Puerto Rico Post-Hurricane Maria: Origins and Consequences of a Crisis
Guest editors:
Edwin Meléndez and Charles R. Venator-Santiago

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THE DEVASTATION CAUSED BY HURRICANES IRMA AND MARIA has opened a window of opportunity not just for recovery from the catastrophe but also for building a more resilient infrastructure. The history of how Puerto Rico takes advantage of this window of opportunity brought about by catastrophic events is being written in an unfolding present.

It is imperative that the rebuilding of Puerto Rico is undertaken, encouraged, and embraced by a wide range of civic sector actors including businesses, cooperatives, nonprofit organizations, municipalities, religious and educational institutions, both in Puerto Rico and the United States. It is precisely these stakeholders, in conjunction with decision-makers who can stimulate participation, transparency, equity, and accountability, all elements of good government.

Finding a focus area and then engaging with the community and technical experts is crucial in understanding emerging issues and trends. This will allow all of us to effectively narrow down problems, find partners to collaborate with, work on solutions and move towards change. Rebuilding Puerto Rico will be a long-term and difficult process that must include multiple stakeholders from various levels of the policymaking and implementation process in order to ensure that efforts lead to a more resilient future.

In this report, we mark the two years since the hurricanes struck Puerto Rico by looking at salient events over the past year to gain a broader understanding of the political and social landscape that impacts rebuilding efforts.

For our analysis of media coverage, we have gathered topics covered by US online news sources and compared the frequencies of certain key words used by reporters on a monthly scale. The Word Cloud datasets visually convey these trends over the past year, by way of Media Cloud, an open-source platform for media analysis.

We next take an in-depth look at the massive and continuing post-Maria exodus and the impact of the evacuees on stateside Puerto Rican communities. We analyze new migration estimates, taking into account alternative data, namely Puerto Rico’s Department of Education and the U.S. Census Bureau’s American Community Survey (ACS), as compared to traditional methodologies and sources used to render migration estimates by other research institutes in the recent past.

The recent migration of Puerto Ricans from the island has come to increase the number of Puerto Ricans in the United States overall. Given the importance that population size and growth have in the social and political discourse in the United States, this increase will contribute to make Puerto Ricans more visible politically, socially, economically, culturally and economically.

Hurricanes Irma and Maria may have brought destruction and devastation, but they also brought opportunities for the building of a stronger Puerto Rico and Diaspora.
New CENTRO Journal Special Issue
Puerto Rican Bomba: Syncopating Bodies, Histories, and Geographies

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The following timeline collects the pertinent headlines and news stories related to Puerto Rico over the past two years in regards to the events following Hurricane Maria’s destruction. While the story the year succeeding Maria primarily focused on recovery efforts and death toll count, a shift has occurred within the consecutive year where headlines detailed the delay of disaster relief funding and corruption within the government of Puerto Rico. Insufficient funding and fraud charges from the governor’s top officials involving millions of dollars have left the island in a position where rebuilding may be delayed in the foreseeable future.

9/6/2017
Hurricane Irma passes north of Puerto Rico, causing significant damage to the island’s electricity. Heavy rainfall led to rivers reaching flood stage and six landslides. The hurricane attributed to approximately $759.4 million in damages and four fatalities, and Gov. Ricardo Rosselló declared Vieques and Culebra to be disaster areas.

12/20/2017
Ninety days after Hurricane Maria, more than 9,600 disaster victims were temporarily housed in Puerto Rico and across 38 states through the Transitional Sheltering Program (TSA), which allowed residents of Puerto Rico displaced by Hurricanes Irma & Maria to be granted access to temporary housing across the states. Earlier in the month, a new report suggested the death toll to be closer to 1,000.

6/29/2018
FEMA, HUD and PR Department of Housing issue a report on housing damage titled “Housing Damage Assessment and Recovery Strategies Report.” The report classifies the ten most impacted communities by the total number of damaged housing units as San Juan, Bayamón, Caguas, Ponce, Toa Baja, Catolina, Arecibo, Humacao, Canovanas, and Guaynabo. However, when considering the number of damaged housing units within a specific market, the 10 most impacted areas are found to be smaller communities such as Culebra, Vieques, Comerío, Canovanas, Guayama, Toa Alta, Utuado, and Cayey.

9/20/2017
Hurricane Maria made landfall at 6:15AM as a Category 4, with sustained winds blowing at 145mph and peaking at 155mph as it made landfall. The north-west trajectory of the storm assured that the entire island would be affected. Heavy rainfall occurred throughout the territory, peaking at 37.9 inches in Caguas, according to the National Weather Service. Maria has been the worst storm to hit Puerto Rico since Felipe Segundo in 1928.

10/20/2017
One month after Hurricane Maria hit Puerto Rico, 83% of residents and businesses were without electricity. Bloomberg Politics reports that one-in-three residents lacked running water; only half of the island’s cellular towers worked. The official death toll was 49, while 76 people were still missing.

1/25/2018
According to several reports, 3,894 survivors remained in Puerto Rico and across 42 states via the TSA program. This was a 40% decrease in enrollment from the December 20 report. A subsequent report by the New York Times stated that 1,500 survivors resided in Florida, as well as more than 800 in Puerto Rico.

2/1/2018
The U.S. Department of Housing and Urban Development (HUD) awarded $1.5 billion to attend the reconstruction of damaged housing and local businesses in Puerto Rico. Less than two weeks later, nearly 200 households were informed that their eligibility for the TSA program had expired.

5/15/2018
FEMA reported a total of 357,492 damaged homes caused by Hurricane Maria; overall about 23% of the island’s housing stock was affected.

8/14/2018
The government-owned electric power company in Puerto Rico announces that it officially restored power to the entire island - almost a year after the power grid was severely impacted by Hurricane Maria.

8/28/2018
Puerto Rico’s governor updated the island’s official death toll for victims of Hurricane Maria on Tuesday, hours after independent researchers from George Washington University released a study estimating the hurricane caused 2,975 deaths in the six months following the storm.

SEPTEMBER 2018
Centro releases, “Puerto Rican Exodus: One Year Since Hurricane Maria,” a report highlighting the relocation of nearly 160,000 Puerto Rican residents to the United States.
9/20/2018
One year after Hurricane Maria, the incident remains the worst natural disaster to hit Puerto Rico. Only 855 schools opened. The second-largest blackout in history. The largest disaster in medical response missions and third-costliest storm in U.S. history.

11/23/2018
According to the Fourth National Climate Assessment, nearly 8,000 of Puerto Rico’s structures near low-lying areas are at risk by an increase in sea level of 1.6 feet.

11/26/2018
According to the New York Times, majority of the $1 billion FEMA originally allocated for emergency repairs to homes in Puerto Rico damaged by Hurricane Maria is instead going to contractors charging steep markups and overhead.

12/19/2019
House lawmakers introduced a new bill intended to strengthen reporting requirements after an influential consultant was found to have an undisclosed stake in Puerto Rico’s debt. This came after concern of the possibility of self-dealing and other hidden conflicts in Puerto Rico’s $123 billion bankruptcy.

1/11/2019
Reports that President Donald Trump could use $2.5 billion set aside to finance reconstruction projects in the island to pay for a U.S.-Mexico border wall broke, leading to major backlash from several Puerto Rican officials.

1/14/19
FOMBPR, the federal control board that oversees Puerto Rico’s finances, asked a court to invalidate over $6 billion worth of debt. FOMBPR stated the debt, including all general obligation bonds issued in 2012 and 2014, was in clear violation of debt limits established by the Constitution of Puerto Rico. The money went towards financing deficit spending as opposed to being used to balance budget requirements.

1/30/19
Former U.S. President Bill Clinton announced dozens of projects intended to help Puerto Rico along with several other Caribbean islands all affected by Hurricane Maria all part of a two-day conference in the Island organized by The Clinton Foundation.

2/13/2019
Puerto Rico and three other United States territories were added to a money laundering blacklist. The blacklist will require European banks to apply further inspection to transactions with these areas. Puerto Rico was added to the blacklist along with North Korea, Libya and Yemen as locations where drug dealers, terrorists, and corrupt dictators can launder their profits.

2/21/2019
Businesses in Puerto Rico opened at a much faster rate than closing several months after Hurricane Maria as according to a University of Puerto Rico study. The Global Entrepreneurship Monitor, a data set on entrepreneurship, showed that entrepreneurial activity was on the rise from 2017 to 2018.

2/28/2019
The fiscal board which controls spending in Puerto Rico funded Gov. Ricardo Roselló $1.5 million to downsize the backlog in the island’s morgue.

4/7/2019
The New York Times reports that the sole hospital in the island of Vieques still remains closed and deteriorated as a result of Hurricane Maria eighteen months after. Residents are forced to travel eight miles to the main island to receive treatments.

MAY 2019
Centro releases their “Population Decline and School Closure in Puerto Rico” report, highlighting the massive slump the Island faced as a consequence of the hurricane.

5/2/2019
Dozens of banks and financial firms were sued by the government oversight board leading Puerto Rico through its $123 billion debt crisis, who stated that $9 billion in debt relief aid was issued illegally and Puerto Rico should not have to repay.

5/14/2019
A report states the island has received only $12.6 billion in disaster relief funds, contradicting statements from President Donald Trump that $91 billion was given to Puerto Rico.
7/4/2019
A NBC News congressional report states Puerto Rico may not be able to care for all its veterans if another disaster strikes the island.

7/8/2019
Eleven pages worth of screenshots of a group chat on the instant messaging service Telegram were leaked. This group chat involved Gov. Ricardo Rosselló and several members of his cabinet, campaign managers, and consultants including Secretary of State Luis G. Rivera Marín, the PROMESA board’s governor representative Christian Sobrino, and Secretary to the Governor Ricardo Llerandi. The screenshots showed snippets of vulgar and crude comments made by members of the chat towards other established politicians and personalities. Llerandi confirmed the authenticity of the leaks the following day.

7/13/2019
The full 889-page conversation between Rosselló and the other members within this group chat was published by local news agency Centro de Periodismo Investigativo. The incident has seen several different labels, including “Telegramgate,” “RickyGate,” and “RickyLeaks,” by the community and bears striking similarities to last year’s WhatsApp Gate - which also featured members of Rosselló’s cabinet. Messages within the group chat were described by the public as obscene, homophobic, racist, sexist, and vulgar, with some messages having been aimed towards specific individuals and events. Comments ranged from poking fun towards communities affected by Hurricane Maria to insulting singer Ricky Martin and mayor of San Juan Carmen Yulín Cruz, and former New York City Council Speaker Melissa Mark-Viverito. Previously mentioned Marín and Sobrino resigned.

7/10/2019
A 32-count indictment led to six people arrested by the FBI, including two former high-ranking government officials, on charges of conspiracy and other crimes involving millions of dollars of education and Medicaid fundings.

7/22/2019
Hundreds of thousands of protesters shut down traffic and Puerto Rico Highway 18, also known as Expreso Las Américas. This protest, now dubbed the “March of the People,” made history as the largest protest in the recent history of the island as five hundred thousand stood their ground against the rain. Earlier in the day, United States President Donald Trump slammed Ricardo Rosselló and other government leaders - including Mayor Carmen Yulín Cruz, accusing them of wasting billions of dollars of Hurricane Maria disaster relief aid. “The money is squandered and wasted and stolen,” Trump told reporters. “Congress is not happy about it.”

7/24/2019
Rumors spread as headlines across major news publications stated for the public to expect a resignation from Roselló throughout various specific points in the day. While these rumors ultimately turned out to be false, news broke that three attorneys commissioned by Carlos Méndez Núñez, the president of Puerto Rico’s House of Representatives, found five offenses that constitute the grounds for impeachment. Among these offenses include illegal misuse of public office for personal gain, embezzlement, negligence as pertaining to fulfilling the duties of public office and violations of the government ethics law. Roselló took to Facebook later to officially announce his resignation through a pre-recorded message - stepping down from office on August 2nd, 2019 at 5 p.m. ET.

7/31/2019
Rosselló nominated a new secretary of state who could succeed him as governor: Pedro R. Pierluisi. An attorney and member of the United States House of Representatives, Pierluisi faced opposition from lawmakers within Puerto Rico’s senate who aimed to block his confirmation for the position. The same day that Rosselló nominated Pierluisi, a new document with an additional 100 pages of the Telegram conversation was released by journalist Sandra Rodríguez Cotto.
The House of Representatives confirmed Pierluisi as the Secretary of State for Puerto Rico, thus assuming governorship immediately after Rossello’s resignation. He was sworn in as Governor of Puerto Rico at 5PM AST, immediately as soon as Rosselló’s incumbency ended - making Pierluisi the first unelected governor in seven decades. A press conference was held during a private ceremony by Pierluisi, who stated he will only remain in office if the Senate ratified him as governor - otherwise he would resign. Protests continued, shifting their aim to call for the resignation of Pierluisi.

Puerto Rico declared a state of emergency in anticipation of Tropical Storm Dorian, which was expected to make landfall later in the week.

Then-Tropical Storm Dorian strengthened into a Category 1 Hurricane as it made its way through the Caribbean, moving at intense winds of up to 73mph and bringing about 4-6 inches of rainfall. Puerto Rico ultimately missed majority of the damage Dorian wrecked to other islands, sparing territories still recovering from Hurricane Maria. Cars, homes and gravestones in Humacao, an eastern-coast municipality of Puerto Rico, became halfway submerged after a river burst its banks as a result of Dorian. Thus far, one fatality is confirmed after Dorian swiped the island.

Puerto Rican Supreme Court justices overturned Pierluisi’s appointment, kic...
This section provides an overview of national news coverage related to Puerto Rico over the last year. This report does not represent an in-depth analysis of the media’s discourse in regards to Puerto Rico and Hurricane Maria but shows a general overview of the prevailing topics discussed in US news.

Overall news coverage by top US news sources related to Puerto Rico centered on federal involvement with post-disaster recovery. We grouped news coverage by theme using machine learning models. Figure 1 shows the most prevalent identified themes in all news stories that talk about Puerto Rico.

Using Media Cloud, an open source tool jointly created by MIT Center for Civic Media and the Berkman Klein Center for Internet & Society at Harvard University, to gather the data in combination with other analytical and visualization tools we analyzed how topics covered on national news changed throughout the year. This does not represent an in-depth or exhaustive analysis on the media’s discourse on Puerto Rico and Hurricane Maria, but shows a general overview of the prevailing topics discussed in US news relating to Puerto Rico.

In Figure 2 we can see the difference between all news stories related to Puerto Rico and specific stories that mention both Puerto Rico and Hurricane Maria or other disaster related topics. The graph shows that while early in the year most stories that covered Puerto Rico directly related to Hurricane Maria or recovery efforts the focus changed starting in June and the gap further increased in July and August. This is likely due to news coverage related to the social movement that emerged in response to the leaked
chats from the former Governor of Puerto Rico Ricardo Rossello and other Government officials. This will be further discussed in the next section.

When conducting this analysis certain key words such as “Trump”, “hurricane”, “maria” were used consistently by news sources. These words were eliminated from the world clouds in order to better visualize changing topics. However, President Trump remained a heavily mentioned figure in relation to Puerto Rico and Hurricane Maria but mentions dropped off in July and August as seen in Figure 3. The drop in mentions of “Trump” corresponded with a rise in mentions of “Rossello” and “Ricky”, this is due to a shifting focus in the US media from the Trump Administration and disaster recovery to the #rickyrenuncia movement and political demonstrations in Puerto Rico to oust the Governor. This is confirmed through analysis using Media Cloud’s CLIFF-CLAVIN engine to automatically detect and parse people mentioned in news articles. Using this we can pin point the most mentioned individuals in stories related to Hurricane Maria. News articles related to Puerto Rico continue to bring up Trump both in relation to the overall federal response and his controversial comments on Twitter or other media.
JANUARY & FEBRUARY 2019

Media coverage during these months largely focused on the effects of the Federal Government shutdown and the possibility of the Trump Administration diverting funds meant for the recovery efforts in Puerto Rico towards funding a border wall. This can be seen by the frequent use of the words: democrats, republicans, shutdown, congress, funding and lawmakers.

MARCH & APRIL 2019

News articles during the months of March and April continued to focus on the Trump Administration. Mentions of Trump increased due to comparisons between his response to the tornado in Alabama and his increasing criticism of the Puerto Rican Government. Coverage between March 30 & April 02 focused on President Trump’s comments regarding federal aid directed to the island where he provided the inaccurate figure of 91 billion dollars for funds distributed and characterized local officials as corrupt and “grossly incompetent”.

MAY & JUNE 2019

Frequently used words during this period include democrats, republican, Washington, appropriations, funding, congress, senate, amended, lawmakers and others is due to increasing focus on a much-anticipated supplemental appropriation bill. This new $19.1 billion disaster aid package was signed into law after months of gridlock due to republican opposition for additional recovery funding for Puerto Rico.
JULY 2019
On July 8, screenshots of a group chat involving the Governor Ricardo Rossello and members of his cabinet that included vulgar comments and exposed unethical activities. The leaked chats sparked a protest calling for Rossello’s resignation. Common words include: rossello, resign, protests, ricky, demonstrations, democratic, chat. While President Trump did comment on the situation mentions of Trump dropped off this month as coverage focused more on the movement itself rather than the President. This is in contrast to previous coverage that was heavily driven by the President and his Administration. Corruption was a heavily mentioned by news sources but trailed discussion of the protests themselves.

AUGUST 2019
Frequently used words this month include: dorian, rosselo, pierluisi, tropical, vazquez and protests. Early August was dominated with new stories related to the aftermath of Ricardo Rossello’s resignation and uncertainty on the next Governor. Media coverage during the second half of the month focused on Hurricane Dorian and its expected impact on Puerto Rico.
Two years since Hurricane Maria made landfall in Puerto Rico on September 20, 2017, between 220,000 to 255,000 residents of the island have relocated to the United States. This Exodus represents one of the most significant movements of Puerto Ricans to the U.S. mainland in the island’s history in terms of both volume and duration. Two-years post-Hurricane Maria, we expect that an estimate of 60,000 to as high as 78,751 left the Island in 2019. One year since Hurricane-Maria, migration estimates — of 159,415, with an upper bound confidence interval of 176,603 — is as high as the net migration estimates in the previous two years combined (144,801). All in all, migration is expected to level off at ‘pre-Hurricane Maria’ levels. Whether migration levels return to those of the ‘economic crisis period,’ will be confirmed when the 2018 Census estimates are released by the end of the 2019.

As we have learned during the post-Hurricane Maria period, measuring population movement in real time continues to be a major undertaking that presents various methodological challenges, especially after a natural disaster like Hurricane Maria. The need for migration estimates drew attention in states that experienced an influx of Hurricane Maria evacuees, which included both states of traditional Puerto Rican settlement as well as those in which Puerto Rican settlement is relatively recent. According to the 2018 U.S. Census Bureau’s Population Estimates, the Island’s population declined by 4%, from 3.3 million in 2017 to 3.2 million in 2018. This is the first official estimate by the U.S. Census Bureau since Hurricane Maria struck Puerto Rico on September 20th, 2017. It is noteworthy that the time frame of the 2018 estimate is between July 1st, 2017 and July 1st, 2018, and since Hurricane Maria took place on September 20th, 2017, the 2018 population estimate includes both pre- and post-Hurricane Maria population. The absolute population decline reported by U.S. Census Bureau was 129,848 in Puerto Rico immediately following the storm. Since Hurricane Maria, migration intensified, especially among families with children. This pattern has shifted the Island’s demographic structure. Population decline in Puerto Rico led to a series of social, economic, and demographic impacts, such as increasing the vacancy housing units, lower growth rates in child population, and school closures throughout the Island.

Prior estimates of the magnitude of the population movement between Puerto Rico and the United States post-Hurricane Maria continue to be based on the net movement of passenger, mobile telephone data, or projections based on recent migration trends. Immediately following the storm, conventional data sources were not available to measure the magnitude of the net migration. Generally, social scientists — such as demographers, sociologists and economists — rely on a few methods and data sources to estimate Puerto Rican migration. These are:

3. Data from the American Community Survey (ACS) of the U.S. Bureau of the Census.

Figure 1 illustrates the net migration estimates between 2005 and 2017 based on observable available data from the U.S. Census Bureau’s American Community Survey and the Puerto Rican Community Survey (2005 to 2017), and from the Center for Disease Control’s National Vital Statistics (2005-2018). This historical data illustrates the magnitude of the post economic crisis exodus in comparison to the Great Migration period of the 1950s. In comparison, the New Millennium migration is already deeper and more prolonged than any period in Puerto Rico’s Post-war history. And, it is likely to continue until job creation and the Puerto Rico economy turns around. However, these methods and data are not readily conducive to estimate Puerto Rican migration in the short-term.

We use the School Enrollment Migration Index (SEMI), a method developed last year by Centro, to estimate migra-

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1 Source: 2016 and 2017 American Community Survey (1-year estimates).
2 For further reading, see introduction of The Almanac of Puerto Ricans in the United States, Centro Press, 2016.
5 Demographic balancing equation is defined as $P_2 = P_1 + (B - D) + (I - E)$, where $P_2$=the number of individuals in a population at time 2; $P_1$=the number of individuals in that population at some later time 1; $B$=the number of births in the period from time 1 to time 2; $D$=the number of deaths from time 1 to time 2; $I$=the number of people entering as immigrants; and $E$=the number of people leaving as emigrants.
tion flows based on school enrollment data from the Puerto Rico Department of Education. Student enrollment data is available shortly after the beginning of every semester, thus providing a real time indicator of migration flows. The most recent school enrollment data predicts that, two-years since Hurricane Maria, 59,628 to 78,751 Puerto Ricans relocated to the U.S. mainland in 2019. This may indicate out-migration trends have returned to the levels observed in the years prior to Hurricane Maria.

Figure 2 compares migration based on the PBE, ACS and SEMI. In 2017, we observed similar net migration estimates from the PBE (-67,334), and SEMI (-64,446), and somewhat higher for ACS (-77,321). Two-years post-Hurricane Maria, SEMI indicates at least 60,000 left the Island, with an upper bound of 78,751 in 2019. This range indicates that recent migration is converging to the pre-Hurricane Maria period.

Figure 3 offers a birds’ eye view of population trends: Puerto Rico’s population continues to decline while Puerto Ricans in the U.S. continues to grow. Since Hurricane Maria struck the Island, a massive out-migration in a short-period of time occurred. However, it is clear from this graphic that long-term migration trends are expected to continue the trajectory of the ‘economic crisis period.’

School Closures in Puerto Rico

One of the most noticeable consequences of the post-Maria migration has been its impact on the school-age population. Given the decline in the school-age population and in the context of economic crisis, the Puerto Rico Department of Education closed a significant number of schools. A total of 265 public schools (24%) closed and 855 schools remained open in the 2018-2019 academic year. The majority of school closures were disproportionately located in the Island’s rural areas (65%) relative to urban areas (35%). According to Puerto Rico’s Department of Education, 313,724 students matriculated in pre-kinder-
garten to 12th grade last August (prek-12) public schools (preliminary student enrollment numbers) for the 2019 academic school year, a percent change of -11% compared to September 2018 (306,652 matriculated students).8

However, considering the long-term impact of population decline, between 2007-2008 and 2018-2019 academic school years, school enrollment showed a decline of 42 percent, from 526,565 to 306,652 students. As of September 2019, Puerto Rico Department of Education reported a total of 292,391 students enrolled in the Island’s public schools. As shown in figure 4, this is a decline of 14,261 students from the 2018 academic school year. This significant drop in student enrollment is largely attributed to students relocating to stateside schools.

In conclusion, two years since Hurricane Maria swept through Puerto Rico, the post-Hurricane Maria exodus continues to change the prevailing narrative of the Puerto Rican migration. For the island, the migration exodus reinforces a pattern of depopulation that has induced austerity and the decline in government services and employment, the closing of schools, increased poverty among the most disadvantaged such as families with children and the elderly, among other unfolding consequences of sudden population losses. Those that relocate have the challenge of finding jobs, housing, medical services, and schools. This recent exodus represents one of the most significant historical movements of Puerto Ricans to the U.S. in terms of both volume and duration.

Figure 3. Puerto Rican Population in Puerto Rico and the United States

Source: American Community Survey, Various Years

Figure 4. Student Enrollment and Teachers in Puerto Rico’s Public Schools, 2006-2019

Source: Puerto Rico’s Department of Education & Instituto de Estastics & U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD); *Data for 2019-Full time-teachers is not available.

As of August 14, 2018, these are preliminary school enrollment numbers provided by Puerto Rico’s Department of Education.
Undoubtedly, the impact of hurricane Maria and Irma was greatest on the island and its inhabitants. The toll in terms of deaths, injuries and failing health; destruction of physical structures/infrastructure; the displacement of people; and loss of economic activity was enormous. Yet, the impact of the cyclones was felt not only in Puerto Rico, but everywhere those Puerto Ricans went for respite or relocation. Although Puerto Ricans had already been emigrating from the island by the tens of thousands prior to the storm, an estimated 176,000 left Puerto Rico, whether temporarily or for the long-term after the storm.

When the storm hit the island, Puerto Rican communities in the United States mobilized to send assistance to relatives and friends on the island, as well as to persons not personally known to them. The solidarity and visceral need to care for one’s own resulted in individual and collective acts of altruism. They also travelled to Puerto Rico to offer assistance; brought supplies; and/or collected their kin to bring them to the United States. The sudden arrival in the United States of a large amount of persons displaced by the storm created a number of challenges for Puerto Rican individuals, families and communities in the United States that last to this day.

This influx of people did not happen uniformly throughout the United States nor did it occur steadily. Instead, it is evident from available data that displaced Puerto Ricans settled in locations to which they had some connection with relatives or friends residing there, or near established Puerto Rican communities that have served to cushion the rough transition brought about by involuntary displacement or reluctant emigration. Consequently, we have seen how the distribution throughout the United States of those who left Puerto Rico since September 2017 resemble that of the emigration from the island in previous years. Data from the Federal Emergency Management Administration show that, by February 2018, 40,000 who had registered with the agency had switched their address from Puerto Rico to the United States, and about 45 percent of those had arrived in Florida. The leading receiving states were: 9 percent in New York; nearly 9 percent in Massachusetts; 7 percent in Pennsylvania; 6 percent in Connecticut; and 4 percent in New Jersey. The proportions of persons arriving in New England and Pennsylvania was virtually the same as the rate of emigration from Puerto Rico throughout the 2000s and 2010s. Florida, the epicenter of the new wave of migration from the island, also showed an above average number of displaced persons arriving after the storm. Clearly, the destruction wrought by the hurricanes magnified a pattern of migration that was already established.

Given the importance that population size and growth have in the social and political discourse in the United States, this increase in the size of the Puerto Rican population throughout the country will contribute to make Puerto Ricans more visible politically, socially, economically, culturally and economically. Yet, the increase was large and sudden, creating enormous challenges to the individuals, families, communities, municipalities and states that received in their midst. In studies we have conducted in New England and are presently continuing, we have noted how the arrival of people in dire need after experiencing traumatic loss and displacement created serious demands on everyone; the households who welcomed them in their homes, the local community-based organizations that reacted to support them, and the governmental entities faced with unexpected claims for social services. With the arrival of displaced persons, dwelling units became overcrowded, sometimes severely; food became scarce often; the need for clothes in general and warm clothes for the winter season in particular, were all highlighted by respondents to our surveys as leading needs they faced as a result of welcoming those in even greater need into their homes. Food was scarce because incomes were stretched to the limit, which led to greater financial strains for the displaced and their hosts. The need for employment grew as it became apparent to many that their stay in the United States would not be short. Transportation became an increasing need as the displaced and their hosts looked for employment or sought medical attention.

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<tr>
<th>Table 1. Rank of current needs of displaced kin by order of importance in Hartford, Connecticut</th>
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<td><strong>Total</strong></td>
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<tr>
<td><strong>Hartford Sample</strong></td>
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<td>Housing</td>
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<td>Food</td>
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<td>Clothing</td>
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<td>Employment</td>
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<tr>
<td>Healthcare</td>
</tr>
<tr>
<td>Schools for Children</td>
</tr>
<tr>
<td>Child Care</td>
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<tr>
<td>Other</td>
</tr>
</tbody>
</table>
As many suddenly enlarged households were not able to satisfy those needs on their own, the displaced (and often their hosts) turned to a larger network of support, in the form of community-based organizations, communities of faith, non-for-profit organizations, non-governmental organizations and local and state governments. In meeting those needs, this larger network of support also faced great strain in responding to the unexpected demand for services and resources. These entities literally scrambled to respond to these demands.

School districts were faced with the sudden and unexpected arrival of children in need of instruction at the beginning or in the middle of the school year. These children also presented singular challenges, since they were not simply local residents but a population traumatized by the loss caused by the storm, the disruption of displacement and emigration, and the uncertainty of arriving in a new destination with few reference points to orient themselves in a strange environment. These students needed bilingual education or similar instruction for English language learners; some may have needed special education services and instruction. School districts were faced with budgetary constraints in meeting these needs. They also faced the uncertainty caused by the lack of educational records and transcripts that may have guided school administrators in placing students within the proper curricular setting. Community-based organizations that provided lifelines to the displaced (and their hosts) were similarly strained. The increased demand for services and resources forced these CBOs to triage individual and household situations as they attempted to provide services, at times sideling their locally-based clients in order to attend to the greater and multiple needs of the displaced.

Health services providers were similarly impacted with the growing demand for medical and counseling services, hampered by budgetary constraints, inaccessible medical insurance (whether private or public), language barriers, etc. Local and state governments also bore the brunt of the large and sudden arrival of new constituents in their jurisdictions, often with limited financial support from federal authorities, which often encouraged the emigration from Puerto Rico, but may not have provided enough financial support to attend to needs fully.

Persons displaced by the storm arrived in many communities in which material need was great even before their arrival. For instance, Puerto Rican communities in New England (Connecticut and Massachusetts) tend to be the poorest in the United States. Poverty rates in Connecticut and Massachusetts in 2016 were 25% and 35%, respectively, compared to 24% for all Puerto Ricans in the United States; Median household incomes were $40,769, $30,424, and $48,856, respectively. In these New England communities, Puerto Ricans had to do as much as elsewhere with fewer locally generated resources and capacity. However, they still welcomed and provided respite to those in even greater need.

Responses to the displaced by hurricane Maria were similarly not uniform throughout the United States. Some communities were more receptive than others and able to provide services more effectively. Oftentimes this difference was established by the political weight of the local Puerto Rican community and their capacity for political agency and pressure. Where Puerto Ricans appeared to have more influence the response by non-Puerto Rican authorities tended to be better than in jurisdictions in which Puerto Ricans do not appear to have translated their presence into a political force. Political will also appears to be an important variable in the responses local communities in the United States gave to displaced persons and households.

Two years since hurricanes Irma and Maria struck the island their impact is still felt in Puerto Rico and in the United States. Conditions in Puerto Rico may have improved to pre-hurricanes levels, but those conditions were dire. The economy is still unresponsive and conditions on the island continue stagnant, with a deteriorating political environment. The hurricanes did not create new conditions; they exacerbated and accelerated existing conditions and trends. Emigration from the island will continue; the destination for the overwhelming majority of those emigrants will be the United States. This emigration will continue to present challenges, but also opportunities for Puerto Rican communities in the United States in terms of the political, economic and cultural implications of population growth. From that perspective, there is hope for Puerto Ricans in the United States and Puerto Rico.

<table>
<thead>
<tr>
<th>Table 2. Most important need in R’s home in Hartford, Connecticut (irrespective of kin presence)</th>
<th>Percentage Hartford Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Situation</td>
<td>26.1</td>
</tr>
<tr>
<td>Housing</td>
<td>19.7</td>
</tr>
<tr>
<td>Food</td>
<td>18.8</td>
</tr>
<tr>
<td>Employment</td>
<td>9.6</td>
</tr>
<tr>
<td>Healthcare</td>
<td>9.3</td>
</tr>
<tr>
<td>Education</td>
<td>2.6</td>
</tr>
<tr>
<td>Transportation</td>
<td>2.2</td>
</tr>
<tr>
<td>Other</td>
<td>2.9</td>
</tr>
<tr>
<td>None</td>
<td>8.5</td>
</tr>
<tr>
<td>(n=680)</td>
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</table>
THE CENTER FOR PUERTO RICAN STUDIES AT HUNTER COLLEGE (CUNY) IN COLLABORATION WITH BRONXNET TV AND CUNY TV PRESENTS THE NEW SEASON OF PUERTO RICAN VOICES T.V. SHOW: “REBUILD PUERTO RICO”

PUERTO RICANS ON THE ISLAND AND THE DIASPORA WORKING TOGETHER TO REBUILD PUERTO RICO

FEATURING 14 EPISODES:

ECONOMY
Highlighting the Social entrepreneurship movement in Puerto Rico, this episode offers the opportunity to listen to experts on this topic and learn about the economic recovery and reconstruction of Puerto Rico.

HOUSING
Puerto Rican Voices highlights Diaspora organizations and local initiatives who have contributed greatly to Rebuilding Puerto Rico after Hurricane Maria.

NY RESPONSE
When hurricane Maria hit the island, the diaspora in New York responded immediately with short and long term solutions helping hundreds of Puerto Ricans inside and outside the island.

CHATGATE, CORRUPTION AND LOS INDIGNADOS
Indignation about vulgar, racist, and homophobic messages and enduring corruption were key motivating factors for the ousting of Puerto Rico’s former Governor Ricardo Rosello and arrests and resignations of high level government officials. Puerto Rican Voices interview experts on this topic and journalist that were in the front line of this historic events.

FLORIDA RESPONSE
The massive influx of students and families that relocated to Florida After Hurricane María inspired an unprecedented response from the diaspora in the heart of the Sunshine State.

EDUCATION
Communities came together and joined efforts in order to help with the recovery of schools after Hurricane María.

Puerto Rican Voices examines how educators and schools are playing a key role in Rebuilding Puerto Rico.

ENVIRONMENT
Hurricane María caused severe damage in all ecosystems in Puerto Rico. Puerto Rican Voices follows local environmental organizations in their effort to reforest the island and educate citizens.

COMMUNITY CENTERS
Community Centers were on the front line when it came to help and support those affected by Hurricane María. Puerto Rican Voices visits organizations as they assist communities in becoming more resilient in preparation for any future catastrophic events.
AGRICULTURE
Puerto Rican Voices sheds light on the agriculture crisis on the Island and the farmers that have dug in to Rebuild Puerto Rico.

HEALTH
With a 29% increase in the suicide rate after Hurricane Maria, mental health in Puerto Rico has reached a critical point. Puerto Rican Voices brings you closer to doctors and Mental Health experts determined to Rebuild Puerto Rico.

DIASPORA SOLIDARITY
Puerto Rican Voices travels the United States to profile those offered food, medicine, shelter and jobs to displaced Puerto Ricans. From Massachusetts to Florida, see how Puerto Ricans joined forces to help Rebuild Puerto Rico.

FAITH-BASED
Puerto Rican Voices speaks with religious leaders who became a lifeline for their region as they were entrusted with supplies and as they led fundraising efforts in order to help Rebuild Puerto Rico.

ENERGY
From Solar micro-grids to energy co-ops, Puerto Rican Voices highlights communities that are working on a more resilient electrical system.

RECYCLING
Puerto Rican Voices meets environmental leaders who are taking on the challenge of waste management with a massive recycling effort designed to help Rebuild Puerto Rico.

Watch on Bronx Net at Optimum 67, FiOS 33 or watch on-demand through bronxnet.org Wednesdays at 7:00pm

Watch on CUNY TV over-the-air on channel 25.3, via Spectrum & Optimum 75, RCN 77, FiOS 30, also on tv.cuny.edu or find cunytv75 on YouTube Mondays at 9:00 pm / Tuesday at 8:00 am & 12:00 pm / Saturdays at 3:30 pm

Watch on www.youtube.com/centropr

For additional air dates and times visit: FACEBOOK.COM/CentroPR
Our Mission
The Center for Puerto Rican Studies at Hunter College-CUNY is a research institute that is dedicated to the study and interpretation of the Puerto Rican experience in the United States and that produces and disseminates relevant interdisciplinary research. Centro also collects, preserves, and provides access to library resources documenting Puerto Rican history and culture. We seek to link scholarship to social action and policy debates and to contribute to the betterment of our community and enrichment of Puerto Rican studies.

Research
Our research department investigates, documents, and broadens the understanding of the Puerto Rican experience in the U.S. We heighten the impact of the data by sharing it in research-based conferences and publishing in original publications and refereed journals.

Library and Archives
The Centro Library and Archives is the world’s only institution solely dedicated to collecting, preserving, and disseminating the story of the stateside Puerto Rican. Our collections include audio and video oral histories, photographs, original works by prominent writers and artists, papers of elected officials, early records of major community organizations, and other primary materials available nowhere else. A major strength of the Library collection is the history of Puerto Ricans in the United States, particularly in New York and the Northeast region, and also in all the areas of the humanities, the social sciences and the arts.

Education
We support and expand the area of Puerto Rican Studies by offering opportunities for students and educators. Our Cultural Ambassadors Program educates our young people to be ambassadors of our rich history. For more information: centropr.nationbuilder.com/ambassador

Publications
Centro Press enables us to engage in robust participation in the fields of Puerto Rican, Latino, New York City, and American Studies. By taking advantage of our vast archival resources and connections in the Puerto Rican community, we disseminate crucial information about the Puerto Rican experience and contribution to the political, economic, and social cultures of the United States through the following mediums:

- CENTRO Journal - the premier journal of Puerto Rican studies and the place to go for contemporary analyses of the Puerto Rican experience.
- Centro Voices – our e-magazine profiles the multiple manifestations of Puerto Rican identity and culture.
- Puerto Rican Voices – videos highlighting the contributions of Puerto Ricans in the U.S.

Data Center
The Data Center packages and disseminates the most current information about Puerto Ricans. This information is provided to present socioeconomic and demographic portraits of the Puerto Rican population. The purpose is to provide basic descriptive information to scholars, policy makers and the public in general. The sources for this information are publically available repositories, such as the U.S. Census Bureau.

Events
Centro events look into our past, portray our present and explore our future, with lectures, panel discussions, performances, art exhibits and more.

The series Puerto Rico, Puerto Ricans conferences bring together stateside Puerto Ricans to gain a broader understanding of how the economic and humanitarian crisis in Puerto Rico have affected those stateside.

Visit us on the web at: https://centropr.hunter.cuny.edu