



Connect Puerto Rico 2014 Business Technology Overview



Survey Overview

Survey Overview:

- Connect Puerto Rico conducted a phone survey of 846 Puerto Rico business establishments between December 9, 2013, and February 13, 2014. This sample includes 88 businesses with 50+ employees, 156 businesses with 20-49 employees, 266 businesses with 5-19 employees, and 336 businesses with 1-4 employees. This sample provides a margin of error of $\pm 4.53\%$ at the 95% confidence level for the total sample group.
- In addition to being representative of businesses across the Island, the sample was representative of the number of establishments across the Island by Metropolitan Statistical Area, with urban, suburban, and rural municipios appropriately represented by the sample.
- This survey was designed to measure technology adoption and the use of broadband service among Puerto Rico businesses, and show trends in these metrics.
- This report compares findings from this survey to similar business surveys conducted in April and May, 2013, by Connected Nation in select states. These surveys included 4,800 interviews across Iowa, Michigan, Minnesota, South Carolina, Tennessee, and Texas.

Key Findings

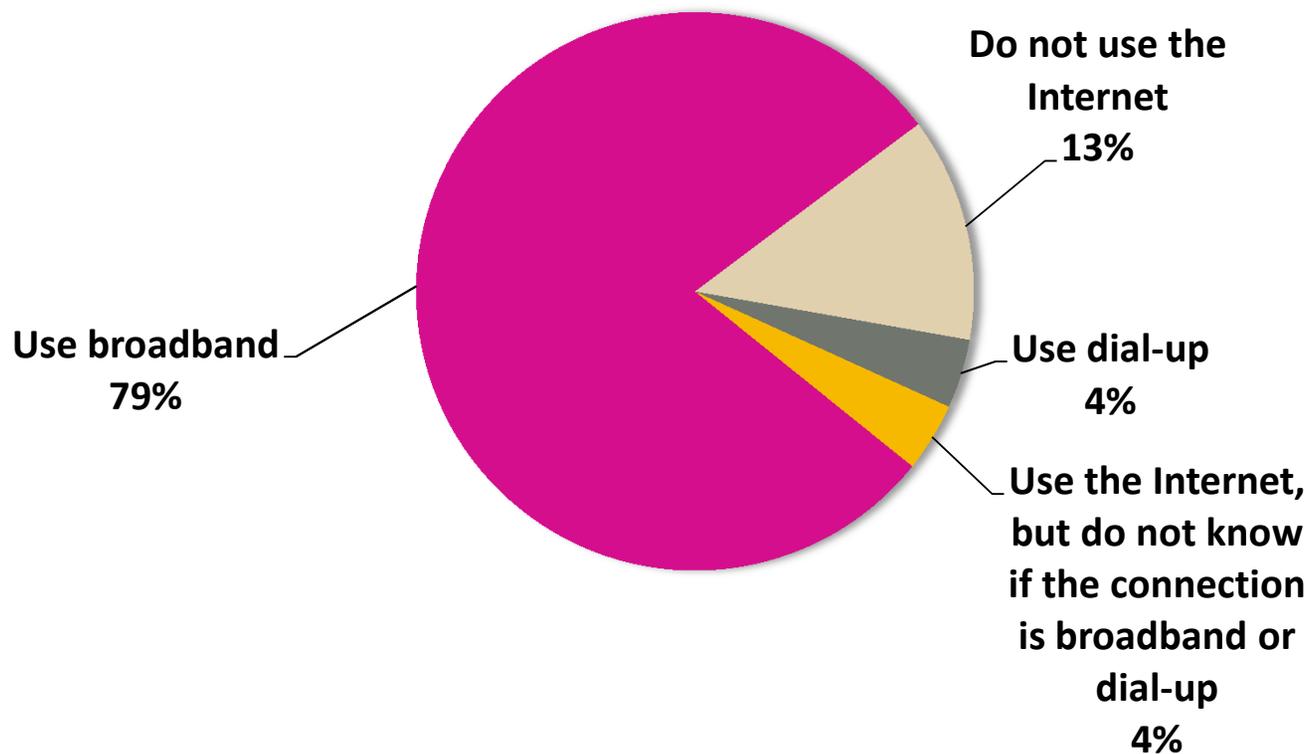


Technology Adoption Trends

- 79%** of businesses in Puerto Rico use broadband service for their business functions, up from **74%** in 2010.
- 42%** of businesses in Puerto Rico use mobile Internet service, compared to **38%** of businesses in US states surveyed by Connected Nation.
- 44%** of businesses in Puerto Rico have websites, up from **40%** in 2010.
- 87%** of businesses in Puerto Rico use computers, comparable to the **88%** that used computers in 2010.
- 22%** of businesses in Puerto Rico allow employees to telework, up from **13%** in 2010.

Technology Adoption Among Puerto Rico Businesses

Percent of all Puerto Rico businesses



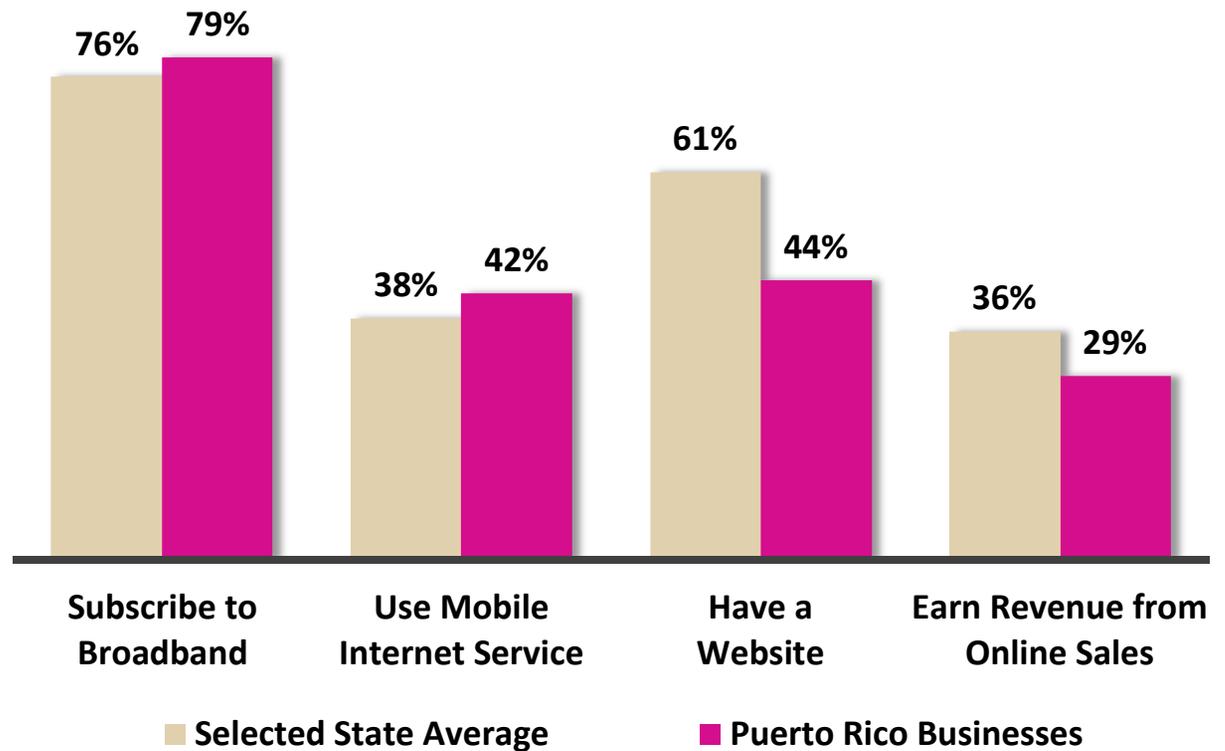
Source: 2014 Connect Puerto Rico
Business Technology Assessment
www.connectpr.org

Comparisons to US States

Percent of all businesses

Broadband adoption and mobile Internet usage among Puerto Rico businesses is on par or exceeds that of US states surveyed by Connected Nation.

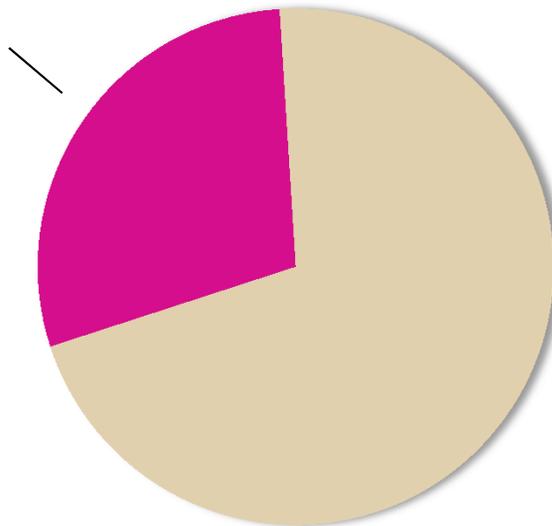
Puerto Rican businesses are less likely to have websites or earn revenue from online sales, though.



Selected State Average Source: 2013 Connected Nation Business Technology Assessments
 Puerto Rico Source: 2014 Connect Puerto Rico Business Technology Assessment
www.connectpr.org

Online Sales Mean Billions in Revenue for Puerto Rico Businesses

29% of businesses in
Puerto Rico earn
revenue from online
sales to consumers
and businesses



Online sales represent
approximately
\$4.5 Billion
in annual revenues for
businesses in Puerto
Rico.

Online Transactions Among Businesses in Puerto Rico

In 2013, businesses in Puerto Rico placed nearly 3.4 million online orders to businesses worldwide.

41% of businesses in Puerto Rico use the Internet to order goods or services from businesses in the United States



34% of businesses in Puerto Rico use the Internet to order goods or services from other businesses on the Island



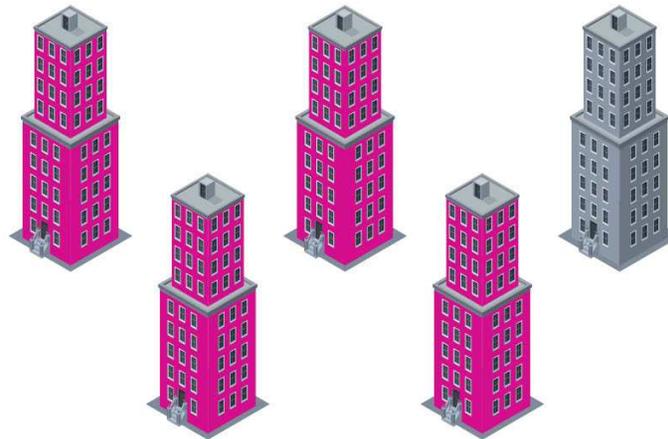
15% of businesses in Puerto Rico use the Internet to order goods or services from businesses outside of the US and Puerto Rico



That represents more than \$870,000,000 worth of online orders in 2013, including approximately \$283,000,000 that went to other businesses in Puerto Rico.

Not all Puerto Rico Businesses are Connected

More than **one in five** businesses
in Puerto Rico (21%) still do not use
broadband



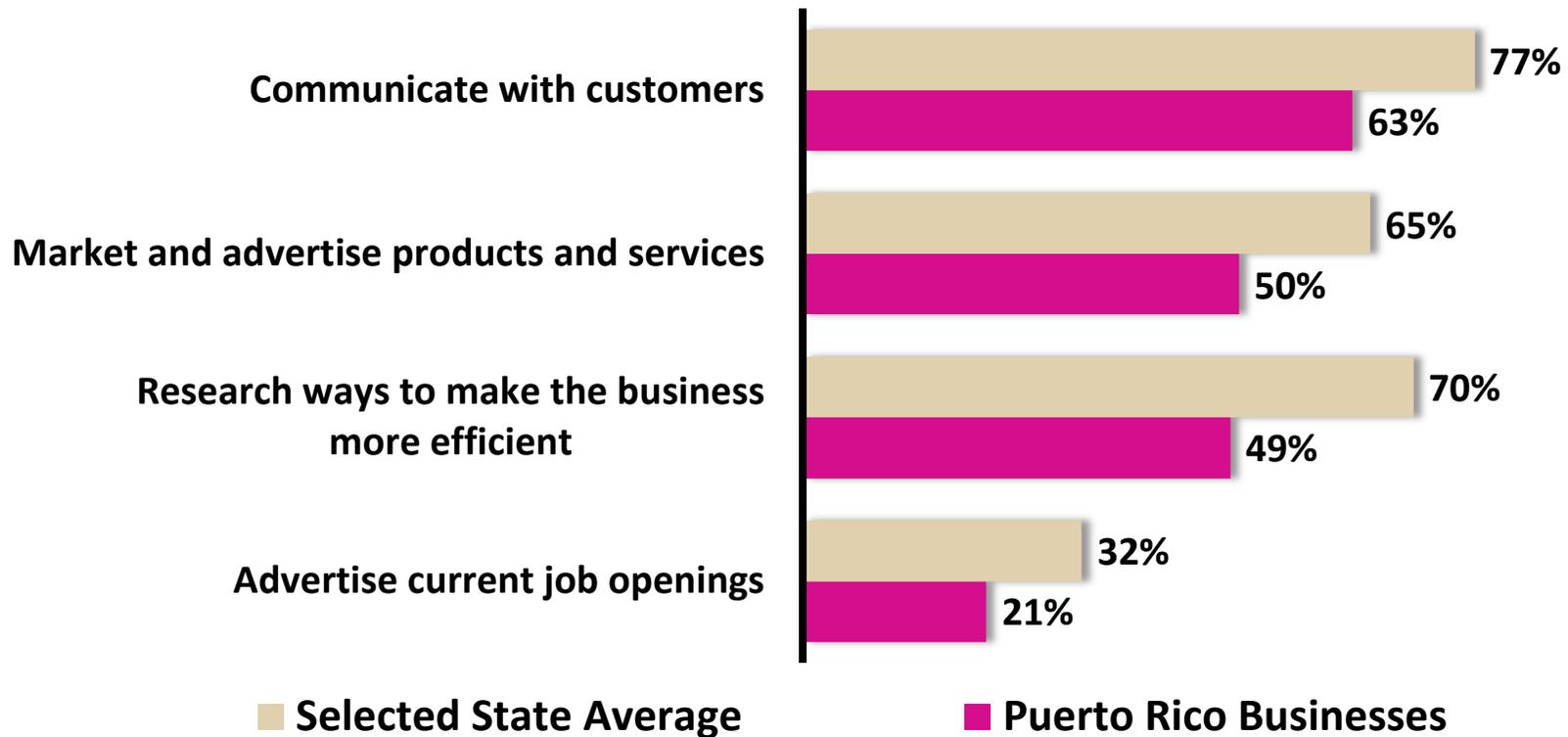
That represents approximately **9,000**
businesses without broadband Island-
wide

Source: 2014 Connect Puerto Rico
Business Technology Assessment
www.connectpr.org



Many Puerto Rico Businesses are not Fully Leveraging their Connectivity

Internet-connected businesses that conduct the following activities online



Selected State Average Source: 2013 Connected Nation Business Technology Assessments
Puerto Rico Source: 2014 Connect Puerto Rico Business Technology Assessment
www.connectpr.org

Broadband Adoption Among Puerto Rico Businesses



Broadband Adoption Among Puerto Rico Businesses

Percent of all Puerto Rico businesses that subscribe to broadband service

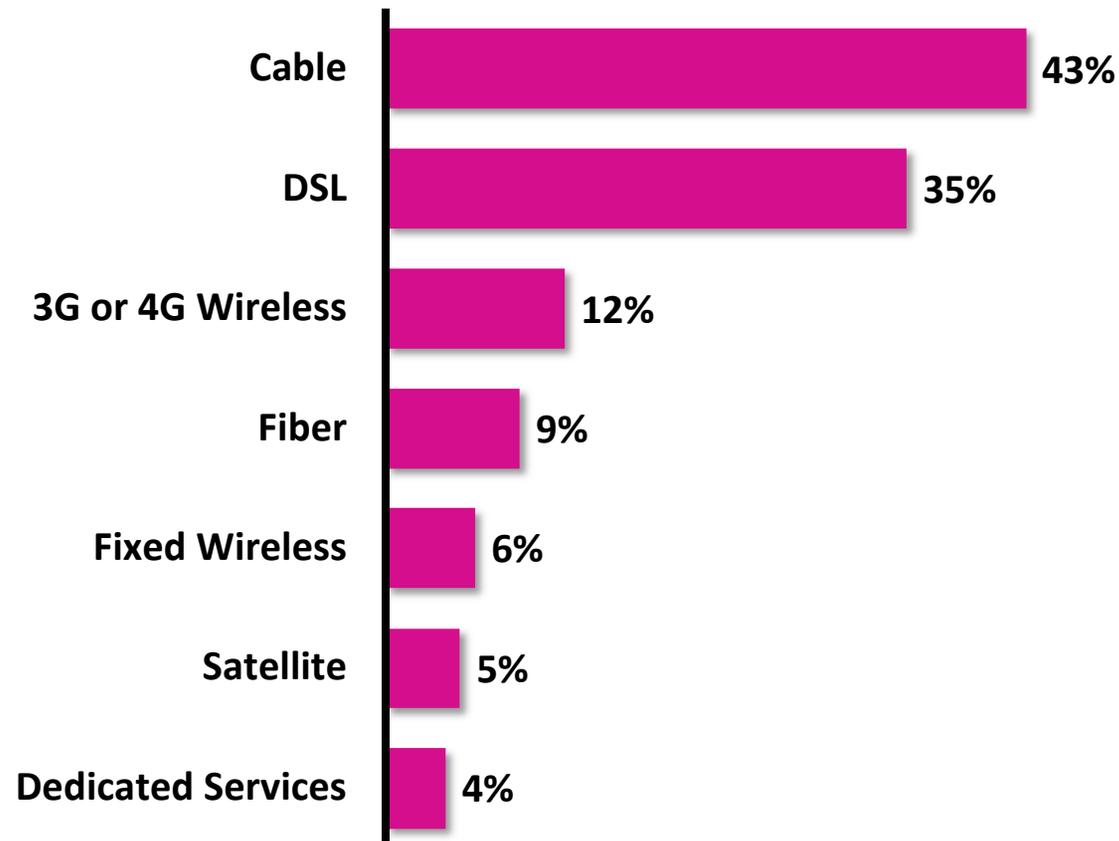


**Island-wide, 79% of all Puerto Rico businesses subscribe to broadband service.
This translates into approximately 35,000 Puerto Rico businesses that use broadband.**

Source: 2014 Connect Puerto Rico
Business Technology Assessment
www.connectpr.org

Types of Broadband Service

Among Puerto Rico businesses that subscribe to broadband*

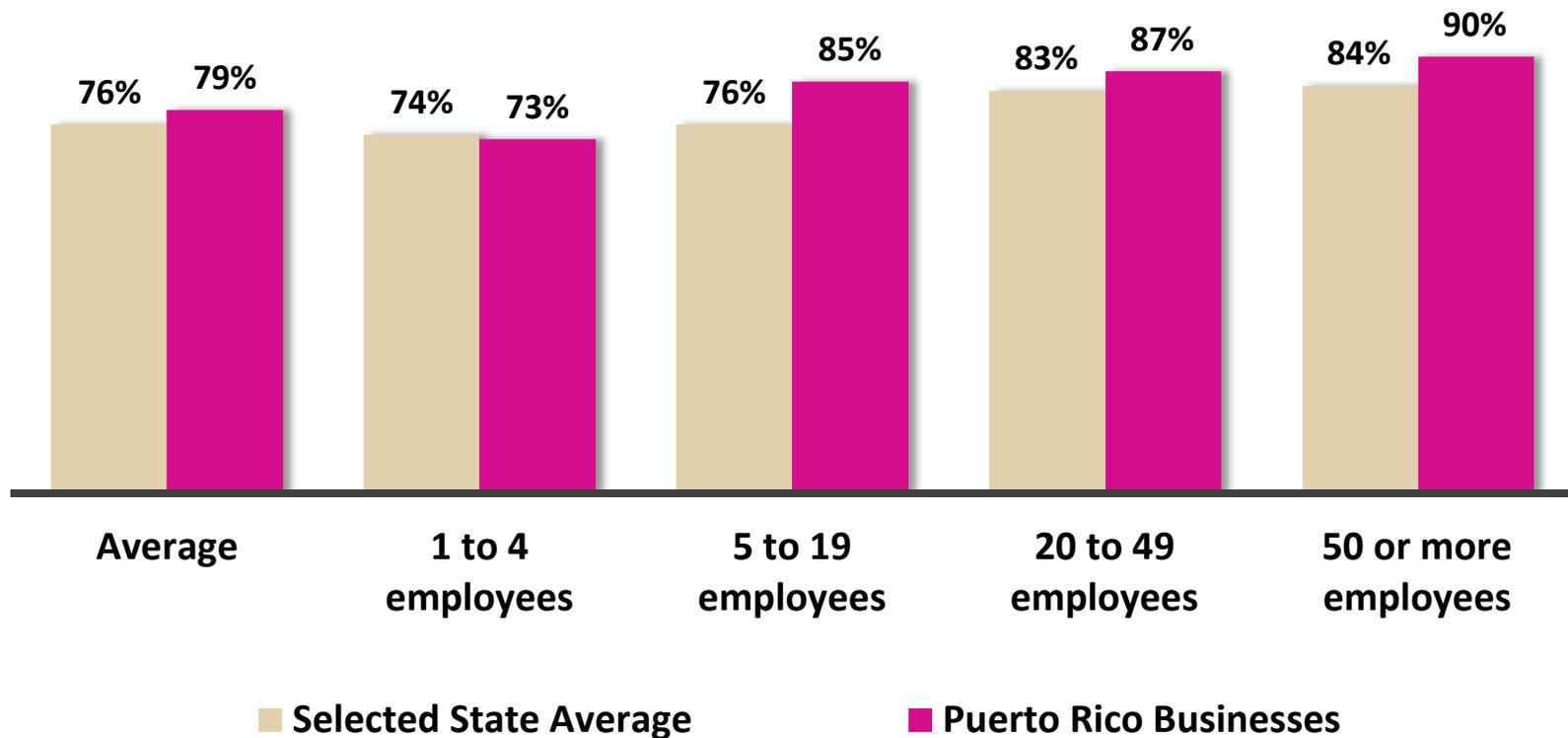


Source: 2014 Connect Puerto Rico
Business Technology Assessment
www.connectpr.org

*Percentages do not add up to 100% because participants could give multiple responses

Broadband Adoption by Business Size

Percent of all businesses that subscribe to broadband service

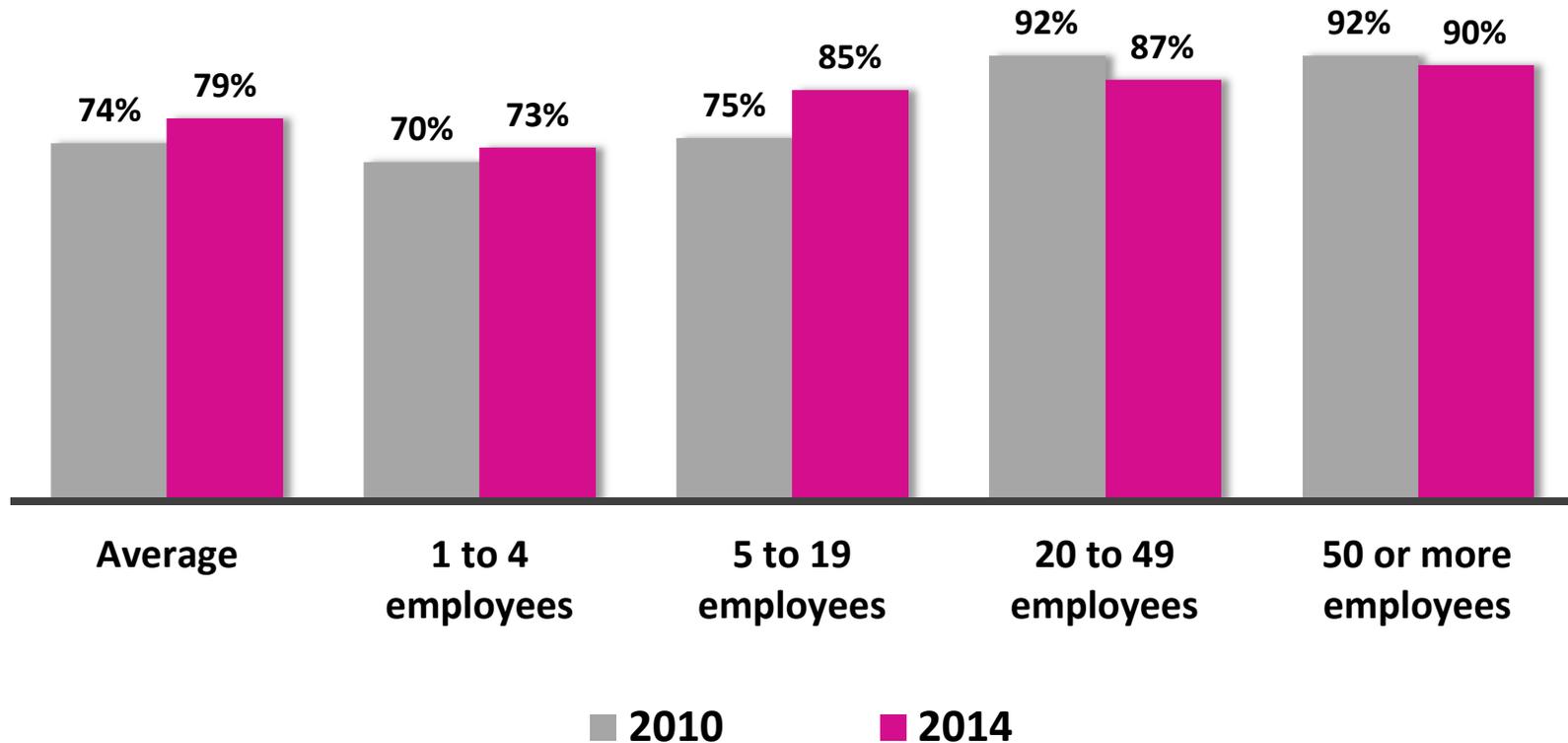


Selected State Average Source: 2013 Connected Nation Business Technology Assessments
 Puerto Rico Source: 2014 Connect Puerto Rico Business Technology Assessment
www.connectpr.org



Trends in Broadband Adoption by Business Size

Percent of Puerto Rico businesses that subscribe to broadband service

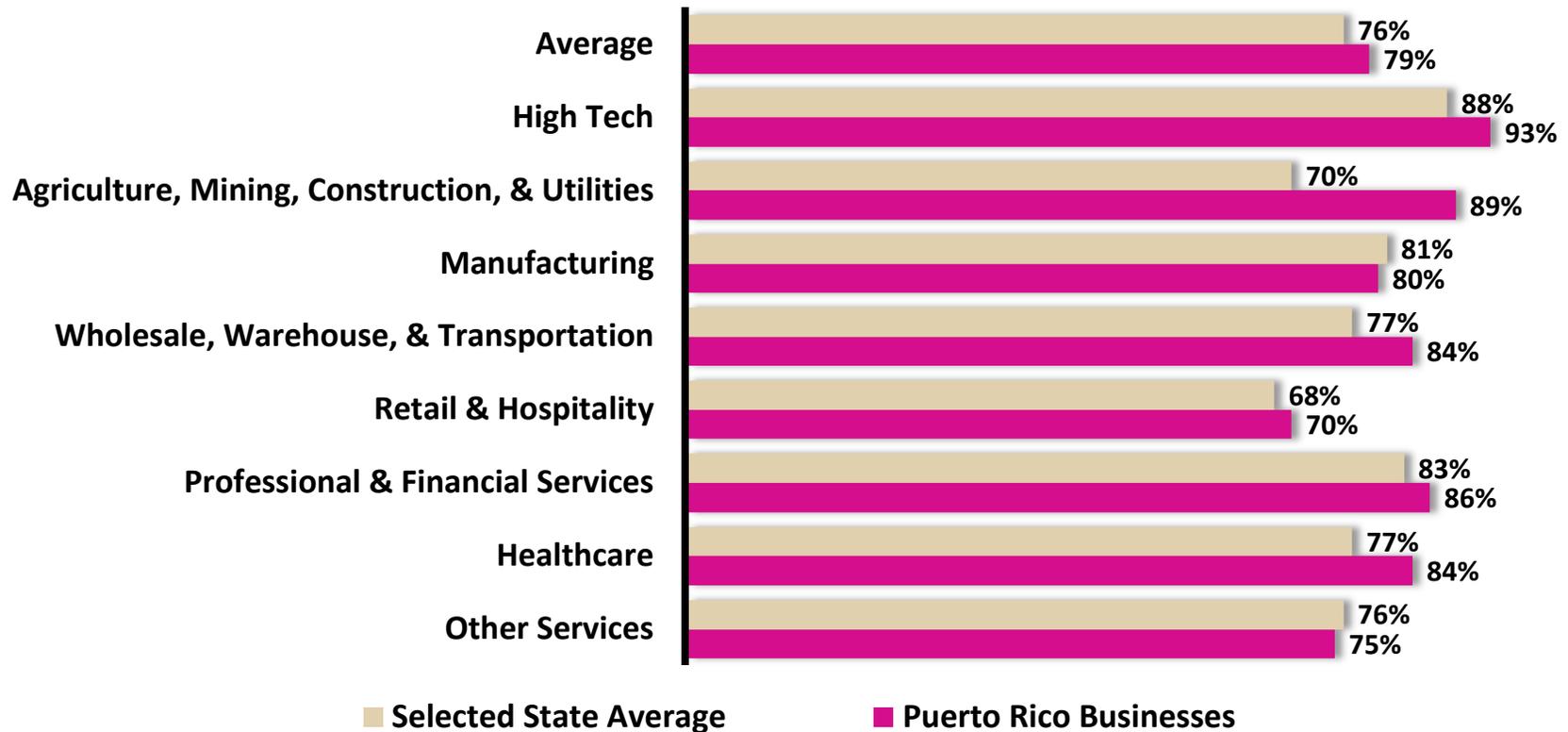


Source: 2010 and 2014 Connect Puerto Rico
Business Technology Assessments
www.connectpr.org



Broadband Adoption by Industry Sector

Percent of all businesses that subscribe to broadband service

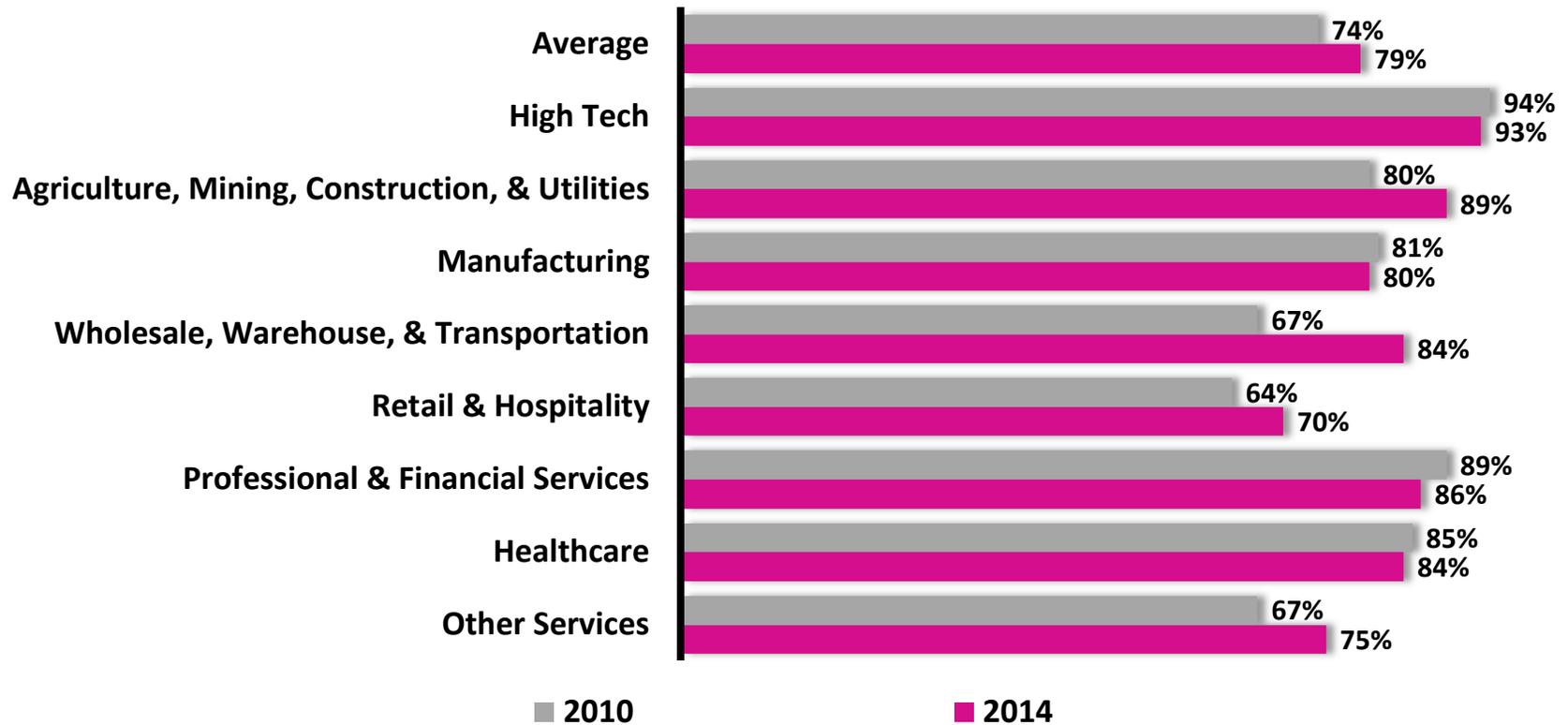


Selected State Average Source: 2013 Connected Nation Business Technology Assessments
 Puerto Rico Source: 2014 Connect Puerto Rico Business Technology Assessment
www.connectpr.org



Trends in Broadband Adoption by Industry Sector

Percent of Puerto Rico businesses that subscribe to broadband service



Source: 2010 and 2014 Connect Puerto Rico
Business Technology Assessments
www.connectpr.org



Main Barriers to Broadband Adoption

Among businesses that do not subscribe to broadband

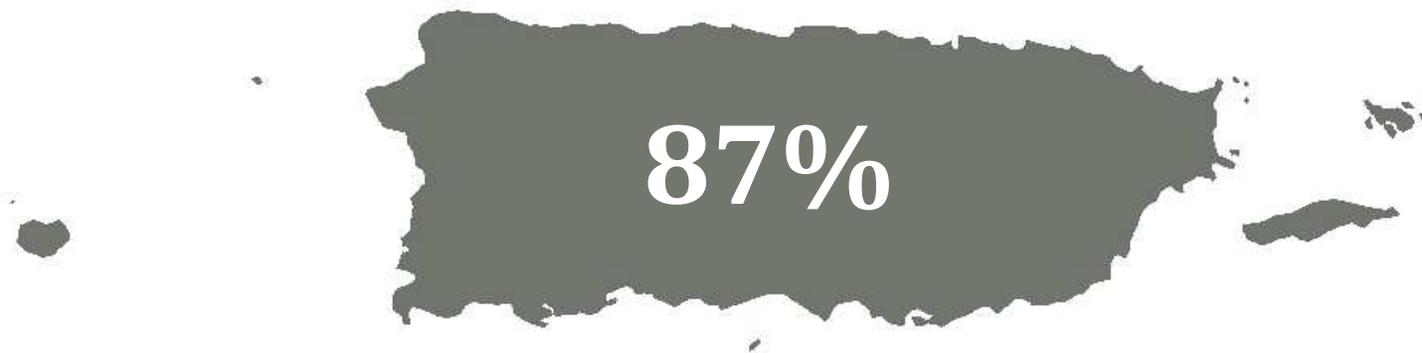
Main barrier to subscribing to broadband:	Puerto Rico 2014	Connected Nation 2013 Average
Our business can do everything we need without broadband or the Internet	33%	34%
Our business does not use computers	14%	12%
The installation cost of broadband service is too expensive	4%	2%
It is too complicated	3%	4%
Dial-up service is sufficient for our current needs	3%	6%
The monthly cost is too expensive	2%	3%
It would take too long to teach our employees how to use it	1%	1%
It would be too much of a distraction for our employees	1%	3%
It poses a security risk	1%	3%
Broadband service is not available in our area, or available broadband is too slow	1%	2%
Other reasons	6%	6%
Don't know/Refused	31%	24%

Connected Nation Average Source: 2013 Connected Nation Business Technology Assessments
 Puerto Rico Source: 2014 Connect Puerto Rico Business Technology Assessment
www.connectpr.org

Technology Usage Among Puerto Rico Businesses

Use of Computer Technology

Percent of all Puerto Rico businesses that use computer technology



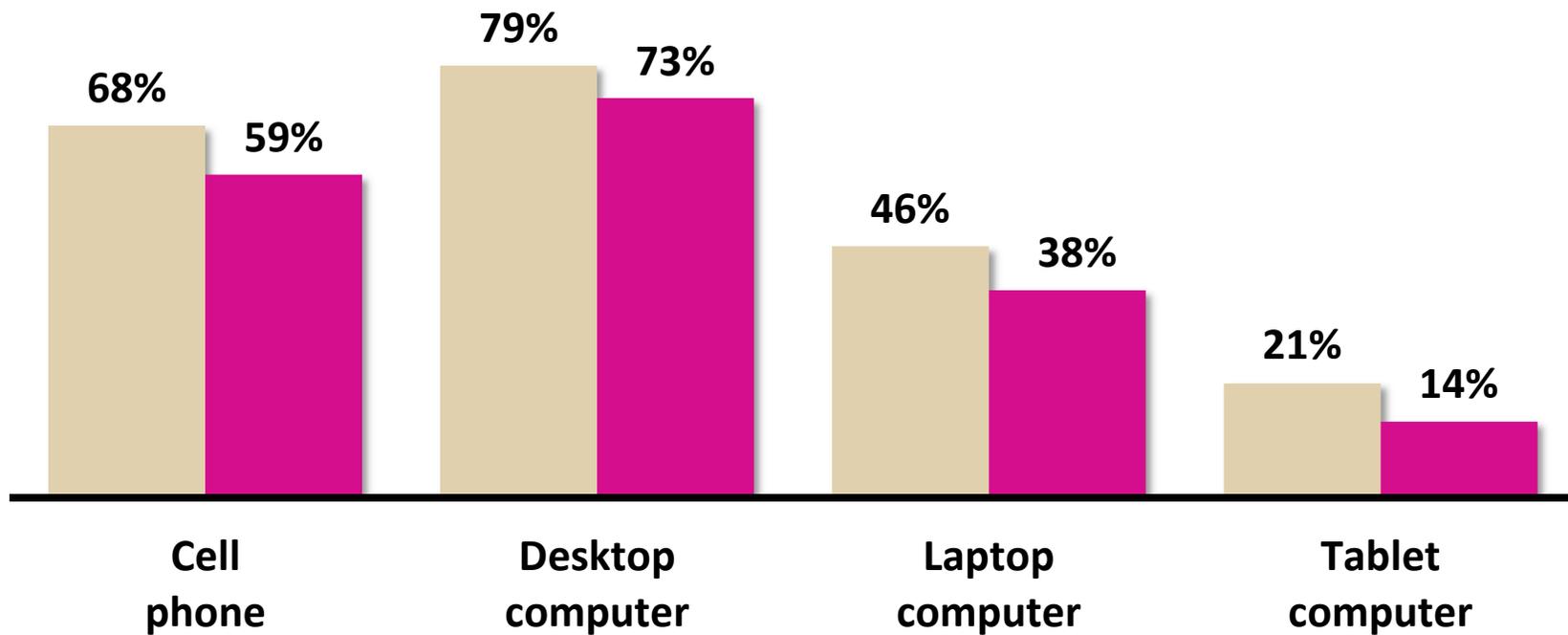
**Island-wide, 87% of all Puerto Rico businesses use a computer.
This translates into approximately 6,000 businesses that do not use computers.**

Source: 2014 Connect Puerto Rico
Business Technology Assessment
www.connectpr.org

Device Usage

Device usage among all businesses

■ Selected State Average ■ Puerto Rico Businesses



Selected State Average Source: 2013 Connected Nation Business Technology Assessments
 Puerto Rico Source: 2014 Connect Puerto Rico Business Technology Assessment
www.connectpr.org

Website Presence Among Puerto Rico Businesses

Percent of all Puerto Rico businesses that have websites

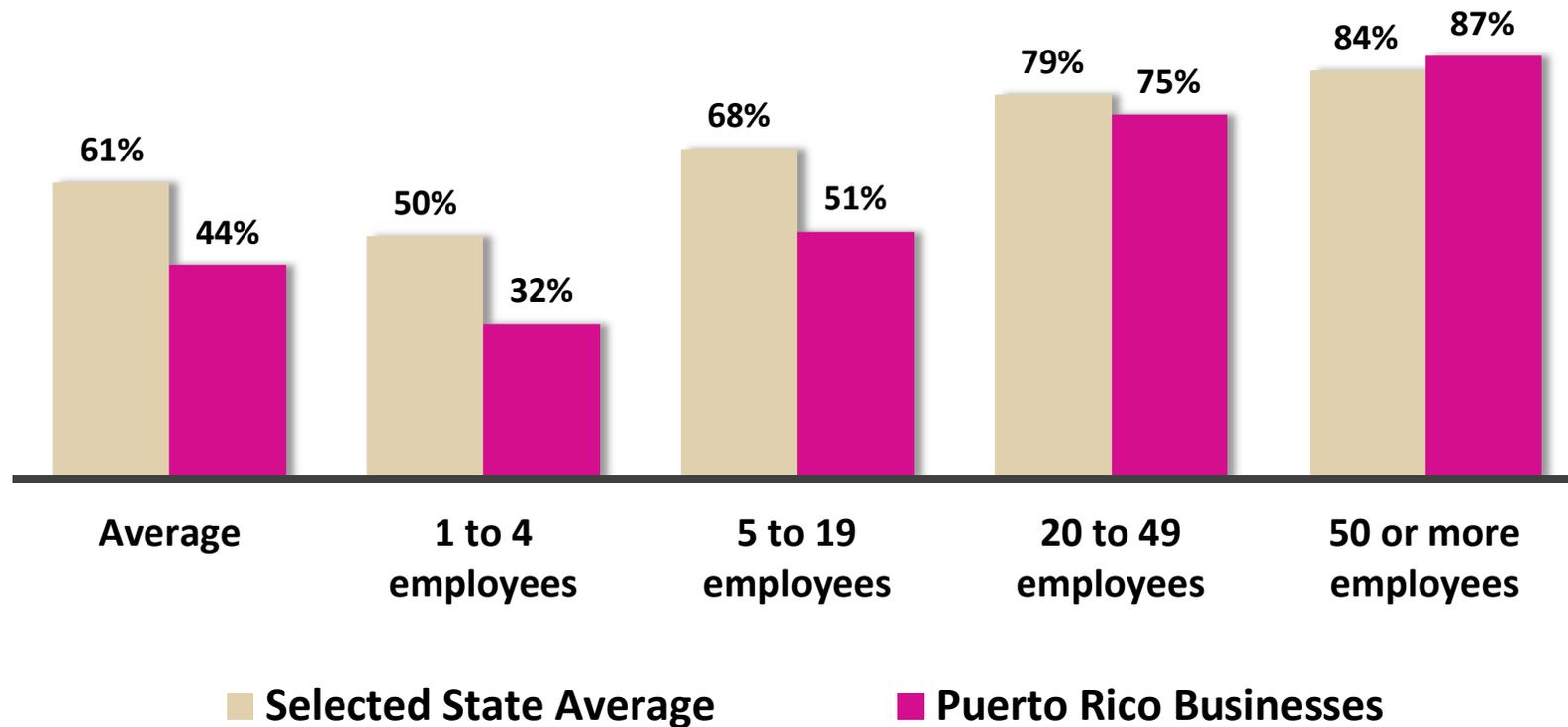


**Island-wide, 44% of all Puerto Rico businesses have websites.
This translates into approximately 19,000 Puerto Rico businesses that have websites.**

Source: 2014 Connect Puerto Rico
Business Technology Assessment
www.connectpr.org

Website Presence by Business Size

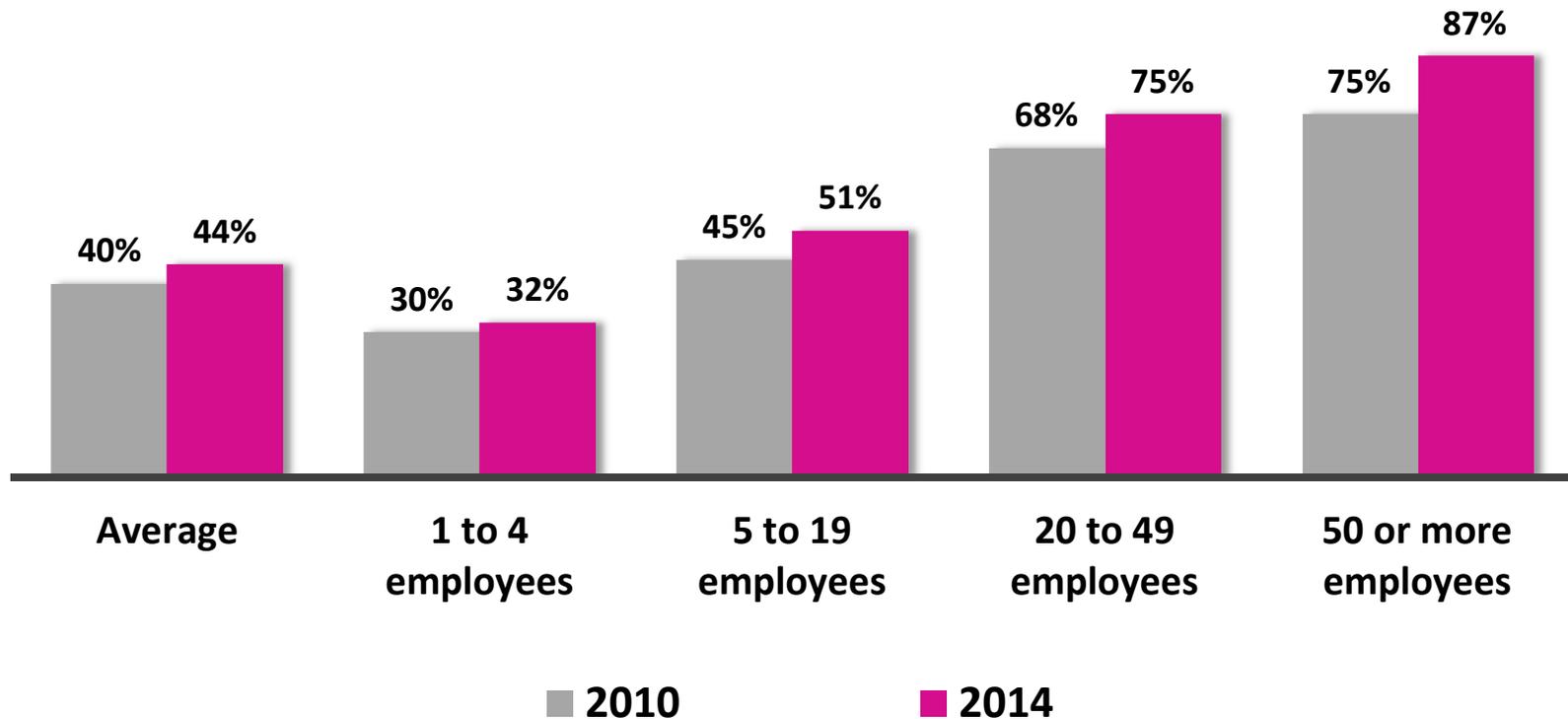
Percent of all businesses that have websites



Selected State Average Source: 2013 Connected Nation Business Technology Assessments
 Puerto Rico Source: 2014 Connect Puerto Rico Business Technology Assessment
www.connectpr.org

Trends in Website Presence by Business Size

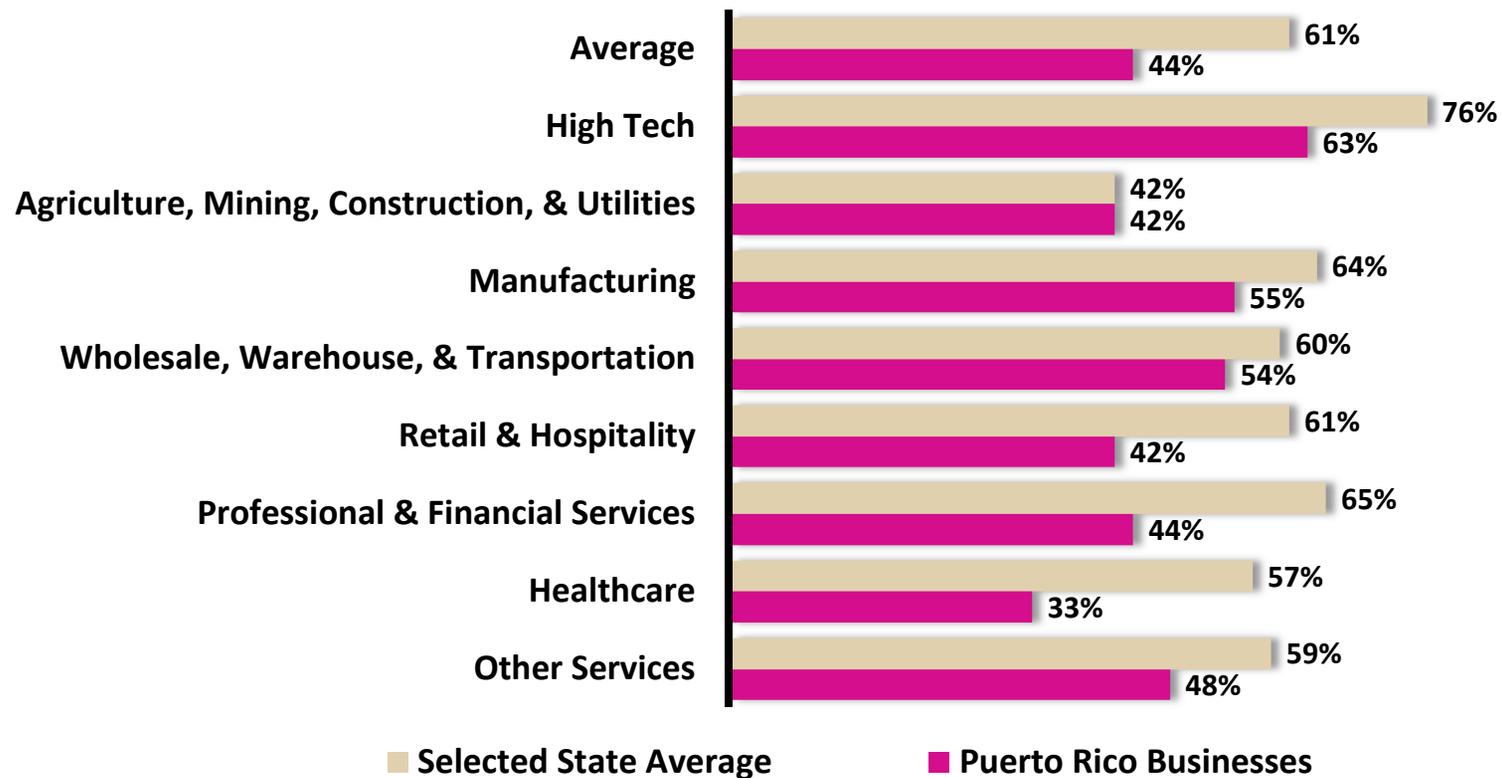
Percent of Puerto Rico businesses that have websites



Source: 2010 and 2014 Connect Puerto Rico
Business Technology Assessments
www.connectpr.org

Website Presence by Industry Sector

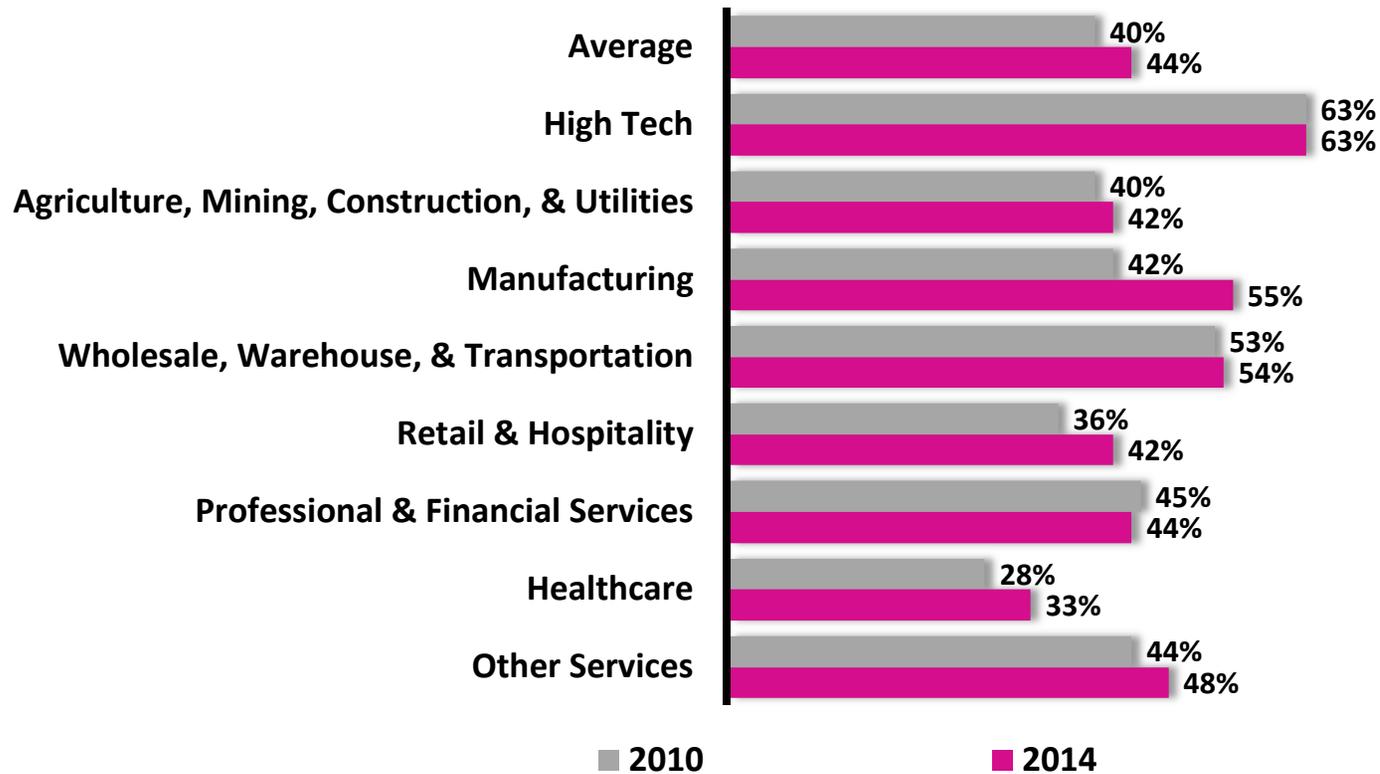
Percent of all businesses that have websites



Selected State Average Source: 2013 Connected Nation
 Business Technology Assessments
 Puerto Rico Source: 2014 Connect Puerto Rico
 Business Technology Assessment
www.connectpr.org

Trends in Website Presence by Industry Sector

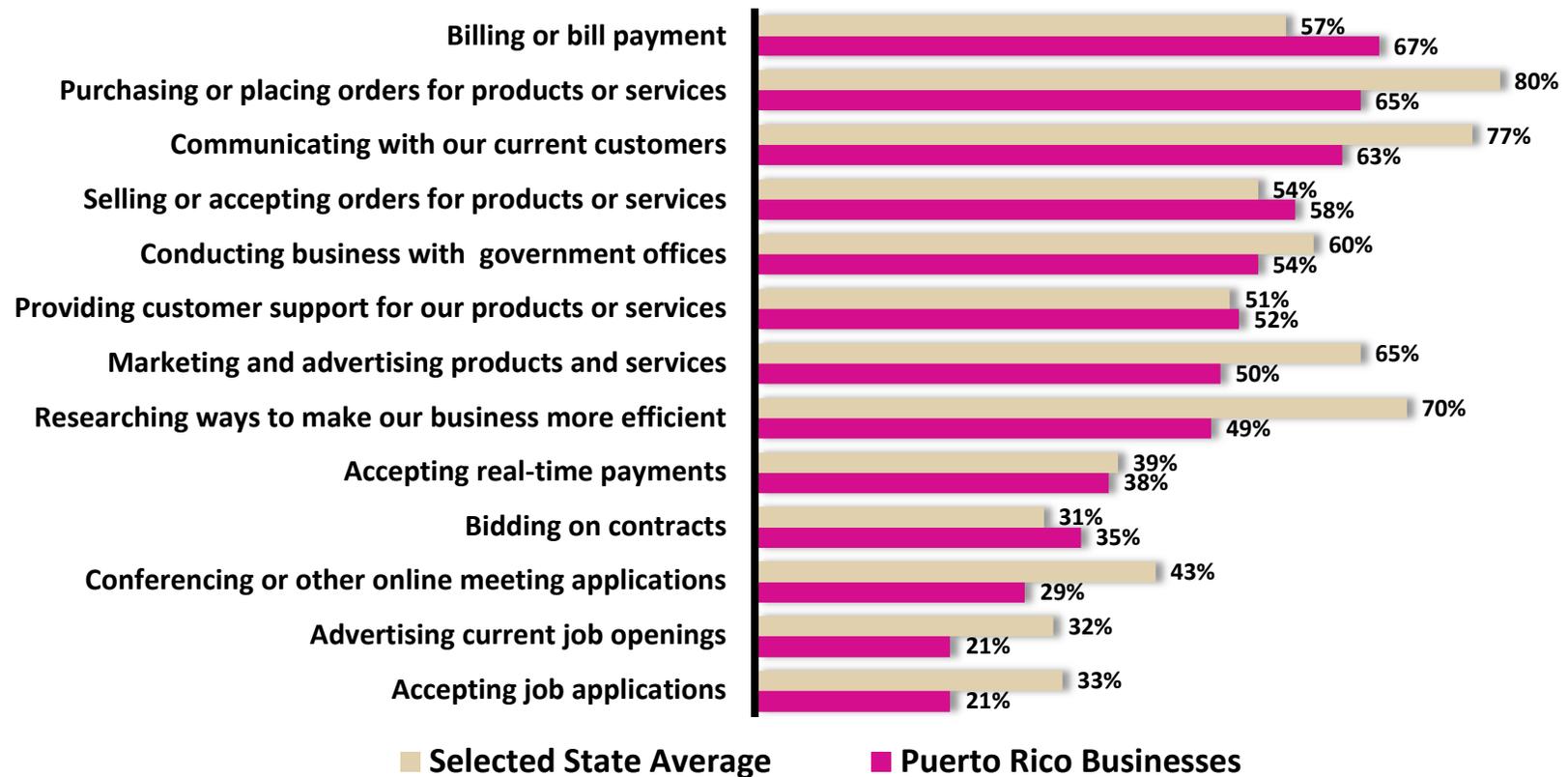
Percent of all businesses that have websites



Source: 2010 and 2014 Connect Puerto Rico
Business Technology Assessments
www.connectpr.org

Uses for the Internet

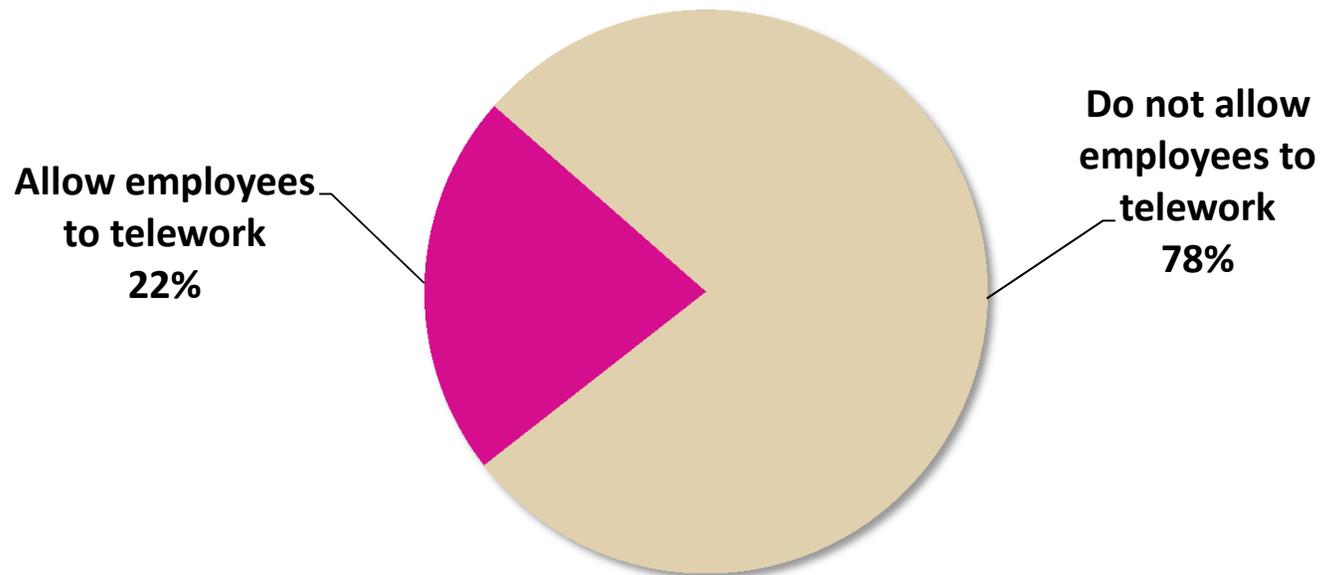
Among Internet-connected businesses (using dial-up or fixed broadband)



Selected State Average Source: 2013 Connected Nation
 Business Technology Assessments
 Puerto Rico Source: 2014 Connect Puerto Rico
 Business Technology Assessment
www.connectpr.org

Teleworking Among Puerto Rico Businesses

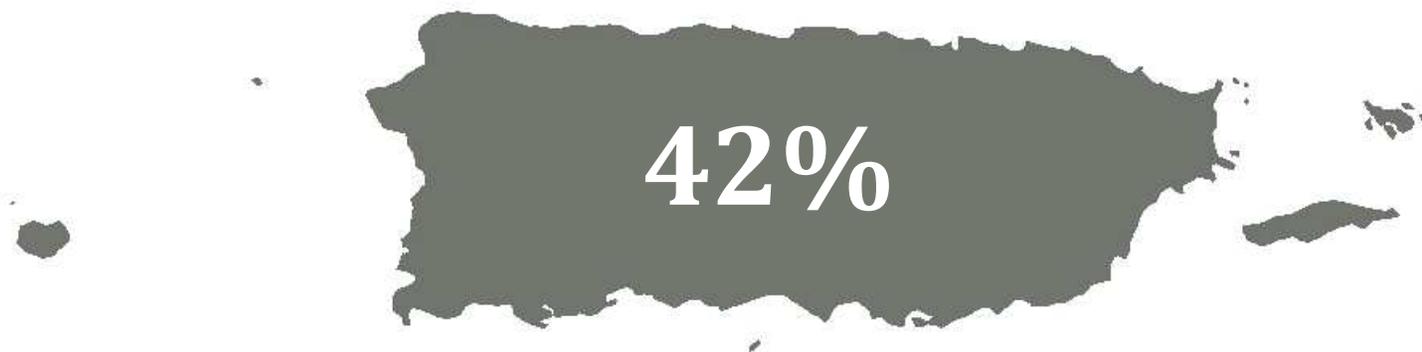
Among all Puerto Rico businesses



In Puerto Rico, 22% of businesses (approximately 10,000 businesses) allow their employees to telework.

Mobile Internet Usage Among Puerto Rico Businesses

Percent of all Puerto Rico businesses that use mobile Internet service

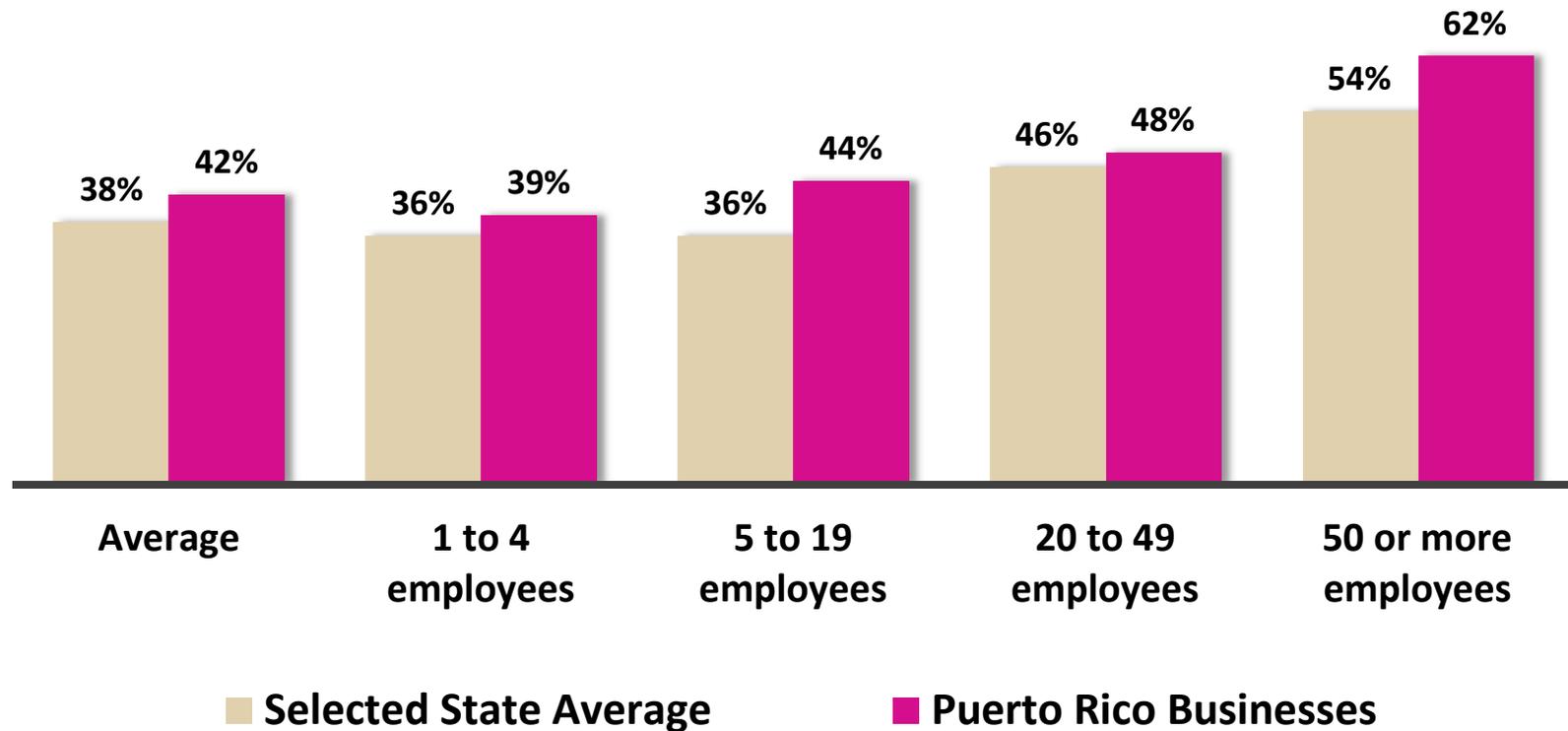


**Island-wide, 42% of all Puerto Rico businesses use mobile Internet service.
This translates into approximately 19,000 Puerto Rico businesses.**

Source: 2014 Connect Puerto Rico
Business Technology Assessment
www.connectpr.org

Mobile Internet Usage by Business Size

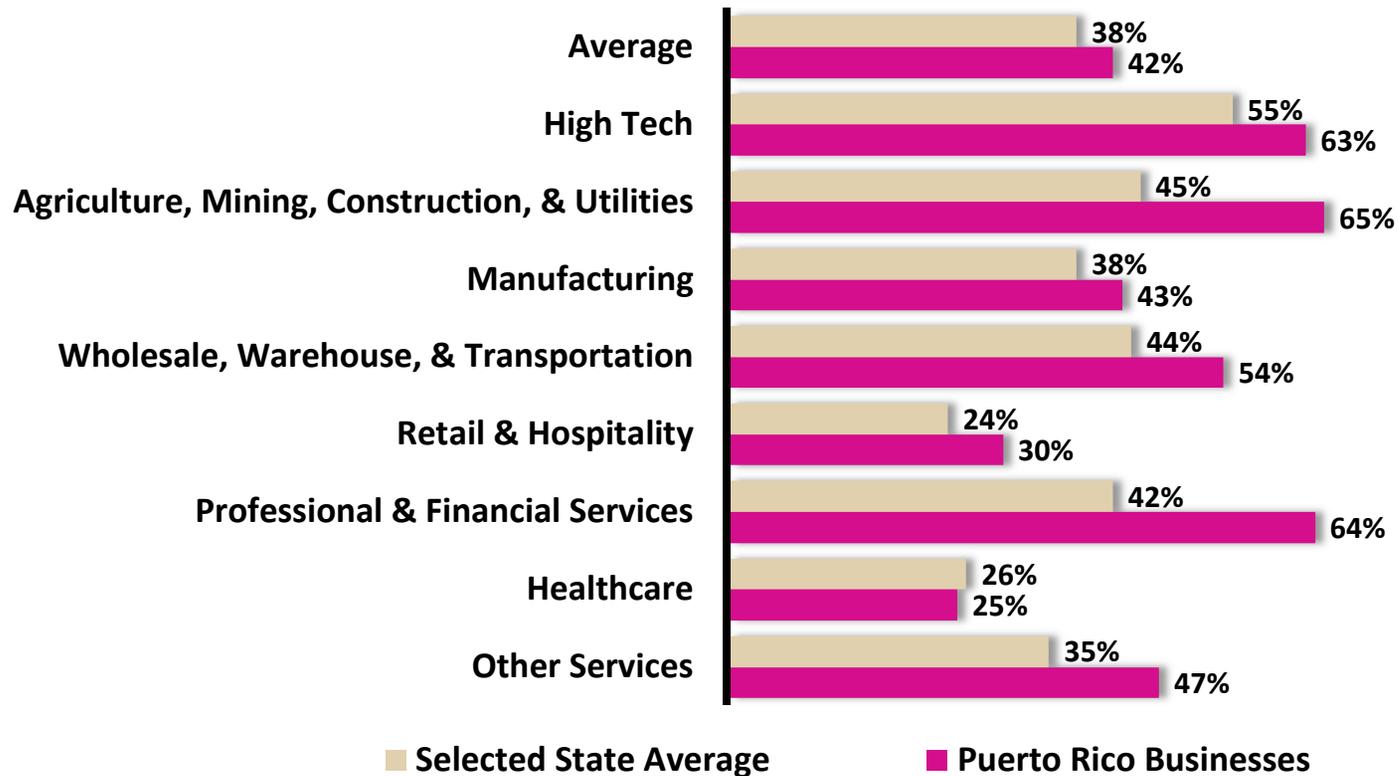
Percent of all businesses that use mobile Internet service



Selected State Average Source: 2013 Connected Nation Business Technology Assessments
 Puerto Rico Source: 2014 Connect Puerto Rico Business Technology Assessment
www.connectpr.org

Mobile Internet Usage by Industry Sector

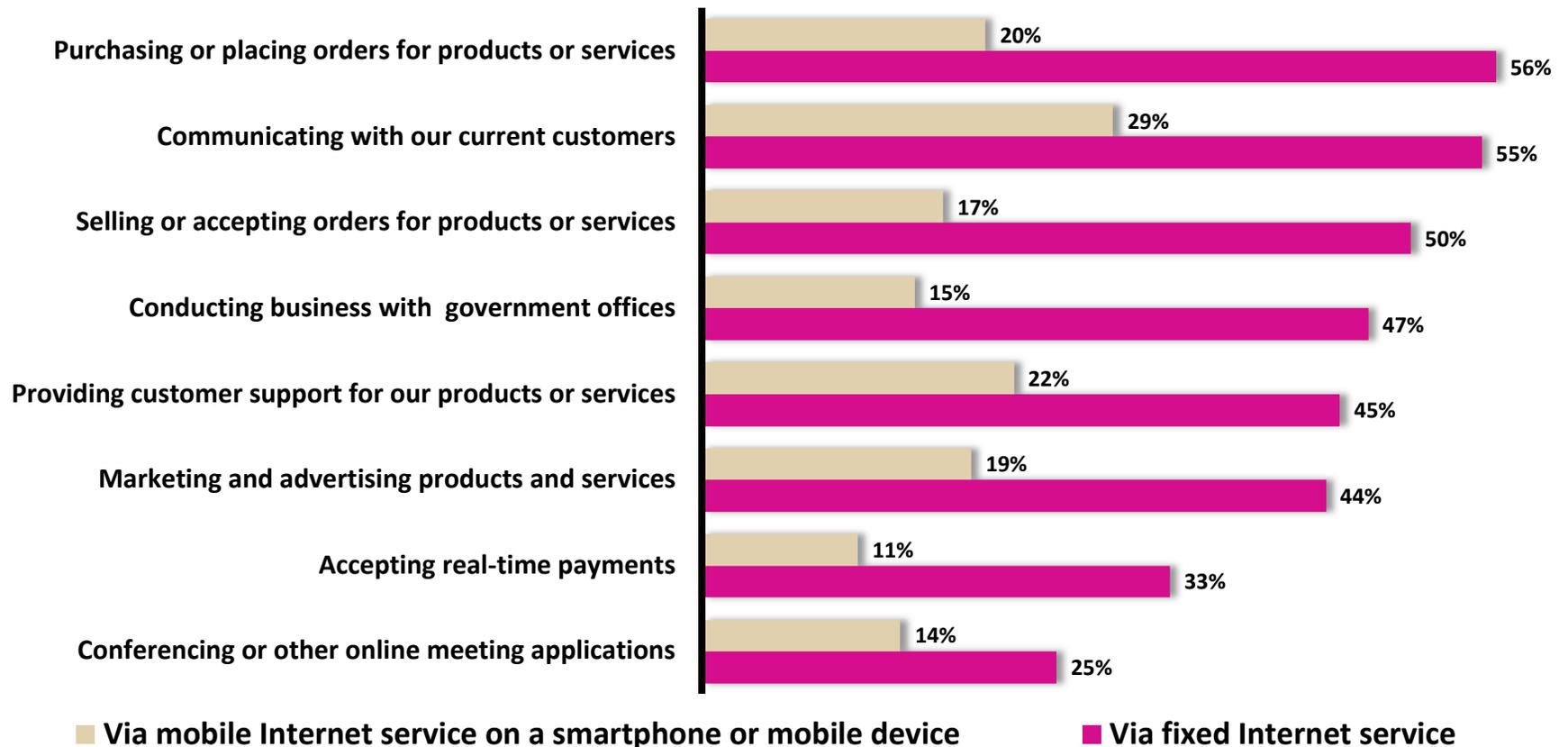
Percent of all businesses that use mobile Internet service



Selected State Average Source: 2013 Connected Nation Business Technology Assessments
 Puerto Rico Source: 2014 Connect Puerto Rico Business Technology Assessment
www.connectpr.org

Uses for Fixed and Mobile Internet

Among all Puerto Rico businesses



Puerto Rico Source: 2014 Connect Puerto Rico
Business Technology Assessment
www.connectpr.org

Research Methodology

Methodology Overview

- Connect Puerto Rico contacted eight hundred forty-six (846) businesses by telephone between December 9, 2013, and February 13, 2014. Data were collected by Estudios Tecnicos in San Juan, PR, www.estudios tecnicos.com. Estudios Tecnicos also provided translation services, methodological support, and provided business contact lists to ensure the sample was representative of business establishments across Puerto Rico.
- The error interval or sample tolerance for the survey is $\pm 4.69\%$ at the 95% confidence level. This sample error accounts for sample weighting, using the effective sample size.
- Connect Puerto Rico established sample quotas by company size (5 brackets) and industry sector (8 sectors). Within these 40 cells, a randomly drawn sample of businesses listed with Dun & Bradstreet and/or Hoover's were contacted for the survey.
- This approach gathers enough interviews within size and industry subsectors to analyze with confidence.
- Weighting of the survey data ensures that the total sample is representative of all employer business establishments in Puerto Rico. Connect Puerto Rico applied rim weighting to correct for minor variations and to ensure that the sample matches the most recent data from the U.S. Census Bureau's *County Business Patterns* (CBP) report. Weighting and research consultation were provided by Lucidity Research LLC, www.lucidityresearch.com.



Puerto Rico's Business Universe

- The federal government classifies and tabulates the number, size, and type of businesses in two ways:
 - Business establishments with paid employees
 - Non-employer business establishments
- A business establishment is defined as “a single physical location at which business is conducted or services or industrial operations are performed.”
- Businesses with paid employees are reported in the County Business Patterns data from the U.S. Census Bureau based on payroll tax information. This is the most comprehensive and consistent year-to-year measurement of private employer businesses. For this reason, many state agencies rely on these data for economic development and planning purposes.
- In 2011, there were 44,056 private business establishments in Puerto Rico according to County Business Patterns, employing 673,677 residents. The 2014 survey is projected to this total.
- Non-employer establishment counts are derived from business income tax returns filed by non-employer businesses. Generally, these businesses have at least \$1,000 in sales receipts, but most of these are very small and often are not a primary source of income for the owner(s). The United States Census does not track the number of non-employer establishments in Puerto Rico.

Weighting

- The 2014 survey data were both sampled and weighted by quotas defined by the size of establishment and dominant industry sector using the most recent *County Business Patterns* data as targets.
- Respondent estimates of number of employees at the business location called were used in place of employee size data from Dun & Bradstreet or Hoover's. Industry sector quotas were defined based on NAICS groups shown in the tables below, according to Dun & Bradstreet and Hoover's data and confirmed or corrected during the interview itself.
- Sampled vs. Actual distribution of businesses is summarized in tables below.

Unweighted Sample Distribution by Size and Sector, 2014				
Sector	1-4	5-19	20-49	50+
High Tech	4.8%	3.7%	2.5%	1.2%
Ag, Mining, Construction, Utilities	5.1%	3.9%	2.6%	1.2%
Manufacturing	5.0%	3.8%	2.5%	1.4%
Wholesale, Warehouse, Transport	5.0%	3.8%	2.4%	1.3%
Retail, Food, Lodging	5.0%	3.9%	2.4%	1.3%
Professional & Financial Services	5.0%	3.8%	2.4%	1.2%
Healthcare	5.0%	4.7%	1.4%	1.4%
All Other Services	5.0%	3.9%	2.4%	1.4%

Desired Distribution per 2011 <i>County Business Patterns</i>				
Sector	1-4	5-19	20-49	50+
High Tech	3.2%	1.6%	0.5%	0.5%
Ag, Mining, Construction, Utilities	2.7%	1.5%	0.5%	0.3%
Manufacturing	1.5%	1.2%	0.5%	0.4%
Wholesale, Warehouse, Transport	3.4%	2.2%	0.7%	0.4%
Retail, Food, Lodging	15.9%	12.9%	3.7%	1.6%
Professional & Financial Services	9.0%	4.4%	0.8%	0.4%
Healthcare	11.5%	4.0%	0.6%	0.4%
All Other Services	8.5%	3.4%	1.0%	1.0%



Select Question Wording and Sample Sizes

Slide 5. Q: “Does your company use the Internet to handle any of your business functions?” and “Which of the following describes the type of Internet access your company has?” [n=846 Puerto Rico businesses]

Slide 6. Q: “Does your company use the Internet to handle any of your business functions,” “Which of the following describes the type of Internet access your company has,” “Do employees at your business use mobile Internet service on a cell phone or mobile device to handle any of their business functions,” “Does your company have a website,” “Which of the following activities does your business currently conduct using the Internet,” “Which of the following activities does your business currently conduct using mobile Internet service on a cell phone or mobile device,” and “What percentage of your company’s total sales revenue takes place online?” [n=846 Puerto Rico businesses]

Slide 7. Q: “What percentage of your company’s total sales revenue takes place online?” and “What is your firm’s approximate average annual revenue?” [n=846 Puerto Rico businesses]

Slide 8. Q: “In the past 12 months, did your business use the Internet to order goods or services from vendors located in Puerto Rico,” “In the past 12 months, did your business use the Internet to order goods or services from United States vendors outside of Puerto Rico,” “In the past 12 months, did your business use the Internet to order goods or services from vendors outside of the United States and Puerto Rico,” and “Over the past 12 months, [what] would you estimate the total cost of goods and services you ordered from these vendors to be?” [n=846 Puerto Rico businesses]

Slide 9. Q: “Does your company use the Internet to handle any of your business functions?” and “Which of the following describes the type of Internet access your company has?” [n=846 Puerto Rico businesses]

Slide 10. Q: “Which of the following activities does your business currently conduct using the Internet?” [n=776 Puerto Rico businesses that use the Internet]

Slide 12. Q: “Does your company use the Internet to handle any of your business functions?” and “Which of the following describes the type of Internet access your company has?” [n=846 Puerto Rico businesses]

Slide 13. Q: “Which of the following describes the type of Internet access your company has?” [n=713 Puerto Rico businesses that subscribe to broadband service]

Slides 14-17. Q: “Does your company use the Internet to handle any of your business functions?” and “Which of the following describes the type of Internet access your company has?” [n=846 Puerto Rico businesses in 2014 and 814 Puerto Rico businesses in 2010]



Select Question Wording and Sample Sizes (Continued)

Slide 18. Q: “Which of these is the main reason why your organization doesn't subscribe to broadband service?” [n=133 Puerto Rico businesses that do not subscribe to broadband service]

Slide 20. Q: “Does your company use any type of computer technology to handle some or all of its business functions (for example: sales, cash receipts, accounting, inventory control or management reporting)?” [n=846 Puerto Rico businesses]

Slide 21. Q: “Does anyone at your company use a cell phone to handle any of your business functions?” and “What type of computers do employees in this business use?” [n=846 Puerto Rico businesses]

Slides 22-26. Q: “Does your company have a website?” [n=846 Puerto Rico businesses in 2014 and 814 Puerto Rico businesses in 2010]

Slide 27. Q: “Which of the following activities does your business currently conduct using the Internet?” [n=776 Puerto Rico businesses that use the Internet]

Slide 28. Q: “Do any employees within your organization work from home during normal business hours using an Internet connection?” [n=846 Puerto Rico businesses]

Slides 29-31. Q: “Do employees at your business use mobile Internet service on a cell phone or mobile device to handle any of their business functions?” [n=846 Puerto Rico businesses]

Slide 32. Q: “Which of the following activities does your business currently conduct using the Internet?” and “Which of the following activities does your business currently conduct using mobile Internet service on a cell phone or mobile device?” [n=846 Puerto Rico businesses]



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