PUERTO RICO POST-MARIA







2018



https://centropr.hunter.cuny.edu/events-news/rebuild-puerto-rico



Rebuild Puerto Rico

Hurricane Maria, a devastating Category 4 hurricane, caused billions of dollars in damages to Puerto Rico and left 3.4 million island residents without power, potable water, and telecommunications. Recovery is estimated to take years. Centro has launched Rebuild Puerto Rico, an online information clearinghouse for the stateside Puerto Rican community and other allies to support disaster relief and recovery efforts. A Rebuild Puerto Rico newsletter highlighting new content on the online platform will be issued weekly and as needed.



#RebuildPR

PUERTO RICO POST-MARIA: Introduction

Hurricane Maria was the worst storm to hit Puerto Rico since San Felipe Segundo in 1928. On September 20, 2017, Hurricane Maria struck Puerto Rico as a Category 4 storm, with sustained winds blowing at 145 mph and peaking at 155 mph as it made landfall. Researchers from the Climate Impact Lab described the storm as a 1-in-3,000 event, which is reflected in the severity of the potential long-term economic impact.

The northwest trajectory of the storm ensured that the entire island would be affected. Heavy rainfall occurred throughout the territory, peaking at 37.9 inches (962.7 mm) in Caguas, according to the National Weather Service. Puerto Rico experienced widespread flooding with waist-deep water levels in some areas. Storm surge, strong winds and flash flooding trapped thousands of residents, this in conjunction with dire post-disaster conditions, caused 64 certified deaths (although many news sources estimate a much higher death toll). The governor of Puerto Rico has launched a review of the official death count.

Six months since Hurricane Maria devastated Puerto Rico, the initial phase of emergency disaster relief has concluded and the island has entered into a full-fledged long-term recovery and rebuilding phase. This report marks this important turning point and is divided into three sections:

I. TIME LINE

The most salient events and media headlines are provided here with a context to understand where is the island currently. This section focuses on the impact of the hurricane and emergency disaster relief. Among some of the unanswered questions:

• What is the actual death count? The official estimate is that 64 people lost their lives. Yet, many sources estimate that the number exceeds 1,000.

- Why was the restoration of basic energy and potable water services delayed for so long? As of this writing, months after the storm, 15% of residents still lack electricity and 12% of the west side of the island still lacks potable water.
- What will be long-term the economic impact of Hurricane Maria? Preliminary estimates are of up to 20% decline in economic activity, with up to a cumulative \$180 billion in lost economic output.
- How many homes were damaged and how many of these households are or will be assisted by FEMA? As of February 14, 2018, 1.1 million households have applied for FEMA disaster aid, but only a small fraction have received aid.

II. DISASTER RELIEF AND THE FEDERAL POLICY AGENDA MOVING FORWARD

The second section examines disaster relief, divided into the two broad categories of response and recovery. An estimated \$23.2 billion of federal recovery funds are earmarked or have been distributed to Puerto Rico. However, it is still not clear how many more of federal funds could be further allocated to Puerto Rico relief efforts. The section concludes by highlighting key federal policies to advocate moving forward.

- Activities in the short-term disaster response included rescue missions, sheltering, clearing primary transportation routes, emergency and temporary medical care, distributing food and water, and providing alternate power sources for essential services.
- Subsequent response activities to minimize economic impact to both the local government and the community include restoring downed power lines, debris removal, provide interim housing, reestablishment of businesses, temporary employment for those unemployed by disasters and begin to repair and restore damaged infrastructure.
- Long-term recovery and rebuilding include developing permanent housing, increasing housing resiliency, addressing the debt, revitalizing the vulnerable power grid, business rebuilding, implementation of economic revitalizations strategies, and implementing mitigation strategies.

III. POST-HURRICANE MARIA MASSIVE EXODUS REDEFINES THE DIASPORA

The final section of the report is devoted to examining the massive Post-Hurricane Maria exodus and how it is redefining the diaspora. The section begins offering an estimate of the Puerto Rican post-disaster relocation by states. School enrollment data is used to project total population relocation by states. More than 135,000 Puerto Ricans so far have relocated stateside from the island after the hurricane.

- School enrollment data from Florida, New York, Connecticut, Massachusetts, Pennsylvania, New Jersey, and Illinois school districts and FEMA's claims records of change of addresses are used to assess the population flows and relocation from Puerto Rico to the U.S. mainland.
- Overall, the findings from the FEMA data show that Puerto Ricans have dispersed throughout the U.S. to a large extent following existing population nodes, showing recent migration flows to the Northeast and to the U.S. south in particular.
- Florida has become the preferred destination of Puerto Rican migrants and the state with the largest number of Puerto Ricans.
- The school enrollment data indicates that 11,554 Puerto Rican students enrolled in Florida's school districts, 2,874 in Pennsylvania, 2,556 in Massachusetts, 2,218 in New York, 1,827 in Connecticut, 886 in New Jersey, and 607 in Illinois.

All in all, the post-Hurricane Maria exodus has changed the prevailing narrative of Puerto Rican migration. While "circular" migration and the "Millennial" migration associated with the economic crisis narratives helped Puerto Rican scholars interpret and describe prior periods of the Puerto Rican migration to the United States, the "post-Hurricane Maria exodus" phenomenon and its concomitant "depopulation" of the island are circumstances that call for a deeper understanding of this still unfolding historical moment.

This report was produced by the following Centro staff:

Victor Martinez curated the Time Line section of the report; Kathya Severino is the author of the Disaster Relief and the Federal Policy Agenda Moving Forward section; Jennifer Hinojosa, Nashia Roman and Edwin Melendez are the authors of the Post-Maria Exodus from Puerto Rico section; Richie Narvaez proofread the text; Kenneth Kaiser was the graphic art designer; David Pastor curated the TSA time line; and, Edwin Melendez served as editor.

Join Centro's Puerto Rican Nation

http://centropr.nationbuilder.com/

Centro is creating an online community to strengthen the network of stateside Puerto Rican communities. Our nation will connect organizations across the country who are working to address Puerto Rico's economic and humanitarian crisis.

Why join? The Center for Puerto Rican Studies is the only academic research institute solely devoted to the interdisciplinary study of the Puerto Rican experience in the United States. When you join us, you tap into a network of individuals and organizations across the United States and Puerto Rico with the shared interest of linking data and scholarship to policy and social action. You'll be subscribed to our Voices newsletter, featuring the latest news affecting our community and interesting profiles of members of our diaspora. You'll also receive invitations to

Post-Hurricane Maria Timeline

September 21, 2017

President Trump issues a state of emergency for Puerto Rico. The entire electrical grid is shut down and rain continues to pour in the mountains. Airports and ports are close, and 95% of the cellphone system does not work. In the meantime, Puerto Ricans in the diaspora gather to organizer fundraisers, supply drives, and other events to help Puerto Rico. The Fiscal Oversight Board authorizes governor Rosselló to reallocate up to \$1 billion for emergency response.

September 20, 2017

Hurricane Maria makes landfall at 6:15am as category 4, with sustained winds blowing at 145mph and peaking at 155mph as it made landfall. The northwest trajectory of the storm assured that the entire island would be affected. Heavy rainfall occurred throughout the territory, peaking at 37.9 in (962.7 mm) in Caguas, according to the National Weather Service. Maria has been the worst storm to hit Puerto Rico since San Felipe Segundo in 1928.



Courtesy of El Nuevo Dia/Primera Hora

2017



September 20, 2017

On September 20, 2017, Hurricane Maria made landfall in Yabucoa, Puerto Rico at 6:15 A.M. as a category 4 storm, with sustained winds blowing at 145 mph and peaking at 155 mph. The hurricane crossed through the island's interior from southeast to northwest regions.

September 28, 2017

The press in the United States and Puerto Rico starts to question the official numbers of the death toll cause by hurricane Maria. At the time, it was reported only 16 deaths but according to some news articles the toll was much higher than the official reports.



Courtesy of El Nuevo Dia/Primera Hora

September 26, 2017

Most of the island still without power, while 44% of the population does not have access to water. Only 15% of the hospitals are open. USNS Comfort, a U.S. Navy hospital ship, was ordered to deploy, it arrived 6 days after the storm. Comparatively, it was deployed immediately after Hurricanes Katrina and Rita.

September 28, 2017

President Trump waives the Jones Act for 10 days, which was not renewed. This permitted ships that had no U.S. flag to dock in Puerto Rico.

October 1, 2017

Thousands of service members of the US military arrive to the island to assist in the efforts. According to Department of Defense numbers more than 7,000 of their personnel are working in the territory.



Courtesy of El Nuevo Dia/Primera Hora

October 2, 2017

The Wall Street Journal publish a news article that presents how school districts from different states are begun preparations for an influx of students from Puerto Rico. Most of the schools were closed at the time and according to estimates made by Centro more than 200,000 people could migrate stateside by the end of the year after hurricane Maria.



Courtesy of El Nuevo Dia/Primera Hora

October 21, 2017

Several news outlets report about the mass migration from Puerto Rico to states such as Florida, Massachusetts, Pennsylvania, Connecticut, New York, and many other states. Thousands of people have already fled Puerto Rico in search of help.

October 31, 2017

The Fiscal Oversight Board certified a process in which all government and instrumentalities contracts of \$10 million or more need to be approved by the Board. This decision was made after the Whitefish controversy that became news throughout the United States.

October 29, 2017

The governor of Puerto Rico, Ricardo Rosselló orders to cancel a \$300 million contract awarded to Whitefish Energy Holdings, which was hired by PREPA to rebuild the energy infrastructure. This contract raised concerns for the press, FEMA and members of Congress because of the way that it was awarded to a company with not much experience and questionable history.



October 30, 2017

FEMA activates the Transitional Sheltering Program (TSA), which allows residents of Puerto Rico displaced by Hurricanes Irma and Maria to be granted access to temporary housing across the states.

Courtesy of El Nuevo Dia/Primera Hora



November 14, 2017

The U.S. Senate held a hearing about the recovery efforts in Puerto Rico and U.S. Virgin Islands. The Executive Director of PREPA was summoned by the Committee of Energy and Natural Resources to explain the Whitefish contract. Governor Rosselló participated of the hearing and asked Congress for \$17 billion to rebuild Puerto Rico's electric system.

Courtesy of El Nuevo Dia/Primera Hora

January 24, 2018

The government of Puerto Rico presented a revised fiscal plan for the next five years. But the Fiscal Oversight and Management Board (FOBM) ordered the government to revise the plan and to provide more details and changes to the fiscal plan of the central government, PREPA, and PRASA.

December 8, 2017

Reports confirm that Puerto Rico has not received the \$4.9 billion loan that was promised by the aid package that was approved by Congress in October. Puerto Rico's fiscal situation continues to decay.



Courtesy of El Nuevo Dia/Primera Hora

January 22, 2018

Governor Rosselló announced the start of a privatization process of the state-owned Puerto Rico Electric Power Authority (PREPA).

December 7, 2017

A report release by The Center for Investigative Journalism tallies the death toll related to hurricane Maria close to a 1,000. They compared the amount of deaths in the months of September and October to the previous year at the same period and saw a spike of 985 deaths.



Courtesy of El Nuevo Dia/Primera Hora

January 25, 2018

According to several reports, 3,894 survivors remain in Puerto Rico and across 42 states via the TSA program. This is a 40% decrease in enrollment from December 20 report. A subsequent report by the NYT states that 1,500 survivors resided in Florida, as well as more than 800 in Puerto Rico.

February 5, 2018

Governor Rosselló announces the implementation of charter schools and school vouchers in the public system of Puerto Rico.

January 31, 2018

Governor Ricardo Rosselló submits a request for FEMA to activate the Direct-Lease housing program, "which could pay up to 18 months of rent for qualifying families displaced by Hurricane Maria."

February 1, 2018

The U.S. Department of Housing and Urban Development (HUD) awards \$1.5 billion to attend the reconstruction of damaged housing and local businesses in Puerto Rico. This will be through HUD's Community Development Block Grant-Disaster Recovery (CDBG-DR) program.



Courtesy of El Nuevo Dia/Primera Hora

February 9, 2018

President Trump signs into law a third disaster recovery package in which it is expected that Puerto Rico will received more than \$16 billion. This latest bill provides up to \$89.4 billion for disaster relief efforts throughout the US and its territories. The disaster supplemental was attached to a continuing resolution necessary to fund the government and avoid a government shutdown. The bill includes funds allocated specifically for Puerto Rico and the U.S. Virgin Islands—something that was lacking in previous appropriations. \$4.8 billion will go toward the funding of Puerto Rico's Medicaid program for two years, as well as \$2 billion for electric power restoration and \$9 billion for housing and infrastructure projects. This bill joins prior appropriations passed in September following Hurricanes Harvey and Irma, and a \$36.5 billion package in October 2017.

Hurricane Maria Impact

Hurricane Maria struck Puerto Rico as a category 4 storm. Puerto Rico experienced widespread flooding (blue shades on map) with waist-deep water levels in some areas. Storm surge and flash flooding trapped thousands of residents. Despite evacuation of at risk areas to shelters, 64 deaths were reported, but ongoing investigations suggest that over a thousand people may have died as a direct consequence of the storm. Strong winds destroyed homes and caused massive devastation and complete power grid destruction. FEMA claims illustrate in the map the extent and concentration of the damage caused by the storm.





DISASTER RELIEF AND THE FEDERAL POLICY AGENDA MOVING FORWARD

Six months have passed since Hurricane Maria devastated Puerto Rico. Catastrophic hurricane conditions were followed by equally devastating post-disaster conditions. Here are some critical indicators:

- The Government of Puerto Rico's official death count is 64. However, this number is now under review following various investigative reports estimating much higher numbers: the New York Times¹ estimated 1,052 deaths; the Center for Investigative Journalism² similarly reported 985 likely deaths; and a CNN survey of 112 funeral homes established 499 hurricane-related deaths between September 20 and October 19. 2017.³
- Six months after the storm 15% of residents still lack electricity and 12% of the west side of the island still lacks potable water.4
- While official reports are still underway, preliminary estimates by the Puerto Rican government show 250,000 homes with major damage, 70,000 of those having been completely destroyed, with as many as 300,000 homes determined to have suffered some degree of significant damage.5

As of February 14, 1.1 million households have applied for disaster aid from the Federal Emergency Management Agency (FEMA).

The economic consequences of Hurricane Maria will reverberate for decades. The storm devastated Puerto Rico at a particularly difficult time. The Government of Puerto Rico is facing a fiscal crisis with more than \$74 billion in public debt, and the island has experienced more than a decade of economic stagnation. The index of economic indicators published by the Government Development Bank indicates up to a 20% decline in economic output in the months following the storm.6 Researchers from the Climate Impact Lab described Maria as a 1-in-3,000 event, which is reflected in the severity of the potential long-term economic impact. They estimated the impact of Hurricane Maria using an econometric model that takes into account the costs of cyclones over the past 60 years and applies it to the pre-storm economic conditions in Puerto Rico. According to their findings, "Maria could lower Puerto Rican incomes by 21 percent over the next 15 years — a cumulative \$180 billion in lost economic output." They conclude that "Maria could be as economically costly as the 1997 Asian financial crisis was to Indonesia and Thailand and more than twice as damaging as the 1994 Peso Crisis was to Mexico but this time on American soil."7





The trend for disaster funding in recent years, such as relief bills for Hurricane Katrina and Sandy, has been to receive emergency funding through large disaster relief bills early into recovery efforts. The Budget Control Act (BCA) 2011 (Pub.L. 112–25) created two different categories of disaster relief funding: emergency spending and disaster relief spending. The discretionary spending limit can be adjusted upward to make room for an uncapped amount of emergency spending. Disaster relief spending, however, is subject to certain caps.⁸

The Stafford Act (PL 93-288) establishes a process for federal assistance in case of major disaster. When the President of the United States approved a major disaster declaration for Puerto Rico, several sources of funding become available to both assist the government of the island and the individuals affected by the disaster. Many of these federal assistance programs, overseen by FEMA but in coordination with various agencies, fall under three broad categories:

Public Assistance: This is FEMA's largest funded program. Administered through grants to the local government, it helps communities pay for debris removal and repairs to public infrastructure, such as public buildings, roads, bridges and utilities.

Individual Assistance: This is direct aid for individuals affected by the disaster. It includes things such as housing for displaced people, grants to provide for needs not covered by insurance, crisis counseling, and disaster unemployment assistance.

Hazard Mitigation: This grant program funds measures to improve resiliency and lessen the effects of a future disaster. Mitigation funding is a fraction of the amount spent on the other two categories.

Funding for disaster relief and recovery is divided into two broad

categories, response and recovery; these in turn go through various overlapping stages.

Response

- Short-Term Disaster Relief: This stage can last days and in the case of Puerto Rico has lasted weeks. Activities conducted during this stage include: rescue missions, mass care/ sheltering, clearing primary transportation routes, establishing emergency and temporary medical care distributing food and water, and providing alternate power sources for essential services.
- Disaster Recovery: Weeks to Months. This serves as an intermediate stage in order to facilitate long-term recovery in the area. It is important to stabilize the situation in order to minimize economic impact to both the local government and the community. Activities conducted during this stage include: restoring downed power lines, debris removal, provide interim housing, reestablishment of businesses, temporary employment for those unemployed by disasters and begin to repair and restore damaged infrastructure.

Recovery

- Long-Term Recovery and Rebuilding: Months to Years. This
 is when rebuilding and economic recovery take place. Activities conducted during this stage include: developing permanent housing, increasing housing resiliency, addressing the
 debt, revitalizing the vulnerable power grid, business rebuilding, implementation of economic revitalizations strategies,
 and implementing mitigation strategies.
- The long-term recovery needs of Puerto Rico should be addressed sooner rather than later. Setting up an initial long-term funding plan shows a federal commitment to recovery.



Figure 2.2 Federal Appropiations for Puerto Rico (as of February 27, 2018)

This type of clear commitment is necessary in order to slow down mass out-migrations and prevent businesses from leaving the island and causing further economic damage.

STATUS OF FEDERAL FUNDS & PROGRAMS

Congress has conducted three appropriations in recent months to provide funding for disaster relief efforts in Puerto Rico and other areas affected by major disasters in 2017. As of today, disaster supplemental appropriations add up to around \$140.8 billion (not including account transfers). However, it is important to note that appropriations for disaster relief are not just limited to Puerto Rico but encompass other disaster relief efforts in Texas, California, Florida, and the U.S. Virgins Islands or are allocated directly to federal agencies located in these areas or their operating accounts.

Currently an estimated \$23.2 billion of those funds are earmarked or have been distributed to Puerto Rico. However, it is still not clear how many more of existing appropriations would the various federal agencies overseeing the funds would allocate to Puerto Rico relief efforts. The third supplemental, enacted in February 2018, directly allocates funds to Puerto Rico and the Virgin Islands in an effort to ensure these territories do not have to compete for funds with other States and to further clarify what funds will be used for.

• First Disaster Relief Package (September 2017)

The Continuing Appropriations Act, 2018 and Supplemental Appropriations for Disaster Relief Requirements Act, 2017 (PL 115-56) was signed into law September 8, 2017. The initial purpose of this bill was to fund disaster relief efforts for Hurricanes Harvey and Irma. However, while appropriations were made prior to Hurricane Maria, funds from this bill were available to Puerto Rico after a major disaster was declared on the island on September 21, 2017. Of the \$7.4 billion allocated to the U.S. Department of Housing and Urban Development's Community Development Block Grant, HUD awarded Puerto Rico \$1.5 billion from this grant to help meet needs not being met by private insurance or other sources of federal assistance.

• Second Disaster Package (October 2017)

The second disaster relief package granted up to \$1.27 billion in additional funding for Puerto Rico's Nutritional Assistance Program to meet disaster related needs. One of the biggest allocations in the relief package was the additional funds granted to FEMA's Disaster Relief Fund (\$13.59 billion); up to \$4.9 billion of those funds were available to Puerto Rico as a Community Development Loan to maintain basic government operations. The bill included a provision enabling the Department of Homeland Security and the Treasury Department to decide to forgive all or part of the loan, which is usual for Community Development Loans. However, the loan was delayed by the U.S. Department of Treasury due to disagreements over Puerto Rico's cash balances. After several months of delay the U.S. Treasury has now stated it might provide a loan to Puerto Rico if the territory's cash balance drops below \$800 million and on February 20, 2018 reduced the amount of the proposed loan by more than half to \$2.06 billion. Governor Ricardo Rosselló, stated in a letter to Congress that Treasury does not intend to forgive the loans and is seeking maximum priority of repayment.

Latest Disaster Aid Package: Third Supplemental (February 2018)

The latest disaster supplemental provides up to \$89.4 billion for disaster relief efforts throughout the US and its territories. The bill includes funds allocated specifically for Puerto Rico and the U.S. Virgin Islands, something that was lacking in previous appropriations. This third supplemental includes \$4.8 billion to fund Puerto Rico's Medicaid program for two years, \$2 billion for electric power restoration and \$9 billion for housing and infrastructure projects. This bill also allocated \$28 billion to HUD's Community Development Block Grant to provide communities with the necessary funds to begin rebuilding and start the recovery process.

- From the \$28 billion allocated for CDBG, Congress specifically allocated \$11 billion for territories affected by Hurricane Maria, primarily Puerto Rico and the US Virgin Islands. Those \$11 billion are further earmarked with \$2 billion being assigned to power grid restoration for Puerto Rico and the Virgin Islands. The supplemental also establishes the key language that will allow FEMA to finance improvements to the electric power system, not just repair it.
- Additionally, Puerto Rico received \$4.8 billion in Medicaid funding for the next two years and the cost share for certain Army Corps of Engineer and Federal Highway Administration funds (\$1.37 billion) was waived--this allows projects funded through these programs will be 100 percent financed by the federal government. Other funds earmarked for Puerto Rico and the Virgin Islands include \$14 million for USDA's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). A large portion of funds appropriated as part of the Third Supplemental, such as the \$23.5 billion to FEMA's Disaster Relief Fund, must be further assigned to projects by the department or agency it is allocated to. The amount that will be awarded to Puerto Rico is still unclear.

The Government of Puerto Rico has previously estimated that it will require \$ 94.4 billion to rebuild the island. Resident Commissioner Jenniffer Gonzalez has stated that a fourth disaster supplemental is expected to occur later this year.⁹ Pending official damage estimates from local and federal government agencies will regulate further requests made by the Government of Puerto Rico. It is likely that further allocations will occur after official damage estimates are released and will focus on more specific needs.

OVERSIGHT, TRANSPARENCY, AND ACCOUNTABILITY IN THE RECOVERY PROCESS

Congress and a White House controlled by a Republican majority have previously implemented a minimalist or incremental agenda for the economic recovery of Puerto Rico and expressed concerns over the management of funds. Even disbursement of a \$4.9 billion federal loan for disaster relief has exacted tight scrutiny by the Treasury Department. The perception of local fiscal mismanagement was reinforced after Hurricane Maria when a \$300 million contract was extended to Whitefish, a small firm with only two employees at the time, and subsequently canceled after a public outcry and the subject of an active investigation. This perception of local fiscal mismanagement and corruption permeates members of Congress' understanding of the situation in Puerto Rico and affects the policy decision process. In a hearing of the House Committee on Natural Resources committee, Chairman Rob Bishop (R-Utah) asserted that the government of Puerto Rico had a "credibility gap" referring to near the \$95 billion request for

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Appropriation	Department/Agency	Program	Total	Allocated for Puerto Rico*	Distribution Status	
All	Federal Emergency Management Agency	Disaster Relief Fund*	\$26,070,000,000	\$2,583,597,590	Ongoing	
	Small Business Administration	Disaster Loans Program	\$2,102,000,000		Ongoing	
First Supplemental (September 2017)	U.S. Department of Hous- ing and Urban Development	Community Development Block Grant	\$7,400,000,000	\$1,500,000,000	Awarded Feb 2018, awaiting Action Plan from PR Government	
Second Supplemen- tal (October 2017)	Federal Emergency Management Agency	Disaster Assistance Direct Loan Program	\$4,900,000,000	\$2,065,000,000	Department of Treasury lowered initial allocation	
	U.S. Department of Agriculture	Disaster Nutrition Assistance Program	\$1,270,000,000	\$1,270,000,000	Distributed	
	National Flood Insurance Program	General Fund	\$16,000,000,000	\$121,000	Funds Distributed	
	U.S. Department of Health and Human Services (HHS)	Medicaid Block Grant	\$4,942,575,000	\$4,800,000,000	Pending	
	U.S. Department of Housing and Urban Development	Community Development Block Grant	\$28,000,000,000	\$11,000,000,000	Pending	
	U.S. Department of Agriculture	Office of the Secretary Block Grants, Rural Housing Insurance Fund Program, Rural Water and Waste Disposal Program, Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Commodity Assistance Program	\$2,582,147,000		Pending	
	U.S. Department of Commerce	Economic Development Assistance Programs	\$600,000,000		Pending	
	U.S. Army Corps of Engineers-Civil Works	Construction Fund	\$15,000,000,000		Pending	
Third Supplemental (February 2018)	U.S. Department of Energy	Electricity Delivery And Energy Reliability	\$13,000,000		Pending	
ΥΥΥΥ	Department of the Interior	Insular Affairs-Assistance to Territories	\$3,000,000		Pending	
	Enviromental Protection Agency	Hazardous Substance Superfund, Leaking Underground Storage Tank Trust Fund	\$13,200,000		Pending	
	Department of Education	Hurricane Education Recovery	\$2,700,000,000		Pending	
	Department of Health and Human Services	Public Health and Social Services Emergency Fund, Children and Fami- lies Services Programs (Head Start)	\$812,000,000		Pending	
	Department of Transportation	Emergency Relief Program & Public Transportation Emergency Relief Program	\$1,704,000,000		Pending	
			\$114,111,922,000	\$23,218,718,590		

Table 2.1 Federal Disaster Relief Appropriations (As of February 14, 2018)

hurricane recovering funding and the need for accountability in the disbursement of federal assistance.

In addition to allocating funds for disaster relief efforts the aid package also established certain oversight and transparency provisions. The law established that the Government of Puerto Rico, in coordination with relevant federal agencies and the Oversight Board, needs to establish a 12- and 24-month recovery plan (Section 1208). This economic and recovery plan must be endorsed by the Oversight Board and requires monthly reports be available to Congress. As the long recovery and rebuilding process begins oversight and transparency will become increasingly important. Appropriations and access to further funds will occur as the island's disaster relief efforts move toward rebuilding and resilience, which can take years.

Accountability and Transparency were important factors during Hurricane Katrina and Superstorm Sandy recovery efforts.

- The Louisiana Recovery Authority (LRA) was created as a planning and coordinating body tasked with one of the most extensive rebuilding efforts in the US.
- Superstorm Sandy transparency initiatives occurred in both the Federal and State levels. The Recovery Accountability and Transparency Board, which oversaw federal spending under the American Recovery and Reinvestment Act of 2009, was additionally tasked with overseeing federal spending on Superstorm Sandy recovery. State initiatives after Superstorm Sandy include NJ Department of Community Affairs' "ReNew Jersey Stronger" and New York Rising, the Governor's Office of Storm Recovery (GOSR).

In order to manage reconstruction efforts, the Governor of Puerto Rico, created the Central Recovery and Reconstruction Office of Puerto Rico (CRRO), a division of the Puerto Rico Public Private Partnerships Authority. This small office is tasked with general oversight of rebuilding projects in Puerto Rico, a monumental task. Focus on oversight and transparency must play an important role in the distribution and the awarding of these upcoming federal funds. It is still unclear if the CRRO, in conjunction with Puerto Rico's Fiscal Agency and Financial Advisory Authority and the Oversight Board will effectively implement and manage the necessary oversight, transparency and accountability measures necessary to rebuild Puerto Rico effectively.

FEDERAL POLICY AGENDA MOVING FORWARD

• Address the Issue of Informal Housing

While FEMA offers assistance for rebuilding damaged homes, it is only available to those who can prove ownership of the property, that the property was built in a lot for which they have a property title or that were built with the government permits. No reliable data exists on how many people live on lots without property titles. However, many estimates point to the existence of a significant amount of informal housing on the island. Housing Secretary Fernando Gil told El Nuevo Día that he estimates that in just three municipalities — Carolina, Loíza, and Canóvanas — around 11,000 families live on land over which they do not have title. The National Association of Home Builders (ACH), meanwhile, estimates that 55% of all housing units in Puerto Rico do not have permits of any kind.

• Raise Medicaid Program Funding

Today, nearly half of Puerto Ricans rely on Medicaid, but unlike in states where the federal government pays a fixed share of Medicaid costs based on the state's relative per capita income, for Puerto Rico and U.S. territories the federal share only covers up to 55% of costs up to a fixed annual funding cap.

- Remove Regulatory Burdens for Transportation of Cargo Remove regulatory burden inhibiting cargo commerce between Puerto Rico, the mainland, and international markets.
- Earned Income Tax Credit and Child Tax Credit.
 Residents of Puerto Rico are unable to claim the Earned Income Tax Credit. According to the US Census Bureau, The Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC) were responsible for lifting 9 million workers out of poverty in 2010 and reducing child poverty by 7% in 2014. The EITC is widely accepted as an effective policy tool for stimulating economic growth and enjoys long-standing bipartisan support. The EITC encourages people to enter the formal workforce; this is critical as less than half of Puerto Rico's people are in the workforce with many working in the informal economy.

ADVOCACY AGENDA MOVING FORWARD

Energy. 13% of the island is still lacking electricity almost six months after the storm. Puerto Rico Electric and Power Authority's infrastructure is still very fragile and power outages are common. Governor Rosselló has stated his intent of beginning the process of privatizing PREPA. An important question now is whether Puerto Rico will fix what it had or will it turn this tragedy into an opportunity to redesign the energy grid and implement a more sustainable system, regardless of its status as a private or public utility.

Health. Long before Hurricane Maria hit Puerto Rico, the health system of the U.S. territory was struggling from lack of resources and doctors necessary to provide services. Many Puerto Rican doctors from the diaspora are in Puerto Rico helping in the aftermath of the hurricane. This disaster has confirmed the problems of Puerto Rico's healthcare system and the need for reform. It is fundamental in the rebuilding process to envision how to fix Puer-

to Rico's health system and how the diaspora can help.

Education. Schools have been strongly affected, and dozens of teachers and children are moving stateside. No one knows when the island's school system will return to normal, and college students are looking for alternatives to finish the semester. Puerto Rico's public education system needs to be reorganized in ways that take into consideration outmigration and damages to schools' infrastructure. To rebuild Puerto Rico a modern school system is needed, one in which students are considered the future of the island.

Environment. Hurricane Maria has created a number of environmental problems that affect the economy and the health of the population. It is important to consider the environmental problems before the hurricane and the new challenges created by the disaster. What environmental strategies will improve social conditions and the economic development of Puerto Rico?

Food and Agriculture. The agriculture sector of Puerto Rico is one of the most affected by Hurricane Maria. According to unofficial numbers, 80% of crops were lost. In addition, food was scarce for days. Food shortage resulted from the difficulties that private companies in the supply chain and government encountered in the ports and airports. Puerto Rico needs policies that will improve

the agriculture sector in order to increase the consumption of local grown products. Ultimately, the rebuilding of Puerto Rico requires a sustainable food and agriculture system.

Nonprofit Organizations and Grassroots Advocacy. In places where the federal and local government response was lacking, nonprofit organizations were able to be the first assisting people in need. Nonprofit organizations are already helping in the rebuilding process. Grassroots advocacy groups are as well, and they will continue to be needed to advocate for millions of U.S. citizens living in Puerto Rico.

Economic Development. Economic development will help improve other sectors, such as health and education. Business development is necessary for jobs creation and economic recovery. We have the opportunity to support bold policies for small business development and innovation.

Diaspora Engagement with Policy and the Media. Now is the time for the diaspora to engage in support of Puerto Rico. We need to pressure the U.S. media to continue covering the humanitarian crisis that has unfolded after Hurricane Maria. The diaspora could exert pressure on Congress and the U.S. media on behalf of Puerto Rico to facilitate the rebuilding process.

NOTES

- ¹ https://www.nytimes.com/interactive/2017/12/08/us/puerto-rico-hurricane-maria-death-toll.html
- ² https://theconversation.com/why-puerto-ricos-death-toll-from-hurricane-maria-is-so-much-higher-than-officials-thought-89349
- ³ https://www.cnn.com/2017/11/20/health/hurricane-maria-uncounted-deaths-invs/index.html
- ⁴ http://status.pr/Home
- ⁵ http://www.miamiherald.com/news/nation-world/world/americas/article199948699.html
- ⁶ Hsiang, Solomon and Houser, Trevor. The Mind-bending and Heart-breaking Economics of Hurricane Maria 2017 http://www.impactlab.org/news-insights/
- the-mind-bending-andheart-breaking-economics-of-hurricane-maria/
- 7 Budget Control Act of 2011, P.L. 112-25, §102.
- ⁸ https://www.elnuevodia.com/english/english/nota/18billionontheway-2397848/
- ⁹ https://www.elnuevodia.com/english/english/nota/18billionontheway-2397848/

POST-HURRICANE MARIA MASSIVE EXODUS REDEFINES THE DIASPORA

This section presents recent findings of the relocation of Puerto Ricans to the U.S. mainland in the aftermath of Hurricane Maria. We use school enrollment data from selected states' Department of Education to analyze Puerto Rican relocation patterns in the U.S. We collected post-Hurricane Maria school enrollment data from Florida, New York, Connecticut, Massachusetts, Pennsylvania, and New Jersey school districts to reassess the population flows and relocation from Puerto Rico to the U.S. Based on school enrollment data, we estimate that more than 135,000 Puerto Ricans relocated to the United States six months after Hurricane Maria landed in Puerto Rico. Prior estimates of the magnitude of this exodus are based on movement of passengers or projections based on recent migration trends from Puerto Rico to the United States.

In addition, we use FEMA data of victims of the storm who have filed claims to the agency and have listed a stateside address for correspondence. An analysis of the FEMA data show that Puerto Ricans have dispersed throughout the U.S. largely following existing population nodes but showing similar residential location preferences as recent migrants who have settled primarily in Florida. In the decades prior to Hurricane Maria, in the post-economic crisis exodus also known as the Millennial Migration, Florida became the preferred destination of Puerto Rican migrants and currently is likely to have the largest share of Puerto Ricans in the U.S.

SCHOOL ENROLLMENT

In this report, we use post-Hurricane Maria school enrollment data from states representing more than 80% of the stateside Puerto Rican community to estimate the population flows and relocation from Puerto Rico to the U.S. School enrollment is used as an indicator of a "permanent" relocation. Table 1 depicts 2017 school enrollment for school districts in six states. We collected the school enrollment data between December 1 and February 22, 2017. According to the survey of school districts, 11,554 Puerto Rican students enrolled in Florida's schools; 2,556 in Massachusetts; 2,874 in Pennsylvania; 2,218 in New York; 1,827 in Connecticut; and 886 in New Jersey. Table 1 also include averages for Puerto Rican school-age children (A) and total migrants (B) from 2013 to 2016 from the yearly surveys of the American Community Survey from the U.S. Bureau of the Census. This data permit us to estimate the ratio (B/A) of total migrant population to school-age children. This ratio is then used to estimate the total migration that corresponds to the average number of children. In other words, the data on school enrollment is extrapolated to estimate the total post-Maria exodus from Puerto Rico.

We estimate that six months after the storm, 135,592 people migrated from Puerto Rico to the United States. The distribution of the post-Hurricane Maria exodus from Puerto Rico follows a familiar pattern with the prefer location of Florida with the largest share of relocations reaching 56,477 people representing 42% of the total flow. Florida is followed by states in the Northeast: Massachusetts, 15,208 (11% of the total flow), Connecticut, 13,292 (10%), New York, 11,217 (8%), Pennsylvania, 9,963 (7%), and New Jersey, 5,027 (4%).

 Table 3.1 Post-Maria 2017 School Enrollment Estimates and Predicted Population Estimates

	(A) School Age Children Migrants (2013-2016)	(B) Puerto Rican Migrants (2013-2016)	(B/A) Ratio of School-Age Children to Total Migrant Population	Puerto Rican School Enroll- ment Data (K-12)	Migration Estimates (2018)	Distribution (2018)
National	13,050	64,933	4.98	24,406	135,592	100%
Selected States	10,043	49,864	4.97	21,640	111,185	82%
FL	4,955	24,221	4.89	11,554	56,477	42%
MA	546	3,251	5.95	2,556	15,208	11%
СТ	359	2,614	7.28	1,827	13,292	10%
NY	756	3,822	5.06	2,218	11,217	8%
PA	1,652	6,333	3.83	2,599	9,963	7%
NJ	548	3,109	5.67	886	5,027	4%
Other States*	3,007	15,069	5.01	2,766	24,406	18%

Source: American Community Survey, various years and survey of selected Department of Education

FEMA

According to data provided by FEMA, a total of 40,013 household members and 19,271 households, who changed their mailing address since they first registered with FEMA, relocated to the U.S. mainland as a result of Hurricane Maria. The FEMA relocation data is an indicator of the dispersion of the Puerto Rican exodus throughout the United Sates. As shown in Figure 3.1, Florida and other U.S. southern states received a majority of the Puerto Rican migrants. Yet, traditional states of settlements, such as New York, Pennsylvania, Massachusetts, Connecticut, Illinois, Ohio, and California, are currently experiencing population growth, and more importantly dispersed settlement patterns within their respective states when compared to existing Puerto Rican settlements. Post-Hurricane Maria Puerto Rican migrants are also relocating in areas beyond central cities of traditional states of settlement. School enrollment data also show this trend, particularly in New York State, whereby Puerto Rican school-age children showed higher enrollment rates in New York State's upstate region than in school districts located in New York City (Meléndez & Hinojosa, 2017).

Regionally, more than half of post-Hurricane Maria Puerto Rican migrants relocated in the South (55%) followed by 35% in the Northeast, 7% in Midwest, and 3% in West (see figure 3.3). In terms of total household members, Florida (18,013) received the most Puerto Rican evacuees, followed by New York (3,683), Massachusetts (3,399), Pennsylvania (2,954), Connecticut (2,281), New Jersey (1,690), Texas (1,361), Illinois (1,324), Georgia (530), and Virginia (479).

Table 3.2 shows the population distribution by state of the total Puerto Rican population in 2016, the average number of Puerto Ricans who arrived between 2013 and 2016, and recent data from FEMA of the total household members evacuees in the selected states. It is evident that post-Hurricane Puerto Rican migration is and continues to be driven by Millennial migration, in terms of relocating to similar states, located in both U.S. South, particularly Florida, and in traditional states of settlement. More importantly, Puerto Ricans showed dispersion within both states of new and traditional states, by residing in counties outside central cities.

As shown in table 3.2, 45% of FEMA evacuees relocated to Florida followed by 9% in New York, 8% in Massachusetts, 7% in Pennsylvania, 8% in Connecticut, 5% in New York, 4% in New Jersey, 3% in Texas, 3% in Illinois, 1% in Georgia, and 1% in Virginia. On the other hand, Millennial migration also showed similar, if not close predicated estimates to the FEMA evacuee relocation. For example, during the Millennial migration period, at least 37% relocated to Florida followed by 10% in Pennsylvania, 8% in Texas, 6% in New York, 5% in New Jersey, 5% in Massachusetts, 4% in Connecticut, 4% in Ohio, 2% in California, and 2% in Illinois (see table 3.2).

Figure 3.1 FEMA Evacuees (Total Household Members)





Figure 3.3 FEMA Evacuees in Selected Northeastern States (Total Household Members)

Table 3.2 Distribution of FEMA Evacuees and Millennial Migrants (2013-2016) in Selected States

	Total Puerto Rican Population 2016	% of Puerto Rican Population	Millennial Migration 2013-2016	% Millennial Migration 2013-2016	Total FEMA Evacuees	% FEMA Evacuees
All States	5,450,472	100%	64,933	100%	40,013	100%
Selected States	4,423,107	81%	53,429	82%	35,584	89%
Florida	1,067,747	20%	24,221	37%	18,013	45%
Pennsylvania	444,263	8%	6,333	10%	2,954	7%
Texas	196,460	4%	5,500	8%	1,361	3%
New York	1,081,110	20%	3,822	6%	3,683	9%
New Jersey	470,143	9%	3,251	5%	1,690	4%
Massachusetts	319,042	6%	3,109	5%	3,399	8%
Connecticut	298,245	5%	2,614	4%	2,281	6%
Ohio	122,204	2%	2,420	4%	460	1%
California	214,255	4%	1,145	2%	419	1%
Illinois	209,638	4%	1,015	2%	1,324	3%

Source: American Community Survey, various years & FEMA



Figure 3.4 Puerto Rican Stateside Relocation Post-Maria (As of February 2018)

Source: FEMA and survey of selected Department of Education

Eight out of the top 10 states discussed in this report have a similar distribution of FEMA evacuees and millennial migrants (with the exception of Georgia and Virginia). The school enrollment data is consistent with these observed settlement patterns (see figure 3.4).

IMPACTS ON PUERTO RICO

One of the most disturbing trends related to the prolonged economic crisis that began in 2006 has been the acceleration of migration from Puerto Rico to the United States. Hurricane Maria has accelerated this propensity to a point where we can refer to the depopulation of Puerto Rico as one of the most significant hurdles for future economic recovery. From 2006 to 2016, the island lost 525,769 net migrants, equivalent to 14% of the total population of the island since the economic crisis started. From 2017 to 2019, Puerto Rico may lose up to 470,335 residents or 14% of the population. In other words, Puerto Rico could lose the same population in a span of a couple of years after Hurricane Maria as the island lost during a prior decade of economic stagnation.

The aforementioned migration patterns have resulted in a significant shift of the Puerto Rican population from the island to stateside. As illustrated by figure 3.4, at the beginning of the economic crisis, there were about equal number of Puerto Ricans in Puerto Rico and the United States. With the crisis, the outflow of Puerto Ricans from the island, especially of young people in reproductive ages, resulted in a population explosion of stateside Puerto Ricans. By 2016, there were 5.5 million stateside Puerto Ricans while the island's population has dwindle to about 3.4 million residents.

Puerto Rico's Department of Education also faced challenges from the Island's post-economic crisis and post-Hurricane Maria, by forcing many school districts to close or merge their schools as a result of the declining student population in their classrooms and government budget cuts. A total of 243 public schools in Puerto Rico closed between the post-economic crisis period (between 2006 and 2017), and in the coming years it is estimated that another 467 public schools will closed by 2022 as a result of Hurricane Maria. During the post-economic crisis exodus, there were 1,523 public schools operating and it is anticipated to decline to 805 public schools in 2022. According to Puerto Rico's Department of Education, between 2018 and 2022, or post-Hurricane Maria, a total of 305 public schools will be closed due to lower student enrollments, which is predicted to decline by 9% and government budget cutbacks.

School enrollment declines is mainly attributed to migration, as children are more likely to accompany their parents and/or family members. During the post-economic crisis period, Puerto Rico's student enrollment declined from 544,076 in 2006 to 319,422 in 2017, a difference of 224,654 of students or a decline of 41%. According to Puerto Rico's Department of Education, student enrollment is expected to further decline to 291,846 by 2022 as a result of the post-Hurricane Maria exodus.

In addition to school closures and low student enrollments, Puerto Rico's public school teachers and other school administration support staff were also affected by the both migration waves. In 2006, there were 40,514 public school teachers and in 2017 it was estimated the number of teachers declined to 20,915. In all, the economic crisis and post-hurricane exodus have heavily affected Puerto Rico's education system. Figure 3.5 Post-Maria Puerto Rico and Puerto Ricans in the United States Population 2006 to 2017 Estimates



Lower bound estimates are double the lowest number of migrants registered during the prior three years. Upper bound estimates are three times the highest number of migrants registered during the prior three years. Since the ACS estimates are based on random sampling of the population, the smaller the numbers reported in this table the larger the margin of error for the estimates.

CONCLUSIONS

To some extent, based on student enrollment and FEMA data, post-Hurricane Maria migrants generally followed the distribution and predication derived from the average of the last four years of settlement from Puerto Rico. In other words, post-Hurricane Maria Puerto Rican migrants relocated to states where Millennial migrants have settled. Overall, data from FEMA confirms that Puerto Rican evacuees are settling in almost every state and every region of the county. As discussed by Hinojosa and Vargas-Ramos (2017), between 2000 and 2014, the Puerto Rican population showed notable population growth in the U.S. south, particularly, in North Carolina, Texas, Georgia, Virginia, and Florida, while states like Pennsylvania and Ohio, were among the only traditional states of settlement to show population growth. On the other hand, states of traditional settlement, such as New York, New Jersey, Illinois, and California, experienced declines in Puerto Rican population. Lastly, Puerto Ricans in Connecticut and Massachusetts showed, at the time, no population growth or decline and instead remained steady between 2000 and 2014.

However, this narrative of Puerto Rican population growth and decline has changed as a result of the post-Hurricane Maria exodus--Puerto Rican newcomers during the 2017 post-Hurricane Maria wave are settling in every state and region of the county. While "circular" migration and the "Millennial" migration associated with the economic crisis narratives help Puerto Rican scholars interpret and describe prior periods of the Puerto Rican migration to the United States, the "post-Hurricane Maria exodus" phenomenon and its concomitant "depopulation" of the island are circumstances that call for a deeper understanding of this still unfolding historical moment.

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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.

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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.

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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

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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.

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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.

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