

Section 2



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2.1 Introduction

The flood recovery process necessarily encompasses a broad range of concerns, most notably housing and repair of public property. However, this study is focused on identifying the impact of Hurricane Floyd on businesses as a means to determine the short- and long-term effects on the statewide and local economies. The primary purpose of the economic impact assessment is twofold:

- **Accelerate business recovery.** This assessment identifies the nature and extent of damages the business community sustained. A series of recommendations were developed, outlining a recovery strategy that would help bring viable businesses back to full production and employment as soon as possible. By expediting the recovery process, the long-term negative implications for individuals, businesses, and local communities will be significantly reduced.
- **Support creation of sustainable business enterprises and disaster-resistant jobs.** This assessment also points the way to innovative technological and common sense approaches to rebuild a sustainable and disaster-resistant business community. Incorporating a broad spectrum of mitigation measures as an integral part of the business recovery process will help create “stronger and smarter” businesses and protect jobs that provide the economic backbone of these communities.

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This assessment also included the following secondary objectives:

- Provide guidance for communities not affected by Hurricane Floyd, but which may be vulnerable to widespread and severe flooding, on steps they can take now to reduce vulnerability.
- Continue the development of a comprehensive database begun in 1999 following disasters in Kansas, Oklahoma, and Texas that will provide information necessary to help assess the economic cost of disasters in the United States.

As a result, this reconnaissance report identifies the economic needs of the affected communities and the resources available to mitigate the disaster's effects. This report looks broadly at statewide impacts and recommendations but more specifically at a handful of communities identified as having the most potential for incurring economic impacts as a result of flooding.

EDA assembled a reconnaissance team that first reviewed existing data to identify candidate communities for more detailed study. As part of this process, pre-disaster demographic, economic, and hydrologic data were collected for these communities. The reconnaissance team then documented the effects of the flood, based on surveys with businesses, and formulated recommendations for the most severely impacted communities to recover stronger and smarter. In addition, a case study based on the City of Rahway is included (at the end of Section 3) where community response to past flooding problems helped reduce Hurricane Floyd's impact.

2.2 Community Selection

Hurricane Floyd's effects were felt statewide to varying degrees. In fact, the entire State is eligible for assistance from FEMA under its Hazard Mitigation Grant Program (HMGP). However, due to time limitations in assembling this report, it was impractical to do individual assessments on every impacted community. Therefore, it was necessary to narrow the focus of the study by determining which communities were most seriously affected. The reconnaissance team first applied the following criteria to identify candidate counties for further study:

- Counties declared eligible for FEMA assistance under the Individual Assistance (IA) Program. Support available for businesses under IA Programs includes low-interest loans, cash grants, and tax refunds; or
- Counties declared eligible for FEMA assistance under all categories of the Public Assistance (PA) Program. Although the PA Program has no bearing on assistance available to businesses, declaration of all PA Program categories for a county is generally an indication of extensive damage.

Nine counties met these criteria: Bergen, Essex, Hunterdon, Mercer, Middlesex, Morris, Passaic, Somerset, and Union. Flooding was not generally widespread throughout each county. Individual communities that were developed in the floodplain received heavy damage, while many communities were not directly affected.

All impacted communities must deal with serious individual losses, recovery outlays, and consequences of the interruption of property-based tax revenue pending rebuilding. However, to make meaningful conclusions and recommendations that could serve to accelerate business recovery and create sustainable business enterprises and disaster-resistant jobs, the reconnaissance team sought to further narrow the focus of its report to particular communities within the nine counties that had received the most extensive damage.

Four tools were used to identify these communities:

- Preliminary Damage Assessment (PDA) Reports;
- Community Relations (CR) Reports;
- Recommendations from NJOEM; and
- Surveys of damage to local businesses.

Preliminary Damage Assessment (PDA) Reports

Local EMCs conduct PDAs immediately after a disaster. NJOEM and FEMA use PDAs to determine if a disaster warrants a Federal disaster declaration. The report frequently overestimates or underestimates damage because it is often extrapolated from limited samples and prepared when EMCs are involved in response activities targeted toward saving lives and property. Nonetheless, the PDA is the best available tool for assessing losses at the county and municipal level within the time frame of this study. PDAs were reviewed for estimates of damages to businesses, public buildings, and equipment.

Community Relations (CR) Reports

FEMA's CR teams prepare reports based on team members' observations of disaster-affected areas. CR teams canvass communities to provide vital information to people affected by the disaster and learn first-hand the problems they are facing. CR team members meet face-to-face with those most severely affected by the floods. They gather direct feedback on Federal recovery efforts and help ensure that people know what aid is available. Although this information is useful in identifying potentially impacted communities, it is anecdotal.

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Recommendations from the New Jersey Office of Emergency Management (NJOEM)

The reconnaissance team requested NJOEM's assistance in identifying communities to include in the study. The State Hazard Mitigation Officer (SHMO) assisted the reconnaissance team by suggesting communities NJOEM felt had experienced extraordinary impacts on their businesses.

Surveys

Based on a review of the PDAs, CR reports, and recommendations from NJOEM, a number of communities within the nine counties were identified for further study. The reconnaissance team then conducted surveys with business owners and local government officials (see Section 2.4 for a discussion of survey coverage). Based on survey results, six communities were selected to be included in this report. In all, this report investigated damages from Hurricane Floyd in 15 areas: 9 counties, plus the 6 communities located within these counties. The selected communities and counties are as follows (see Figure 2.1):

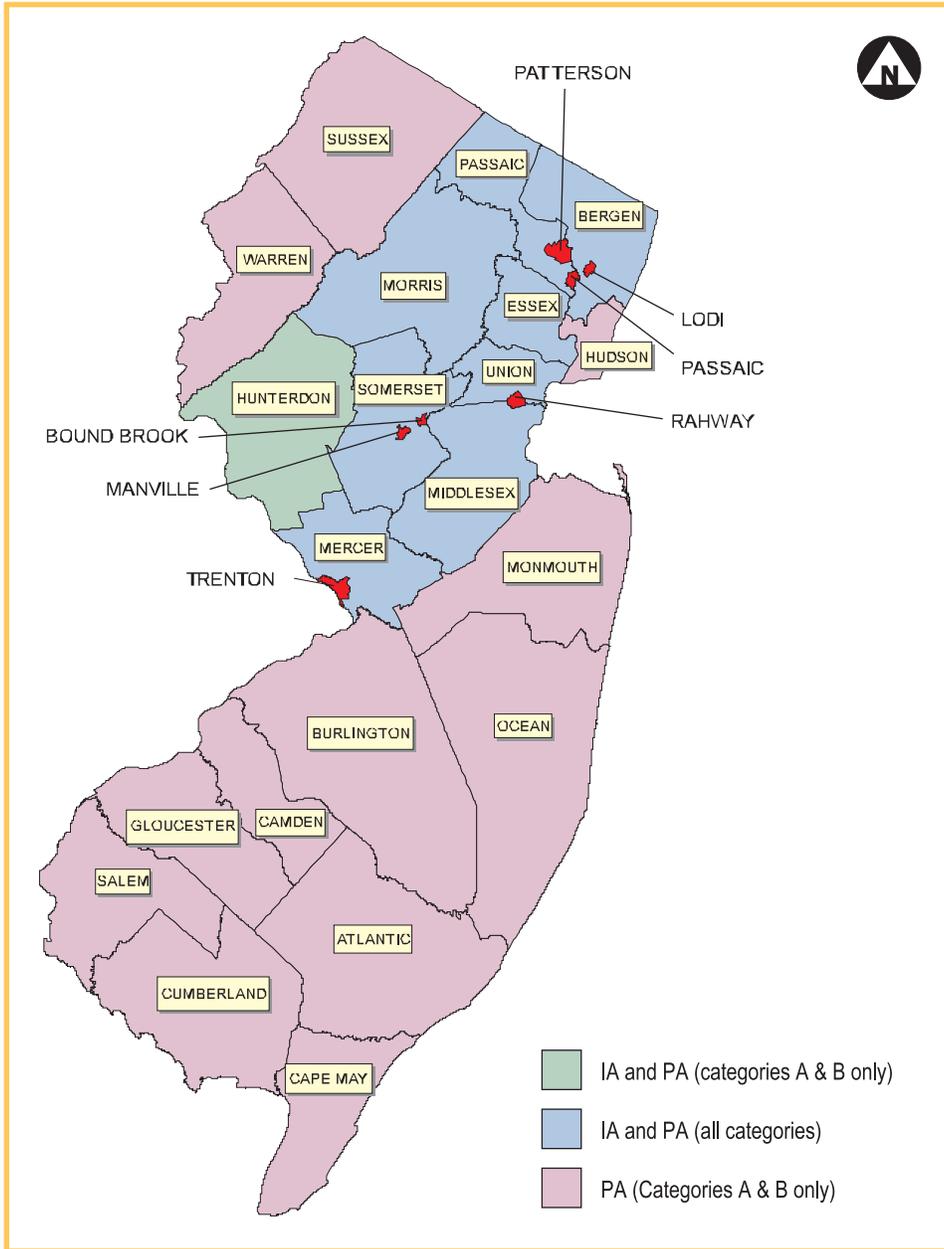
- Lodi Borough, Bergen County (see Section 4)
- The City of Trenton, a Project Impact Community,* Mercer County (see Section 5)
- The Cities of Passaic and Paterson, Passaic County (see Section 6)
- Bound Brook and Manville Boroughs, Somerset County (see Section 7)
- Essex County (see Section 8)
- Hunterdon County (see Section 9)
- Middlesex County (see Section 10)
- Morris County (see Section 11)
- Union County (see Section 12)

2.3 Pre-Disaster Conditions

The reconnaissance team first characterized the pre-disaster economy of the State, counties, and selected communities. Data was collected from existing sources available through the New Jersey Department of Labor, New Jersey Department of the Treasury, the Office of State Planning, the U.S. Census Bureau, the New Jersey Council of Economic Advisors, and the New Jersey Commerce and Economic Growth Commission as well as from numerous local agencies. Information

* FEMA's Project Impact is a nationwide initiative to make communities disaster resistant by taking preventive actions at the local level through public-private partnerships.

Figure 2-1 County Designations and Communities Studied



collected included demographic data, employment statistics, primary industries, and tax structure.

2.4 Post-Disaster Conditions

Primary data were collected from flood-impacted business owners/managers and municipal officials through personal interviews. The survey instruments for these interviews were developed by FEMA, EDA,

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and Rutgers University's Center for Urban Policy Research (see Appendices C and D).

The sample size for the survey was close to 100 percent in communities where few businesses were damaged or where damage was relatively minimal. In some communities, however, many businesses were vacated or being renovated by contractors without an owner or manager present at the time the survey was taken. In these cases, the sample size was less than 50 percent. Although this sample was not random, it was assumed to be representative of the businesses affected. This data, along with information provided by local civic representatives, provided a means of estimating the economic impacts of the disaster. All surveys were conducted between 4 and 5 weeks after the flood.

Data collected for direct impacts included the following:

- Repair and replacement cost for damaged and destroyed buildings;
- Cost of damage to building contents;
- Losses of building inventory;
- Relocation expenses;
- Loss of productivity, services, or sales;
- Wage loss;
- Rental income loss (to building owners); and
- Tax base losses.

Interviews also provided each business owner/manager and municipal representative with the opportunity to discuss issues of concern, such as availability of relocation properties, loss of customer base, and infrastructure limitations. Repeated concerns are addressed in this report, as appropriate.

Paralleling the reconnaissance team effort, CEGC and the New Jersey Department of Treasury conducted a telephone survey with businesses located in the nine designated counties, excluding the six communities selected for inclusion in this report and the City of Rahway. The CEGC/Department of Treasury study results are incorporated into this report.

It should be noted that the reconnaissance team did not attempt to account for indirect impacts or multiplier effects of the damages and losses the communities affected experienced. There are three main reasons why the team excluded this from the investigation:

- Emergency nature of the study;
- Lack of community-level economic models; and
- Lack of detailed economic data on the nature of the losses and damage at the county and State level.

Economic models did not exist for any of the communities studied and would have had to be created, which would have been impossible considering the need to produce this report in a timely manner. A State of New Jersey model and models for each of the nine counties that are capable of projecting indirect effects from economic disruptions are available. However, in the time available, the direct effects for the counties and the State could not be determined with sufficient detail to generate meaningful indirect effects, had these models been employed. In addition, multiplier effects vary by industry and, therefore, regional multipliers would prove inaccurate in this situation.

In short, indirect economic impacts from particular events take months, even years, to be fully identified. Therefore, this report should not be considered a complete or authoritative description of all of the economic impacts from Hurricane Floyd. Rather, it represents a “snapshot” of the immediate post-disaster situation, with recommendations based on information and data available. Continued monitoring of events is necessary. Long-term mitigation and recovery considerations will require adjustment as the recovery process proceeds.

