

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Establishing Just and Reasonable Rates for Local Exchange Carriers	)	WC Docket No. 07-135
	)	
High-Cost Universal Service Support	)	WC Docket No. 05-337
	)	
Developing a Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
Lifeline and Link-Up	)	WC Docket No. 03-109

**COMMENTS OF SAN JUAN CABLE LLC**

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## COMMENTS OF SAN JUAN CABLE LLC

San Juan Cable LLC d/b/a OneLink Communications (“OneLink”), through undersigned counsel, respectfully submits these comments in response to the Commission’s Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking (“NPRM”) regarding, among other things, whether the Commission should reserve funds in the first phase of the Connect America Fund (“Phase I CAF”) for broadband deployment in insular areas such as Puerto Rico.<sup>1</sup>

The latest data shows that basic broadband meeting or exceeding the Commission’s Phase I CAF threshold is available throughout Puerto Rico. Indeed, less than 1% of the homes in Puerto Rico – only a few thousand of the nearly 1.5 million on the island – do not yet have access to some form of broadband. Nevertheless, broadband subscribership in Puerto Rico continues to lag far behind the rest of the country. As a result, the “broadband gap” between Puerto Rico and the mainland is primarily a problem of adoption, not deployment. Thus, the Commission should focus any immediate broadband funding set aside for Puerto Rico on combating barriers to adoption, rather than on supporting deployment of additional facilities that will continue to go unused.

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<sup>1</sup> *Connect America Fund*, WC Docket No. 10-90, *A National Broadband Plan for Our Future*, GN Docket No. 09-51, *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135, *High-Cost Universal Service Support*, WC Docket No. 05-337, *Developing an Unified Intercarrier Compensation Regime*, CC Docket No. 01-92), *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45), *Lifeline and Link-Up*, WC Docket No. 03-109, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, FCC 11-13 (Feb. 9, 2011).

## I. INTRODUCTION

Over the past 18 months, Puerto Rico Telephone Company, Inc. (“PRTC”) has lobbied extensively for additional federal support for broadband deployment in Puerto Rico.<sup>2</sup> During that campaign, PRTC has relied heavily on inapposite and outdated data to assert that the entire island of Puerto Rico is unserved by broadband,<sup>3</sup> and to argue that there is no private business case to remedy that problem.<sup>4</sup> Recognizing that the Commission was considering targeting broadband funding on areas shown by the then-forthcoming National Broadband Map to be unserved, PRTC expressed confidence that “the broadband mapping data will mirror current data that shows Puerto Rico lagging far behind the rest of the nation in both broadband deployment and subscribership.”<sup>5</sup>

Although the National Broadband Map was released on February 17, 2011, its information regarding Puerto Rico remains incomplete.<sup>6</sup> Nevertheless, the most current data

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<sup>2</sup> See, e.g., San Juan Cable LLC Notice of Ex Parte, WC Docket No. 10-90, at Exhibit C (Jan. 31, 2011) (“OneLink Ex Parte”). Since that ex parte was filed, PRTC has made three additional filings in the proceedings comprising its funding campaign. See PRTC Ex Parte, CC Docket No. 96-45, WC Docket No. 05-337, WC Docket No. 10-90, GN Docket No. 09-51 (Feb. 23, 2011) (“PRTC Ex Parte”); PRTC Ex Parte, WC Docket No. 10-52 (Mar. 21, 2011); and Filing Demonstrating PRTC’s Lack of Classical Market Power in Long Distance Services, *Petition of P.R. Tel. Co., Inc. and P.R. Larga Distancia, Inc. for Waiver of Sec. 64.1903 of the Commission’s Rules*, WC Docket No. 10-52 (Mar. 23, 2011).

<sup>3</sup> Comments of PRTC, WC Docket Nos. 10-90, 05-337; GN Docket No. 09-51, at 5, n.11 (Jul. 12, 2010) (“PRTC Comments”) (citing Industry Analysis and Competition Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2008* (Feb. 2010) (“2010 Form 477 Report”). The 2010 Form 477 Report reflects 2008 data and uses a significantly higher broadband speed threshold than the one proposed for Phase I CAF.

<sup>4</sup> PRTC Comments at 13.

<sup>5</sup> *Id.* at 8.

<sup>6</sup> The National Broadband Map’s “Summary” section for Puerto Rico contains a disclaimer stating that “[t]he area you have selected does not contain a complete broadband record set.

(Cont’d on following page)

collected by Connect Puerto Rico (“ConnectPR”) – the entity charged with gathering and mapping Puerto Rico’s broadband data for that project – is sufficient to prove PRTC’s contentions regarding broadband deployment wrong. Virtually all Puerto Ricans have access to at least some form of basic broadband in their homes. However, despite the prevalence of basic broadband access in Puerto Rico, PRTC is correct that broadband subscribership on the island continues to be lower than the national average.

The Commission requested comment in the NPRM on whether to “set[] aside funds to be specifically targeted to insular areas that trail national broadband coverage rates....”<sup>7</sup> While that may be necessary in other insular areas that continue to lack even basic broadband, Puerto Rico is no longer such an area. Because Puerto Rico does not “trail national broadband coverage rates,” any funds that the Commission sets aside for Puerto Rico should instead be targeted at closing the substantial broadband *adoption* gap between the island and the mainland.

## **II. THE COMMISSION SHOULD PRIORITIZE SUPPORT FOR BROADBAND ADOPTION, RATHER THAN DEPLOYMENT, IN PUERTO RICO**

The Commission should not set aside Phase I CAF funds for Puerto Rico for two reasons. First, the vast majority of Puerto Rico would not be eligible for Phase I CAF as proposed in the NPRM because basic broadband is already widely available throughout the island. Second, subsidizing additional broadband deployment in Puerto Rico is unlikely to have any meaningful impact on the “broadband gap” between Puerto Rico and the rest of the nation unless and until the Commission addresses the substantial obstacles to broadband adoption in Puerto Rico.

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The system will only display available data (if any).” See <http://www.broadbandmap.gov/summarize/state/puerto-rico>.

<sup>7</sup> NPRM at ¶ 306.

Instead of focusing on deployment, the Commission should direct near-term broadband support in Puerto Rico to helping Puerto Rican consumers understand the benefits of broadband and take advantage of the broadband service that is already available today. This will create a foundation of demand in Puerto Rico for higher-speed broadband that can be supported by ongoing support under existing universal service programs and, eventually, under the second phase of the Connect America Fund (“CAF”), while allowing the Commission to distribute Phase I CAF funding in a manner consistent with its goal of “maximiz[ing] the extension of broadband deployment in areas lacking service that provides a download speed of 768 kbps or better.”<sup>8</sup>

**A. Puerto Rico Would Not Qualify For Phase I CAF Support**

With respect to Phase I CAF, the Commission proposes to award “targeted non-recurring funding to support the deployment of robust fixed or mobile broadband in areas of the country *that lack even basic broadband today* ... (i.e., areas without broadband advertised as providing download speeds of at least 768 kbps).”<sup>9</sup> The NPRM then seeks comment on whether the Commission “should reserve some funds in the first phase of the CAF for ... insular areas,” and whether there is “sufficient evidence that such a set-aside is necessary or appropriate.”<sup>10</sup> Contrary to PRTC’s representation that there is a “dearth of broadband ... deployment on the island,”<sup>11</sup> available evidence demonstrates that the near-ubiquitous availability of basic broadband renders a set-aside for broadband in Puerto Rico unnecessary at this time.

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<sup>8</sup> NPRM at ¶ 286.

<sup>9</sup> Id. at ¶ 261 (emphasis added).

<sup>10</sup> Id. at ¶ 306.

<sup>11</sup> PRTC Comments at 7.

According to ConnectPR,<sup>12</sup> the most recent data regarding broadband deployment in Puerto Rico (updated as of April 1, 2011) shows that over 99% of Puerto Rican households have access to fixed terrestrial and/or mobile broadband service of at least 768 kbps downstream and 200 kbps upstream.<sup>13</sup> Moreover, that data reflects the coverage areas of only five Puerto Rico broadband providers.<sup>14</sup> The degree of broadband coverage is only likely to increase as more providers submit broadband availability data<sup>15</sup> and ConnectPR continues to develop and refine its

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<sup>12</sup> ConnectPR is the Government of Puerto Rico's designee to gather and provide broadband data to the National Telecommunications and Information Administration ("NTIA") for inclusion in the National Broadband Map, pursuant to the State Broadband Data and Development ("SBDD") Grant Program. Notably, ConnectPR's data is more current and more granular than the data reflected on the National Broadband Map. See ConnectPR Methodologies, Definitions and Frequently Asked Questions, available at [http://en.connectpr.org/mapping/frequently\\_asked\\_questions.php](http://en.connectpr.org/mapping/frequently_asked_questions.php) (last visited Apr. 18, 2011).

<sup>13</sup> See ConnectPR Island Wide Broadband Inventory Maps, available at [http://en.connectpr.org/mapping/islandwide\\_broadband\\_inventory\\_maps.php](http://en.connectpr.org/mapping/islandwide_broadband_inventory_maps.php) (last visited Apr. 18, 2011). A copy of this map is attached as Exhibit A.

<sup>14</sup> Id.

<sup>15</sup> Significantly, although PRTC has submitted extensive data regarding its wireline broadband deployment to ConnectPR, **it has apparently not provided any wireless broadband data**, see Puerto Rico Fall 2010 SBDD wireless data set, available at [http://www2.ntia.doc.gov/files/broadband-data/SBDD\\_PR\\_Fall2010.zip](http://www2.ntia.doc.gov/files/broadband-data/SBDD_PR_Fall2010.zip), despite the fact that it advertises 3G and 4G mobile data coverage over a substantial portion of the island. See Claro Mapa de Cobertura, available at <http://www.clarotodo.com/Default.aspx?SecId=63> (last visited Apr. 18, 2011). **This is consistent with PRTC's pattern of excluding wireless data in order to deflate penetration statistics when requesting additional universal service support.** See, e.g., *High-Cost Universal Service Support; Federal-State Joint Board on Universal Service; Lifeline and Link-Up*, Order and Notice of Proposed Rulemaking, 25 FCC Rcd. 4136, 4152 at ¶ 27 (Apr. 16, 2010) ("Insular Order") ("PRTC argues that a decrease in *wireline* telephone subscribership in Puerto Rico demonstrates that the non-rural high-cost support mechanism provides insufficient support. We disagree. The Commission measures telephone subscribership based on access to telecommunications service, regardless of whether such access is provided by traditional wireline service or by newer technologies, including wireless." (emphasis in original)).

data collection and maps prior to the Commission’s first proposed auction for Phase I CAF support.<sup>16</sup>

The Commission acknowledges that Phase I CAF funding is “likely to be insufficient to fund broadband deployment in all areas that currently lack even basic high speed Internet access,” and thus proposes to “expand broadband to as many unserved housing units ... as possible” by “target[ing Phase I CAF] funding to those unserved areas that could be served at the lowest cost.”<sup>17</sup> Because broadband at or above the proposed threshold speed is available throughout Puerto Rico, there are virtually no areas on the island that would be eligible for the proposed support. The high level of basic broadband deployment in Puerto Rico and the high cost of extending service to those few remaining homes on the island without access to any broadband make Puerto Rico a poor fit for Phase I CAF funding.<sup>18</sup>

**B. Funding Additional Broadband Deployment in Puerto Rico Will Be Inefficient and Ineffective Without First Addressing Obstacles to Adoption of Existing Broadband**

One of the Commission’s criticisms of the legacy high-cost universal service rules is that they allow recipients to invest support inefficiently, including by “accelerat[ing] network upgrades even where a more measured approach to capital investment might be appropriate,

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<sup>16</sup> The Commission proposes to utilize the most recent broadband deployment data available at the time of the auction to determine eligibility for Phase I CAF, in light of the ongoing nature of the data collection. NPRM at ¶ 291. OneLink supports this proposal.

<sup>17</sup> NPRM at ¶ 267.

<sup>18</sup> However, assuming that the Commission concludes that broadband is a supported service under existing universal service programs, *see* NPRM at ¶¶ 55-72, OneLink strongly encourages current Puerto Rico high-cost program recipients to prioritize extending at least basic broadband to the few remaining unserved homes in Puerto Rico with that support.

given the demographics of the customer base and rate of consumer adoption for new services.”<sup>19</sup> However, PRTC seeks to continue precisely that approach under Phase I CAF in Puerto Rico. Although basic broadband is widely available on the island, PRTC continues to demand that the Commission “prioritize deployment in [Puerto Rico] until [it achieves] the same level of penetration as other areas,”<sup>20</sup> even as it acknowledges that “providers are unable to accurately predict if local populations: ... (2) can afford any ongoing and additional subscription costs; (3) are even interested in broadband; and (4) can afford the computers and equipment necessary to benefit from broadband.”<sup>21</sup> Providing support for additional broadband deployment in Puerto Rico – where basic broadband is generally available but largely unused – without first addressing the underlying barriers to adoption will only permit PRTC to perpetuate the inefficiencies of legacy high-cost programs under the new CAF.

ConnectPR’s latest data shows that over 91% of Puerto Rican households have access to at least basic fixed terrestrial broadband,<sup>22</sup> which is similar to broadband access rates in other

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<sup>19</sup> NPRM at ¶ 171. Indeed, the Commission has acknowledged with respect to voice service that there may be areas in which it would be “unrealistic to expect a significant increase in voice subscription even with a larger influx of high-cost funding.” The same consideration likely applies to broadband.

<sup>20</sup> Reply Comments of PRTC, WC Docket Nos. 10-90, 05-337; GN Docket No. 09-51, at 3 (Aug. 11, 2010); NPRM at ¶ 306.

<sup>21</sup> PRTC Comments at 10.

<sup>22</sup> ConnectPR does not include mobile broadband in its analysis of broadband availability in the home. As noted above, when mobile broadband is included, this percentage rises to more than 99%. However, despite this pervasive coverage and the fact that 62% of Puerto Ricans own cellular phones and 37% own laptop computers, only 18% of Puerto Ricans subscribe to mobile broadband service. See Connect Puerto Rico Residential Technology Assessment Results (in compliance with Island and NTIA requirements) at 48-50, available at [http://en.connectpr.org/documents/PR\\_RT\\_A\\_2010Q1\\_FINAL.pdf](http://en.connectpr.org/documents/PR_RT_A_2010Q1_FINAL.pdf) (last visited Apr. 18, 2011) (“ConnectPR Residential Broadband Report”). A copy of the report is attached as Exhibit B.

states surveyed by ConnectPR's affiliates.<sup>23</sup> Even in rural areas, basic fixed terrestrial broadband is available to nearly 87% of households.<sup>24</sup> However, only 31% of households island-wide subscribe to broadband service at home, which lags far behind the national broadband adoption rate of 67%.<sup>25</sup>

Lack of broadband availability is not even among the top three reasons that Puerto Ricans without a broadband connection cite for not subscribing to broadband. Of the households that do not subscribe to broadband, 36% believe that it is unnecessary (or do not know why it is necessary), 27% do not have a computer in the home,<sup>26</sup> and 16% believe the service is too expensive. Unsurprisingly, the lack of a computer and the unaffordability of broadband service are cited more frequently among lower income households – 30% of households with an annual income below \$25,000 lack computers and 17% say that broadband is too expensive, as compared to 15% and 10%, respectively, among households with an annual income over \$25,000.<sup>27</sup> This is particularly significant given that Puerto Rico's median household income is substantially below this \$25,000 threshold (\$16,346).<sup>28</sup>

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<sup>23</sup> Connected Nation Notice of Ex Parte Presentation, WC Docket Nos. 05-337, 03-109; CC Docket No. 96-45, at 4 (Mar. 16, 2011) (“Connected Nation Ex Parte”).

<sup>24</sup> See ConnectPR Residential Broadband Report at 6.

<sup>25</sup> Connected Nation Ex Parte at 8. This is true even though the average monthly price of broadband in Puerto Rico (\$42.37) is essentially the same as the national average (\$41.18). ConnectPR Residential Broadband Report at 35.

<sup>26</sup> Only 55% of Puerto Ricans have a home computer. ConnectPR Residential Broadband Report at 26. Among those that do not have a home computer, the top barriers to ownership are the same as the primary obstacles to broadband adoption: a belief that a computer is unnecessary (or not knowing why one is necessary) (54%) and cost (27%). *Id.* at 58.

<sup>27</sup> ConnectPR Residential Broadband Report at 73.

<sup>28</sup> See National Broadband Map Puerto Rico Summary, available at <http://www.broadbandmap.gov/summarize/state/puerto-rico>

These reasons are consistent with the Commission’s findings regarding lack of broadband adoption, particularly in low-income areas. In considering how to assess affordability of broadband service, the Commission recognizes that “[m]any variables other than affordability affect penetration, including lack of necessary equipment such as a computer, a lack of digital literacy and a belief that broadband is not relevant.”<sup>29</sup> Indeed, in the companion Notice of Proposed Rulemaking regarding modernization of the Lifeline and Link-Up programs (“Lifeline NPRM”), the Commission notes that “[i]n addition to the cost of service and the cost of acquiring a computer or other Internet-access device, which some research suggests may be the leading barrier to adoption, the National Broadband Plan noted that almost two-thirds of non-adopters cite another reason, such as lack of digital skills, as the main reason for not adopting broadband at home.”<sup>30</sup> Thus, in the Lifeline NPRM, the Commission proposes to broaden the legacy Lifeline program specifically to combat the “more complex” problem of increasing broadband adoption by adding subsidies for the cost of computers and other necessary equipment (in addition to the cost of the service itself), as well as educational and outreach programs to advertise the benefits of broadband and promote digital literacy.<sup>31</sup>

Broadband adoption is on the rise in Puerto Rico. According to ConnectPR, of the Puerto Rican households that subscribe to broadband at home, 63% began doing so within the past two years.<sup>32</sup> In a survey in which those subscribers were allowed to choose multiple reasons to

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<sup>29</sup> NPRM at ¶ 141.

<sup>30</sup> *Lifeline and Link Up Reform and Modernization; Federal-State Joint Board on Universal Service; Lifeline and Link Up*, WC Docket Nos. 11-42, 03-109; CC Docket No. 96-45, Notice of Proposed Rulemaking, FCC 11-32 at ¶ 268 (Mar. 4, 2011).

<sup>31</sup> Lifeline NPRM at ¶¶ 283-84.

<sup>32</sup> ConnectPR Residential Broadband Report at 17.

explain why they began subscribing to broadband, only 14% included learning of broadband availability as one of their choices.<sup>33</sup> By comparison, 22% said the cost of service became more affordable and 17% bought or received a computer.<sup>34</sup>

The Commission has stated that “[t]he purpose of universal service is to benefit the consumer, not the carrier.”<sup>35</sup> Thus, the Commission’s efforts to increase broadband penetration should focus on the issues that actually impact consumers’ ability to take advantage of broadband.<sup>36</sup> While PRTC has historically opposed expansion of the Commission’s low-income programs in favor of increased support for deployment, OneLink believes that broadband support programs should be designed to advance universal broadband service in the most efficient manner. Particularly in the early stages of this transition, if subsidies are to be set aside to support broadband initiatives in Puerto Rico, they should be under the expanded Lifeline pilot program, rather than Phase I CAF.

### **III. PRTC SHOULD NOT BE ELIGIBLE FOR PHASE I CAF FUNDS THAT MAY BE RESERVED FOR PUERTO RICO**

The Commission has made clear that the purpose of Phase I CAF is to maximize development of broadband where there is *none* today. As discussed above, less than 1% of Puerto Rico – a few thousand homes at most – falls into that category, and thus it is unnecessary to reserve funds for that purpose on the island. However, if the Commission nevertheless sees fit

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<sup>33</sup> ConnectPR Residential Broadband Report at 18.

<sup>34</sup> *Id.*

<sup>35</sup> NPRM at ¶ 240.

<sup>36</sup> With respect to voice service, the Commission has recognized that there may be areas where “socio-economic forces such as lower household income rather than a lack of access to voice service” make it “unrealistic to expect a significant increase in voice subscription even with a larger influx of high-cost funding[.]” NPRM at ¶ 484. The current level of broadband adoption relative to deployment in Puerto Rico suggests that this same concern may apply to broadband in particularly low-income areas.

to set aside some amount of Phase I CAF funds for Puerto Rico, PRTC should be excluded from consideration as a recipient.

In seeking to demonstrate its alleged need for additional broadband funding, PRTC has gone to great lengths to downplay its robust revenue streams, the impact of its \$1 billion investment commitment, and the fact that PRTC is already one of the top recipients of federal subsidies under legacy universal service programs. However, the fact remains that the Commission has effectively found PRTC to be ineligible for additional support. Moreover, despite PRTC's efforts to backtrack on its plan to build out broadband-capable facilities to approximately half of the island without financial assistance over the next five years, it is clear that PRTC's existing commitments should be disqualified from Phase I CAF.

**A. The Commission's Conclusion That PRTC's Investment Commitment Extinguishes Claims For Additional Support Applies Equally to Phase I CAF**

In decisively rejecting PRTC's first request for additional funding for broadband (in the form of a non-rural insular high-cost mechanism) last year, the Commission concluded that PRTC's "claim that it cannot invest in its network without additional high-cost support is *substantially diminished, if not extinguished*, by its ... commitment – unqualified with respect to universal service support – to the Commission that it would invest more than \$1 billion over five years to improve communications and information service in Puerto Rico."<sup>37</sup> This conclusion should similarly disqualify PRTC from receiving additional broadband support under Phase I CAF.

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<sup>37</sup> Insular Order at ¶ 29 (emphasis added).

Although PRTC has reportedly invested approximately over \$800 million in fulfillment of its investment obligation,<sup>38</sup> PRTC's statements regarding the "dearth of broadband investment and deployment"<sup>39</sup> and "the unfortunate fact ... that many poor and rural areas in Puerto Rico do not have even basic telecommunications infrastructure, let alone infrastructure that would support cable television or broadband"<sup>40</sup> suggest that PRTC has not directed significant funds to facilities in unserved areas. Indeed, PRTC's alleged concern about Puerto Rico's lack of broadband infrastructure is belied by the fact that no more than 35% of that investment has gone to broadband.<sup>41</sup> The remaining amount (at least 65% of the total investment) has been devoted to expanding PRTC's existing wireless network (CDMA), overbuilding that with a *second* wireless network (GSM), and constructing an Internet Protocol television system,<sup>42</sup> which PRTC now claims is irrelevant to the expansion of broadband.<sup>43</sup> During the same period, PRTC also launched a satellite video service, presumably at significant additional expense.<sup>44</sup>

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<sup>38</sup> See America Movil Annual Progress Report for the Deployment of the Infrastructure Used to Provide Basic Telephone and Broadband Services in Puerto Rico, WT Docket No. 06-113 (Apr. 4, 2008; Jul. 8, 2009; Dec. 21, 2010; Dec. 31, 2010).

<sup>39</sup> PRTC Comments at 7.

<sup>40</sup> PRTC Ex Parte at 3.

<sup>41</sup> See OneLink Ex Parte at Exhibit B.

<sup>42</sup> Id.

<sup>43</sup> See PRTC Ex Parte at 3 (stating that "PRT's proposal to deploy and operate a profitable cable service over top of its existing infrastructure does not show that PRT ... could offer universal broadband service in Puerto Rico....").

<sup>44</sup> See Press Release, PRTC, *Entretenimiento a otro nivel con la llegada de Claro TV al Mercado* (undated), available at <http://www.clarotodo.com/Default.aspx?SecId=357> (last visited Apr. 18, 2011); see also Michelle Kantrow Vazquez, *PRT launches Claro TV satellite television service*, Puerto Rico Daily Sun at P11 (Apr. 23, 2010). It is unclear whether the costs of developing and launching PRTC's satellite television service were included in the reported investment or whether PRTC has separately invested even more funds to that endeavor instead of expanding broadband service to unserved areas.

PRTC has stated that OneLink is not in a position to second-guess PRTC's significant investment under its obligation,<sup>45</sup> and OneLink does not do so here. As a purely business matter, PRTC is free to invest its considerable resources in any manner it sees fit, provided that such investment complies with the law and PRTC's commitments. However, it is deeply disingenuous for PRTC to sink a substantial portion of its obligated investment in bringing the triple- and quadruple-play to prosperous areas that are already served by multiple providers<sup>46</sup> and then claim that it cannot afford to bring broadband to unserved areas. The Commission should not reward PRTC for its decision not to include unserved areas in its investment plans by granting it additional support for that purpose.

**B. Phase I CAF Support Will Not Be Available to Fund Existing Build-Out Commitments**

The Commission has made clear that the purpose of Phase I CAF support is “not to fund existing facilities or deployment to which a carrier has already committed to federal or state regulators.”<sup>47</sup> Providing PRTC with Phase I CAF support would run afoul of both of those limitations.

As the Commission is now aware,<sup>48</sup> PRTC has committed, in a cable franchise application pending before the Telecommunications Regulatory Board of Puerto Rico (“TRB”),

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<sup>45</sup> PRTC Ex Parte at 3.

<sup>46</sup> Similarly, the Commission has identified the practice of “incumbent companies ... to use high-cost support to deploy broadband networks to areas where there is an unsubsidized competitor, such as a cable company” as a “fundamental inefficiency” in the legacy high-cost program. NPRM at ¶¶ 7, 171.

<sup>47</sup> NPRM at ¶ 308.

<sup>48</sup> See OneLink Ex Parte at 3-4, Exhibit A (notifying the Commission of PRTC's pending cable franchise application and the significant discrepancies between the representations there and PRTC's statements to the Commission regarding PRTC's ability to deploy broadband without assistance).

to upgrade its existing telecommunications network to provide both IPTV *and* high-speed broadband (total service capacity of 7 Mbps or more<sup>49</sup>) to nearly half of Puerto Rico within five years or less. Even if the Commission were to disregard PRTC's representation that it can finance its IPTV project with only its operating revenues, this network upgrade clearly would not qualify for Phase I CAF support. Thus, at a minimum, PRTC should not be permitted to seek Phase I CAF funding for any areas covered by its existing deployment plan for broadband-capable IPTV facilities.

### C. PRTC Continues to Misrepresent Its Need for Additional Support

One of the cornerstones of PRTC's claim that Phase I CAF funds would be effective in Puerto Rico (and that PRTC is more deserving of those funds than other providers) is its assertion that PRTC "can leverage its existing wireline infrastructure to expand broadband service to hundreds of thousands of consumers in Puerto Rico for a modest increase in universal service funding."<sup>50</sup> However, the record now reflects that PRTC has developed – and taken substantial steps to implement – plans to deploy a broadband-capable IPTV system over those

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<sup>49</sup> See PRT Application for Authorization to Provide Video Service, Case No. JRT-2008-CCG-0001, at 11 (Dec. 11, 2008).

<sup>50</sup> PRTC Comments at 15. "Hundreds of thousands of consumers" appears to refer only to households not passed by *PRTC's* existing wireline facilities, rather than those without access to *any* wireline infrastructure. **This is once again consistent with PRTC's pattern of excluding other providers' data in order to deflate penetration statistics when requesting additional universal service support.** See, e.g., Insular Order at n.80 ("[T]he data proffered in support of PRTC's claim only measured the percentage of households with a telephone line from *PRTC* in 2002, not the percentage of households in Puerto Rico receiving telephone service from any provider in 2004. Importantly ... the Commission has always measured telephone subscribership based on access to telecommunications service, regardless of technology or provider. Hence, the tentative statements in the *NPRM* likely understated telephone subscribership in Puerto Rico and may have posited a false correlation between the subscribership rate at the time and PRTC's high cost support." (emphasis in original)).

same facilities to nearly 50% of the island during the next five years *without* the need for outside funding.<sup>51</sup> PRTC’s recent efforts to distinguish those plans as irrelevant to its request for additional broadband support ring hollow and should be disregarded.

Specifically, PRTC now claims that its “proposal to deploy and operate a profitable cable service over top of its existing infrastructure does not show that PRT ... could offer universal broadband service in Puerto Rico without government support.”<sup>52</sup> However, PRTC misses the point. There has been no suggestion that PRTC’s provision of IPTV service will directly impact universal broadband service. Rather, PRTC has represented that the upgrades to its existing network necessary to provide IPTV service will also allow it to provide high-speed broadband over those same facilities. Indeed, in an earlier defense of using investment commitment funds to deploy IPTV, PRTC itself acknowledged that “broadband deployment and entry into the video market are ‘inextricably linked.’”<sup>53</sup> PRTC’s IPTV deployment plan thus demonstrates that PRTC can “leverage its existing wireline infrastructure” to expand broadband-capable facilities *without* the increased in universal service funding it claims so desperately to need.

Moreover, PRTC states that “even with a video revenue stream, the business case for broadband deployment is likely impossible absent universal support.”<sup>54</sup> However, that assertion is flatly contradicted by PRTC’s representation to the TRB that it could finance the deployment

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<sup>51</sup> See OneLink Ex Parte at 3-4.

<sup>52</sup> PRTC Ex Parte at 3.

<sup>53</sup> Reply Comments of PRTC, *High-Cost Universal Support; Federal-State Joint Board on Universal Service; Lifeline and Link-Up*, WC Docket Nos. 05-337, 03-109; CC Docket No. 96-45, at 10 (Jun. 22, 2010) (internal citations omitted).

<sup>54</sup> PRTC Ex Parte at 3.

of broadband-capable facilities covering half of Puerto Rico with only its operating revenues.<sup>55</sup> When taken together with the amounts remaining under PRTC's investment obligation and its existing high-cost universal service support – totaling \$103 million between January 2010 and February 2011 alone<sup>56</sup> – it strains credulity that PRTC cannot establish a business case to deploy broadband to a substantial portion of the island without more federal assistance.

#### **IV. CONCLUSION**

For the foregoing reasons, the Commission should not set aside Phase I CAF funds to support additional broadband deployment in Puerto Rico. To be clear, contrary to the unfounded accusations of PRTC and the TRB,<sup>57</sup> OneLink does not oppose federal assistance for broadband in Puerto Rico. However, the additional funding should be focused on solving the actual barriers to expansion of broadband on the island. Thus, in order to accomplish the Commission's twin goals of efficient distribution of funds and increased broadband adoption, it should focus near-

---

<sup>55</sup> See OneLink Ex Parte at 3-4.

<sup>56</sup> See USAC High-Cost Disbursement Data for Study Areas 633200 and 633201 (PRTC wireline) and 639006 (PRTC wireless), available at <http://www.usac.org/hc/tools/disbursements/default.aspx>.

<sup>57</sup> PRTC Ex Parte at 1; TRB Ex Parte, CC Docket No. 96-45, WC Docket Nos. 10-90, 05-337; GN Docket No. 09-51, at 1-2 (Mar. 14, 2011).

term broadband funding on expanded low-income subsidies and educational initiatives designed to promote computer and broadband adoption and digital literacy.

Respectfully submitted,

          /s/ Dana Frix          

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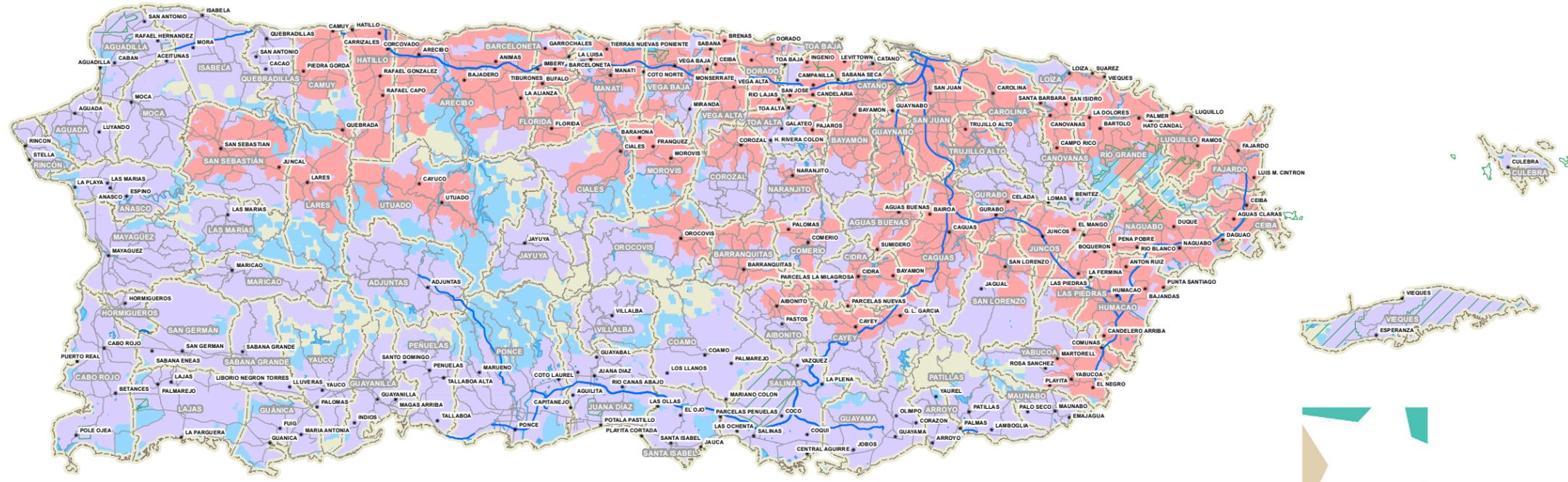
April 18, 2011

# **EXHIBIT A**

# Broadband Service Inventory for the Commonwealth of Puerto Rico

## Advertised Speeds of at Least 768 kbps Downstream and 200 kbps Upstream

Submit questions or recommended changes to: [maps@connectpr.org](mailto:maps@connectpr.org)



Updated April 1, 2011

**BETA Version**



In areas where multiple broadband providers offer service, this platform composite map stacks coverage display layers in the order presented below.

- | Symbology                                |   |
|--|---|
| • City                                   | Orange square: Fiber Broadband Available                |
| Blue line: Primary Road                  | Red square: Cable Broadband Available                   |
| Grey line: Secondary Road                | Purple square: DSL Broadband Available                  |
| Black dashed line: Municipality Boundary | Green square: Fixed Wireless Broadband Available        |
| Blue wavy line: Water                    | Light blue square: Mobile Wireless Broadband Available* |
| Green wavy line: National Lands          | Tan square: Unserved Areas                              |



\*This map is not a guarantee of coverage, contains areas with no service, and generally predicts where outdoor coverage is available. Equipment, topography and environment affect service.

Map users are encouraged to participate in improving broadband data granularity through data validation and field testing efforts. Learn more about this and other broadband mapping facts at [www.connectpr.org](http://www.connectpr.org).

As required by the US Department of Commerce's State Broadband Data and Development Grant Program, if broadband service is available to at least one household in a census block, then for mapping purposes, that census block is reported to have some level of broadband availability. As such, broadband availability at an exact address location cannot be guaranteed. Providers supplying more specific data than census block are displayed as such.

This map represents areas of broadband service availability determined by ongoing, in-depth technical analysis of provider networks and accommodations for the impact of external factors on service quality. Satellite broadband services may also be available.

# **EXHIBIT B**



# **Connect Puerto Rico Residential Technology Assessment Results**

**In compliance with Island and NTIA requirements**



# 2010 Technology Assessment of Puerto Rico Residential Consumers Presentation Outline

<b>Summary of Key Findings</b>	<b>5</b>
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Online Activities Among Puerto Rican Internet Users	39
Mobile Technology Use	47
Teleworking and Working From Home Through an Internet Connection	53
Technology Adoption Barriers	57



# 2010 Technology Assessment of Puerto Rico Residential Consumers

## Presentation Outline *(Continued)*

### Residential Technology Assessments

Assessment by Income	63
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Assessment by Race/Ethnicity	99
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# Summary of Key Findings



# Key Findings

## Key Technology Benchmarks, 2010:

- Households with broadband service: 31%
- Households with a computer: 55%
- Residents who access the Internet from home or someplace else: 64%
- Residents who subscribe to mobile broadband via laptop or cell phone/mobile device: 18%

## Other Key Findings:

- Across Puerto Rico, 31% of all residents subscribe to home broadband service; by comparison, surveys show that 67% of American households subscribe to home broadband service.
- Island-wide, 55% of all residents own a home computer. This translates into over one million adults without a home computer, with more than half of those residents saying they do not believe they need one.
- Island-wide, 12% of Puerto Rico residents report that broadband is not available where they live, 61% say with certainty that broadband is available, and 27% do not know whether broadband service is available. By comparison, Connect Puerto Rico's provider-validated Broadband Service Inventory found that 8.7% of households do not have terrestrial fixed broadband service access.
- In rural Puerto Rico, 19% of adults report that broadband service is not available where they live, 62% say with certainty that broadband is available, and 19% do not know whether broadband service is available where they live. By comparison, Puerto Rico's provider-validated Broadband Service Inventory reports that 13.3% of rural households do not have terrestrial fixed broadband access.



## Key Findings (Continued)

- Residents living in rural areas have higher broadband adoption rates than residents living in non-rural areas.
- Residents age 65 or older are less likely to subscribe to home broadband service, and they are also less likely to access the Internet altogether (from home or any other location).
- Island-wide, 48% of broadband subscribers report that they have cable modem service at home, while 28% subscribe via DSL. Satellite broadband and fiber to the home service account for 4% of home broadband subscribers in Puerto Rico, while fixed wireless broadband accounts for 12% of all Puerto Rico broadband subscribers.
- More than three-fourths Puerto Rico Internet subscribers (76%) get their Internet service “bundled” with other services. The most popular service to be bundled with home Internet service is home phone service, followed by television and cell phone service.
- On average, Puerto Rico broadband subscribers pay \$42.37 per month for their home broadband service. Among those who do not subscribe to home broadband service, 16% cite cost as a barrier to adoption.
- Over one-third of Puerto Rico residents who do not have home broadband service say it is because they do not need Internet service or don’t know why they don’t subscribe. More than one-fourth say it is because they do not own a computer.
- Among rural non-subscribers, the belief that they do not need broadband or the Internet is still the top barrier, cited by one-third of rural residents without home broadband service.

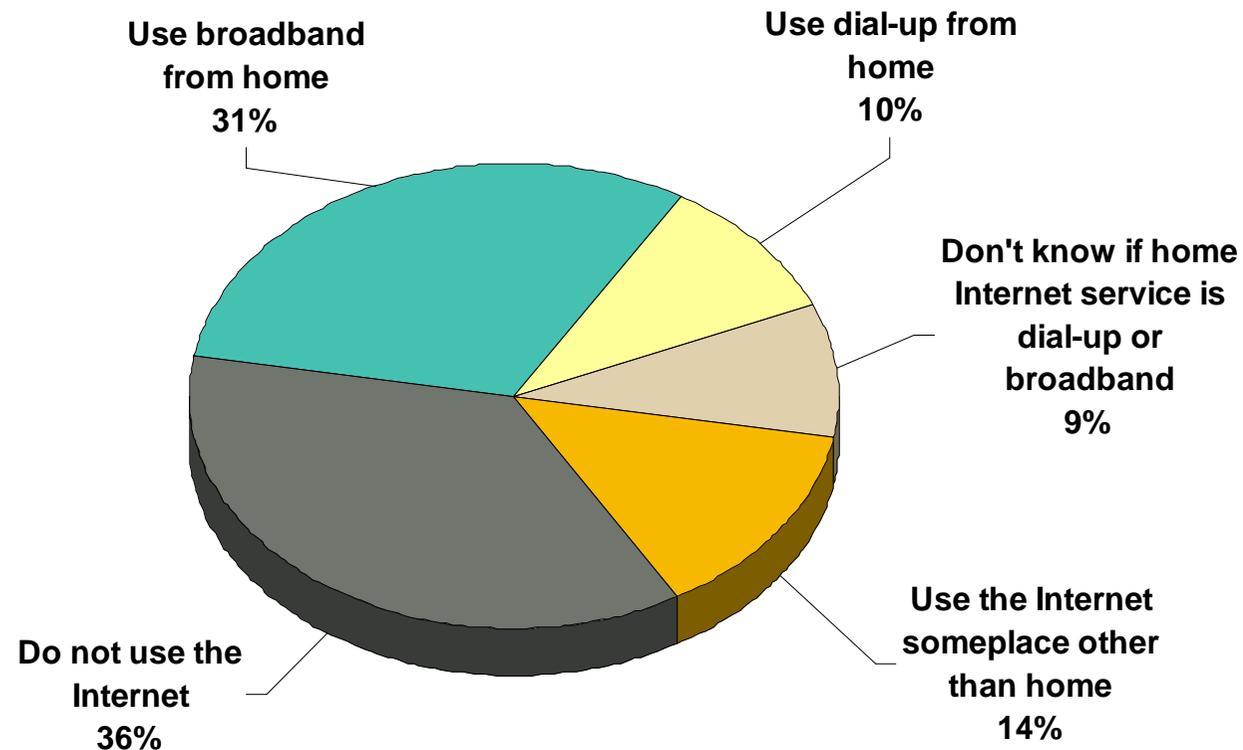


## Key Findings (Continued)

- The top applications used by Puerto Rico Internet users include communicating with friends and family, conducting research for schoolwork, sending or receiving e-mail, using a search engine, and communicating with others through a social networking site.
- Among all Puerto Rico Internet users, 45% search for health or medical information online, while 10% interact with doctors or healthcare professionals online.
- E-government services are utilized by some Puerto Rico Internet users; 26% report that they search online for information about government services or policies. In addition, 8% conduct online transactions with government offices (such as e-filing taxes or filling out forms), 11% interact with Puerto Rico government offices, 8% interact with local government offices, and 3% interact with elected officials or candidates online.
- Many Puerto Rico Internet users go online for educational purposes. Island-wide, 56% conduct research for schoolwork online, 18% interact with teachers online, and 11% take classes online.
- Puerto Rico residents also use the Internet for work purposes. Among Puerto Rico Internet users, 34% interact with their co-workers online, 37% go online to search for jobs or employment, and 14% report that they go online to work from home.
- In Puerto Rico, only 4% of employed adults report that they telework, or work from home using an Internet connection rather than commuting to work. Teleworking could provide an additional boost to the island's workforce, as nearly one-sixth of retirees, over one-fourth of adults with disabilities, and over one-third of homemakers say they would likely join the workforce if empowered to do so by teleworking.

# Puerto Rico Technology Adoption Summary

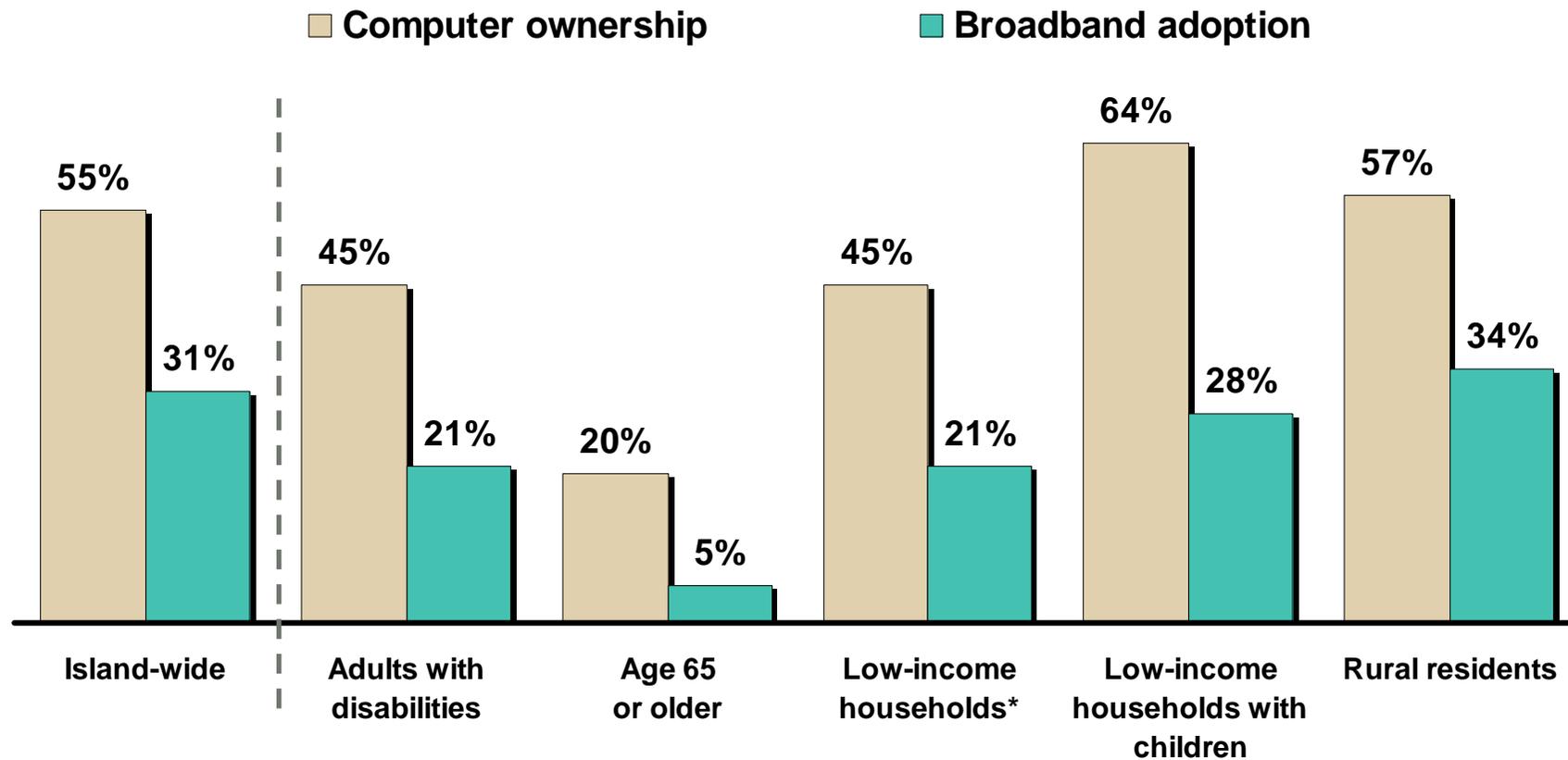
## Percent of all Puerto Rico residents



Q: Do you have an Internet connection at home?,  
 Q: Which of the following describe the type of Internet service you have at home?, and  
 Q: Do you have access to the Internet from any locations outside of your own home?  
 (n=1,200 PR residents)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Technology Adoption by Demographic



\*Low-income=household income less than \$25,000

Q: Does your household have a computer? and

Q: Which of the following describe the type of Internet service you have at home?

(n=1,200 PR residents)

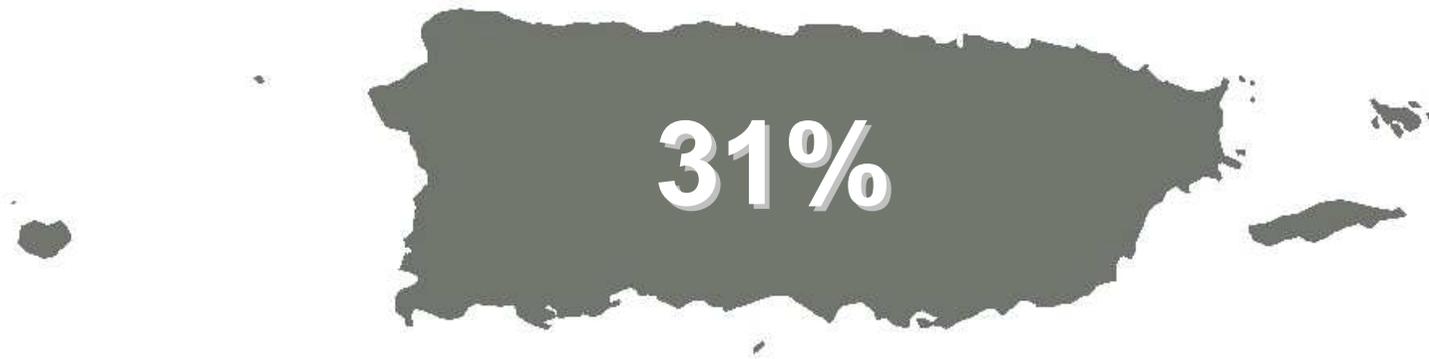
Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Broadband Adoption and Usage



# Puerto Rico Residents Who Subscribe to Home Broadband Service

Percent of all Puerto Rico residents who subscribe to home broadband service



**Island-wide, 31% of all Puerto Rican adults subscribe to home broadband service. This translates into approximately 911,000 adults with broadband service at home.**

Q: Which of the following describe the type of Internet service you have at home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

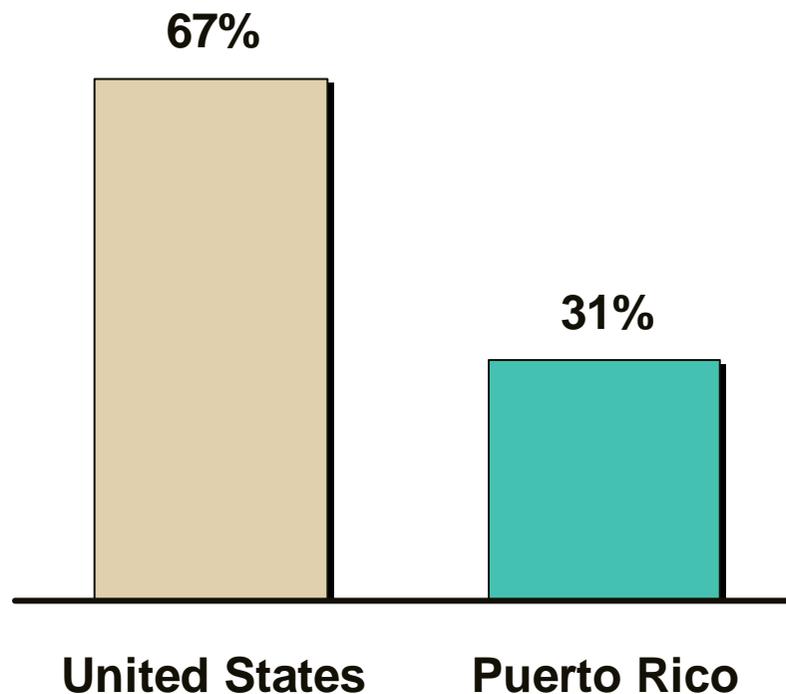


# Puerto Rico Residents Who Subscribe to Home Broadband Service

Percent of all Puerto Rico residents with broadband service at home

In Puerto Rico, 31% of Puerto Ricans (approximately 911,000 Puerto Rican adults) subscribe to home broadband service.

A survey conducted by the Federal Communications Commission indicates that 67% of American households subscribe to home broadband service.\*



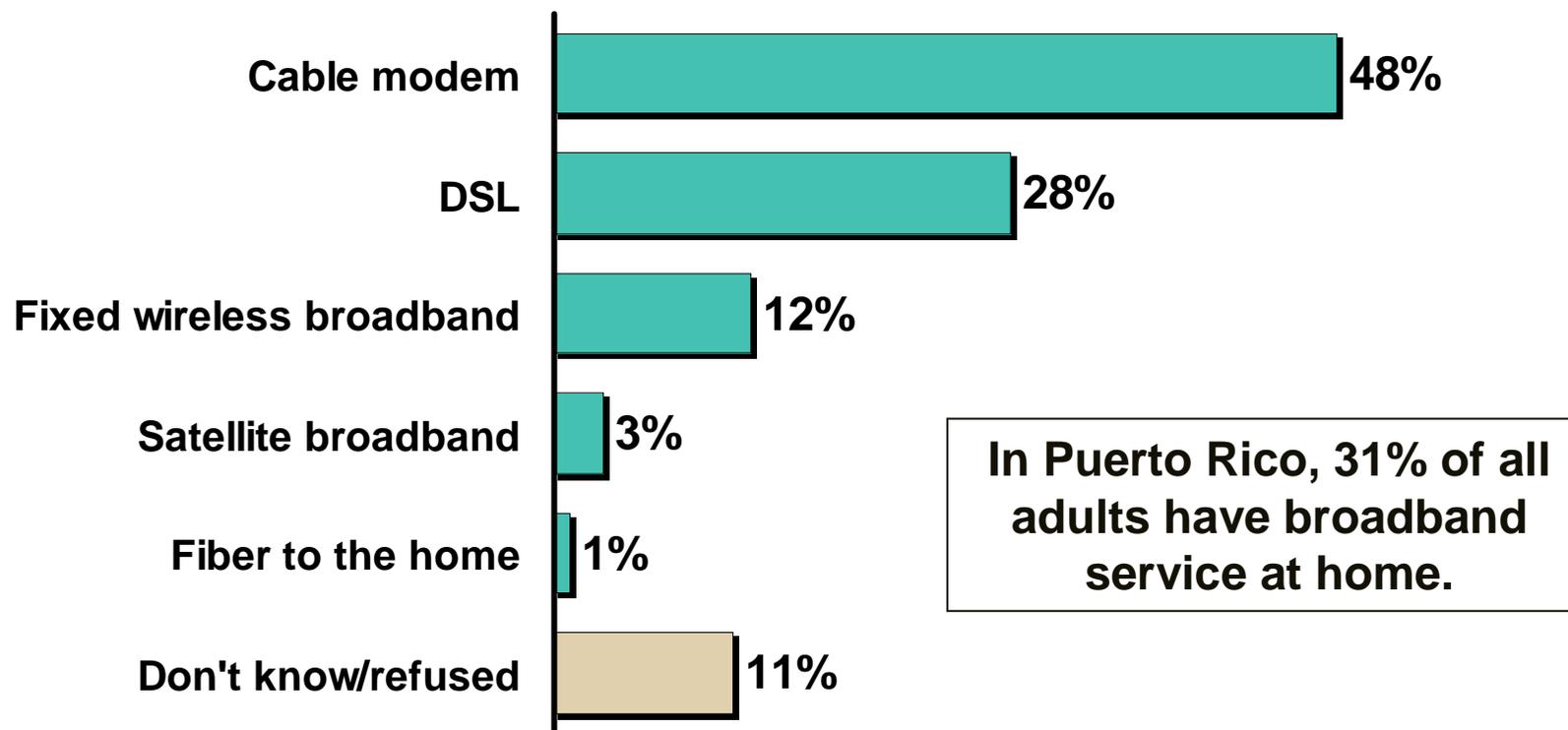
Q: Which of the following describe the type of Internet service you have at home?  
(n=1,200 PR residents)

\*Source: Federal Communications Commission, *Broadband Adoption and Use in America, 2010*.  
Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Types of Broadband Service That Puerto Rico Residents Use

Percent of all Puerto Rico broadband subscribers\*



\*Percentages do not add up to 100% because individuals could give multiple responses.

Q: Which of the following describes the broadband service you have at home?  
(n=366 PR residents with home broadband service)

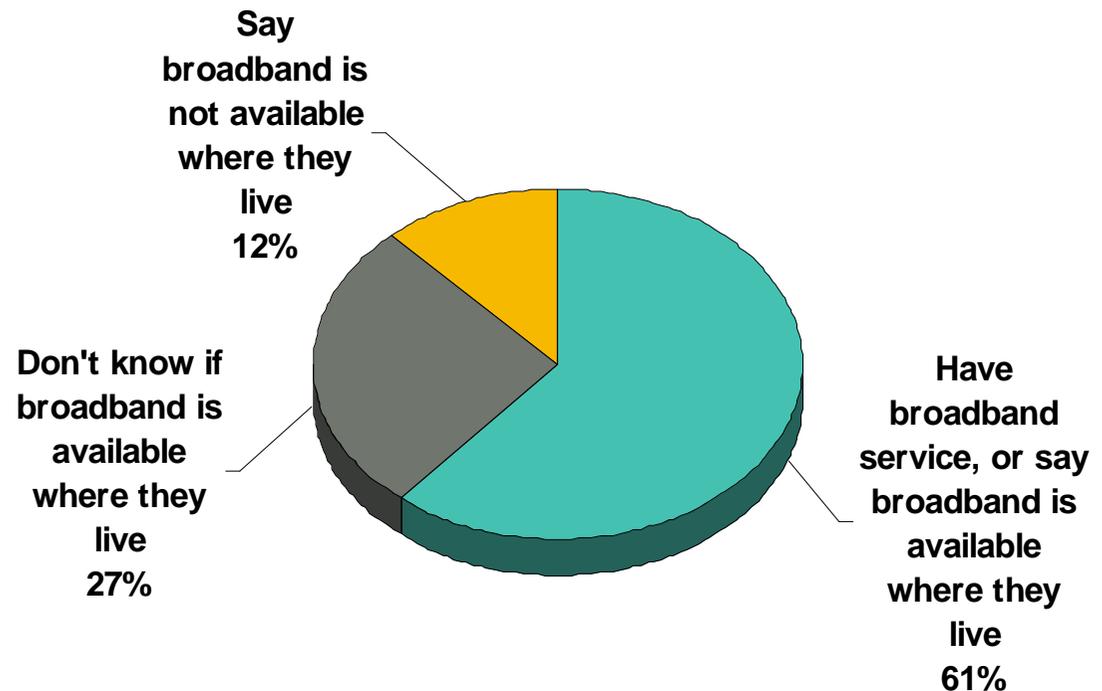
Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Perceptions of Broadband Availability in Puerto Rico

In Puerto Rico, 12% of adults report that broadband service is not available where they live, and an additional 27% do not know whether broadband service is available.

According to Connect Puerto Rico's provider-validated Broadband Service Inventory, 8.7% of households do not have terrestrial fixed broadband access.

## Awareness of broadband availability among Puerto Rico residents



Q: To the best of your knowledge, is broadband or high-speed Internet service available in the area where you live?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

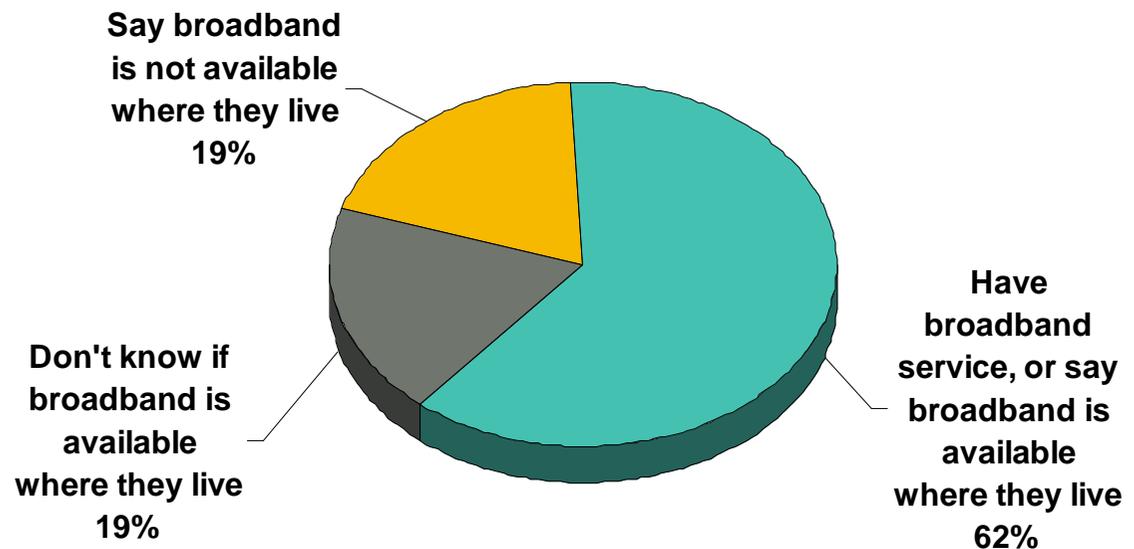


# Perceptions of Broadband Availability in Puerto Rico (Among Rural Residents)

**In rural Puerto Rico, 19% of residents report that broadband service is not available where they live, and an additional 19% do not know whether broadband service is available.**

**According to Connect Puerto Rico's provider-validated Broadband Service Inventory, 13.3% of households do not have terrestrial fixed broadband access.**

## Awareness of broadband availability among rural Puerto Rico residents



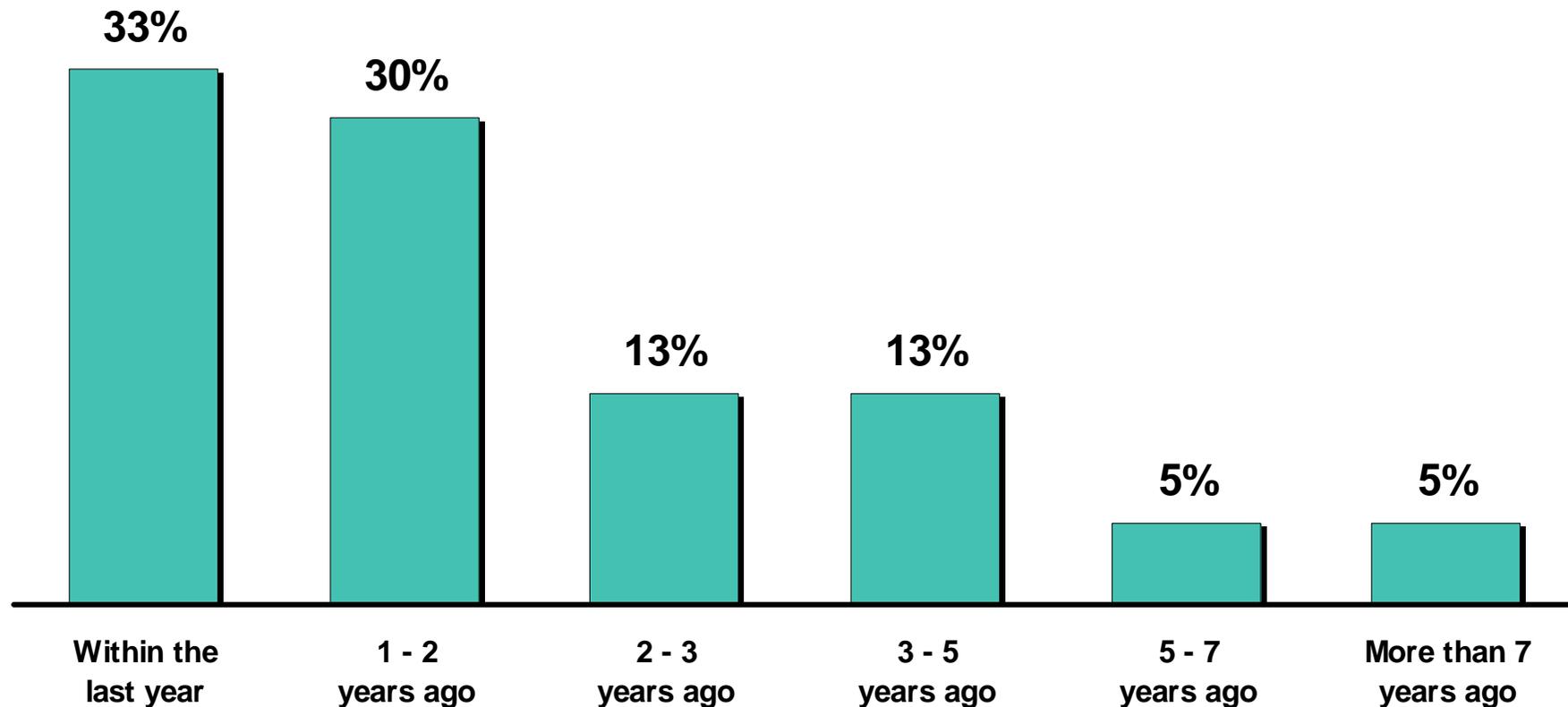
Q: To the best of your knowledge, is broadband or high-speed Internet service available in the area where you live?  
(n=211 rural PR residents)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# When Puerto Rico Residents First Subscribed to Broadband

When Puerto Rico broadband users began subscribing



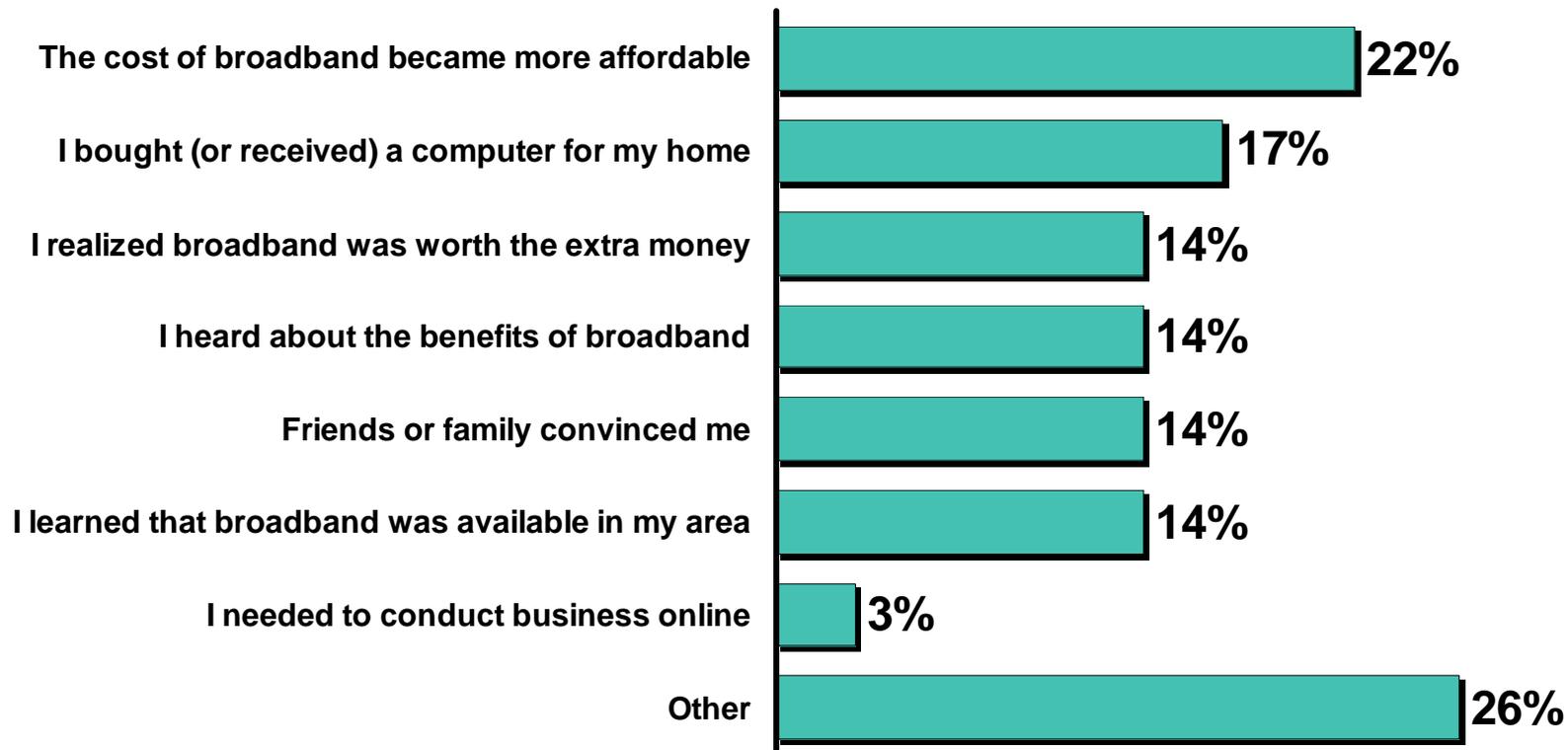
Q: When did you first begin subscribing to broadband service?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Why Puerto Rico Residents Subscribe to Broadband

Percent of Puerto Rico residents with a broadband connection at home\*



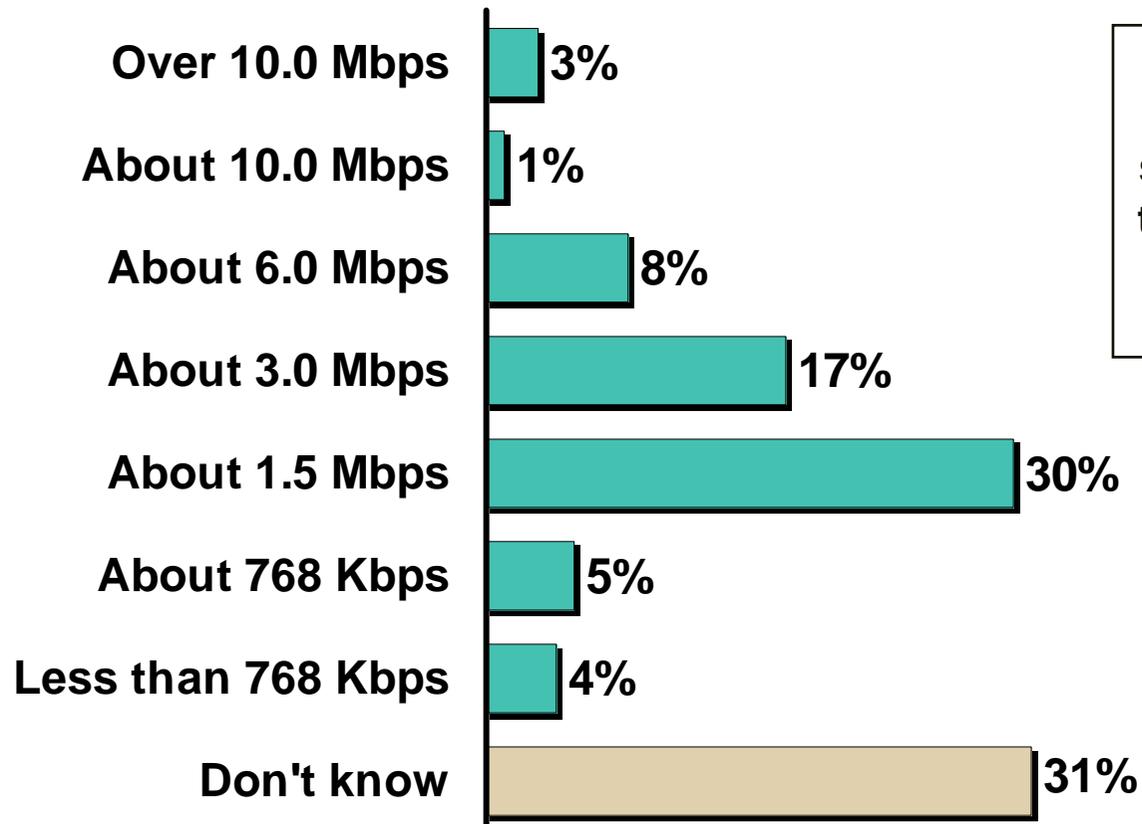
\*Percentages do not add up to 100% because individuals could give multiple responses.

Q: Which of the following contributed to your decision to subscribe to broadband service?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Broadband Download Speeds

Download speeds among Puerto Rico broadband subscribers



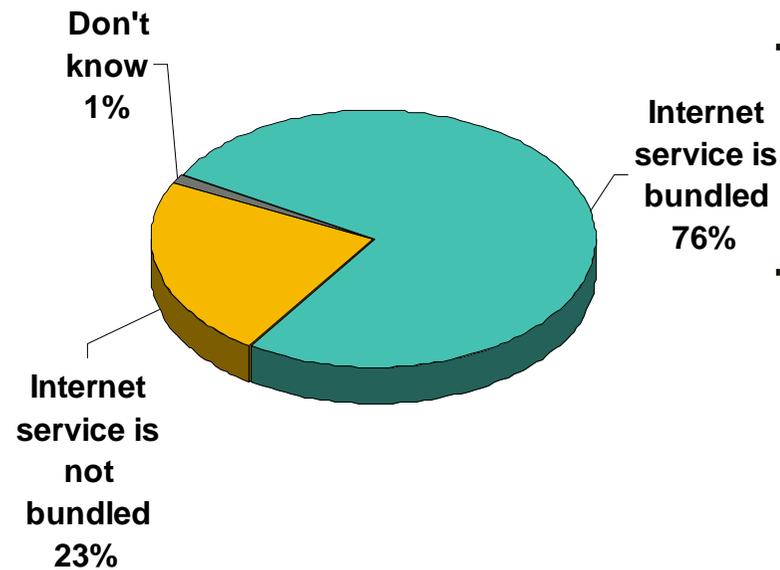
**Puerto Rico  
broadband  
subscribers who know  
their download speeds  
report an average  
speed of 3.3 Mbps.**

Q: To the best of your knowledge, what is the approximate download speed or bandwidth provided by your Internet service provider?  
(n=366 PR residents with home broadband service)

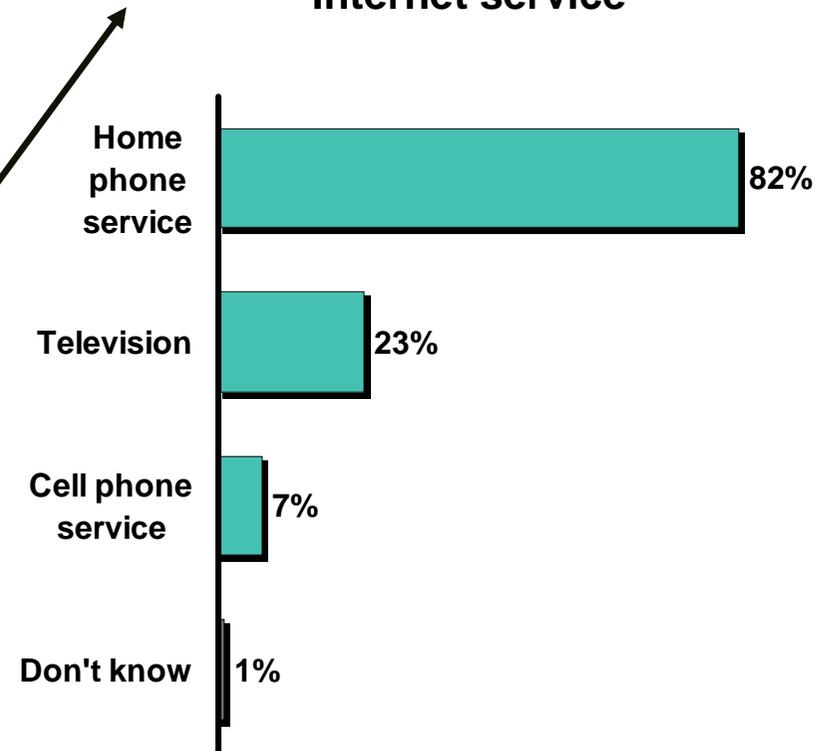
Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Bundling Services Offered by Internet Providers

**Among Puerto Rico residents with Internet access at home**



**Other services bundled with home Internet service**



Q: Does your Internet provider also provide your home with other service, such as our telephone, cell phone service, or television? This is often called “bundling”?  
(n=598 PR residents with Internet service at home), and  
Q: What other services are bundled with your home Internet service?  
(n=460 PR residents with bundled Internet access)

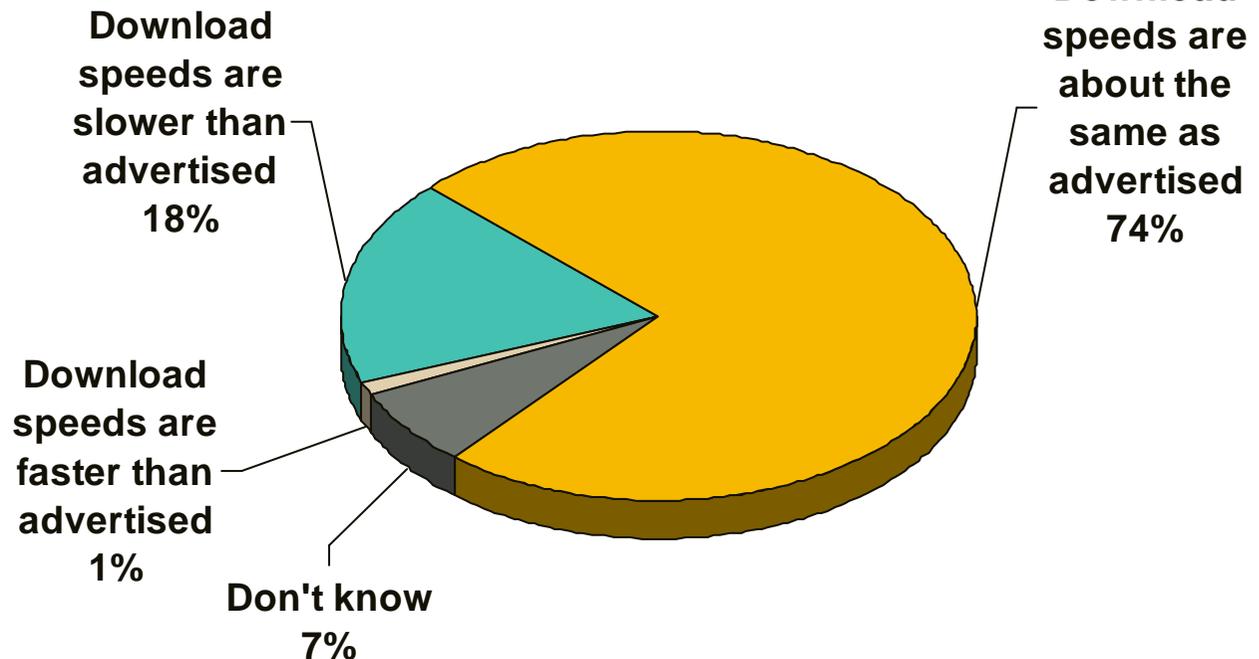
Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Actual Broadband Speeds vs. Advertised Speeds

Among Puerto Rico residents with home broadband service

Three out of four broadband subscribers (75%) say their download speed is the same or faster than what was advertised by their provider.

However, 18% of broadband subscribers (approximately 164,000 adults) say that their download speeds are slower than advertised.



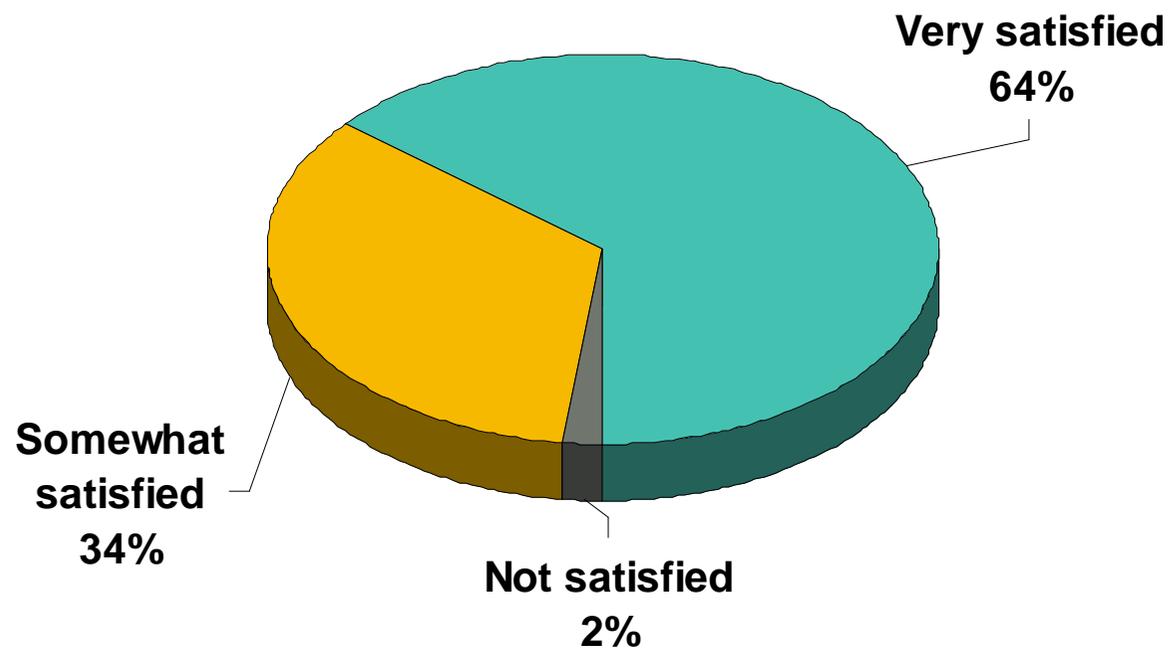
Q: To what extent would you say the actual speeds you receive compare to the speeds advertised by the Internet provider you use?  
Would you say the actual speed you receive is usually...  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Satisfaction With Broadband Service

Satisfaction among Puerto Rico residents  
with their home broadband service

**2% of Puerto Rico  
broadband subscribers  
report being dissatisfied  
with their current  
broadband service.**



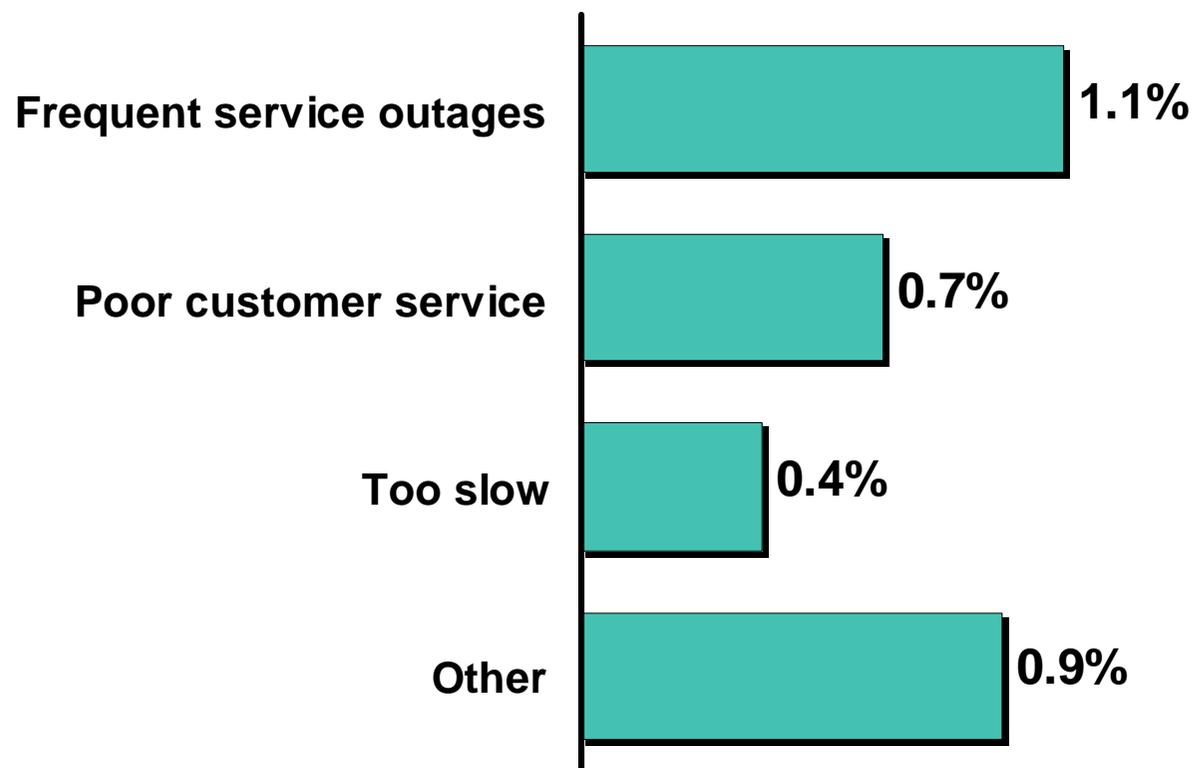
Q: Overall, how satisfied are you with your broadband service?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Reason for Dissatisfaction with Broadband Service

Among Puerto Rico residents with home broadband service\*



**Overall, 2% of Puerto Rico broadband subscribers report that they are dissatisfied with their current service.**

\*Respondents could provide more than one answer.  
Q: What is it about your broadband service that is not satisfactory?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



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# Computer and Internet Adoption



# Puerto Rico Residents With a Computer in Their Household

Percent of all Puerto Rico residents who own a computer



**Island-wide, 55% of all Puerto Rican adults own a home computer. This translates into more than 1.3 million adults without a home computer.**

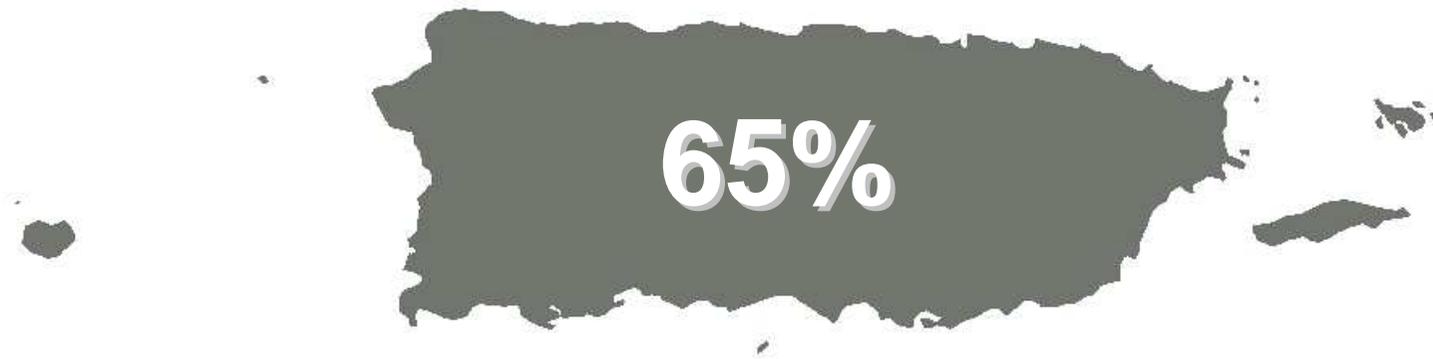
Q: Does your household have a computer?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Puerto Rico Residents Who Use a Computer (At Home or Someplace Else)

Percent of all Puerto Rico adults who use a computer



**Island-wide, 65% of all adult residents use a computer.  
This translates into over one million adults who do not use a computer at all.**

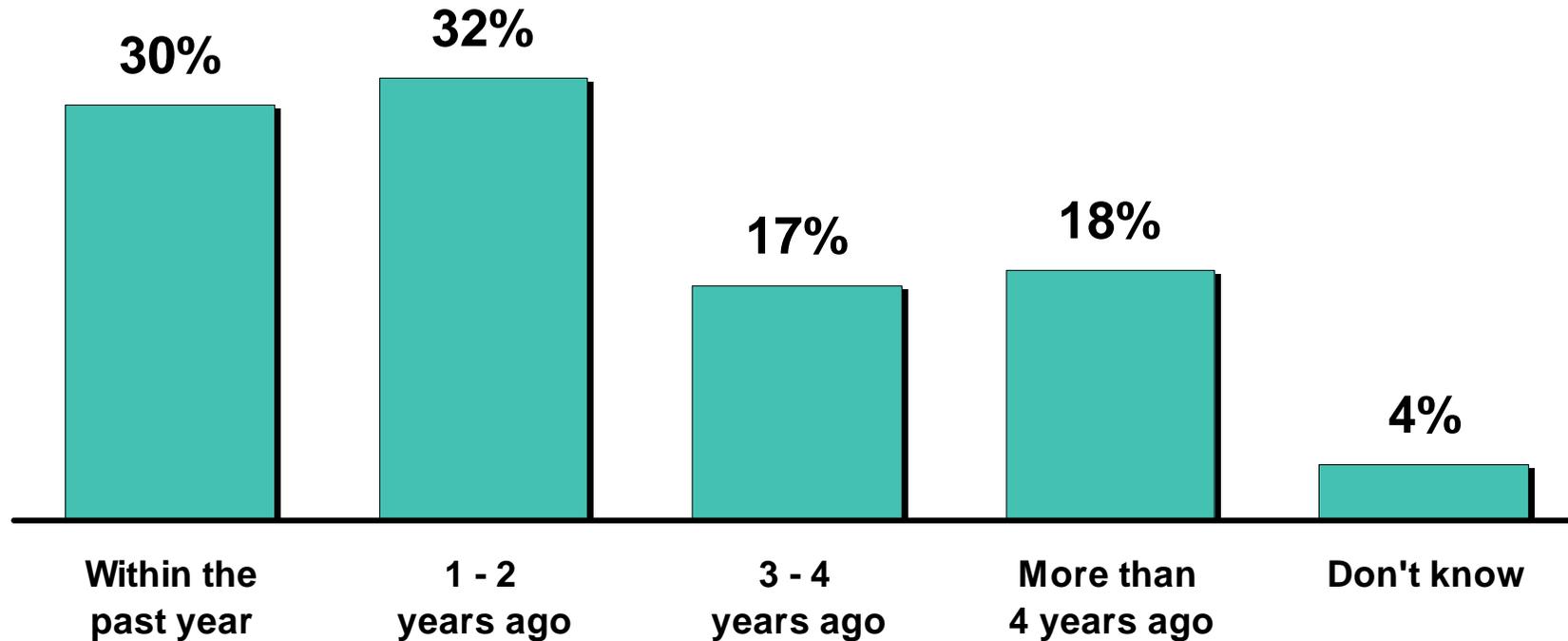
Q: Does your household have a computer? and  
Q: At what locations outside of your own home do you have access to the Internet?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Puerto Rico Residents With a Computer in Their Household

When Puerto Rico computer owners purchased their home computer

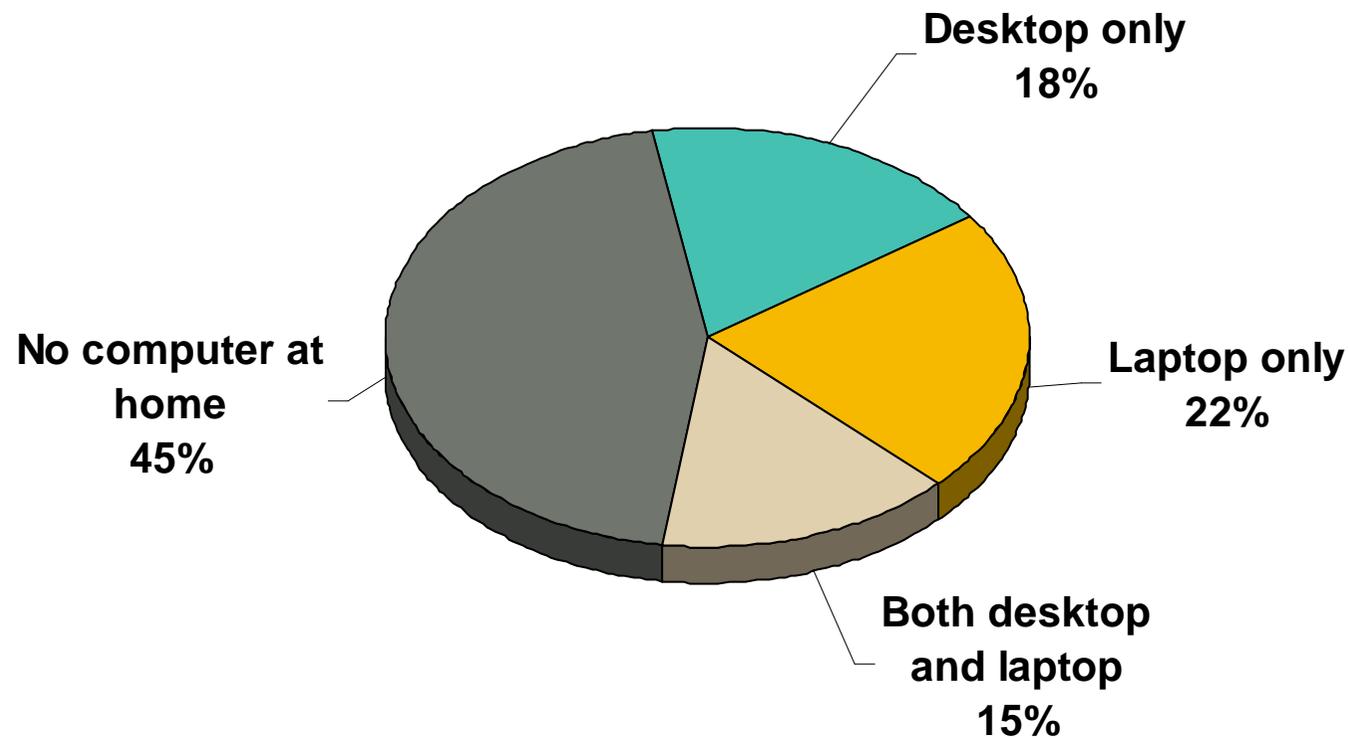


Q: When was the last time you purchased a home computer?  
(n=665 PR computer owners)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Types of Computers That Puerto Rico Residents Own

Percent of all Puerto Rico residents



Q: Does your household have a computer? and  
Q: What type of computer do you have at home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Puerto Rico Residents Who Subscribe to Home Internet Service

Percent of all Puerto Rico residents who subscribe to home Internet service



**Island-wide, 50% of all Puerto Rico adult residents subscribe to home Internet service. This translates into over 1.5 million adults with Internet service at home.**

Q: Do you have an Internet connection at home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

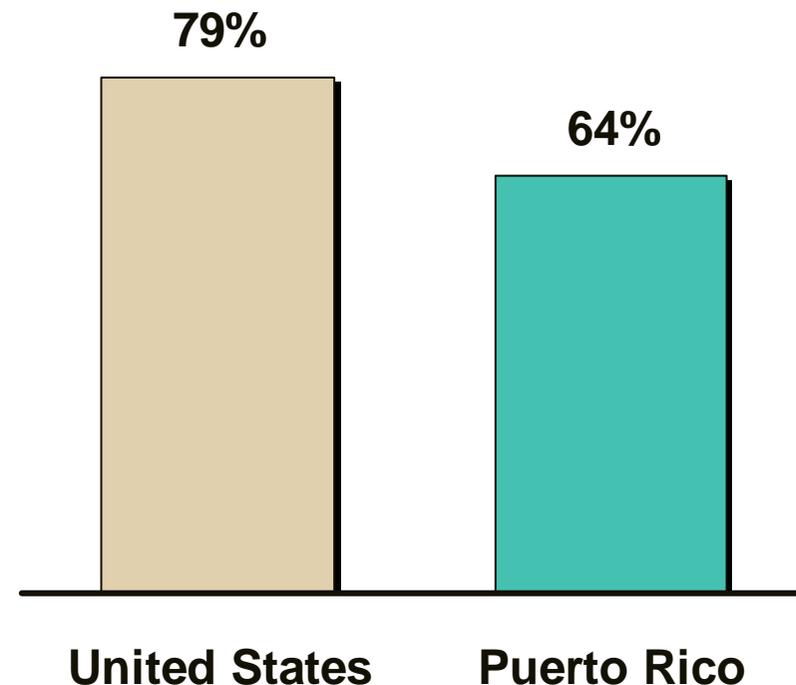


# Puerto Rico Residents Who Use the Internet

(Any Internet Connection, From Any Location)

Percent of residents who access the Internet from home or some other place

Sixty-four percent of Puerto Rico adults access the Internet either from their home or from some other place (such as school, work, or Wi-Fi “hot spots”). By comparison, a study of the continental United States recently found that 79% of American adults use the Internet.\*



\*Source: Pew Research Center's Internet & American Life Project, "Home Broadband 2010," released August 11, 2010.

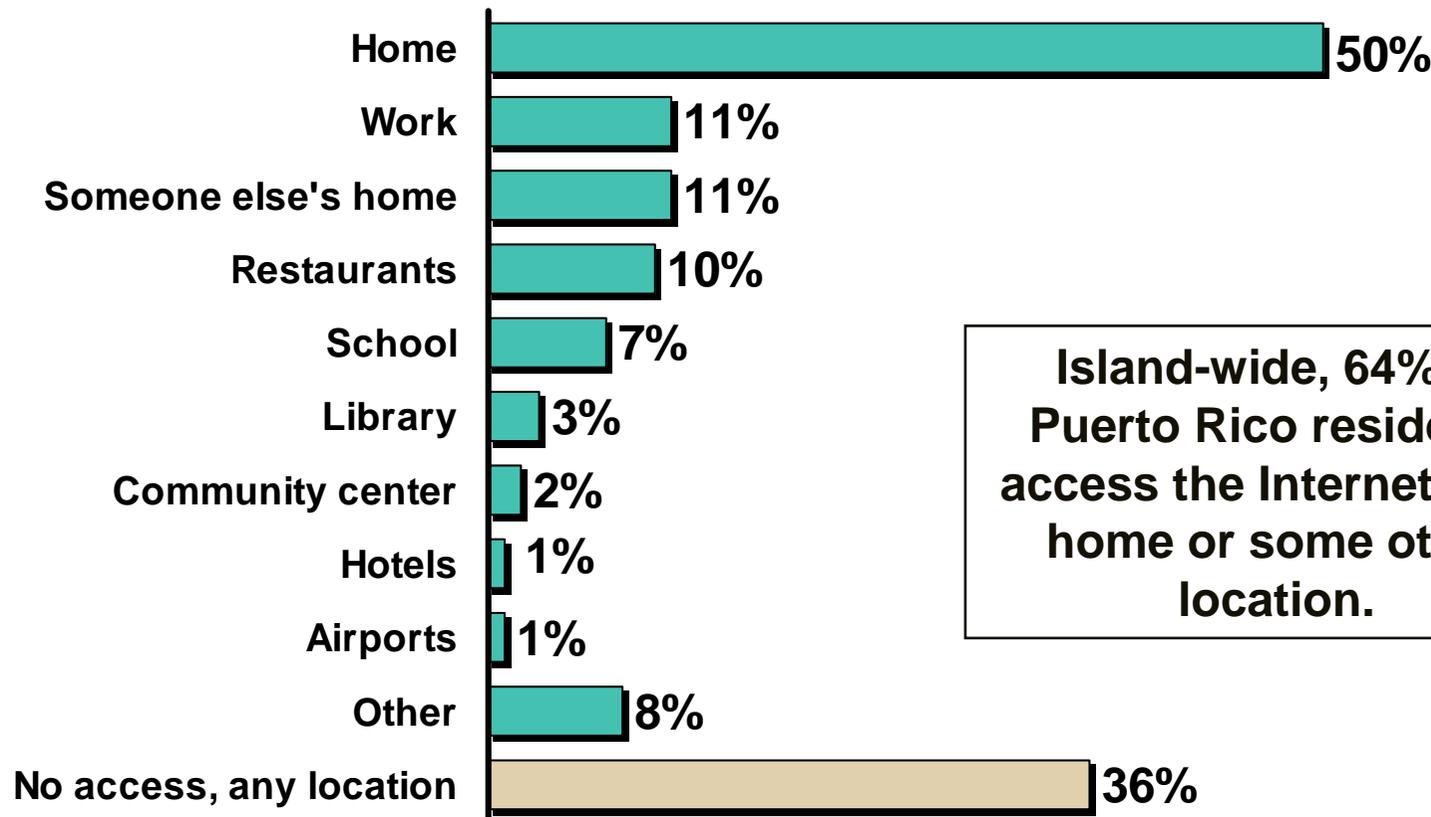
Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

Q: Do you have an Internet connection at home? and  
Q: At what locations do you use the Internet?  
(n=1,200 PR residents)



# Where Puerto Rico Residents Access the Internet

Locations where Puerto Rico residents access the Internet\*



Island-wide, 64% of Puerto Rico residents access the Internet from home or some other location.

\*Percentages do not add up to 100% because individuals could give multiple responses.  
Q: At what locations do you have access to the Internet?  
(n=1,200 PR residents)

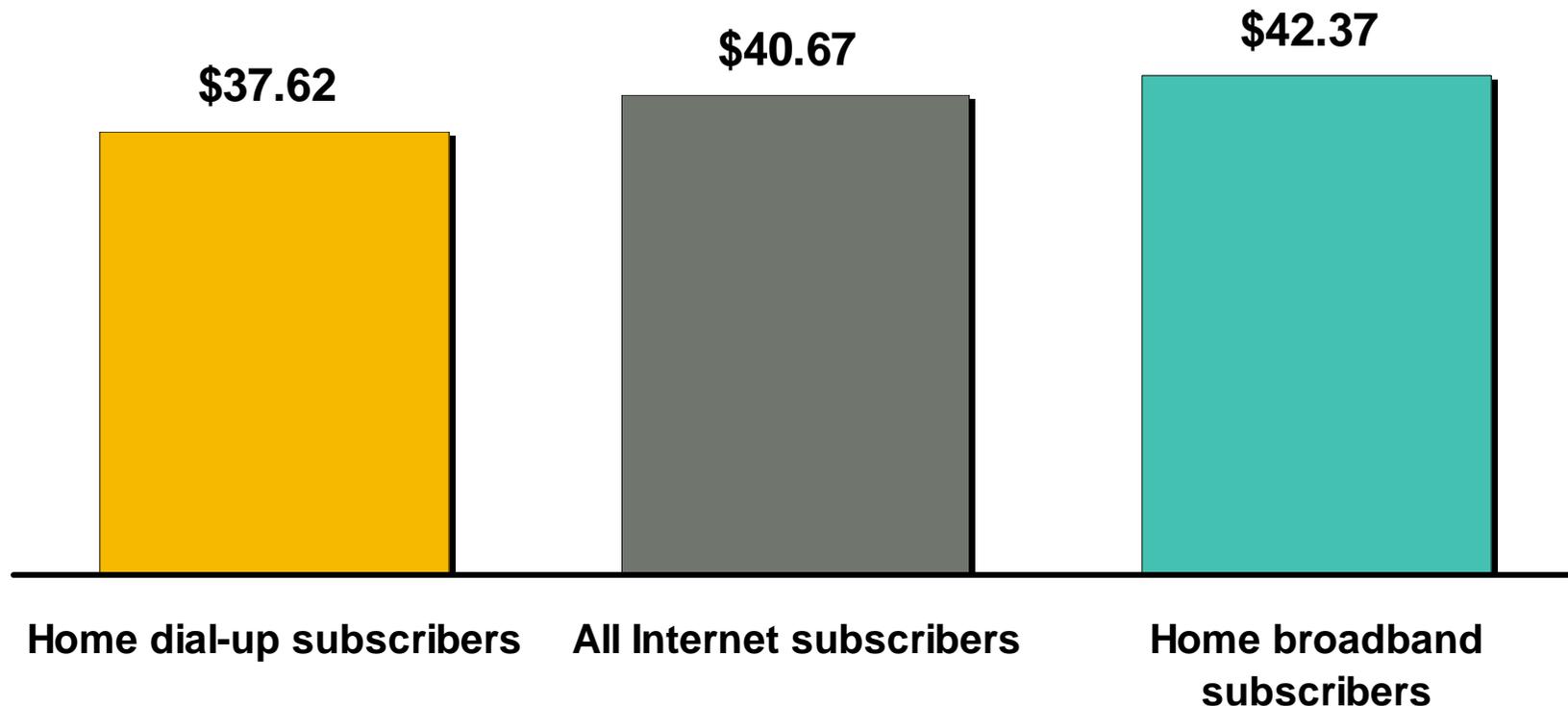
Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Prices Paid by Puerto Rico Residents for Internet Service



# Average Monthly Price Puerto Rico Residents Pay for Internet Service (Either Dial-Up or Broadband)

Average monthly price paid for home Internet service



Q: What do you pay each month for your Internet service?  
(n=598 PR residents with Internet service at home)

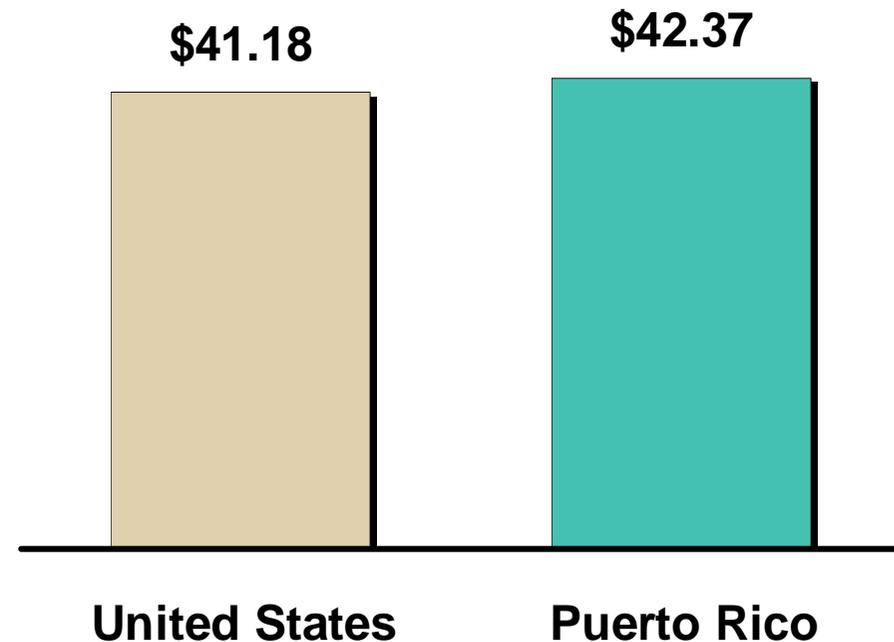
Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Average Monthly Price Puerto Rico Residents Pay for Broadband Service

Average monthly price paid for home broadband service

Island-wide, broadband subscribers pay \$42.37 per month for service. By comparison, a study of the continental United States recently found that the average broadband subscriber pays \$41.18 per month for service.\*



\*Source: Pew Research Center's Internet & American Life Project, "Home Broadband 2010," released August 11, 2010.

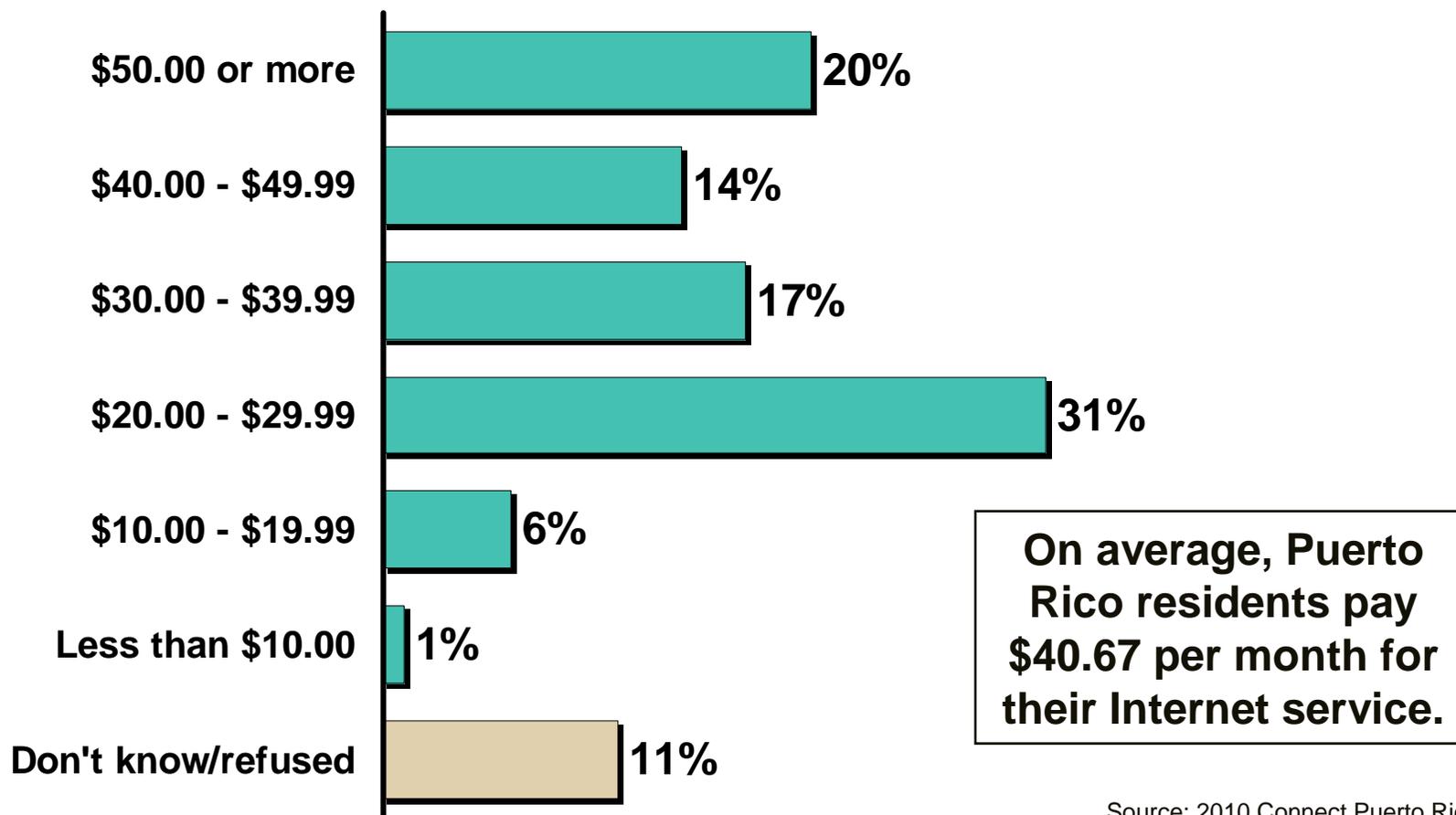
Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

Q: What do you pay each month for your Internet service?  
(n=366 PR residents with home broadband service)



# Monthly Price Puerto Rico Residents Pay for Internet Service (Either Dial-Up or Broadband)

Percent of Puerto Rico residents with either dial-up or broadband Internet service at home



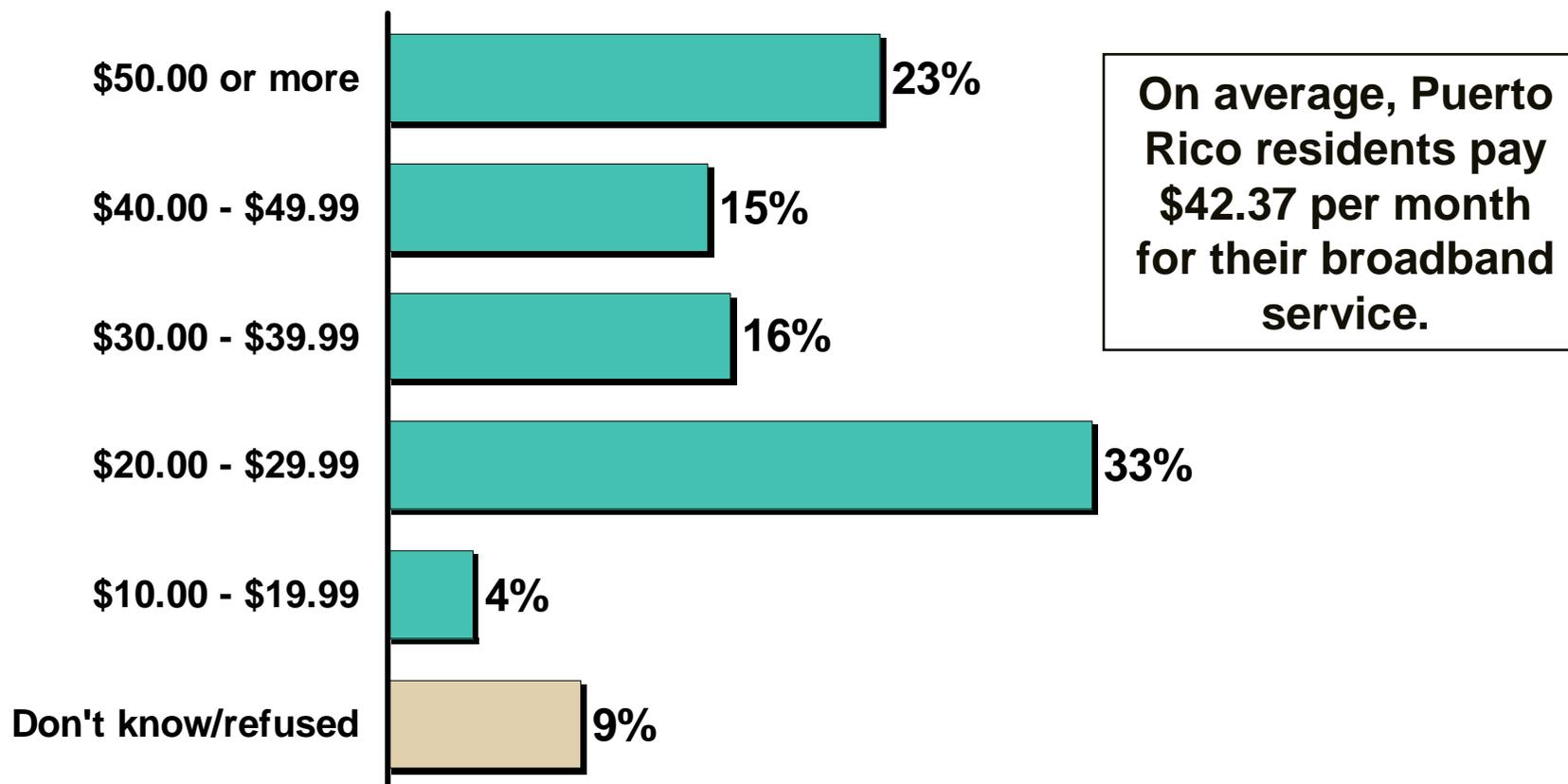
Q: What do you pay each month for your Internet service?  
(n=598 PR residents with Internet service at home)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Monthly Price Puerto Rico Residents Pay for Broadband Service

Percent of Puerto Rico residents with broadband service at home



Q: What do you pay each month for your Internet service?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

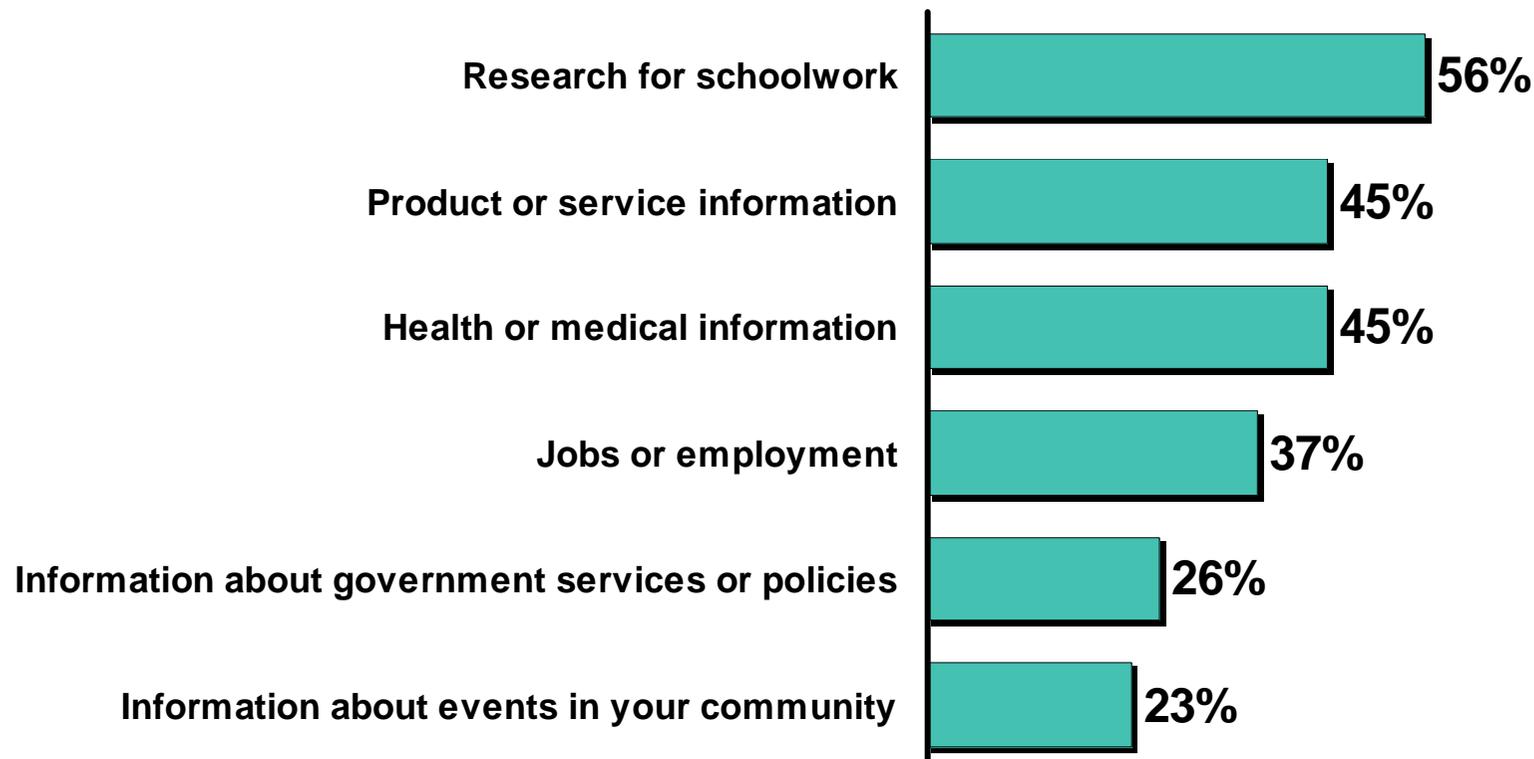


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# Online Activities Among Puerto Rico Internet Users

# Searching for Information Online

**Percent of Puerto Rico Internet users who search for the following types of information online**

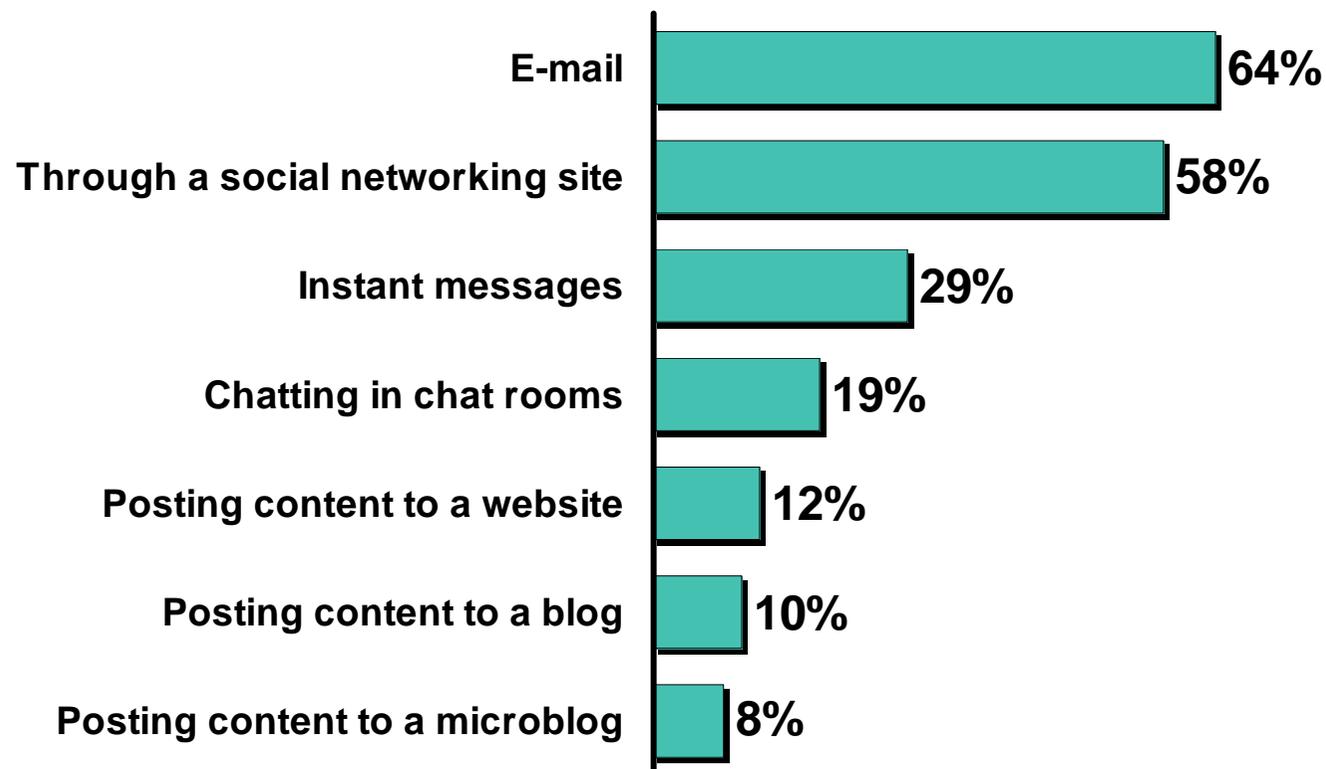


Q: Which of the following types of information do you use the Internet to look for online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Communicating Online

Percent of Puerto Rico Internet users who communicate online in the following ways

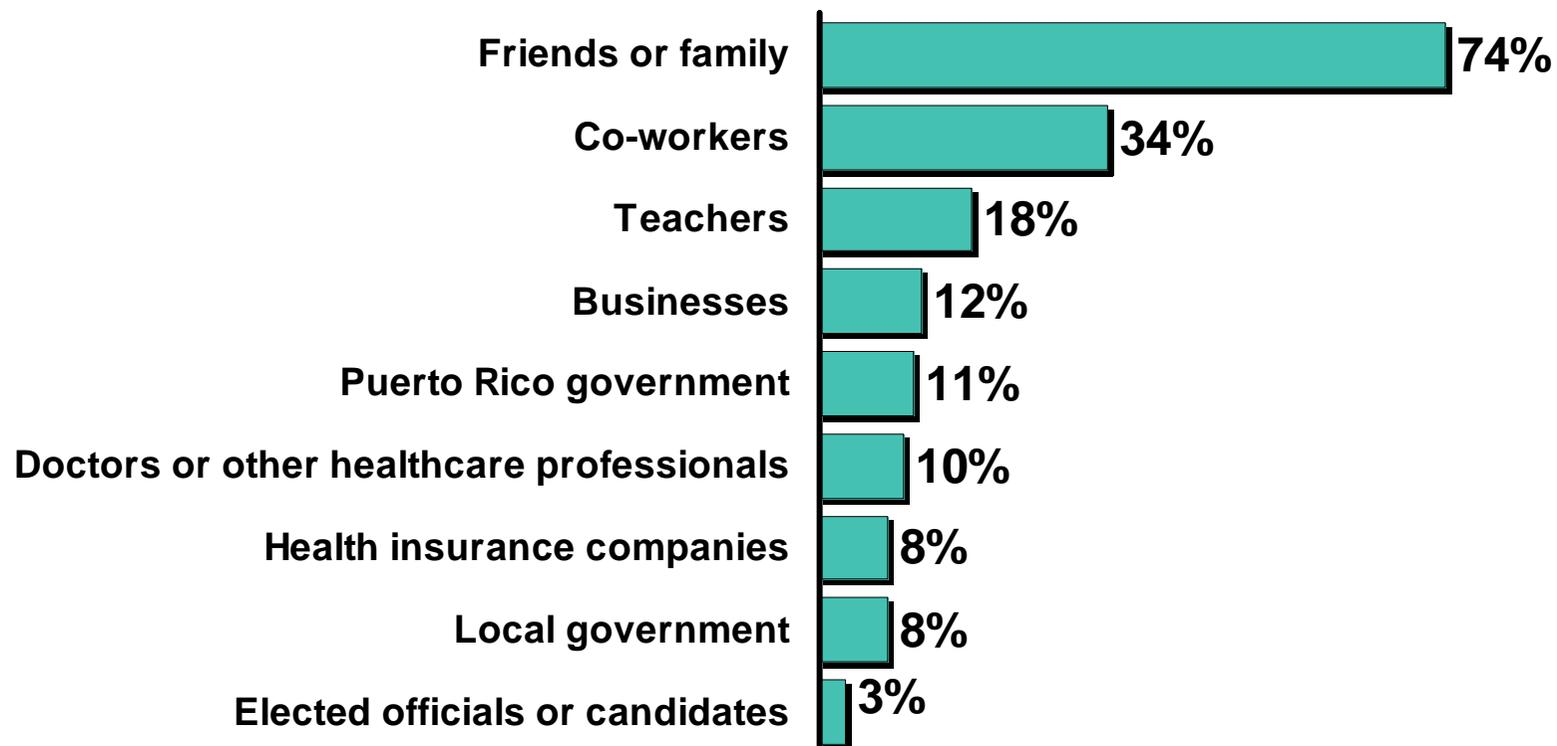


Q: Which of the following ways of communicating with others do you use?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Interacting Online

Percent of Puerto Rico Internet users who interact with the following individuals or organizations online

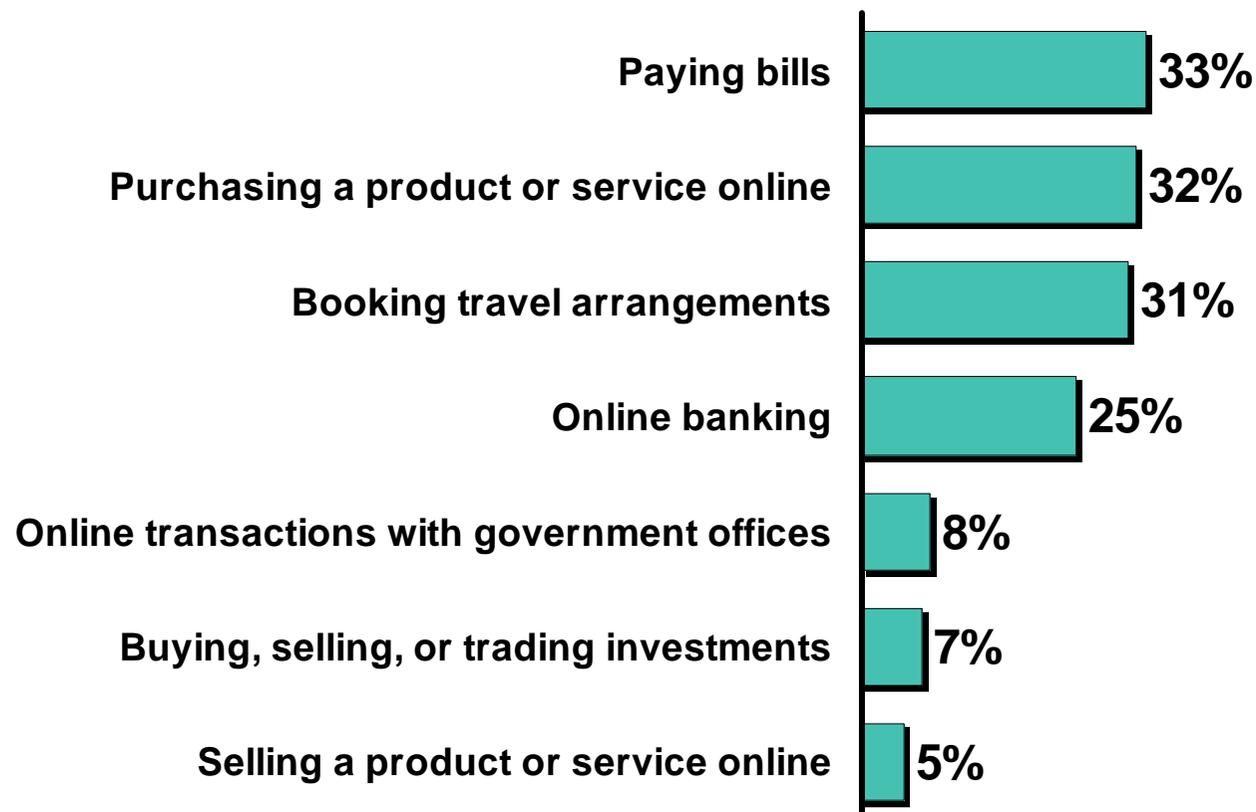


Q: Which of the following types of individuals or organizations do you interact with online, by visiting a website or communicating online to obtain information?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Online Transactions

Percent of Puerto Rico Internet users who conduct the following transactions online

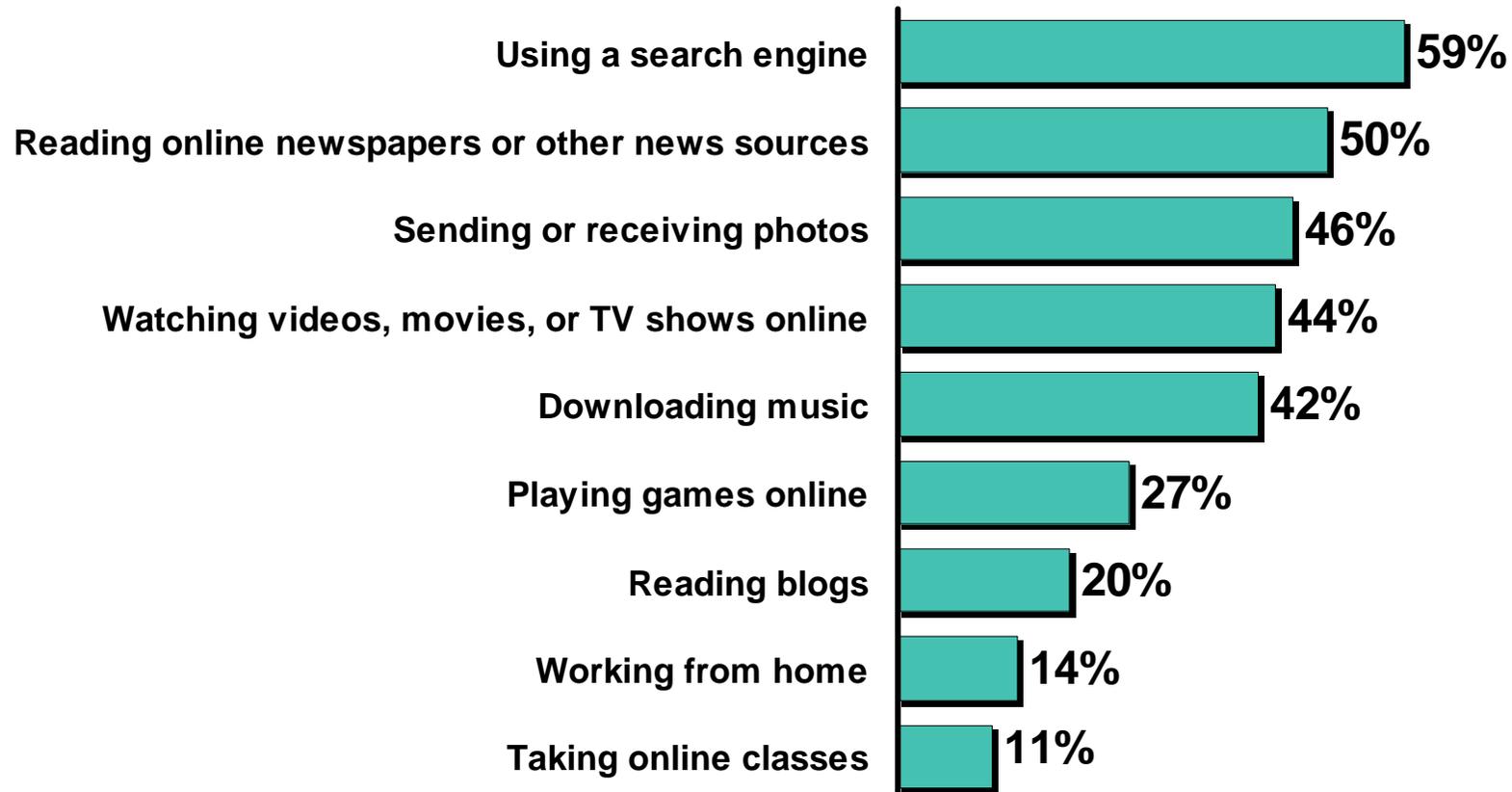


Q: Which of the following types of transactions have you completed online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Online Activities

Percent of Puerto Rico Internet users who conduct the following activities online

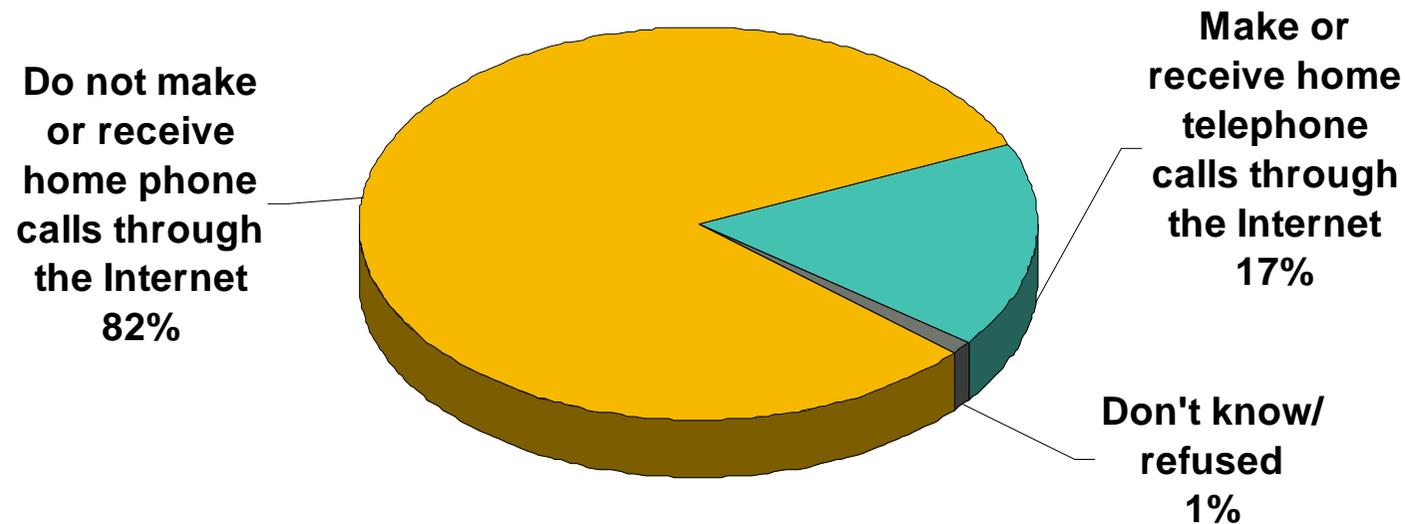


Q: Which of the following activities have you conducted online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Use of the Internet to Make or Receive Phone Calls

Among Puerto Rico residents who have broadband service at home



**In Puerto Rico, 17% of residents with broadband make or receive home telephone calls using their Internet connection.**

Q: Do you make or receive home telephone calls through your Internet connection?  
(n=366 PR residents with home broadband service)

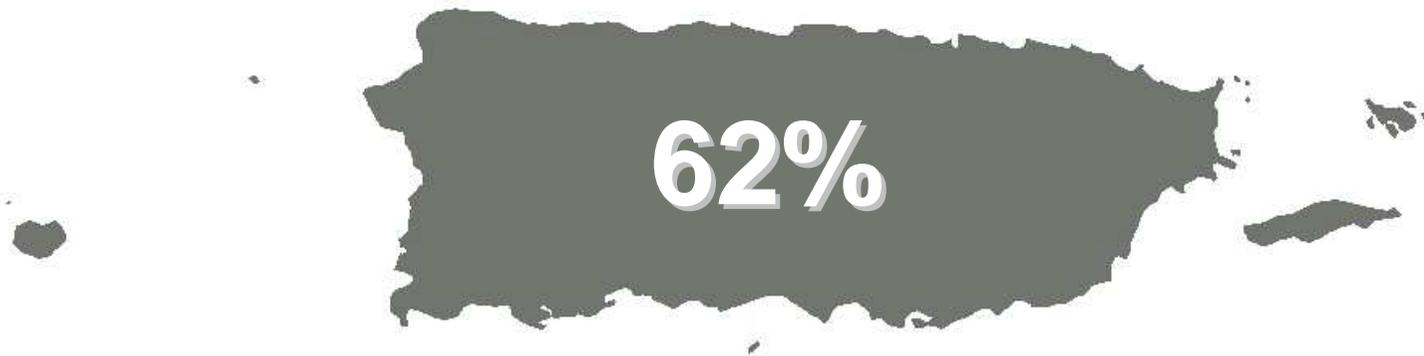
Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

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# Mobile Technology Use

# Cell Phone Ownership

Percent of all Puerto Rico residents who own a cell phone



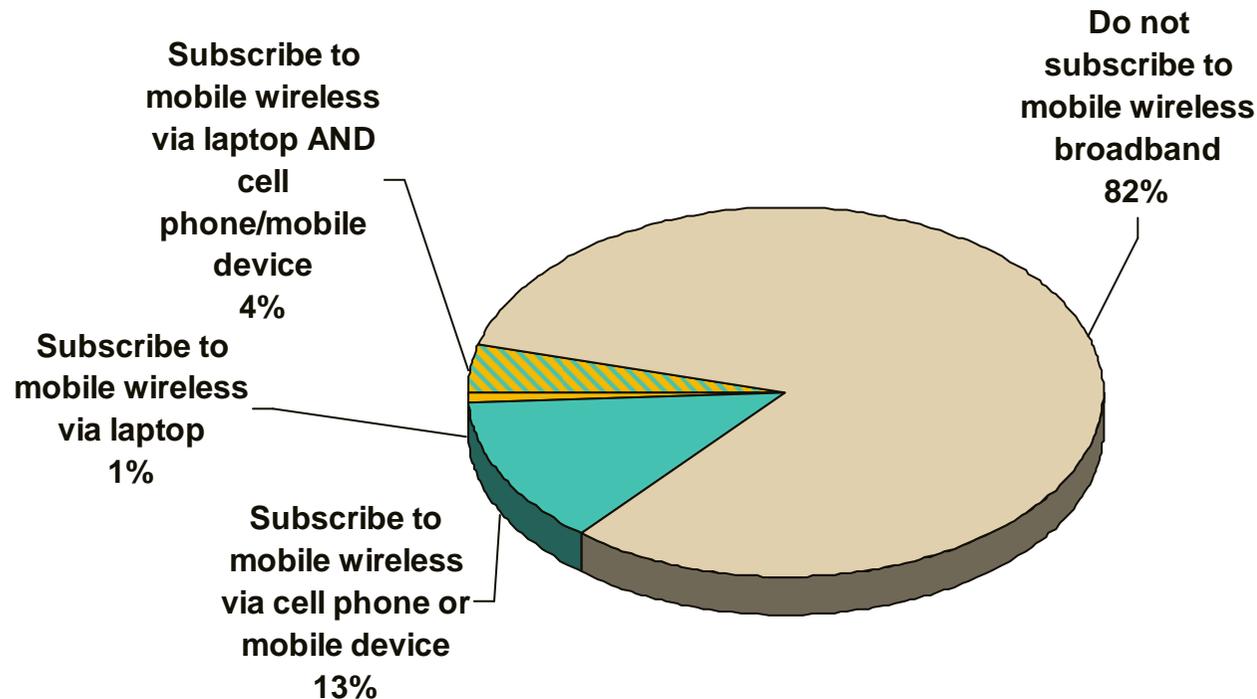
**Island-wide, 62% of all Puerto Rican adults subscribe to home broadband service.  
This translates into approximately 1.9 million adults who own cellular phones.**

Q: Do you have a cell phone?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Mobile Wireless Broadband Adoption

Percent of all Puerto Rico residents



Although over one-third of Puerto Rico residents own a laptop computer, and more than three out of five residents own a cellular phone, the vast majority of Puerto Rico residents (82%) do not subscribe to mobile wireless broadband.

Q: Do you access the Internet through a cellular phone or other mobile device?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

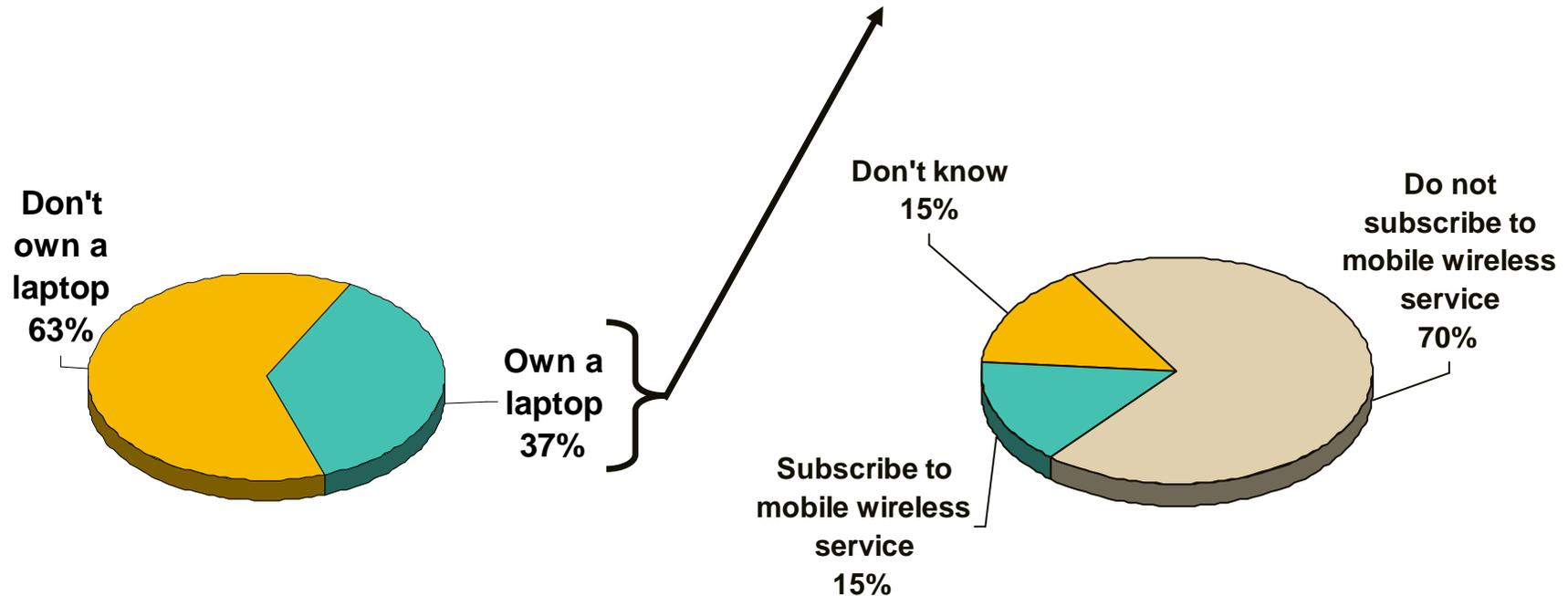


# Mobile Wireless Broadband for Laptops Via a Cellular Network

Island-wide, 15% of Puerto Rican laptop owners (or 5% of all Puerto Rican residents) subscribe to a mobile wireless service that allows them to access the Internet on their laptop computer via a cellular network.

Among all Puerto Rico residents

Among Puerto Rico laptop owners



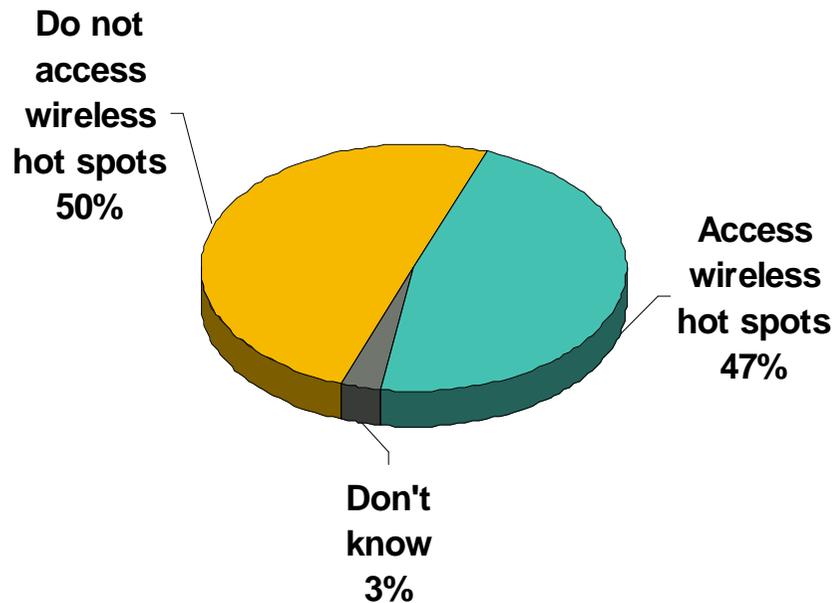
Q: What type of computer do you have at home?  
(n=1,200 PR residents) and

Q: On your laptop computer, do you subscribe to a mobile wireless service that allows you to access the Internet through a cellular network?  
(n=444 PR residents who own laptop computers)

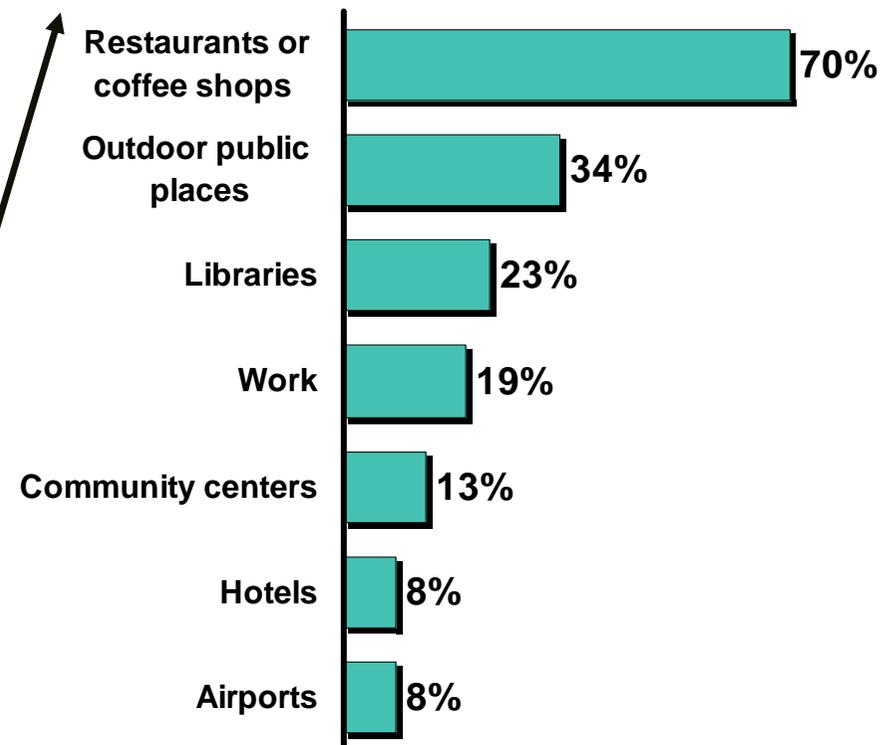
Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Hot Spot Usage Among Laptop Computer Owners

**Among Puerto Rico laptop computer owners**



**Most popular places to access hot spots (among wireless hot spot users)**



Q: Do you regularly use Wi-Fi zones, sometimes called "hot spots," to access the Internet with your laptop? (n=444 PR laptop owners) and  
 Q: Do you regularly use hot spots at any of the following locations? (n=208 PR residents who access wireless hot spots)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



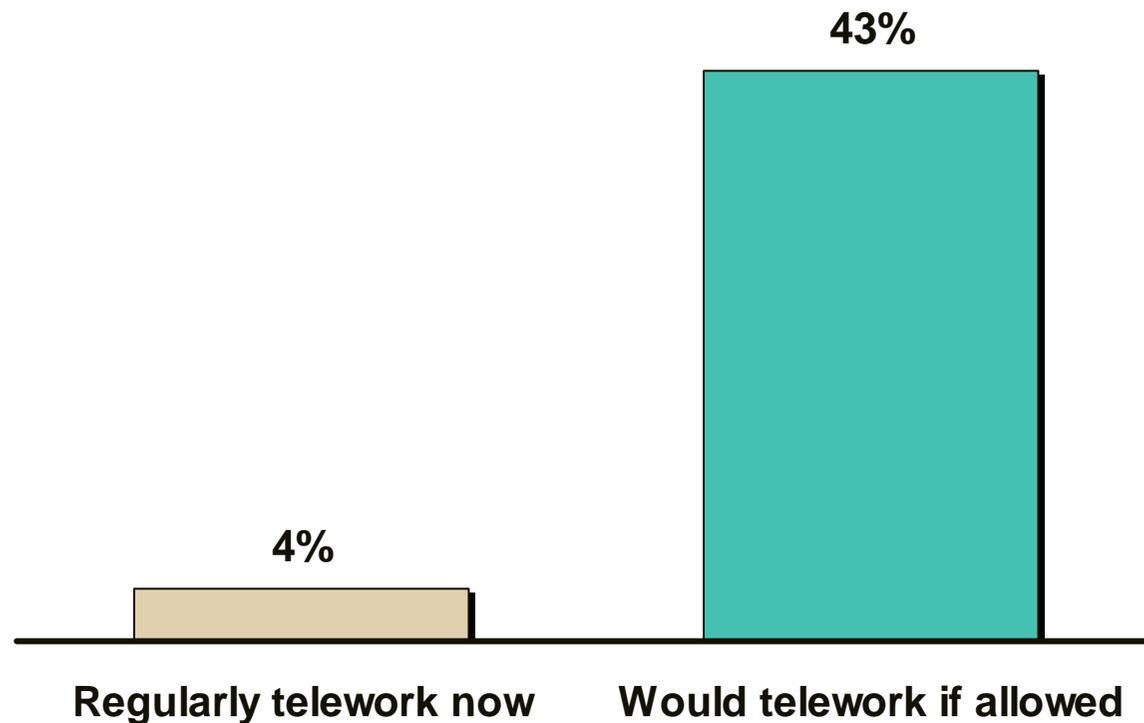
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# Teleworking and Working From Home Through an Internet Connection



# Puerto Rico Residents and Telework

Among Puerto Rico residents employed full-time or part-time



Q: Which of the following describe the way you work from home? and  
Q: Would you be interested in teleworking if your employer allowed it?  
(n=448 PR residents employed full-time or part-time)

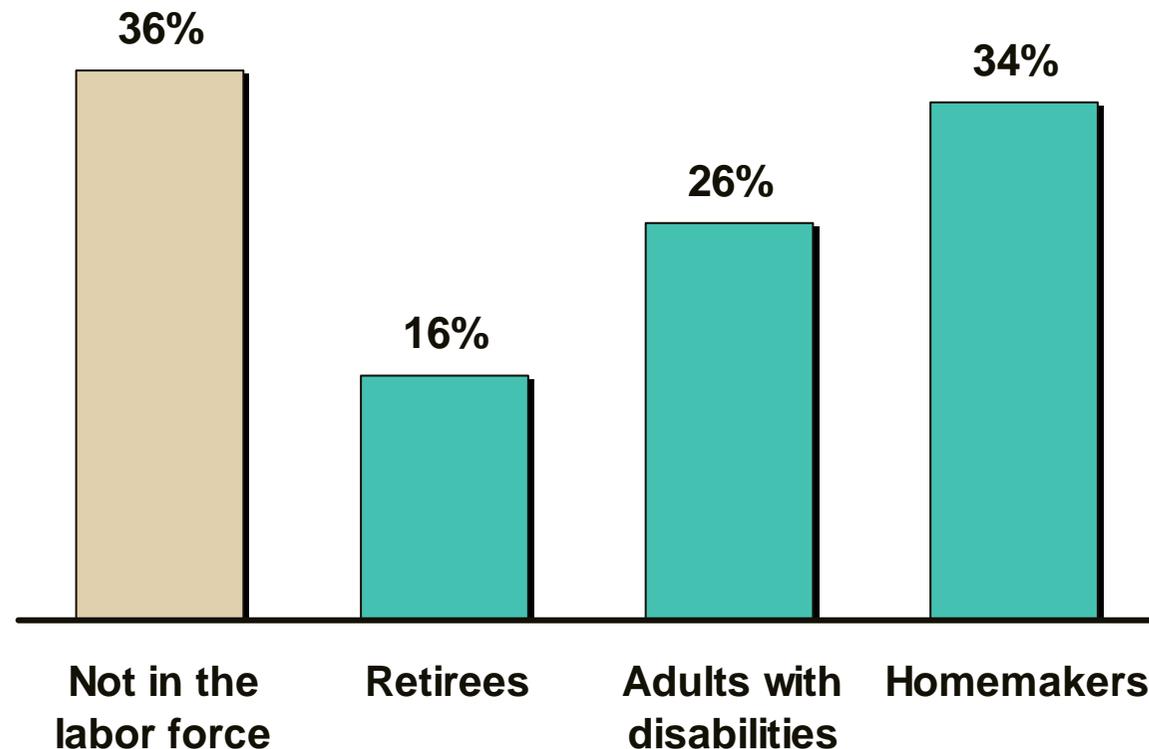
Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# The Potential Impact of Telework on the Labor force

Puerto Rico residents who do not currently work and are “very likely” or “somewhat likely” to work if empowered to telework

Teleworking could provide a boost to the island’s workforce, as more than one-third of Puerto Rico residents who are not currently in the labor force said they would likely join the workforce if empowered to do so by teleworking.

This includes 16% of retirees, over one-quarter of adults with disabilities, and more than one in three homemakers who said they would telework if empowered to do so.



Q: If you were able to work from home through a broadband connection - commonly known as teleworking - how likely is it that you would work outside the home? (n=752 PR residents not employed full-time or part-time)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

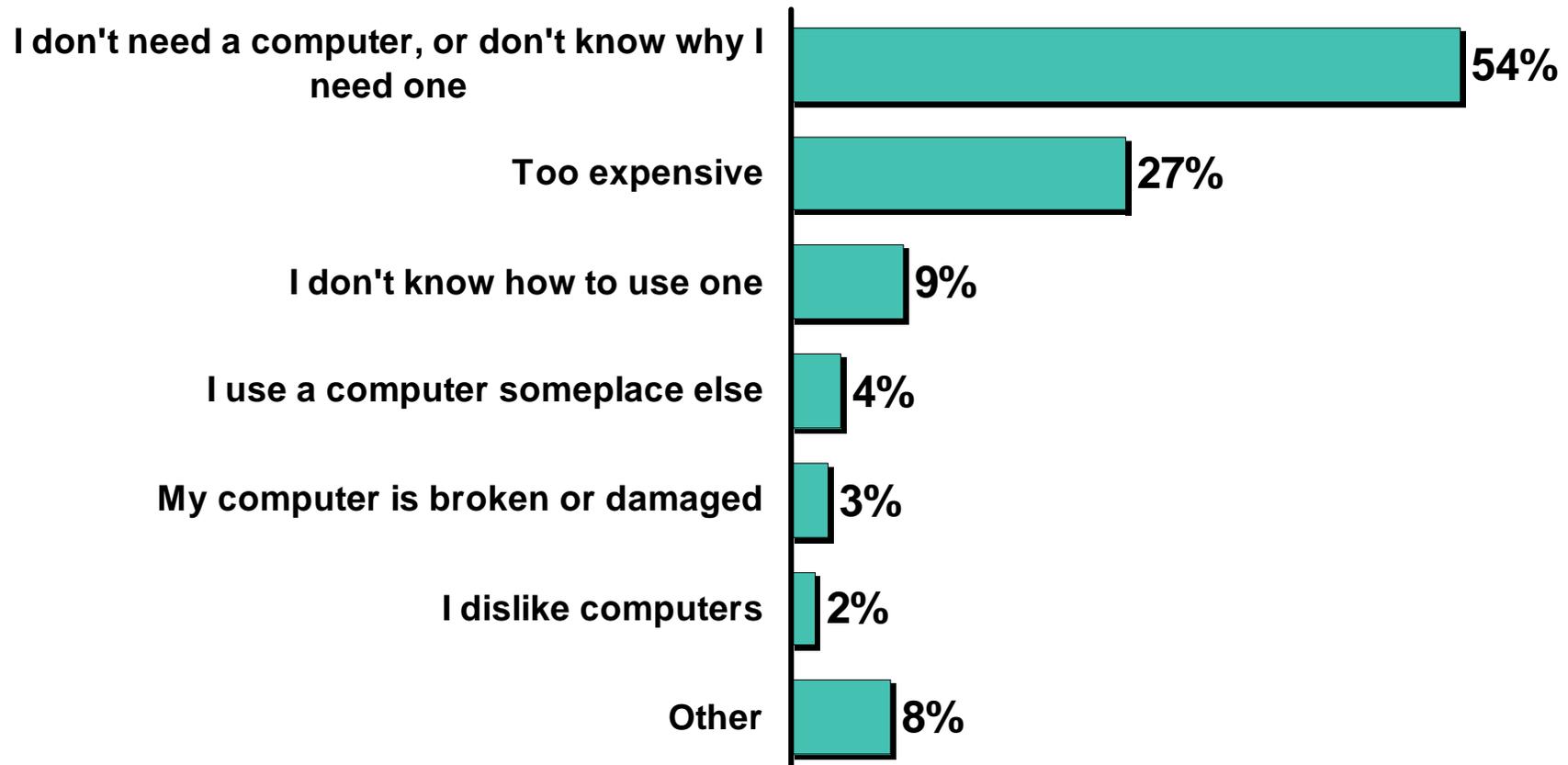


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# Technology Adoption Barriers

# Barriers to Computer Ownership

Among Puerto Rico residents with no computer at home\*



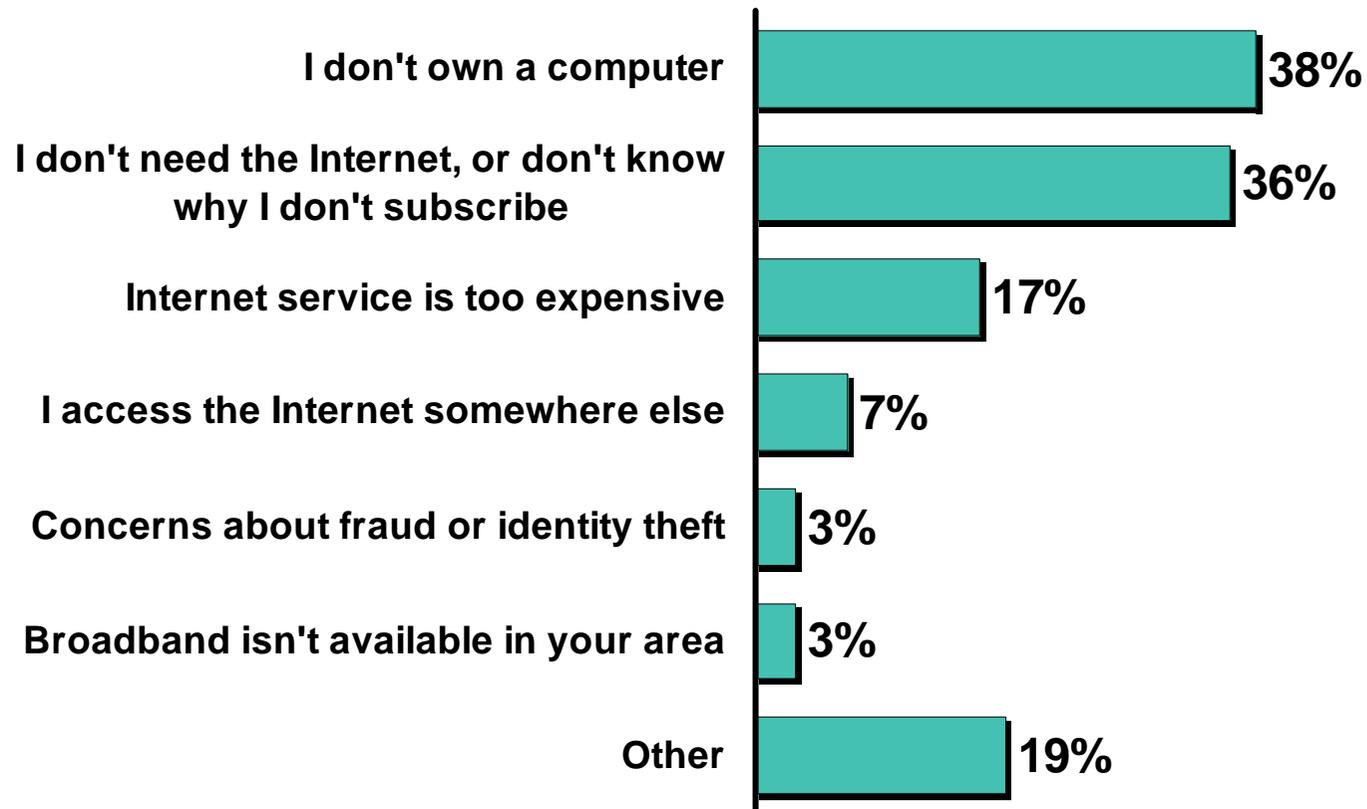
\*Percentages do not add up to 100% because individuals could give multiple responses.  
Q: Why don't you have a computer at home?  
(n=535 PR residents with no home computer)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Barriers to Internet Adoption

Among Puerto Rico residents with no Internet connection at home\*



\*Percentages do not add up to 100% because individuals could give multiple responses.

Q: Why don't you subscribe to the Internet at home?

(n=602 PR residents with no Internet service in their household)

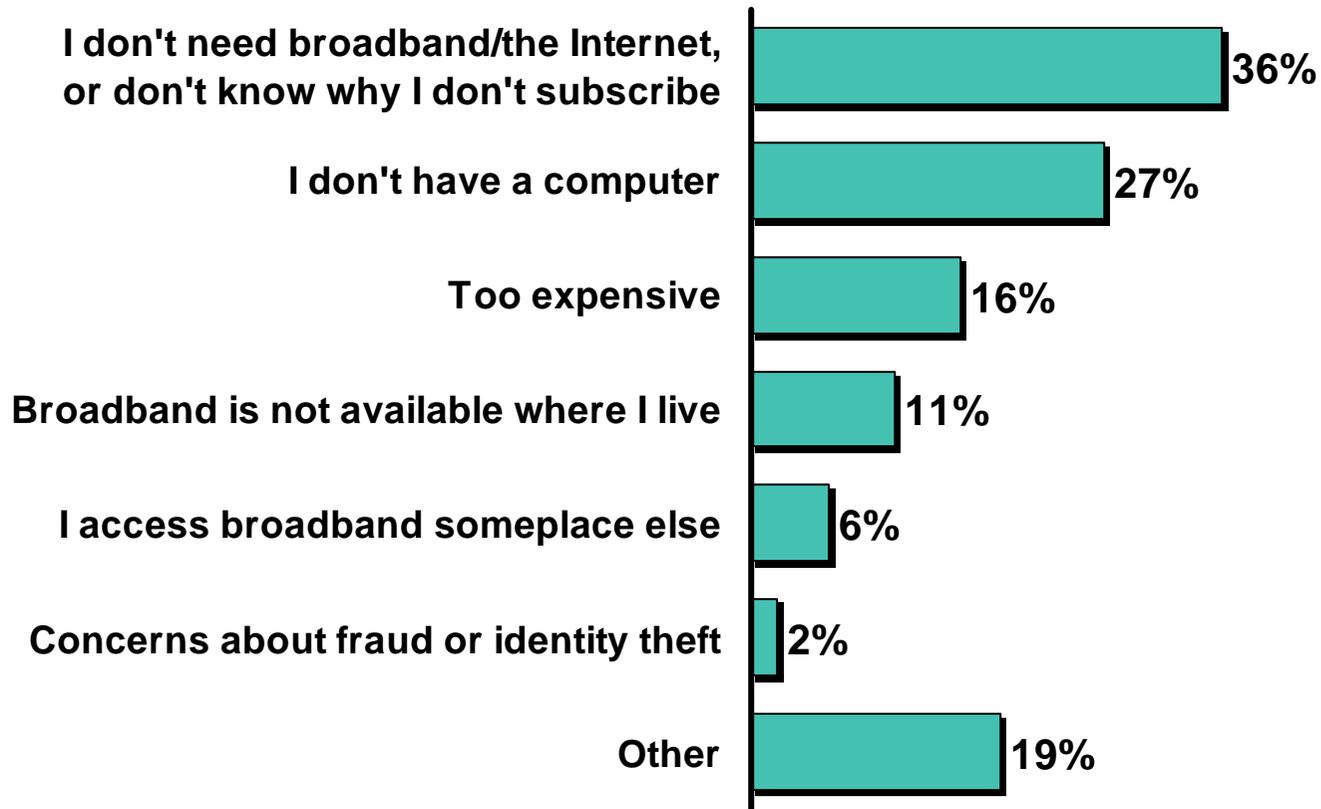
Source: 2010 Connect Puerto Rico Residential Technology Assessment

[www.connectpr.org](http://www.connectpr.org)



# Barriers to Broadband Adoption

Among Puerto Rico residents with no home broadband service\*



\*Percentages do not add up to 100% because individuals could give multiple responses.  
Q: Why don't you subscribe to broadband at home?  
(n=834 PR residents who do not subscribe to home broadband service)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

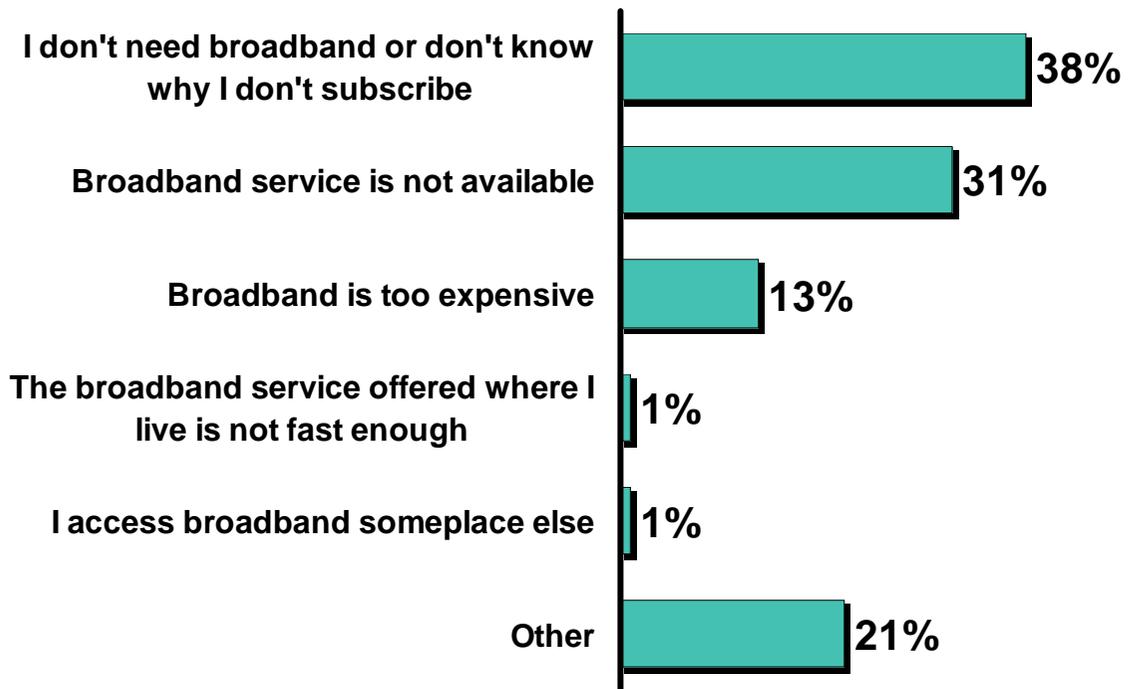


# Barriers to Broadband Adoption Among Dial-Up Users

Among Puerto Rico Internet subscribers  
who do not have broadband\*

**In Puerto Rico, 10% of residents rely on dial-up service.**

**The top barrier to broadband adoption among dial-up users is the belief that they don't need broadband or don't understand the benefits of having home broadband service.**



\*Percentages do not add up to 100% because individuals could give multiple responses.

Q: Why don't you subscribe to broadband at home?

(n=232 PR Internet subscribers that do not subscribe to broadband)

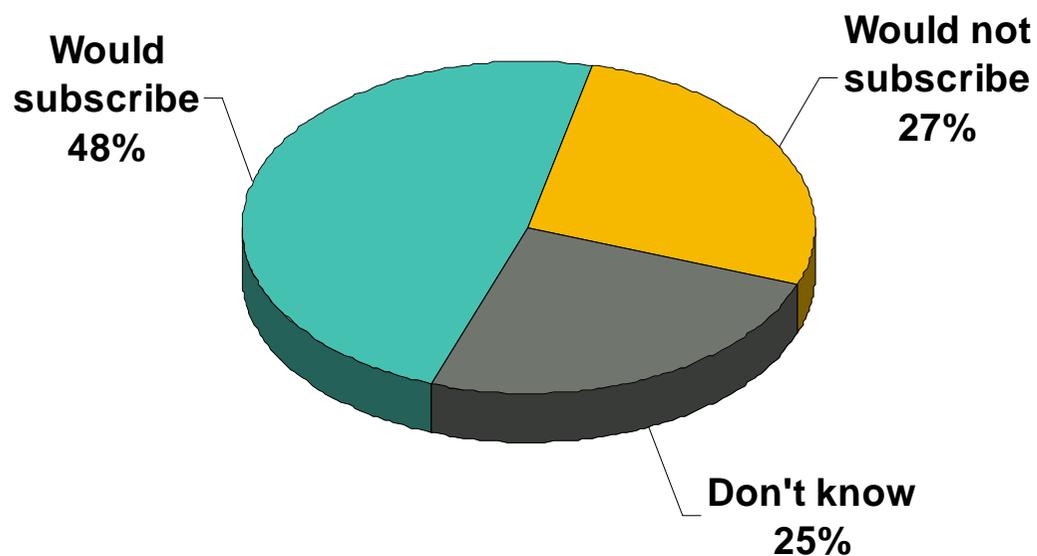
Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Lack of Availability as a Barrier to Broadband Adoption

Among Puerto Rico dial-up subscribers who say broadband service is not available where they live

Nearly one-half of Puerto Rico dial-up users who say broadband service is unavailable say they would subscribe if it were available.

More than one-fourth of Puerto Rico dial-up users who say broadband service is unavailable would *not* subscribe to broadband even if it were available where they live.



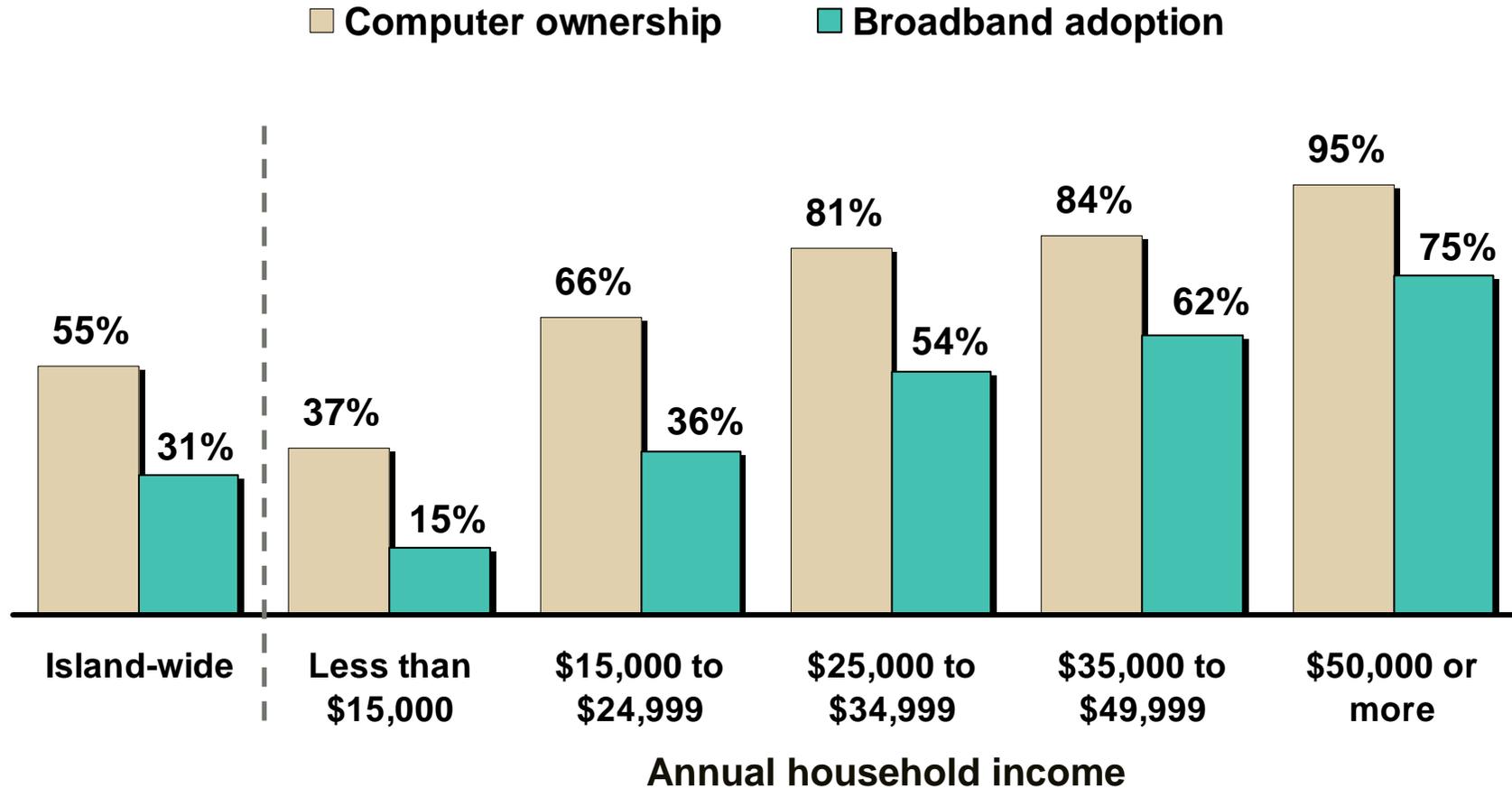
Q: Would you sign up for broadband service if it were available in your area?  
(n=146 PR Internet users who do not have broadband, and report that broadband service is not available where they live)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Residential Technology Assessment by Annual Household Income



# Technology Adoption by Income



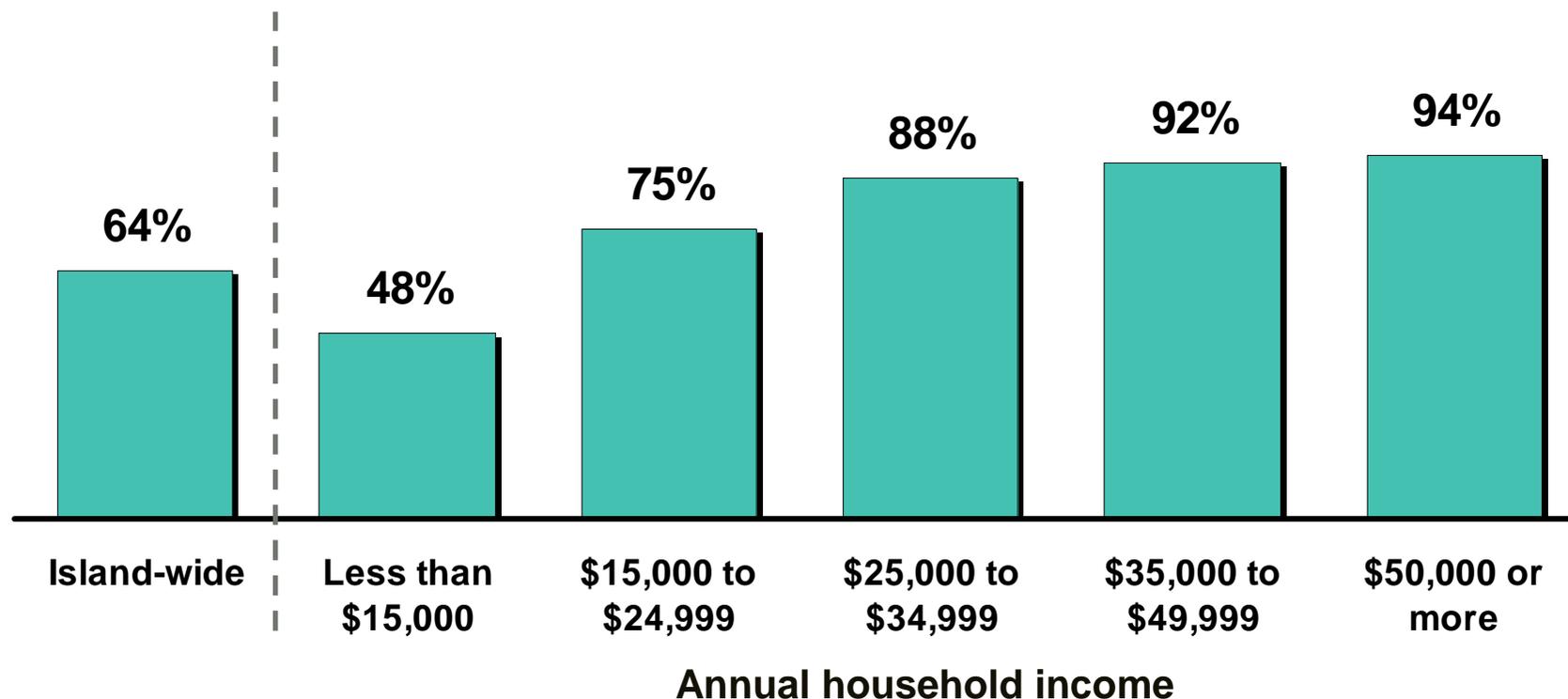
Q: Does your household have a computer? and  
 Q: Which of the following describe the type of Internet service you have at home?  
 (n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
 Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Puerto Rico Residents Who Access the Internet (At Home or Someplace Else)

Percent of all Puerto Rico residents who access the Internet from home or some other place



Q: Do you use the Internet from any locations outside of your own home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Searching for Information Online

**Percent of Puerto Rico Internet users who search for the following types of information online**

Percentage is significantly* <i>higher</i> than the island-wide average: 	Percentage is significantly* <i>lower</i> than the island-wide average: 	<b>Less than \$15,000</b>	<b>\$15,000 to \$24,999</b>	<b>\$25,000 to \$34,999</b>	<b>\$35,000 to \$49,999</b>	<b>\$50,000 or more</b>
<b>Product or service information</b>	31%	46%	49%	68%	68%	
<b>Community events</b>	16%	28%	26%	34%	30%	
<b>Health or medical information</b>	40%	55%	46%	46%	49%	
<b>Government services</b>	15%	25%	28%	36%	44%	
<b>Research for schoolwork</b>	56%	62%	53%	50%	63%	
<b>Jobs or employment</b>	37%	43%	37%	33%	34%	

\*Significance measured at a 95% confidence level

Q: Which of the following types of information have you used the Internet to look for online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
www.connectpr.org

# Communicating Online

## Percent of Puerto Rico Internet users who communicate with others in the following ways

Percentage is significantly* <i>higher</i> than the island-wide average: 	Percentage is significantly* <i>lower</i> than the island-wide average: 	<b>Less than \$15,000</b>	<b>\$15,000 to \$24,999</b>	<b>\$25,000 to \$34,999</b>	<b>\$35,000 to \$49,999</b>	<b>\$50,000 or more</b>
<b>E-mail</b>		49%	70%	71%	77%	86%
<b>Social or professional networking sites</b>		60%	63%	51%	59%	59%
<b>Instant messages</b>		25%	32%	26%	28%	43%
<b>Posting content to a website</b>		9%	14%	14%	14%	14%
<b>Microblogs such as Twitter</b>		7%	10%	7%	10%	8%
<b>Posting content to a blog</b>		8%	13%	9%	11%	9%
<b>Chatting in chat rooms</b>		17%	25%	16%	13%	21%

\*Significance measured at a 95% confidence level

Q: Which of the following ways of communicating with others have you used?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Interacting Online

## Percent of Puerto Rico Internet users who interact online with the following

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	Less than \$15,000	\$15,000 to \$24,999	\$25,000 to \$34,999	\$35,000 to \$49,999	\$50,000 or more
	<b>Friends or family</b>	67%	78%	75%	84%
<b>Companies with which you do business</b>	5%	8%	19%	25%	32%
<b>Co-workers</b>	20%	39%	40%	48%	57%
<b>Puerto Rico government</b>	7%	7%	11%	15%	32%
<b>Your health insurance company</b>	3%	9%	10%	14%	15%
<b>Doctors or other healthcare professionals</b>	6%	15%	10%	18%	16%
<b>Teachers</b>	16%	26%	15%	22%	22%
<b>Local government</b>	6%	9%	8%	7%	15%
<b>Elected officials or candidates</b>	2%	4%	2%	6%	2%

\*Significance measured at a 95% confidence level

Q: Which of the following types of individuals or organizations have you interacted with online, by visiting a website or communicating online to obtain information?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Online Transactions

## Percent of Puerto Rico Internet users who conduct the following transactions online

Percentage is significantly* <i>higher</i> than the island-wide average: 	<b>Less than \$15,000</b>	<b>\$15,000 to \$24,999</b>	<b>\$25,000 to \$34,999</b>	<b>\$35,000 to \$49,999</b>	<b>\$50,000 or more</b>
Percentage is significantly* <i>lower</i> than the island-wide average: 					
<b>Purchasing a product or service online</b>	16%	38%	35%	56%	63%
<b>Online banking</b>	10%	26%	27%	45%	56%
<b>Paying bills</b>	16%	37%	37%	59%	64%
<b>Booking travel arrangements</b>	15%	34%	38%	54%	59%
<b>Online transactions with government</b>	3%	8%	9%	16%	15%
<b>Selling a product or service online</b>	2%	5%	4%	15%	5%
<b>Buying, selling, or trading investments</b>	4%	11%	9%	6%	16%

\*Significance measured at a 95% confidence level

Q: Which of the following types of transactions have you completed online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Online Activities

## Percent of Puerto Rico Internet users who conduct the following activities online

Percentage is significantly* <i>higher</i> than the island-wide average: 	<b>Less than \$15,000</b>	<b>\$15,000 to \$24,999</b>	<b>\$25,000 to \$34,999</b>	<b>\$35,000 to \$49,999</b>	<b>\$50,000 or more</b>
Percentage is significantly* <i>lower</i> than the island-wide average: 					
<b>Using a search engine</b>	49%	67%	56%	74%	77%
<b>Reading online newspapers</b>	39%	54%	58%	64%	67%
<b>Sending or receiving photos</b>	39%	54%	46%	55%	56%
<b>Playing games online</b>	27%	35%	23%	23%	22%
<b>Downloading music</b>	43%	47%	29%	46%	46%
<b>Watching videos, movies, or TV shows</b>	41%	50%	36%	55%	35%
<b>Working from home</b>	9%	9%	12%	24%	35%
<b>Reading blogs</b>	15%	24%	18%	32%	24%
<b>Taking online classes</b>	8%	14%	6%	14%	20%

\*Significance measured at a 95% confidence level

Q: Which of the following activities have you conducted online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Why Puerto Rico Residents Subscribe to Broadband

## Percent of Puerto Rico residents who subscribe to broadband for the following reasons

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	Less than \$25,000	\$25,000 to \$49,999	\$50,000 or more
I realized broadband was worth the extra money	14%	16%	7%
I needed to conduct business online	1%	3%	6%
Broadband became available in my area	15%	18%	10%
The cost of broadband became more affordable	15%	29%	22%
I bought (or received) a computer for my home	18%	19%	15%
I heard about the benefits of broadband	11%	20%	9%
Friends or family convinced me	16%	12%	11%

\*Significance measured at a 95% confidence level

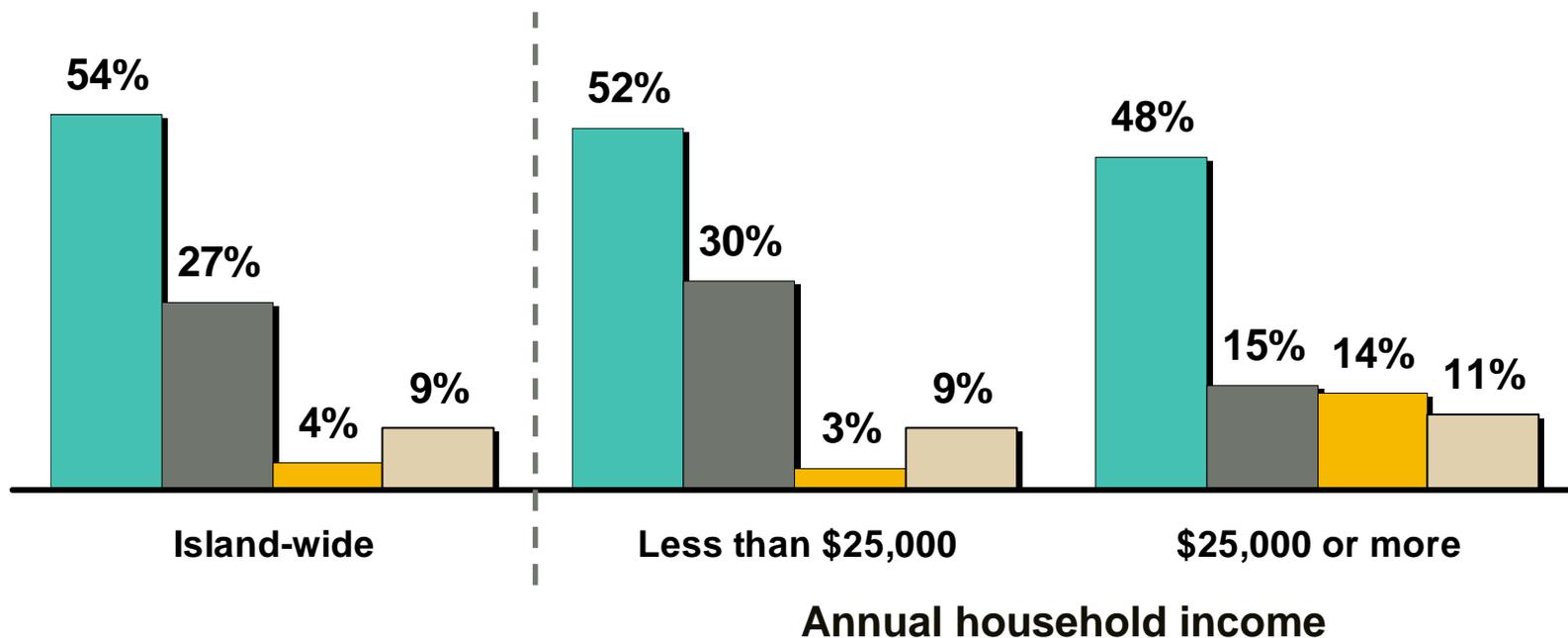
Q: Which of the following contributed to your decision to subscribe to broadband service?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Top Barriers to Computer Ownership

Among Puerto Rico residents who do not own a home computer

- I don't need a computer or don't know why I need one
- Too expensive
- I use a computer at a different location
- I don't know how to use one



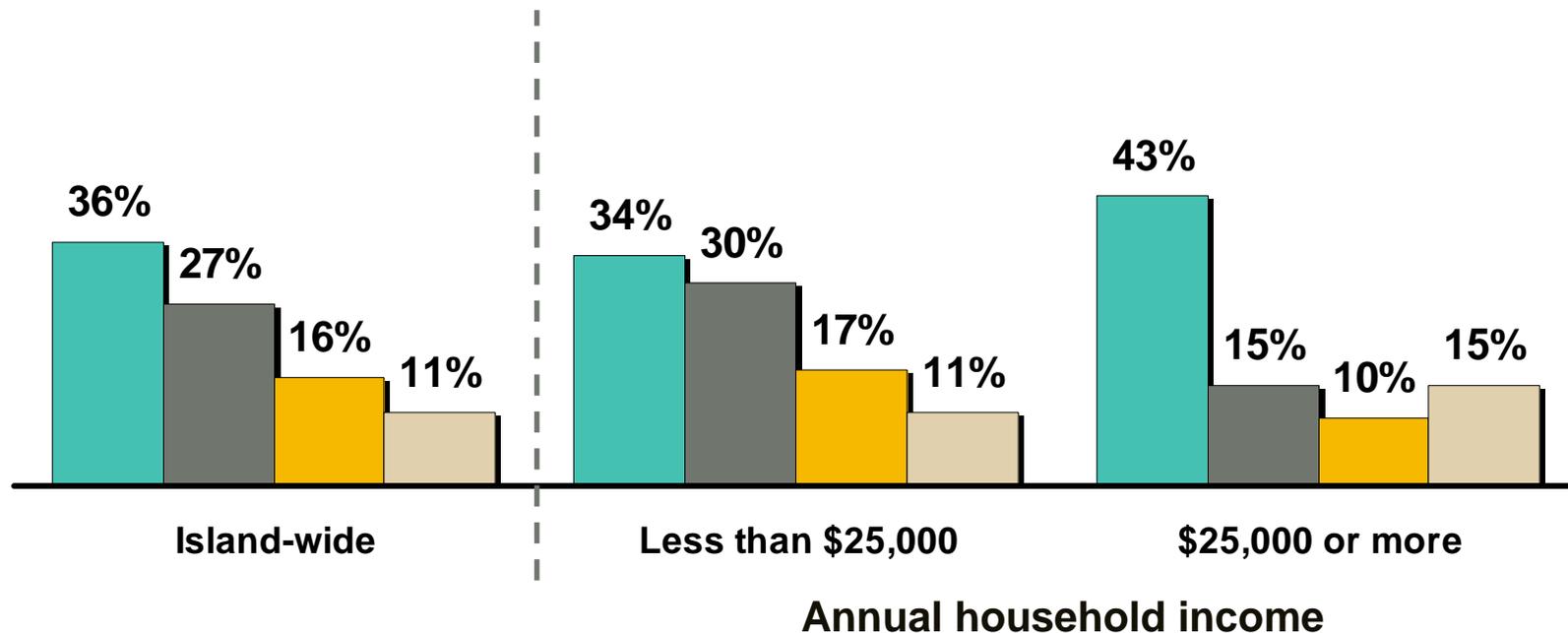
Q: Why don't you have a computer at home?  
(n=535 PR residents with no home computer)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Top Barriers to Broadband Adoption

Among Puerto Rico residents without home broadband service

- I don't need broadband or don't know why I don't subscribe
- No computer
- Broadband is too expensive
- Broadband is not available in my area



Q: Why don't you subscribe to broadband at home?  
(n=834 PR adults who do not subscribe to broadband)

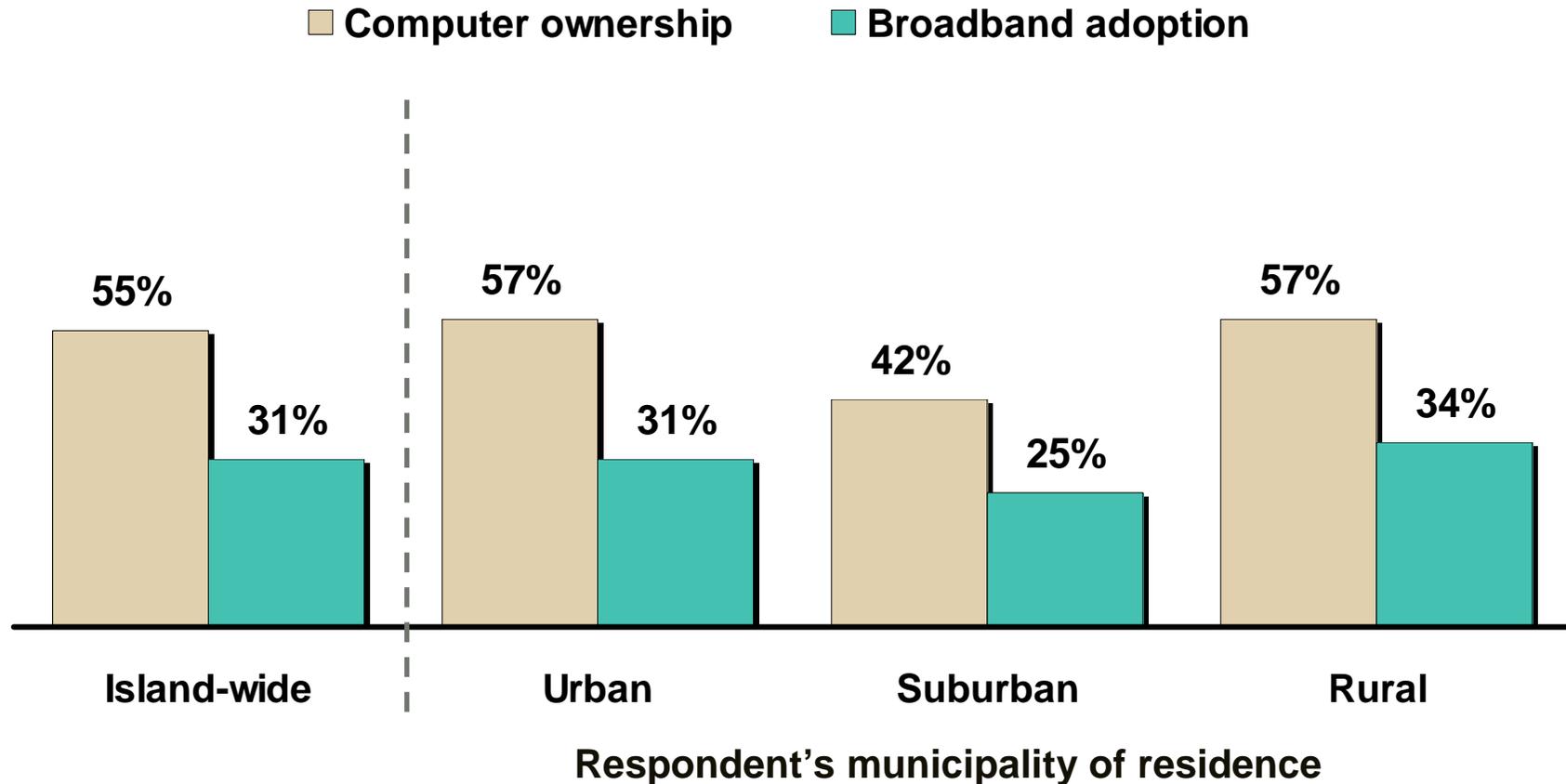
Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



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# **Residential Technology Assessment by Urban-Rural Classification**

# Technology Adoption by Urban-Rural Classification



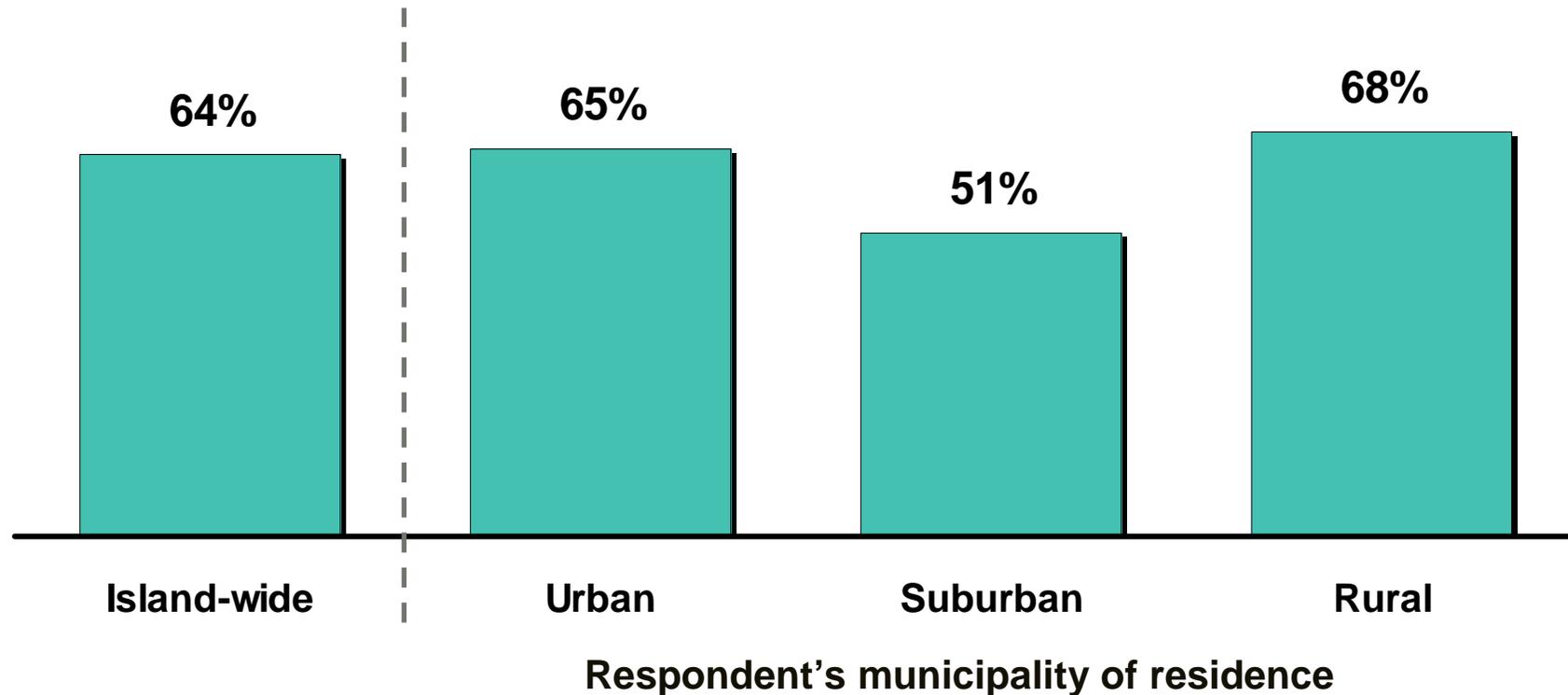
Q: Does your household have a computer? and  
 Q: Which of the following describe the type of Internet service you have at home?  
 (n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
 Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Puerto Rico Residents Who Access the Internet (At Home or Someplace Else)

Percent of all Puerto Rico residents who access the Internet from home or some other place



Q: Do you use the Internet from any locations outside of your own home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Searching for Information Online

**Percent of Puerto Rico Internet users who search for the following types of information online**

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	<b>Non-rural</b>	<b>Rural</b>
<b>Product or service information</b>	45%	49%
<b>Community events</b>	23%	21%
<b>Health or medical information</b>	45%	44%
<b>Government services</b>	26%	29%
<b>Research for schoolwork</b>	56%	63%
<b>Jobs or employment</b>	37%	36%

\*Significance measured at a 95% confidence level

Q: Which of the following types of information have you used the Internet to look for online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Communicating Online

## Percent of Puerto Rico Internet users who communicate with others in the following ways

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	Non-rural	Rural
<b>E-mail</b>	64%	62%
<b>Social or professional networking sites</b>	58%	69%
<b>Instant messages</b>	28%	34%
<b>Posting content to a website</b>	12%	15%
<b>Posting content to a microblog such as Twitter</b>	8%	9%
<b>Posting content to a blog</b>	10%	12%
<b>Chatting in chat rooms</b>	18%	23%

\*Significance measured at a 95% confidence level

Q: Which of the following ways of communicating with others have you used?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Interacting Online

## Percent of Puerto Rico Internet users who interact online with the following

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	Non-rural	Rural
<b>Friends or family</b>	74%	85%
<b>Companies with which you do business</b>	12%	16%
<b>Co-workers</b>	33%	41%
<b>Puerto Rico government</b>	11%	12%
<b>Health insurance company</b>	8%	7%
<b>Doctors or other healthcare professionals</b>	10%	8%
<b>Teachers</b>	18%	23%
<b>Local government</b>	8%	9%
<b>Elected officials or candidates</b>	3%	5%

\*Significance measured at a 95% confidence level

Q: Which of the following types of individuals or organizations have you interacted with online, by visiting a website or communicating online to obtain information? (n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
www.connectpr.org



# Online Transactions

## Percent of Puerto Rico Internet users who conduct the following transactions online

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	Non-rural	Rural
<b>Purchasing a product or service online</b>	32%	38%
<b>Online banking</b>	25%	21%
<b>Paying bills</b>	33%	33%
<b>Booking travel arrangements</b>	31%	24%
<b>Online transactions with government</b>	8%	7%
<b>Selling a product or service online</b>	5%	5%
<b>Buying, selling, or trading investments</b>	7%	3%

\*Significance measured at a 95% confidence level

Q: Which of the following types of transactions have you completed online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Online Activities

## Percent of Puerto Rico Internet users who conduct the following activities online

Percentage is significantly* <i>higher</i> than the island-wide average: 	<b>Non-rural</b>	<b>Rural</b>
Percentage is significantly* <i>lower</i> than the island-wide average: 		
<b>Using a search engine</b>	58%	71%
<b>Reading online newspapers</b>	50%	58%
<b>Sending or receiving photos</b>	46%	56%
<b>Playing games online</b>	26%	36%
<b>Downloading music</b>	42%	44%
<b>Watching videos, movies, or TV shows</b>	44%	53%
<b>Working from home</b>	15%	7%
<b>Reading blogs</b>	20%	27%
<b>Taking online classes</b>	11%	12%

\*Significance measured at a 95% confidence level  
 Q: Which of the following activities have you conducted online?  
 (n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
 Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Why Puerto Rico Residents Subscribe to Broadband

## Percent of Puerto Rico residents who subscribe to broadband for the following reasons

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	Non-rural	Rural
<b>I realized broadband was worth the extra money</b>	14%	13%
<b>I needed to conduct business online</b>	3%	7%
<b>Broadband became available in my area</b>	14%	26%
<b>The cost of broadband became more affordable</b>	22%	22%
<b>I bought (or received) a computer for my home</b>	17%	19%
<b>I heard about the benefits of broadband</b>	14%	19%
<b>Friends or family convinced me</b>	14%	11%

\*Significance measured at a 95% confidence level

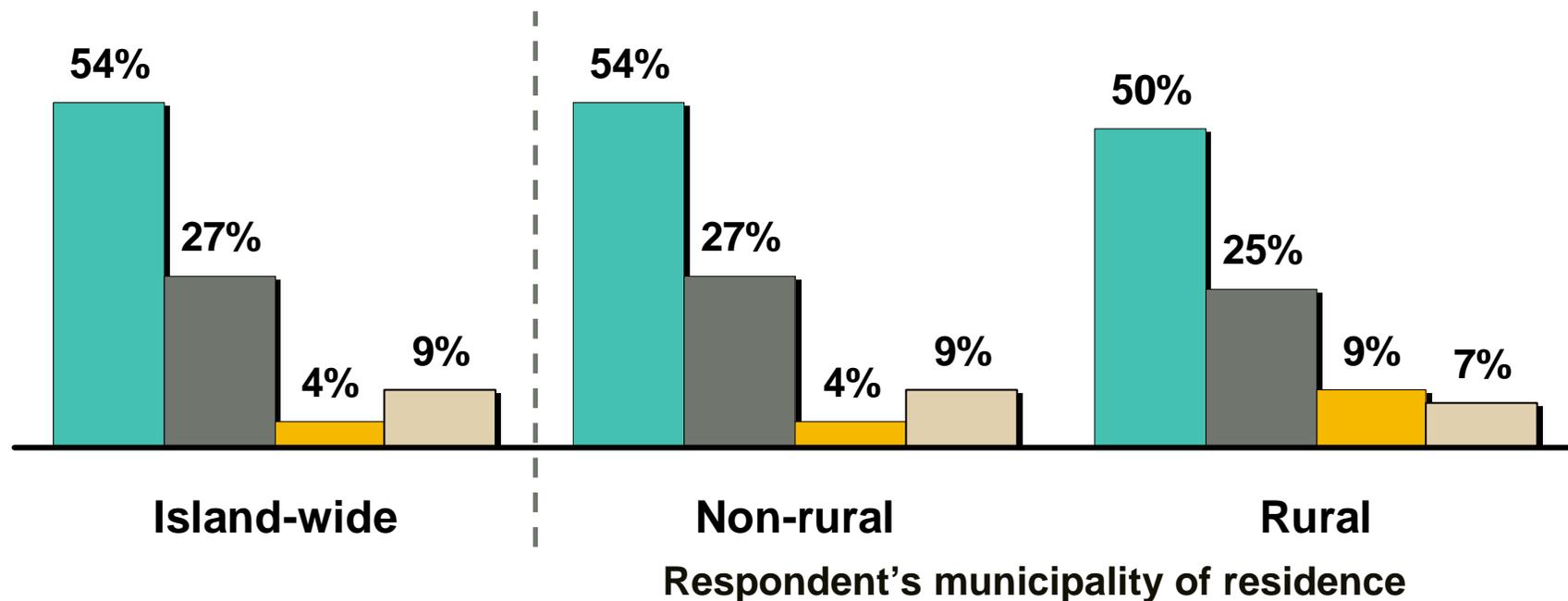
Q: Which of the following contributed to your decision to subscribe to broadband service?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Top Barriers to Computer Adoption

Among Puerto Rico residents who do not own a home computer

- I don't need a computer or don't know why I need one
- Too expensive
- I use a computer at a different location
- I don't know how to use one

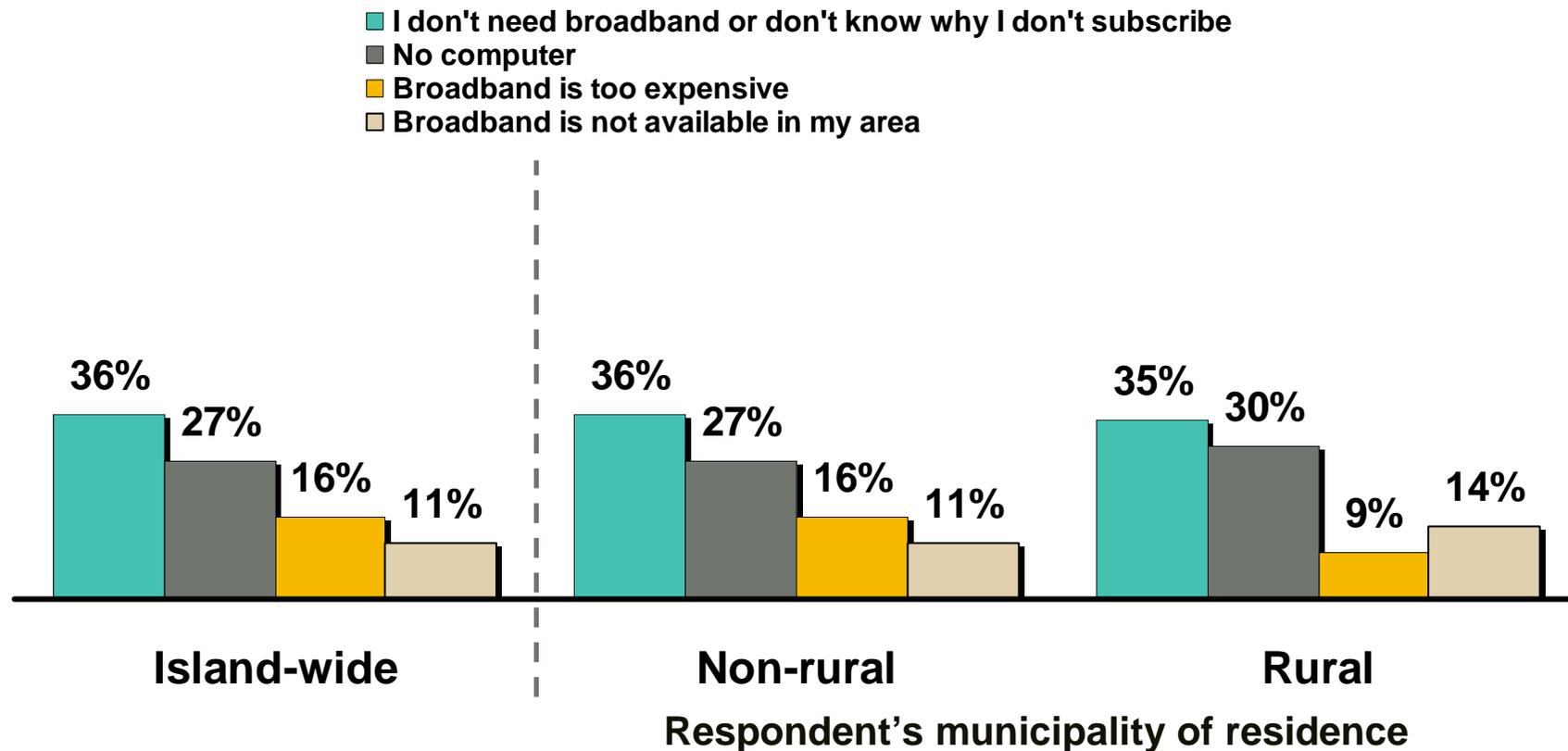


Q: Why don't you have a computer at home?  
(n=535 PR residents with no home computer)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Top Barriers to Broadband Adoption

Among Puerto Rico residents without home broadband service



Q: Why don't you subscribe to broadband at home?  
(n=834 PR adults who do not subscribe to broadband)

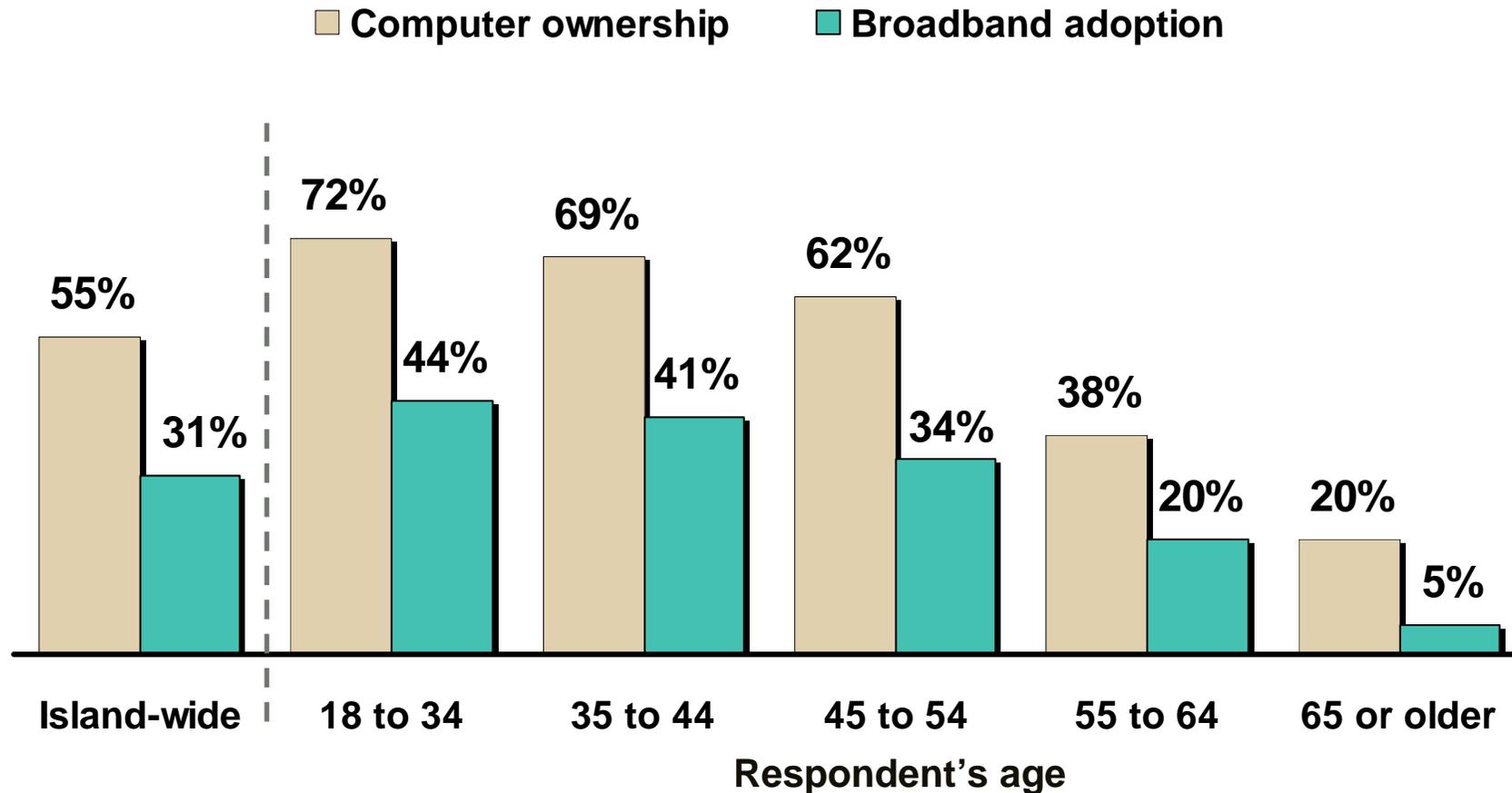
Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



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# Residential Technology Assessment by Age

# Technology Adoption by Age



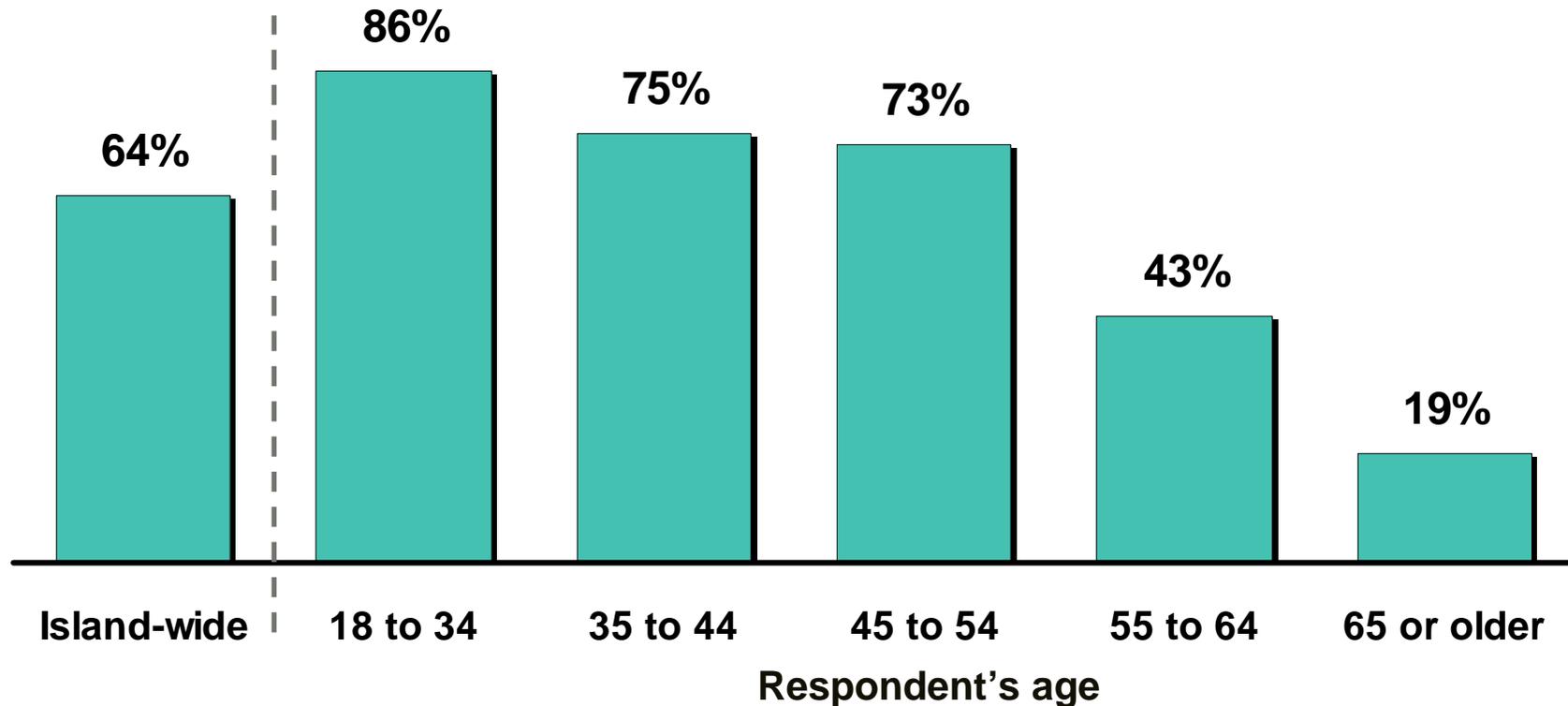
Q: Does your household have a computer? and  
Q: Which of the following describe the type of Internet service you have at home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Puerto Rico Residents Who Access the Internet (At Home or Someplace Else)

Percent of all Puerto Rico residents who access the Internet from home or some other place



Q: Do you use the Internet from any locations outside of your own home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Searching for Information Online

**Percent of Puerto Rico Internet users who search for the following types of information online**

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	<b>18 to 34</b>	<b>35 to 44</b>	<b>45 to 54</b>	<b>55 to 64</b>	<b>65 or older</b>
<b>Product or service information</b>	47%	50%	47%	35%	26%
<b>Community events</b>	25%	25%	26%	17%	8%
<b>Health or medical information</b>	44%	49%	46%	42%	31%
<b>Government services</b>	22%	27%	31%	31%	22%
<b>Research for schoolwork</b>	66%	63%	47%	35%	21%
<b>Jobs or employment</b>	49%	34%	31%	21%	5%

\*Significance measured at a 95% confidence level

Q: Which of the following types of information have you used the Internet to look for online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Communicating Online

## Percent of Puerto Rico Internet users who communicate with others in the following ways

Percentage is significantly* <i>higher</i> than the island-wide average: 					
Percentage is significantly* <i>lower</i> than the island-wide average: 	<b>18 to 34</b>	<b>35 to 44</b>	<b>45 to 54</b>	<b>55 to 64</b>	<b>65 or older</b>
<b>E-mail</b>	72%	69%	55%	52%	35%
<b>Social or professional networking sites</b>	76%	62%	34%	39%	20%
<b>Instant messages</b>	37%	30%	19%	17%	7%
<b>Chatting in chat rooms</b>	27%	17%	10%	10%	3%
<b>Posting content to a blog</b>	16%	8%	5%	4%	2%
<b>Posting content to a website</b>	17%	9%	11%	7%	0%
<b>Microblogs such as Twitter</b>	14%	5%	3%	3%	0%

\*Significance measured at a 95% confidence level

Q: Which of the following ways of communicating with others have you used?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Interacting Online

## Percent of Puerto Rico Internet users who interact online with the following

Percentage is significantly* <i>higher</i> than the island-wide average: 	18 to 34	35 to 44	45 to 54	55 to 64	65 or older
Percentage is significantly* <i>lower</i> than the island-wide average: 					
<b>Friends or family</b>	86%	75%	64%	56%	48%
<b>Companies with which you do business</b>	11%	17%	19%	6%	0%
<b>Co-workers</b>	41%	37%	30%	18%	8%
<b>Puerto Rico government</b>	8%	13%	20%	8%	11%
<b>Your health insurance company</b>	6%	7%	12%	8%	7%
<b>Doctors or other healthcare professionals</b>	9%	11%	11%	8%	12%
<b>Teachers for yourself or someone else</b>	24%	20%	12%	10%	5%
<b>Local government</b>	6%	12%	9%	6%	6%
<b>Elected officials or candidates</b>	5%	2%	2%	0%	0%

\*Significance measured at a 95% confidence level

Q: Which of the following types of individuals or organizations have you interacted with online, by visiting a website or communicating online to obtain information?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Online Transactions

## Percent of Puerto Rico Internet users who conduct the following transactions online

Percentage is significantly* <i>higher</i> than the island-wide average: 					
Percentage is significantly* <i>lower</i> than the island-wide average: 	<b>18 to 34</b>	<b>35 to 44</b>	<b>45 to 54</b>	<b>55 to 64</b>	<b>65 or older</b>
<b>Purchasing a product or service online</b>	33%	36%	34%	21%	24%
<b>Online banking</b>	25%	33%	23%	18%	10%
<b>Paying bills</b>	33%	40%	32%	29%	16%
<b>Booking travel arrangements</b>	32%	37%	33%	22%	17%
<b>Online transactions with government</b>	8%	9%	6%	9%	6%
<b>Selling a product or service online</b>	6%	6%	3%	0%	0%
<b>Buying, selling, or trading investments</b>	8%	6%	9%	5%	0%

\*Significance measured at a 95% confidence level

Q: Which of the following types of transactions have you completed online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Online Activities

## Percent of Puerto Rico Internet users who conduct the following activities online

Percentage is significantly* <i>higher</i> than the island-wide average: 					
Percentage is significantly* <i>lower</i> than the island-wide average: 	<b>18 to 34</b>	<b>35 to 44</b>	<b>45 to 54</b>	<b>55 to 64</b>	<b>65 or older</b>
<b>Using a search engine</b>	72%	63%	46%	35%	27%
<b>Reading online newspapers</b>	57%	56%	44%	36%	18%
<b>Sending or receiving photos</b>	61%	46%	29%	35%	10%
<b>Playing games online</b>	40%	25%	17%	5%	8%
<b>Downloading music</b>	62%	37%	24%	19%	13%
<b>Watching videos, movies, or TV shows</b>	60%	43%	26%	28%	12%
<b>Working from home</b>	15%	19%	11%	9%	10%
<b>Reading blogs</b>	28%	19%	12%	7%	7%
<b>Taking online classes</b>	16%	10%	9%	2%	0%

\*Significance measured at a 95% confidence level  
Q: Which of the following activities have you conducted online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Why Puerto Rico Residents Subscribe to Broadband

## Percent of Puerto Rico residents who subscribe to broadband for the following reasons

Percentage is significantly* <i>higher</i> than the island-wide average: 		18 to 34	35 to 44	45 to 54	55 to 64	65 or older
Percentage is significantly* <i>lower</i> than the island-wide average: 						
<b>I realized broadband was worth the extra money</b>		9%	20%	14%	18%	10%
<b>I needed to conduct business online</b>		2%	4%	2%	4%	10%
<b>Broadband became available in my area</b>		16%	13%	14%	11%	10%
<b>The cost of broadband became more affordable</b>		24%	24%	21%	12%	20%
<b>I bought (or received) a computer for my home</b>		19%	19%	13%	15%	10%
<b>I heard about the benefits of broadband</b>		9%	18%	27%	9%	0%
<b>Friends or family convinced me</b>		12%	9%	19%	17%	29%

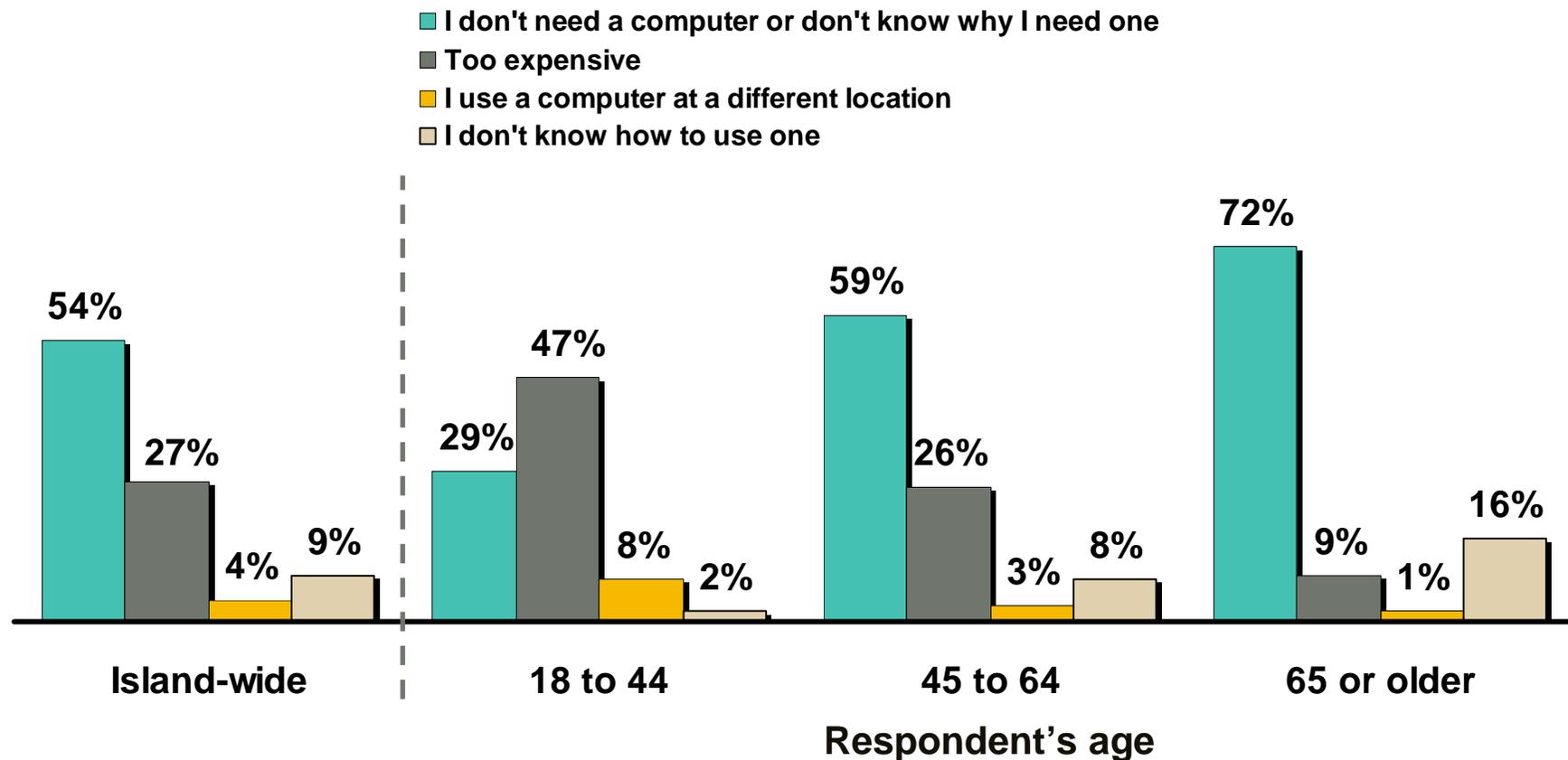
\*Significance measured at a 95% confidence level

Q: Which of the following contributed to your decision to subscribe to broadband service?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Top Barriers to Computer Ownership

Among Puerto Rico residents who do not own a home computer



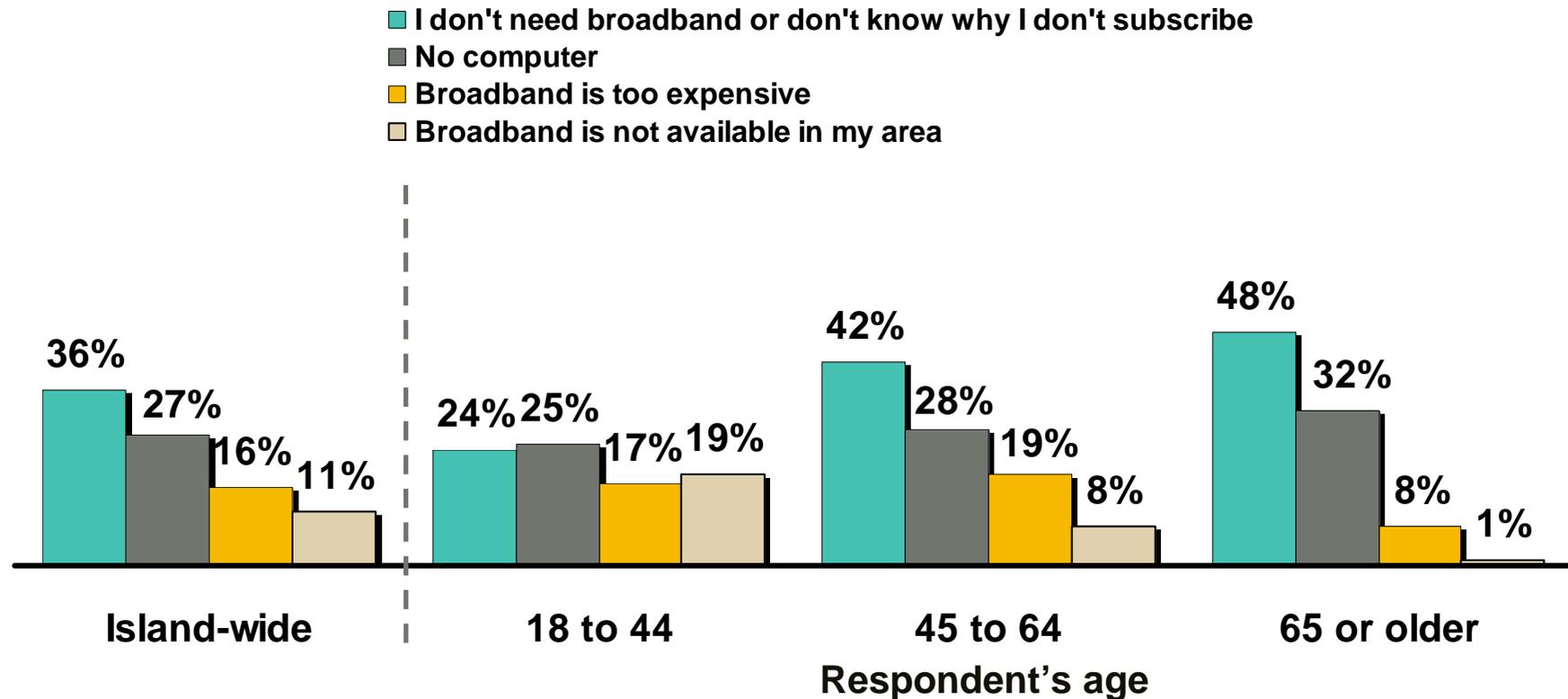
Q: Why don't you have a computer at home?  
(n=535 PR residents with no home computer)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Top Barriers to Broadband Adoption

Among Puerto Rico residents without home broadband service



Q: Why don't you subscribe to broadband at home?  
(n=834 PR adults who do not subscribe to broadband)

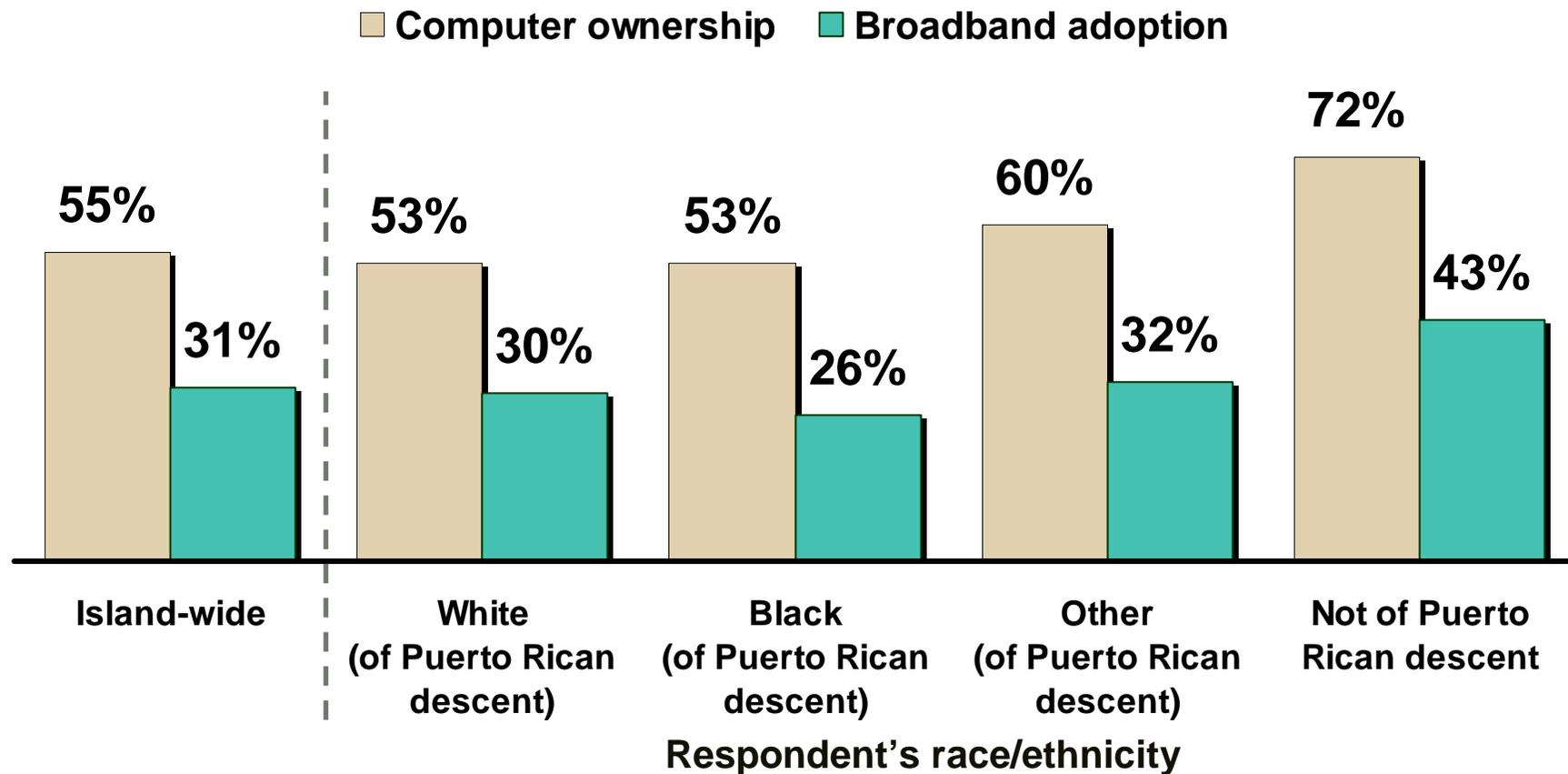
Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



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# Residential Technology Assessment by Race/Ethnicity

# Technology Adoption by Race/Ethnicity



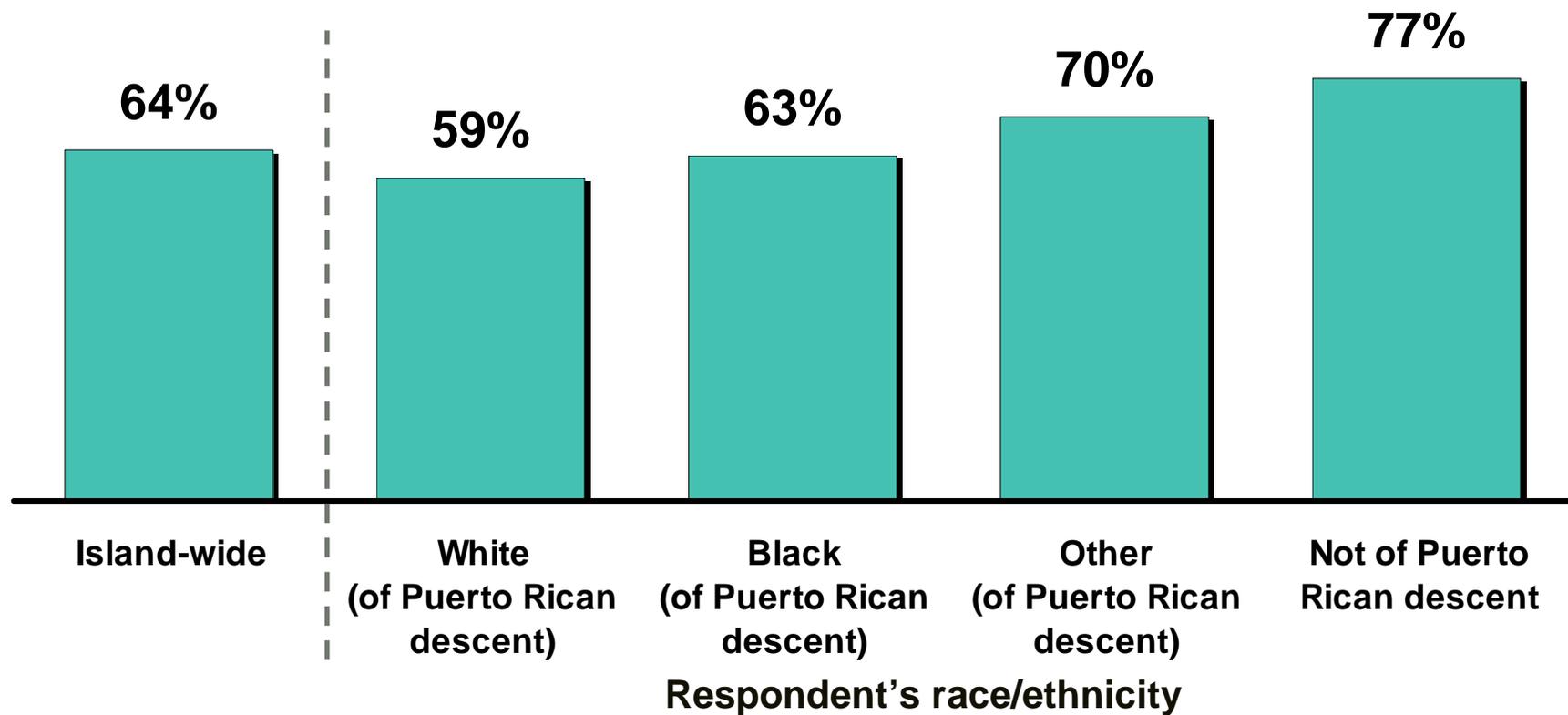
Q: Does your household have a computer? and  
Q: Which of the following describe the type of Internet service you have at home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Puerto Rico Residents Who Access the Internet (At Home or Someplace Else)

Percent of all Puerto Rico residents who access the Internet from home or some other place



Q: Do you use the Internet from any locations outside of your own home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Searching for Information Online

**Percent of Puerto Rico Internet users who search for the following types of information online**

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	White (Puerto Rican)	Black (Puerto Rican)	Other (Puerto Rican)	Non-Puerto Rican
<b>Product or service information</b>	45%	44%	41%	59%
<b>Community events</b>	24%	19%	23%	40%
<b>Health or medical information</b>	46%	47%	45%	40%
<b>Government services</b>	24%	25%	28%	37%
<b>Research for schoolwork</b>	54%	63%	57%	57%
<b>Jobs or employment</b>	37%	40%	31%	52%

\*Significance measured at a 95% confidence level

Q: Which of the following types of information have you used the Internet to look for online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Communicating Online

## Percent of Puerto Rico Internet users who communicate with others in the following ways

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	<b>White (Puerto Rican)</b>	<b>Black (Puerto Rican)</b>	<b>Other (Puerto Rican)</b>	<b>Non-Puerto Rican</b>
<b>E-mail</b>	62%	65%	61%	79%
<b>Social or professional networking sites</b>	62%	61%	51%	49%
<b>Instant messages</b>	30%	39%	26%	11%
<b>Posting content to a website</b>	12%	15%	10%	24%
<b>Microblogs such as Twitter</b>	9%	8%	6%	8%
<b>Posting content to a blog</b>	12%	8%	8%	18%
<b>Chatting in chat rooms</b>	22%	23%	12%	10%

\*Significance measured at a 95% confidence level

Q: Which of the following ways of communicating with others have you used?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Interacting Online

## Percent of Puerto Rico Internet users who interact online with the following

Percentage is significantly* <i>higher</i> than the island-wide average: 	<b>White (Puerto Rican)</b>	<b>Black (Puerto Rican)</b>	<b>Other (Puerto Rican)</b>	<b>Non-Puerto Rican</b>
Percentage is significantly* <i>lower</i> than the island-wide average: 				
<b>Friends or family</b>	74%	76%	71%	87%
<b>Companies with which you do business</b>	13%	11%	13%	14%
<b>Co-workers</b>	33%	37%	35%	28%
<b>Puerto Rico government</b>	12%	4%	11%	18%
<b>Your health insurance company</b>	9%	5%	4%	16%
<b>Doctors or other healthcare professionals</b>	10%	10%	9%	11%
<b>Teachers</b>	18%	24%	18%	23%
<b>Local government</b>	9%	9%	6%	7%
<b>Elected officials or candidates</b>	4%	1%	2%	4%

\*Significance measured at a 95% confidence level

Q: Which of the following types of individuals or organizations have you interacted with online, by visiting a website or communicating online to obtain information?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
www.connectpr.org



# Online Transactions

## Percent of Puerto Rico Internet users who conduct the following transactions online

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	White (Puerto Rican)	Black (Puerto Rican)	Other (Puerto Rican)	Non-Puerto Rican
<b>Purchasing a product or service online</b>	31%	31%	33%	37%
<b>Online banking</b>	26%	17%	23%	37%
<b>Paying bills</b>	34%	23%	32%	40%
<b>Booking travel arrangements</b>	31%	28%	27%	58%
<b>Online transactions with government</b>	9%	5%	8%	0%
<b>Selling a product or service online</b>	5%	4%	3%	10%
<b>Buying, selling, or trading investments</b>	7%	9%	6%	17%

\*Significance measured at a 95% confidence level

Q: Which of the following types of transactions have you completed online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
www.connectpr.org



# Online Activities

## Percent of Puerto Rico Internet users who conduct the following activities online

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	<b>White (Puerto Rican)</b>	<b>Black (Puerto Rican)</b>	<b>Other (Puerto Rican)</b>	<b>Non-Puerto Rican</b>
<b>Using a search engine</b>	61%	52%	55%	62%
<b>Reading online newspapers</b>	48%	46%	53%	59%
<b>Sending or receiving photos</b>	44%	54%	49%	44%
<b>Playing games online</b>	26%	29%	26%	26%
<b>Downloading music</b>	42%	51%	38%	46%
<b>Watching videos, movies, or TV shows</b>	42%	48%	43%	47%
<b>Working from home</b>	13%	7%	18%	16%
<b>Reading blogs</b>	21%	18%	19%	31%
<b>Taking online classes</b>	12%	11%	13%	6%

\*Significance measured at a 95% confidence level

Q: Which of the following activities have you conducted online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
www.connectpr.org



# Why Puerto Rico Residents Subscribe to Broadband

Percent of Puerto Rico residents who subscribe to broadband for the following reasons

Percentage is significantly* <i>higher</i> than the island-wide average: <span style="color: #4DB6AC;">■</span> Percentage is significantly* <i>lower</i> than the island-wide average: <span style="color: #DCE775;">■</span>	White (Puerto Rican)	Black (Puerto Rican)	All Other
I realized broadband was worth the extra money	15%	6%	11%
I needed to conduct business online	1%	6%	2%
Broadband became available in my area	16%	13%	11%
The cost of broadband became more affordable	21%	22%	23%
I bought (or received) a computer for my home	18%	12%	18%
I heard about the benefits of broadband	15%	23%	12%
Friends or family convinced me	17%	15%	9%

\*Significance measured at a 95% confidence level

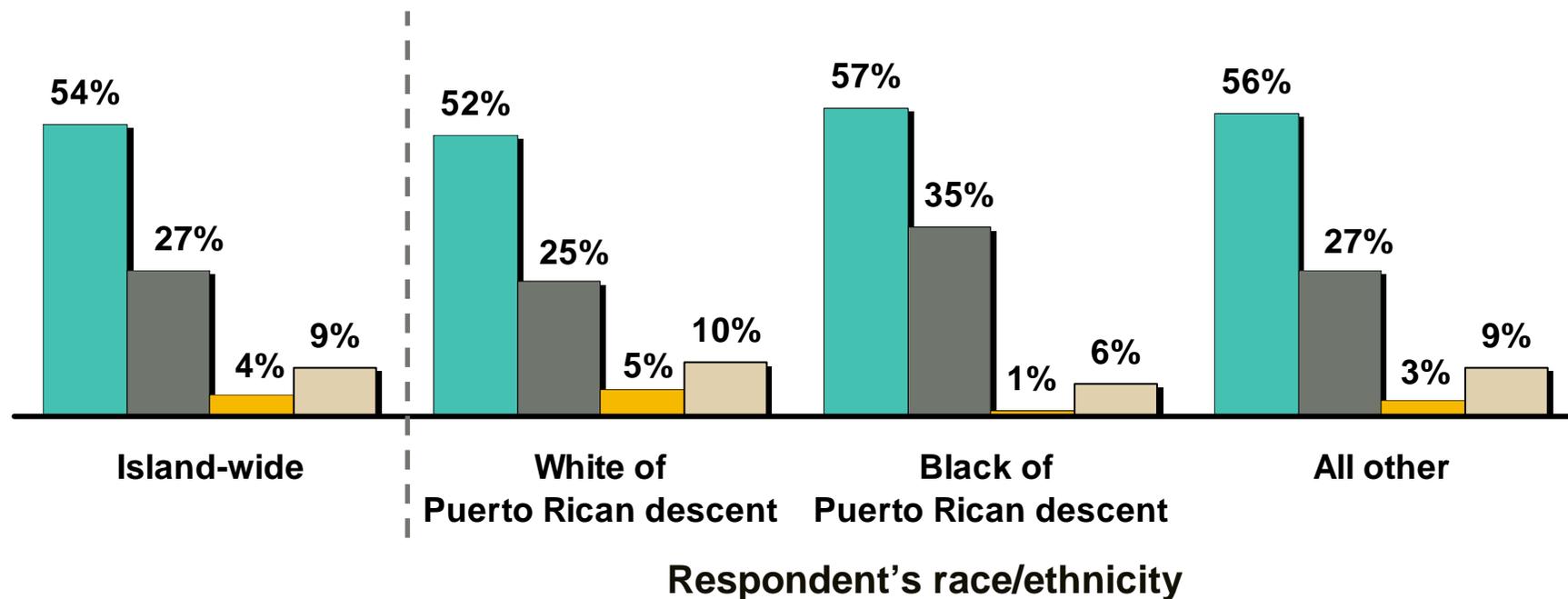
Q: Which of the following contributed to your decision to subscribe to broadband service?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Top Barriers to Computer Ownership

Among Puerto Rico residents who do not own a home computer

- I don't need a computer or I don't know why I need one
- Too expensive
- I use a computer at a different location
- I don't know how to use one



Q: Why don't you have a computer at home?  
(n=535 PR residents with no home computer)

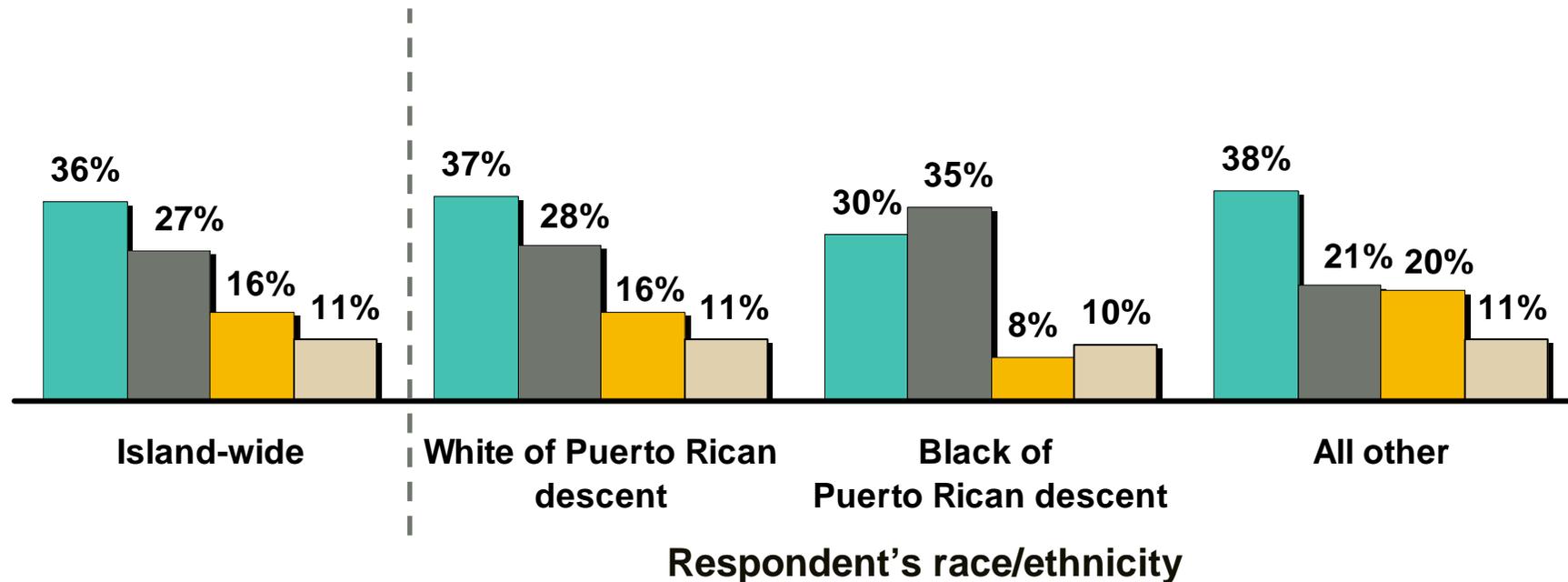
Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Top Barriers to Broadband Adoption

Among Puerto Rico residents without home broadband service

- I don't need broadband or I don't know why I don't subscribe
- No computer
- Broadband is too expensive
- Broadband is not available in my area



Q: Why don't you subscribe to broadband at home?  
 (n=834 PR adults who do not subscribe to broadband)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

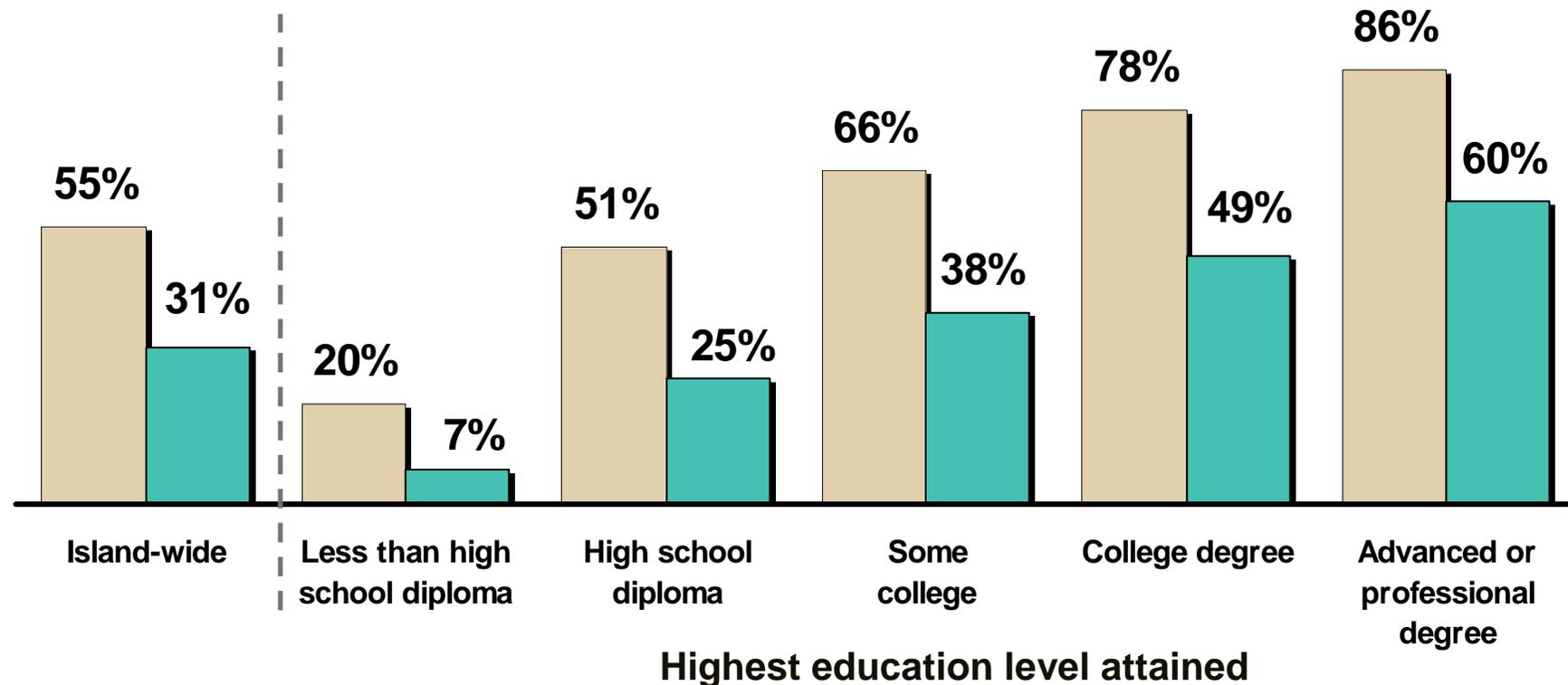


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# Residential Technology Assessment by Education

# Technology Adoption by Education

■ Computer ownership    ■ Broadband adoption



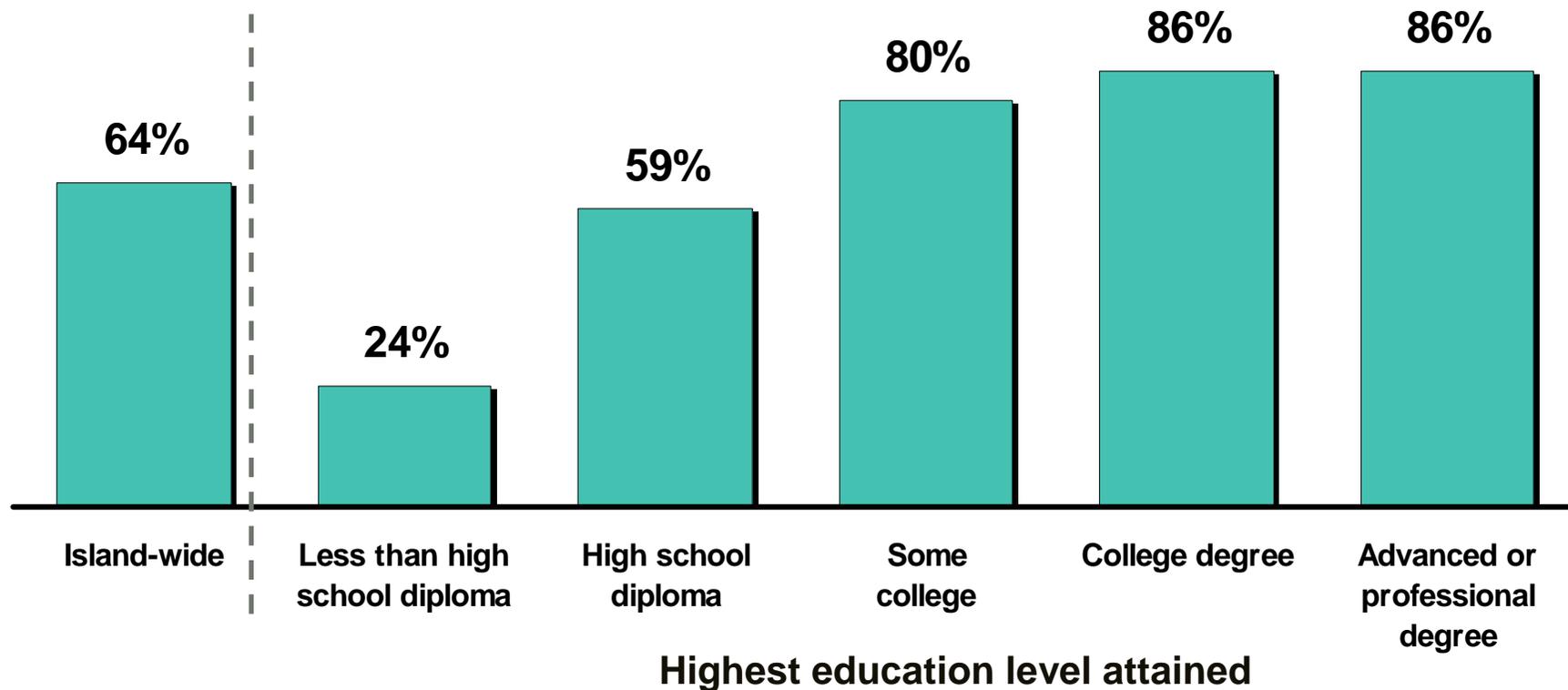
Q: Does your household have a computer? and  
Q: Which of the following describe the type of Internet service you have at home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Puerto Rico Residents Who Access the Internet (At Home or Someplace Else)

Percent of all Puerto Rico residents who access the Internet from home or some other place



Q: Do you use the Internet from any locations outside of your own home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Searching for Information Online

**Percent of Puerto Rico Internet users who search for the following types of information online**

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	<b>No HS diploma</b>	<b>HS diploma</b>	<b>Some college</b>	<b>College degree (4 yr)</b>	<b>Advanced or professional degree</b>
<b>Product or service information</b>	18%	35%	52%	55%	53%
<b>Health or medical information</b>	28%	38%	53%	43%	55%
<b>Information about events in your community</b>	10%	13%	31%	29%	25%
<b>Information about government services</b>	9%	14%	32%	33%	37%
<b>Jobs or employment</b>	26%	31%	42%	44%	31%
<b>Research for schoolwork</b>	53%	49%	62%	60%	54%

\*Significance measured at a 95% confidence level

Q: Which of the following types of information have you used the Internet to look for online?  
(n=766 PR residents who use the Internet)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Communicating Online

## Percent of Puerto Rico Internet users who communicate with others in the following ways

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	No HS diploma	HS diploma	Some college	College degree (4 yr)	Advanced or professional degree
<b>E-mail</b>	43%	50%	67%	74%	86%
<b>Social or professional networking sites</b>	49%	56%	60%	60%	56%
<b>Instant messages</b>	26%	24%	31%	31%	31%
<b>Posting content to a website</b>	10%	9%	14%	14%	16%
<b>Posting content to a microblog such as Twitter</b>	0%	7%	9%	10%	7%
<b>Posting content to a blog</b>	8%	8%	10%	12%	13%
<b>Chatting in chat rooms</b>	31%	19%	18%	17%	12%

\*Significance measured at a 95% confidence level

Q: Which of the following ways of communicating with others have you used?  
(n=766 PR residents who use the Internet)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Interacting Online

## Percent of Puerto Rico Internet users who interact online with the following

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	No HS diploma	HS diploma	Some college	College degree (4 yr)	Advanced or professional degree
<b>Friends or family</b>	62%	65%	81%	79%	81%
<b>Companies with which you do business</b>	2%	5%	14%	20%	19%
<b>Co-workers</b>	15%	20%	40%	40%	52%
<b>Puerto Rico government</b>	8%	5%	10%	14%	28%
<b>Health insurance company</b>	2%	4%	10%	9%	11%
<b>Doctors or other healthcare professionals</b>	0%	5%	13%	11%	17%
<b>Teachers</b>	4%	15%	25%	18%	25%
<b>Local government</b>	2%	6%	10%	7%	14%
<b>Elected officials or candidates</b>	0%	4%	3%	1%	2%

\*Significance measured at a 95% confidence level

Q: Which of the following types of individuals or organizations have you interacted with online, by visiting a website or communicating online to obtain information?  
(n=766 PR residents who use the Internet)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Online Transactions

## Percent of Puerto Rico Internet users who conduct the following transactions online

Percentage is significantly* <i>higher</i> than the island-wide average: <span style="color: #4DB6AC;">■</span> Percentage is significantly* <i>lower</i> than the island-wide average: <span style="color: #C8A272;">■</span>	No HS diploma	HS diploma	Some college	College degree (4 yr)	Advanced or professional degree
<b>Purchasing a product or service online</b>	12%	20%	37%	42%	51%
<b>Online banking</b>	4%	14%	22%	40%	43%
<b>Paying bills</b>	2%	18%	37%	48%	55%
<b>Booking travel arrangements</b>	10%	20%	34%	41%	53%
<b>Online transactions with government</b>	6%	5%	7%	11%	10%
<b>Selling a product or service online</b>	0%	2%	5%	9%	4%
<b>Buying, selling, or trading investments</b>	6%	2%	8%	14%	5%

\*Significance measured at a 95% confidence level

Q: Which of the following types of transactions have you completed online?  
(n=766 PR residents who use the Internet)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Online Activities

## Percent of Puerto Rico Internet users who conduct the following activities online

Percentage is significantly* <i>higher</i> than the island-wide average: 	<b>No HS diploma</b>	<b>HS diploma</b>	<b>Some college</b>	<b>College degree (4 yr)</b>	<b>Advanced or professional degree</b>
Percentage is significantly* <i>lower</i> than the island-wide average: 					
<b>Using a search engine</b>	33%	53%	66%	63%	64%
<b>Reading online newspapers</b>	26%	39%	55%	59%	72%
<b>Sending or receiving photos</b>	35%	40%	49%	52%	50%
<b>Playing games online</b>	25%	29%	28%	25%	16%
<b>Downloading music</b>	40%	44%	44%	42%	32%
<b>Watching videos, movies, or TV shows online</b>	40%	41%	47%	42%	51%
<b>Working from home</b>	4%	6%	12%	22%	36%
<b>Reading blogs</b>	19%	15%	24%	19%	29%
<b>Taking online classes</b>	3%	8%	13%	13%	16%

\*Significance measured at a 95% confidence level

Q: Which of the following activities have you conducted online?  
(n=766 PR residents who use the Internet)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Why Puerto Rico Residents Subscribe to Broadband

Percent of Puerto Rico residents who subscribe to broadband for the following reasons

Percentage is significantly* <i>higher</i> than the island-wide average: <span style="color: #4DB6AC;">■</span> Percentage is significantly* <i>lower</i> than the island-wide average: <span style="color: #DCE775;">■</span>	No college education	Any college education
<b>I realized broadband was worth the extra money</b>	12%	14%
<b>I needed to conduct business online</b>	2%	3%
<b>Broadband became available in my area</b>	14%	15%
<b>The cost of broadband became more affordable</b>	14%	24%
<b>I bought (or received) a computer for my home</b>	20%	16%
<b>I heard about the benefits of broadband</b>	16%	13%
<b>Friends or family convinced me</b>	20%	11%

\*Significance measured at a 95% confidence level

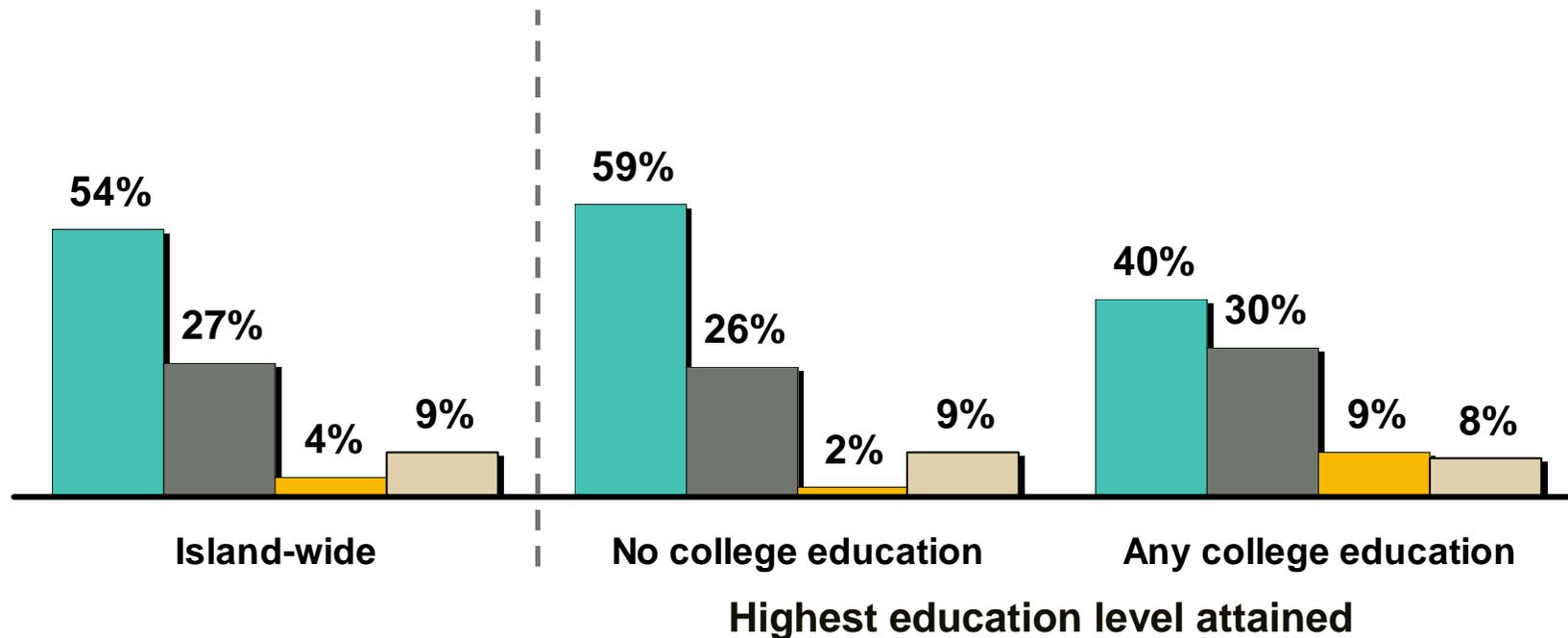
Q: Which of the following contributed to your decision to subscribe to broadband service?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Top Barriers to Computer Ownership

Among Puerto Rico residents who do not own a home computer

- I don't need a computer or don't know why I need one
- Too expensive
- I use a computer at a different location
- I don't know how to use one



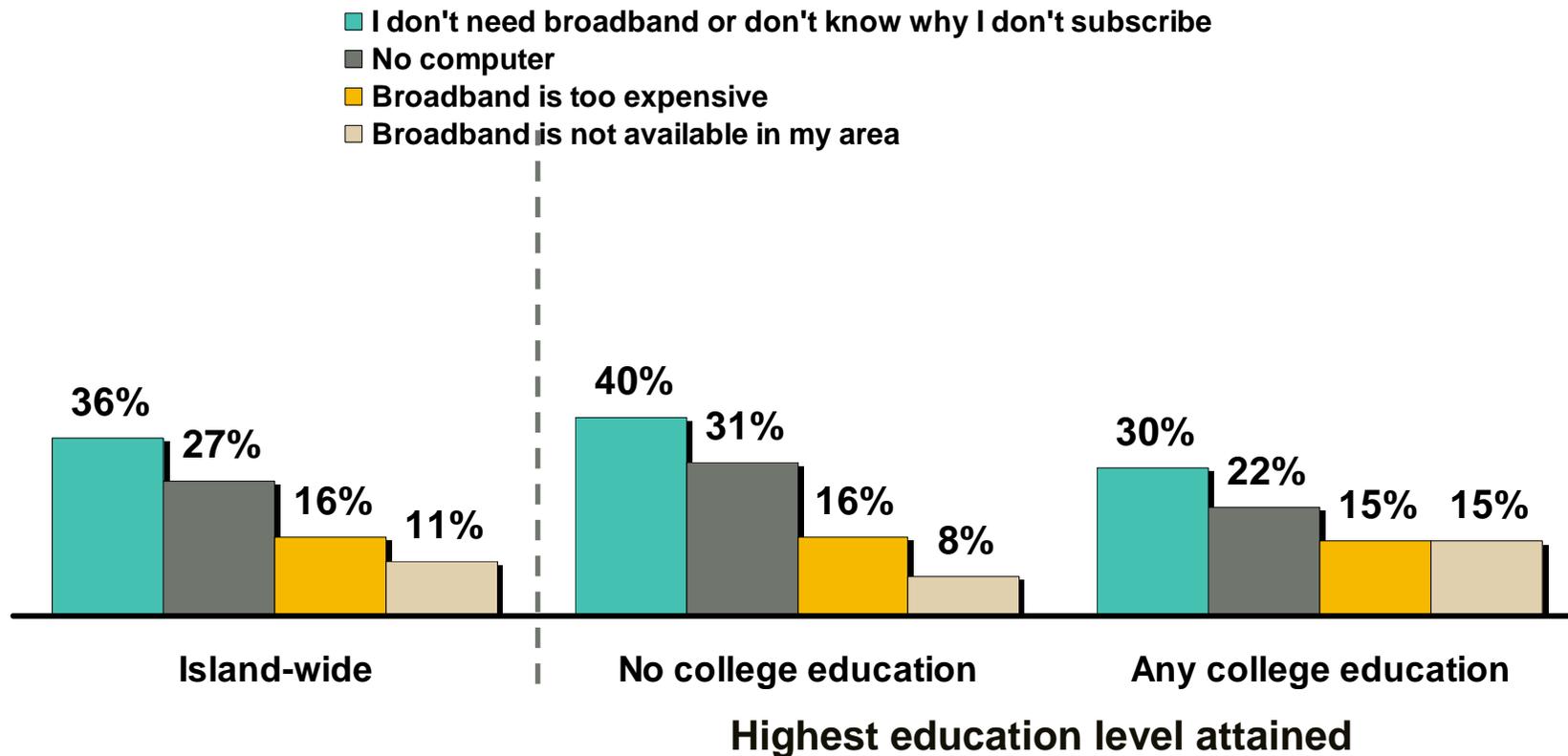
Q: Why don't you have a computer at home?  
(n=535 PR residents with no home computer)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Top Barriers to Broadband Adoption

Among Puerto Rico residents without home broadband service



Q: Why don't you subscribe to broadband at home?  
 (n=834 PR adults who do not subscribe to broadband)

Source: 2010 Connect Puerto Rico  
 Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

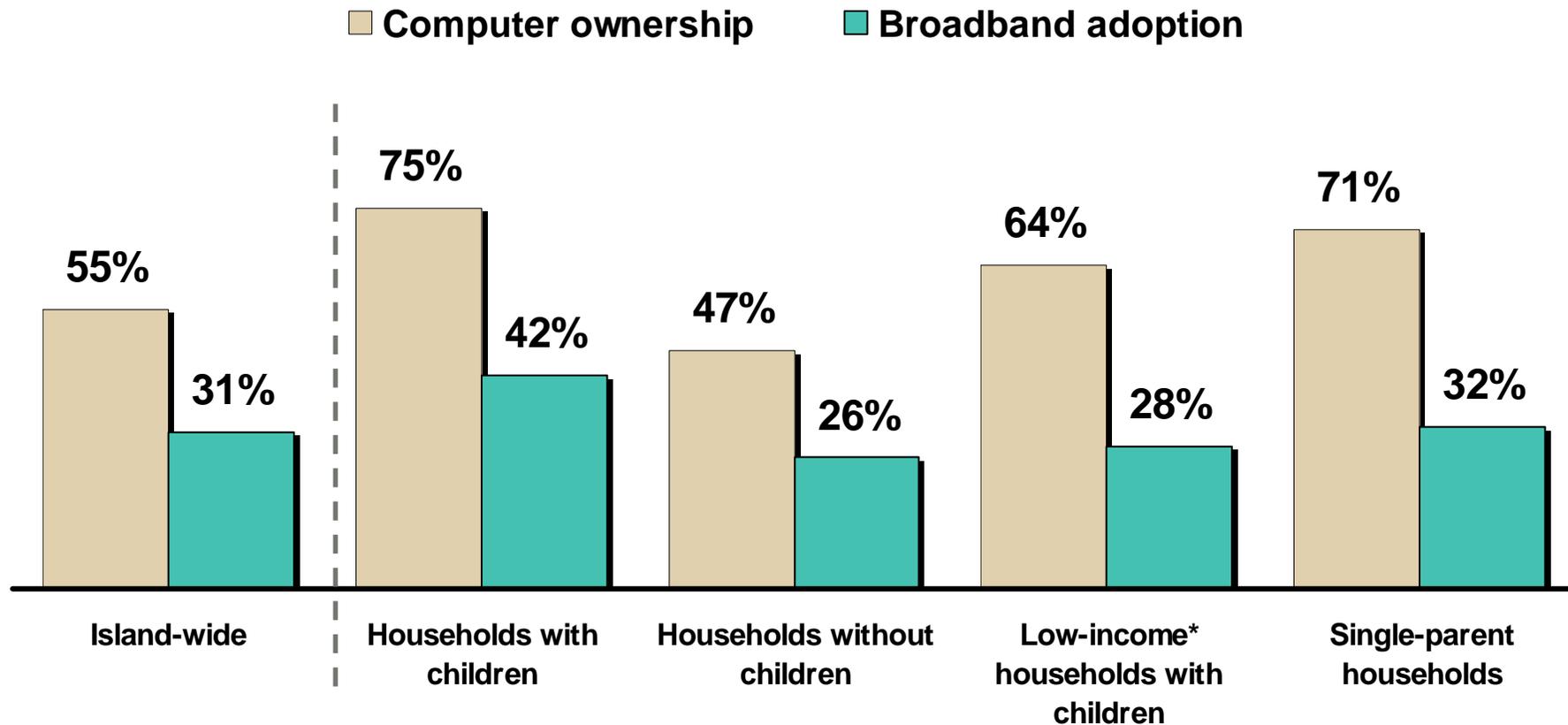


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# **Residential Technology Assessment of Households With Children**



# Technology Adoption Among Households With Children



\*Low-income=household income less than \$25,000

Q: Does your household have a computer? and

Q: Which of the following describe the type of Internet service you have at home?

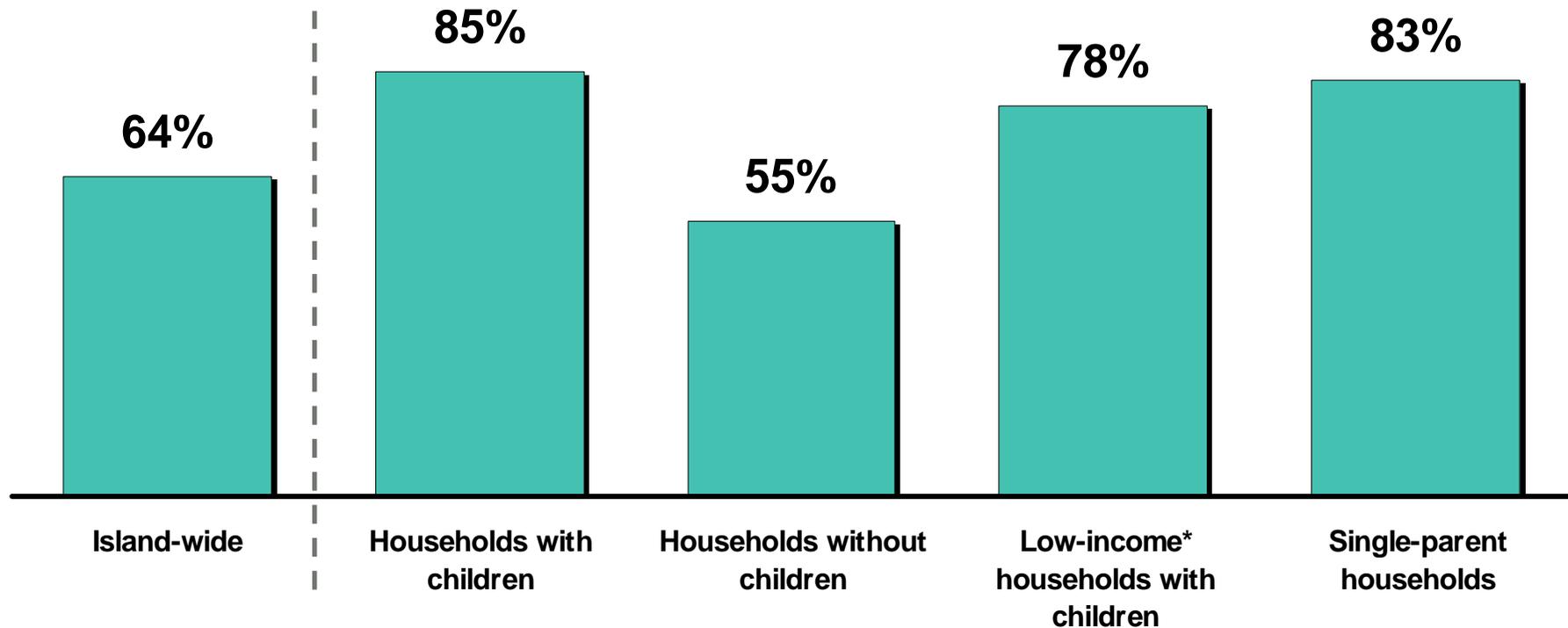
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Puerto Rico Residents Who Access the Internet (At Home or Someplace Else)

Percent of all Puerto Rico residents who access the Internet from home or some other place



\*Low-income=household income less than \$25,000

Q: Do you use the Internet from any locations outside of your own home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Searching for Information Online

**Percent of Puerto Rico Internet users who search for the following types of information online**

Percentage is significantly** <i>higher</i> than the island-wide average:  Percentage is significantly** <i>lower</i> than the island-wide average: 	Households with children	Households without children	Low-income* households with children	Single-parent households
Product or service information	43%	46%	30%	42%
Community events	24%	22%	22%	27%
Health or medical information	44%	45%	43%	40%
Government services	24%	26%	19%	27%
Research for schoolwork	65%	50%	72%	72%
Jobs or employment	37%	36%	44%	46%

\*Low-income=household income less than \$25,000

\*\*Significance measured at a 95% confidence level

Q: Which of the following types of information have you used the Internet to look for online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Communicating Online

## Percent of Puerto Rico Internet users who communicate with others in the following ways

Percentage is significantly** <i>higher</i> than the island-wide average: <span style="color: #00A69A;">■</span> Percentage is significantly** <i>lower</i> than the island-wide average: <span style="color: #C4A07C;">■</span>	Households with children	Households without children	Low-income* households with children	Single- parent households
<b>E-mail</b>	64%	64%	56%	69%
<b>Social or professional networking sites</b>	62%	56%	64%	77%
<b>Instant messages</b>	27%	30%	25%	25%
<b>Posting content to a website</b>	12%	12%	12%	14%
<b>Posting content to a microblog such as Twitter</b>	6%	9%	7%	13%
<b>Posting content to a blog</b>	8%	12%	10%	15%
<b>Chatting in chat rooms</b>	18%	19%	18%	29%

\*Low-income=household income less than \$25,000

\*\*Significance measured at a 95% confidence level

Q: Which of the following ways of communicating with others have you used?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Interacting Online

## Percent of Puerto Rico Internet users who interact online with the following

Percentage is significantly** <i>higher</i> than the island-wide average: 		<b>Households with children</b>	<b>Households without children</b>	<b>Low-income* households with children</b>	<b>Single-parent households</b>
Percentage is significantly** <i>lower</i> than the island-wide average: 					
<b>Friends or family</b>		74%	75%	71%	78%
<b>Companies with which you do business</b>		13%	12%	5%	2%
<b>Co-workers</b>		31%	35%	23%	28%
<b>Puerto Rico government</b>		10%	12%	6%	6%
<b>Health insurance company</b>		6%	8%	4%	2%
<b>Doctors or other healthcare professionals</b>		9%	10%	7%	6%
<b>Teachers</b>		14%	22%	15%	16%
<b>Local government</b>		8%	8%	5%	9%
<b>Elected officials or candidates</b>		2%	3%	1%	3%

\*Low-income=household income less than \$25,000

\*\*Significance measured at a 95% confidence level

Q: Which of the following types of individuals or organizations have you interacted with online, by visiting a website or communicating online to obtain information?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
www.connectpr.org

# Online Transactions

## Percent of Puerto Rico Internet users who conduct the following transactions online

Percentage is significantly** <i>higher</i> than the island-wide average:  Percentage is significantly** <i>lower</i> than the island-wide average: 	Households with children	Households without children	Low-income* households with children	Single- parent households
Purchasing a product or service online	28%	35%	20%	19%
Online banking	25%	24%	11%	19%
Paying bills	37%	30%	21%	23%
Booking travel arrangements	34%	29%	21%	23%
Online transactions with government	5%	9%	3%	3%
Selling a product or service online	5%	4%	2%	3%
Buying, selling, or trading investments	6%	8%	4%	3%

\*Low-income=household income less than \$25,000

\*\*Significance measured at a 95% confidence level

Q: Which of the following types of transactions have you completed online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Online Activities

## Percent of Puerto Rico Internet users who conduct the following activities online

Percentage is significantly** <i>higher</i> than the island-wide average: 	Households with children	Households without children	Low-income* households with children	Single-parent households
Percentage is significantly** <i>lower</i> than the island-wide average: 				
<b>Using a search engine</b>	59%	58%	53%	59%
<b>Reading online newspapers</b>	52%	49%	43%	47%
<b>Sending or receiving photos</b>	43%	48%	39%	50%
<b>Playing games online</b>	30%	25%	32%	35%
<b>Downloading music</b>	45%	40%	46%	53%
<b>Watching videos, movies, or TV shows</b>	41%	46%	42%	45%
<b>Working from home</b>	13%	15%	4%	6%
<b>Reading blogs</b>	21%	19%	20%	22%
<b>Taking online classes</b>	9%	12%	7%	9%

\*Low-income=household income less than \$25,000

\*\*Significance measured at a 95% confidence level

Q: Which of the following activities have you conducted online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Why Puerto Rico Residents Subscribe to Broadband

## Percent of Puerto Rico residents who subscribe to broadband for the following reasons

Percentage is significantly* <i>higher</i> than the island-wide average:  Percentage is significantly* <i>lower</i> than the island-wide average: 	Households with children	Households without children
<b>I realized broadband was worth the extra money</b>	15%	13%
<b>I needed to conduct business online</b>	2%	3%
<b>Broadband became available in my area</b>	15%	14%
<b>The cost of broadband became more affordable</b>	29%	17%
<b>I bought (or received) a computer for my home</b>	18%	17%
<b>I heard about the benefits of broadband</b>	18%	11%
<b>Friends or family convinced me</b>	11%	16%

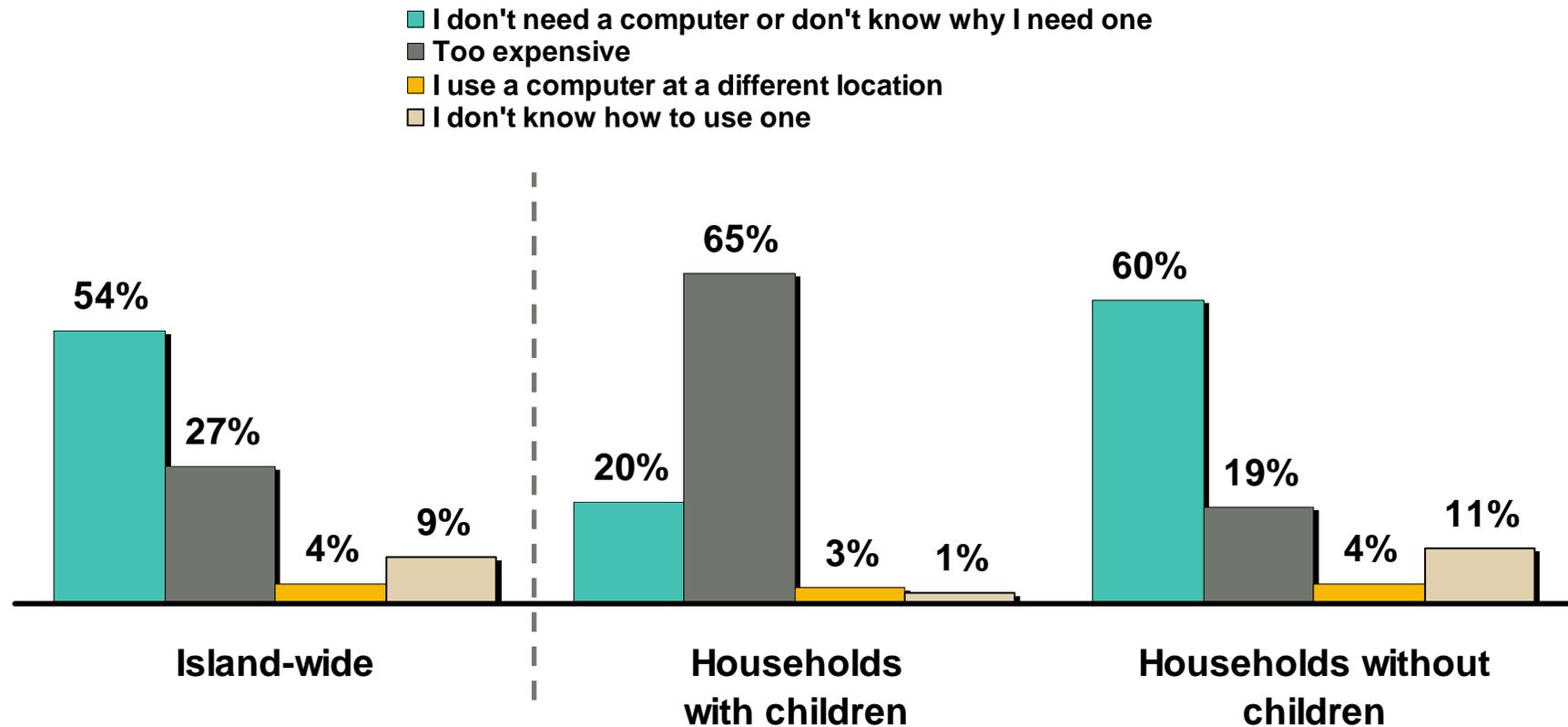
\*Significance measured at a 95% confidence level

Q: Which of the following contributed to your decision to subscribe to broadband service?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Top Barriers to Computer Ownership

Among Puerto Rico residents who do not own a home computer

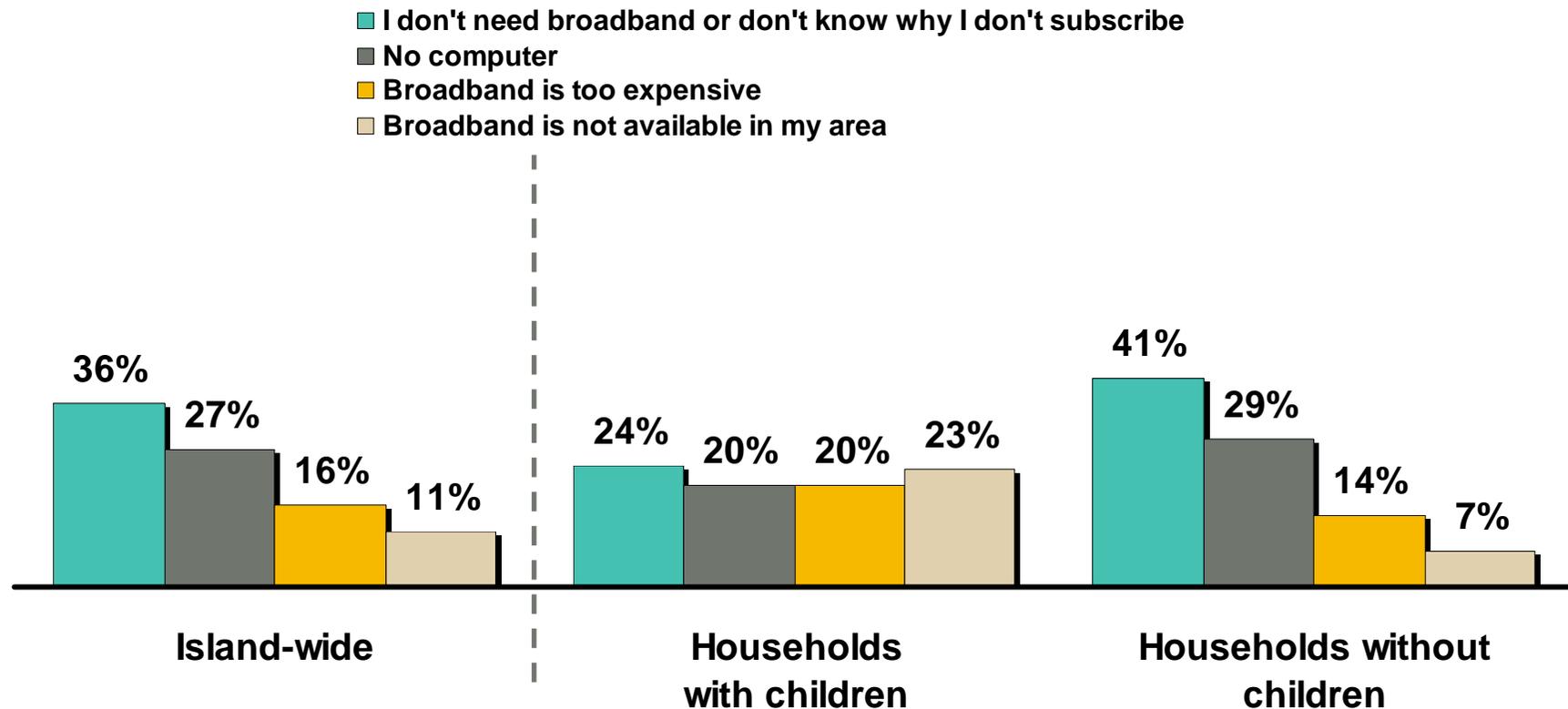


Q: Why don't you have a computer at home?  
(n=535 PR residents with no home computer)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Top Barriers to Broadband Adoption

Among Puerto Rico residents without home broadband service



Q: Why don't you subscribe to broadband at home?  
(n=834 PR adults who do not subscribe to broadband)

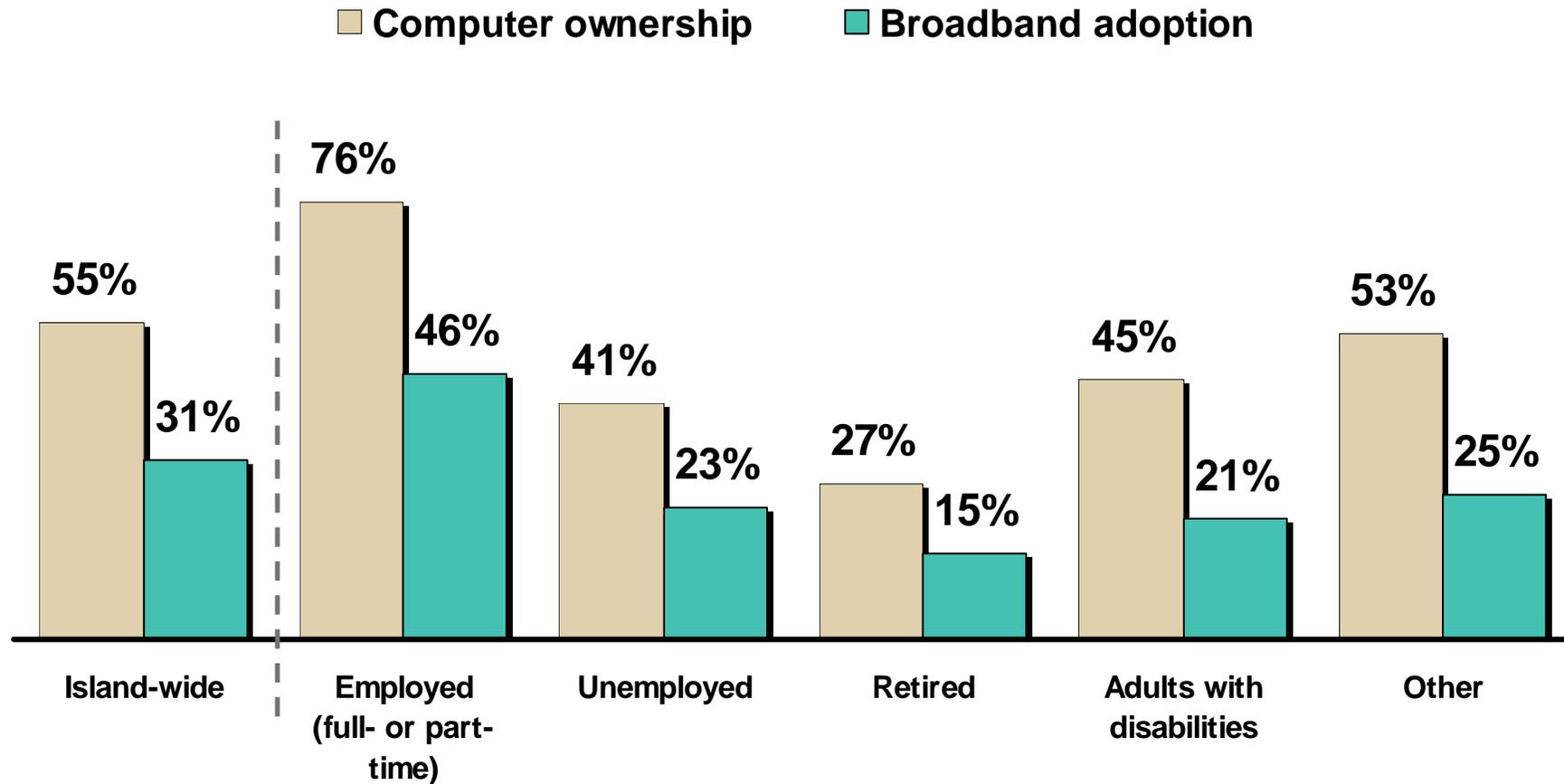
Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



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# Residential Technology Assessment by Employment Status

# Technology Adoption by Employment Status



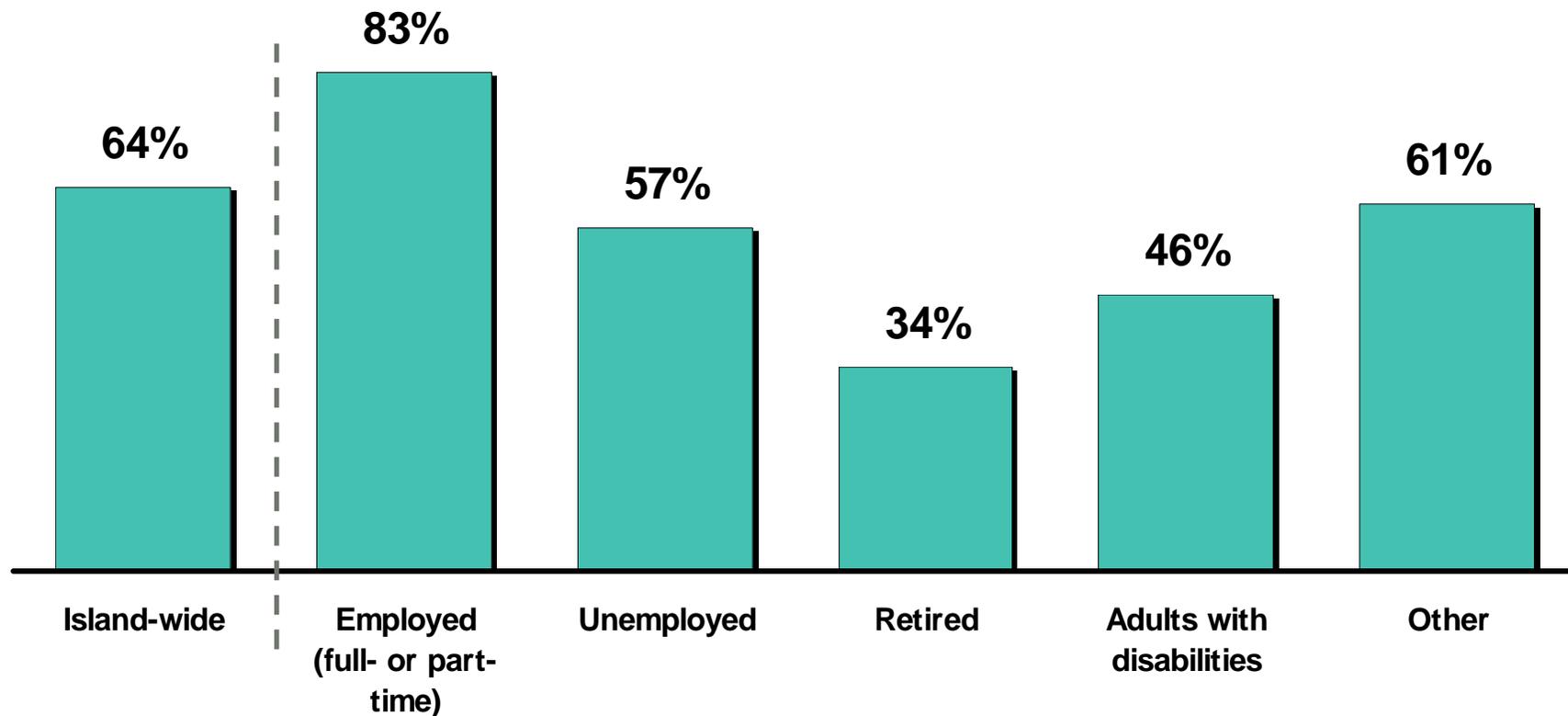
Q: Does your household have a computer? and  
 Q: Which of the following describe the type of Internet service you have at home?  
 (n=1,200 PR residents)

Source: 2010 Connect Puerto Rico  
 Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Puerto Rico Residents Who Access the Internet (At Home or Someplace Else)

Percent of all Puerto Rico residents who access the Internet from home or some other place



Q: Do you use the Internet from any locations outside of your own home?  
(n=1,200 PR residents)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Searching for Information Online

**Percent of Puerto Rico Internet users who search for the following types of information online**

Percentage is significantly* <i>higher</i> than the island-wide average: 	<b>Employed (full-time or part-time)</b>	<b>Unemployed</b>	<b>Retired</b>	<b>Other</b>
Percentage is significantly* <i>lower</i> than the island-wide average: 				
<b>Product or service information</b>	54%	48%	31%	34%
<b>Community events</b>	30%	21%	13%	16%
<b>Health or medical information</b>	46%	44%	42%	44%
<b>Government services</b>	31%	21%	26%	18%
<b>Research for schoolwork</b>	58%	56%	30%	61%
<b>Jobs or employment</b>	38%	56%	16%	34%

\*Significance measured at a 95% confidence level

Q: Which of the following types of information have you used the Internet to look for online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Communicating Online

## Percent of Puerto Rico Internet users who communicate with others in the following ways

Percentage is significantly* <i>higher</i> than the island-wide average: 	<b>Employed (full-time or part-time)</b>	<b>Unemployed</b>	<b>Retired</b>	<b>Other</b>
Percentage is significantly* <i>lower</i> than the island-wide average: 				
<b>E-mail</b>	71%	60%	41%	59%
<b>Social or professional networking sites</b>	62%	58%	25%	62%
<b>Instant messages</b>	29%	34%	13%	31%
<b>Posting content to a website</b>	12%	15%	4%	13%
<b>Microblogs such as Twitter</b>	7%	7%	2%	11%
<b>Posting content to a blog</b>	10%	13%	2%	12%
<b>Chatting in chat rooms</b>	18%	26%	5%	21%

\*Significance measured at a 95% confidence level

Q: Which of the following ways of communicating with others have you used?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Interacting Online

## Percent of Puerto Rico Internet users who interact online with the following

Percentage is significantly* <i>higher</i> than the island-wide average: 	<b>Employed (full-time or part-time)</b>	<b>Unemployed</b>	<b>Retired</b>	<b>Other</b>
Percentage is significantly* <i>lower</i> than the island-wide average: 				
<b>Friends or family</b>	81%	72%	55%	69%
<b>Companies with which you do business</b>	20%	9%	2%	4%
<b>Co-workers</b>	46%	30%	13%	20%
<b>Puerto Rico government</b>	16%	4%	11%	7%
<b>Your health insurance company</b>	8%	7%	12%	5%
<b>Doctors or other healthcare professionals</b>	12%	8%	16%	5%
<b>Teachers</b>	19%	17%	10%	21%
<b>Local government</b>	9%	8%	6%	6%
<b>Elected officials or candidates</b>	3%	1%	0%	3%

\*Significance measured at a 95% confidence level

Q: Which of the following types of individuals or organizations have you interacted with online, by visiting a website or communicating online to obtain information?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico Residential Technology Assessment  
www.connectpr.org

# Online Transactions

## Percent of Puerto Rico Internet users who conduct the following transactions online

Percentage is significantly* <i>higher</i> than the island-wide average: 	<b>Employed (full-time or part-time)</b>	<b>Unemployed</b>	<b>Retired</b>	<b>Other</b>
Percentage is significantly* <i>lower</i> than the island-wide average: 				
<b>Purchasing a product or service online</b>	40%	32%	30%	20%
<b>Online banking</b>	33%	25%	18%	14%
<b>Paying bills</b>	47%	23%	31%	16%
<b>Booking travel arrangements</b>	39%	28%	22%	23%
<b>Online transactions with government</b>	10%	7%	4%	5%
<b>Selling a product or service online</b>	6%	2%	0%	3%
<b>Buying, selling, or trading investments</b>	9%	10%	3%	4%

\*Significance measured at a 95% confidence level

Q: Which of the following types of transactions have you completed online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Online Activities

## Percent of Puerto Rico Internet users who conduct the following activities online

Percentage is significantly* <i>higher</i> than the island-wide average: 	<b>Employed (full-time or part-time)</b>	<b>Unemployed</b>	<b>Retired</b>	<b>Other</b>
Percentage is significantly* <i>lower</i> than the island-wide average: 				
<b>Using a search engine</b>	66%	60%	33%	53%
<b>Reading online newspapers</b>	62%	47%	34%	38%
<b>Sending or receiving photos</b>	48%	47%	29%	46%
<b>Playing games online</b>	27%	28%	9%	30%
<b>Downloading music</b>	42%	42%	21%	48%
<b>Watching videos, movies, or TV shows</b>	44%	50%	20%	48%
<b>Working from home</b>	22%	12%	5%	6%
<b>Reading blogs</b>	23%	23%	7%	17%
<b>Taking online classes</b>	11%	16%	2%	11%

\*Significance measured at a 95% confidence level

Q: Which of the following activities have you conducted online?  
(n=766 PR Internet users)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



# Why Puerto Rico Residents Subscribe to Broadband

## Percent of Puerto Rico residents who subscribe to broadband for the following reasons

Percentage is significantly* <i>higher</i> than the island-wide average: 	<b>Employed (full-time or part-time)</b>	<b>Unemployed</b>	<b>Retired**</b>	<b>Other</b>
Percentage is significantly* <i>lower</i> than the island-wide average: 				
<b>I realized broadband was worth the extra money</b>	14%	4%	21%	13%
<b>I needed to conduct business online</b>	4%	0%	4%	0%
<b>Broadband became available in my area</b>	14%	13%	13%	16%
<b>The cost of broadband became more affordable</b>	23%	23%	8%	22%
<b>I bought (or received) a computer for my home</b>	15%	10%	26%	21%
<b>I heard about the benefits of broadband</b>	13%	19%	11%	15%
<b>Friends or family convinced me</b>	12%	17%	23%	15%

\*Significance measured at a 95% confidence level

\*\* Sample size less than 30

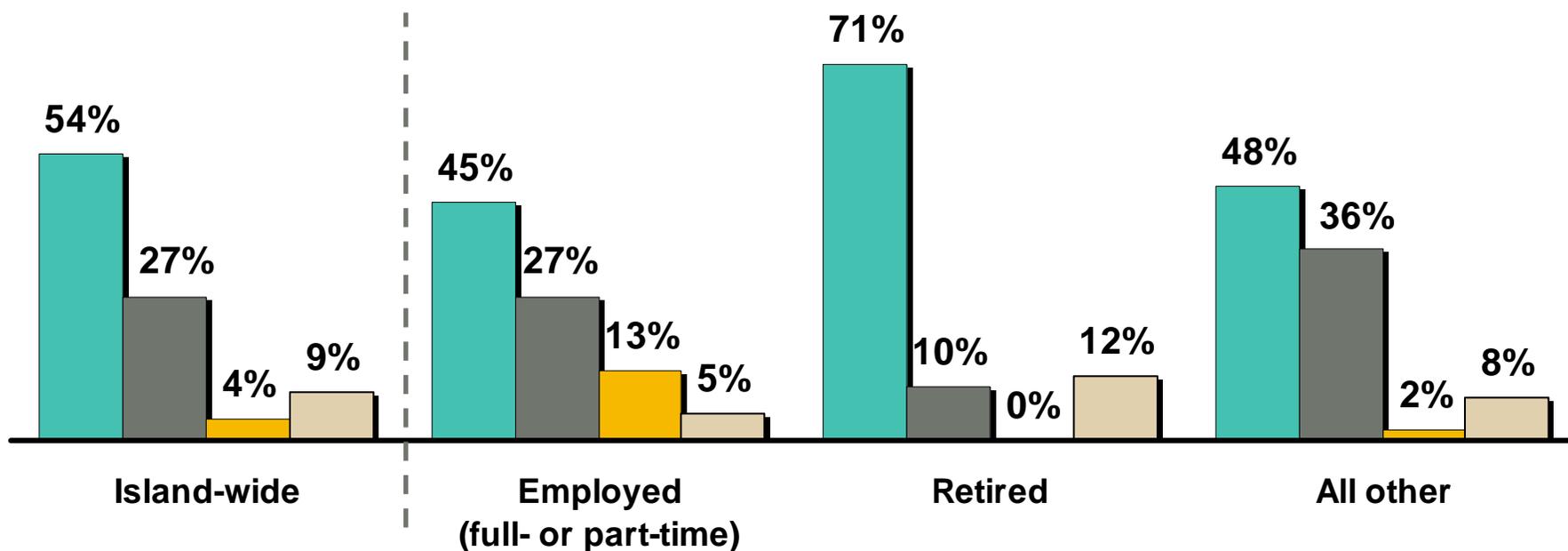
Q: Which of the following contributed to your decision to subscribe to broadband service?  
(n=366 PR residents with home broadband service)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Top Barriers to Computer Ownership

Among Puerto Rico residents who do not own a home computer

- I don't need a computer or I don't know why I need one
- Too expensive
- I use a computer at a different location
- I don't know how to use one



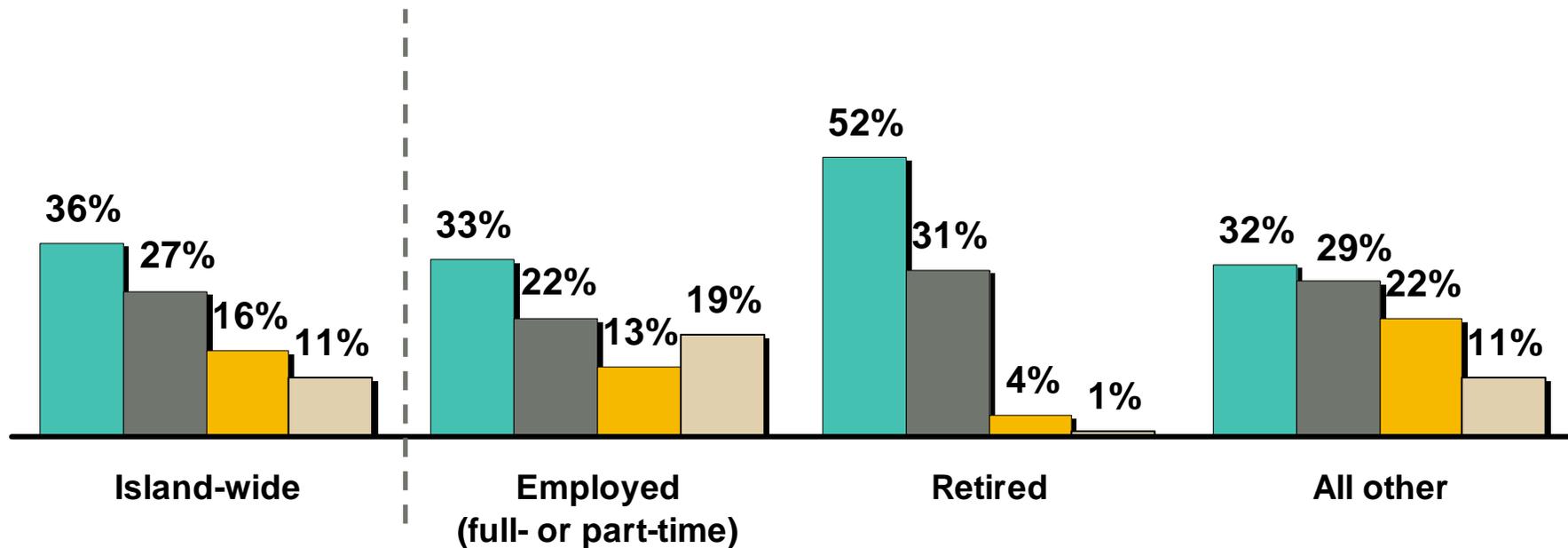
Q: Why don't you have a computer at home?  
(n=535 PR residents with no home computer)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)

# Top Barriers to Broadband Adoption

Among Puerto Rico residents without home broadband service

- I don't need broadband or I don't know why I don't subscribe
- No computer
- Broadband is too expensive
- Broadband is not available in my area



Q: Why don't you subscribe to broadband at home?  
(n=834 PR adults who do not subscribe to broadband)

Source: 2010 Connect Puerto Rico  
Residential Technology Assessment  
[www.connectpr.org](http://www.connectpr.org)



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# Research Methodology

# Methodology

- **Data were collected by telephone through live computer-assisted interviews from an island-wide random digit dial (RDD) sample of 1,000 households and 200 cell phone users contacted between May 15 and June 9, 2010. On average, each survey took approximately 10 minutes to complete. Data were collected by Estudios Tecnicos in San Juan, PR.**
  - This research was designed to measure technology adoption and the awareness of available broadband service, and establish benchmarks for these metrics.
- **The questionnaire screened to include only adults age 18 or older with quotas set by gender, age, and municipality of residence (urban, suburban, or rural) to ensure adequate representation of all adults on the island.**
- **Weights were applied to correct for minor variations and ensure that the sample matches the most recent U.S. Census estimates of the island's population by age, gender, and urban/rural classification of the respondent's municipality of residence. Weighting and research consultation were provided by Lucidity Research, LLC.**
- **Sampling margin of error:**
  - Across Puerto Rico, full sample (n=1,200):  $\pm 3.1\%$  at the 95% level of confidence. This sample error accounts for sample weighting, using the effective sample size.

# Urban-Rural Classifications Defined

- The U.S. Census Bureau uses an urban-rural classification based on Metropolitan Statistical Areas (MSAs), which are designated by the United States Office of Management and Budget to collect, tabulate and publish federal statistics.
- Metropolitan statistical areas contain a core urban area with a population of 50,000 or more. Each MSA also includes one or more municipalities that have a high degree of social and economic interaction with the urban core (further information on definitions for MSAs can be found at: [www.census.gov/population/www/estimates/00-32997.pdf](http://www.census.gov/population/www/estimates/00-32997.pdf)).
- When classifying urban, suburban and rural municipalities, we follow the Census Bureau definition whereby municipalities are categorized as “urban” if they contain the core city of an MSA. “Suburban” municipalities are MSA municipalities that do not contain a core city, and “rural” municipalities include all remaining municipalities that are not part of an MSA.
- Using these definitions, there are currently 62 urban, 8 suburban, and 8 rural municipalities in Puerto Rico.



# Island Survey Sample (n=1,200 Adults)

<b>Gender:</b>		<b>Employment Status:</b>	
Male	47%	Employed full-time or part-time	37%
Female	53%	Retired	16%
<b>Age:</b>		Homemaker not employed outside home	19%
34 or younger	32%	Student not working for wages	8%
35 to 44	18%	Unemployed	12%
45 to 54	17%	Disabled, not employed outside the home	6%
55 to 64	15%	Other / no answer	2%
65 or older	18%	<b>Educational Attainment:</b>	
Mean age (years)	46	Less than high school	20%
Median age (years)	44	High school graduate	30%
<b>Race:</b>		Some college	24%
White (of Puerto Rican descent)	56%	College graduate or higher	23%
Black (of Puerto Rican descent)	13%	Refused	3%
American Native (of Puerto Rican descent)	2%	<b>Household Income:</b>	
Other (of Puerto Rican descent)	18%	Under \$25,000	61%
No answer/refused (of Puerto Rican descent)	6%	\$25,000 to \$49,999	17%
Not of Puerto Rican descent	4%	\$50,000 to \$74,999	4%
<b>Marital Status:</b>		\$75,000 or higher	3%
Single, never married	24%	No answer / refused	15%
Married or living in partnership	52%	Mean household income (\$000)	\$23
Separated or divorced	15%	Median household income (\$000)	\$15
Widowed	8%	<b>Average household size (# of persons)</b>	3.1
Refused to say	1%	<b>Any children under age 18 in household</b>	31%

Note: Sample profile shown here is after weighting to U.S. Census by age, gender and urban/suburban/rural municipality classification.