

**SURVEY ON THE USE OF INFORMATION AND  
COMMUNICATION TECHNOLOGIES IN**

**BRAZIL – 2005 & 2006**

**ENTERPRISES**

**November 22nd, 2006 – Panama  
City, CEPAL**

**Brazilian Internet Steering  
Committee**

*[www.nic.br/indicadores](http://www.nic.br/indicadores)*

Survey on the Use of ICT in Brazil ENTERPRISES – 2005 & 2006  
November 22nd, 2006 – Panama City, CEPAL

## ICT ENTERPRISES Survey

– Investigates the internet penetration and usage in companies, including:

- core indicators
- use of electronic government,
- electronic commerce,
- security,
- e-skills

→ ANUAL (started in 2005)

→ NACIONAL

→ Ipsos Opinion Institute

→ carried through August and September 2005 and 2006

## Methodology

- **based on OECD and Eurostat questionnaires and methodology 2006 & 2007**
- **by telephone (around 25 minutes, usually more than 1 contact)**
- **respondent: ICT responsible**
- **reference period: 12 months or the fiscal year**
- **socio-economic variables:**
  - **region: N, S, MW, NE, SE**
  - **activity: 7 segments of the National Economic Activities Classification (NACE)**
    - section D, F, G, K, I, group 55.1 and 55.2, and group 92.1 and 92.2
    - **Added section J - Financial Sector in 2006**
  - **size (10–19, 20–49, 50–99, 100–249, 250–499, 500–999, more than 1000)**

## Sample design

- **Quotes based on the RAIS (Relação Anual de Informações Sociais), from Labor Ministry**
- **companies with 10 employees or more interviewed**
  - 2,030 – 2005
  - 2,700 – 2006
- **maximum margin of error of 1.5% nationally and 5% regionally**
- **confidence level of 95%**

*Total enterprises contacted in 2006: 41.475  
7.421 refused, 31.354 did not meet the quote*

## Questionnaire Design

ICT Enterprises	2006	2005	Updates
<b>A – ICT Usage</b>	<b>16</b>	<b>10</b>	<ul style="list-style-type: none"> <li>• core indicators, barriers and benefits</li> <li>+ ERP, CRM, Linux adoption</li> <li>+ sent and received electronic bills</li> </ul>
<b>B – Internet Usage</b>	<b>11</b>	<b>10</b>	<ul style="list-style-type: none"> <li>• changes in the internet connection question (added a broadband module)</li> <li>+ restriction use for employees</li> </ul>
<b>C – E-commerce</b>	<b>12</b>	<b>14</b>	<ul style="list-style-type: none"> <li>• values (turnover and purchase) only in percentage in 2006</li> </ul>
(e-commerce via external computer networks)		<b>5</b>	<ul style="list-style-type: none"> <li>• eliminated in 2006 (too much detail)</li> </ul>
<b>D – E-government</b>	<b>2</b>	<b>2</b>	<ul style="list-style-type: none"> <li>• usage and replacement of personal visits</li> </ul>
<b>E – E-security</b>	<b>5</b>	<b>5</b>	
<b>F – E-skills</b>	<b>9</b>	<b>2</b>	<ul style="list-style-type: none"> <li>- Added 7 questions on abilities and training (ICT specialists and general employees)</li> </ul>
<b>Total Questions</b>	<b>55</b>	<b>46</b>	

## Questionnaire Design

### • B – Internet Usage

#### ➤ Added a **BROADBAND MODULE**

#### Principal changes

	2005	2006
Internet connection	<ul style="list-style-type: none"> <li>• Traditional modem (dial-up access)</li> <li>• ISDN connection</li> <li>• xDSL connection</li> <li>• Other fixed connection (cable, leased lines, Frame Relay, etc)</li> <li>• Broadband mobile connection (UMTS, EDGE, CDMA2000)</li> <li>• Narrow mobile connection (analogue mobile phone, GSM, GPRS)</li> </ul>	<ul style="list-style-type: none"> <li>• Traditional modem (dial-up access)</li> <li>• Broadband fixed               <ul style="list-style-type: none"> <li>- xDSL connection</li> <li>- cable modem,</li> <li>- other fixed connection (ISDN, leased lines, etc)</li> </ul> </li> <li>• Broadband mobile               <ul style="list-style-type: none"> <li>- satellite connection</li> <li>- radio connection</li> <li>- celular connection</li> </ul> </li> <li>• Other mobile (wireless padrão 802.11)</li> </ul>
Speed for downloading	<ul style="list-style-type: none"> <li>• 144Kbps, 144Kbps-2M, 2M or</li> </ul>	<ul style="list-style-type: none"> <li>• 128 kbps, 128-300 kbps, 300-600 kbps, 600 kbps-1 M, 1M-2M, 2M-4M, 4M-8M, 8M and +</li> </ul>
		<ul style="list-style-type: none"> <li>• added questions satisfaction, provider and disponibility</li> </ul>

## Costs

ICT ENTERPRISES				
	2.005		2.006	
Sample	2.030		2.700	
Total Cost	R\$ 120.000,00	\$54.545,45	R\$ 200.000,00	\$90.909,09
Cost by questionnaire	R\$ 59,11	\$26,87	R\$ 74,07	\$33,67

- **ICT ENTERPRISES 2005**

- ➔ **November 2005 - [www.nic.br/indicadores](http://www.nic.br/indicadores)**
  - ➔ **Publication – June 2006**

- **ICT ENTERPRISES 2006**

- **1st Quarter 2007**



# CORE INDICATORS

[www.nic.br/indicadores](http://www.nic.br/indicadores)

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## Core ICT Indicators

<b>Basic core</b>	<b>Percentage (%)</b>
<b>B-1 Proportion of businesses using computers</b>	<b>98,76</b>
<b>B-2 Proportion of employees using computers</b>	<b>57,05</b>
<b>B-3 Proportion of businesses using the Internet</b>	<b>96,29</b>
<b>B-4 Proportion of employees using the Internet</b>	<b>38,19</b>
<b>B-5 Proportion of businesses with a website</b>	<b>59,06</b>
<b>B-6 Proportion of businesses with an intranet</b>	<b>39</b>
<b>B-7 Proportion of businesses receiving orders over the Internet</b>	<b>59,66</b>
<b>B-8 Proportion of businesses placing orders over the Internet</b>	<b>54,59</b>

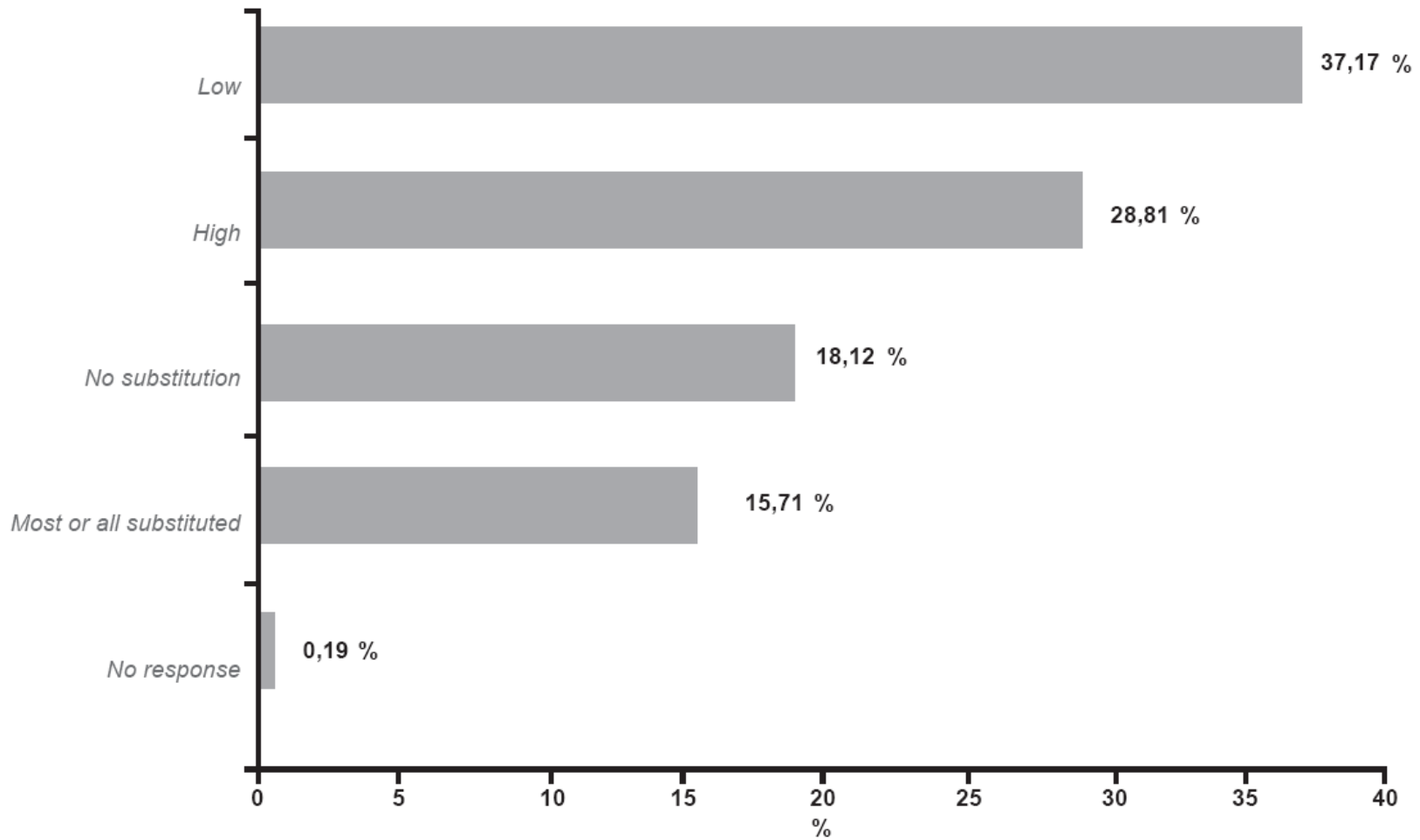
## Core ICT Indicators

<b>Extended core</b>	<b>Percentage (%)</b>
<b>B-9 Proportion of businesses accessing the Internet by modes of access</b>	
• Traditional Modem	45,07
• ISDN Connection	10,95
• DSL Connection (ADSL, etc.)	57,95
• Other fixed Internet connection (cable, rented line, etc.)	20,46
• Mobile wide band connection	23,95
• Mobile narrow band connection	5,72
<b>B-10 Proportion of businesses with a Local Area Network (LAN)</b>	
• LAN/Wireless Network	14,21
• LAN/Wire base Network	80,46

## Core ICT Indicators

<b>Extended core</b>	<b>Percentage (%)</b>
<b>B-11 Proportion of businesses with an extranet</b>	<b>22,16</b>
<b>B-12 Proportion of businesses using the Internet by type of activity</b>	
• Internet e-mail	<b>XXX</b>
• Getting information	
o About goods or services	<b>XXX</b>
o From government organisations/public authorities via websites or e-mail	<b>61,39</b>
o Other information searches or research activities	<b>XXX</b>
• Performing Internet banking or accessing other financial services	<b>78,96</b>
• Dealing with government organisations/public authorities	<b>64,78</b>
• Providing customer services	<b>47,59</b>
• Delivering products online	<b>58,88</b>

*Substitution level of traditional postal mail by eletronic communication  
Percentage over the total of interviewed enterprises using computers*



## Final considerations

keep it simple

More information available at:

[www.nic.br/indicadores](http://www.nic.br/indicadores)

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Obrigado!