from at first, a lack of clear statement of the universal service principle and then a sort of willful blindness to the increasing signals that Canada's approach might not be sufficient to ensure various aspects of universal service and in particular, affordability.

The first of these steps was the CRTC's framework decision to outline the path to competition in telecommunications from an era of effective monopoly. Thus, in Telecom Public Notice CRTC 92-78, *Review of Regulatory Framework*, the CRTC called for comments on the new competitive approach, but was careful to note that the

[97] Ryan, Michael, "Telecommunications Carriers and the "Duty to Serve""(2012) 57:3 McGill LJ 519 – 551 at para. 42.

[98] See Philippa Lawson, *Eliminating Phonelessness in Canada: Possible Approaches, Second Edition* (Ottawa: Public Interest Advocacy Centre, 2002). This paper argues that although penetration rates during this period for wireline telephone were at historic highs, that this figure masked fairly extensive phonelessness in the population of lowest-income Canadians.

achievement of greater competition should not come at the expense of other foundational principles, the foremost of these being universal service and in particular affordability of the service. The CRTC stated:

> [T]he Commission wishes to stress its view that any changes to be made to the current framework in order to enhance the efficiency and effectiveness of regulation must at the same time be conducive to the attainment of the following objectives:
>
> (1) universal accessibility to basic telephone services at affordable prices.

However, in the following proceeding, as reflected in the CRTC's decision (Telecom Decision 94-14, *Review of Regulatory Framework*) the Commission made fundamental decisions about universal service and the role of affordability indirectly, by the way it balanced these two goals with other considerations. For example, in relation to the expected "rebalancing" of rates for long-distance with rates for local service, the Commission found that the level of cross-subsidy was too high; that is, that the long-distance rates were a subsidy that was "larger than required to achieve universal service objectives." The CRTC also stated that: "In the opinion of the Commission, the current subsidy is much larger than necessary to maintain affordable service."[99]

However, the CRTC, although it could have stopped at that conclusion, went further to "balance" the universal service goals with other policy goals, including innovation of businesses: "Moreover, since contribution amounts to a tax on information-intensive enterprises, it is important that it not create a much greater burden than is necessary to promote affordable access."[100] The next policy goal placed in opposition to affordable local telephone service for individuals was "ensuring sustainable competition in all markets" which was predicated on another goal, namely "open access principles and pricing policies that provide incentives to users and service providers to conduct their business over Canadian networks." The CRTC was concerned at this time that Canadian long distance traffic would "by-pass" the Canadian carriers over U.S. networks which had been deregulated sooner. The CRTC therefore placed the affordability of local service directly in opposition with the concern for the viability of Canadian long distance and local carriers, stating: "In the opinion of the Commission, the objectives under the Act of promoting the use of Canadian facilities and making telecommunications affordable in all regions of Canada are intrinsically linked. The regulatory framework in this Decision attempts to balance economic efficiency and competitiveness with social objectives, including affordability, as required by the Act."[101]

What caused this change of direction between the CRTC's Public Notice and its decision was to a large extent external to the Commission. Parliament had in the meantime passed the *Telecommunications Act* to replace the telecommunications

[99] See Telecom Decision 94-14.
[100] Note here that the "affordable access" referred to at the end of the quote is affordable long distance service to businesses, not individuals.
[101] See Telecom Decision 94-14.

sections of the *Railway Act*, in 1993. The new *Telecommunications Act* did indeed recite principles usually associated with universal service, including explicitly mentioning affordability, however, the Act placed that policy goal in a section with several other potentially conflicting policy goals, with no guidance to the Commission as to the relative importance or priority of any one goal (despite the vast social benefits of universal service recognized in most other countries).

These policy goals were enshrined in s. 7 of the Telecommunications Act in 1993 and have not been modified since.

Section 7 of the *Telecommunications Act,*[102] headed "Canadian Telecommunications Policy – Objectives" states that Canadian telecommunications policy has as its objectives:

> 7. (a) to facilitate the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions;
>
> (b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada;
>
> (*c*) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications;
>
> (*d*) to promote the ownership and control of Canadian carriers by Canadians;
>
> (*e*) to promote the use of Canadian transmission facilities for telecommunications within Canada and between Canada and points outside Canada;
>
> (*f*) to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation, where required, is efficient and effective;
>
> (*g*) to stimulate research and development in Canada in the field of telecommunications and to encourage innovation in the provision of telecommunications services;
>
> (h) to respond to the economic and social requirements of users of telecommunications services;
>
> (*i*) to contribute to the protection of the privacy of persons.

As noted, none of the objectives takes precedence over the other, and the CRTC has in the past noted that the achievement of one objective requires balancing of it with the achievement of others,[103] an approach confirmed by the Supreme Court of

[102] S.C. 1993, c. 38.
[103] See, *infra*, Telecom Decision CRTC 99-16, at para. 19.

Canada.[104] Moreover, the affordability objective set out in subsection 7(b) does not expressly apply to all Canadians, allowing the CRTC to focus almost exclusively on geographic availability and accessibility to persons with disabilities, rather than affordability for low income households. In practice, the policy goal of reliance on market forces and minimization of regulation has been given priority over the policy goal of affordability.

Affordability also appears in the legislative objectives of broadcasting policy in Canada. Section 3(1) of the *Broadcasting Act*[105] declares that:

> 3. (1)(*b*) the Canadian broadcasting system, operating primarily in the English and French languages and comprising public, private and community elements, makes use of radio frequencies that are public property and provides, through its programming, a public service essential to the maintenance and enhancement of national identity and cultural sovereignty;
>
> …
>
> *(d)* the Canadian broadcasting system should:
>
> > (i) serve to safeguard, enrich and strengthen the cultural, political, social and economic fabric of Canada,
>
> …
>
> *(t)* distribution undertakings
>
> > (ii) should provide efficient delivery of programming *at affordable rates*, using the most effective technologies available at reasonable cost,
> >
> > (iii) should, where programming services are supplied to them by broadcasting undertakings pursuant to contractual arrangements, provide reasonable terms for the carriage, packaging and retailing of those programming services…
> >
> > (emphasis added)

As with the *Telecommunications Act,* there is no hierarchy of policy objectives in s. 3 of the *Broadcasting Act*, and the Commission faces the same balancing of policy objectives. Nor is the term "affordability" defined in the legislation or qualified in a way to clarify that it applies across the board, to all Canadians.

Thus, despite the existence of an explicit legislative policy goal of affordability of both telecommunications and broadcast services in Canada, there is no legally enforceable, clearly defined legislative objective to pursue universal service in either case.

[104] See *Bell Canada* v. *Bell Aliant* 2009 SCC 40.
[105] S.C. 1992, c. 11.

Nonetheless, there have been some minimal efforts by the regulator, especially on the telecommunications side of its jurisdiction, to ensure a form of universal service obligation and this has been done by creating a "basic service obligation" or "BSO" that regulated wireline telephone carriers only are expected to pursue. In Canada, the BSO is essentially identical to the service requirements of regulated carriers in Europe under the Universal Service Directive (with some minor differences). The Canadian BSO was introduced in Telecom Decision CRTC 99-16, *Telephone Service to High-Cost Serving Areas* at the dawn of local service competition. Its requirements are:

- Individual line local service with touch-tone dialling, provided by a digital switch with capability to connect via low speed data transmission to the Internet at local rates;
- Enhanced calling features, including access to emergency services, Voice Message Relay service, and privacy protection features;
- Access to operator and directory assistance services;
- Access to the long distance network; and
- A copy of a current local telephone directory.[106]

Notable by its absence from this list of requirements is that of affordability of service. At the time of the decision, this aspect still was arguably being satisfied by the CRTC's imposition of rate regulation under its just and reasonable rates jurisdiction.

For companies not achieving the BSO, they were required to implement "service improvement plans" aimed at achieving the BSO for all of their customers. The CRTC required reports on progress to achieve this.

In this decision and indeed in prior decisions of the CRTC dating back to Telecom Decision 94-19, the CRTC had created explicit subsidies to ensure comparable rates in "high cost" areas where the cost of providing service exceeded the CRTC's rate for service in urban areas. Thus the CRTC required a measure of "equity" in pricing between urban and rural and remote areas.

All of this functioned to keep the issue of affordability somewhat low-key while the CRTC set "just and reasonable rates" on local service. However, as detailed further below, when the CRTC commenced the process of "forbearance" from explicit rate-setting, the rate control that underlay all of these regulatory structures was stripped away.

This would not have been so serious for affordability regulation and policy in Canada had that regulatory freedom given to local telephone companies to allow the market to set rates been coupled with an extensive universal service obligation set out in the legislation, as we will see was done in the United States. Instead, Canada stuck

[106] Telecom Decision CRTC 99-16, at para. 24. Note that the requirement of paper directories since has been severely curtailed.

only with the BSO and no rate regulation, as well as the minor requirements designed to improve deposits, disconnections, toll restriction and the like.

Efforts to extend a modified BSO to broadband or wireless service were rejected by the CRTC in Telecom Decision 2011-291, *Obligation to serve and other matters*.

So, in conclusion, the communications regulator in Canada, the CRTC, has not explicitly defined affordability, does not have a universal service obligation specified in its governing legislation, has not updated the "basic service objective" (except to make it easier to achieve) since it was created, has refused to extend it to broadband or wireless (or television, for that matter) and has not studied it publicly from a policy perspective.

4.3 Universal Service in the United States

Universal service policy was arguably introduced with the creation of the Federal Communications Commission and the passing of the original 1934 *Communications Act*. That act stated in its preamble (Creation of the FCC/Purpose of the Act) that:

> For the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex, a rapid, efficient, Nationwide, and world-wide wire and radio communication service with adequate facilities at reasonable charges, for the purpose of the national defense, for the purpose of promoting safety of life and property through the use of wire and radio communication, and for the purpose of securing a more effective execution of this policy by centralizing authority heretofore granted by law to several agencies and by granting additional authority with respect to interstate and foreign commerce in wire and radio communication, there is hereby created a commission to be known as the "Federal Communications Commission," which shall be constituted as hereinafter provided, and which shall execute and enforce the provisions of this Act.[107] [Emphasis added.]

In a sense, therefore, the FCC owes its entire reason for being to a vision of universal service. Arguably, the reference to "adequate facilities and reasonable charges" above would correspond only to "just and reasonable" rate-setting as in Canada. However, in 1984, the FCC created the "Lifeline" and later "Linkup" programs to support affordable access to wireline service (roughly comparable in features to that required in Canada under the later BSO). Lifeline subsidized ongoing local wireline charges while Linkup provided subsidies to defray the cost of installation charges to get

[107] *Communications Act of 1934*, 48 Stat. §1064, ch. 652 (June 19, 1934) (47 U.S.C. §151).

consumers onto the network. The FCC extended this support to “high cost” areas, as was done in Canada, with a separate subsidy.

In 1996, the U.S. had a major overhaul of its communications legislation with the passing of the 1996 *Telecommunications Act*, which extensively amended the *Communications Act* of 1934. This was a watershed moment in universal service in the United States. The 1996 Telecommunications Act created a standalone legislative requirement to pursue universal service and outlined the methods and goals for such an obligation in §254 of the amended Communications Act.

The heart of the USO (universal service obligation) created in §254 is found in §254(b). It reads:

> (b) UNIVERSAL SERVICE PRINCIPLES.--The Joint Board and the Commission shall base policies for the preservation and advancement of universal service on the following principles:
>
> (1) QUALITY AND RATES.--Quality services should be available at just, reasonable, and affordable rates.
>
> (2) ACCESS TO ADVANCED SERVICES.--Access to advanced telecommunications and information services should be provided in all regions of the Nation.
>
> (3) ACCESS IN RURAL AND HIGH COST AREAS.--Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.
>
> (4) EQUITABLE AND NONDISCRIMINATORY CONTRIBUTIONS.—All providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service.
>
> (5) SPECIFIC AND PREDICTABLE SUPPORT MECHANISMS.—There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service.
>
> (6) ACCESS TO ADVANCED TELECOMMUNICATIONS SERVICES FOR SCHOOLS, HEALTH CARE, AND LIBRARIES.--Elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services as described in subsection (h).
>
> (7) ADDITIONAL PRINCIPLES.--Such other principles as the Joint Board and the Commission determine are necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with this Act.

The result of the 1996 *Telecommunications Act* changes was to spur the FCC to refine the existing Lifeline and Linkup programs, expand the high cost fund and to launch programs for connecting schools, libraries and health care facilities. The detail provided in §254, and the fact it was a mandatory, standalone legislative requirement, provided the U.S. communications regulators with a framework for universal service in the U.S. which was and still is so glaringly absent in Canada.

Most importantly for the design of these programs and the ultimate affordability of telecommunications services in the U.S. was, however, the explicit definition in §254(b)(1) of rates for service as "just, reasonable, **and affordable**". [Emphasis added.] The importance of the explicit addition of those words to the concept of rate-setting in U.S. telecommunications regulation and policy is inestimable. It drives all of the work required of the regulator to set up low-income programs such as Lifeline, to do all of the work of determining eligibility for programs and finding the authority for and funding for these programs. In the U.S., such a question as affordability of telecommunications cannot simply drift, undefined, from policymaker to regulator to legislator and back, as in Canada. The buck stops with the FCC and Joint Board, and concrete actions to improve affordability for Americans are required by law.

The U.S. Federal Communications Commission's (FCC) most comprehensive description of the "affordability" required in § 254 of the Act was set out in its 1997 Order[108] restructuring Lifeline, Link Up and other mechanisms. The Commission found that affordability determinations had to consider both an:

- Absolute component: "To have enough or the means for"; and a
- Relative component: "To bear the cost of without serious detriment."[109]

In assessing affordability, the FCC found that it was appropriate to examine factors such as:

- **Subscribership levels**. However, the FCC agreed that "subscribership levels do not address the second component of affordability, namely, whether paying the rates charged for services imposes a hardship for those who subscribe";[110]
- **Size of a customer's local calling area** to a "community of interest," including calls to hospitals, schools, and other essential services without incurring a toll charge;[111]
- **Consumer income levels**, particularly those for a local or regional area, not a national median;[112]

[108] FCC, *Report and Order In the Matter of Federal-State Joint Board on Universal Service* (8 May 1997), FCC 97-157.
[109] *Ibid.* at para. 110.
[110] *Ibid*. at para. 113.
[111] *Ibid*. at para. 114.

- **Cost of living** and **population density**; and
- **Local variations in rate design**[113].

However, the FCC determined that states, based on their local ratemaking authority, should hold "primary responsibility"[114] for determining the affordability of rates.[115]

The result of this explicit USO framework in the U.S. – and its unwavering and detailed consideration of "affordability" of telecommunications service – is four basic baskets of programs, which subsidize telecommunications services, in the pursuance of the goals laid out in §254. The U.S. now has four such USO programs: Low-income (Lifeline); High Cost Area (Connect America Fund); Health Care (specifically Rural Health Care Program); and Education (called "E-Rate", which provides connectivity to schools and libraries).

The most significant aspect lately, however, of these programs is not simply that they exist nor that they have recently been reformed to avoid waste, fraud and duplication,[116] but that they now include wireless telephony (the "Mobile Fund" – a part of the Connect America Fund for high cost areas) and most importantly, there are moves to finally include broadband Internet access in the USO. Presently there is a pilot project for broadband subsidy under the Lifeline program, which may lead to changes to the program to include broadband after further proceedings. In addition, recently the FCC to modernized the E-Rate schools and libraries program to in essence be a broadband subsidy program. The FCC outlined these goals in a recent Order[117]:

> The three goals we adopt for the E-rate program are: (1) ensuring affordable access to highspeed broadband sufficient to support digital learning in schools and robust connectivity for all libraries; (2) maximizing the cost-effectiveness of spending for E-rate supported purchases; and (3) making the Erate application process and other E-rate processes fast, simple and efficient. We also adopt approaches for measuring our success towards meeting those goals. [Emphasis added.]

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[112] *Ibid*. at para. 115.
[113] According to the FCC, these include: "the proportion of fixed costs allocated between local services and intrastate toll services; proportions of local service revenue derived from per-minute charges and monthly recurring charges; and the imposition of mileage charges to recover additional revenues from customers located a significant distance from the wire center." See: *Ibid*. at para. 117.
[114] *Ibid*. at para. 108.
[115] Note in the discussion of E.U. universal service requirements that national governments have the responsibility for defining affordability in light of local conditions. This suggests a principle of "closest level of government' proximity to the persons to benefit from such programs.
[116] See FCC, *Connect America Fund, et al.*, WC Docket No. 10-90 et al., *Report and Order and Further Notice of Proposed Rulemaking*, FCC 11-161 (Nov. 18, 2011).
[117] FCC, *In the Matter of Modernizing the E-rate Program for Schools and Libraries,* WC Docket No. 13-184, *Report and Order and Further Notice of Proposed Rulemaking*, FCC 14-99, (July 23, 2014) at para. 5.

Most of this recent focus on including broadband in the USO was the result of the political decision by the U.S. federal government to pursue its ambitious "National Broadband Plan". However, it should be noted that the 1996 *Telecommunications Act* changes also required that the USO be kept up to date in light of technological changes (§254(c)). That section lists the factors for the FCC and joint state-federal board on universal service to consider when making universal service order and policy. They are that the telecommunications services:

> (A) are essential to education, public health, or public safety;
> (B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers;
> (C) are being deployed in public telecommunications networks by telecommunications carriers; and
> (D) are consistent with the public interest, convenience, and necessity.

A national consumer survey[118] released in 2010 leading up to the launch of the National Broadband Plan showed that affordability was a key factor preventing low-income consumers from adopting residential broadband Internet service.

The survey found that 35% of American adults did not have broadband at home.[119] Of the broadband non-adopters, 36% or 28 million adults, said that cost – including the monthly service fee, the cost of a computer, and long-term contracts or installation fees – was the main reason they did not have Internet at home.[120] This was the most prevalent explanation for not having high-speed Internet access at home, followed by lack of digital literacy (22%) and lack of relevance to their lives (19%).[121]

Americans with annual incomes under $20,000 were also more likely (47% of survey respondents) to say that cost was the reason for non-adoption of broadband.[122] Non-adopters were found to be willing to pay, on average, $25 per month for broadband Internet.[123]

The National Broadband Plan thus set out, as one of its long-term goals, that "every American should have affordable access to robust broadband service, and the

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[118] John B. Horrigan, *Broadband Adoption and Use in America* (2010), OBI Working Paper Series No. 1, online: FCC <https://apps.fcc.gov/edocs_public/attachmatch/DOC-296442A1.pdf>. Note that the U.S. Broadband Data Improvement Act, 122 STAT. 4096, passed to help enable the National Broadband Plan, has as its goal: "To improve the quality of Federal and State data regarding the availability and quality of broadband services and to promote the deployment of affordable broadband services to all parts of the Nation." [Emphasis added.]
[119] *Ibid*. at p. 3.
[120] *Ibid*. at p. 5.
[121] *Ibid.*
[122] *Ibid*., Exhibit 28.
[123] *Ibid*. at p. 5.

means and skills to subscribe if they so choose."[124] This included extending the Lifeline and Link-Up programs to support broadband[125] and licensing spectrum with conditions to offer free or low-cost service for low-income consumers.[126]

It seems inevitable that the U.S. will soon define universal service to include not only traditional wireline service, but also wireless telephony (at least in "high cost" areas) and broadband Internet service (at least wired broadband for low-income citizens). Given the explicit requirement to make rates "affordable" as part of §254, U.S. citizens have a good hope that affordability of most basic telecommunications services, including broadband Internet access, will soon be assured there.

4.4 Universal Service in Europe and elsewhere

4.4.1 EU Members

Europe's pan-European approach to the concept of universal service was relatively late in coming, due in part to the legacy of state-owned telecommunications companies.[127] The regulatory requirements of universal service were initially found in several EU directives, respectively on "Full Competition" (1996); "Interconnection" (1997); and "Voice Telephony" (rev. 1998) and were, at least at first, somewhat "narrow",[128] but with clear statements, like the U.S. *Telecommunications Act of 1996*, that telecommunications services be made "affordable". A significant consolidation of these principles was made in the 2002, in DIRECTIVE 2002/22/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services ("EU Universal Service Directive"). This Directive was modified by a further Directive in 2009.[129] In all of the EU statements of universal service, responsibility for achieving it is split between the European and national level telecommunications regulators.

Most importantly for the consideration of affordability of service, the EU Universal Service Directive, in article 3.1 defines the availability of universal service but notes that

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[124] Federal Communications Commission, *Connecting America: The National Broadband Plan* (2010), online: FCC <http://transition.fcc.gov/national-broadband-plan/national-broadband-plan.pdf> at p. 10.
[125] *Ibid.*
[126] *Ibid*. at p. xiii.
[127] Johannes M. Bauer, "Universal Service in the European Union", Government Information Quarterly, Vol. 16, No. 4, pp. 329-34.
[128] *Ibid.*
[129] DIRECTIVE 2009/136/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2009, *amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services, Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector and Regulation (EC) No 2006/2004 on cooperation between national authorities responsible for the enforcement of consumer protection laws*.

determination of affordability of service must be made "in light of specific national conditions."[130]

What this has meant in practice is that the various member nations of the EU have a wide variety of pricing and subsidies for telecommunications services that qualify as universal service and indeed, varying definitions of what "affordability" means in each country.

The EU Universal Service Directive,[131] however, does go further in giving legal guidance to the concept of an "affordable price" (even if set by national regulators):

> … [an affordable price is] a price defined by Member States at national level in the light of specific national conditions, and may involve setting common tariffs irrespective of location or special tariff options to deal with the needs of low-income users. Affordability for individual consumers is related to their ability to **monitor and control** their expenditure.[132] [Emphasis added.]

Moreover, the Directive elaborates on specific factors which relate to the affordability of telephone service:

> The affordability of telephone service is related to the information which users receive regarding telephone usage expenses as well as the relative cost of telephone usage compared to other services, and is also related to their ability to control expenditure. Affordability therefore means giving power to consumers through obligations imposed on undertakings designated as having universal service obligations. These obligations include a specified level of itemised billing, the possibility for consumers selectively to block certain calls (such as high-priced calls to premium services), the possibility for consumers to control expenditure via pre-payment means and the possibility for consumers to offset up-front connection fees. Such measures may need to be reviewed and changed in the light of market developments.[133]

Therefore, the E.U. examines "affordability" as the matter of an individual consumer's expenditure control and a service provider's obligations to provide certain services in a way which would increase the consumer's control over his or her expenses. Also key to the "control" of the consumer over the cost of services is the monitoring of expenses – which implies billing tools and transparent invoicing.

EU members who have adopted the EU's USO Directive have also formed and implemented their own approaches to defining and addressing affordability of

[130] Directive 2002/22/EC defines universal service as "services set out in this Chapter are made available at the quality specified to all end-users in their territory, independently of geographical location, and, in the light of specific national conditions, at an affordable price."
[131] *Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive)*.
[132] *Ibid*., recital 10.
[133] *Ibid*., recital 15.

communications services. Where countries have attempted to define "affordability," they appear to have incorporated the concept of affordability rate setting.

Germany

For instance, the German *Telecommunications Act (TKG)* sets out a definition for the affordability of telephone service based on the real price of serving a household outside an urban or more densely populated area:

> 79. (1) The price for the universal service referred to in section 78(2) para 1 is deemed affordable if it does not exceed the real price of the telephone services required on average by a household situated outside a town or city with a population of more than 100,000 on 1 January 1998. The assessment of affordability takes into account the quality of service levels, including supply times, at that time and the rate of growth in productivity up to 31 December of the year prior to the previous one.
>
> (2) The universal services referred to in section 78(2) paras 2 to 4 are deemed affordable if the rates comply with the criteria set out in section 28.[134]

France

Some E.U. members, in seeking to fulfill the USO Directive, have tended to focus on providing lower-rate "social tariffs" for low-income consumers. For instance, France uses a competitive bidding process to select a universal service provider.[135] Currently, Orange is the country's designated universal service provider and is responsible for telephone services; France Télécom is responsible for public pay phones; and PagesJaune is responsible for directory and information services.[136] The USO services are financed by a universal service fund from contributions made by French telecommunications service providers and established by the regulator, Autorité de Régulation des Communication Électroniques (ARCEP).[137]

The current universal telephone service in France is the "Abonnement Social" provided by Orange. The Abonnement Social is a reduced monthly home phone plan for €6.49 instead of the normal €16. The service is restricted to low-income users receiving

[134] *Telecommunications Act (TKG)*, s. 79(1)-(2).
Section 28 describes abuse and anti-competitive conduct in levying rates or bundling products.
[135] *Code des postes et des communications électroniques* art L35-2.
[136] ARCEP, "Le service universel des télécommunications", online: ARCEP <http://www.arcep.fr/index.php?id=9905#c61877>.
[137] *Code des postes et des communications électroniques*, art. L35-3.

social welfare (Revenu Minimum d'Insertion), who have a handicap, or who have other specific needs.[138]

Despite the fact that France has set aside €20 billion Euros for a national broadband initiative, *Plan France Très Haut Débit*, which will extend "very high-speed access" (of 30 Mbps or more) to French households, there is currently no indication if this plan will be part of the USO and if it will have affordable prices for eligible individuals.[139]

Belgium

Similarly, Belgium has a specific social component entitled les "tariffs sociaux" incorporated into its legislation. Pursuant to this social component, service providers in Belgium must offer not only an affordable rate but also a discounted rate to eligible individuals.[140]

Similarly to France, the social component for the USO is financed by a fund that reimburses all providers whose universal service fees are unjustified. All service providers operating in Belgium must contribute to the fund.[141]

United Kingdom

In 2005, Ofcom, the U.K. regulator, examined the issue of affordability, although, like Canada to date, there had to that point been no current definition of "affordable" communications services in the U.K. In this consultation, Ofcom considered disconnections policy to be an indicator of affordability.[142] It found, for instance, that British Telecom (BT) disconnects around 5% (or 1 million) customers a year for non-payment of bills.[143]

In its 2014 programme of work, Ofcom stated that it would be carrying out a "review to assess whether key communications services are affordable, particularly for

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[138] "Abonnement Social", online: Orange <http://boutique.orange.fr/ESHOP_mx_ft/?tp=F&ref=3610&IDCible=1&donnee_appel=&id=&type=3>.
[139] ARCEP, "Le plan France Très Haut Débit", online :ARCEP <http://www.arcep.fr/index.php?id=11325>.
[140] Eligible individuals include individuals on social welfare (Minimex), seniors over the age of 65, and handicapped individuals (including hard of hearing, blind veterans, and individuals who have had a laryngectomy). See: Belgian *Annexe à la loi relative aux communications électronique*, 2005-09-13/33, art. 22 §1.
[141] *Loi portant des dispositions diverses en matières de communications électronique*, 2012-07-10/04, art. 51 §4.
[142] Ofcom, "Universal Service Obligation: A review" (2005), online: Ofcom <http://stakeholders.ofcom.org.uk/consultations/uso/main/> at para. 1.5.
[143] *Ibid.*

the least well off consumers."[144] The regulator stated that the review would examine the types of telecommunications services which consumers deemed essential in order to ensure that cost was not a barrier to access to communications services.

In the resulting report, Ofcom defined "affordability" as: "in general, a good or service [was] considered to be affordable for a consumer if this consumer [was] able to purchase it without suffering undue hardship."[145] Ofcom viewed this measure to be more useful than the mere subjective views of respondents asked whether something was affordable or not. With regards to low-income users, a Futuresight report for Ofcom found that those with "more developed Internet needs," including fixed Internet service at home in particular, appeared to be "more exposed to financial detriment and less resilient to unexpected expense."[146] Moreover, Futuresight noted that "pressure on families (employed and unemployed) to provide up-to-date technology for their children was especially evident."[147]

A study of 1,997 consumers in the UK conducted for Ofcom in 2014 found that of those who had used the following communications services in the last year:

- 15% didn't have but would like to have wireless Internet on their handsets;
- 12% didn't have but would like to have fixed broadband Internet;
- 11% didn't have but would like to have a landline phone;
- 10% didn't have but would like to have wireless Internet via a mobile stick; and
- 3% didn't have but would like to have a mobile phone.[148]

Of those consumers who wanted to use a service which they currently did not, the driving reason for non-usage was cost.

[144] Ofcom, "Improving quality and value in the communications sector" (28 January 2014), online: Ofcom <http://media.ofcom.org.uk/news/2014/consumer-experience-2013/>.
[145] Ofcom, *Results of research into consumer views on the importance of communications services and their affordability* (22 July 2014), online: Ofcom <http://stakeholders.ofcom.org.uk/binaries/research/affordability/affordability_report.pdf> at para. 3.9.
[146] Ofcom, *Affordability of Essential Communications Services: A Qualitative Research Study – Final Report* (July 2014), online: Ofcom <http://stakeholders.ofcom.org.uk/binaries/research/affordability/Futuresight-Report.pdf> at p. 54.
[147] *Ibid*. at p. 56.
[148] Jigsaw Research, *Affordability of Communications Services Essential for Participation: Quantitative Research* (22 July 2014), online: Ofcom <http://stakeholders.ofcom.org.uk/binaries/research/affordability/Essential_Comms_Services.pdf>, Figure 46.

Figure 10: Why UK consumers don't currently use a service they would like to use (2014)[149]

	Mobile (62)	Landline (219)	Fixed Broadband (241)	Internet (USB or dongle) (192)	Internet (SIM) (312)	Payphone (170)	Directory Enquiries (phone) (418)	Itemised billing (383)
Cost of service (NET)	33%	55%	59%	33%	32%	16%	50%	38%
No need - can use another service	29%	48%	33%	58%	46%	71%	42%	47%
No need - someone helps me	2%	2%	4%	3%	2%	3%	5%	3%
Never used before	1%			7%	6%	3%	4%	6%
Had no time / not got round to it yet	2%	1%	1%	1%	1%	1%	2%	6%
Inconvenient /difficult to install	3%		2%					
Inconvenient / difficult to use	5%		1%	1%	1%	5%	2%	1%
Not part of my bundle		3%	1%	4%	2%			
Contract / length of contract		1%	3%		3%			
Reliability of connection	5%	1%	2%	3%	3%	1%		
Quality of customer service		1%	1%					
Quality of line	2%	1%	1%	1%	2%			
Coverage / black spots	4%							
Concerned about impact on health								
Security concerns			1%	1%	1%			

Source: Jigsaw Research, 2014

British Telecom (BT) is the UK's universal service provider (in addition to Kingston Communication who is the sole service provider for the Hull area); both service providers are required to provide special tariff schemes to assist consumers in affording communication services.[150] The schemes have been traditionally funded by the profits made on higher margin services of universal service providers.[151] Previously, BT offered two programs in an effort to render services more affordable: (1) the Light User Scheme (LUS), and (2) In Contact. The LUS was created to help low income and disadvantaged customers and involved a discounted price for telephone use.[152] In Contact was a pre-paid low monthly fee calling arrangement, but experienced low registration. Both programs were scrapped for the new BT Basic scheme.[153].

BT Basic is the current USO initiative limited to low-income users who claim specific types of social security benefits.[154] BT Basic provides an active phone line for £15.30 for three months. This service includes £4.50 worth of free calls, and charges

[149] *Ibid*., Figure 48.
[150] "Review of the Universal Service Obligation", online: Ofcom <http://stakeholders.ofcom.org.uk/binaries/consultations/uso/summary/main_web.pdf> at p. 12.
[151] *Ibid* at 8.
[152] *Ibid* at 13.
[153] Jasmine Brude, Tony Eardley, and Gerard Goggin, "Telecommunications and Community Wellbeing : a review of the literature on access and affordability for low-income and disadvantaged groups", SPRC report 09/09 at 27 [Brude et al.].
[154] Eligibility of BT Basics if individual is claiming one of the following benefits: Income Support, income-based Jobseeker's Allowance, Pensions Credit, Employment Support Allowance, and Universal Credit; "BT Basic overview", online: BT http://www.bt.com/includingyou/other-products-services-bt-basic.html.

every subsequent call made 10p/min., with a 3.3p/min. dial-up fee per call. BT also now offers "BT Basic + Broadband," in which BT Basic customers pay £29.85 for three months and 10 GB of usage per month.[155]

4.4.2 Other countries

Australia

There is, to date, no Australian definition of "affordability" in relation to communications services. In 2000, the Telecommunications Universal Service Obligation (TUSO) was implemented in Australia with an objective of ensuring that standard telephone services, payphones, prescribed carriage services and digital data services were reasonably accessible to all Australian on an equitable basis, wherever they reside or carry on business.[156]

While affordability is not described, "reasonable access" is. The key component to Australia's TUSO, reasonable access, is described as "those situations in which a normal carrier would not consider the net cost of supply to be excessive in the circumstances and where the standard telephone service could reasonably be supplied in an effective, efficient and economic way."[157] This definition appears to be more akin to the Canadian telecommunications concept of "just and reasonable rates"[158] rather than affordability.

Telstra, the country's primary universal service provider, must meet all the requirements of the TUSO.[159] To achieve this objective, Telstra has adopted the *Access for Everyone* program that consists of various services based on what an individual or household can afford. The program targets low income families, pensioners, people with disabilities, indigenous Australians, and the unemployed and homeless. The program is a self selecting package and can include the following:

- Centrepay: allows user to obtain an automatic deduction from their Centrelink (social security service) payments in order to keep bills in manageable amounts;
- Financial hardship assistance: allows for payment arrangements for unforeseen circumstances;
- Telstra Bill Assistant Program: community organization partners help users that are experiencing financial difficulty pay their bills;

[155] BT, *Tariff Guide for Residential Customers* (7 January 2015), online: BT <http://www.productsandservices.bt.com/consumer/assets/downloads/BT_PhoneTariff_Residential.pdf> at p. 5.
[156] *Telecommunications (Consumer Protection and Service Standards) Act 1999* (Cth), s. 9.
[157] "Telstra, *Telstra's Universal Service Obligation: Policy Statement* (2005), online: Telstra <http://telstra.com.au/abouttelstra/download/document/uso-ps.pdf> at p. 5.
[158] See, for instance: *Telecommunications Act*, S.C. 1993, c. 38, s. 27(1).
[159] *Ibid.* at p. 3.

- InContact: allows users to have a home phone free of a monthly access charge which only enables users to receive calls free of charge;
- Pensioner Discount: allows users to receive a monthly call discount on some home phone services; and
- Phonecard/PhoneAway: allows users who have no other means of communication to obtain a calling card with the help of community organization partners.[160]

The National Broadband Network (NBN), the government of Australia's national open access fibre broadband network, is currently in construction with the goal of "ensuring all Australians have access to very fast broadband as soon as possible, at affordable prices, and at least cost to taxpayers."[161] There has, however, been no definition of what "affordable prices" means as of yet.

Although the NBN's *Statement of Expectations*[162] and *Corporate Plan 2012-15*[163] examine have, as objectives, to examine pricing and take-up, the NBN is a wholesale-only access network. Therefore, it would be up to the service provider to offer reduced or affordable plans; Telstra in particular would required to continue to offer a package for low-income users for telephone services over the NBN.[164]

[160] "Access for everyone (General Information Guide)", online: Telstra <http://telstra.com.au/abouttelstra/download/document/afe-general-info-2012.pdf>
[161] Government of Australia, "Statement of Expectations" (8 April 2014), online: Government of Australia <http://www.communications.gov.au/__data/assets/pdf_file/0014/221162/SOE_Shareholder_Minister_letter.pdf> at p. 1.
[162] *Ibid*. at p. 3.
[163] NBN Co, *Corporate Plan 2012-15* (6 August 2012), online: NBN Co <http://www.nbnco.com.au/content/dam/nbnco/documents/nbn-co-corporate-plan-6-aug-2012.pdf> at p. 67.
[164] NBN Co, "Special needs and the NBN," online: NBN co <http://www.nbnco.com.au/get-an-nbn-connection/home-and-business/nbn-services/special-needs.html>.

V. RECENT REGULATORY AND POLICY DEVELOPMENTS IN DEFINING AFFORDABILITY

5.1 Affordability policy in a "competitive" communications environment

The role of affordability in shaping communications policy has been severely restricted, especially since the introduction of competition in local telephone service in the 1990s. Likewise, affordability has been slow to appear in discussions of broadband Internet accessibility.

Gerard Goggin writes that, even internationally, although affordability had become a widely-discussed issue, particularly as an explicit or implicit element of the concept of "universal service" in various jurisdictions, its importance quickly faded under the ostensible panacea of competition:

> On the part of many policy makers, industry, and members of the public, a typical response to affordability concerns has entailed the argument that affordability has eased due to such taken-for-granted outcomes of competition. Accordingly, there has been less support for specific affordability measures within telecommunications policy – and there is even a palpable sense that affordability is no longer a key policy issue.[165]

Most developed countries, including Canada, now encourage and foster the liberalization of the communications market. In Canada, the introduction of new subsection 34(2) the 1993 *Telecommunications Act*[166] required the CRTC to forbear from regulating rates, specific inter-carrier agreements, and other items where it finds that "a telecommunications service or class of services provided by a Canadian carrier is or will be subject to competition sufficient to protect the interests of users." The unfortunate timing of the introduction of the "forbearance" (largely from price regulation) power cannot be overstated. Such a legal power encouraged the CRTC to, at best, adopt a "wait and see" approach to affordability. This was the very course pursued by the CRTC in Telecom Decision 96-10 and other decisions, detailed below.

During the 1990s, the CRTC examined affordability as an aspect of a series of proceedings[167] which sought to promote greater competition and reliance on market

[165] Gerard Goggin, "New Ideas for Digital Affordability: Is a Paradigm Shift Possible?" (2014) 2:2 Aust. J. of Telecommunications and the Digital Economy X.1 at p. X.3.
[166] S.C. 1993, c. 38, s. 34(2).
[167] These included: Telecom Public Notice CRTC 92-78, *Review of regulatory framework*; Telecom Public Notice CRTC 94-52, *Implementation of regulatory framework – Split rate base, 1995 contribution charges, broadband initiatives and related matters*; Telecom Public Notice CRTC 94-56, Telecom Public Notice CRTC 94-56, *Implementation of regulatory framework – Stentor broadband initiatives and Canada/U.S. cost comparisons*; Telecom Public Notice CRTC 94-58, *Implementation of regulatory framework – Issues related to Manitoba Telephone System and reconsideration of rate rebalancing*; Telecom Public Notice CRTC 95-36, *Implementation of regulatory framework – Local interconnection and network component unbundling*; Telecom Public Notice CRTC 95-49, *Local service pricing options*; and Telecom Public Notice CRTC 95-56, *Local service pricing options: Revised procedures and regional consultations.*

forces in the telecommunications services market, and in wireline telephone service in particular.

The Commission's analysis with regards to "affordability" was largely based on national penetration rates, concluding in Telecom Decision CRTC 96-10, *Local service pricing options*, that because of sustained high penetration levels, the Commission considered telephone service to be affordable to the "vast majority of Canadian households."[168] However, a number of other factors had been proposed by various parties in those proceedings, including:

- Percentage of household income spent on basic local telephone service;
- Combination of price, income, spending priorities and consumer choice; and
- "Whether people can afford a product or service on a continuous basis."[169]

Interestingly, although the CRTC rejected these alternative measures of affordability of telephone service, affordability has in analogous services and in recent times up to today been measured by setting a threshold percentage of household income, above which the cost of the service would be deemed to be unaffordable. This is what is done with regards to housing, where the Canada Mortgage and Housing Corporation pegs affordable housing as shelter which costs less than 30% of pre-tax household income.[170] The Low Income Energy Network in Ontario has suggested that the level of affordability for energy utilities (gas, electricity) should be such that they cost no more than 6% of a household's income.[171]

At the time of the CRTC's 1990 proceedings, the Fédération nationale des associations de consommateurs du Québec, National Anti-Poverty Organization and One Voice suggested to the Commission that the threshold for basic telephony service charges should be approximately 1% of a household's monthly income.[172]

Yet the CRTC decided to adhere to the penetration metric and buttressed that requirement only with required affordability reports. One explanation for this course was that a penetration metric was simple for incumbent telephone companies to measure. Another was that, at that time, the CRTC still regulated local services prices – with the

[168] At p. 7.
[169] Telecom Decision CRTC 96-10 at pp. 5-6.
[170] Canada Mortgage and Housing Corporation, "About Affordable Housing in Canada," online: Canada Mortgage and Housing Corporation <http://www.cmhc-schl.gc.ca/en/inpr/afhoce/afhoce_021.cfm > (accessed 18 July 2014).
[171] Manitoba Hydro Affordable Energy Unit, Customer Care & Marketing, *Manitoba Hydro Affordable Energy Program* (Winnipeg: Manitoba Hydro, 2009), online: Government of Manitoba <http://www.pub.gov.mb.ca/exhibits/mh2011/Volumes/app44-1.pdf> at p. 18.
[172] Canadian Radio-television and Telecommunications Commission, *Telecom Decision CRTC 96-10: Local Service Pricing Options* (Ottawa: CRTC, 15 November 1996) at p. 7.

legislative requirement to create "just and reasonable" rates,[173] prior to forbearing from the regulation of local service pricing.

Several proposals were also made during these early 1990s proceedings for a "lifeline" service rate or targeted subsidy for low-income subscribers. However, the CRTC found in Telecom Decision CRTC 94-19, *Review of regulatory framework*, and again in Telecom Decision CRTC 95-21, *Implementation of regulatory framework – Splitting of the rate base and related issues*,[174] that a lifeline service was not required at that time.[175] Once again, the lack of a clear affordability legislative requirement (above that found as one of several "policy objectives" in section 7 of the *Telecommunications Act*), seemed to have encouraged the CRTC to adopt the policy of "wait and see".

The CRTC did, during these proceedings, recognize that penetration rates for lower income groups had "generally been lower" than the overall average telephone penetration rate[176] and that "regulation is necessary to protect the interests of low-income subscribers and those in markets to which the benefits of competition may not extend."[177] However, in concluding that a lifeline service was not necessary, the CRTC found that controlled rate rebalancing (from long-distance to local and from business to retail) and other initiatives to reduce costs would contain upward pressure on local rates and "lessen the need" for lifeline service or special funds for high-cost areas.[178]

Given the CRTC's fixation on penetration rates as an affordability metric in Telecom Decision CRTC 96-10, the Commission chose to focus on removing "access" pricing barriers – that is, sudden or upfront larger charges that might stop a consumer from taking telephone service in the first place or from maintaining it. Thus the CRTC required such measures as bill management tools, such as installment payment plans and security deposits, and affordability monitoring reports (including penetration rates broken down by income, Canadian household characteristics, and disconnection studies) instead.

In Order CRTC 2000-393, *Commission modifies reporting requirements for affordability*, the CRTC established a Committee on Bill Management Tools and Access to Telephone Service ("BMT Committee") which would examine the promotion of bill management tools and facilitate access to telephone service. Although the BMT Committee meetings resulted in some CRTC decisions, such as those prohibiting some telephone companies from disconnecting a customer who had made partial payments of

[173] Note that "just and reasonable rates" are not necessarily affordable rates for consumers. Rather, they are rates that are just and reasonable (not excessive) for the majority of customers and allow a regulated entity or utility that is price regulated to receive an adequate return on investment to raise capital both to run and expand the utility as needed. See: *Northwestern Utilities Ltd.* v. *City of Edmonton*, [1979] 1 S.C.R. 684.
[174] s. IV.
[175] Telecom Decision CRTC 94-19, s. C.
[176] Telecom Decision CRTC 96-10 at p. 7.
[177] Telecom Decision CRTC 94-19, s. B(3).
[178] *Ibid*., s. C.

his or her debts,[179] the Committee was last referred to by the CRTC almost ten years ago in Telecom Decision CRTC 2005-38, *Bill management tools – Debt repayment plans*.

Just when the last of the modest measures adopted in the 1990s were fading, the Governor in Council issued an *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives*[180] (the "2006 Policy Direction") which ordered the Commission to implement the telecommunications policy objectives and, in doing so, to:

> (i) rely on market forces to the maximum extent feasible as the means of achieving the telecommunications policy objectives, and
>
> (ii) when relying on regulation, use measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary to meet the policy objectives;[181]

The effect of the 2006 Policy Direction was to effectively foreclose even discussion of the issue of affordability, as any means chosen to address the admonition towards affordability in subsection 7(b) of the *Telecommunications Act* now had to first prove that the market had utterly failed to address the problem.

Therefore it is no surprise in Canada today that no CRTC policy requires communications service providers to offer a basic broadcasting[182] or telecommunications service package for low-income households. The CRTC does continue to regulate retail rates for Primary Exchange Service (PES) wireline customers and wireline customers in markets where an incumbent telephone provider still has market power – recognizing in Telecom Decision CRTC 2006-15, *Forbearance from regulation of retail local exchange services*, that "there will be exceptions where market forces may not be sufficient to protect the interests of all users in forborne markets."[183] But this is a singular and exceptional policy that appears to stand alone.

As noted by Gerard Goggin,[184] it has been tempting for policy makers, the industry, and even the general public to assume that competition will solve, or at the very least ease, problems of affordability. However, a competitive environment, though

[179] Telecom Decision CRTC 2004-31, *Terms of Service – Disconnection for partial payment of charges.*
[180] (14 December 2006), P.C. 2006-1534, SOR/2006-355.
[181] *Ibid*., s. 1*(a)*.
[182] The CRTC has, however, proposed requiring broadcasting distribution undertakings (television service providers) to offer a small, affordable basic service which would only consist of: local Canadian stations, all *9(1)(h)* services with mandatory distribution, educational services, and, if offered, the community channel and the provincial legislature. See: Broadcasting Notices of Consultation CRTC 2014-190 (24 April 2014) and 2014-190-3 (21 August 2014).
[183] At para. 354.
[184] Gerard Goggin, "New Ideas for Digital Affordability: Is a Paradigm Shift Possible?" (2014) 2:2 Aust. J. of Telecommunications and the Digital Economy X.1 at p. X.3.

holding the potential to lower overall retail prices, may actually make it more difficult to maintain programs or activities that are specifically targeted towards financially vulnerable consumers and are viewed to be unprofitable or less profitable. If meeting the needs of low-income consumers means providing services below cost, then private communications companies are unlikely to implement those types of programs at their own initiative.

Therefore, other authors have instead focused on ways to achieve certain universal service objectives in a competitive communications environment. In 1995, the OECD examined several universal service mechanisms and favoured direct, specifically-targeted subsidies rather than broadly distributed subsidies.[185] It found that a "per-person" amount of subsidy could be substantial while total costs of the program could be kept relatively small.[186] The subsidy could either be provided to service providers or to consumers, although consumer vouchers could give subscribers more choice in selecting services and encourage competition between providers.[187] The OECD reported that while in principle these direct subsidies should be funded by taxation, in practice these programs would likely be funded by service providers or on subscribers via a universal levy.[188] Stanford L. Levin also promotes the implementation of narrow, focused policies that are targeted at unserved geographic areas or at customers who cannot obtain a competitively provided service.[189]

5.2 Policy research defining affordability

As stated above, the concern of this report is for all Canadian households who generally have trouble affording basic household items required for maintaining a reasonable standard of living. Our study included participants from a range of incomes, from those living in local shelters and supported by some form of social assistance to those working full-time in low-wage positions.

PIAC has published past reports[190] which described basic service and affordability in urban and rural areas, particularly for local telephone service. Some of the key findings and recommendations PIAC has made are:

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[185] OECD, *Universal Service Obligations in a Competitive Telecommunications Environment* (Paris: OECD, 1995), online: OECD < http://www.oecd.org/sti/broadband/2349175.pdf> at p. 81.
[186] *Ibid*.
[187] *Ibid*. at pp. 82-83.
[188] *Ibid*. at p. 84.
[189] Stanford L. Levin, "Universal service and targeted support in a competitive telecommunications environment" (2010) 34 Telecommunications Policy 92 at 94.
[190] See, for instance:
[190] Philippa Lawson, *Basic Telephone Service in the Information Age: A Consumer Perspective* (Ottawa: Public Interest Advocacy Centre, 1993);
Philippa Lawson, *Telecommunications Toward 2000: Are Rural Canadians Getting Their Fair Share?* (Ottawa: Public Interest Advocacy Centre, 1993);

1. Affordability cannot be measured simply by whether or not one subscribes to the service – that basic telephone service is so essential to daily life means that people will stretch themselves financially to keep it. ***Penetration rates are useful to see what is happening at the margin; they say little about financial hardship.***[191]
2. A good measure of affordability is the percent of income spent on a service. With price increases, those with median or lower incomes will have to expend a substantially higher percentage than those with higher income. This measure of affordability tends to give a much clearer picture of the challenges faced by many people to have service.[192]
3. Basic telephone service should not be limited necessarily to those services considered essential by most people. Rather, basic telephone service should encompass all services needed to participate fully in society, at any given point in time.[193]
4. In this age of rapid and sometimes unanticipated technological development, it is easy to be led by the technology. The onus is therefore on regulators to ensure that the evolution of basic telephone service responds to legitimate consumer demand and promotes social well-being.[194]

In 1993, we suggested that the following elements ought to be included in basic telephone service which would allow for full participation in society:

- Access to a reasonably sized free local calling area;
- Access to long-distance service;
- Access to Operator Service;
- Single Line Service;
- Touch Tone Service;
- Local Directory (in print or alternative media);
- Local Directory Assistance (for numbers not listed in the directory provided);
- Caller ID Blocking;
- Access to Call Trace; and

Andrew Reddick, *The Dual Digital Divide: The Information Highway in Canada* (Ottawa: Public Interest Advocacy Centre, 2000); Philippa Lawson, *Eliminating Phonelessness in Canada: Possible Approaches, Second Edition* (Ottawa: Public Interest Advocacy Centre, 2002) and
Andrew Reddick, *The Information Superhighway: Will Some Canadians Be Left on the Side of the Road?* (Ottawa: Public Interest Advocacy Centre, 1995).

[191] See, for instance: Philippa Lawson, *Basic Telephone Service in the Information Age: A Consumer Perspective* (Ottawa: Public Interest Advocacy Centre, 1993) at p. 9.

[192] See, for instance: Andrew Reddick, *The Information Superhighway: Will Some Canadians Be Left on the Side of the Road?* (Ottawa: Public Interest Advocacy Centre, 1995) at pp. 26-27.

[193] See, for instance: Philippa Lawson, *Basic Telephone Service in the Information Age: A Consumer Perspective* (Ottawa: Public Interest Advocacy Centre, 1993) at p. 2.

[194] See, for instance: Philippa Lawson, *Basic Telephone Service in the Information Age: A Consumer Perspective* (Ottawa: Public Interest Advocacy Centre, 1993) at p. 4.

- 911 service (where available).[195]

More recently in 2009, Union des consommateurs published a report[196] on the inclusion of low-income consumers in Canadian telecommunications. While the report did not examine a definition for affordability, it reviewed the public and regulatory measures available in Canada and internationally to support low-income telecommunications consumers. It found that many affordability initiatives in place in foreign jurisdictions were unavailable in Canada. Moreover, affordability of telecommunications services did not appear to be a priority in telecommunications policy at all. The report recommended that the *Telecommunications Act*[197] be amended to recognize the essential nature of telecommunications and that the CRTC study and look to implement measures which would promote affordability, including accessible emergency services and rate discounts for low-income consumers.

Turning now to the U.K., in a report for Vodafone, researchers David Lewin and Clare Milne defined a telecommunications service package as "affordable" if:

1) The package allows an average household in the lowest income decile to make socially necessary use through sustainable expenditure, *i.e.* expenditure which is without detriment to other essential spending; and
2) The package helps such a household readily control its expenditure on telecommunications.[198]

In their report, Lewin and Milne assume that it is sustainable for a household in the lowest decile to spend **4%** of their household income on telecommunications.[199] As low-income households also tended to be characterized by irregular income, bigger fluctuations in expenditures, and low credit worthiness, however, Lewin and Milne determined that the affordability of a telecommunications package ought to also take into account, in addition to the monthly service cost:

- The size of any initial connection or subscription charges;
- The size of the long-term minimum commitment when subscribing to a service and the duration of this commitment; and

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[195] Philippa Lawson, *Basic Telephone Service in the Information Age: A Consumer Perspective* (Ottawa: Public Interest Advocacy Centre, 1993) at p. 3.
[196] Anthony Hémond, *Including Low-Income Consumers as Recipients of Telecommunications Services: How Does Canada Rate?* (Montreal, Union des consommateurs: 2009), online: <http://uniondesconsommateurs.ca/docu/telecom/FaibleRevenuTelecomE.pdf>.
[197] S.C. 1993, c. 38.
[198] **Socially necessary usage**, focusing on voice telephony, was defined as 30 and 60 average paid minutes per month, with the level of use more valuable of essential calls to emergency services and select helplines could be made free of charge.
See: David Lewin & Claire Milne, *Are telecommunications services universally affordable across the EU? An independent assessment for Vodafone* (2010), online: Vodafone <http://www.vodafone.com/content/dam/vodafone/about/public_policy/affordability_plum.pdf> at p. 10. [Plum Report]
[199] *Ibid.* at p. 12.

- The size of any regular minimum payments.[200]

For instance, significant long-term contracts could create a large expenditure burden on a low-income household.

Louis-François Pau proposes examining changes in "residual communications and media affordability"[201] over time and by household size. Residual communications and media affordability studies the difference between a household's "residual" budget after allocating expenditures to basic household needs, and the amount of money the household actually spends on communications equipment and services. It varies according to the size, type and income of a household.[202]

Many organizations such as the CRTC, OECD and the ITU tend to evaluate affordability on a comparative basis. In other words, they devise sets of baskets of services and compare the costs for each of those baskets according to various factors in order to determine whether services are more or less affordable by country, region or provider. However, few organizations have sought to narrowly define when a communications service would be considered "affordable" in and of itself. The interesting results now emerging in the U.K. from Ofcom, as well as the direction of the Federal Communications Commission in implementing the U.S. National Broadband Plan are at least partly, however, driven by the academic and related research noted in this section. The CRTC and other "traditional" regulators and observers above should consider if their longstanding approach has become inappropriate and ineffective in the present dynamic and converging communications environment.

[200] *Ibid*. at p. 13.
[201] Louis-François Pau, "Enabling Mobile Communications for the Needy: Affordability Methodology, and Approaches to Requalify Universal Service Measures" (2009) 13:2 Informatica Economică 128, online: Informatica Economică <http://revistaie.ase.ro/content/50/015%20-%20Pau.pdf> at p. 134.
[202] *Ibid*. at pp. 130-132.

VI. STAKEHOLDER PERSPECTIVES

PIAC interviewed a number of Canadian stakeholders, including the Canadian communications regulator, communications service providers, and individual researchers to gain their perspectives on definitions and policy frameworks for affordability. Questions typically canvassed included:

- How important communications services were today – as well as specific functionalities of communications services that were particularly important;
- How the interviewee would define "affordability," as well as the types of factors and measures it would examine;
- Whether there were any factors unique to the Canadian communications market that ought to be taken into consideration;
- How the affordability of communications services could be supported; and
- How affordability should shape communications policy.

The perspectives of each stakeholder are described below.

6.1 Regulator: CRTC

PIAC discussed the concept of affordability and policy frameworks for it with Barbara Motzney, Chief Consumer Officer of the CRTC, on 7 May 2014.

She maintained that communications services now have a central role – they are absolutely critical to the ability of Canadians to participate in society. Each service has a role to play; it comes back to what Canadians need to do to participate in society and in democratic and cultural life. Some communications services are now substitutable, so a household may not need all four communications services, and packages could look different for different groups. Generally, however, there is a reasonable expectation that a Canadian should be able to access communications services.

Retail features which Motzney identified could help improve affordability include:

- Prepaid wireless plans and rates;
- Carry-over of unused minutes;
- Family plans; and
- Choice of several packages for TV service.

She also noted that bundling could reduce costs, but it would also depend on whether consumers wanted to stay with one service provider.

Motzney stated that the CRTC addresses affordability through various regulatory proceedings, including the basic service objective proceeding, the broad policy review of television service, a proceeding on the current use of payphones, proceedings on

telecommunications access in the North, proceedings on developing a robust 9-1-1 service system, and proceedings on service to consumers with disabilities.

6.2 Service providers

Although PIAC contacted a number of communications service providers, including all the national service providers in Canada, with a questionnaire reflecting the topics identified above, only two responses were received – one from Rogers Communications (Rogers) and one from Saskatchewan Telecommunications (SaskTel).

(i) Rogers

In a 4 July 2014 response, Rogers described several of the affordable product and service options available to its customers. Rogers' response contained a general description of the overall affordability of their services. It stated, for instance, that the price per Mbps (Megabits per second) download of its home Internet service has decreased significantly since 2009. Its home phone service starts at around $34.41 per month in Ontario and $24.69 per month in the Atlantic provinces. As for wireless telephony, Rogers says it offers "Share Everything Plans" starting at $80 per line per month, while its Fido brand offers plans starting at $34 per month for a set bucket of data and voice minutes.

Rogers only mentioned a few programs or packages that were specifically designed to assist low-income consumers. For instance, the "Digital Lite TV" package, a small basic television package which includes local TV stations, local radio stations, and programming services which have mandatory distribution status, is available for $14.99 per month. The *Connected for Success* program is a $9.99 per month broadband Internet service (with download speeds of 10 Mbps and 30 GB of allowed usage) offered to households living in Toronto Community Housing. Rogers noted that its wireless prepaid options typically offered customers more flexibility and control over their monthly costs, and also mentioned two wireless options targeted at senior customers: the *Rogers Wireless Voice Only for Seniors* plan is $25 per month, and its Cityfone brands for seniors also offer talk and text plans for $18 per month.

(ii) SaskTel

In a 17 June 2014 response, SaskTel noted that the *Telecommunications Act* was written during a time of monopoly provision of services, and that, given the current competitive nature of the industry, the onus to meet social obligations remains on the government rather than individual companies. It also emphasized the reduced ability of smaller carriers to invest in additional coverage for rural areas and meet social

obligations, and argued that social obligations placed on carriers must consider the proportionality of the burden. SaskTel wrote that social obligation costs should be transparently stated on consumers' bills in the same way that all other charges are transparently listed.

In SaskTel's view, Internet service is the only essential service needed for an individual to fully participate in the economic and social fabric of Canada. It stated that the basic service objective for Internet access should be 5 Mbps.

SaskTel stated that mobility in and of itself was not essential. For instance, it argued that wireless services were non-essential given the "near ubiquitous access" to wireline phone and pay phones.

With regard to affordable access, SaskTel supports the CRTC definition of affordable access to plain old telephone services in high cost services areas as $30 per month, as well as Industry Canada's definition under the Broadband Infrastructure Fund of broadband access as being under $80 per month. SaskTel highlighted that market forces have resulted in a range of services and reasonable pricing, whereas recent interventionist policies, such as the restriction of fixed-term wireless contracts from three years to two, have not necessarily resulted in greater affordability, as consumers have had to pay higher monthly charges.

In addition to claiming that it offered some of the lowest wireless prices in Canada, SaskTel listed a few initiatives targeted at vulnerable consumers, including: subsidized special needs products for consumers with disabilities, phones and prepaid phone cards for women in shelters through its *Fresh Start* program, and phones and phone cards to at-risk students in northern Saskatchewan through its *Project Mobile* program.

6.3 Individual experts

(i) Claire Milne

PIAC interviewed Claire Milne, a consultant and Chair of the UK Consumer Forum for Communications, on 15 October 2013 to discuss definitions of and yardstick measures for "affordability," features which would enhance the affordability of retail communications services, and affordability policy initiatives. Milne has authored several papers on affordable telecommunications services for organizations and companies including the ITU, Vodafone and the Australian Communications Consumer Action Network.

Milne said that consumers should be able to choose from a selection of packages that they can afford. Moreover, although technology is changing, Milne noted that consumers should still have choice among various technologies.

Milne listed several common indicators of affordability, including:

- Percentage of household income spent on communications services – 5% is commonly used as a rule of thumb for the "affordable level." An affordable level may differ from 5% in either direction, but assessing what proportion of consumers can get adequate service while spending no more than 5% of household income allows useful comparisons across both space and time;
- Pricing of entry-level packages as a proportion of household income;
- Household take-up of services by income quintile; and
- A household's ability to maintain other expenses.

She suggested focusing on disadvantaged and remote groups of consumers. Milne had widely engaged with accessibility issues for consumers with disabilities, and noted a strong correlation between having a disability, low income, and low take-up of communications services.

According to Milne, the communications affordability priorities should loosely be:

1. Emergency services;
2. Voice communication;
3. Text and SMS communication;
4. Mobility; and
5. Access to news and entertainment.

Milne said that retail packages that reduce risk and increase consumer control – including prepaid plans offered by many wireless service providers – tend to appeal to low-income consumers. She also noted that in her opinion "no frills" basic retail packages should be made available to low-income consumers on a standalone (*i.e.* unbundled) basis.

Milne also noted that while communications regulators have historically had control over wireline services, they have less control over newer technologies. However, she emphasized that it is important to ensure that there is some regulatory control over newer technologies as well.

(ii) Dr. Catherine Middleton

PIAC interviewed Prof. Catherine Middleton, Professor at Ryerson University and Canada Research Chair in Communication Technologies in the Information Society, on 8 May 2014 to discuss the importance of communications services, factors which should be examined in determining affordability, and initiatives which would improve the affordability of communications services. Prof. Middleton undertakes research on the

development and adoption of communication technologies, with a particular interest in broadband networks and services.[203]

Prof. Middleton stated that two services or functionalities were essential:

1. A form of voice communication; and
2. Access to news and information.

The most important functionality is to be able to communicate in some way – meaning accessing important services such as government services and 9-1-1 service, but also staying in touch with family and friends. She noted that it was also important to accommodate consumers who cannot use voice communication.

Therefore, while wireline home phone appears to be becoming less essential, and wireless mobile phone more essential, the choice should remain with the consumer. Similarly, while more and more Canadians may be accessing news and information through the Internet, many still access that information through their television service.

Prof. Middleton said that affordability should play an essential role in shaping communications policy because communications are becoming more and more essential. For instance, consumers who don't have Internet access often cannot do many things, including accessing government services and education courses, finding employment, and filing tax returns.

Prof. Middleton noted that the affordability of retail packages must take into account additional charges, including overage fees. Therefore, affordability must examine cost uncertainty. Affordability must also consider both the costs of acquisition of a service and the ongoing costs of maintenance and retention of the service, including the cost of maintaining equipment.

Prof. Middleton said that in most countries, the price of communications services is decreasing, whereas in North America it has generally stayed the same.

She highlighted that retail packages don't necessarily match consumer wants and needs, especially in the wireless sector, where existing packages tend to be pushed onto consumers. For instance, she noted that it was almost impossible to obtain a smartphone through a provider by subscribing to a data-only plan. With regards to specific affordability features of communications services, prepaid wireless services tend to be more affordable, although Prof. Middleton noted that prepaid calling cards should not have expiry dates. With regards to television service, Prof. Middleton believed that over-the-air television should be both maintained and promoted. However, providing over-the-air alone would not be enough to serve low-income groups; it is also important that television providers offer an affordable basic package.

[203] For a list of Prof. Middleton's publications, see online: Ryerson University <http://www.ryerson.ca/~cmiddlet/>.

Finally, Prof. Middleton pointed out that knowledge and literacy was important as well, as many consumers tend to sign contracts with a large service provider because they do not know how to find potentially more affordable alternatives.

VII. Low-income Canadian Perspectives

This section describes the results of PIAC's interviews with local organizations, the ACORN focus groups, and the Credit Canada data on their low-income clients.

7.1 Use of communications services

Unless consumers resided at a supportive home or local shelter, it was uncommon that the consumers studied in this report were subscribed to all four communications services – home phone (wireline), mobile phone (wireless), home Internet and TV service. While some consumers were not subscribed to any service at all because they found it unaffordable, there were a substantial number of low income consumers subscribed to each service.

> *MODERATOR: Where, in terms of importance, do these services rank when it comes to how your household spends its money? I guess it's kind of hard. It's not the easiest question. How important are these services? Where, in terms of importance, do these services rank when it comes to how your household spends its money. So you're saying pretty damn low, you need to spend it…*
> *PARTICIPANT 1: Yeah. In the wintertime, TV is very important to me, but this year I'm doing without the TV.*
> *MODERATOR: And why?*
> *PARTICIPANT 1: Because I can't afford it. So basically I just keep coming back to the same answer. Simply can't afford any of it.*
> *MODERATOR: You're having trouble, just with like basic necessities. So all these things come after basic necessities?*
> *PARTICIPANT 1: Yeah. To me, that stuff is luxury now.*
> *– ACORN focus group (Toronto, ON)*

(i) Home phone

All local shelters and supportive housing provided landline services for residents. This was mainly because it was a service that could easily be shared and employed for a variety of uses, including making local calls to family and friends, booking appointments, and speaking with doctors and case workers. In fact, case workers typically require a phone number on file where they can reach their clients.

Of the 5,000 Credit Canada low-income clients who had ongoing household communications expenses, 1,900 were subscribed to home phone service. This made home phone the service with the second highest number of low-income subscribers, behind only mobile phone service.

Many senior consumers, including the members of the Old Age Pensioners Organization, were subscribed to home phone service, and would use it regularly for reaching their doctors, making appointments, communicating with friends and family, and finding information.

Home phone was also very commonly used for long-distance calls for consumers who had family members living in a different province or country, as some noted the restrictions on the number of mobile phone minutes available to them.

Few consumers were subscribed to both home phone and mobile phone services. Some ACORN participants and organizations such as the EBO Financial Education Centre noted that this was because subscribing to both home phone and mobile phone was generally unaffordable. Consumers who did have both typically used their home phone for the majority of their day-to-day activities – making appointments, calling doctors and social workers, and making social calls with friends and family, particularly those living abroad. In these cases, mobile phones would be used for emergency and safety purposes only.

In sum, consumers subscribed only to home phone relied entirely on it, even if just to verify the identity of visitors before buzzing open the door of their apartment building.

> *"Only a few clients have landlines, mainly for security or to make calls to friends and family. But it is especially important for clients who are less mobile."*
> *- Salvation Army Ottawa Booth Centre MoneyWise Program (Ottawa, ON)*
>
> *"I have a home phone; I can barely afford it but I need to keep in contact with my family."*
> *– ACORN participant (Toronto, ON)*

(ii) Mobile phone

Mobile phone was the service with the greatest number of Credit Canada subscribers, making up 3,800 of the 5,000 low-income clients.

Some organizations such as Shepherds of Good Hope said that mobile phones were now considered to be a necessity. Organizations which provide supportive housing, such as Daybreak Housing and Options Bytown, as well as budget counseling programs such as MoneyWise, found that about half of their clients had mobile phones. The EBO Financial Education Centre and MoneyWise said that more of their clients were moving to mobile phone service only.

The majority of ACORN participants were subscribed to a mobile phone service. About one third of the members of the Old Age Pensioners Organization, Matsqui 69 Branch were subscribed to mobile phone service.

Use of the mobile phone typically varied between two extreme positions. Some consumers, particularly those on pay-as-you-go plans or who frequently used their home phone, used their mobile phones only for emergency purposes or when needed, such as to make appointments with doctors and case workers. These consumers, including the majority of MoneyWise clients, Disability Alliance BC, Shepherds of Good Hope, Options Bytown and Daybreak Housing, as well as about half of ACORN participants, found pay-as-you-go plans more affordable and easier to control based on changing financial constraints. Some, noted by MoneyWise, also had debt history which prevented them from subscribing to postpaid plans. Daybreak Housing said that those residents who were on postpaid plans often had family members paying for their devices and monthly plans.

Other consumers, including many of the EBO Financial Education Centre's clients and half of ACORN participants use their mobile phones for "everything" – voice communication, sending SMS messages, and surfing the Internet to find news and information, job postings and housing. Some also used their mobile phones to watch videos and, at times, movies using available WiFi signals. Many consumers who used their mobile phones for various activities relied almost exclusively on their wireless service, at times supplemented by a home Internet service. The EBO Financial Education Centre noted that its clients were typically on postpaid plans because children especially wanted to have the latest smartphone and parents were unable to pay the upfront cost for them.

> *"So, I just want to stress that it's very important for people with disabilities to be able to afford a cell phone. Mainly for, if they're out and about, if they don't have access to a pay phone or any other form of communication, I heard that you can't call 911 on a cell phone, they can't get a hold of you? That they can't locate you. So, I have a big issue with that – that should be made available, being able to locate somebody for emergency reasons or safety reasons."*
> *– ACORN participant (Ottawa, ON)*
>
> *"The cell phone is first because I work at night. And if I need it for emergency for myself, like, on the phone, and then also for my clients too, cause I work with the elderly, so that's really important. And to get a hold of my daughter, like long distance and stuff."*
> *– ACORN participant (Vancouver, BC)*
>
> *"Mon téléphone – j'ai tout cherché toutes les services que j'ai besoin. Je peux regarder un film, je peux faire tout que je veux. Je veux acheter un cellulaire, c'est clair qui fait que c'est pas trop cher. Il y a des tablettes que se vendent – les « phablettes, » – phone, tablette – phablette. C'est avec Internet, alors le téléphone contient toutes les services."*

– ACORN participant (Ottawa, ON)

(iii) Home Internet

Of Credit Canada's low-income clients, the smallest number, 1,000 households, was subscribed to home Internet service.

This was equally reflected in comments made by local organizations and ACORN participants. MoneyWise and Disability Alliance BC stated that about one third of their clients had home Internet access. Daybreak Housing and Options Bytown noted that many of their clients did not know how to use a computer or surf the Internet.

However, several organizations and many ACORN participants stated that having an accessible Internet connection was becoming increasingly vital. Shepherds of Good Hope, Food Banks BC and several ACORN participants noted that many job and housing postings, as well as government and community service applications, were now primarily online. ACORN participants also said the Internet was a convenient platform for many of them to start their own businesses. Disability Alliance BC said that the Internet has opened doors for their clients and that a significant number of consumers with disabilities absolutely rely on it.

Several organizations and ACORN participants noted, however, that rather than pay for home Internet service, they would use their mobile phone data plans or go to local libraries or retailers where Wifi or Internet access was available.

The Internet was mostly used for staying connected with family and friends through e-mail, social media, and Skype, as well as finding news and information. However, some Shepherds of Good Hope clients, particularly the youth, and ACORN participants also sometimes watched movies and videos on the Internet.

"Some people with disabilities rely on the Internet a lot to stay connected. A significant number absolutely rely on it. Also, many government and community service applications are now online."
– Disability Alliance BC (Vancouver, BC)

"Priority, my Internet. And the reason for that is I get to watch programs from my country and I get to listen to the news and see what's going on there. So internet is more up for me than my phone."
– ACORN participant (Toronto, ON)

PARTICIPANT 4: I suppose the Internet is more important than the phone because you can do... I don't have… Internet then phone. I don't have cable.
MODERATOR: The uses of the internet are much more varied than just the phone, right?

PARTICIPANT 4: You can communicate and you can entertain yourself. And there's different ways, you can actually – I mean like, Skype, basically that's a telephone.
– ACORN focus group (Vancouver, BC)

(iv) TV Service

Of Credit Canada's low-income clients, 1,300 households were subscribed to television service.

All organizations which operated local shelters or supportive housing provided TV service to their residents. According to Shepherds of Good Hope, TV service is particularly important because there is not a lot for unemployed residents to do during the day, especially during the winter. At their shelter, the TV would be on all the time. Several ACORN participants also emphasized that TV service was their only form of entertainment.

The EBO Financial Education Centre and several ACORN participants with children said that they or their clients needed TV service, especially to entertain and "babysit" their children. However, these households could rarely subscribe only to a basic TV package because they found that many children's programming channels were only available in second or third tier packages, and they could not subscribe to those channels on a standalone basis. Therefore, they were often required to subscribe to second or third tier packages for these channels.

However, many ACORN participants also said that they preferred to watch movies or videos over the Internet or occasionally on their phone rather than pay for TV service. Disability Alliance BC said that TV service was already beyond their clients' financial capacities, and that some clients would watch videos over the Internet instead.

While consumers watched a variety of shows, the most popular types of programs were news and sports, with some consumers watching movies, comedies and documentaries as well.

"TV is an important service, as there is not a lot for residents to do during the day if they are unemployed, especially during the winter. It is also difficult for individuals with mental health issues to engage in other activities. In our shelters and housing, the TV is on all the time. Residents tend to watch hockey and sports, news, talk shows and movies."
– Shepherds of Good Hope (Ottawa, ON)

"TV service provides stability and consistency, and many of our residents are resistant to change."
– Daybreak Housing (Ottawa, ON)

MODERATOR: PARTICIPANT 4, TV at home?
PARTICIPANT 4: I do, yes.
MODERATOR: If so, what do you use it for?
PARTICIPANT 4: It's my only form of entertainment.
MODERATOR: It's your only form of entertainment.
PARTICIPANT 4: Yeah.
MODERATOR: Come to the ACORN office, that's fun.
PARTICIPANT 4: I don't go to the movies.
MODERATOR: No, okay. Fair enough.
– ACORN focus group (Toronto, ON)

MODERATOR: PARTICIPANT 7, do you have TV at home?
PARTICIPANT 7: Yeah I have TV at home.
MODERATOR: What do you use it for?
PARTICIPANT 7: Mainly because of… it's okay for the news. But when you have kids, the kids love having their Treehouse and all those children's programs. But the only thing is paying for it. I can't afford it. Because before you can get cable for Treehouse and all that stuff you have to go to 50 dollars, 50 to 55 or 60 dollars and I can't put up with that. So at the end of the day it's very basic cable, it's only news and the teenage channels, so I'm not very happy. Me, being a mother that has kids that are less than 10 years the only program that is valuable for TV, for cable, I pay almost 45 dollars and I can't get Treehouse… The only thing I can get is teenage movies. I don't want them to watch teenage movies because they learn a lot of bad stuff there. So they don't really have much choice. Most of the time I just let them listen to the news. They don't like listening to the news because they feel like it's boring.
– ACORN focus group (Ottawa, ON)

7.2 Importance of communications services

(i) Importance of specific communications services

Although low-income Canadian consumers are subscribed to a variety of different combinations of communications services, our findings showed that each service was important for different groups of consumers. Several local organizations said that their clients wanted to stay connected with the outside world and be able to participate in society.

"My clients often feel like they need everything because they are a part of society and want to participate in social life. We are seeing cell phones and Internet becoming more and more essential services."
– EBO Financial Education Centre (Ottawa, ON)

"All four communications services are extremely important because it is very easy for our residents to sink into depression or isolation. So any means to connect them to family and friends, or just to the outside world, is very important."
– Daybreak Housing (Ottawa, ON)

"Seniors need communication."
– Old Age Pensioners Organization, Matsqui 69 Branch (Matsqui, BC)

"You know, you need your phone. You can lose your lights, but you need your phone to communicate, especially if you're somebody, like you know, or us, anybody that rides around in a chair, we need to be able to have people not look down, talk down to us."
– ACORN participant (Vancouver, BC)

When asked to rank the importance of each communication service, participants almost unanimously ranked telephone service – whether fixed wireline or wireless – as the most important communications service. Although this was partly because mobile phones in particular allow consumers to carry out a variety of activities, it was above all because telephony kept consumers in contact with the rest of society – including family and friends, but also doctors, social workers, employers and clients, and service providers.

Wireline Telephony

Home phones remain very important for low-income households especially because they allow consumers to make an unlimited number of local calls for a fixed price. Several ACORN participants and local organizations such as Options Bytown and Daybreak Housing said that mobile phone voice minutes were often too expensive. Long-distance calls, especially, were much less expensive when made from a home phone. Some ACORN participants also noted the 9-1-1 safety features of wireline because the emergency responders would know where the call was made. MoneyWise noted that home phone was especially important for clients who were immobile or shut in.

Wireless Telephony

Mobile phones were also viewed as extremely important for two main purposes. First, some low-income consumers had them solely for emergency or safety purposes because they could be easily taken from place to place. For example, many consumers had mobile phones in order to call 9-1-1 or to be able to reached by schools, family, doctors and other persons in cases of emergency. Second, those ACORN participants who had smartphones were able to use their mobile phones for a variety of different purposes, including surfing the Internet. In these cases, where the household budget was tight, these consumers would cancel other communications services and rely solely on their mobile phones.

Television

Television service was considered important by clients of many local organizations. MoneyWise noted that TV service was particularly important for those clients who rarely left their homes, and was at times considered even more important to have than food. Similarly, the Old Age Pensioners Organization said that TV service was especially important for "shut-in" seniors, or those who were less mobile. ACORN participants who had children also considered TV service to be important for their families. However, those ACORN participants who were not subscribed to TV service said they were satisfied finding information and watching videos through an Internet or mobile phone data service instead. Options Bytown stated that some of its clients only watched television over the air.

Internet

The majority of those who were subscribed to home Internet service were extremely reluctant to cancel Internet service because they had come to rely on it for many of their day-to-day activities, such as finding work, launching small start-up businesses, filling out government services and other applications, paying their bills, communicating with family and friends over e-mail or Skype, reading the news and other information, and watching movies and videos. The EBO Financial Education Centre and Food Banks BC said that there was a lot of pressure in particular for children in school to have Internet access at home.

(ii) Importance of communications expenditures in relation to other household expenditures

While low-income consumers may view some communications services to be more important than others, generally they are reluctant to cancel their communications services at all, even in the face of increasing costs and already tight household budgets.

Several ACORN participants insisted they would call their service provider to try to work out a deal or agreement first. Some ACORN participants eventually agreed they would cancel some services, such as home Internet or television, when asked by the moderator how they would respond if the price of these services continued to climb, squeezing their household budgets. Although some were willing to reduce their services by subscribing to a cheaper package, many participants were already subscribed to the most basic service packages.

However, only a small number of ACORN participants was willing to cancel their phone services, be it wireline or wireless. ACORN participants emphasized, in particular, the need to be able to be reached by some communications service – and phone in particular.

> *"I would cut my household expenses to retain my cell phone service; I would probably cut back on food. However, Internet, to retain it, would I cut back on food? No. I wouldn't because I can just take my computer to the Second Cup where they have free wireless internet and I don't have to buy anything there because they're just really nice people."*
> *– ACORN participant (Ottawa, ON)*
>
> *"I would work to ensure that I still have a cell phone. I would have to cut my cable, my home internet and my home phone if I had a home phone. I would have to do that because my other expenses are already completely strapped."*
> *– ACORN participant (Ottawa, ON)*
>
> *"I'm already there. Because my phone is expensive, and my rent too, but that's not the issue. Because my phone is expensive I don't eat as good a quality as I would like. I don't take supplements that my doctor would like me to take which aren't covered and so on. I know it's hard to believe from the way I look right now but my clothing budget is restricted because of already paying too much for the phone. And what about other services, I'm going without because they cost too much, already."*
> *– ACORN participant (Ottawa, ON)*

Those ACORN participants who were not willing to further reduce or cancel their communications services said that money would have to come from other expenses, such as occasional cinema movie trips for children, holiday and Christmas gifts, smoking or any personal spending for the adults. The participants generally stated that they

would not compromise their expenditures on rent and food. Some participants insisted that they would not know where they could cut back their expenses.

The local organizations found that their clients would be more willing to cut other household expenses, including food, clothing and health expenses, rather than cancel their communications services. MoneyWise and the Old Age Pensioners Organization said that their clients would likely cut other household expenses such as food or clothing in order to retain their communications services. Shepherds of Good Hope, the EBO Financial Education Centre, and Disability Alliance BC said that their clients would use other resources, including food banks, clothing programs, donations and other community services, to make up for cuts to other household expenses. Options Bytown said that some of its clients would choose to rack up debt so they could remain subscribed to their communications services. The types of services that the organizations' clients would be most willing to cancel were home Internet and, in some cases, TV service.

> *"Phone (home or cellular) is a necessary service that clients would not cut. To make up for the expense, they might use food banks, clothing programs and other community resources. This is hard, though, because clients want to feel normal; they want to able to go to a store to buy things like everyone else."*
> *– Shepherds of Good Hope (Ottawa, ON)*
>
> *"Income of our clients typically less than $1,000 per month; it could be even $600 to $700 per month. However, it is surprising to what degree some clients would pay for their communications services, even more than some essential services. A lot of discretionary income is already going to basic needs, so I'm surprised how many clients are still willing to cut food and health expenses in order to retain their communications services and go to the food bank, for instance, instead."*
> *– Disability Alliance BC (Vancouver, BC)*
>
> *"If my clients can no longer reduce their plans, then they would cut other expenses, such as food or clothing, rather than cut service."*
> *– Salvation Army Ottawa Booth Centre MoneyWise Program (Ottawa, ON)*

7.3 Communications services and the low-income household budget

The following data provided by Credit Canada presents the average monthly income, total expenses, and communications expenses of 5,000 low-income clients.

Table 7: Average monthly income and expenses of low-income clients (2014)

Household Size	Income	Total Expenses	Communications Expenses	Communications % of Total Expenses	Communications % of Income
1	$1,315.68	$1,376.83	$106.41	7.73%	8.09%
2	$1,691.43	$1,768.01	$134.61	7.61%	7.96%
3	$2,068.79	$2,192.57	$152.14	6.94%	7.35%
4	$2,405.52	$2,699.32	$185.02	6.85%	7.69%
5	$2,666.35	$2,833.99	$177.84	6.28%	6.67%
6	$2,877.09	$3,071.45	$195.87	6.38%	6.81%
7 +	$3,537.78	$3,869.31	$212.00	5.48%	5.99%
Total Average n = 5,000	$1,776.83	$1,889.14	$136.27	7.21%	7.67%

For many low-income households, communications expenses already use up, on average, 7.67% of their monthly income, with smaller households of between 1 to 4 persons spending the greatest proportion – up to 8.09% – of their monthly income on communications services. Average monthly communications expenses begin at over $100 and run up to $212 per month.

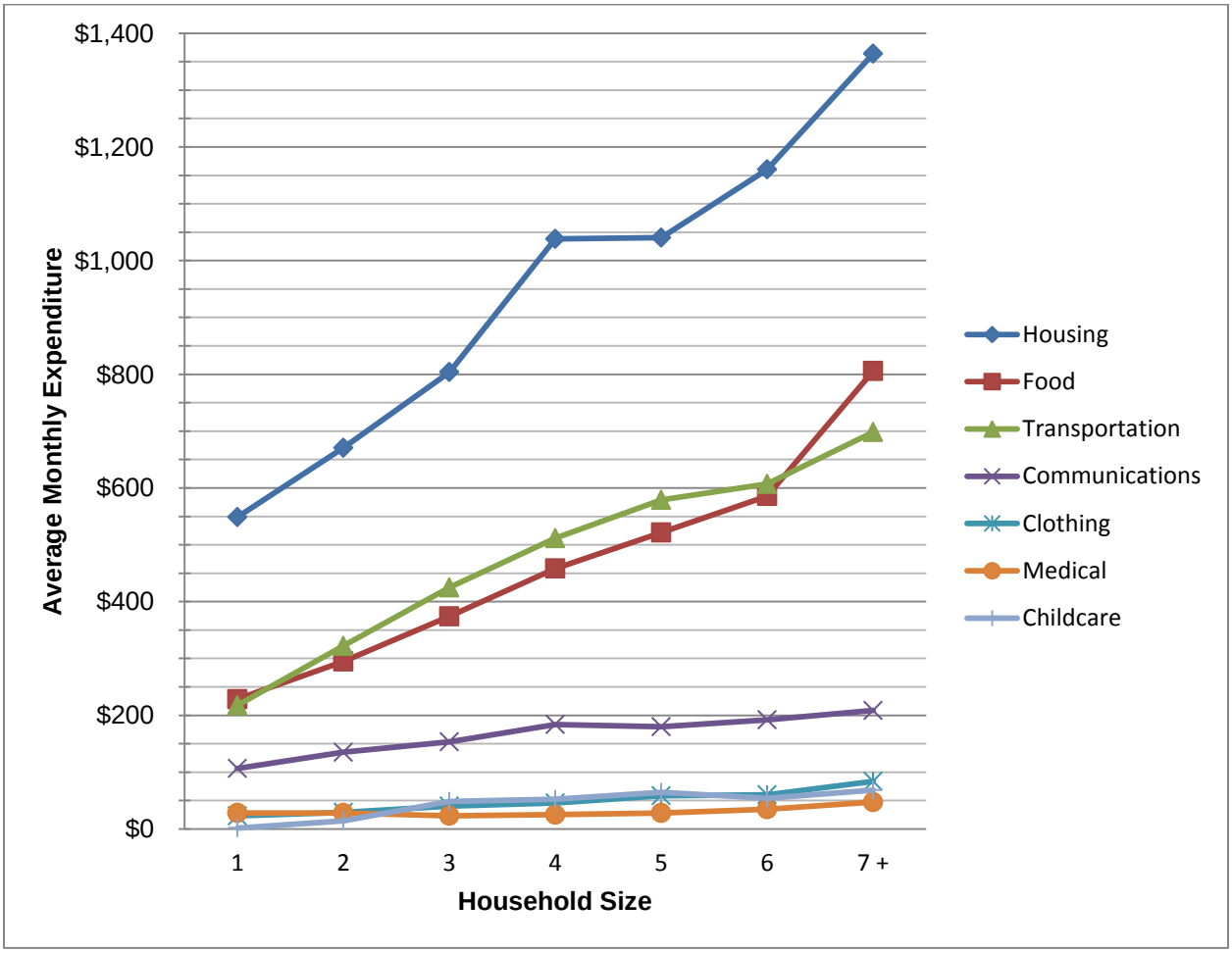
The following table compares Credit Canada low-income household communications expenses with other key household expenses.

Table 8: Average monthly household expenses of low-income clients (2014)

Household Size	Income	Total Expenses	Housing	Food	Transportation	Communications	Clothing	Medical	Childcare
1	$1,314.67	$1,373.00	$548.70	$228.31	$217.59	$106.56	$23.07	$28.28	$1.85
2	$1,695.88	$1,770.44	$670.59	$294.65	$322.14	$134.93	$29.22	$28.23	$14.57
3	$2,084.73	$2,197.22	$803.91	$374.07	$424.96	$153.38	$40.29	$23.30	$48.46
4	$2,420.01	$2,687.39	$1,038.15	$458.34	$511.63	$183.95	$45.59	$25.12	$52.46
5	$2,682.56	$2,857.90	$1,040.35	$521.58	$579.08	$179.91	$58.47	$28.16	$64.74
6	$2,962.67	$3,116.34	$1,160.51	$585.89	$607.07	$192.10	$60.35	$34.73	$54.13
7 +	$3,524.99	$3,763.45	$1,364.04	$805.82	$698.46	$208.38	$83.92	$47.23	$68.41
Total Average n = 4,809	$1,783.50	$1,887.86	$720.73	$321.96	$341.58	$136.39	$33.09	$27.34	$23.39

Communications service expenditures tend to make up the fourth largest household expenditure, coming out ahead of other household expenses such as clothing, medical expenses, and childcare. Communications service expenditures also make up almost half each of food and transportation expenses.

Figure 11: Average monthly household expenses of low-income clients (2014)



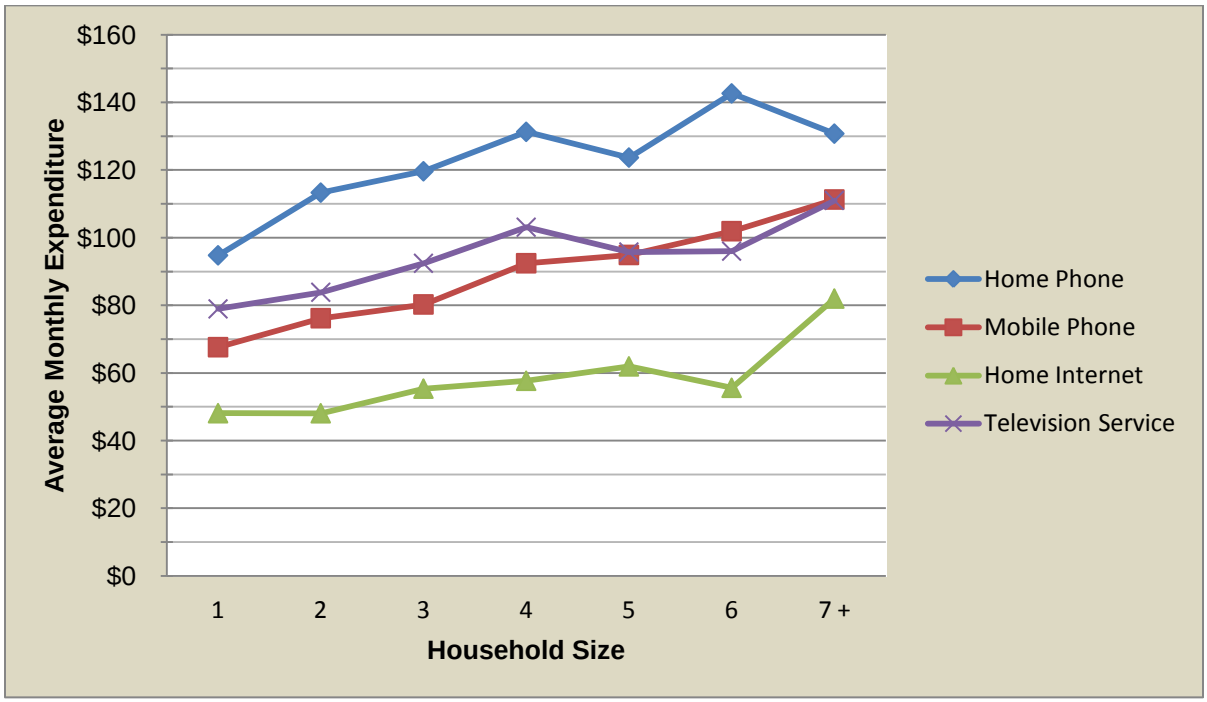
Communications service expenses thus make up a significant portion of a household's budget, particularly that of smaller households. And despite the range in household income presented in the tables above, the overall amount of money which each low-income household spends on communications services in 2014 is relatively steady between $100 to $250 per month. In other words, a 2-person household with a monthly income of $1,691.43 is not spending that much less on communications services than a 5-person household with a monthly income of $2,666.35.

The following table breaks down average monthly communications expenses for Credit Canada's low income client households by the type of service subscribed to. These average amounts reflect only those households that subscribe to the service in question; they do not factor in those that do not subscribe.

Table 9: Average monthly communications expenses by type of service (2014)

Household Size	Home Phone		Television Service		Mobile Phone		Home Internet	
	Monthly Expense	% of Total Household Expenses	Monthly Expense	% of Total Household Expenses	Monthly Expense	% of Total Household Expenses	Monthly Expense	% of Total Household Expenses
1	$94.78	6.34%	$78.94	5.28%	$67.62	4.98%	$48.11	3.24%
2	$113.31	5.75%	$83.85	4.34%	$76.19	4.37%	$48.09	2.58%
3	$119.63	4.70%	$92.42	3.92%	$80.26	3.74%	$55.37	2.42%
4	$131.29	4.43%	$103.09	3.58%	$92.44	3.47%	$57.69	1.99%
5	$123.68	3.78%	$95.76	2.91%	$94.89	3.38%	$61.95	1.90%
6	$142.65	4.38%	$96.00	2.52%	$101.91	3.33%	$55.62	1.74%
7 +	$130.75	3.18%	$111.00	2.12%	$111.28	2.72%	$82.00	1.57%
Total Average	**$113.43**	**5.06%**	**$87.56**	**4.12%**	**$77.23**	**4.13%**	**$51.50**	**2.54%**

Figure 12: Average monthly communications expenses by type of service (2014)



As the figures show, home phone tends to make up the highest monthly expenditure – at 5.06% of total monthly expenditures – followed by television service and mobile phone, and finally home Internet service. Furthermore, similar to previous tables, although each communications expense tends to increase with increase in

household size, communications expenses still make up a greater percentage of the total expenses made by smaller households rather than larger ones.

Moreover, expenditures on individual communications services alone are quite high, particularly as the CRTC notes that Canadian households spent, on average, $191 per month on all communications services in 2013 – and that the lowest quintile spends about $121 per month.[204] That the data provided by Credit Canada shows that its low-income clients already spend, on average, $113 per month on home telephone suggests that many low-income households are only subscribed to one, at most two, communications services.

The following table from Credit Canada also shows that, in cases where low-income clients have ongoing communications debts, these debts constitute up to 20% of their total debt.

Table 10: Average total and communications debt of low-income clients (2014)

Household Size	Monthly Income	Total Debt	Communications Debt	Communications % of Total Debt
1	**$1,267.40**	**$10,021.99**	**$1,452.85**	**14.50%**
2	**$1,630.93**	**$9,337.67**	**$1,426.33**	**15.28%**
3	**$1,935.61**	**$9,114.94**	**$1,476.75**	**16.20%**
4	**$2,210.63**	**$10,154.69**	**$1,884.46**	**18.56%**
5	**$2,425.94**	**$11,117.76**	**$1,453.75**	**13.08%**
6	**$2,310.63**	**$19,915.15**	**$2,709.38**	**13.60%**
7 +	**$1,927.50**	**$5,410.70**	**$1,164.41**	**21.52%**
Total Average n = 800	**$1,658.97**	**$9,956.80**	**$1,520.28**	**15.27%**

Therefore, the cost of communications services is particularly burdensome for smaller households with lower incomes, especially those on some form of social assistance.

This became especially clear in consultations with local organizations, who said that it was extremely rare that any client, many of whom were on some form of social assistance, would have all four communications services—it was simply unaffordable.

A scan of social assistance programs in various provinces showed that assistance recipients were often provided a base payment for "basic needs" and shelter depending on factors such as family size and living arrangement, as well as allotments

[204] CRTC, *Communications Monitoring Report* (October 2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2014/cmr.pdf>, Table 2.0.11.

for certain benefits such as health, childcare, emergency and employment support. PIAC did not come across any specific allotment for communications service expenses. Therefore, communications expenses must typically be drawn from the "basic needs" personal allowance, which has been described as assisting with the cost of "food, clothing and other personal items."[205] Only Alberta Works mentions that its "core essential benefits" also took into account the "installation and use of a telephone."[206]

Table 11: Basic income assistance for 1 adult with boarding (non-renter/owner) per month (2015)[207]

	1 Adult
Alberta	$304
British Columbia	$235
Nova Scotia	$255
Ontario	$280
Quebec	$200

As a result, many low-income clients of local organizations had extremely limited funds to spend on communications services. Shepherds of Good Hope said that its clients could only spend, on average, a maximum of $50 per month on communications services. Daybreak Housing noted that after paying a fixed amount for all-inclusive housing (including food and some communications expenses such as home phone and TV service), residents on welfare typically had no additional income to spend, and residents on disability benefits only had about $55 per month for personal spending. The Old Age Pensioners Organization stated that its members really could not withstand any more of a price increase in their communications services.

> *"The majority of our clients would like more access to these services but it is a question of affordability, especially for those on fixed incomes. Very often, their phone and Internet bills are part of their debts."*

[205] See: Ontario Works Policy Directive, s. 6.2, online: Minister of Community and Social Services <http://www.mcss.gov.on.ca/documents/en/mcss/social/directives/ow/0602.pdf> at p. 1.
[206] Alberta Works, *Financial Benefits Summary* (1 August 2014), online: Alberta Works <http://humanservices.alberta.ca/AWonline/documents/EMP0433.pdf> (accessed 20 January 2015).
[207] See: Alberta Works, *Financial Benefits Summary* (1 August 2014), online: Alberta Works <http://humanservices.alberta.ca/AWonline/documents/EMP0433.pdf> (accessed 20 January 2015);
Minister of Social Development and Social Innovation, "BC Employment and Assistance Rate Tables," online: Minister of Social Development and Social Innovation <Minister of Social Development and Social Innovation> (accessed 20 January 2015);
Nova Scotia, "Basic Income Assistance Rates" (1 June 2007), online: Nova Scotia <http://novascotia.ca/coms/employment/income_assistance/BasicAssistance.html> (accessed 20 January 2015);
Ontario Works Policy Directive, s. 6.2; and
Ministère de l'Emploi et de la Solidarité sociale, "Programme d'aide sociale, online : Ministère de l'Emploi et de la Solidarité sociale <http://www4.gouv.qc.ca/FR/Portail/Citoyens/Evenements/immigrer-au-quebec/Pages/programme-aide-sociale.aspx> (accessed 20 January 2015).

– Disability Alliance BC (Vancouver, BC)

"Affordability of communications services is a barrier for clients moving out of housing, especially those on social assistance. It is impossible for one to have TV, internet and cell phone altogether. Those on Ontario Works, for instance, receive about $600 per month."
– Shepherds of Good Hope (Ottawa, ON)

Nonetheless, budget counseling programs such as the EBO Financial Education Centre and MoneyWise stated that clients were often willing to pay about one sixth of their income, or in some cases even up to 30% of their monthly social assistance income, on communications services; these programs would try to help their clients work their household budgets around these expenses. MoneyWise noted that its clients typically paid a little less than $100 per month for basic phone and television services, but that, if really needed, they would push their communications budget to $150 or even $200 per month. The EBO Financial Education Centre similarly said that it was no longer surprising to see communications bills of $200 to $300 per month. It said that many of its clients were only able to afford these expenses because they lived in subsidized housing, where rent was considerably cheaper.

MODERATOR: All right. And PARTICIPANT 6?
PARTICIPANT 6: Home Internet?
MODERATOR: Yeah.
PARTICIPANT 6: It's already way too much, but I need it, so I pay it.
MODERATOR: So, if it went up another... But first, may I ask, how much?
PARTICIPANT 6: 50.
MODERATOR: And, if it went up to 60, would you bite the bullet and keep paying it?
PARTICIPANT 6: Just because I need it.
MODERATOR: It's so much of a necessity that if they jacked it up you would be stuck with it still. The last one is TV service, at what point, at what price point would you say nuts to the TV and get rid of that.
PARTICIPANT 1: I don't think I ever would, but I'd try to find ways to minimize what's coming in.
– ACORN focus group (Vancouver, BC)

ACORN participants and local organizations were asked for the maximum amounts they or their clients would be willing or able to pay for communications services. Some participants, however, also commented on the amount they or their clients would *like* to pay for these services. The input they gave is summarized in the table below.

Table 12: Monthly amount low-income Canadians would pay for communications services

Per month	Home Phone	Mobile Phone	Home Internet	TV Service	Communications Services Total
Maximum amount low-income consumers would pay	$15-$30	$40-60	$40-50	$30-$40	$70-200
Amount low-income consumers wish to pay	$10-$30	$15-$40	$15-30	$15-30	$30-90

Many of the "maximum mark" answers which ACORN participants gave were based on the amounts they currently paid for their communications services. In the vast majority of cases, participants said they would not be willing or able to pay more for these services than they currently did. (However, as noted above, when pushed, many low-income consumers tend to make the greatest effort possible to retain their communications services, even if this means cutting other household expenses.)

However, ACORN participants were commonly baffled by the generally high cost of communications services – including overage fees for home Internet or mobile phone use. Some noted that they were paying $45 per month for a mobile phone plan which did not even include data.

> *"You know, I'm embarrassed to say how much I have to pay [for home Internet]... It's with Shaw and I'm paying 173 dollars and some change every month."*
> *– ACORN participant (Vancouver, BC)*
>
> *"… you know, a contract is a contract until they – and they do – they always change the price on you. You start out at this, and then you know it's only for four months, let's say, and then three months go by and it's double and triple! Like, by a year after it's quadrupled!"*
> *– ACORN participant (Toronto, ON)*
>
> *PARTICIPANT 1: To me that stuff… I remember when TV was free. You stuck an antenna out on your roof and your window, and TV was free. What happened to those days? Do you remember those days?*
> *[Murmuring]*
> *MODERATOR: I even remember those days. I'm a young guy too, and I remember that.*
> *PARTICIPANT 6: Rabbit ears.*
> *PARTICIPANT 1: Like, I don't see why all this stuff is costing so much. It's insane!*
> *– ACORN focus group (Toronto, ON)*

Many ACORN and local organization participants commented that it was extremely difficult to find a very basic service offered for an inexpensive monthly price. The EBO Financial Education Centre, for instance, said that its clients often didn't subscribe to the right package which fit their needs, and usually ended up paying for more than they needed.

This was especially true for retail TV packages, which prevented consumers from subscribing only to the few channels they wished to watch. Some ACORN participants also complained about the gradual elimination of analog TV channels, which required them to pay more for digital service. Some ACORN participants said that they would not mind receiving fewer TV channels or having a lower Internet speed if the service could be provided for a much lower price.

> *"Je sais que ces institutions c'est pas des œuvres de charité. C'est pas ça, je comprends. Mais pourquoi on est, en cette vie où tout est avancé… ils offrent toutes sortes de programme pour qu'on paie, on paie. Mais pourquoi on offre pas un service de base, qui est accessible à tout le monde? Par exemple, pour la télévision – pourquoi tout le monde devrait passer au voie numérique? Pourquoi la télévision n'a pas gardé au moins les nouvelles, au moins quelque chose pour les gens qui ne veulent pas, ou bien qui ne peuvent pas avoir le câble?"*
> *– ACORN participant (Ottawa, ON)*

Some ACORN participants also said they were surprised that many communications companies did not offer discounts or lower-priced service packages for low-income individuals and families.

7.4 Other comments

(i) Bundling

Opinion on bundles of communications service offered by the same service provider was mixed. Many ACORN participants and local organizations appreciated bundling because it simplified billing and provided some discounts on their communications services.

However, many participants also noted that the discounts on bundles were not significant. Some also expressed frustration with billing errors and long-term contracts. Some local organizations such as Options Bytown and Disability Alliance BC said that bundles were still too expensive for many of their clients. The EBO Financial Education Centre also said it found that bundles were misleading and often used to pressure clients into subscribing for more than they needed.

(ii) Cost of equipment

The greatest barrier related to the cost of equipment was buying and maintaining a computer or laptop. Participants generally said that finding a fixed line phone and television were not large barriers to accessing a communications service, and that many could be bought secondhand. With regards to mobile phones, many participants noted that they had received their phone without an upfront cost by signing a fixed-term contract, although some expressed frustration with the length and monthly cost of their contracts.

While obtaining a television set was not viewed to be especially difficult, several ACORN participants complained about the monthly cost of renting the set-top box with digital television service.

(iii) Difficulty interacting with marketing and customer service representatives

Many local organizations and ACORN participants recalled frustrations they had while interacting with marketing and customer service representatives. Several organizations, including Options Bytown and the EBO Financial Education Centre noted that sales representatives would often put pressure on their clients to subscribe to more services than they needed. Meanwhile, many of their clients did not have the skills to distinguish the nuances of contracts or conditions on promotional offerings. In many cases, the organizations had to intervene on behalf of their clients to negotiate with communications service providers.

Several ACORN participants also expressed frustration about being intentionally misled by sales representatives or being tied to a long-term contract without their knowledge.

> *"Clients often do not get the right package to fit their needs and usually end up paying for more than they need. It's very hard for them to do the research and they are often misled by sales representatives. The industry does not typically care about our clients' needs. Bundles are also misleading but they're used to pressure clients into subscribing for more than they need."*
> *– EBO Financial Education Centre (Ottawa, ON)*
>
> *"Customer service is a nightmare and not navigable for my clients. Some companies knowingly target vulnerable consumers, especially with contracts that are illegible to them. My clients do not read or understand contracts."*
> *– Options Bytown (Ottawa, ON)*
>
> *"Mais pour le téléphone cellulaire, j'avais mes aventures avec une première institution ou il a fait le contrat. Je suis allée à Bell; j'ai dit que je voulais pas de contrat. Maintenant, il me dit que j'ai un contrat; j'ai dit, « Non, je voulais pas de contrat! » J'avais dit que je voulais pas!"*

– ACORN participant (Ottawa, ON)

"And when you're on the phone for half an hour trying to get an answer to something, whatever it is. And they still can't give you the right answer and they say they'll put you through to someone who can. And you're transferred time and time again and an hour and a half later, you're still on the phone and you don't have an answer yet."
– ACORN participant (Vancouver, BC)

VIII. Building a Framework For Affordability

8.1 Core communication needs in the digital society

The previous sections of this report have established the need for citizens to be able to fully participate in society through the use of communications services. But what are the core components of communications?

In our view, citizens need to be able to: **(1) communicate with others**, including family and friends or agencies and organizations, and **(2) engage in cultural society** by accessing news and information and enjoying cultural programming.

Furthermore, the core communications functionalities which the local organizations and ACORN participants viewed to be important were:

- Voice communication, including features such as call display and voicemail;
- Readily available contact with emergency and helpline services free-of-charge;
- Access to local news, national news and entertainment;
- Ability to find information—particularly information needed to fulfill other basic necessities and activities such as government services and applications, education, health care, job searches, and housing searches.

As each of telephony, internet and television services offer more and more functionalities and the roles of telecommunications and broadcasting industries increasingly overlap, consumers may be able to fulfill their two core needs through services other than traditional telephony or television. However, our consultations with local organizations and the ACORN focus groups show that all four communications services remain important in allowing low-income Canadians to communicate with others and engage in cultural society. In any case, the ability of a citizen to fulfill these two key functions is critical to that citizen's full participation in society.

8.2 Dispelling myths about "affordability"

The concept of affordability has often been confused with other concepts such as accessibility and availability. Thus, many policies that have claimed to promote "affordability" have, rather, targeted the accessibility or availability of a communications service instead.

Patrick Xavier's seminal 1995 OECD report, *Universal Service Obligations in a Competitive Telecommunications Environment*,[208] notes the importance of distinguishing

[208] OECD, *Universal Service Obligations in a Competitive Telecommunications Environment* (Paris: OECD, 1995), online: OECD < http://www.oecd.org/sti/broadband/2349175.pdf>.

between several dimensions of the universal service objective. Xavier identifies six constituent parts of a universal service target[209]:

(a) Universal geographic access;
(b) Universal access by the disabled;
(c) *Universal affordable access*;
(d) Universal service quality; and
(e) Universal tariffs.[210]

"Universal affordable access," according to Xavier, recognizes that penetration rates (for telephone at the time) differ substantially for households in low-income brackets—and particularly among certain types of households as well as ethnocultural backgrounds.[211]

According to Stanford L. Levin,[212] there is a distinction between the availability and use of an available service. While a service may be available or offered in a market, this does not mean that households will necessarily subscribe to or use it. In discussing broadband, Levin highlights the importance of "making the distinction between availability, and at what quality (speed) and use, and in the case of use, understanding the reasons that customers may not subscribe to available broadband services."[213] One reason a household may not use an available service, Levin notes, is because of that household's inability to afford that service.[214]

Affordability concerns the financial threshold which would allow an individual to participate fully in society. Therefore, the availability of a service is not in itself a measure of affordability. That a service is available in a geographic area does not mean that that service is affordable.

Similarly, affordability does not measure the accessibility of a service, including other non-financial obstacles to using or subscribing to a communications service. This report does not examine the digital literacy skills of Canadians, nor the accessibility of communications services for persons with disabilities. Although these two elements are important considerations in studying general access to communications services, they are external factors when examining the affordability of a service because they do not relate to the *financial* needs and thresholds of individual households.

Finally, affordability is sometimes used to describe the general pricing of communications services for the average consumer – that is, whether overall rates are,

[209] *Ibid*. at p. 38.
[210] Also known as tariffs for universal service, "universal tariffs" describes the restrictions placed on service provider pricing policies in connection with universal service objectives. See: *Ibid*. at p. 49.
[211] *Ibid*. at p. 40.
[212] Stanford L. Levin, "Universal service and targeted support in a competitive telecommunications environment" (2010) 34 Telecommunications Policy 92 at 92.
[213] *Ibid*. at 93.
[214] *Ibid.*

in historical regulatory language, "just and reasonable."[215] Although preserving just and reasonable rates has been central to the regulator's role and continues to be a crucial issue today, so-called "affordability initiatives" have focused on reducing overall prices while neglecting affordability policies designed to ensure that low-income individuals are able to pay for the minimum communications services required to fully participate in society. Thus, this report focuses on describing that minimum threshold that would enable full participation in society through communications.

8.3 What is "affordability"?

Gerard Goggin states that that affordability is "a dynamic interplay between people's lives, money, services, and systems."[216]

At the very minimum, a service can be described to be affordable where its cost does not require a household to cut back its expenditures on other basic necessities such as food, shelter, clothing, transportation and health care. This definition lines up with those proposed by Ofcom in the UK and the U.S. Federal Communications Commission, whose "relative component" definition of affordability means: "to bear the cost of without serious detriment." In other words, rather than relying on the FCC's "absolute component" of determining whether a household has "enough or the means for" a service, affordability should examine the relative component which considers a household's other expenditures.

This "relative component" threshold can, for instance, be quantified as a percentage of household income. We suggest that communications services are "affordable" where, as a guideline, they make up about 4% to 6% of a household's income.

However, affordability in our view must also incorporate a subjective quality because **it is related to *control*** – the ability of an individual or a household to control their expenditures in order to fulfill their needs. Therefore, because affordability concerns a household's control over their budget, affordability is also about *choice* which allows a household to access a service offering which meets their needs.

As a result, affordability is also qualitative and subjective in addition to quantitative. The ACORN Canada focus groups and PIAC's interviews with local organizations show that the views of individual households on the affordability of a service are important because they reveal the level of control low-income households believe they have over the cost of key essential services. An assessment of affordability, therefore, should take into account the choice and preferences of low-income consumers in meeting their needs.

[215] See, for instance: *Telecommunications Act*, S.C. 1993, c. 38, s. 27(1).
[216] Gerard Goggin, "New Ideas for Digital Affordability: Is a Paradigm Shift Possible?" (2014) 2:2 Aust J Telecommunications & the Digital Economy X.1 at X.6.

8.4 Qualifying affordability of communications

(i) Cost

When assessing the "cost" of a service, it is not enough to look at the fixed monthly service cost; affordability concerns the total cost of ownership. As noted by Catherine Middleton, Gerard Goggin,[217] and Stanford L. Levin,[218] a household's ability to afford a service also includes its ability to manage expenses related to: additional service fees, installation costs, equipment costs, maintenance costs, control usage charges, and general "bill shock."[219]

Moreover, cost must consider any cost of credit or debt. A Futuresight report prepared for Ofcom which interviewed 207 consumers in the UK found that:

> For some low income participants in the sample, the main consequence of having to buy essential communication services was debt, particularly if this added to existing long term debt. In this, some were reliant on family or friends for help. Others claimed to be using payday lenders or credit unions as a last resort. For most though, the main consequence was a need to try to avoid debt through the development of a coping mechanism of some kind.[220]

A UK Regulators Network study on affordability pressures in various essential service sectors similarly found that "[l]ower incomes, which imply reduced ability to make trade-offs with other expenditures, when combined with limited access to credit and help to pay for services, result in higher likelihood of incurring debt."[221] In fact, the data provided by Credit Canada shows that where low-income consumers do have debts, communications expenses can account for up to one-fifth of those debts.

Therefore, considerations of "costs" related to communications expenses must also take into account costs of credit. A service cannot necessarily be considered "affordable" where a low-income household manages that cost by resorting to high cost credit mechanisms.

Our results also show that all four communications services are viewed as important by different low-income consumers. Therefore, communications policy must

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[217] *Ibid*.
[218] Stanford L. Levin, "Universal service and targeted support in a competitive telecommunications environment" (2010) 34 Telecommunications Policy 92 at 93.
[219] Bill shock is "a sudden and unexpected increase in monthly bills that is not caused by a change in service plans." In the U.S., the FCC has found that one in six mobile phone users have experienced bill shock. See: Federal Communications Commission, "Bill Shock" (25 September 2014), online: FCC <http://www.fcc.gov/encyclopedia/bill-shock>.
[220] Futuresight, *Affordability of Essential Communications Services: A Qualitative Research Study – Final Report* (July 2014), online: Ofcom <http://stakeholders.ofcom.org.uk/binaries/research/affordability/Futuresight-Report.pdf> at p. 59.
[221] UKRN, *Understanding affordability pressures in essential services: Report* (2015), online: UKRN <http://www.ukrn.org.uk/wp-content/uploads/2015/01/UKRN-Affordability-Report.pdf> at para. 4.15.

ensure that the total cost of ownership of each of the four communications services – at qualities which allow households to fulfill the core functions of communications – is affordable for low-income Canadians.

(ii) Usage

The minimum service offering which must be affordable is that which enables a low-income individual to take advantage of the four core functions of communications services mentioned above: voice communication; readily available contact with emergency and helpline services; access to news and entertainment; and ability to find information.

The communications service that remains most important for low-income Canadians is telephone service – whether wireline or wireless. Universal service in Canada as well as other jurisdictions has traditionally focused on ensuring access to a wireline home phone. This remains important. Many ACORN members, clients of local organizations, and Credit Canada low-income clients still rely on wireline phone service, so policy makers must ensure that wireline phone service is affordable. However, as mobile phone service continues to grow in popularity and necessity, policy makers must increasingly turn their minds to the affordability of mobile phone service as well.

Moreover, due to the increasing substitutability of some services, examination of the affordability of a service should also consider the level of usage of a particular service. For instance, our results show that ACORN members in particular tended to use one communications service very heavily and, if possible, subscribe to another one to two services which they used more lightly. The services which ACORN members were inclined to use most heavily, if subscribed, were: mobile phone and home Internet service.

For mobile phone and home Internet service in particular, it is therefore important to assess the affordability of services at varying levels of usage. A low-income Canadian may use his or her mobile phone or home Internet service extremely heavily to speak with friends, family and make other appointments, as well as search for housing and employment and watch videos. The ACORN focus groups show that these are the two services on which low-income Canadians are most likely to rely heavily or exclusively. Hence, prepaid mobile phone services, though perhaps suitable for those low-income consumers who only use their mobile phones in emergency situations, are likely insufficient to fulfill the range of communications needs of low-income Canadians..

Although this may mean that low-income consumers who tend to use one service exclusively or extremely heavily are able to forego expenditures on other communications services, it is important to ensure, by monitoring low-income consumers' financial threshold for <u>all</u> their communications services, that even higher levels of usage of mobile phone or home Internet services are still affordable.

These findings fall in line with the conclusions reached by Akihiro Nakamura in his 2013 paper,[222] which found that:

- A consumer's willingness-to-pay was generally greater for voice communication than data transmission, and of all the services, highest for mobile phone voice communication;
- Even where mobile voice service was available, consumers would still pay to retain their fixed-line voice services; and
- Based on consumer willingness-to-pay, fibre-to-the-home could be considered a basic telecommunications service.

(iii) User choice and preference

As the reader may recall, ACORN participants and local organizations described the maximum amounts that they or their clients would like to or would pay for communications services. These are summarized again in the table below. It is important to note that these numbers represent the total amount which low-income consumers would pay per month – that is, in our view, including any additional charges such as overage fees or access fees.

If affordability concerns the amount of control, then both sets of numbers must be taken into account in establishing the affordability of a communications service.

Per month	Home Phone	Mobile Phone	Home Internet	TV Service	Communications Services Total
Maximum amount low-income consumers would pay	$15-$30	$40-60	$40-50	$30-$40	$70-200
Amount low-income consumers wish to pay	$10-$30	$15-$40	$15-30	$15-30	$30-90

The range in responses tends to reflect the level of usage of each service. Thus, for instance, a low-income consumer who relies exclusively on his or her mobile phone service to fulfill the four core functions of communications services – and likely more – would be willing, if pushed to the brink, to pay up to $60 per month for mobile phone service. However, he or she likely feels more comfortable or in control of his or her mobile phone expenditures at around $40 per month for heavy usage.

[222] Akihiro Nakamura, "Retaining telecommunication services when universal service is defined by functionality: Japanese consumers' willingness-to-pay" (2013) 37 Telecommunications Policy 662.

In sum, a qualitative assessment of the affordability of a communications service must examine:

- Cost of each individual communications service, as well as the group of communications services as a whole;
- Total cost of ownership, including the cost of credit, rather than merely the monthly service cost;
- A service offering which at minimum – to the extent that technology allows – enables a low-income individual to fulfill the four core functions of communications services: (i) voice communication; (ii) readily available contact with emergency and helpline services; (iii) access to news and entertainment; and (iv) ability to find information;
- For mobile phone and home Internet service especially, costs of heavy levels of usage; and
- Costs which low-income Canadians have said they would like to or feel comfortable paying.

8.5 Quantifying affordability of communications

(i) Cost of communications services as a percentage of household income

Claire Milne states that, as a guideline, annual expenditures on communications services need not exceed **4% to 6%** of a household's annual income. This indicator was recommended by PIAC in the early 1990s and continues to be one that can be easily compared across jurisdictions. The CRTC, for instance, already publishes this information in its annual *Communications Monitoring Report*[223] and notes that in 2012, communications expenditures made up 8.4% of the annual household income of the lowest quintile.

[223] Canadian Radio-television and Telecommunications Commission, *Communications Monitoring Report* (October 2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2014/cmr.pdf>, Table 2.0.10.

Table 13: Household communications expenditures as a percentage of annual income by quintile (2012)[224]

Characteristics	Lowest quintile (household income less than $27,875)	Second quintile (household income from $27,875 to $48,426)	Third quintile (household income from $48,426 to $74,032)	Fourth quintile (household income from $74,032 to $111,639)	Highest quintile (household income over $111,639)	Total average
Average annual income	$17,312	$37,937	$60,559	$90,855	$179,659	$77,269
Members per household	1.47	2.10	2.57	2.90	3.34	2.48
Percentage recently changed address (2010-2011)	25.6%	20.4%	19.3%	14.5%	9.7%	17.9%
Communications expenditures as a percentage of annual income	8.4%	4.7%	3.6%	2.8%	1.7%	2.8%

Sources: Statistics Canada's Survey of Household Spending

(ii) Cost of communications services as a percentage of GNI per capita

The ITU's annual *Measuring the Information Society* report[225] compares prices for Information and Communications Technology baskets as a percentage of GNI per capita, converted to US dollars and PPP. The pricing data is typically collected from the operator with the largest market share of subscriptions. The lower the number, the more affordable a country's telecommunications services are considered to be. The following tables show some 2012 data for fixed-broadband and mobile-broadband prices.

[224] *Ibid.*
[225] International Telecommunications Union, *Measuring the Information Society* (2014), online: ITU <http://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2014/MIS2014_without_Annex_4.pdf>.

Table 14: Fixed-broadband prices – Top 35 Countries (2013)[226]

Rank	Economy	Fixed-broadband sub-basket			Speed in Mbit/s	Cap per month in GB	GNI p.c., USD, 2013*
		as % of GNI p.c.	USD	PPP$			
1	Macao, China	0.32	17.27	23.37	4	Unlimited	64'691
2	Kuwait	0.37	14.11	21.76	1	Unlimited	45'889
3	Singapore	0.44	19.90	20.58	25	Unlimited	54'040
4	United Kingdom	0.48	15.63	12.80	16	10.0	39'110
5	Switzerland	0.54	36.68	21.86	5	Unlimited	81'760
6	Russian Federation	0.54	6.28	10.95	5	Unlimited	13'860
7	Japan	0.57	21.73	18.89	12	900.0	46'140
8	Norway	0.60	50.89	30.51	2	Unlimited	102'610
9	Ireland	0.61	19.92	15.67	50	30.0	39'501
10	Austria	0.63	25.43	22.10	8	Unlimited	48'590
11	Luxembourg	0.64	38.50	29.04	8	2.0	72'528
12	Hong Kong, China	0.68	21.66	27.85	8	Unlimited	38'420
13	United States	0.73	32.65	32.65	1	Unlimited	53'670
14	Qatar	0.77	54.95	74.67	1	Unlimited	85'550
15	Finland	0.77	30.41	22.88	10	Unlimited	47'110
16	Sweden	0.78	38.23	27.36	10	Unlimited	59'130
17	France	0.79	27.88	23.76	8	Unlimited	42'250
18	Mauritius	0.84	6.51	10.53	0.26	2.0	9'300
19	Iceland	0.87	31.84	26.35	12	1.0	43'930
20	Belgium	0.88	33.13	28.15	30	100.0	45'210
21	Netherlands	0.89	35.19	29.68	8	Unlimited	47'440
22	Denmark	0.92	47.01	31.27	20	Unlimited	61'110
23	Trinidad & Tobago	0.93	12.28	15.41	0.25	Unlimited	15'760
24	Italy	0.94	26.94	24.25	7	Unlimited	34'400
25	Cyprus	0.95	21.12	22.78	2	Unlimited	26'654
26	Australia	0.97	53.10	35.71		Unlimited	65'520
27	Lithuania	0.99	11.50	16.54	50	Unlimited	13'958
28	Germany	1.04	39.77	36.40	16	Unlimited	46'100
29	Venezuela	1.04	10.91	13.77	1	Unlimited	12'550
30	Canada	1.05	45.59	36.32	5	20.0	52'200
31	Malta	1.11	18.40	21.49	4	25.0	19'927
32	Uruguay	1.11	14.06	15.47		5.0	15'180
33	Poland	1.14	12.34	20.28	0.5	Unlimited	12'960
34	Romania	1.15	8.71	14.09	50	Unlimited	9'060
35	Panama	1.20	10.69	18.19	1	Unlimited	10'700

Source: ITU, 2014

[226] *Ibid.*, Table 4.4.

Table 15: Postpaid mobile-broadband prices, 500 MB (2013)[227]

Rank	Economy	Mobile-broadband, postpaid handset-based (500 MB)			GNI p.c., USD, 2013*	Monthly data allowance (MB)
		as % of GNI p.c.	USD	PPP$		
1	Austria	0.13	5.31	4.62	48'590	1'024
2	Finland	0.13	5.18	3.9	47'110	500
3	Iceland	0.13	4.83	4	43'930	500
4	Liechtenstein[1]	0.17	20.5	-	142'885	1'000
5	Denmark	0.17	8.9	5.92	61'110	1'024
6	Australia	0.18	9.65	6.49	65'520	500
7	Norway	0.2	16.85	10.1	102'610	1'024
8	Luxembourg	0.22	13.28	10.01	72'528	500
9	Qatar	0.23	16.48	22.4	85'550	1'000
10	Hong Kong, China	0.32	10.31	13.26	38'420	1'000
11	Lithuania	0.33	3.84	5.53	13'958	1'024
12	Poland	0.35	3.8	6.24	12'960	1'024
13	Russian Federation	0.41	4.68	8.16	13'860	500
14	Macao, China	0.41	22.28	30.15	64'691	500
15	Korea (Rep.)	0.47	10.05	12.02	25'920	500
16	Netherlands	0.5	19.92	16.8	47'440	500
17	Turkey	0.52	4.73	6.83	10'950	500
18	Belgium[2]	0.53	19.92	16.93	45'210	500
19	Sri Lanka	0.57	1.51	4.16	3'170	500
20	Spain[3]	0.59	14.46	14.17	29'180	500
21	Estonia	0.6	8.62	10.03	17'370	1'536
22	Sweden[4]	0.62	30.55	21.87	59'130	512
23	Slovenia	0.62	11.95	13.33	23'058	1'024
24	Switzerland	0.63	42.94	25.59	81'760	500
25	Slovakia	0.64	9.28	12.21	17'372	700
26	Belarus	0.66	3.72	9.9	6'720	500
27	Latvia	0.68	8.05	10.52	14'201	600
28	Kazakhstan	0.69	6.51	11.02	11'380	1'024
29	Greece	0.71	13.28	13.79	22'530	750
30	Singapore[5]	0.71	31.89	32.97	54'040	2'048
49	Panama	1.12	9.99	17	10'700	1'024
50	Canada	1.14	49.38	39.33	52'200	540
51	Japan	1.18	45.19	39.28	46'140	500

Source: ITU, 2014

This indicator is useful for international comparisons because it is adjusted by PPP for comparison purposes. Canada currently sits at 1.05% or thirtieth place for fixed-broadband pricing and 1.14% or fiftieth place for 500 MB of mobile broadband pricing.

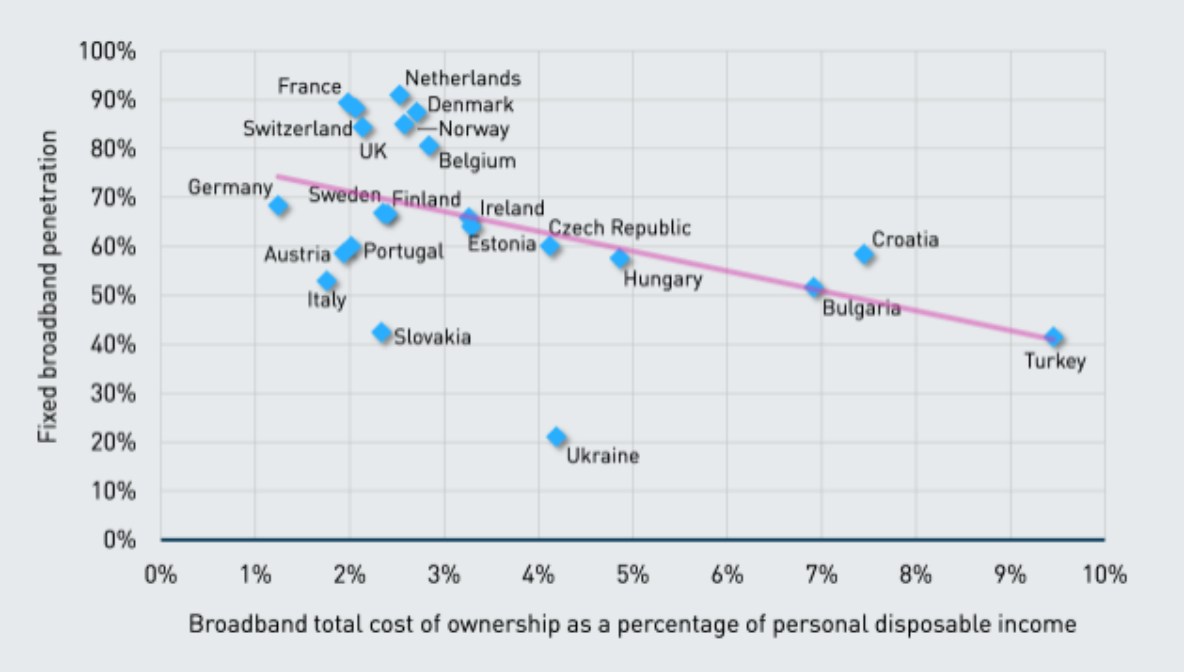
(iii) Total cost of ownership and penetration

In its 2013 report,[228] *Bridging the Digital Divide: Connecting the Unconnected*, Analysys Mason mapped out the relationship between the total cost of ownership of

[227] *Ibid*., Table 4.5.

broadband service (as a percentage of personal disposable income) and the penetration rate of fixed broadband in several European countries. Their graph is provided below:

Figure 13: Relationship between affordability and fixed broadband penetration[229]



Source: Analysys Mason, 2013

The Analysys Mason figure indicates that a decrease in the broadband total cost of ownership by 1 percentage point could raise penetration by 5 percentage points. Therefore, improving the affordability of broadband service could result in significant growth, by several fold, in penetration.

Adopting the same factors that Analysys Mason used to determine total cost of ownership,[230] we estimated a number for broadband total cost of ownership as a percentage of personal disposable income[231] in Canada for the year 2014. We surveyed

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[228] Analysys Mason, "Bridging the Digital Divide: Connecting the Unconnected" (8 July 2013), online: Analysys Mason <http://www.analysysmason.com/About-Us/News/Insight/Bridging-digital-divide-Jul2013/>.

[229] *Ibid.*

[230] These included: Monthly access charge, extra access charge from incumbent for line rental, total access charge, data usage overage charge (per GB), activation and installation charges, type of equipment included, one-off equipment costs, and monthly equipment rental charges.

[231] Personal Disposable Income of **$31,219** was calculated by dividing total disposable personal income by the total Canadian population.
See: Statistics Canada, "Estimates of population, by age group and sex for July 1, Canada, provinces and territories, annual," online: Statistics Canada <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=0510001&tabMode=dataTable&srchLan=-1&p1=-1&p2=9>; and
Trading Economics, "Canada Disposable Personal Income," online: Trading Economics <http://www.tradingeconomics.com/canada/disposable-personal-income> (accessed 20 January 2015).

the most inexpensive standalone communications packages offered by a number of regional and national incumbent phone and cable service providers across Canada, as well as one independent reseller.[232] The broadband total cost of ownership as a percentage of personal disposable income was determined to be 2.45% for 2014. We attempted to replicate a similar analysis for the other three communications services.

Table 16: Canada total cost of ownership as percentage of personal disposable income – Various communications services (2014)

Service	Annual Personal Disposable Income	Average annual total cost of ownership	Total cost of ownership as percentage of personal disposable income (%)
Fixed (wireline) telephone	$31,219.00	$375.28	1.20%
Wireless telephone		$400.27	1.28%
Fixed broadband		$764.51	2.45%
Television		$582.90	1.87%

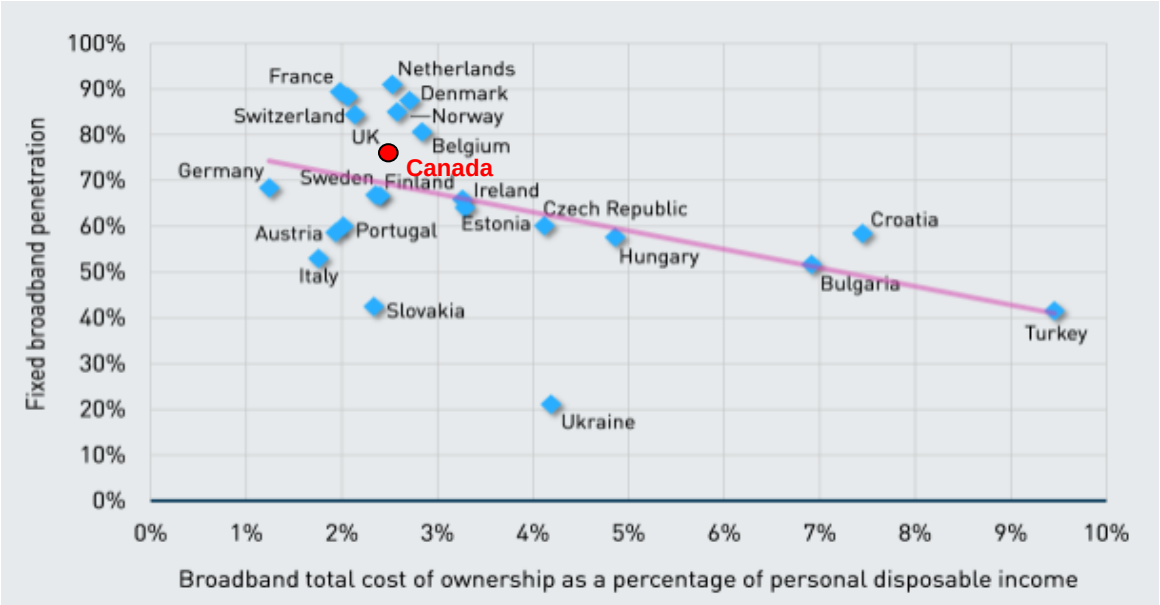
Source: PIAC, 2014

We note that these numbers are determined from the most inexpensive service packages offered by various Canadian service providers, and that the numbers are likely to be even higher for Canadians in the lowest quintile. However, we adopted the Analysys Mason calculations primarily for comparison purposes. Based on the Analysys Mason figure for total cost of ownership over personal disposable income, and a CRTC broadband residential penetration rate of 77%[233], Canada would likely situate somewhere near as illustrated below in Figure 14.

As policy makers examine affordability of communications services more closely, we believe that rigorous, standardized metrics similar to the ones used by Analysys Mason and the ITU must be developed and regularly applied in Canada in order to compare affordability across several jurisdictions.

[232] The service providers we considered were: Bell Aliant, Bell Canada, Cogeco, MTS, Rogers, SaskTel Shaw, Teksavvy, TELUS, and Vidéotron.
[233] CRTC, *Communications Monitoring Report* (October 2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2014/cmr.pdf>, Table 5.3.0.

Figure 14: Relationship between affordability and fixed broadband penetration (including Canada)



In our view, this figure highlights several key points. First, there appears to be a clear linear relationship between affordability and penetration—affordability does matter. Second, it appears that more could be done to encourage increases in broadband penetration in Canada, as comparable societies with similar economies (for example, Netherlands, Denmark, Norway, France, Switzerland and the U.K.) all have (up to 10%) higher penetration rates than Canada for about the same or even less percentage of personal disposable income. Third, the following tables demonstrate that Canadian household penetration for wireline and wireless telephone service, as well as for home broadband, is much lower – and in some cases close to half – in the lowest quintiles and quartiles compared to the highest ones. This suggests serious gains could be made in Canada's penetration rate by attacking the problem of affordability of communications services in Canada.

Table 17: Canadian telephone penetration rates by income quintile[234]

Income quintile	Year	Wireline	Mobile wireless	Wireline and/or mobile wireless	Wireline only	Mobile wireless only
First	2010	82.2	54.9	97.3	42.4	15.1
	2011	76.0	57.3	97.3	40.0	21.3
	Percentage change	*-7.5*	*4.4*	*0.0*	*-5.7*	*41.1*
	2012	74.6	61.7	97.4	35.7	22.8
	Percentage change	*-1.8*	*7.7*	*0.1*	*-10.8*	*7.0*
Second	2010	85.7	71.1	99.7	28.6	14.0
	2011	86.0	72.3	99.8	27.5	13.8
	Percentage change	*0.4*	*1.7*	*0.1*	*-3.8*	*-1.4*
	2012	80.3	75.1	99.5	24.4	19.2
	Percentage change	*-6.6*	*3.9*	*-0.3*	*-11.3*	*39.1*
Third	2010	89.3	82.0	99.8	17.8	10.5
	2011	85.1	85.3	99.7	14.4	14.6
	Percentage change	*-4.7*	*4.0*	*-0.1*	*-19.1*	*39.0*
	2012	82.8	85.9	99.7	13.8	16.9
	Percentage change	*-2.7*	*0.7*	*0.0*	*-4.2*	*15.8*
Fourth	2010	93.1	89.7	99.9	10.2	6.8
	2011	91.3	89.8	99.9	10.1	8.6
	Percentage change	*-1.9*	*0.1*	*0.0*	*-1.0*	*26.5*
	2012	87.4	91.0	99.8	8.8	12.4
	Percentage change	*-4.3*	*1.3*	*-0.1*	*-12.9*	*44.2*
Fifth	2010	95.3	93.5	100.0	6.5	4.7
	2011	94.1	92.0	100.0	8.0	5.9
	Percentage change	*-1.3*	*-1.6*	*0.0*	*23.1*	*25.5*
	2012	92.4	93.4	99.7	6.3	7.3
	Percentage change	*-1.8*	*1.5*	*-0.3*	*-21.3*	*23.7*
All households	2010	89.1	78.2	99.3	21.1	10.2
	2011	86.5	79.4	99.3	19.1	12.8
	Percentage change	*-2.9*	*1.5*	*0.0*	*-5.7*	*25.5*
	2012	83.5	81.4	99.2	17.8	15.7
	Percentage change	*-3.5*	*2.5*	*-0.1*	*-6.8*	*22.7*

Source: Statistics Canada's Survey of Household Spending

[234] CRTC *Communications Monitoring Report* (October 2014), online: CRTC <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2014/cmr.pdf>, Table 2.0.9.

Table 18: Canadian household broadband penetration by quartile[235]

Household Income Quartile	2010	2012
Lowest Quartile	53.7%	**58.0%**
Second Quartile	75.2%	80.1%
Third Quartile	89.5%	94.2%
Highest Quartile	97.2%	**97.7%**
All Households	78.9%	82.5%

Source: Statistics Canada, Canada Internet Use Survey (2012)

It therefore appears promising for policymakers to focus on and specifically address the affordability of communications services, and in particular, broadband. Addressing affordability is critical to aligning low-income Canadians with the federal government's objective of "ensuring that Canadians, whether they live in urban centres or remote regions of the country, have access to the latest wireless technologies and high-speed networks at the most affordable prices possible."[236]

Furthermore, the development of the communications system as a whole, particularly for low-income and rural Canadians, appears to demand more attention from all policy makers in Canada. Figure 14 shows that while the Canadian total cost of broadband ownership over Personal Disposable Income is comparable to other similarly developed countries, Canada's broadband penetration is visibly lower. This is disturbing in that increases in broadband penetration are highly correlated with increases in a country's GDP growth.[237] Thus, more attention must be paid to the allocation of significant private and public resources in the development of the communications system, particularly one which the CRTC describes should be a "world-class communication system for years to come. One in which [Canadians] have access to compelling content, as well as the choice of innovative wireless services and Internet services, wherever they live in Canada."[238]

[235] Statistics Canada, "Canadian Internet Use Survey: Household access to the Internet at home, by household income quartile, Canada and provinces," Table 358-0167, online: Statistics Canada <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=3580167&paSer=&pattern=&stByVal=1&p1=1&p2=31&tabMode=dataTable&csid=> (accessed 21 January 2015).
[236] Government of Canada, "Harper Government launches program to bring high-speed Internet to an additional 280,000 Canadian households" (22 July 2014), online: Government of Canada <http://news.gc.ca/web/article-en.do?nid=869539>.
[237] See, for example, Shahram Amiri and Brian Reif, "Internet Penetration and its Correlation to Gross Domestic Product: An Analysis of the Nordic Countries" International Journal of Business, Humanities and Technology, Vol. 3, No. 2; February 2013 and references therein.
[238] CRTC, "Opening remarks by Jean-Pierre Blais at the public hearing on the review of wholesale mobile wireless services" (29 September 2014), online: Government of Canada <http://news.gc.ca/web/article-en.do?nid=888249>.

IX. CONCLUSION & RECOMMENDATIONS

Canada lacks a framework for defining the "affordability" of communications services in the digital age. Government and regulatory decision-makers have implemented "affordability" policies that have focused on the availability and accessibility of communications services, rather than their true affordability. Meanwhile, relying solely on competition has not, and likely will not, create the conditions needed to ensure that communications services truly are affordable for low-income Canadians.

This study consisted of interviews with local organizations working with low-income clients and focus groups with low-income individuals in order to determine what affordability means from the perspective of the low-income consumer. Academic, corporate, and regulatory stakeholders were also consulted. Relevant data was gathered from the credit counseling agency, Credit Canada, as well as from government sources.

The results of this research showed that all four communications services - wireline telephony, wireless telephony, internet and television - are important to low-income Canadians as they attempt to meet their societal and cultural participation needs. Even low-income users on tight household budgets would choose to retain, and accept varying price increases to, their communications services – voice communications services in particular. Yet many participants said that they were already paying the most they could afford for communications services.

A quantitative threshold for affordability of basic communications services in 2015 is needed. One measure that has been recommended to address this maximum cost is that the total cost of ownership of communications services should not exceed 4% to 6% of household income.

But affordability is not just about a dollar figure; it is also about *control* – the ability of an individual or a household to control their expenditures in order to fulfill their needs. Because affordability involves a household's control over its budget, affordability is also about the *choices* (and information about such choices) available to that household in identifying and accessing a service offering that best meets their needs.

A qualitative assessment of the affordability of a communications service must therefore examine:

- Cost of each individual communications service, as well as the group of communications services as a whole;
- Total cost of ownership, including the cost of credit, rather than merely the monthly service cost;
- A service offering which at minimum – to the extent that technology allows – enables a low-income individual to fulfill the four core functions of communications services: (i) voice communication; (ii) readily available contact

with emergency and helpline services; (iii) access to news and entertainment; and (iv) ability to find information;

- For mobile phone and home Internet service especially, costs of heavy levels of usage; and
- Costs which low-income Canadians have said they would like to or feel comfortable paying.

This report proposes baseline definitions and metrics to help create a framework for the assessment of affordability of communications services in the digital age. Further research on the nature of affordability problems in Canada and the development of an appropriate policy framework to address those problems clearly is necessary. However, given the research in this report, the authors feel comfortable in advancing the following recommendations at this stage:

Recommendation 1: That Canada explicitly adopt in its communications legislation (*Telecommunications Act*, *Broadcasting Act*, *Radiocommunication Act*) a specific, enforceable universal service obligation (USO), which shall include a requirement to provide all Canadians with "affordable" communications services.

Recommendation 2: That any affordability requirement in a USO be defined as calculated relevant to other essential services such that communications costs not require Canadians to forgo or reduce other essential services (*e.g.*, heat or food).

Recommendation 3: That any affordability requirement in a USO be defined as respecting consumer control of expenses and choice of services, to the maximum extent possible.

Recommendation 4: That any policy or regulatory initiatives addressing communications affordability for low-income consumers be designed to respect and implement the above-noted definition – and in particular facilitate and maximize consumer cost control and choice of services.

Recommendation 5: That the Canadian Radio-television and Telecommunications Commission (CRTC) undertake yearly, comparable and repeatable, quantitative research on affordability of all major communications services (wireline and wireless telephone; broadband Internet and broadcasting services) to Canadians. This research should be made public and the raw data provided to the public to enable policy research.