

**Request for Continued Satellite Exemption  
for Stations WVOZ-TV, Ponce, and WVEO(DT), Aguadilla,**

The transferees hereby respectfully request that the Commission continue find that the operation of WVEO and WVOZ-TV as satellite stations of WTCV is exempt from the multiple ownership limitations of Section 73.3555(b) in accordance with Note 5. This request seeks a continuation of the *status quo*.

This specific combination of stations was initially approved by the Commission in 1993. *See Canal 48, Inc.*, 8 FCC Rcd 2193 (1993). The satellite waiver was later reaffirmed by the FCC in 2001 in *Esperanza Television, LLC*, 1800E1-DB (rel. July 23, 2001). The Commission clearly found that the public interest would be served by approval of a satellite waiver in 1993 and again in its continuation in contemplation of an assignment in 2001. The grant of the stations' 2004 license renewals while still operating under the satellite waivers is further proof of the Commission's determination that such operation served the public interest. Although the proposed attributable owners are new in this request, the facts and circumstances warranting continuation of satellite waiver for WVEO and WVOZ-TV essentially are unchanged. As demonstrated herein, the proposed ownership and operation of these stations as a primary and two satellites is fully consistent with Section 73.3555 and related policies and is within well-established precedent which has recognized the unique and difficult economic and geographic circumstances faced by television broadcasters in Puerto Rico.

The Commission has a well-established history of authorizing licensees to operate Puerto Rican TV stations as satellites of a primary attributable station.<sup>1</sup> Most recently, the Video Division approved a

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<sup>1</sup> See, e.g., *Televiscentro of Puerto Rico, LLC*, 22 FCC Rcd 2176 (Med. Bur. 2007) ("*Televiscentro*") (granting consent to transfer of control of S&E Network, Televiscentro, and WNJX-TV, Inc. to InterMedia Partners VII and approving continuing satellite status for WKPV(TV), WJWN-TV, WIRS(TV), WTIN(TV), and WNJX-TV); *Application of T. Michael Whitney and LIN Television of San Juan, Inc.*, Memorandum Opinion and Order, 16 FCC Rcd 2297 (2001) ("*Whitney*") (granting LIN's request to operate WNJX-TV as a satellite of WAPA-TV); *Applications of Paxson Communications of San Juan, Inc. and LIN Television Corporation*, Memorandum Opinion and Order, 16 FCC Rcd 14139 (2001) ("*Paxson*") (permitting LIN to continue its attributable rebroadcasting agreement with WTIN(TV), which at the time was not licensed to LIN, and granting continued satellite exceptions for WKPV(TV) and WJWN-TV); *Broadcast Actions*, Public Notice,

request to operate station WOLE(DT), Aguadilla, Puerto Rico, as an satellite of WLII(DT), Caguas.<sup>2</sup> Pursuant to the Commission's general television satellite policy, a television applicant's proposed satellite operation presumptively will serve the public interest upon the satisfaction of three criteria: (1) no city grade contour overlap exists between the parent and the satellite; (2) the proposed satellite will provide service to an underserved area; and (3) no alternative operator is ready and able to construct or purchase and operate the satellite as a full-service station.<sup>3</sup>

As demonstrated herein, the subject stations satisfy these criteria. However, given that the presumptive exemption may no longer truly be available to television licensee seeking a satellite waiver,<sup>4</sup> it is a relief that the Commission also evaluates satellite proposals on an *ad hoc* basis.<sup>5</sup> Indeed, in the case of stations licensed to Puerto Rico, the Commission has developed a discrete body of law to support television service on the island. Thus, a Puerto Rican applicant who does not meet the presumptive satellite standard may nevertheless be permitted continued satellite operations because "the unique terrain and economic obstacles to full service operation in Puerto Rico constitute compelling circumstances."<sup>6</sup> This analysis will also be addressed below.

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Report No. 45633 (Dec. 16, 2003) (approving the assignment of WIRS(TV) to Televiscentro and approving its operation as a satellite of station WJPX(TV)).

<sup>2</sup> *WOLE-DT, Aguadilla, Puerto Rico*, DA 14-1830 (rel. Dec. 15, 2014) ("*WOLE-DT*").

<sup>3</sup> *See Television Satellite Stations*, Report and Order, 6 FCC Rcd 4212, ¶ 12 (1991) ("*Television Satellite Policy*").

<sup>4</sup> In the post-digital transition era, even the Commission has acknowledged that the contour overlap criterion is no longer applicable, as the parameters were based in an analog service context. *See WOLE-DT* at 3. No alternate parameters for this criterion have been established.

<sup>5</sup> *Television Satellite Policy* ¶ 14.

<sup>6</sup> *S&E Network*, 23 FCC Rcd at 13298.

**A. Presumptive Satellite Exemption Qualifications**

**1. WVOZ-TV**

*Contour Overlap Criterion:* As demonstrated in the attached Technical Statement of consulting engineer Grafton Olivera of du Treil, Lundin & Rackley, Inc., the equivalent City Grade contours, 57 dBu F(90,50), (WTCV) and WVOZ do not overlap. The contour overlap criterion is therefore satisfied.

*Underserved Community Criterion:* WVOZ-TV also serves an underserved community, satisfying the second criterion. Under the transmission test, a community is deemed underserved if two or fewer full-service stations are licensed to it.<sup>7</sup> There are currently six full-power TV stations licensed to WVOZ-TV's community, Ponce: WKPV(DT), WQTO(DT), WSTE-DT, WSUR-DT, WTIN-TV, and WVOZ-TV. However, the diversity of offerings suggested by this list is deceiving. In fact, *none* of the six full-power TV stations licensed to Ponce is a stand-alone, full-service station.

WSTE-DT, indirectly owned and programmed by Univision, is technically licensed to Ponce, but its facilities are actually a distributed transmission system with transmitters located in Ponce, San Juan, Mayaguez, and Arecibo – *and* the station's main studio is located in Guaynabo (a suburb of San Juan). The other Univision station licensed to Ponce, WSUR-DT, claims in its online public file to have a main studio in Ponce, but it is operated as a satellite of WLII-DT in Caguas – a city more than 50 miles from Ponce. WTIN-TV is licensed to Ponce as well, but, like the Univision stations, it maintains its main studio in Guaynabo and is a satellite of a primary station in San Juan, the superstation WAPA-TV. WVOZ-TV, of course, is a satellite of WTCV in San Juan. Even Ponce's noncommercial educational television station WQTO is co-owned with and rebroadcasts WMTJ-TV, the sole PBS affiliate in Puerto Rico, which is licensed to Fajardo and serves the entire eastern half of the island.

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<sup>7</sup> *Television Satellite Policy*, 6 FCC Rcd at 4215.

It is clear that, although there are multiple TV stations licensed to Ponce, it is nonetheless an underserved market. Indeed, “due to the stringent economic circumstances and the unusually severe terrain conditions on the island,”<sup>8</sup> the Commission does not consider the fact that a Puerto Rico community has multiple stations to be an obstacle to satellite status.<sup>9</sup>

*No Alternative Operator:* Puerto Rico has experienced severe economic contraction for nearly a decade, with the Puerto Rico economy in 2014 a full 15% smaller in real terms than in 2006.<sup>10</sup> Puerto Rico is also experiencing a crisis of outmigration, with more than 5% of the island’s population having left over the past decade seeking better economic conditions.<sup>11</sup> The U.S. Census Bureau projects that this trend will continue for the foreseeable future.<sup>12</sup> The unemployment rate in Puerto Rico is still above 13%, more than double the U.S. national average,<sup>13</sup> and the island’s labor force participation rate is shockingly low at under 45%.<sup>14</sup> As a 2014 report on the competitiveness of the Puerto Rico economy prepared by the Federal

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<sup>8</sup> *Applications of JEM Communications, Inc., (Assignor) and Interstate General Properties Limited Partnership, S.E. (Assignee)*, Memorandum Opinion and Order, 9 FCC Rcd 4874, ¶ 5 (1994) (“JEM Communications”). See also *Canal 48, Inc.*, Memorandum Opinion and Order, 8 FCC Rcd 2193, ¶ 7 (1993) (“Canal 48, Inc.”).

<sup>9</sup> *Paxson* ¶ 18.

<sup>10</sup> See exhibits attached to Letter from José Ribas Dominicci, which in turn is attached as an exhibit to this application (“Ribas Letter”).

<sup>11</sup> Jaison R. Abel and Richard Deitz, Federal Reserve Bank of New York, “Causes and Consequences of Puerto Rico’s Declining Population, *Second District Highlights: Current Issues in Economics and Finance*, Vol. 20 no. 4 (2014), available at: [http://www.newyorkfed.org/research/current\\_issues/ci20-4.pdf](http://www.newyorkfed.org/research/current_issues/ci20-4.pdf).

<sup>12</sup> Pew Research Center, “Puerto Rico’s Population Projected to Decline Through 2050,” Aug. 11, 2014 (analyzing Census data into graph), available at: <http://www.pewhispanic.org/2014/08/11/puerto-rican-population-declines-on-island-grows-on-u-s-mainland/ph-2014-08-11-puerto-rico-0-05/>.

<sup>13</sup> See U.S. Department of Labor, Bureau of Labor Statistics, *Economy at a Glance: Puerto Rico*, <http://www.bls.gov/eag/eag.pr.htm> (last visited March 23, 2014).

<sup>14</sup> See The World Bank, *Labor force participation rate, total (% of total population ages 15+)*, <http://data.worldbank.org/indicator/SL.TLF.CACT.ZS/countries/PR?display=graph> (last visited March 23, 2014).

Reserve Bank of New York explains, Puerto Rico is drowning in public debt (which was recently downgraded to non-investment-grade) and its banks continue to face liquidity problems, resulting in severe constraints on the availability of credit to businesses on the island.<sup>15</sup> At the same time that financing is less available, local business have seen their cost of doing business rise and existing business growth has stalled.<sup>16</sup>

The preeminent expert on the Puerto Rican broadcast industry, Mr. José Ribas Dominicci, agrees that the bleak economic situation being experienced in Puerto Rico makes the prospect of operating a full-service TV broadcast station in Puerto Rico outside San Juan impossible. According to Mr. Ribas, the Executive Director of the Puerto Rico Broadcasters Association, neither WVOZ-TV or WVEO could survive unless operated as satellites of primary stations located in or near San Juan. It is the further opinion of Mr. Ribas that there are no alternate operators ready or willing to operate WVOZ-TV as a stand-alone full service station.<sup>17</sup>

## **2. WVEO(DT)**

*Contour Overlap Criterion:* As demonstrated in the attached Technical Statement of consulting engineer Grafton Olivera of du Treil, Lundin & Rackley, Inc., the equivalent City Grade contours, 57 dBu F(90,50), of the parent station WTCV and satellite WVEO do not overlap. The contour overlap criterion is therefore satisfied.

*Underserved Community Criterion:* WVEO also serves an underserved community, satisfying the second criterion. As discussed above, a community is deemed underserved if two or fewer full-service

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<sup>15</sup> Federal Reserve Bank of New York, *An Update on the Competitiveness of Puerto Rico's Economy*, July 31, 2014, available at <http://newyorkfed.org/outreach-and-education/puerto-rico/2014/Puerto-Rico-Report-2014.pdf>.

<sup>16</sup> *Id.*

<sup>17</sup> Ribas Letter.

stations are licensed to it. There are currently three full-power TV stations licensed to Aguadilla – WVEO(DT), WELU(DT), and WOLE-DT. WOLE-DT, of course, was just four months ago approved by the Video Division to operate as a satellite of WLII(DT), Caguas. Thus, even if WVEO were operated as a full-service stand-alone station, Aguadilla would qualify as underserved because it would have only two stations. In reality, Aguadilla has only one full-service television station – WELU(DT).

*No Alternative Operator:* The analysis and evidence demonstrating the dearth of alternate operators for either WVOZ-TV or WVEO is found in the equivalent discussion for WVOZ-TV above.

**B. The Instant Request Meets the Standards of Commission’s *Ad Hoc* Satellite Exemption Analysis.**

In its licensing and regulation of television stations located in Puerto Rico, the Commission has repeatedly recognized that the island is a geographically small and highly concentrated and competitive broadcast market, which presents uniquely difficult challenges to television broadcasters.<sup>18</sup> These challenges stem from the island’s extreme topography and generally poor economic conditions, as well as from the unusually large number of broadcast stations licensed to a comparatively small geographic area. The Commission has responded to these challenges by developing a unique body of law applicable to Puerto Rico which, *inter alia*, recognizes “that certain unique characteristics of Puerto Rico warrant approval of the satellite exemption pursuant to Note 5 of Section 73.3555(b) of the Commission’s rule.”<sup>19</sup>

First among these unique characteristics is the mountainous terrain that divides the island and limits signal propagation, effectively preventing stations serving San Juan from reaching the western side

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<sup>18</sup> See *Paxson* ¶¶ 14-15; *Whitney* ¶ 4. See also *JEM Communication* ¶ 9; *Canal 48, Inc.*, ¶ 7; *Hector Nicolau*, Memorandum Opinion and Order, 5 FCC Rcd 6370, ¶ 10 (1990) (“*Nicolau*”); *Seglares Iglesia Catolica, Inc.*, Memorandum Opinion and Order, 2 FCC Rcd 7539, ¶¶ 6-7 (1987).

<sup>19</sup> *WOLE-DT* at 3.

of the island, an area that would be served if not for terrain obstructions.<sup>20</sup> Second, the Commission has repeatedly found that the poor “economic conditions existing in Puerto Rico indicate that satellite operations or rebroadcast arrangements are a necessity” for television stations located beyond the San Juan metropolitan area.<sup>21</sup> Indeed, in the *WOLE-DT* decision, the Video Division specifically noted that the economic conditions in Aguadilla – WVEO’s community of license – were, as of December 2014, not sufficient to support a full-service station.<sup>22</sup>

The combination “terrain and economic factors militat[e] against successful full-service [TV] operation in Puerto Rico outside of San Juan.”<sup>23</sup> Relatedly, the Commission has found that “satellite operations or rebroadcast arrangements are essential to the provision of programming choices” to communities that are “effectively isolated from the island’s economic center in San Juan.”<sup>24</sup> In addition, advertisers on Puerto Rican stations consider the island to be a single market.<sup>25</sup> Thus, the financial viability of television stations licensed to disparate Puerto Rican communities is dependent upon achieving reliable island-wide coverage via rebroadcast agreements, satellite arrangements, local marketing agreements

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<sup>20</sup> *Id.* (citing *In re Shareholders of Univision Communications, Inc. and Broadcasting Media Partners et al.*, 22 FCC Rcd 5842, 5857 ¶33 (2007) (“A mountainous ‘spine’ separates the eastern and western portions of Puerto Rico that limits signal propagation, and effectively prevents stations serving San Juan from reaching other population centers on the island.”) and *Paxson* at 14143, ¶14 (“The island’s topography significantly obstructs local broadcast signals, and limits the ability of television stations in San Juan to provide service to portions of the island for which service would ordinarily be received.”)).

<sup>21</sup> *Nicolau* ¶ 10.

<sup>22</sup> *Id.*, citing *Televiscentro of Puerto Rico*, 22 FCC Rcd 2176, 2179 (2007).

<sup>23</sup> *S&E Network*, 23 FCC Rcd at 13298.

<sup>24</sup> *Canal 48, Inc.* ¶ 8.

<sup>25</sup> *See Paxson* ¶5.

("LMAs"),<sup>26</sup> and unusual engineering solutions<sup>27</sup> to achieve full signal coverage. Such arrangements repeatedly have been approved by the Commission,<sup>28</sup> as it should do here.

Continuation of satellite status for WVEO and WVOZ-TV will foster the continued viability of the stations by facilitating the delivery of high-quality programming to residents of the south and west of Puerto Rico and by maintaining, for advertising purposes, signal coverage on the island generally equivalent to that enjoyed by the stations' major competitors.

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<sup>26</sup> "Because no single station can reach the entire island, Puerto Rico television stations have a long-standing practice of either utilizing satellite stations or entering into rebroadcast arrangements with other stations on the island." *Televiscentro*, 22 FCC Rcd at 2177-78.

<sup>27</sup> See *Siete Grande Television, Inc.*, Memorandum Opinion and Order, 7 FCC Rcd 5299 (1992) (granting waivers of technical rules to permit an unusual set of full power boosters to support a Ponce station).

<sup>28</sup> *Paxson* ¶¶ 9, 14-15. See also *WOLE-DT*.





March 19, 2015

Video Division  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

Dear Sirs:

This refers to the request by International Broadcasting Corp. for continued satellite status of television station WTCV (DT), facility ID 28954, for television stations WVOZ-TV (facility ID 29000) and WVEO (DT) (facility ID 61573). I certify that at this moment, this is necessary in order for these stations to compete and survive in the Puerto Rico market. The stations requesting the satellites status of WTCV, facility ID 28954, are WVOZ-TV, facility ID 29000, and WVEO (DT), facility ID 61573.

Knowing this market for the last fifty-six years gives me the experience to make a reliable recommendation. Since 1958 to the present, I have been involved in the following Puerto Rico radio/TV operations: Ponce TV Corporation as Sales Manager, WUPR-AM as builder and General Manager, American Colonial Broadcasting Corp. as Sales and Marketing Director, Arecibo Radio Corporation as CEO/President, Manati Radio Corporation as CEO/President, Sport Center of Puerto Rico as President and JAR Media Group, Inc. as President.

In addition to my own work experience in the local broadcast industry, for nearly 20 years I have served as the Executive Director of the Puerto Rico Association of Broadcasters, the sole trade group dedicated to representing and promoting the island's broadcast industry. In that capacity, and in my capacity providing consulting services to broadcasters through JAR Media Group, I can say with confidence that there are no alternate operators in Puerto Rico who would be able or willing to operate WVOZ-TV or WVEO(DT) as stand-alone full-service stations. The center of the island's economy and advertising is San Juan. Even in San Juan, the economy is depressed. The business opportunity is just not viable for a new operator to set up local operations in far-apart locations of the island. Any potential alternate operator is probably already a Puerto Rico broadcaster based out of San Juan or the surrounding metro area, and would likely request satellite status for the Ponce and Aguadilla stations as well.



JAR MEDIA GROUP, INC.

JOSÉ A. RIBAS DOMINICCI  
PRESIDENT

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As is per the reality of the global economic situation, Puerto Rico has been impacted negatively as well. Estudios Technicos, Inc., one of the most prestigious economic companies in Puerto Rico, has prepared an analysis of the factors affecting our economy. Some of those factors are emigration, loss of jobs, decrease in banking assets, foil of sales of new housing, among others. See the complete analysis identified as Exhibit A of this letter.

Two relevant and critical factors affecting the broadcasting industry in the island are the population of Puerto Rico reduced from 4.2 million to 3.5 million and a very depressed economy. See attachment identified as Exhibit B. As a consequence, this situation have caused that stations to lose their audiences, lose competitiveness and have very serious problems finding investors and sponsorships to continue their operations.

Last but not least, we have to consider that this negative economic situation have enormous social and economic impact for Puerto Rico, provoking loss of jobs and seriously degrading the buying power of the population, thus, it is imperative to allow television stations WVOZ-TV and WVEO lo continue to operate as satellites of WTCV in order that they can survive.

This situation is not unique to International Broadcasting Corp. As the FCC is well aware of, there are other television satellites networks in Puerto Rico, TeleviCentro: WAPA-TV, WTIN and WNJX; Univision; WQII and WSUR (not considering their WSTE digital network); and America-CV Station Group: WJPX, WIRS, WJWN, and WKPV. These three television networks, with higher audiences and much higher resources and income than the IBC stations, have also necessitated the relief of the satellite status for the stations located outside the San Juan metropolitan area.

Should you need further more information or have any questions, please contact me at your earliest convenience at (787) 783-8810 or via email at [jaribas1@gmail.com](mailto:jaribas1@gmail.com).

Sincerely,



José A. Ribas Dominicci  
President

September 15, 2014

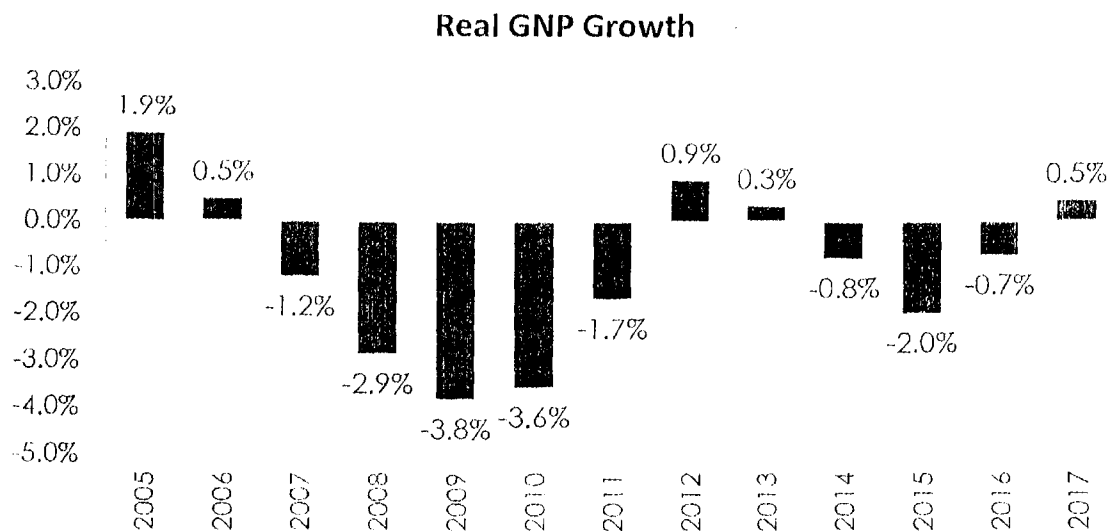
## **The state of the Economy**

Puerto Rico began experiencing a severe contraction in its economy in mid 2006. Every fiscal year since the economy has not grown and has, in fact, contracted. In real terms the economy in 2014 is 15% smaller than it was in 2006.

The depth and length of the contraction has generated or made worse severe structural changes that have taken place in the recent past:

- Population continues to fall, mainly due to emigration – estimated at a net outflow of 35,000 annually between 2010 and 2013 - from younger and better educated individuals
- The manufacturing sector has continued to lose jobs, from a high of 165,000 in 1995 to 78,000 today
- The banking sector has lost about a third of its assets since 2006
- Sales of new housing units has fallen from 13,000 in 2006 to 3,300 in 2013
- Household formation has fallen from an annual average of 22,000 in the seventies, eighties and nineties to an estimated 7,000 this decade

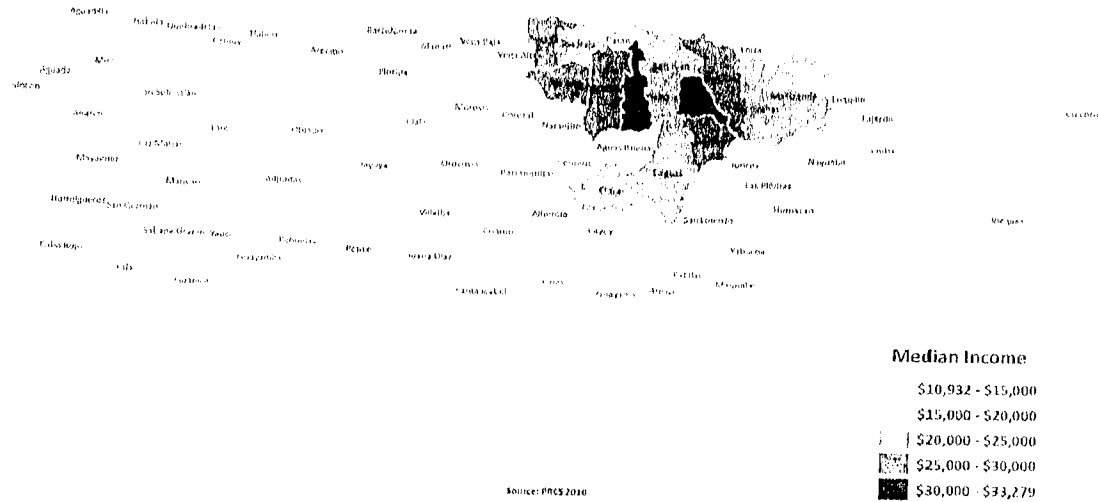
This will mean that recovery of the economy to pre 2006 levels will take a number of years. We ran a scenario assuming that the economy will grow at 1.75% in real terms beginning in 2014, and real 2006 levels of GNP would be reached in 2022. As reflected in the following graph, the economy will not grow at that rate until at least 2018.



In addition to the above considerations the other problem that confronts the economy is the very marked disparity in income levels between the San Juan Metro Area and the rest of the Island. What this suggests is that the average per capita of \$17,000 is a poor indicator of wellbeing in some regions of Puerto Rico, as the map below illustrates. Any growth in population or economic activity will occur in municipalities in the immediate periphery of the San Juan Metro Area.



## Median Family Income



The economy has undergone such a dramatic shift in its basic structure that it will be very difficult to stage a recovery, particularly given the Government's very fragile fiscal condition that prevents it from assuming initiatives to stimulate the economy.

September 15, 2014  
JJV

# PewResearch

## Hispanic Trends Project

AUGUST 11, 2014

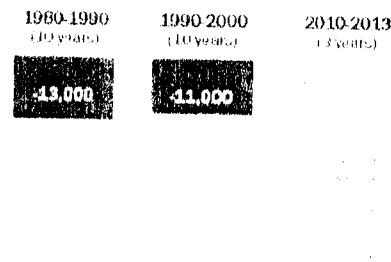
### Puerto Rican Population Declines on Island, Grows on U.S. Mainland

BY D'VERA COHN (<http://www.pewhispanic.org/author/dcohn/>), GLENN PATTER (<http://www.pewhispanic.org/author/gpatt/>) AND MARK HUGO LOPEZ (<http://www.pewhispanic.org/author/mlopez/>)

FIGURE 1

#### Puerto Rico Lost More Migrants to Mainland Since 2010 Than During 1980s or 1990s

Average island net migration per year



Note: Net migration is the number of migrants to Puerto Rico from the U.S. mainland minus the number of migrants from Puerto Rico to the U.S. mainland. Average annual numbers in chart are based on total net migration of 126,000 for 1980-1990, 110,000 for 1990-2000, and 144,000 for 2010-2013.

Source: U.S. Census Bureau, 2001 and U.S. Census Bureau, 2013 population estimates.

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(<http://www.pewhispanic.org/2014/08/11/puerto-rican-population-declines-on-island-grows-on-u-s-mainland/ph-2014-08-11-puerto-rico-0-01/>) Puerto Ricans have left the financially troubled island for the U.S. mainland this decade in their largest numbers since the Great Migration after World War II, citing job-related reasons above all others.

U.S. Census Bureau data show that 144,000 more people left the island for the mainland than the other way around from mid-2010 to 2013, a larger gap between emigrants and migrants than during the entire decades of the 1970s, 1980s or 1990s. This escalated loss of migrants fueled the island's first sustained population decline in its history as a U.S. territory, even as the stateside Puerto Rican population grew briskly.

The search for economic opportunity is the most commonly given explanation for moving by island-born Puerto Ricans who relocated to the mainland from 2006 to 2013, according to a Pew Research Center analysis of U.S. Census Bureau data.<sup>1</sup> A plurality (42%) gave job-related reasons for moving stateside, compared with 38% who gave family-related reasons. Among all immigrants from foreign countries who migrated over the same time period, a similar share gave job-related reasons (41%), while 29% said they migrated for family reasons. Mexican-born immigrants were even more likely to cite job-related reasons (62%), while 25% cited family reasons.

(<http://www.pewhispanic.org/2014/08/11/puerto-rican-population-declines-on-island-grows-on-u-s-mainland/ph-2014-08-11-puerto-rico-0-02/>) Puerto Ricans who arrived from the island since 2000 are different from earlier waves of Puerto Rican migrants. For example, recent migrants are less likely than earlier migrants were to settle in traditional Northeast communities and more likely to live in the South, especially in Florida. More recent Puerto Rican arrivals from the island are also less well off than earlier migrants, with lower household incomes and a greater likelihood of living in poverty.

Most migrants from the island were born there. But among the recent migration wave, the

FIGURE 2

#### Why Do Island-Born Puerto Ricans Move to the U.S. Mainland?

% saying...

Household  
Other



the island's total population (including Hispanics and non-Hispanics) in 2013 was about 3,650,000 people, down from about 3,800,000 in 2000. About two-thirds of Puerto Rican municipalities having lost population during those years (see maps (<http://www.pewhispanic.org/2014/08/11/appendix-b-maps-of-the-u-s-mainland-and-puerto-rico/>)). The Census Bureau projects the island's population loss will continue gradually through at least 2050, when about 3 million people will live there.<sup>4</sup>

About a third of all people born on Puerto Rico—34% in 2013, according to data from the United Nations and U.S. Census Bureau—now live on the mainland.<sup>5</sup> That share has increased since 1990, when it was 30%. By another estimate, the proportion of people ages 16 and older born in Puerto Rico who live on the U.S. mainland rose to 34% in 2011 compared with 30.1% in 2006 (Mora, Davila and Rodriguez, 2014).

### Historic and Recent Population Patterns

Puerto Rico's recent population downturn reverses a general pattern of growth on the island since at least the 1700s, as documented by Spanish and U.S. Census Bureau data. The United States won control of Puerto Rico from Spain in 1898; the first U.S. census taken there, in 1910, counted more than 1.1 million residents. By 1990, the population had more than tripled, to 3.5 million, and peaked at 4 million in 2009. But by 2013, the island's population had diminished to 3.6 million.<sup>6</sup>

The years since 2000 have seen the largest wave of migration from Puerto Rico since the "Great Migration" in the 1950s and 1960s (Rodriguez Ayuso, Santana and Santiago, 2013; see text box). According to Census Bureau researchers, the island had a net loss to the mainland of 192,000 migrants younger than 65 for the years from the 2000 census to the 2010 census (Bhaskar et al, 2013 (<http://www.census.gov/population/www/documentation/twps0097/twps0097.pdf>)). From July 2010 to July 2013, about 144,000 more people of all ages left the island for the mainland than the other way around, according to Census Bureau population estimates. (Most but not all were Hispanics of Puerto Rican origin.)

#### Measuring Migration from Puerto Rico to the Mainland

One challenge in comparing current migration from Puerto Rico with that of the great migration wave of the 1950s and 1960s is a shortage of reliable data. In previous decades, estimates were made mainly using figures for airline passenger traffic between the island and mainland. However, U.S. Census Bureau researchers have concluded that this method produced estimates that were too high (Christenson, 2001

(<http://www.census.gov/population/www/documentation/twps0064.pdf>)).

Using passenger-traffic data, the Census Bureau had estimated that from 1980 to 1990, 288,163 more people left Puerto Rico for the mainland than arrived from there. Using a new method based on data from the Census Bureau and Immigration and Naturalization Service (now Department of Homeland

Security), the bureau in 2001 lowered that estimate to 126,465. The bureau also estimated that from 1990 to 2000, the island lost 111,336 more people to the mainland than it gained. For 2000 to 2010, the bureau estimated Puerto Rico had a net loss of 192,000 people younger than 65 (Bhaskar et al, 2013

(<http://www.census.gov/population/www/documentation/twps0097/twps0097.pdf>)). More recent Census Bureau estimates put the net loss for all age groups at 144,000 for 2010 to 2013.

Migration from the island was relatively low during the 1970s; even using the passenger-traffic method, it was less than 27,000 (Duany, 2003). Therefore, recent migration from the island is the highest since at least the 1960s.

### The Island's Economic Crisis

The onset of an economic crisis in 2006 that weakened the already-listless Puerto Rican economy likely played a role in the island's accelerated population decline. More recent migrants to the mainland have been found to be less educated than those who remain on the island and more likely to hold less skilled jobs (Mora, Davila and Rodriguez, 2014).

According to a 2012 report on the Puerto Rican economy by the Federal Reserve Bank of New York, "Puerto Rico's economic progress has stalled: the Island has been operating below its potential for some time and the competitiveness of the economy continues to deteriorate." The report cited persistently high unemployment and a low labor force participation rate, as well as heavy reliance on transfer payments such as food stamps (Federal Reserve Bank of New York, 2012 (<http://www.newyorkfed.org/regional/puertorico/report.pdf>)).

The island's recent economic crisis was fueled both by the overall U.S. recession and factors unique to the island. These included an end to longstanding Puerto Rican government corporate tax breaks in 2006, which led to business shutdowns and public- and private-sector layoffs. More recently, the three major ratings agencies downgraded Puerto Rico's debt to junk status this year, citing its long history of economic weakness (New York Times, 2014

(<http://dealbook.nytimes.com/2014/02/11/fitch-cuts-puerto-ricos-debt-to-junk/>)).

The island's debt burden began to grow after government expenses began

#### About The Term "Puerto Rican"

When the term "Puerto Ricans" is used in this report, it usually means people who self-identify as Hispanics of Puerto Rican origin; most statistics and analysis included here are about this group. Sometimes, "Puerto Ricans" is used to refer to the total population of the island of Puerto Rico, in which case that is clearly stated. However, the two groups are quite similar. As of 2012, Hispanics of Puerto Rican origin made up 96% of the population of the island of Puerto Rico.

Some Census Bureau statistics about the island used in this report are only available for the total population, and not specifically for Hispanics of Puerto Rican origin. They include the 2013 population (not yet released for



Still, the 2012 Federal Reserve Bank of New York report also pointed to strengths in the island's economy, such as improving levels of schooling and a bilingual workforce. The island also benefits from ties to the U.S. and the easy access of island residents to the mainland.

migration statistics (departures from the island minus arrivals). In addition, counts for Hispanics of Puerto Rican origin on the island are not available before 2000 because the Hispanic-origin question was not asked on the island census until then.

This report mainly analyzes the demographic and economic characteristics of Hispanics of Puerto Rican origin living in the 50 U.S. states and District of Columbia, including comparisons of those born on the mainland and island, as well as characteristics of Hispanics of Puerto Rican origin living in Puerto Rico. It compares these various groups with each other and with other U.S. Hispanics. In addition, the report examines characteristics of recent migrants from Puerto Rico to the mainland and compares them with earlier migrants. Demographic analysis is based mainly on tabulations from the Census Bureau's 2012 American Community Survey and the 2012 Puerto Rico Community Survey.

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## About This Report

This report explores the demographic and economic characteristics of Hispanics of Puerto Rican origin, both on the island of Puerto Rico and on the U.S. mainland. It also analyzes characteristics of recent migrants from the island to the mainland and compares them with those of previous waves of migrants. The data in this report come from the U.S. Census Bureau's American Community Survey, Puerto Rican Community Survey, Current Population Survey, decennial censuses and annual population estimates.

This report is a collaborative effort based on the input and analysis of the following individuals on the staff of the Pew Research Center. Editorial guidance came from Director of Hispanic Research Mark Hugo Lopez. D'Vera Cohn, senior writer, wrote the report's overview and demographic chapters, based mainly on analysis by Eileen Patten, research analyst, who also prepared most of its charts and tables. Danielle Cuddington, research assistant, assembled data for the Puerto Rico maps that are in this report and online. The authors thank Jeffrey S. Passel, senior demographer, for his expertise on data use. The authors also thank Edwin Melendez of Hunter College and participants at the American Society of Hispanic Economists' session "The Puerto Rican Economy, Migration and Employment Outcomes" at the 2014 Western Economic Association conference for comments on a previous version of the report. Anna Brown, research assistant, number-checked the report and charts; Molly Rohal, communications associate, copy-edited the report. Find related reports from the Pew Research Center online at [pewresearch.org/hispanic](http://pewresearch.org/hispanic) (<http://www.pewhispanic.org/>).

## A Note on Terminology

The terms "Latino" and "Hispanic" are used interchangeably in this report.

"Puerto Rican," unless otherwise specified, refers to those who self-identify as Hispanics of Puerto Rican origin, either because they were born in Puerto Rico or trace their family ancestry there.

"U.S. mainland" or "mainland" or "stateside" refer to the 50 states (including Alaska and Hawaii) and the District of Columbia. "Island" refers to Puerto Rico.

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1. Analysis is based on Current Population Survey data on island-born Puerto Ricans who moved to the mainland during these years; other data from the American Community Survey indicate that 93% moved directly from the island and the remainder from other U.S. territories or foreign countries.
  2. In addition to these two groups, in 2012 there were 97,000 Hispanics of Puerto Rican origin living on the U.S. mainland who were born in another country or U.S. territory.
  3. The population estimates are available from the vast majority of Puerto Rican residents (93%) are Hispanic, and 95% are Hispanics of Puerto Rican origin, while Hispanics of Dominican origin (2%) are the second largest Hispanic origin group living on the island.
  4. The Census Bureau's population projections for Puerto Rico can be found at <http://www.census.gov/prod/2012pubs/p12-01a.pdf>.
  5. According to United Nations data, all but 1.6% of Puerto Ricans not living on the island live in the 50 U.S. states or District of Columbia.
  6. According to United Nations data, the island's population grew by small amounts from 2000 to 2004, and in 2005 began to decline each year.

EXHIBIT II

TECHNICAL STATEMENT  
CONTINUED SATELLITE EXEMPTION  
WTCV (DT), WVOZ-TV, WVEO (DT)  
ANGEL O. ROMAN & RUTH E. ROMAN

This Technical Statement was prepared on behalf of Angel O. Roman and Ruth E. Roman in support of the transfer of control of International Broadcasting Corporation (“IBC”) to Angel O. Roman and Ruth E. Roman.

WTCV (DT) is currently authorized as a parent to the two satellite stations WVEO (DT) and WVOZ-TV. Figure 5, included as part of this technical exhibit, show the FCC predicted digital 41 dBu, noise limited service contours (“NLSC”) for the three stations. The noise limited service contours is considered the equivalent of the analog Grade B service contour. Also shown is the 57 dBu F(50,90) contours of the three stations, which is considered the “equivalent” of the analog City Grade service for UHF stations\*. As shown in Figure 5, there is NLSC overlap between WTCV (DT) and WVOZ-TV and between WTCV (DT) and WVEO-TV; there is no overlap between the City Grade contours of WTCV (DT) and WVOZ-TV, or between the City Grade contours of WTCV (DT) and WVEO-TV. As shown in Figure 5, contour overlap is predicted between the City Grade and NLSC of stations WVEO-TV and WVOZ (DT).

The contours depicted in Figure 5 were determined every five degrees for 72 radials, in accordance with the provisions of Section 73.625. The average elevations from the transmitter sites were obtained from the National Geophysical Data Center (NGDC) 3-second terrain database and use to determine the distances to coverage contours. The map shows the outlines of the municipalities of Puerto Rico, the equivalent of counties in the United States. While there are no Designated Market Areas for Puerto Rico, there is separation between the San Juan, Ponce and Aguadilla/Mayaguez areas.

**Longley-Rice City Grade Overlap – WVOZ-TV and WVEO(TV)**

The island of Puerto Rico is well known for its rugged terrain and mountain chains that separates cities along various costal zones. To make a more accurate assessment of

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\* The 57 dBu, F(50,90) is the “equivalent” of the analog City Grade contour as set forth in the approved application for Transfer of Control of KIMA-TV, Yakima, Washington, Fac. ID No. 56033 and KEPR-TV, Pasco, Washington, Fac. ID No. 56029, FCC File No. BTCCDT-20130425ADE.

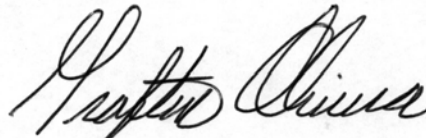
predicted signals, the Longley-Rice propagation model was used, following guidelines contained in FCC's OET-69 bulletin, to predict the extent of the analog equivalent of City Grade overlap between stations WVOZ-TV and WVEO (DT). No consideration was given to interference and no clutter factor was used. The results of the Longley-Rice calculations are depicted in Figure 5. As shown in Figure 5, although there is some "City Grade" signal overlap, shown in red, between WVOZ-TV and WVEO (DT), the overlap area fall outside the main communities and principal surroundings of the cities of Ponce and Mayaguez which WVOZ-TV and WVEO (DT) respectively serve.

The following parameters were employed, along with each station's licensed technical facilities, in the Longley-Rice calculations for each station:

Location Variability: 50%  
Time Availability: 90%  
Situation Availability: 50%  
Polarization: Horizontal  
Conductivity: 0.005 S/m  
Dielectric Constant: 15.0  
Climate Zone: Continental Temp.  
Receive Antenna Height AGL: 9.1 m  
Clutter Factor: 0 dB

### **Conclusion**

While there is some overlap of the equivalent Grade B contours (NLSC) of parent station WTCV (DT) and satellite stations WVOZ-TV and WVEO (DT), there is no overlap of the equivalent City Grade contours of WTCV (DT) and satellite stations WVOZ-TV and WVEO (DT). While there is some FCC predicted overlap of the City Grade contours of WVOZ-TV and WVEO (DT), the Longley-Rice studies included herein show little actual overlap predicted between WVOZ-TV and WVEO (DT), limited to isolated small areas with little population. Thus, it is reasonable to conclude that no significant City Grade coverage overlap is to be expected between WVOZ-TV and WVEO (DT).



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