Progress and challenges in measuring ICT in Latin America and the Caribbean

International Seminar on Information and Communication Technology Statistics

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Agenda

I. ECLAC's Information Society Activities

II. Statistical Conference of the Americas (SCA) of ECLAC

III. Measuring the Information Society

   a. Background

   b. Current status

   c. Statistical Information System on ICT

IV. Digital divide in LAC

V. Conclusions and final reflections

I. ECLAC's Information Society Activities

ECLAC's Information Society Activities

- Innovation and ICT Unit
- Division of Production, Productivity and Management (DPPM)
- Economic Commission for Latin America and the Caribbean (ECLAC)

OSILAC

Observatory for the Information Society in Latin America and the Caribbean

IDRC CRDI
Canada

eLAC

Regional Action Plan for the Information Society

@LIS
EUROPEAID CO-OPERATION OFFICE

UNION EUROPEA

Inclusive Political Dialogue

(Project from @LIS2 Program)

www.cepal.org/socinfo/

ECLAC's Information Society Activities

Contributes to the development of Information Societies in Latin America and the Caribbean

Statistical harmonization

Quantitative and descriptive studies

Exchange of information and experiences

Regional cooperation

The eLAC process

eLAC2007: 30 goals and 70 activities (2005-2007)

eLAC2010: 83 goals (2008-2010)

eLAC 2015: in discussion

OSILAC

Since 2003, working together with:

- **Partnership on Measuring the ICT for Development**

- **Statistical Conference of the Americas (CEA-CEPAL)**
- **Regional NSOs and Ministries**

To define and gather a common set of ICT indicators and to help developing countries in their efforts to produce statistics of the information society: http://measuring-ict.unctad.org

OSILAC Objectives

- **Promote statistical harmonization** so as to strengthen the monitoring of ICT policies and projects in Latin America and the Caribbean

- **Monitor and analyze the progress of the regional countries** towards the development of Information Societies

- Support countries in the compilation and analysis of statistical data, **developing capabilities or assisting countries with survey Implementation** (NSOs and other official institutions)

II. Statistical Conference of the Americas (SCA) of ECLAC

The Statistical Conference of the Americas

- Formed in 2000
- subsidiary body of ECLAC
- Mission: contribute to the progress of policies on statistics and statistical activities in the LAC countries
- Annual meetings
- 9 working groups

Main objectives:

- promote the development and improvement of national statistics and work to ensure that they are comparable internationally
- promote international, regional and bilateral cooperation among NSOs and international and regional agencies

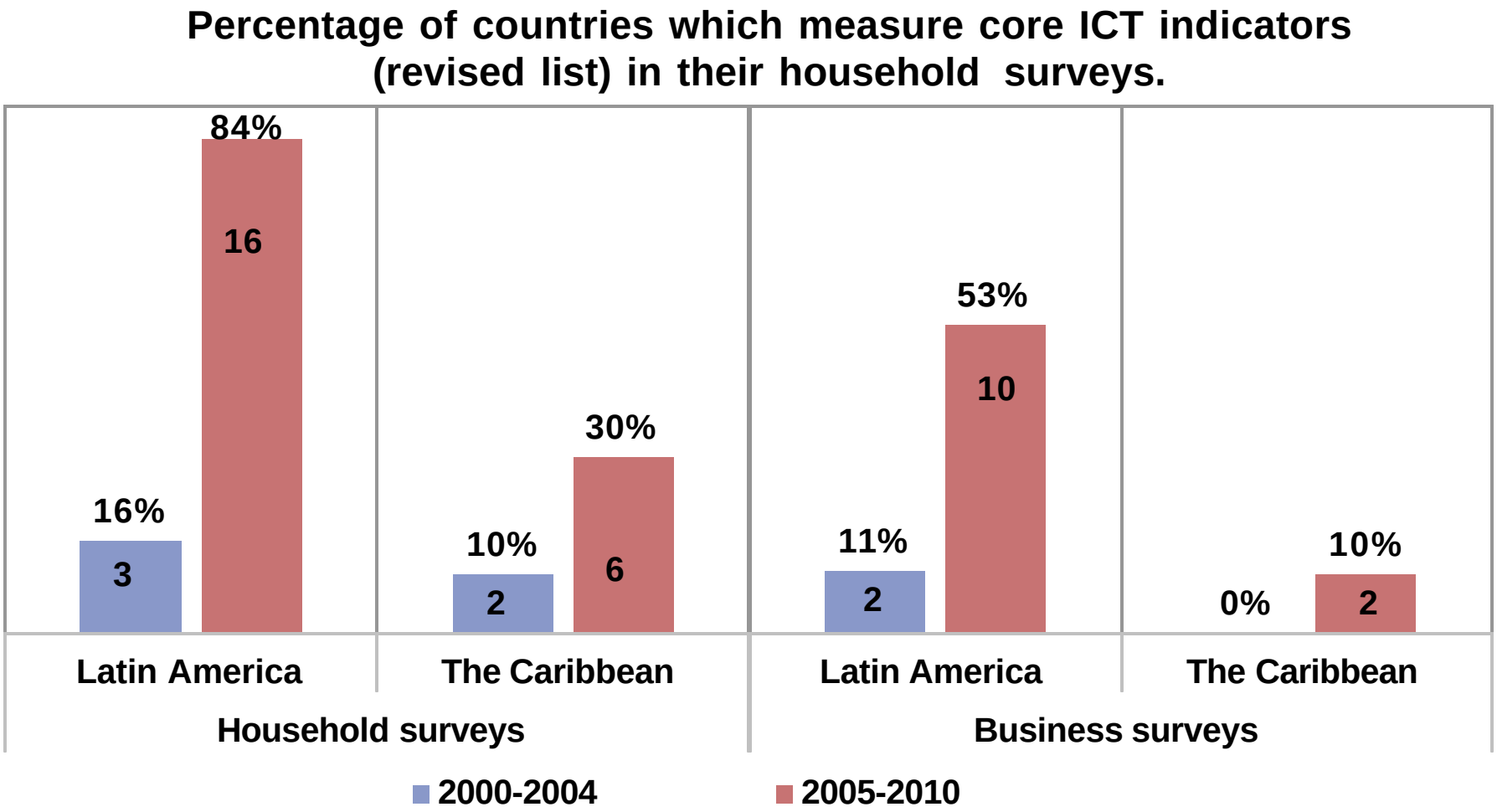
Working group on ICT measurement

- Awareness
- Capacity building
- statistics of use, availability and impact of ICT relevant for the region
- quantifiable goals and indicators eLAC 2015
- contribute to the discussion and dissemination of new indicators

- working together with OSILAC

III. Measuring the Information Society

Progress in core indicators availability



Source: OSILAC based on information reported by National Statistical Offices. At least one indicator on ICT access and one indicator on IC usage. 19 Latin American and 20 Caribbean countries considered.

OSILAC Activities

- **Annual Regional Workshops on Information Society Measurement in LAC – since 2004**
  - **Next in 21-23 September 2010 – Montevideo, UY**
- **Capacity Buildings and technical assistance – Colombia (2007) y Trinidad Tobago (2009)**
- **Compendium of Practices on the implementation of ICT questions in household and business surveys in LAC (2007 and 2010)**
- **Production and dissemination of analytical articles (microdata)**
- **OSILAC discussion list and work groups**
- **Caribbean Strategy – ICT Household Survey (Mobile and Broadband modules)**
- **Information System database development**

ICT Statistical Information System

Surveys | Form

Instructions:

90 surveys from 17 countries

"Select surveys you wish to use to calculate statistics. After that, press button **'Get Variables'** in order to view all variables of the selected survey or all **common variables** of the selected surveys.

Available Surveys

Country	Name of the survey	Year	Coverage	Recall period
Mexico	Encuesta Nacional sobre disponibilidad y uso de las TIC	2009	National	Full year
Ecuador	Encuesta de Empleo, Desempleo y Subempleo	2009	National	December
Colombia	Encuesta de Calidad de Vida	2008	National	Full year
Mexico	Encuesta Nacional sobre disponibilidad y uso de las TIC	2008	National	Full year
Brazil	Pesquisa Nacional por Amostra Domicilios	2008	National	Full year
Costa Rica	Encuesta de Hogares de Propósitos Múltiples	2008	National	July
Uruguay	Encuesta Continua de Hogares	2008	National	Second half-year
Paraguay	Encuesta Permanente de Hogares	2008	National	October - December
Ecuador	Encuesta de Empleo, Desempleo y Subempleo	2008	National	December
El Salvador	Encuesta de Hogares de Próposito Múltiples	2008	National	Full year
Peru	Encuesta Nacional de Hogares	2008	National	Full year
Costa Rica	Encuesta de Hogares de Propósitos Múltiples	2007	National	July
El Salvador	Encuesta de Hogares de Propósitos Múltiples	2007	National	Full year
Honduras	Encuesta Permanente de Hogares de Propósitos Múltiples	2007	National	September
Colombia	Gran Encuesta Integrada de Hogares	2007	Nacional	Full year

Clear | Get Variables

ICT Statistical Information System

Surveys | Form

Percentage ☐ Totals ☐ Format HTML ▾ Statistical Unit households ▾ Weighting of Data weighted results ▾

Common Variables

Description
Access to computer in the household
Access to DVD or VCR in the household
Access to electricity in the household
Access to fixed or mobile phone in the household
Access to Internet in the household
Access to mobile phone in the household
Access to radio in the household
Access to radio or stereo system in the household
Access to sewage system in the household
Access to stereo system in the household
Access to telephone line in the household
Access to television in the household
Activity condition
Age
Age in quinquenial groups
Age in three groups

Control variable

Rows

Columns

To combine queries for various countries at the same time

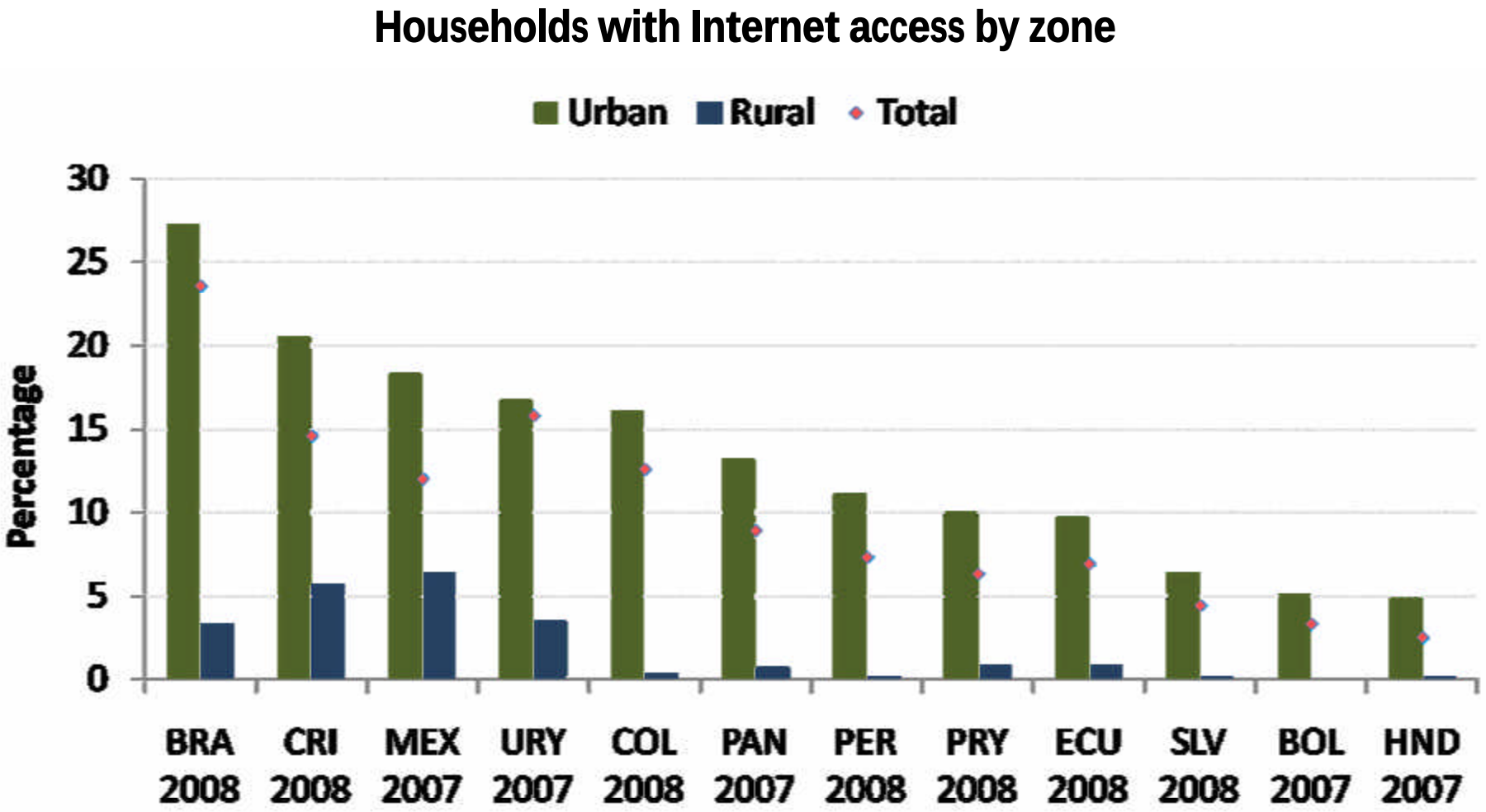
http://www.eclac.org/tic/flash/

Generate Report

CEPAL CELADE osilac IDRC CRDI ICA @LIS EUROPEAID

III. Digital divide in LAC

Supply gap: lack of coverage

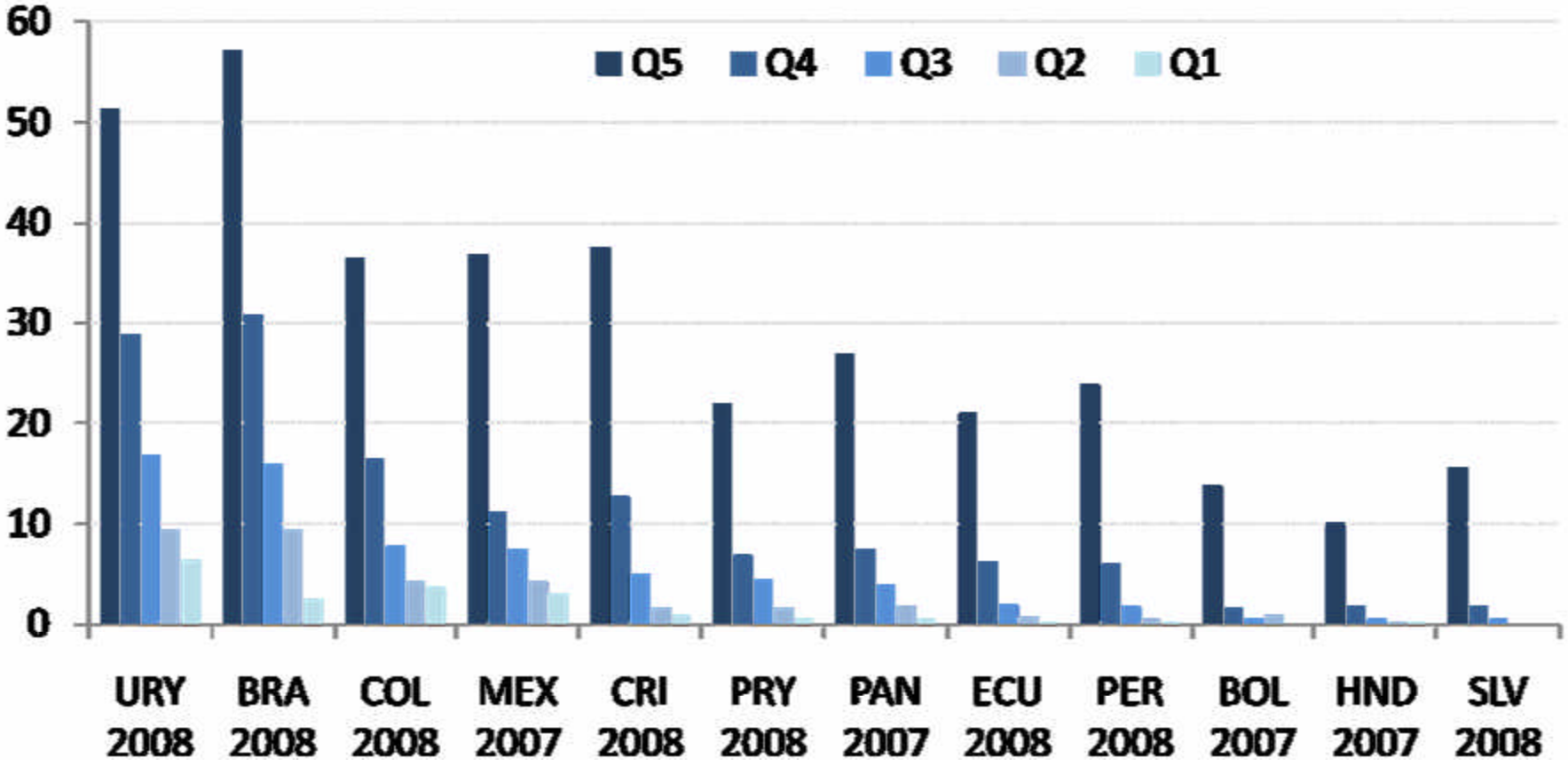


Source: author's elaboration based on the OSILAC - ICT Statistical Information System

The internal divide:

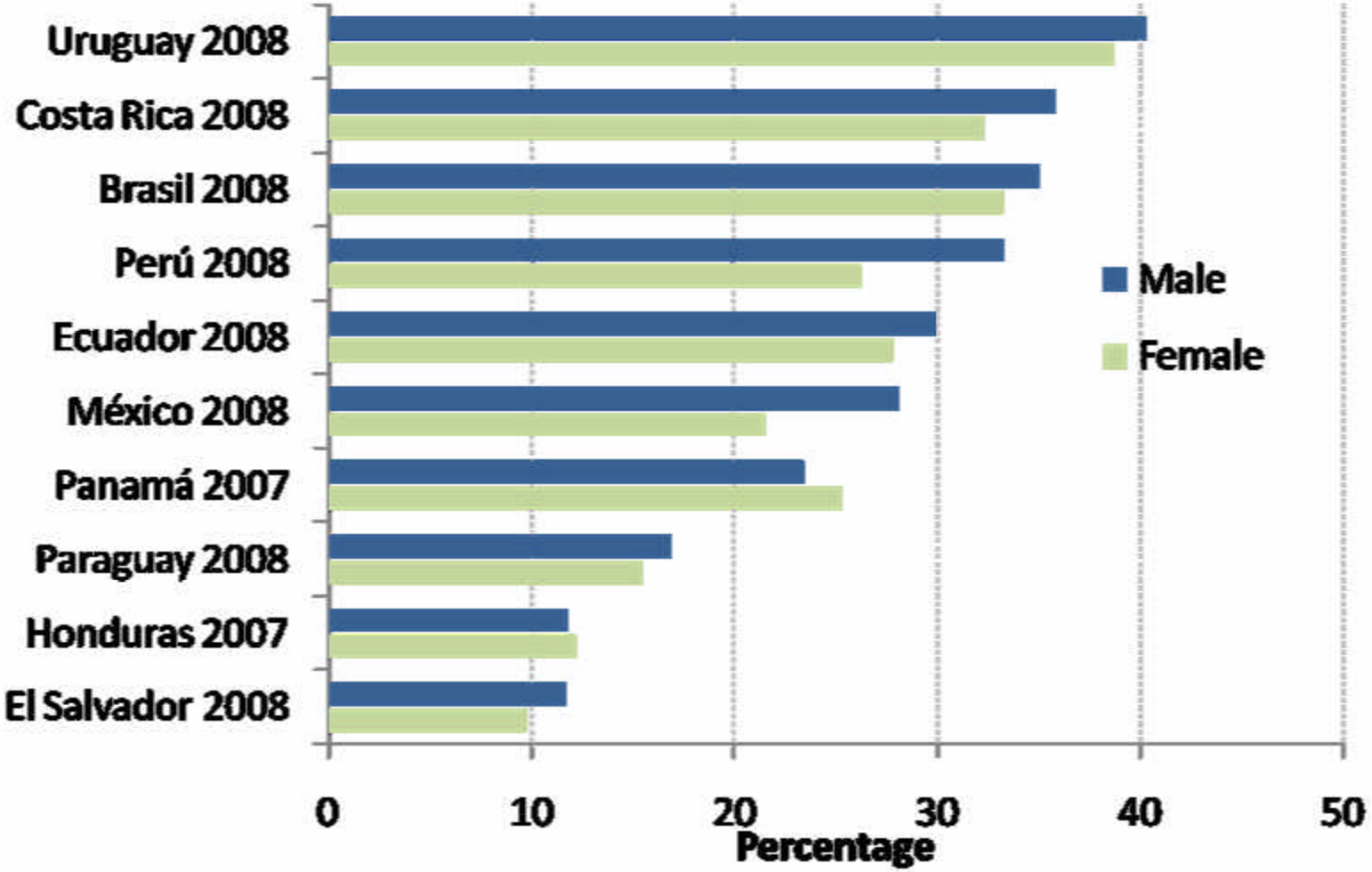
Internet access to richer households exceeds 44 times the access of the poorest segment

Households with Internet access by income



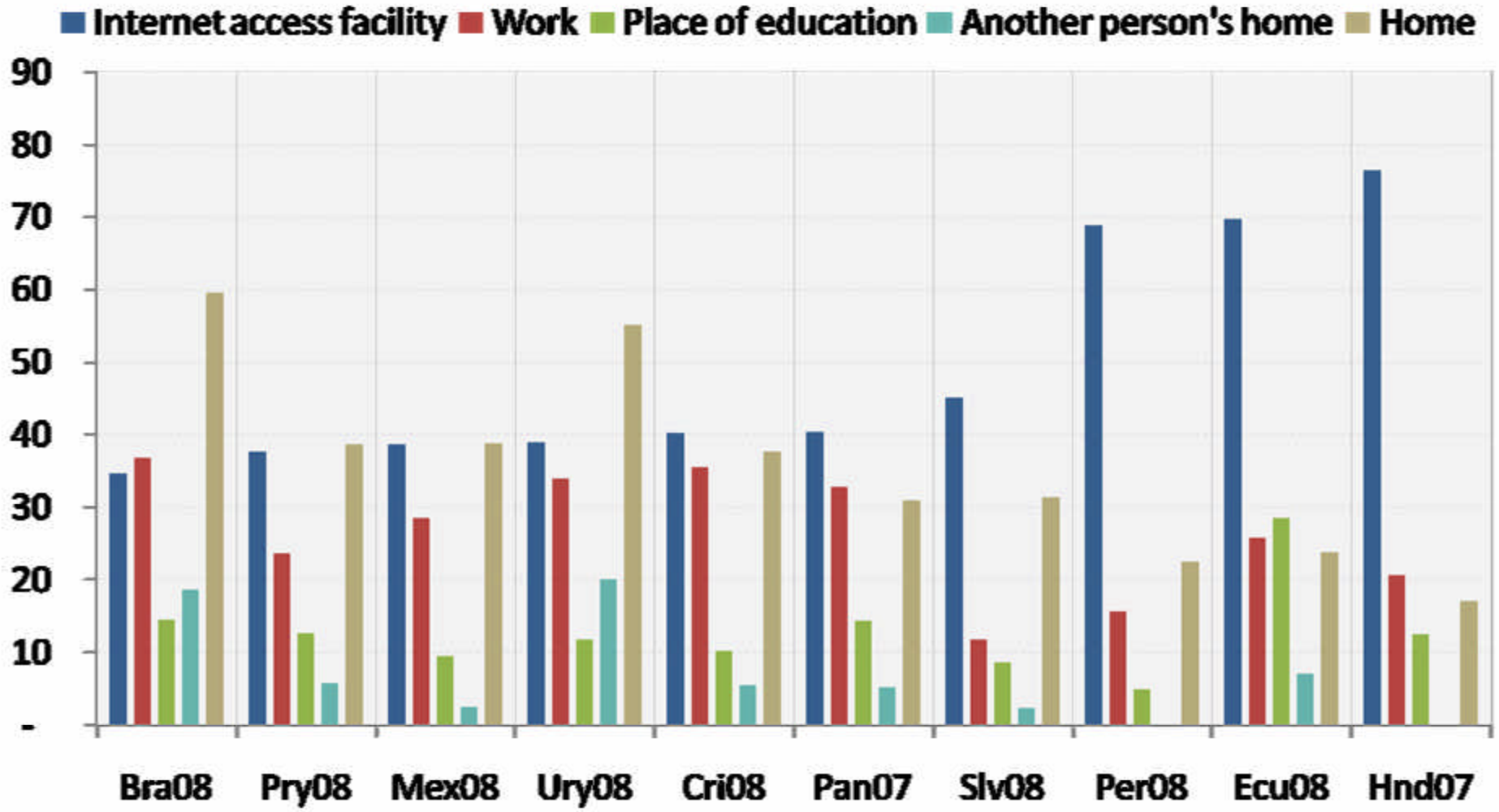
Source: author's elaboration based on the OSILAC - ICT Statistical Information System

Internet usage by gender



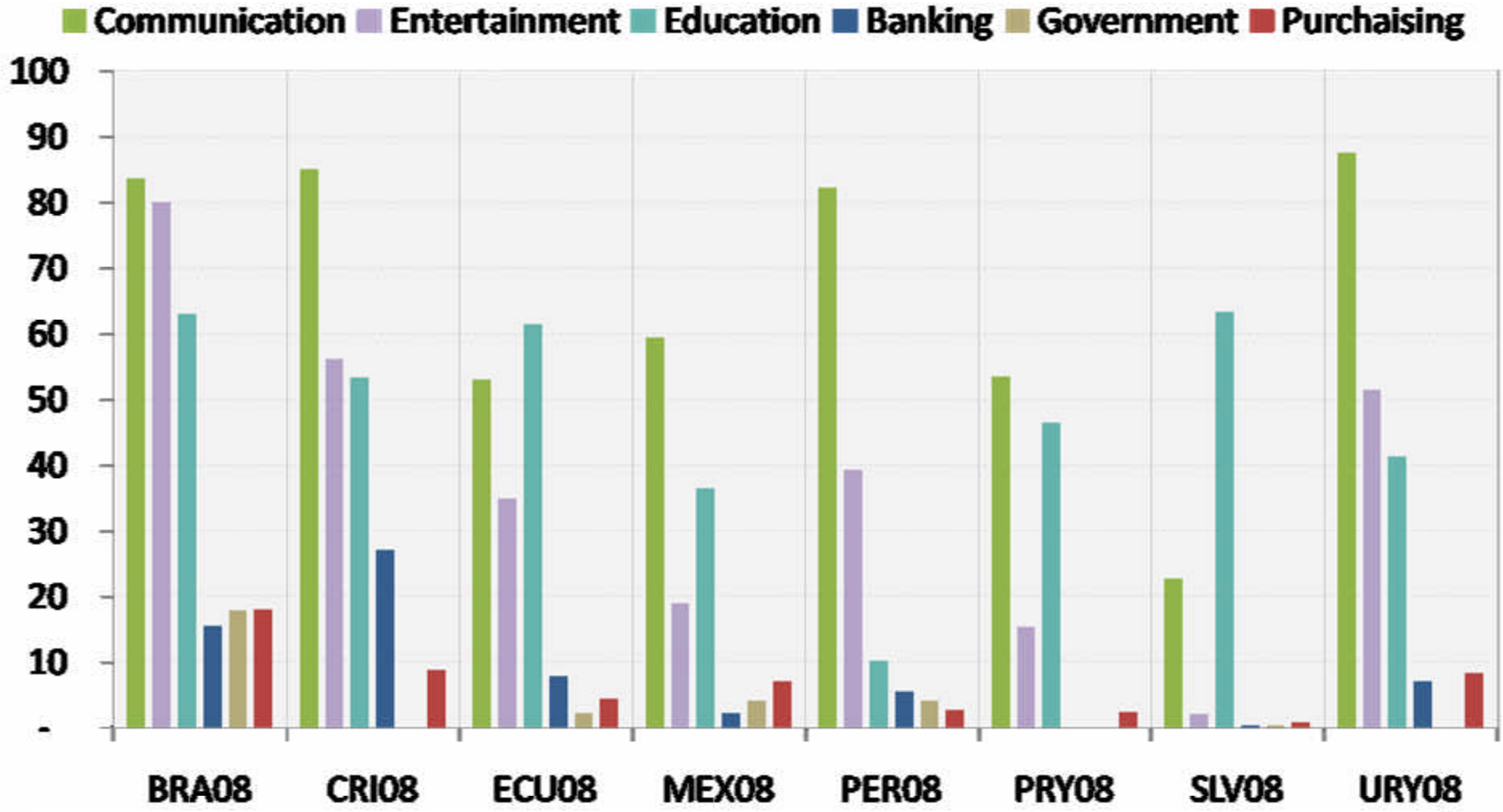
Source: author's elaboration based on the OSILAC - ICT Statistical Information System

Location of individual use of the Internet



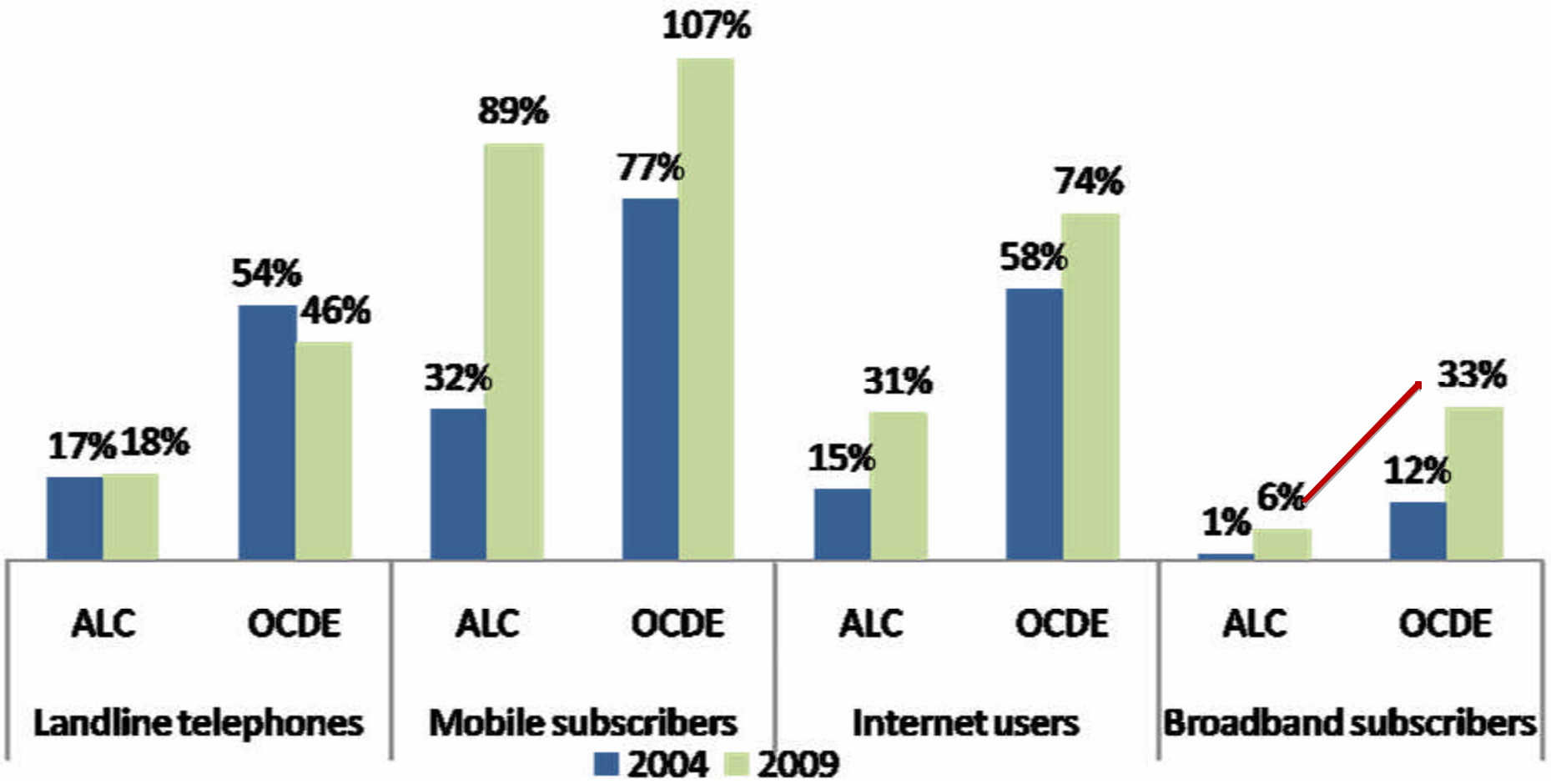
Source: author's elaboration based on the OSILAC - ICT Statistical Information System

Internet activities undertaken by individuals



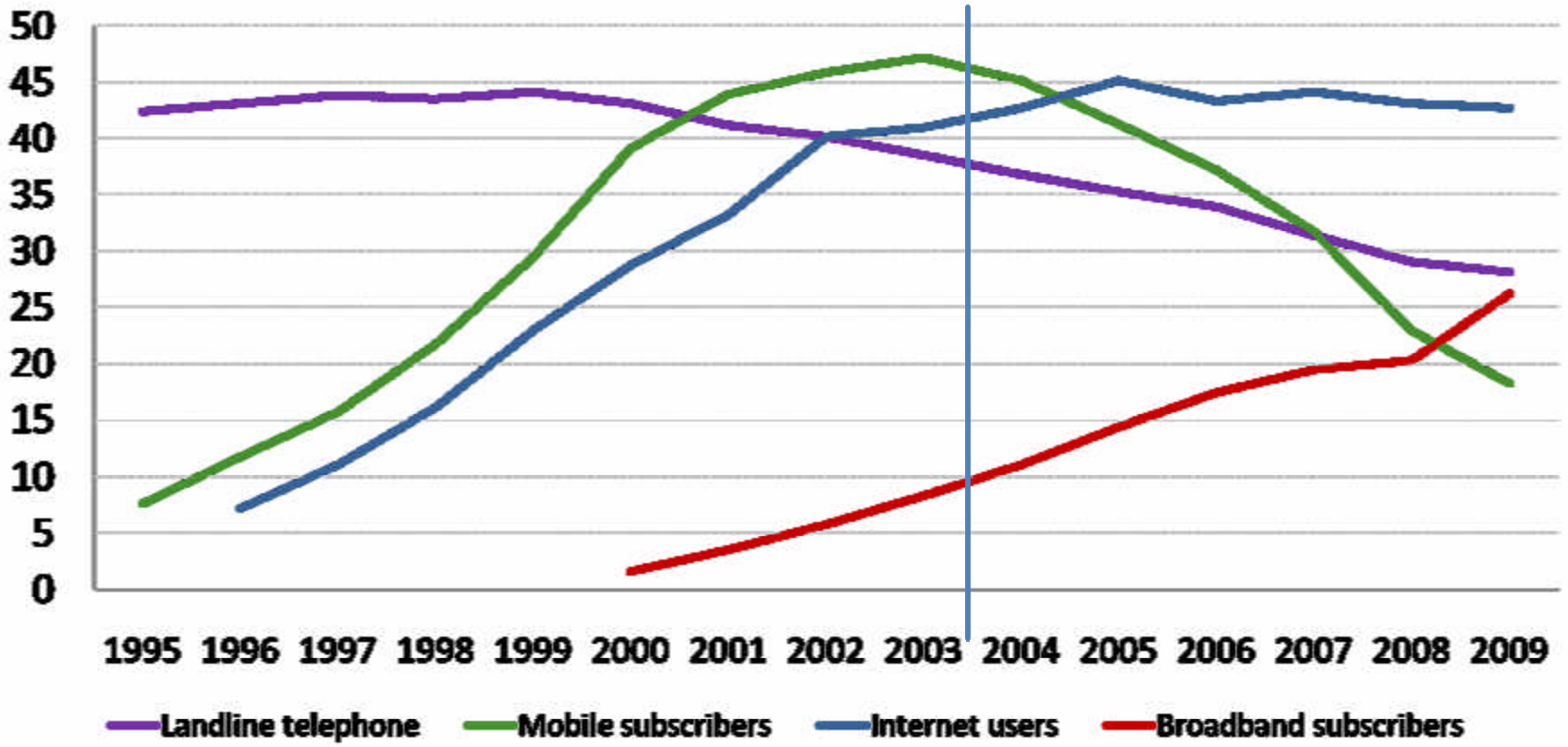
Source: author's elaboration based on the OSILAC - ICT Statistical Information System

From the telephony gap to the broadband internet access gap



Source: CEPAL based on the ITU data "World Telecomunications Indicators Database" (2010).

From the telephony gap to the broadband gap: towards a 2nd sector reform

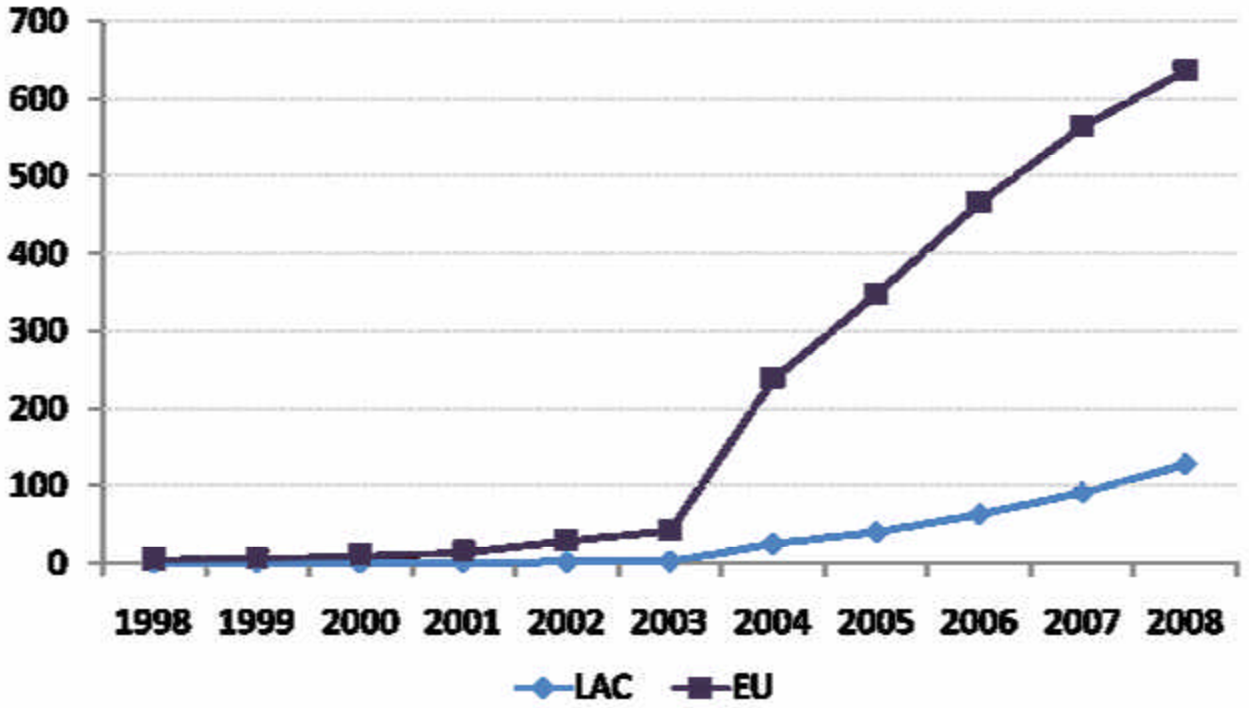


Source: CEPAL, based on ITU, "World Telecommunications Indicators Database", 2010.

2009: Broadband access in LAC is 6% vs. 33% in OCDE

The real divide: the transmission capacity

Total capacity broadband transmission in LAC countries and the EU *(cable modem y DSL)*



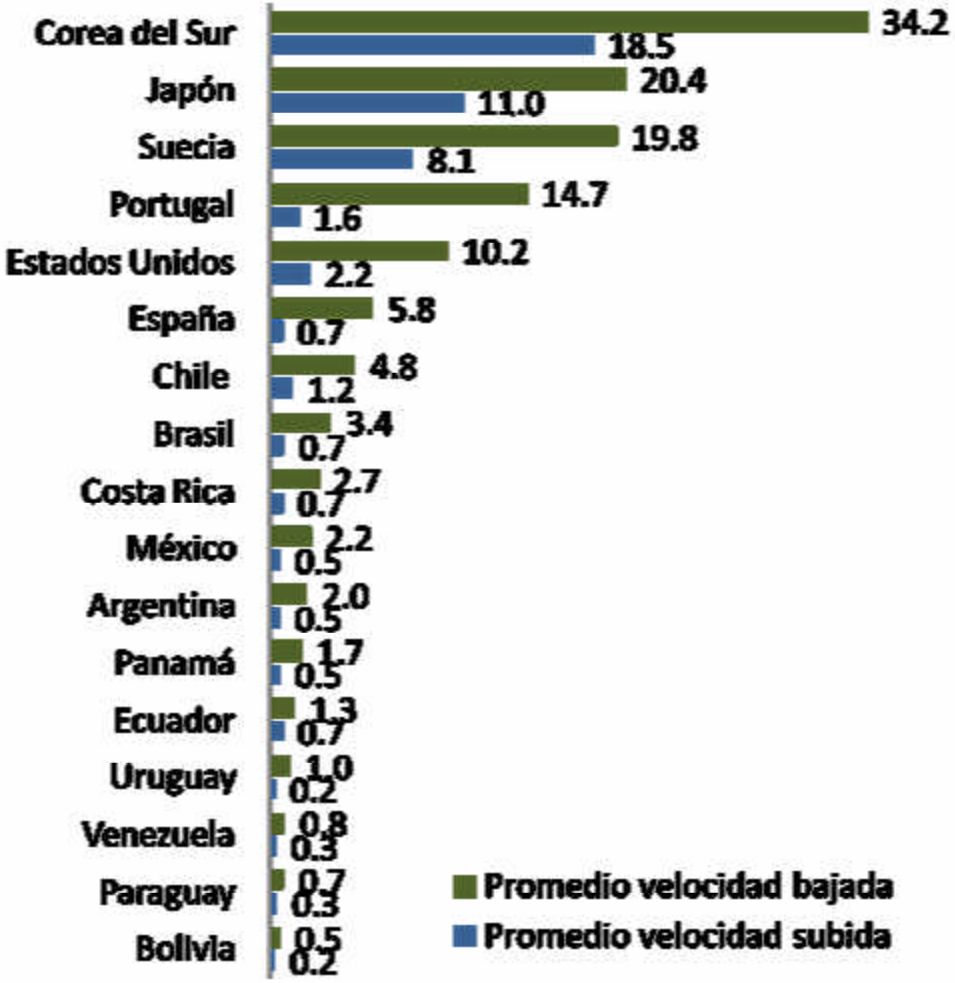
In 2008, an inhabitant of the EU had 497 Kbps more than an inhabitant of LAC.

Five years ago, the difference was only 27 Kbps

Source: CEPAL(2010), Banda ancha: una urgencia para América Latina y el Caribe, working document.

In LAC broadband is slower than developed countries

Speed connection: download speed and upload speed , 2010 (Mbps)

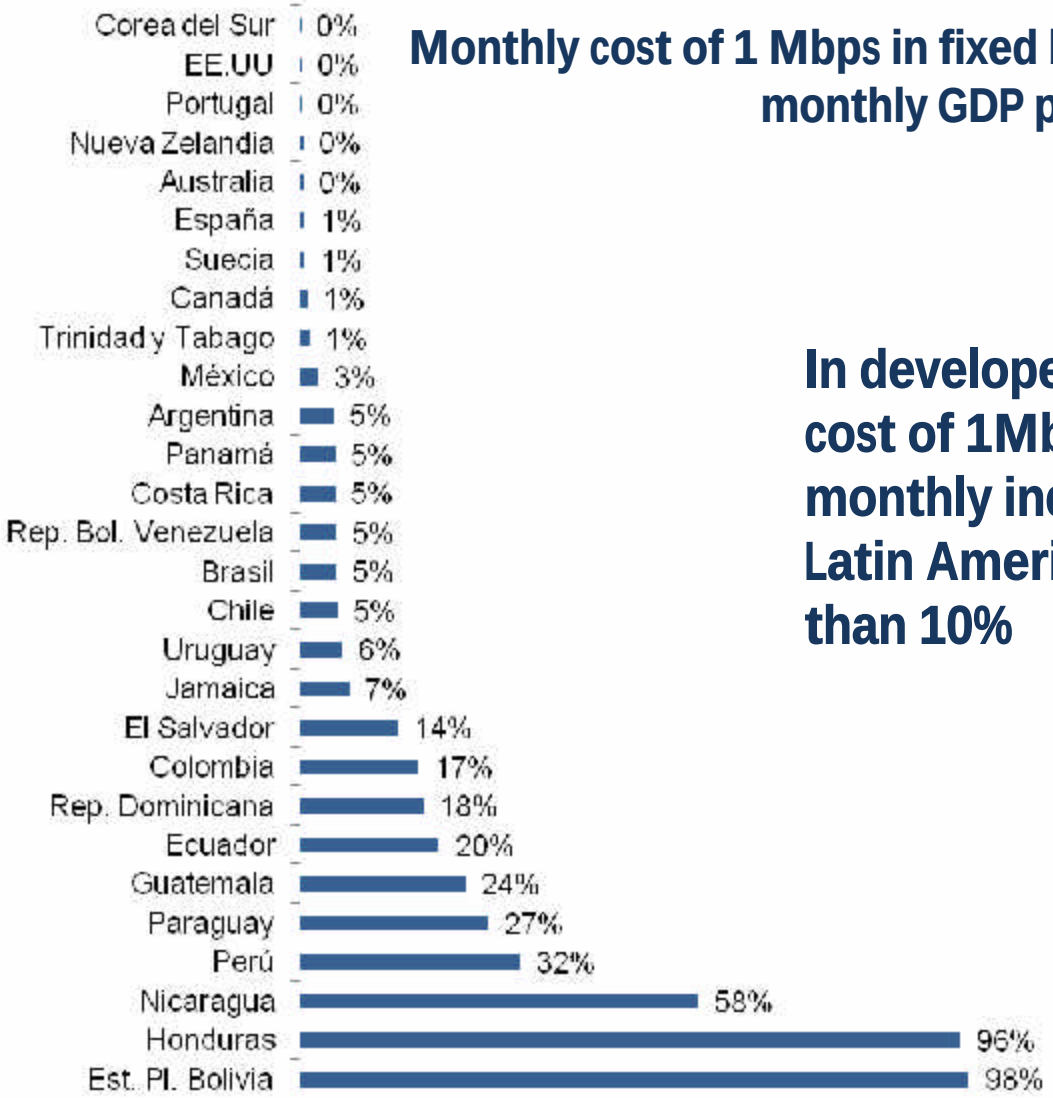


Download speed: in LAC the speeds ranges between 512 Kbps and 4 Mbps, in developed countries the speed exceeds 10 Mbps.

Upload speed: in LAC the speed ranges between 512 kbps. In OCDE countries the speed exceeds 5 Mbps

Source: www.netindex.com at Speedtest.net database

The gap in demand: affordability



Monthly cost of 1 Mbps in fixed broadband access in relation with monthly GDP per capita (2010)

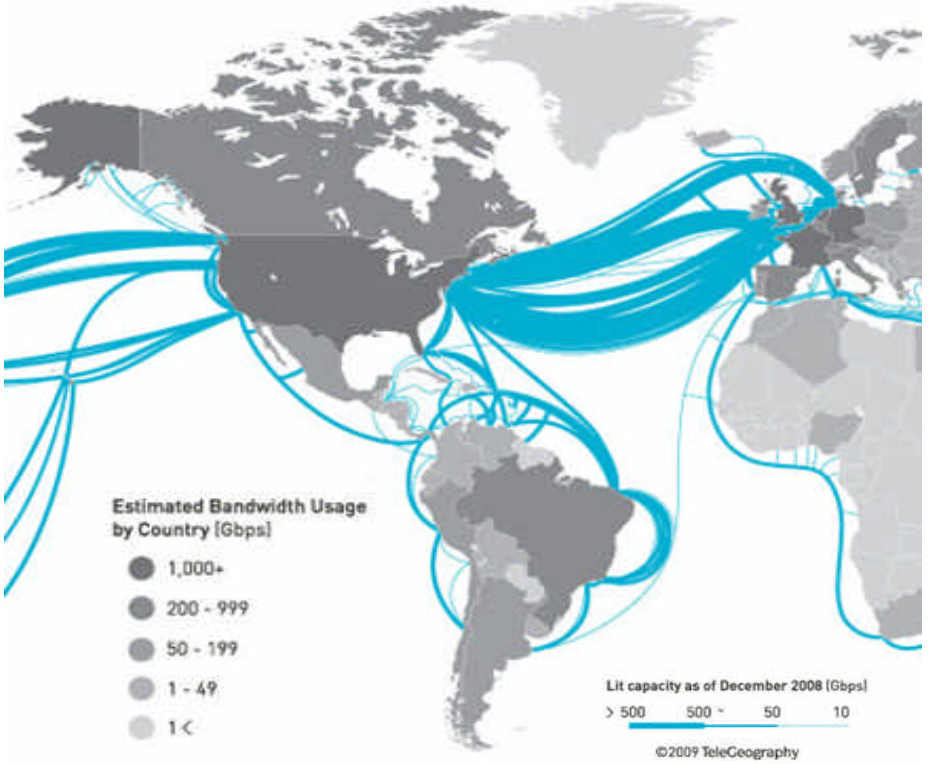
In developed countries a monthly cost of 1Mbps is less than 1% of a monthly income, while for many Latin American countries is more than 10%

Source: CEPAL, Omar de León (2010)

Cost of international connections

The region is connected to the world primarily through U.S.

- Increased connection delay to access local content
- Increased cost of services
- International connections equivalent to 35% and 40% of the access fee.
  - LAC: US$100 – US$200 /Mbps
  - OCDE: US$ 8 - US$ 10 /Mbps
- It is necessary to improve regional infrastructure
- IXPs at local and regional levels



Source: Telegeography, 2009.

IV. Conclusions and final reflections

Conclusions and final reflections

- **Social and economic factors are still determining Internet access in the LAC region, particularly the income, level of education and geographical location (mainly rural or urban)**
- **The gap increases as technology becomes more complex and costly for the user, such as broadband**
- **The gap on Internet use is more difficult to close, since it is directly linked to education, income and culture, among others**
- **Closing the access gap is a major challenge in public policies related to emerging new technologies**

Conclusions and final reflections

- **Further efforts to produce ICT-access-and-use indicators are therefore essential in order to assess current dynamics and determine the real digital divide and stage of ICT evolution in the countries of the region.**
- **Analysis of the impact of ICT on different sectors of society is crucial to elaborating accurate policies for the information society.**
- **This is especially important for identifying how ICT can accelerate the dissemination of knowledge, the social-economic development and promote innovation.**
- **In this way, tools such as the OSILAC Statistical Information System on ICT – which offers access to comparable regional data - are crucial to the development of public policies in the region.**

Way forward

- There has been great progress in the region, but much remains to be done, specially in the Caribbean region
- It is important to keep on discussing the importance of harmonized indicators for the development of public policies and national strategies
- It is necessary to elaborate new ICT indicators (impact, e-government, e-health, etc) that allow the monitoring of initiatives like the Plan of Action eLAC2015
- Resources are scarce and financing ICT surveys is not always possible
- Seeking synergies and coordination among and between institutions is the only efficient way to work towards achieving common goals

Thanks for your attention

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Economic Commission for Latin America and the Caribbean (ECLAC)
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