The Education Sector in Puerto Rico After Hurricane Maria: Predisaster Conditions, Hurricane Damage, and Themes for Recovery

CHRISTOPHER NELSON, ANDREA PRADO TUMA, TERRY MARSH, MEGAN ANDREW, DREW M. ANDERSON, ANAMARIE A. WHITAKER, LYNN A. KAROLY, ROBERT F. MURPHY, NUPUR NANDA, JAMIE RYAN, TROY D. SMITH, ANITA CHANDRA

www.rand.org/t/RR2858

Presenting a strategic approach to aid Puerto Rico’s recovery from Hurricanes Irma and Maria, the report details prestorm conditions, assesses damage and recovery needs, and describes courses of action (COAs) for the education sector. The analyses and discussions with local education stakeholders and subject-matter experts informed the development of 13 COAs to support Puerto Rico’s recovery plan and efforts to transform the education system.

RESEARCH QUESTIONS
- What was the state of Puerto Rico’s education system before the hurricanes?
- What were the effects of Hurricanes Irma and Maria on Puerto Rico’s education sector, including its consequences on early-childhood services, K–12 education, and postsecondary education?
- What were determined to be the key themes for recovery in the education sector, and which COAs support those themes?

KEY FINDINGS
Puerto Rico’s education system faced many important challenges before the hurricanes
- Enrollment in public schools in Puerto Rico had been declining for several decades.
- Puerto Rico’s education system maintained a high concentration of economically disadvantaged students and students with disabilities.
• Puerto Rico’s K-12 public school system had also faced long-standing concerns about lagging student performance and high school graduation rates.
• The Puerto Rico education system has been facing financial strains due to several factors, including spending on additional services for students from low-income households and students with disabilities.

The hurricanes emphasized and worsened existing problems
• The hurricanes caused extensive damage to education infrastructure.
• Declines in school enrollment were accelerated by the storms.
• Schools faced extensive closures and, after reopening, limited functionality.
• Schools also faced extensive transportation issues.

The COAs developed to support the recovery plan can be grouped according to four themes
• The first step in recovery involves rebuilding, repairing, and upgrading school infrastructure.
• Several COAs can support the extensive transformation of Puerto Rico’s education system initiated by the government before the storms.
• Expanding existing and implementing new out-of-school learning opportunities can help address potential learning loss caused by prolonged school closures.
• Elements of the plan can increase access to vocational, technical, and career education and strengthen school-to-work transitions.

RECOMMENDATIONS
• Identify and engage key partners.
• Perform additional analysis, detailed planning, and necessary adjustments to implement COAs.
• Update cost estimates.
• Conduct ongoing monitoring and formative evaluation.
• Consider dependencies with other COAs.
• Rebuild public pre-K-12 school infrastructure.
• Consolidate and rebuild University of Puerto Rico infrastructure.
• Conduct landscape analysis and rebuild private nonprofit pre-K-12 school infrastructure.
• Improve longitudinal data system to support evidence-based policy.
• Perform multisector analysis to support resource allocation decisions related to schools.
• Conduct landscape analysis of early-childhood interventions and care opportunities.
• Consider the implementation of a student-based budget system.
• Strengthen the school leadership pipeline.
• Develop and implement a teacher pipeline program.
• Create new and enhance existing after-school and summer learning opportunities.
• Expand and update K-12 vocational programs.
• Augment tele-education/online education.
• Develop and implement a parent education program on school choice.