

RECOVERY NEEDS ASSESSMENT

FEMA-4673-DR-FL
FEMA-4675-DR-STOF
FEMA-4680-DR-FL

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From left: Hurricane Ian and Nicole impacts to Daytona Beach, San Carlos Island, Sanibel and Ft. Myers Beach.



FEMA

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Executive Summary

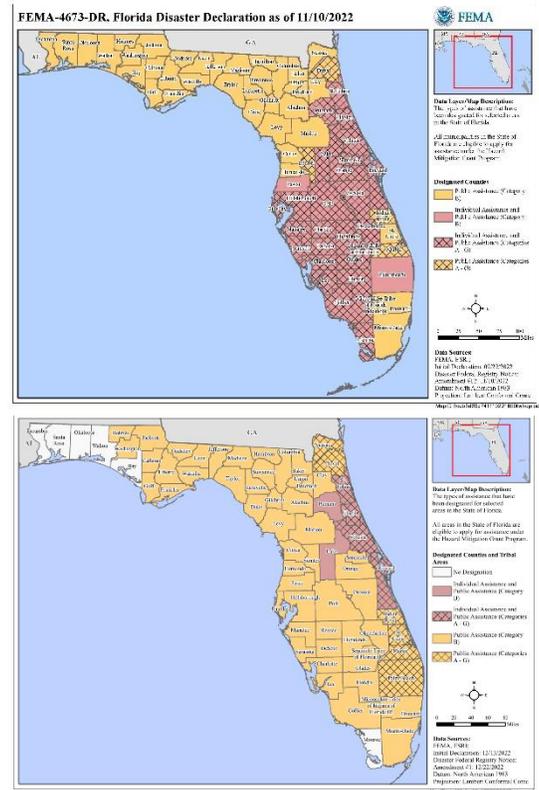
The human cost and \$10 billion impacts of Hurricanes Ian and Nicole that crisscrossed tourist-rich Florida prompted a Level I disaster response and set in motion a long-term recovery process designed to help communities build back better and develop a risk-resistant approach to resilient recovery. This process helps Floridians and their communities recover beyond restoring the services critical to supporting their physical, emotional, and financial health.

Interagency Recovery Coordination assists in facilitating a recovery that is locally led, state-managed, and federally supported—joining state, federal, non-governmental, private sector, academia, and philanthropic partners in a unified and collaborative approach to recovery planning.

The approach is guided by Florida’s recovery priorities, in collaboration with six federal Recovery Support Functions (RSF) [(led by FEMA Community Assistance, Economic Development Administration (EDA), Health and Human Services (HHS), Housing and Urban Development (HUD), U.S. Army Corps of Engineers (USACE), Dept. of the Interior (DOI)], the Small Business Administration (SBA), other federal agency advisors, and state, local, tribal/territorial governments (SLTTs).

Planning begins in earnest with the Recovery Needs Assessment. Opportunities to address recovery needs are then identified. Recovery strategies are developed and detailed plans are prepared. Communities select recovery projects, and IRC delivers technical assistance and access to all available resources for communities to rebuild, repair, and redefine their communities in ways that they envision.

Recovery from Hurricanes Ian and Nicole—and the 38 other hurricanes Florida has withstood since 1853—have well prepared the state with supportive recovery structures. Its recently installed integrated state recovery framework complements the federal framework of recovery support functions, expanding the collaborative space and force multiplying recovery opportunities.



State Priorities for Recovery

State Long-term Recovery Priorities

Community Preservation	Keeping people in their home community
	Ensuring community infrastructure is robust, resilient, and responsive to community needs
	Preventing disaster-related homelessness
Economic Stabilization & Stimulation	Retaining workforce
	Engaging with local small business community in the recovery process
Mental Health	Preventing long-term unemployment and drain on social services
	Ensuring long-term education and resources for mental health in the whole community
	Preventing cognitive and behavioral decline of vulnerable populations
	Ensuring mental health needs of school children are met

In support of Florida's long-term recovery priorities, Interagency Recovery Coordination engages in the recovery mission's planning process that develops an Integrated Strategic Plan.

The Integrated Strategic Plan defines general lines of effort that correlate to one or more of the three state priorities: Community Preservation, Economic Stabilization & Stimulation, and Mental Health.

The 10 general lines of effort represent recovery planning to date and form the basis for defining recovery objectives, strategies, projects, and actions as recovery matures. The 10 lines of effort are:

1. Sheltering/Short-term Housing
2. Interim Housing
3. Permanent/Long-term Housing
4. Debris Management
5. Public/Critical Infrastructure
6. Natural, Cultural, and Historic Resources
7. Individual Resiliency
8. Community Resiliency
9. Local Government Recovery Support
10. Economic Stabilization and Resiliency

Based on coordination and assessments completed by the Recovery Support Functions and advisors, some key observations follow concerning acute recovery needs and recovery support to date:

Community Preservation

Objectives supporting Community Preservation include keeping people in their home community; ensuring that the community's infrastructure is robust, resilient, and responsive to community needs; and preventing disaster-related homelessness.

The need to provide affordable housing options is clearly key to keeping people in their home communities. However, options are currently insufficient to keep the workforce in impacted areas. Several contributing factors apply: Funding and training gaps exist at the local level, and funding is not available to repair or improve damaged infrastructure, communications, or facilities. Local governments are overwhelmed and have limited resources to plan and manage recovery resources. Limited guidance exists in local governments to help them implement policies that improve opportunities for underserved and vulnerable populations. The Community Assistance (CA) RSF is supporting the state in addressing these needs with technical assistance to train local governments on available options in recovery through its customized Just-in-Time training offerings.

Risk-resistant and resilient plans to expand broadband capacity are suggested to address coverage gaps, middle and last-mile issues, and the need for improved redundancy. In November 2022, the U.S. Dept. of Energy announced \$13 billion in new financing opportunities for the expansion and modernization of the nation's electric grid, made possible through the 2022 Infrastructure Investment and Jobs Act. The Economic RSF is providing opportunities to explore these avenues and others to further increase broadband capacity and increase community resiliency pre- and post-disaster.

Disaster Recovery Coordinator positions are also planned to support community capacity for economic recovery and resiliency in several highly impacted communities. The CA RSF and FEMA's Equity team are identifying historically underserved and vulnerable communities and providing guidance concerning those they have identified.

A fuller picture of the impacts to health and social services systems may emerge as communities support the restoration and recovery of public health, health care, and social services networks impacted by disaster. The

Health and Social Services (HSS) RSF continues to engage with state and local partners to identify disaster-caused impacts to public health and environmental health, education, healthcare systems, human services, and behavioral health sectors, while also developing proposed solution sets to identified issues.

The Natural and Cultural Resources (NCR) RSF has identified technical resources to support everything from historical property and document restoration to nature-based solutions to improve habitat and livability of communities.

Economic Stabilization and Stimulation

Three key components contribute to stabilizing and stimulating the economy: workforce retention, engaging with the business community in recovery, and preventing long-term unemployment and a drain on social services.

The Economic Recovery Support Function's role is to facilitate the timely and effective delivery of federal economic development assistance to support long-term community-based economic recovery planning and project implementation, redevelopment, and resilience. The Economic RSF's goal is to help Florida and her impacted communities return economic and business activities (including agricultural) to a state of health and develop new economic opportunities that result in more sustainable and economically viable communities.

As field coordinator for the Economic RSF, EDA is uniquely positioned to coordinate federal support for regional disaster recovery efforts in partnership with its extensive network of Economic Development Districts (EDDs), University Centers, and other stakeholders in the impacted areas. EDA provides leadership, coordination, and oversight for primary and support agencies, all of which share a role in the provision of grants, loans, training, and other forms of assistance to support economic recovery efforts in disaster-impacted communities and regions.

In assessing the impacts of Hurricane Ian and Hurricane Nicole on Florida, the Economic RSF team recommends that supportive interventions are focused in the following areas: Business and Industry, Tourism & Hospitality, Agriculture and Aquaculture, Fisheries, Workforce, Supply Chain, Community Capacity, Broadband Availability, Electrical Grid and other Critical Infrastructure, and Building for the Future.

Mental Health

The Health and Social Services RSF coordinates directly with state disaster behavioral health authorities, Health and Human Services (HHS) operating divisions, and interagency partners in supporting solutions to mental and behavioral health recovery issues. All coordination support provided by the RSF is intended to augment the state efforts to ensure long-term education and resources for mental health for the whole community, to prevent cognitive and behavioral decline of vulnerable populations, and to ensure the mental health needs of school children are met.

A plan to address uneven data-sharing requirements can overcome the challenge in determining available behavioral health capacity, recognizing trends in mental health and substance use disorder contacts, and identifying systems-wide challenges to long-term recovery. Needs have been identified in recruiting and retaining behavioral health providers statewide. Positions hard to recruit/retain include psychologists, social workers, licensed mental health counselors, alcohol and drug counselors, licensed marriage & family therapists, and school-based mental health counselors. Care providers across the scope of health and social services are experiencing compassion fatigue or burnout concerns.

Summary of Recovery Needs and Concerns

RECOVERY SUPPORT FUNCTION	NEEDS AND AREAS OF CONCERN
COMMUNITY ASSISTANCE	4
ECONOMIC RECOVERY	12
SMALL BUSINESS ADMINISTRATION	3
HEALTH AND SOCIAL SERVICES	23
HOUSING	6
INFRASTRUCTURE SYSTEMS	5
NATURAL AND CULTURAL RESOURCES	3
SUSTAINABILITY ADVISOR (ENV. PROTECTION AGENCY)	4
U.S. DEPT. OF AGRICULTURE ADVISOR	7
PHILANTHROPY ADVISOR	4
ACADEMIA ADVISOR	3
TOTAL	74

Methodology

FEMA’s Interagency Recovery Coordination DR-4673-FL and DR-4680-FL mission coordinates FEMA, USACE, HUD, DOI, DOC/EDA and HHS, their supporting agencies, and multiple federal advisors, all of which may be able to support wider recovery needs beyond the Stafford Act-eligible programs.

The Federal Disaster Recovery Officer (FDRO) leads the comprehensive Recovery Needs Assessment (RNA) process that engages key stakeholders from FEMA programs, advisors, Recovery Support Functions, and the state, local, tribal, and territorial (SLTTs) partners impacted by the disasters. The RNA results in SLTT profiles, key recovery issues, indicates the level of federal support needed, and contributes to a shared understanding of recovery needs and issues. A range of criteria is used by stakeholders in the process, including state priorities identified by the JFO Unified Coordination Group, national recovery outcomes, assessments of community conditions, analyses by FEMA programs, geographic impact mapping and analytics, interviews with SLTT leaders, listening sessions and focus groups with non-governmental leaders, health services, nonprofits, academia, and private sector.

Additionally, the Federal Disaster Recovery Coordinator (FDRC) approved the Department of Energy’s (DOE) Argonne National Laboratory (Argonne) to develop an Initial Impact Assessment for Hurricane Ian. This assessment supported ongoing IRC efforts, including the development of the IRC Recovery Needs Assessment and the identification of long-term recovery priorities in support of state, local and tribal communities. It incorporated qualitative and quantitative methods to identify and characterize disaster impacts and highlight equity and resiliency challenges and opportunities.

Argonne’s assessment primarily focuses on counties that qualified for a Presidential Disaster Declaration because of Hurricane Ian for Public Assistance (PA) and Individual Assistance (IA) and have been approved for an IA direct-housing mission due to Hurricane Ian. These counties are Charlotte, Collier, DeSoto, Flagler, Hardee, Lee, Sarasota, St. Johns, and Volusia. Results from both assessments are included herein.

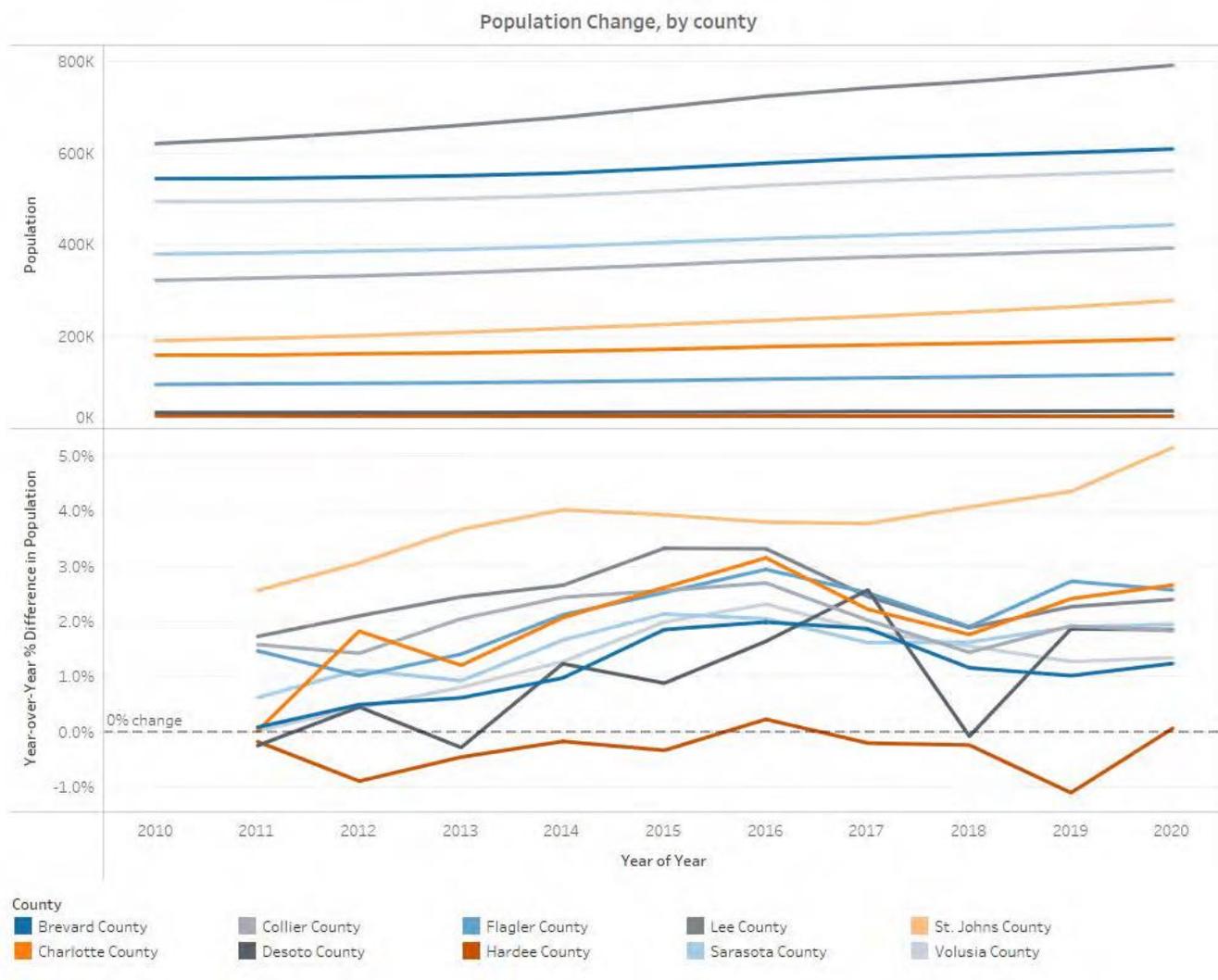
Community Assistance RSF

Overview and Status of Recovery Operations

Community Assistance completed a Community Conditions Assessment (CCA) and met with stakeholders, SLTT leaders, and the state’s regional recovery coordination team in Hardee, Pasco, Hillsborough, Polk, Manatee, Sarasota, Hendry, Okeechobee, Highlands, Lee, Collier, and Charlotte counties. Meetings continue in declared counties, Branch 4, 3/5, and 6/7, prioritized by need and local interest.

Demographics¹

The following table includes data provided by Argonne National Laboratory showing how the population increased in several of the impacted counties during the decade of 2010-2020.



The Community Assistance mission is to help enable local governments to plan and manage their recovery post-disaster effectively and efficiently. CA coordinates resources including technical and training assistance, program support, planning, and capacity building. Its CCA helps to guide and understand where acute needs may be and recognize the communities most in need of planning, targeted assistance, and/or capacity building support.

¹ Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023

Community Assistance identified four primary needs and areas of concern.

- **Limited affordable housing options:** Short-, mid- and long-term affordable housing options are insufficient to keep the workforce in the area.
- **Local/regional planning process and coordination:** Local governments need to build capacity to manage resources for their recovery. Local-level assistance and technical assistance will determine the skill sets best suited to provide the technical analysis and support to fulfill grant requirements.
- **Coordination to support resilient infrastructure and redevelopment:** Local governments do not have matching funds to repair and improve their damaged infrastructure, communications, and facilities and need training on funding options. State-level coordination to support local governments on their match-funding gaps and regional-level coordination between Local Mitigation Strategy (LMS) groups, Regional Planning Commissions (RPC), and environmental organizations, such as the national estuary programs, DEP district offices, and watershed management districts, would be helpful. Regional-level groups could coordinate and identify prioritized projects with regional impacts to gain funding streams with the biggest return on investment.
- **Development of guidance to improve access to services by the underserved:** Local governments need guidance on how to implement policies that address and improve opportunities for their historically underserved and vulnerable populations who may not have ready access to services.

Summary

Continued coordination of informational sessions will facilitate information sharing as recovery progresses beyond identifying needs and scoping issues and concerns. CA has been working to support the state's effort to train local governments on their options in recovery through presentation of Just-In-Time Recovery Management and Overviews of Federal Programs classes in Lee and Volusia Counties. Confirmation of the issues and challenges herein and those highlighted by community leaders ensure that critical needs for short-term support are identified immediately. Thereafter, scoping recovery support strategies will begin.

Economic Recovery RSF

Overview and Status of Recovery Operations

The Economic RSF integrates the expertise of the federal government to help local, regional, metropolitan, state, tribal, territorial, and insular area governments and the private sector sustain and/or rebuild businesses and employment and develop economic opportunities that result in sustainable and economically resilient communities after an incident.

The Economic RSF reviewed the economic recovery needs for counties designated as eligible for FEMA Public Assistance at the Categories A – G levels. Through early discussions with Florida’s Regional Planning Council (RPC) directors, 24 counties were selected for further review based on Hurricane Ian’s impacts, as follows: Brevard, Charlotte, Collier, DeSoto, Flagler, Glades, Hardee, Hendry, Highlands, Hillsborough, Lake, Lee, Manatee, Monroe, Okeechobee, Orange, Osceola, Pinellas, Polk, Putnam, Sarasota, Seminole, St. Johns, and Volusia.

In concert with the Florida Department of Commerce (FloridaCommerce) and the RPCs, the Economic RSF has engaged in extensive outreach with stakeholders in the following regions: Central Florida, East Central Florida, Northeast Florida, Southwest Florida, and the Tampa Bay Area. Southwest Florida’s Lee County and its barrier islands served as ground zero with respect to Hurricane Ian’s landing and impacts. East Central Florida and Northeast Florida communities were impacted by both Hurricane Ian and Hurricane Nicole.²

Several means were used to gather insights regarding the impacts of Hurricane Ian and Hurricane Nicole from state, regional, and local stakeholders.

- **Federal Interagency Resource Exchange (FIRE) Listening Sessions:** In partnership with the RPCs, the Economic RSF facilitated six listening sessions in the most-impacted regions. Through these sessions, the Economic RSF gathered and validated information regarding the impacts and issues stemming from Hurricane Ian and, where relevant, Hurricane Nicole. The Economic RSF asked community leaders to advise on the following key questions: (1) What is keeping you up at night right now? and (2) What ideas do you have for joint projects to facilitate recovery and resiliency?
- **Interviews with the RPC Directors:** The Economic RSF received input through interviews with RPC directors representing the five most-impacted regions. These interviews were instrumental for gaining a better assessment of regional impacts.
- **Focus Groups:** The Economic RSF held focus groups with the following stakeholders serving key constituencies impacted by Hurricane Ian and Hurricane Nicole: Visit Florida; Florida Restaurant and Lodging Association; Destination Marketing Organizations; Florida Main Streets; FloridaMakes (Manufacturing Extension Partnership offices); CareerSource Florida (local workforce boards); Florida Small Business Development Centers (SBDCs); and Florida Fish & Wildlife Experts. These focus groups enabled the Economic RSF to better understand on-the-ground impacts.
- **Data Review:** The Economic RSF reviewed data provided by state partners such as the Florida Department of Agriculture and Consumer Services, Florida Department of Economic Opportunity, Florida Department of Revenue, the University of Florida Institute of Food and Agricultural Services, and Visit Florida, as well as

² Note: The Florida Department of Commerce (FloridaCommerce) became the new name of the Florida Department of Economic Opportunity (DEO) following the consolidation of responsibilities and resources from Enterprise Florida, Inc. (EFI) through legislation signed by Florida Governor Ron DeSantis. (Source: <https://www.floridajobs.org/news-center/DEO-Press/2023/05/31/governor-desantis-signs-legislation-to-streamline-economic-development-in-florida>)

federal partners including Argonne National Laboratory, FEMA, the U.S. Census Bureau, and others.

- **External Assessment:** The Economic RSF’s efforts were informed by the Argonne National Laboratory assessment of impacts from Hurricanes Ian and Nicole. Their assessment included data analysis for 13 of the impacted counties—Brevard, Charlotte, Collier, DeSoto, Flagler, Hardee, Hillsborough, Lee, Manatee, Orange, Sarasota, St. Johns, and Volusia—and provided data for their surrounding regions of Central Florida, East Central Florida, Northeast Florida, Southwest Florida, and the Tampa Bay Area.

Economic Development Capacity³

Argonne National Laboratory’s Economic Development Capacity Index (EDCI) provides an estimation of capacity relative to other counties across the United States, with a given score of Low, Limited, Moderate, Elevated or High capacity. To standardize quantitative scores, Argonne calculated a percentile for each indicator and capacity area. Argonne then binned the quantitative scores into five qualitative categories:

1. Low: Capacity is well below the national average.
2. Limited: Capacity is slightly below or approaching the national average.
3. Moderate: Capacity is close to the national average.
4. Elevated: Capacity is above the national average.
5. High: Capacity is well above the national average.

According to Argonne’s analysis, each of the impacted regions house communities with relative strength with respect to their industry composition (as denoted by “elevated” or “high” indicators). Several of the communities also have relative strength when it comes to their infrastructure. As pointed out by Argonne, these results indicate that the business landscape in the affected regions has a higher opportunity to bounce back economically after a disaster.

Area	Human Capital	Human Capital Level	Financial	Financial Level	Industry Composition	Industry Composition Level	Infrastructure	Infrastructure Level	Institutions and Partnerships	Institutions and Partnerships Level
Central Florida Regional Planning Council	0.15		0.20		0.67		0.63		0.50	
DeSoto County	0.07	Low	0.04	Limited	0.63	Elevated	0.21	Limited	0.43	Limited
Hardee County	0.05	Low	0.05	Limited	0.45	Elevated	0.49	Moderate	0.53	Limited
East Central Florida Regional Planning Council	0.52		0.76		0.85		0.90		0.41	
Brevard County	0.79	Elevated	1.00	High	0.76	Elevated	0.87	Elevated	0.52	Limited
Orange County	0.33	Moderate	0.99	High	0.97	High	0.94	High	0.76	Moderate
Volusia County	0.37	Moderate	0.72	Moderate	0.97	High	0.77	Elevated	0.65	Limited
Northeast Florida Regional Council	0.61		0.56		0.75		0.74		0.34	
Flagler County	0.51	Moderate	0.45	Limited	0.82	High	0.98	High	0.29	Low
St. Johns County	0.95	High	0.76	Moderate	0.85	High	0.99	High	0.16	Low
Southwest Florida Regional Planning Council	0.37		0.40		0.77		0.83		0.58	
Charlotte County	0.46	Moderate	0.63	Moderate	0.86	High	0.98	High	0.49	Limited
Collier County	0.41	Moderate	0.40	Limited	0.74	Elevated	0.97	High	0.60	Limited
Lee County	0.41	Moderate	0.54	Moderate	0.91	High	0.95	High	0.72	Moderate
Sarasota County	0.68	Elevated	0.62	Moderate	0.68	Elevated	0.99	High	0.52	Limited
Tampa Bay Regional Planning Council	0.52		0.63		0.93		0.92		0.38	
Hillsborough County	0.47	Moderate	0.84	Elevated	0.98	High	0.95	High	0.72	Moderate
Manatee County	0.52	Moderate	0.74	Moderate	0.98	High	0.98	High	0.44	Limited

³ Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023

The Economic Recovery Support Function identified 12 primary needs and areas of concern:

- **Business and Industry Impacts:** Hurricane Ian resulted in significant business loss and disruption and workforce dislocation. Hurricane Nicole further impacted businesses left in a vulnerable position due to Ian. Intervention is warranted to ensure business retention and sustainability and to foster future business resilience.

From September 29 to December 31, 2022, 3,454 businesses responded to Florida's Business Damage Assessment survey for Hurricane Ian.⁴ Of these businesses, approximately 90% reported they suffered damages, noted economic and/or physical damages, and/or shared estimated damage costs. Together, businesses reported more than \$1 billion in damages. More than one-fourth of the businesses were not open as of December 31, the closing date of the survey.

Nearly 2,800 businesses (80.5%) reportedly lost business due to Ian. The reported factors hindering business operations include short-term capital, customer base, debris removal, water damage, product supply, access to business, financial/business loans, construction needs, long-term capital, employee transportation, insurance settlement, and personnel training. All told, businesses reported temporarily laying off 2,796 workers due to Ian. A total of 999 workers were reported to be laid off permanently.

The top counties with reported estimated business damage losses are Lee (\$632 million), Charlotte (\$258 million), Hillsborough (\$102 million), Sarasota (\$46 million), Manatee (\$10 million), Volusia (\$6 million), Collier (\$6 million), Orange (\$6 million), DeSoto (\$5 million), and Miami-Dade (\$4 million).

Another important indicator of business disruptions is the business loan activity by SBA for impacts relating to Hurricane Ian. Per SBA, as of March 28, 2023, SBA had approved a total of 24,146 loans for the 66,106 applications received, valued at \$1,797,132,900. Of these loans, 1,521 were business loans valued at \$259,367,400 to address physical and economic injuries; 21,912 were home loans valued at \$1,486,447,000; and 713 were economic injury disaster loans valued at \$51,318,500. The top counties for loan recipients due to Hurricane Ian are Lee, Charlotte, Sarasota, Volusia, Orange, Collier, Seminole, Polk, Hillsborough, and Osceola. In addition, SBA has also approved 156 loans for the 578 applications received, valued at \$9,052,100 for impacts relating to Hurricane Nicole. As with the loans in follow-up to Hurricane Ian, most of the loans for Hurricane Nicole impacts have been home loans. Of note, the level of home loans signals additional business disruptions such as likely impacts on the workforce. Home-based business owners may have also applied for home loans and/or business loans.

Regarding home-based businesses, Florida is reported to have a significant presence of such businesses. A proxy for home-based businesses is the presence of non-employer establishments in the state. In Florida, non-employer establishments account for estimated 81 percent of all establishments, which exceeds the share (77 percent) for the U.S. overall.⁵

Some businesses are lost to the community forever, from the very small business to the business with the economic development capacity to relocate. The following are highlights of business impacts by region.

- **Southwest Florida:** Restaurants and shops along the coast from Venice to Naples have been destroyed, and several home-based businesses have not been able to operate due to extensive damage to their homes. Small and minority-owned businesses are struggling to stay operational. Barrier islands including Fort Myers Beach, Pine Island, and Sanibel Island experienced 100%

⁴ Source: Florida Business Damage Assessment for Hurricane Ian, January 2023

⁵ Source: U.S. Census Bureau, Quick Facts

business disruption and catastrophic losses.

- **East Central Florida:** Hurricanes Ian and Nicole brought damage both to inland and coastal communities. Ian's historic flooding exposed weaknesses in the region's infrastructure. Nicole brought even more flooding to already inundated inland communities—along with a devastating storm surge to the coastal regions. Tourism businesses along beaches were reportedly still impacted as of February 2023 due to beach access constraints and limited lodging.
- **Tampa Bay Area:** Large farms had finished fall planting right before Hurricane Ian hit, and acres and acres of farmland were impacted. Not all the damages were covered by insurance, and farmers had to pay out-of-pocket. In coastal areas, damage due to flooding was a major factor. Coastal areas rely on commercial fishing and tourism, both of which have been significantly impacted.
- **Central Florida:** The significant industries and economic contributors include cattle farming and citrus. Hurricane Ian impacted both. Citrus crops, which have been undergoing a decline over time due to citrus-related pests, diseases, and freezing events reducing citrus production, were further and significantly damaged by Ian.
- **Northeast Florida:** Businesses have been significantly impacted by lack of beach access and the loss of tourism. Beaches struggle to reopen after the impacts from both Hurricane Ian and Hurricane Nicole (e.g., loss of sand, loss of pier, and loss of dune systems). Beach renourishment is a critical need. Businesses impacted by Hurricane Ian were reported to be just reopening when Hurricane Nicole hit, and they suffered more extensive damage.

The opportunity to further Florida's development of promising industries of the future will help to diversify the state's economic base and thereby foster greater economic resiliency. Florida examples of such industries include Space, Life Sciences, the Ocean (Blue) Economy, and Semiconductors.

- **Tourism and Hospitality Impacts:** The tourism and hospitality industry, a leading economic driver for Florida, has been significantly harmed not only by Hurricanes Ian and Nicole but also by the compounding events of the last several years, including the COVID-19 pandemic.

Tourism and Hospitality is one of Florida's top three economic contributors. The state's 1,300 miles of beaches, attractions, theme parks, and outdoor recreation are only some of the reasons people are drawn to visit the state. Each of the RPC regions most impacted by Hurricanes Ian and/or Nicole have reported tourism and hospitality sector needs. The most critical needs are beach restoration and renourishment, reopening coastal and beachfront hotels and businesses, reopening historical downtowns and Main Streets, parks and natural resource area restoration, supply chain bottlenecks, and counteracting negative media coverage.

Quantitative data shared by Visit Florida shows the impacts to the hotel industry. Comparing Visit Florida data for a period prior to Hurricane Ian and Hurricane Nicole (July 2021–February 2022) to a period following the storms (July 2022–January 2023), tourism has declined in specific regions.⁶ Northeast Florida saw a 16% drop in hotel occupancy and 25% drop in guest nights. Southwest Florida saw a 9% drop in hotel occupancy and 19% drop in guest nights.

⁶ Source: Visit Florida, January 2023

Tourism Location Quotient by County⁷

As explained by Argonne, location quotients (LQs) are a measure of industry concentration relative to the U.S. average. A number higher than 1 indicates that the county has a higher specialization of employment within that industry relative to the national average county. Economists often consider LQs of 1.2 or higher to be especially notable. According to Argonne’s analysis, all but four of the counties they reviewed had a LQ above 1.2 in 2021 with respect to the tourism industry. Notes Argonne: In 2021, Charlotte, Collier, Flagler, Lee, Manatee, Orange, Sarasota, St. Johns, and Volusia counties had a LQ greater than 1, indicating a greater concentration of employment in those counties. Collier, Orange, and St. Johns counties had the highest employment LQ values in 2021 at 2.3, 2.3 and 3.6, respectively, representing a concentration of between two and four times the national average.

As the Argonne assessment and other data illustrate, tourism is a major economic driver for the impacted communities. This warrants a further look into the impacts of the storms on their tourism industries.



In Southwest Florida’s Lee County, the tourism industries in Fort Myers Beach, Sanibel Island, Pine Island, and Captiva have all been severely impacted. Restaurants, shops, and hotels along the coastline were decimated. Local leaders report that one-third of hotel rooms are out of operation for the long-term, and there is no expected reopening date. In Fort Myers Beach, few restaurants and businesses have returned, and revenue streams for 2023 are down. Community leaders are concerned about losing “a sense of

⁷ Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023

place” as they recover and rebuild. Many restaurants are located on the sandy beach where people come to eat, make memories, watch the sunset, and put their toes in the sand, and now these places are gone. Additionally, supply chain constraints have delayed reopening and rebuilding. Hotel electrical equipment, for example, was damaged by storm surge flooding and saltwater intrusion, but there is a 10–12-month delay for the specific electrical switches that are needed, and hotels cannot reopen until these switches are replaced.

In Northeast and East Central Florida, some beaches have not reopened after the storm, due to beach erosion, loss of sand and critical dune systems, destroyed piers and walkovers, and impacts to other critical coastal infrastructure.

In Northeast Florida’s Flagler County, Flagler Beach is a small community with all local businesses, restaurants, and mom-and-pop shops, and tourism and beaches are the main economic driver. Hurricane damage has limited access to the Flagler Beach oceanfront and businesses. State Road A1A, which runs along Flagler Beach, was damaged in the storm, and portions are closed for dunes work. Restaurants and hotels located on A1A are suffering because of lack of access due to road closures and construction. Beach access is also limited because the dune walkover to the beach was destroyed by Hurricane Ian.

Coco Beach and Daytona Beach areas in East Central Florida experienced similar tourism and hospitality impacts. Daytona Beach in Volusia County lost nine feet of shoreline and sand. Building foundations can be seen coming out of the sand, and beaches cannot be accessed directly from hotels. Fixing the boardwalk and piers is a priority before turtle nesting season begins in the spring. (Once the turtle season begins, there is a work stoppage.) Representatives from Visit Florida noted that media coverage in Daytona Beach was particularly startling and has been working against the area.

Pinellas and Hillsborough counties in the Tampa Bay region have also expressed similar coastal impacts, but to a lesser extent.

Inland Central Florida experienced impacts to two Florida Main Streets locations: Arcadia and Wauchula. These nationally recognized Main Streets are historic downtowns that aim to create jobs, preserve historical resources, and build community pride. Arcadia’s historic hotel was closed for several months and the historic Opera House, which housed several businesses, has been condemned. The downtown area remained barricaded as of January 31, 2023. Other businesses have boarded-up windows because they lack the financial resources to restore them. Wauchula, in Hardee County, fared better than Arcadia, but still felt impacts. Representatives from Arcadia and Wauchula have communicated that their communities lack resources and feel overlooked because their needs remain unmet.

- **Impacts to Agriculture:** A 2018 report by the University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS) noted that agriculture was second only to tourism as far as its economic importance to Florida overall.⁸

Agriculture Location Quotient by County⁹

As shared earlier, an LQ of 1.2 or higher indicates a particularly strong concentration for an industry when compared to the nation. The Argonne analysis points to agriculture as a major economic driver for Hardee and DeSoto counties and also Manatee and Collier counties, all communities significantly impacted by

⁸ Source: University of Florida, Institute of Food and Agricultural Sciences (<https://flmanagers.com/wp-content/uploads/2018/09/Florida-Ag-Impact-Presentation.pdf>)

⁹ Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023

Hurricane Ian.

Location Quotient (Employment) for Agriculture Industries 2016-2021, by county

County	Location Quotient by Year					
	2016	2017	2018	2019	2020	2021
Brevard County	0.20	0.15	0.13	0.15	0.15	0.12
Charlotte County	0.96	1.18	1.11	1.14	0.82	0.90
Collier County	2.43	2.45	2.16	1.90	1.84	1.73
DeSoto County	11.23	10.96	12.37	13.56	14.24	14.83
Flagler County	1.03	0.65	1.75	1.84	1.17	1.11
Hardee County	24.19	25.18	23.90	21.59	19.28	17.25
Hillsborough County	1.20	1.02	0.90	0.83	0.81	0.79
Lee County	1.22	0.53	0.51	0.53	0.55	0.53
Manatee County	3.41	3.19	3.11	2.75	2.74	2.33
Orange County	0.31	0.30	0.30	0.24	0.32	0.31
Sarasota County	0.17	0.22	0.30	0.28	0.21	0.13
St. Johns County	0.63	0.63	0.59	0.82	0.66	0.42
Volusia County	0.72	0.77	0.77	0.76	0.71	0.70

Data from Bureau of Labor Statistics Quarterly Census of Employment and Wages. National Average = 1.0.

Hurricane Ian’s wind and rain caused significant damage to crops, livestock, and infrastructure as well as a disruption to production.

Production losses for agricultural producers in Florida resulting from Hurricane Ian are estimated to be \$1.03 billion, according to UF/IFAS. The commodity groups most affected in terms of production losses are Citrus (\$247 million), Vegetables and Melons (\$205 million), and Greenhouse/Nursery (\$195 million). The top counties bearing the agricultural losses are Manatee (\$126 million), Hillsborough (\$104 million), Palm Beach (\$89 million), Hardee (\$73 million), Hendry (\$72 million), DeSoto (\$66 million), Polk (\$56 million), Highlands (\$53 million), Miami-Dade (\$42 million), and Collier (\$36 million).¹⁰

The UF/IFAS Economic Impact Analysis Program (EIAP) created an assessment of the estimated agricultural losses from Hurricane Ian. UF/IFAS found “50 of the 53 affected counties had 100% of their agricultural lands affected.”

Hurricane Ian affected almost five million acres of agriculture land, and 62% of that affected land was grazing land. By overall acreage impacted, excluding grazing land, the commodity groups most affected

¹⁰ Source: University of Florida-Institute of Food and Agricultural Sciences (UF/IFAS), Estimated Agricultural Losses Resulting from Hurricane Ian, February 2023

were, in order, Field and Row Crops (1,077,427 acres), Citrus (375,302 acres), and Vegetables and Melons (159,272 acres).

Additionally, beehives, which are in large quantities in Florida as compared to the rest of the U.S., were impacted. Many of the beehives were damaged, which is significant as a large portion of the nation's beehives are located in California or Florida. Florida State Beekeepers Association estimated that Hurricane Ian could have destroyed between 150,000 to 300,000 beehives.¹¹ Of Florida's 800,000 beehives, about 60 percent are focused on pollination, according to the association president, who noted the state's honeybees are shipped pollinators for harvests in California (almonds), Montana (alfalfa), Washington and Oregon (pears and cherries), Wisconsin and the Dakotas (cranberries), Illinois and Pennsylvania (apples, peaches, and cherries), and other states. The impact on Florida's beehives could also have an impact on the supply chain of honey, as Florida is a leader in honey production for the U.S.

- **Impacts to Aquaculture:** Florida's aquaculture industry is estimated to have experienced a significant amount of damage.

According to the Florida Department of Agriculture and Consumer Services (FDACS), approximately 800 species are in production in the state's aquaculture industry. Examples of such species include alligators and aquatic turtles, bivalve shellfish, food fish, live rock, and ornamental fish.¹²

FDACS conducted an initial survey on the economic impacts from Hurricane Ian. The survey was sent to 844 Aquaculture Certification of Registration holders. Seventy farmers completed the survey, and 59% of these farmers indicated economic damage. FDACS estimated \$8,257,255 in total economic damages to the commercial aquaculture industry.

An additional critical component is that Florida is the largest ornamental fish producer in the nation, contributing about 95% of ornamental production in the U.S. FDACS estimated that the ornamental fish commodity lost \$5,521,900, which accounts for 67% of the estimated losses in aquaculture due to Hurricane Ian. According to UF/IFAS, tropical fish production has had a \$120 million impact on the state's economy.

- **Impacts to Fisheries:** Florida's fisheries—already vulnerable pre-disaster due to the compounding events of recent years—were heavily impacted by Hurricane Ian.¹³

In 2021, FDACS reported that Florida ranked 11th among U.S. states for fresh seafood production, with 110 million pounds harvested and a dockside value of \$262 million, 4.2 percent of the U.S. total value.¹⁴ The leading species by value was shrimp at \$63.7 million, according to FDACS, despite the industry being reportedly impacted by import competition.¹⁵ As far as the impact of seafood production on the state's economy, UF/IFAS estimated that fishing and seafood products has had an economic impact of \$730 million, accounting for 13,745 jobs.¹⁶

¹¹ Source: New York Times (<https://www.nytimes.com/2022/12/14/us/hurricane-ian-florida-bees.html>)

¹² Source: Florida Department of Agriculture and Consumer Services (<https://www.fdacs.gov/Agriculture-Industry/Florida-Seafood-and-Aquaculture-Overview-and-Statistics>)

¹³ Source: Bloomberg (<https://www.bloomberg.com/news/articles/2022-10-06/ian-pummeled-shrimp-industry-already-hit-by-cheap-imports-costs#xj4y7vzkg>)

¹⁴ Source: Florida Department of Agriculture and Consumer Services (<https://www.fdacs.gov/Agriculture-Industry/Florida-Seafood-and-Aquaculture-Overview-and-Statistics>)

¹⁵ Source: Florida Department of Agriculture and Consumer Services (<https://www.fdacs.gov/Agriculture-Industry/Florida-Seafood-and-Aquaculture-Overview-and-Statistics>)

¹⁶ Source: University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS)

Fisheries Location Quotient by County of Interest¹⁷

With respect to the regions impacted by Hurricanes Ian or Nicole, the Argonne assessment shows how the fisheries had a significant presence in Northeast Florida, Southwest Florida, and the Tampa Bay Area when reviewing their LQs. Given the fisheries are very small businesses in size, the LQs are provided for the number of establishments (rather than employment) and reveal how these regions have an above national average concentration of such establishments.

Location Quotient (Establishments) for Fisheries 2016-2021, EDDs and counties of interest

Economic Development District	County	Location Quotient by Year					
		Year					
		2016	2017	2018	2019	2020	2021
Central Florida Regional Planning Council	EDD Average	2.5	2.5	2.5	2.6	2.5	0.3
	Okeechobee County	4.9	4.7	4.7	4.6	4.6	
	Polk County	0.0	0.4	0.3	0.7	0.3	0.3
East Central Florida Regional Planning Council	EDD Average	0.8	1.0	0.9	0.9	1.0	1.0
	Brevard County	1.2	1.8	1.7	1.8	1.7	1.7
	Orange County	0.1	0.1	0.1	0.1	0.1	0.2
	Seminole County	0.3	0.6	0.6	0.6	0.6	0.6
Northeast Florida Regional Council	EDD Average	1.7	1.4	1.4	1.5	1.4	1.4
	Duval County	1.1	1.4	1.4	1.4	1.2	1.4
	Flagler County				1.8	1.7	1.7
	Nassau County	2.3	2.2	2.1	2.1	2.0	2.0
	St. Johns County		0.6	0.6	0.6	0.6	0.5
Southwest Florida Regional Planning Council	EDD Average	2.7	1.5	1.3	1.0	1.3	1.3
	Charlotte County		1.0	1.0	0.0		1.0
	Collier County	1.7	1.7	1.3	1.6	1.6	1.8
	Lee County	5.0	2.3	1.7	1.4	1.2	1.2
	Sarasota County	1.2	1.2	1.2	0.9	1.1	1.4
Tampa Bay Regional Planning Council	EDD Average	2.8	2.5	2.6	2.5	2.5	2.8
	Citrus County	7.6	7.5	7.4	7.5	7.5	7.5
	Hernando County		1.3	2.5	2.4	2.4	3.6
	Hillsborough County	0.9	1.0	1.0	1.1	1.0	1.0
	Manatee County	1.8	2.2	1.7	1.2	1.6	2.3
	Pasco County	2.2	1.7	1.3	1.7	1.2	1.2
	Pinellas County	1.6	1.6	1.7	1.4	1.2	1.2

Data from Bureau of Labor Statistics Quarterly Census of Employment and Wages. National Average = 1.0.

Fisheries in Southwest Florida took a huge hit from Hurricane Ian’s impacts. In particular, the shrimping industry in Fort Myers Beach, located on San Carlos Island, was heavily impacted, with the dock destroyed. Many of the shrimping boats that did not relocate their ships before Hurricane Ian hit were damaged and/or forced onto land from the storm. According to the Florida Division of Emergency Management (FDEM), the shrimping industry in Southwest Florida accounted for 43% of the total shrimp harvest for the state pre-storm. FDEM estimated that 300 workers were displaced due to the storm.¹⁸

<https://flmanagers.com/wp-content/uploads/2018/09/Florida-Ag-Impact-Presentation.pdf>

¹⁷ Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023

¹⁸ Source: Florida Division of Emergency Management (<https://www.floridadisaster.org/news-media/news/20230322-florida-division-of-emergency-management-announces-final-shrimp-trawler-refloated-after-hurricane-ian/>)

While several damaged boats are reportedly back up and running, there is a vital need to rebuild the dock infrastructure for the boats to reside. Until this need is resolved, the fisheries are unable to resume pre-hurricane operations. In addition, some boats that remained damaged also serve as housing for their owners. Some fishermen were reportedly still living in tents as of February 2023.

- **Workforce Retention and Development:** Workforce issues, already a pre-condition challenge for Florida businesses, have become an ever-growing concern post-Hurricanes Ian and Nicole.

Workforce retention has been a challenge in Florida, exacerbated by the impacts of Hurricanes Ian and Nicole. Displaced workers are navigating the loss of homes and livelihoods, focusing more on survival needs than going to work. One indicator of this is the number of people seeking Disaster Unemployment Assistance (DUA). As of February 2023, CareerSource has received 28,000 disaster-related or regular claims. Of these, 11,000 are straight DUA claims. Lee County residents account for the largest share of DUA applications. However, there is a lack of awareness of the resources available. In a survey of Florida businesses conducted by the Florida Chamber Foundation, 66.8% indicated that they were not aware of state and federal workforce training programs. Local leaders and industry representatives have reported that the tourism and hospitality and manufacturing sectors have been hit particularly hard by workforce retention issues. Workers are performing multiple positions to fill gaps in vacant positions.

Access to affordable housing, public transportation, workforce development opportunities, and childcare have all been identified as workforce barriers. Local leaders from nearly all impacted communities have communicated the need for attainable workforce housing. Attainable housing is needed for workers in tourism and hospitality, emergency response, education, and manufacturing industries as well as for migrant workers. Contributing factors are the lack of affordable and sustainable housing (a pre-condition), the migration of residents displaced from their hurricane-damaged homes, increasing rents, and unsustainable housing infrastructure.

Workforce transportation is an issue for job seekers and employers. Local leaders reported the lack of public transportation and east-to-west passenger rail as obstructing factors in Southwest Florida. There is also a lack of public transportation infrastructure in DeSoto, Hardee, Highlands, and Okeechobee (inland) counties. A pre-existing condition, the lack of public transportation limits access to essential services, food, and employment opportunities, as it is common for those who live in one county to work in another.

Workforce development training facilities and programs are needed in areas of manufacturing in the inland counties. What workforce training facilities exist are limited in student output and by their physical footprint. The lack of skilled workers is, in many cases, the biggest supply chain issue. This has been exacerbated by changing work conditions.

Access to childcare (a pre-existing condition) was a common need across impacted regions and has been exacerbated by storm impacts. Previous disasters have shown that lack of access to childcare impacts how quickly and effectively areas can reopen and recover in the aftermath of disaster. Closures of schools, daycare, and other childcare facilities alter parents' availability to work because of the need to be at home with children during the school day. While most impacted childcare facilities in the state have now reopened, access to affordable childcare services remains a concern for workers.

- **Supply Chain Constraints:** COVID-19 disrupted supply chains for major industries in Florida, and Hurricane Ian caused further disruptions.

More than 100 businesses in the manufacturing, wholesale, and distribution sectors reported damages to

the State of Florida.¹⁹ Of these, 85 businesses reported financial damages. Ten businesses in this sector estimated damages at nearly \$1 million or above, including one business estimating \$3 million in damages and another estimating \$10 million in damages. As of December 31, 2022, more than 30 of these industrial businesses had not yet reopened.

For manufacturers and other industrial businesses reporting damages to the state, product supply was the number-one issue they identified as hindering operations.²⁰ While some of the supply chain issues due to COVID-19 had started to resolve in terms of improved material availability, the cost of freight due to inflation and fuel costs has remained a big issue beyond the pandemic.²¹

- **Lack of Community Capacity for Economic Recovery and Resiliency:** Many of Florida’s impacted communities (e.g., rural counties, Main Streets, and underserved communities) lack the capacity to recover from Hurricane Ian, let alone build back better.

For limited-resource communities, managing the day-to-day affairs of local governance is no small feat. In the aftermath of a hurricane, handling the response and then recovery efforts can be nothing short of overwhelming. For small, rural counties that have lost essential staff, current staff are often asked to fill multiple roles. And while there is a myriad of resources available through state and federal partners, communities with a lack of capacity are often unaware of these resources and unable to navigate the channels to access these resources. This lack of capacity impacts their ability to focus on and achieve long-term recovery.

- **Need for Broadband Capacity and Resilience:** Internet accessibility was an immediate problem post-Hurricane Ian and remained a problem for many constituencies for several weeks. Lack of internet access hampered response activities as well as state efforts to understand business and workforce impacts in a timely manner.

In some mainland areas of Lee County, it reportedly took 4–5 weeks to have internet service restored. For Fort Myers Beach, it took 6–9 weeks. And for Sanibel Island, service that had been disrupted in September 2022 had not yet been restored as of February 2023.

Broadband accessibility issues are known to be particularly challenging in rural areas in Florida. According to a Florida Senate analysis of broadband service in 2023, 21.4% of residents in rural Florida lacked fixed broadband coverage.²² As pointed out through this analysis, high-speed broadband is essential for access to innovation, economic opportunity, healthcare services, education, and opportunities for civic engagement. For some rural areas, the local library or parking lots of public facilities become the places to find internet access. Additionally, the issue of broadband capacity is not simply one of high-speed or low-speed, but also one of resiliency—or lack thereof—in the face of a major storm.

- **Electrical Power Disruptions:** Lack of power for a period of days led to catastrophic losses in agriculture and aquaculture and significant economic injuries in other sectors such as hospitality and food service.

¹⁹ Source: Florida Business Damage Assessment for Hurricane Ian, January 2023

²⁰ Source: Florida Business Damage Assessment for Hurricane Ian, January 2023

²¹ Source: Economic RSF Focus Group with Florida Makes in January 2023

²² Source: The Florida Senate Bill Analysis and Fiscal Impact Statement, March 2023

Hurricane Ian left 2.5 million people without power in its wake.²³ The storm caused complete electrical disruptions on the barrier islands and coastal communities, which lasted for weeks. Inland communities were impacted by a loss of power that lasted a few days or longer. Being without power in these communities led to restaurants having to throw out thousands of dollars of food. Cattle farmers without any source of backup power were unable to milk their cows; one farmer was reported to have put down more than 200 cows due to this issue. Power outages led to a reported loss of shrimp valued at \$120,000 for one producer. And for inland fish farms, the loss of power meant no oxygen to keep the fish alive.

- **Critical Infrastructure Damage:** The hurricanes caused significant damage to rail and roadway bridges, docks, marinas, and other supportive infrastructure for economic development.

Hurricane Ian washed out the causeway that connects Sanibel Island to the Florida mainland as well as the Matlacha Bridge that connects Pine Island with the mainland. While both bridges were reopened with temporary repairs, a more permanent and resilient fix will be needed.

Seminole Gulf Railway is a Class III short-line freight railroad that serves as a critical supply line for Southwest Florida. According to Seminole Gulf Railway, at least six rail bridges were damaged or destroyed, amounting to millions of dollars in damage. Hurricane Ian has effectively severed the area's only connection to the North American Rail Network, according to the company.²⁴ While the company has been working on some repairs (e.g., damaged Peace River bridges), additional funding is needed to return to pre-storm operations.

Docks, marinas, and other supportive infrastructure were wiped out or severely damaged by Hurricane Ian during the storm and will take years to rebuild. Hurricane Nicole caused further damage to infrastructure such as, for example, the AIA scenic highway and beach dunes.

- **Building for the Future in the Face of Climate Change:** In the face of future disasters that will likely impact the State of Florida, state leaders are faced with a clarion call to think creatively and innovatively with respect to future land use development and how to help businesses and communities build for a more resilient future.

As pointed out by the Argonne National Laboratory, since 2017, Florida has received seven major Presidential Disaster Declarations, including declarations for Hurricanes Irma, Michael, Dorian, Sally, Ian, and Nicole and the national declaration for the COVID-19 pandemic.²⁵ Argonne experts note that successive disasters lead to cumulative and compounding disasters, strain local budgets, and make it more difficult for businesses to survive. In addition, they note how research shows that children and adults who experience successive disasters are at a higher risk of negative health outcomes and secondary stressors throughout their lifetimes, affecting their ability to reach their productive potential in the workforce.

The Argonne National Laboratory predicts that ongoing climate change will continue to have dramatic impacts on Florida. The state is likely to experience future natural disasters. Sea level rises are anticipated to lead to further coastal inundation and saltwater intrusion of drinking water sources. And extreme heat conditions will continue to affect agriculture and aquaculture production as well as overall living conditions.

²³ Source: PBS (<https://www.pbs.org/newshour/nation/people-trapped-and-over-2-million-without-power-as-ian-drenches-florida>)

²⁴ Source: Seminole Gulf Railway (<https://www.floridarail.com/news/getting-back-on-track/>)

²⁵ Source: Argonne National Laboratory, Hurricane Ian Interagency Recovery Coordination Impact Assessment, March 2023

Summary

- **Business and Industry:** Economic development organizations (EDOs) should continue coordination with the Florida Department of Economic Opportunity, Enterprise Florida, SBDCs, FloridaMakes, the MBDA, chambers of commerce, and federal partners such as EDA, SBA, and USDA, to connect impacted businesses with resources to help them on their path toward recovery and resiliency. Developing a one-stop online and in-person center for connecting businesses with helpful resources should be considered. Businesses are encouraged to work with SBDCs and SBA's Region IV office, which remains open until June 2023, to learn about possible qualifications for SBA's Economic Injury Disaster Loan (EIDL). SBA allows for a certain percentage of their loans to be used toward mitigation. For those overleveraged or dealing with credit issues, working with SBDC counselors to address issues, as well as develop a plan for future business growth, should be further encouraged. Partners serving on the frontlines with business owners should explore the potential for creating a case management system for tracking business needs and the resources deployed to address these needs.

Helping businesses become more resilient in the face of future disasters should be a priority for Florida. Projects to help foster business restoration, continuity, competitiveness, and resiliency may be considered by EDA as potential projects supported through the Fiscal Year 2023 Disaster Supplemental for 2022 Presidentially Declared Disasters. While the allocation available through EDA's Atlanta Regional Office, which serves Florida, is not yet known, the national allocation includes: \$500 million for economic development assistance projects; \$618 million for technology innovation grants, including support to develop Regional Technology and Innovation Hubs; and \$149 million for the Distressed Area Recompete Pilot Program. The Economic RSF recommends that these and other programs be leveraged to further enhance the growth of Florida's industries of the future (Space, Life Sciences, Ocean [Blue] Economy, Semiconductor, etc.) and further diversify the state's economic base.

- **Tourism and Hospitality:** Economic development organizations (EDOs) should continue coordination with the Florida Department of Economic Opportunity, Visit Florida, FRLA, local visitors' bureaus, and federal partners such as EDA, SBA, USACE, and USDA, to connect impacted areas with resources. Regional projects aimed to restore and increase resiliency may be considered by EDA as potential projects supported through the Fiscal Year 2023 Disaster Supplemental. Southwest Florida may benefit from technical assistance to develop a master plan for redevelopment, one that considers current and future hazards and opportunities for mitigation, adaptation, and improving resiliency. Ecotourism, agritourism, the development of green infrastructure and other nature-based solutions, and the development of scenic byways to integrate beaches and downtown areas should also be explored. Addressing supply chain gaps that are hampering recovery efforts (for example, lack of electrical switches for impacted hotels) should be prioritized. There is also a strategic opportunity to leverage how Florida's industries of the future connect to the tourism economy (for example, the growth of life sciences and medical tourism in Lee County).
- **Agriculture:** Agricultural stakeholders should continue to coordinate with their local USDA representatives for utilization of USDA programs. Potential opportunities could include funding from the Fiscal Year 2023 Disaster Supplemental, such as Farm Disaster Assistance, Buildings and Facilities, Conservation Programs, and Protection Program (EWP) for rural watershed recovery. State and community leaders should work with USDA to help farmers address the up-front and cost-share funding gaps associated with program participation.

Regarding workforce housing issues, there was a public Request for Applications (RFA) workshop for the commercial fishing workers and farm workers housing held by the Florida Housing Finance Corporation on February 2023. This could be an opportunity for a recovery housing resource for agriculture and fisheries.

The Economic RSF recommends the stakeholders engage in the RFA process as appropriate.

- **Aquaculture:** Aquacultural stakeholders should continue to coordinate with their local USDA representatives for utilization of USDA programs and with the Florida Department of Agriculture and Consumer Services (FDACS). FDACS provides the appropriate contacts to aquaculturists on business resources, to include contacts on aquaculture financial and technical assistance opportunities, and can also serve as an ombudsman working to resolve and investigate complaints between aquaculturists and regulatory agencies.
- **Fisheries:** Governor Ron DeSantis has requested a federal fisheries disaster declaration from NOAA. This request is currently pending, and the fishing industry stakeholders are working with NOAA on getting the needed information to receive a declaration. Other than the NOAA fisheries disaster declaration, EDA, USDA, USACE, EPA, and DOI could be potential funding sources on the federal side to assist in restoring the fishing industry. Examples of potential projects include restoring the dock infrastructure or helping create a regional plan for San Carlos Island. Local and state stakeholders in the fisheries industry should work to develop a vision for the industry's future and connect to resources available through multiple federal agencies.

Private, local, and state government stakeholders in the shrimp industry should be further engaged to determine the potential use of county land in Lee County (which currently houses a major shrimp employer.) Rebuilding the shrimp industry will require a public-private partnership with a broad range of stakeholders committed to making the needed investments. Efforts should also be made to encourage local sourcing and purchasing of shrimp products.

Regarding housing issues, the RFA workshop for the commercial fishing workers and farm workers housing held by the Florida Housing Finance Corporation in February 2023 could help identify recovery housing resources for agriculture and fisheries. It is recommended that the stakeholders engage in the RFA process, as appropriate.

- **Workforce:** Economic development partners should work with the state and local communities to use this opportunity in post-hurricane redevelopment to resolve the workforce housing issues using a holistic, locally driven approach. Efforts should be targeted to support those communities with significant tourism, hospitality, food service, and agriculture sectors in attracting and retaining workers—and address the workforce housing needs of other essential workers (e.g., teachers, nurses, firefighters).

The Economic RSF recommends that the RPCs and partners work to help socialize the U.S. Department of Labor's Dislocated Worker Grant program, administered through the local CareerSource boards, with those organizations serving displaced workers. This program can connect workers with near-term employment opportunities offering livable wages for several months.

Economic development partners should pursue the development of workforce development training programs and facilities, along with the supportive infrastructure, to address the needs that the manufacturing, construction, trucking, logistics and distribution, and general business sectors have for a skilled workforce. As elsewhere, Florida needs mechanics, drivers with commercial driving licenses (CDL), welders, maintenance technicians, and fabricators.

Partners should support development of a public transportation system in DeSoto, Hardee, Highlands, and Okeechobee counties, as well as development of an east-to-west commuter rail in Southwest Florida to expand workforce opportunities. The 2022 Infrastructure Investment and Jobs Act includes all modes of transportation as funding targets.

Regional projects to develop high-capacity workforce development training programs and facilities may be considered by EDA as potential projects supported through the Fiscal Year 2023 Disaster Supplemental.

- **Supply Chain:** Economic development partners should encourage manufacturers to participate in and utilize Connex Florida (an online capabilities database and connection platform created to help Florida manufacturers find suppliers). The partners should support FloridaMakes' vision for expanding the reach of Connex and local sourcing for supplies. The potential to expand the freight rail infrastructure (e.g., rail adjacent to US 27, intermodal possibilities along I-75 and US-17, rail that connects to the airports) to support supply chain needs was identified during discussions with stakeholders in Southwest Florida as an opportunity with statewide, national, and global implications. Such infrastructure could support Southwest Florida's growth as a major logistics hub for food products, fertilizers, and other supply chain opportunities—and warrants further study.

Projects aimed to address supply chain gaps in targeted industries based on regional needs may be considered by EDA as potential projects supported through the Fiscal Year 2023 Disaster Supplemental. In addition, support could be available through the 2022 Infrastructure Investment and Jobs Act.

- **Community Capacity for Economic Recovery:** After Hurricane Irma, EDA provided funding to create nine Disaster Recovery Coordinator positions to support community capacity for economic recovery and resiliency. While the EDA support was for three years, all nine positions remain in place today, supported by their host organizations. Following Hurricane Ian, an additional five positions have been created in the impacted regions. Florida communities located in rural, distressed, and underserved areas should contact the Disaster Recovery Coordinators, housed at the RPCs, for assistance. The Disaster Recovery Coordinators are mission-assigned to support the State's implementation of strategies to promote local economic recovery and resiliency.

FEMA's Local Hire Program is creating 210 positions and can provide capacity to communities with limited resources. Local communities are encouraged to work with the RPCs to connect with this program as needed. Individuals hired for these roles will help communities build resilience and mitigate against the impacts of future disasters. In addition, another tool for fostering community resiliency is the Comprehensive Economic Development Strategy (CEDS) and Hazard Mitigation Plan Alignment Guide released by FEMA and EDA in September 2022. Fostering the further alignment of the CEDS and local Hazard Mitigation Plans will help optimize the available community capacity.

Florida community leaders in the affected areas should also work with the local CareerSource boards to access Disaster Worker Grant funding from the U.S. Department of Labor to support the creation of new positions to address disaster recovery needs. The State of Florida was awarded \$15 million in Dislocated Worker Grant funding to create positions to address disaster needs. In addition to providing humanitarian aid and assisting with cleanup activities, these positions can be used to create positions to increase capacity for disaster recovery, as has been the case for some Florida communities. As of February 2023, 56 of the available 341 positions were filled, meaning untapped capacity exists.

- **Broadband Capacity:** There is a significant level of available assistance to address broadband coverage gaps, middle-mile and last-mile issues, and the need for improved redundancy through the National Telecommunications and Information Administration (NTIA)'s Broadband USA program,²⁶ USDA, EDA, and other federal partners. The 2022 Infrastructure Investment and Jobs Act includes broadband expansion as one of its targets. In addition, FloridaCommerce's Broadband Opportunity Program is working to expand

²⁶ Source: National Telecommunications and Information Administration (NTIA)'s Broadband USA program (<https://broadbandusa.ntia.doc.gov/resources/grant-programs>)

broadband internet service to underserved areas of the state.²⁷ FloridaCommerce has the capability to provide the hardware to help businesses and community organizations connect to emergency broadband services in the aftermath of a disaster. The Economic RSF recommends that the RPCs help socialize the available assistance through state and federal programs.

- **Electrical Grid:** In November 2022, the U.S. Department of Energy announced \$13 billion in new financing opportunities for the expansion and modernization of the nation’s electric grid, made possible through the 2022 Infrastructure Investment and Jobs Act. The State of Florida has an exciting opportunity to explore how best to use available funds from this and other sources to build a more resilient electrical grid infrastructure that considers Florida’s risk for future storms. Attention should be given to ensuring businesses, producers, and property owners have access to sustainable and redundant sources of power generation. In addition, the Economic RSF recommends that the state and partners explore renewable energy solutions.
- **Critical Infrastructure:** The 2022 Infrastructure Investment and Jobs Act is focused on strengthening, rebuilding, and expanding critical infrastructure. The Florida Department of Transportation and other key partners have an exciting opportunity to explore how best to leverage this funding for infrastructure recovery while reaching Florida’s vision for both a more resilient and connective infrastructure. The Economic RSF recommends that the RPCs help socialize the available support forthcoming and made possible through this recent legislation.
- **Building for the Future:** Given the significant amount of federal funding flowing to the State of Florida, state leaders are facing unprecedented opportunities to model the way with respect to building a more resilient future. Data from the Argonne National Laboratory, as well as from The Aspen Institute and other expert thinktanks, can be used to inform efforts to increase the safety and sustainability of communities and business districts in the state. The Economic RSF recommends exploring best practices underway in California and elsewhere, including outside the United States, to mitigate the impacts of future disasters and foster more sustainable development from economic, environmental, and social standpoints.

²⁷ Source: FloridaCommerce (<https://www.floridajobs.org/community-planning-and-development/broadband/broadband-opportunity-program>)

Small Business Administration (SBA)

Overview and Status of Recovery Operations

Advisors built on existing assessment activities and stakeholder engagement to identify areas of unmet needs, recovery barriers, and resiliency-building opportunities, focused primarily on the private sector, namely small businesses and private nonprofits. Advisors also used spatial analysis and other statistical analytics to identify areas where SBA utilization suggested a low response rate for business disaster loan applications, further indicating potential recovery barriers/issues.

Although assessment activities have focused on issues beyond the scope of the SBA disaster loan program, SBA Advisors established cross-cutting collaboration with IRC/RSF partners to support information-sharing and communication regarding the FEMA and SBA disaster aid processes. While research is ongoing, direct engagement with longstanding resource partners and key stakeholders has helped identify three primary areas of concern, which will contribute toward a shared understanding of recovery and resiliency challenges faced by small businesses and indicate the level of federal support needed.

The SBA Advisor has identified three primary needs and areas of concern.

Need for targeted, tailored, and coordinated information, guidance, timely communication, and outreach regarding disaster assistance processes and resources.

- Addressing these needs is critical to helping small businesses and private nonprofits navigate the complex disaster assistance processes and access the resources they need to recover and rebuild. Chambers of Commerce have indicated a need for consistent FEMA/SBA/IRC engagements with business owners and chamber staff. SBA Advisors have initiated dialogue with chamber leadership about recovery and resilience to meet the needs of the small business communities. Ongoing and regular conversations will help prevent misperceptions, increase awareness of program resources, and strengthen the connection across public and private sectors. Providing this proactive and coordinated outreach, governments, agencies, and stakeholders can help small businesses and nonprofits overcome the barriers to recovery and promote greater resiliency in the future.

Minority business communities may be receiving a lower share of disaster assistance and business/procurement opportunities after a disaster.

- While minority-owned businesses are eligible for SBA disaster assistance, the minority business community is concerned that the amount of disaster assistance they receive is not proportionate to their representation in the small business community. It was communicated that, at the very least, minority-owned businesses should be part of the hurricane disaster cleanup, but they do not know how to avail themselves of disaster procurement opportunities. By actively seeking out these opportunities and building relationships with key stakeholders and organizations involved in disaster recovery, small businesses can position themselves to take advantage of these opportunities and contribute to the recovery and rebuilding efforts.

Small businesses and private nonprofits are unaware of available resources that may support recovery efforts and promote resiliency in the private sector.

- Leadership from multiple chambers of commerce stated the need for resiliency training for the small business community. They are primarily concerned for disaster-impacted businesses that are having difficulty accessing resources and funding and experiencing loss of revenue and customers and disruptions to infrastructure and supply chains. From the small business perspective, resiliency involves developing strategies and processes that enable the business to adapt, recover, and thrive in the face of

adversity.

Summary

Through cross-cutting collaboration within the IRC and its local and state partners, small businesses can become fluent in the entirety of disaster preparedness, response, recovery, and resiliency—resulting in more sustainable and economically resilient communities after an incident. SBA Advisors identified 635 Shuttered Venue Operators Grant (SVOG) grant recipients with a combined total of more than 17,000 employees in the 26 declared counties. Information sharing resulted in 635 grantees being contacted to inform them they could apply for an SBA Disaster Loan for physical damage and working capital needs. By January 10, seven SVOG grant recipients in the disaster-declared area had applied to SBA for assistance.

Advisors connected with the HHS RSF to facilitate bulk email correspondence to licensed childcare providers in 38 counties to support targeted outreach efforts and coordinated with FEMA programs for outreach to houses of worship and Institutes of Higher Education to share information about resources available.

SBA Advisors will continue to coordinate with the leadership of various chambers of commerce, including chambers that serve minority-owned businesses, to incorporate resiliency training into their long-term economic recovery efforts. Disaster Resiliency Planning will include detailed resources, best practices, implementation, and monitoring.

Health & Social Services RSF

Overview and Status of Recovery Operations

Within Florida, multiple state and local government partners and non-governmental organizations include equities in the HSS RSF. Eight Florida departments hosted meetings and discussions between their leadership and the HSS RSF to identify disaster-caused and disaster-exacerbated recovery concerns: The Agency for Health Care Administration, Agency for Persons with Disabilities, Department of Children & Families, Department of Education, Department of Elder Affairs, Department of Emergency Management, Department of Health, and the Independent Living Council.

In addition to Florida state government partners, HSS RSF also engaged with 28 local government partners, school districts, Institutes of Higher Education, and non-governmental organizations:

Cape Coral Technical College	Charlotte County
Charlotte County Schools	Charlotte Technical College
Collier County	The District of DeSoto County
Assoc. of Community Health Centers (FACHC)	Florida Southwestern State College
Fort Myers Beach	Fort Myers City
Fort Myers Technical College	Hardee County Schools
Hendry County	Highlands County
Keiser University	Lee County
Manatee County	New College of Florida
Okeechobee County	Project Camp
Redland Christian Migrant Association	Saint Leo University
Sarasota County	Sarasota County Schools
Sarasota School of Massage Therapy	The School District of Lee County
Southern Technical College	State College of Florida Manatee – Sarasota

The mission of the federal Health & Social Services (HSS) Recovery Support Function is to assist Florida with recovery efforts through the evaluation and restoration of systems across the five core mission areas (behavioral health, education, healthcare systems, human services, and public & environmental health). In collaboration with partners across Florida and nationwide, the HSS RSF promotes equitable recovery of education, health, and social services systems so communities, families, and individuals receive support to achieve their personal recovery goals.

National coordination responsibilities are assigned to the HHS Administration for Strategic Preparedness & Response (ASPR), Office of Response, Office of Community Mitigation & Recovery. Representatives and Subject-Matter Experts (SME) from eight federal agencies participated in gathering information for the Recovery Needs Assessment: HHS/Administration for Community Living (ACL), HHS/Agency for Toxic Substance & Disease Registry (ATSDR), HHS/Centers for Disease Control and Prevention (CDC), HHS/Center for Medicare & Medicaid Services (CMS), HHS/Food and Drug Administration (FDA), HHS/Substance Abuse & Mental Health Services Administration (SAMHSA), and U.S. Dept. of Education.

Medically Underserved Areas²⁸

Argonne National Laboratory reviewed data from the HHS Health Resources and Services Administration (HRSA) on the level of healthcare shortages in several counties of interest. The Medically Underserved Area score combines medical providers per 1,000 population with data relative to the percent of the population

²⁸ Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023

meeting federal poverty guidelines, age (over 65), as well as infant-mortality data. A score of 62 or below qualifies that geographical area for designation as having medically underserved populations. Based on the data in the following figure, all the selected counties of interest are considered medically underserved, although Hardee is right on the borderline.

	HPSA - Mental Health	HPSA - Dental Health	HPSA - Primary Care	Medically Underserved Populations
Brevard County	16.8	15.5	12.7	0.0
Charlotte County	13.0	12.3	11.2	47.5
Collier County	13.4	11.0	13.2	49.7
Desoto County	17.0	9.5	15.0	29.6
Flagler County	17.0	16.0	16.0	48.6
Hardee County	18.5	14.3	8.1	61.3
Lee County	18.3	12.6	13.8	51.8
Sarasota County	18.5	16.2	12.5	53.3
St. Johns County	10.0	16.0	13.1	60.4
Volusia County	14.8	0.3	9.3	54.5

Data are provided by the Health Resources & Services Administration Health Professional Shortage Areas Datasets

HSS RSF classified recovery needs in six general categories: General, Behavioral Health, Education, Health Care Systems, Human Services and Public & Environmental Health.

The Health & Social Services RSF identified 23 primary needs and areas of concern.

General

- **Limited trained staff and operational planning:** Local evacuation and emergency shelter managers reported the need for trained staff and operational planning (e.g., external communications, shelter transition, and staff resiliency), which reduced utility of shelters, disrupted transitions for housing, and delayed reopening of schools. Many of the K-12 and Institutes of Higher Education (IHE) school staff supported emergency sheltering operations after the disaster event without adequate training to help individuals with special needs, which caused additional stressors among educators needed to resume in-person academic instruction.
- **Disaster recovery information is not being received and processed evenly across all populations:** Announcements about recovery programs are widely broadcast; however, detailed information (processes, meetings, workshops) is not as widely available to less-connected communities and community members (rural/unincorporated towns, older adults, etc.). Delays in passing information from a centralized event to the local jurisdictions may result in missed opportunities. Information should be disseminated using methods and language(s) appropriate for the community. (Community Preservation)
- **Lack of affordable and accessible housing and increased rental prices:** The lack of affordable and

accessible housing and increased rental prices impact all sectors within the scope of health and social services. Education, health, and social service providers often reside in the community in which they work.

Behavioral Health

- Need for prioritization of acute behavioral health service restoration to the same degree as physical health care post-incident: Equal restoration is needed to ensure continued availability and access to immediate and critical support for populations with higher or more acute mental health or substance use disorder needs. Agencies with specific facility or programmatic requirements (equipment, spaces, certified services, etc.) need both short-term and long-term service continuity planning.
- **Inaccessible behavioral health capacity and service provision data:** Data from some private behavioral health providers is either not accessible or is delayed due to uneven data-sharing requirements. This creates a challenge in determining available behavioral health capacity, recognizing trends in mental health and substance use disorder contacts, and identifying systems-wide challenges to long-term recovery.
- **Challenges recruiting and retaining behavioral health providers statewide:** State and local partners report challenges recruiting and retaining behavioral health providers statewide, which has limited the availability of mental health and substance use disorder services available in those areas. Positions affected include psychologists, social workers, licensed mental health counselors, alcohol and drug counselors, licensed marriage & family therapists, and school-based mental health counselors. Anecdotal evidence suggests a combination of community factors, including workforce housing availability and affordability, and sector/economic considerations, such as lack of pay parity and competitive benefit packages.
- **Care providers are experiencing compassion fatigue:** Care providers across the scope of health and social services are experiencing compassion fatigue. Many have been in a state of constant reactivity since March 2020, and each additional event or challenge adds obstacles.
- **Relocation and displacement of population in affected communities:** Damage to physical structures, including housing and community infrastructure, has led to the relocation and displacement of large swaths of the population in the affected communities. This has cascading impacts to long-term recovery and community risk reduction. This disrupts the sense of community and intensifies social isolation, in turn elevating distress and increasing the likelihood of future poor outcomes for these families and individuals. Compounding factors include longer commute times and separation from home communities. Children, seniors, people with disabilities, and others experiencing intersectional vulnerabilities are at a higher risk for negative behavioral health outcomes post-disaster.

Education

- **Damage of varying degrees to educational facilities:** Several public and private Institutes of Higher Education (IHE) and K-12 schools in disaster-designated counties reported damage of varying degrees to educational facilities. Damage includes water intrusion, flooding, and wind-related structural damage. Eligible facilities have been provided information on the FEMA Public Assistance program.
- **Involvement in response planning does not translate to an understanding of available federal disaster recovery assistance:** Some Institutes of Higher Education are well-connected with local county or city emergency management for response activities, including using parking lots as staging facilities or buildings as community shelters. However, involvement in response planning does not directly translate to an understanding of available federal disaster recovery assistance to assist students, staff, and the IHE in the aftermath of a disaster event. College-aged students, including those living in dorms or other group

settings, have unique needs and require direct support navigating systems, to continue their education journey.

- **Challenges in education workforce hiring and retention:** K-12 school districts report challenges in education workforce hiring and retention. New program requirements and activities have increased the workload of teachers and staff and strained the existing workforce. Pre-existing teacher shortages, particularly in rural schools, have been exacerbated by the hurricanes due to workforce housing shortages and family migration.
- **Increased behavioral and mental health concerns among students and staff:** Anecdotal reports from schools and community members suggest behaviors due to stress, anxiety, grief, trauma, and depression are manifesting in school and home settings. Some middle school students are displaying signs of increased physical aggression in the classroom. High school students are beginning to participate in high-risk behaviors, such as early substance use, to cope with stress. There are not enough school-based mental health professionals to meet the needs. One IHE reported an increase in mental hospitalizations and suicidal ideation.

Health Care Systems

- **Concerns by healthcare partners about integration and coordination during response:** Some healthcare sector partners have highlighted concerns about integration during response. Coordination with underutilized ESF #8 partners, such as community health centers, could have a positive impact on disaster health outcomes and reduce reliance on federal assets post-disaster. Some community health centers across Florida own and operate mobile clinics, which could support hospital decompression or service provision in communities where existing health providers are temporarily non-operational.

Human Services

- **Seniors with damaged homes are at risk of negative individual recovery outcomes:** Seniors whose homes were damaged in the hurricanes are at risk of negative individual recovery outcomes, including experiencing extreme poverty, continuing to reside in the damaged home, and the possibility of loss of independence due to institutionalization in nursing homes or care facilities if the home is uninhabitable. Some retirees used most of their retirement funds to pay for a home in full, elected not to carry insurance, and experienced total home loss.
- **Impacts to seniors place them at significantly higher risk of emotional distress:** Senior centers are reporting increased isolation and depression. Many older adults experience hesitancy to seek out mental health and substance use treatment support due to cultural and social stigmas.
- **Information and support needed in appropriate methods and language for seniors:** Information and support navigating disaster recovery systems are not delivered in a method and language appropriate for seniors. Many applications for assistance are online forms, which present a challenge for those less tech-savvy.
- **A gap exists in the lack of comprehensive and tailored case management:** A gap exists in the lack of comprehensive and tailored case management that begins when shelters first open and follows the client throughout the recovery process. This is critically necessary to support equitable recovery.
- **Challenges recruiting and retaining in-home health assistants and companion services:** The state reports challenges recruiting and retaining in-home health assistants and companion services to support aging in place and independent living.
- **A pre-existing scarcity of affordable and accessible childcare may hinder long-term economic recovery:**

Most childcare providers who closed due to hurricane impacts appear to be returning to normal operations. However, a pre-existing scarcity of affordable and accessible childcare may hinder long-term economic recovery.

Public & Environmental Health

- **Infrastructure and land use changes to the built environment will have long-lasting direct and indirect impacts:** These changes will affect the needs of the whole community. Exacerbation of intersectional vulnerabilities related to delays with accessing stable, safe, and affordable housing could negatively affect children's school success, reduce social capital and community cohesion, and increase negative behavioral health effects such as substance use disorder and poor mental health outcomes.
- **Public health workforce retention and recruitment challenges:** State partners and some counties have reported public health workforce retention and recruitment challenges for key staff positions. Nationwide, many public health agencies have been operating in a response phase since January 2020, leading to increased burnout and decreased level of engagement in career opportunities. The Florida Department of Health has indicated a commitment to strengthening its culture of response, inclusive of public health in disaster planning, risk communications, and evacuation plans.
- **Repetitive flooding at the Public Health Laboratory in Jacksonville:** Repetitive flooding at the Public Health Laboratory in Jacksonville reduces its operational effectiveness to steady-state public health programs. State and county partners have reported a need for facilities appropriate to use as medical shelters to protect health and serve communities.

Summary

Nearly all healthcare providers that were temporarily closed due to Hurricane Ian impacts have resumed service delivery at either their original site or a temporary location. State partners are reporting no outstanding concerns or needs related to provider operations. Recovery presents a dynamic situation for the residents of the affected counties in Florida. As a result, the information in this needs assessment will evolve through the ongoing assessment and update process. This summary of recovery needs represents the current understanding of opportunities to support Floridians affected by Hurricane Ian, developed through close collaboration between HSS RSF and state partners. This collaboration represents unified engagement across local, state, and federal partners to maximize the speed of recovery of the impacted communities.

Recovery across health and social services systems is a cornerstone of equitable community recovery and is a critically necessary support for families and individuals as they navigate their own recovery outcomes. Due to the changing needs of local populations, as neighborhoods and communities proceed through the recovery process, a full picture of the impacts to health and social services systems may not manifest for several months. HSS RSF continues to engage with state and local partners to identify disaster-caused gaps and concerns, while also jointly developing proposed solutions to identified issues with partners.

Housing RSF

Overview and Status of Recovery Operations

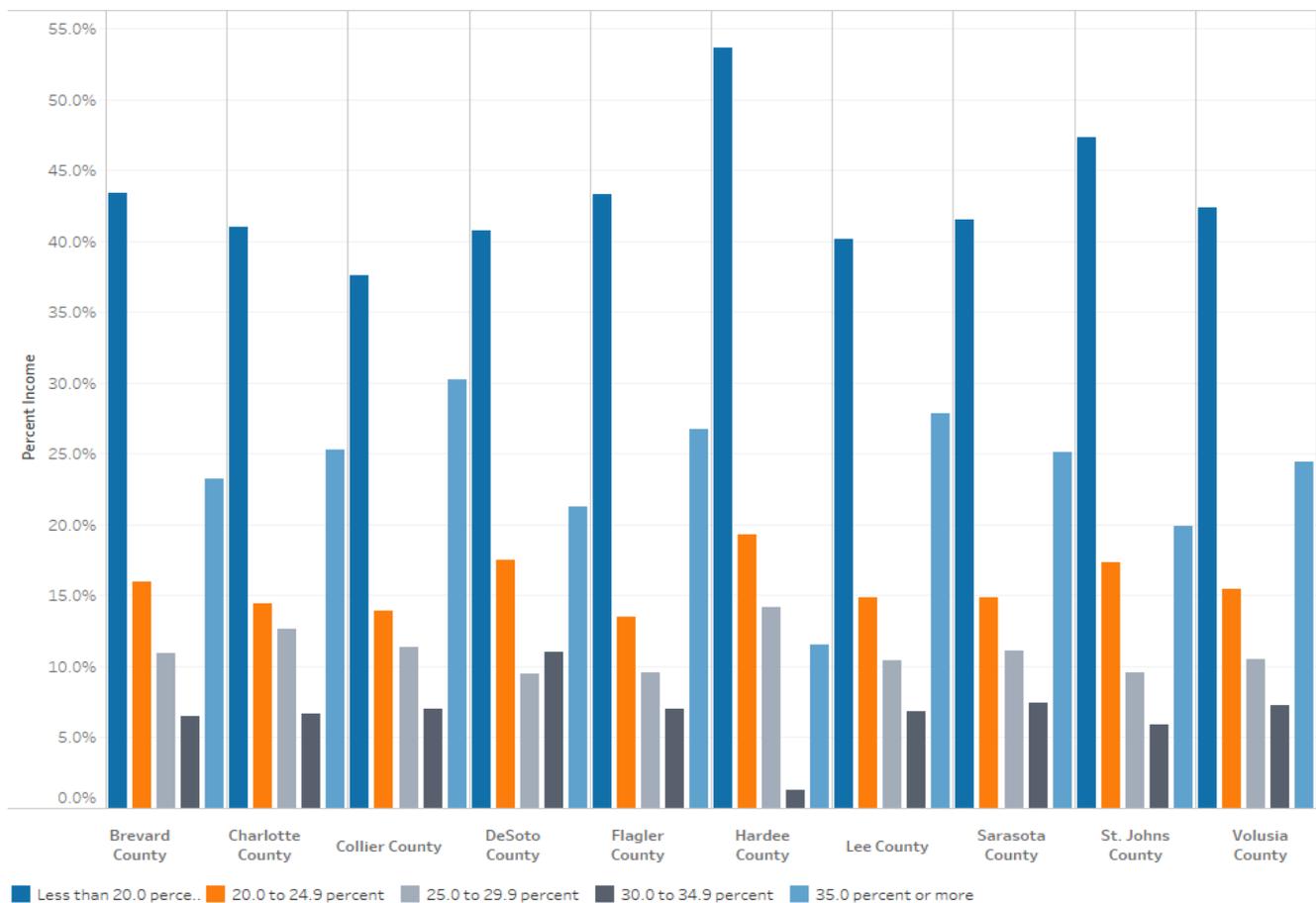
During the housing assessment data collection process, the Housing Recovery Support Function (RSF) engaged, as appropriate, other RSFs (Economic, Community Planning and Capacity Building, Infrastructure) to facilitate coordination of cross-sector housing-related issues, including but not limited to mitigation efforts, repair of critical infrastructure, as well as economic recovery. Continued coordination by the State of Florida will aid in ensuring multi-agency programs and services are delivered equitably and efficiently and will help to address both pre-and post-disaster housing recovery needs and gaps.

Coordination will be especially important in those in rural and lower-income communities where the need for quality affordable housing has been exacerbated by the disaster. Through pre- and post-disaster housing data analysis and stakeholder engagement with state and local agencies and nonprofits involved in recovery efforts, the areas for consideration during their long-term recovery planning follow.

Monthly Owner Costs as a Percentage of Household Income²⁹

The Argonne assessment reveals housing affordability is an issue in many communities where monthly owner costs account for 35 percent or more of household income.

Selected Monthly Owner Costs as a Percentage of Household Income



²⁹ Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023

The Housing RSF has identified six primary needs and areas of concern.

- **Increase the number of affordable, accessible, and resilient housing options:** The primary concern, heard almost universally across the stakeholder organizations consulted, was the overall lack of housing prior to the hurricane, and the exacerbated effect that the disaster has had on this issue. Prior to the storm, most areas in Florida, including the impacted counties, were experiencing a lack of housing overall and affordable housing in particular. With the loss of a considerable number of units due to Hurricane Ian, the pressures on the housing market only increased, and the laws of supply and demand have driven prices beyond the reach of many residents. From stakeholder engagement, availability of workforce housing was also a prominent issue.
- **Expand staffing capacity of the affordable housing sector:** At the local level, organizations with housing-related missions are finding it difficult to respond to the size and scope of the housing impacts. Particularly, organizations supporting the development of housing in rural areas are scarce when compared to urban areas. The current steady-state operations of these organizations will not meet the needs of impacted families. Housing providers, due to insufficient staffing, are having difficulty pursuing funding, implementing programming, overseeing construction, and providing appropriate accounting for funds received. Home repairs, new construction of multi-family and single-family units, and transitional housing availability need to occur at increased rates compared to that of pre-storm activity.
- **Enhance communication, coordination, and collaboration among recovery stakeholders:** A common concern expressed by stakeholders was seemingly a communication breakdown occurring on several fronts: between federal and state agencies, between state and local agencies, and between agencies and survivors seeking assistance. Stakeholders described instances where information on new programs or registration dates might be conveyed to some communities but not reach others. Factors included language barriers, especially among Spanish and Creole-speaking populations, and using methods of communication, such as internet or social media platforms, that may not be accessible to everyone, especially among older adults or in communities with limited broadband. Staffing shortages combined with pressure to resolve immediate crises also contribute to communication gaps.

Visioning activities have a goal of producing a common vision of how the region will be rebuilt in the future. The disaster task force, along with stakeholder groups, local and state governments, and community members, can all contribute to transforming ideas into action for a better, more resilient region that will improve the lives of everyone impacted. A fair exchange of information and collaboration has been discussed extensively in stakeholder engagement meetings since the common goal is to get everyone affected by Hurricane Ian back into safe habitable homes.

- **Identify ways to incentivize inclusive zoning and land use policies:** Zoning and land use policies have a direct and indirect impact on the availability of equitable, affordable housing. Some stakeholders said that communities were not opposed to developing housing that was considered affordable for lower-income residents, so long as the developments occurred outside of their jurisdiction. However, communities benefit when local ordinances allow for and encourage affordable residential developments in the neighborhoods where residents work. Installing greater numbers of smaller single-family homes and apartments encourages residents to stay within their communities, allowing more people to contribute to the local economy, provides incentives for future growth, and ensures that businesses and essential services can retain sufficient staffing. Educating citizens on how these initiatives would directly benefit them would encourage public support of these practices. This could be done at local county or board meetings and would allow citizens to ask questions or participate in future developments through voting.
- **Identify opportunities to mitigate risk and reduce repetitive loss:** Mitigation reduces a property's risk to

future events and allows residents to return home more quickly, with less damage, after an event. While it may involve a larger initial investment, mitigation pays off in the long run. Some estimates indicate on average, for every \$1 spent on mitigation, \$4-6 are saved from future losses. Given the stakeholder engagement feedback received, education and the adoption of successful mitigation and resiliency programs associated with rehabilitation, new construction, land loss, and buyouts could be expanded. The age of housing is a critical consideration when looking at potential damage, as older homes were built to less stringent building code standards than newer homes. While many properties have been mitigated in recent years, a significant number of properties remain unmitigated. All counties in this assessment have most of their housing constructed prior to 2000, except for St. Johns County at 49.6%. For DeSoto, Hardee, and Volusia Counties, over three-quarters of their housing stock was built before 2000.

Since 2012, the Insurance Institute for Building and Home Safety (IBHS) has rated Florida at the top of their “Rating the States” list based on a review of each state’s building codes.³⁰ Adoption of those codes has reduced the vulnerability of the newer housing units in Florida. Consider Babcock Ranch, which was located directly in the path of Hurricane Ian. The homes were built to Florida Green Building Coalition standards and sustained minimal damage. Babcock Ranch is also America’s first solar-powered town, and the homeowners never experienced a loss of power during Hurricane Ian.

- **Shorten the delivery timeframe for disaster recovery programs:** In the immediate aftermath of a disaster, a flood of incoming volunteers and relief agencies arrive to provide assistance. While hotel vouchers are awarded and temporary transportable housing units are installed, agencies begin to staff long-term recovery programs, apply for grants, and promote building of resilient and affordable housing. But setting up programs takes time and, in the interim, disaster survivors face a gap between the expiration of short-term relief programs and the arrival of long-term assistance.

Summary

The Housing RSF will continue its assessment process and will update the key recovery considerations as appropriate. The Housing RSF, in collaboration with FEMA, USDA-RD and the State of Florida, collected, analyzed, and synthesized damage assessment data and housing impacts. The data reflected pre-disaster and post-disaster housing conditions and provided a quantitative outlook. A comprehensive outreach strategy followed in impacted communities, among local leaders, housing providers, and other stakeholders, to identify cross-cutting concerns and issues, conduct focus groups with housing providers (including public housing authorities, philanthropy groups, Long-Term Recovery Groups [LTRGs], Continuums of Care, and non-profit agencies that assist individuals and families), state and local government representatives along with regional planning councils, and National Volunteers Active in Disaster (VOAD) groups who supported with housing repair and reconstruction efforts after Hurricanes Ian and Nicole. When integrated with the data analysis, the needs identified above emerged as those issues most prominent within the impacted areas.

³⁰ Source: Rating the States – Insurance Institute for Business & Home Safety (<https://ibhs.org/>)

Infrastructure Systems RSF

Overview and Status of Recovery Operations

Infrastructure stability and resilience is a vital factor to consider if Florida is to recover from the aftermath of the damage and destruction resulting from a hurricane strike on the state. Decisions made and priorities set early in the response and recovery process by a community will have cascading effects on the nature and speed of the recovery process. The objective of the infrastructure systems recovery process is not only to match the capacity of all infrastructure systems to the community’s current and projected requirements, but also to look at building resiliency into these systems. To accomplish this, the Infrastructure Recovery Support Function will ultimately need to coordinate an overall Infrastructure Systems Recovery Coordination Plan that integrates federal and state agencies, the private sector, and volunteer agencies’ capabilities together to meet the recovery needs and desired outcomes identified by the local communities and stakeholders.

Numerous field damage assessments were completed to gain a better understanding of the community’s infrastructure needs. This included speaking to state and local officials on the damage sustained and then identifying areas where resiliency gaps existed within community’s critical infrastructure systems.

Collaboration with FEMA Public Assistance (PA) in assessing storm induced damage to a community’s infrastructure systems identified gaps in PA coverage that could be filled by leveraging other services and benefits to improve resiliency. Further coordination with federal counterparts was accomplished to coordinate cross-sector issues related to repair and replacement of storm-damaged critical infrastructure systems.

The Infrastructure Systems RSF has identified five primary needs and areas of concern.

- **Impacts to beaches and dunes:** Florida’s beaches are the lifeblood of Florida’s tourist-based economy and tourist industry. Many large and small businesses rely on the environmental vitality and sustainability of Florida’s beaches and dune systems to sustain Florida’s tourist base economy. On the barrier islands located on Florida’s west coast, it is clear where Hurricane Ian’s destructive storm surge (10–15 ft.) devastated hardest hit Sanibel and Pine Islands and Ft. Myers Beach, damaging or destroying numerous structures and critical island infrastructure while causing significant beach and dune erosion.

Armoring Damage

As explained by Argonne, armoring around the coastline is used to protect both the beaches and coastal infrastructure from erosion. Following is a table of the armoring damage resulting from the hurricanes.³¹

County	Ian		Nicole	
	Major Damage (Feet)	Minor Damage (Feet)	Major Damage (Feet)	Minor Damage (Feet)
Collier	3,036	0	NA	NA
Flagler	1,200	9,350	7,790	2,036
Lee	4,756	1,525	NA	NA
St. Johns	0	845	2,008	1,243
Volusia	6,330	3,435	13,262	3,265
Total	15,322 (2.9 miles)	15,155 (2.87 miles)	23,060 (4.37 miles)	6,544 (1.24 miles)

Source: Florida Department of Environmental Protection, 2022

- **Coastal flooding:** On Florida’s east coast, Hurricane Nicole’s storm surge caused coastal flooding, severe

³¹ Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023

beach/dune erosion, and structural damage/destruction to beach communities in the wake of damage already caused by Hurricane Ian. In summary, the combination of a limited understanding at local levels concerning beach/dune resources, impacts from sea level rise, beach/dune erosion, and hurricane-induced storm surges are taking a toll not only on coastal resiliency but also on the popularity of Florida’s beaches as a vacation destination.

- **Resilience of water and wastewater infrastructure:** Utilities, potable water, and water treatment systems failed during the hurricane; water and wastewater infrastructure located on Florida’s west coast experienced severe impacts from Hurricane Ian’s storm surge including damage to/destruction of wastewater lift stations and damage to water and wastewater treatment plants. In rural communities, stormwater flooding caused contamination of private drinking water wells and caused the failure of septic systems inundated by flood waters. These resulted in health consequences to storm-impacted populations, requiring the need for posting of boil-water notices in many cities and counties.

Public Assistance (PA) Damage Assessments for Water-Related Facilities

The following table provides a summary of PA damage assessments for water-related facilities, as reported through Argonne.³²

County	Water Treatment	Wastewater Treatment	Drainage	Total
Charlotte	-	\$2M	\$75K	\$2.1M
DeSoto	-	-	\$40K	\$40K
Flagler	\$27K	\$137K	-	\$164K
Hardee	\$328K	\$110K	\$50K	\$488K
Lee	\$38M	\$14.5M	\$1.7M	\$54.2M
Sarasota	\$2.4M	\$1M	\$50K	\$3.5M
Volusia	\$766K	\$79K	-	\$844K

Source: FEMA, January 2023

- **Riverine flooding:** The Kissimmee, Peace, Caloosahatchee, and St. Johns Rivers all faced unprecedented flooding due, in part, to excessive rainfall amounts in the wake of Hurricanes Ian and Nicole. These rivers were one of many Florida waterbodies that saw record-level rainfalls that resulted in unprecedented flooding in areas of the state that had not seen this level of flooding before.
- **Roadway damage:** Floodwaters resulting from excessive rainfalls from Hurricane Ian in South Central Florida counties caused damage to roadways, resulted in localized destruction of pavement on state and local roads, and contributed to bridges and roads closures due to floodwater inundation. Counties with limited funding resources have found repairs to damaged roadways more challenging, resulting in longer periods of road closures.

Public Assistance (PA) Damages for Transportation-Related Facilities

The following table provides a summary of PA damage assessments for transportation-related facilities, as reported through Argonne.³³

³² Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023

³³ Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023

TRANSPORTATION-RELATED FACILITIES: PUBLIC ASSISTANCE DAMAGES			
County	Roads	Airports	Total
Charlotte	\$310K	-	\$310K
Collier	\$10K	-	\$10K
Flagler	\$94K	-	\$94K
Hardee	\$277K	\$2.7K	\$3M
Lee	\$179K	\$2M	\$2M
Sarasota	\$1.7M	\$1.9M	\$3.6M
Volusia	\$2.1M	-	\$2.1M
Source: FEMA, January 2023			

Summary

To achieve resiliency of infrastructure systems, communities will need to first identify and then prioritize infrastructure needs, which requires engagement of the whole community to develop “strategic level” guidance and then leverage of all available authorities and programs to support the community’s recovery plan. For coastal resiliency issues, coastal communities and the state need to develop a work plan that would assist in addressing efforts for restoring severe erosional damage to beaches/dune systems and severely damaged or destroyed beach front structures (i.e., homes, condo buildings, hotels, etc.) caused by Hurricane Ian’s and Nicole’s storm surges.

The plan should include identifying those authorities and programs available for beach and coastal restoration, looking at prioritizing nature-based solutions (coral reefs, oyster bays, sea grass, mangroves) while working to expedite hard engineering erosion solutions where necessary (emergency berms, water containment, diversion structures, structural elevation). Increasing the resilience of infrastructure also pertains to water, wastewater, and roadway infrastructure to withstand storm surges and flooding so that in the long term, it will support the local economy as well as its residents with uninterrupted service after the storm passes. Additionally, infrastructure resilience to withstand future disasters is only possible by addressing challenges and developing solutions, identifying funding sources for accelerating state appropriations packages while developing flexibility in matching different federal funding streams, and by educating at risk communities and homeowners to better understand the need for increasing the resiliency of the communities’ infrastructure systems.

Natural and Cultural Resources RSF

Overview and Status of Recovery Operations

The Natural and Cultural Resources (NCR) recovery support function is coordinated by the U.S. Department of the Interior (DOI). NCR, which includes both natural resources (land, wildlife, fish, and water) and cultural resources (parks, historic sites, museums, libraries, cemeteries, etc.), is a significant part of a state and local community's foundation. Damage to natural resources is often not readily apparent and takes significant time to evaluate following a disaster; however, damage to fixed cultural assets, like parks and museums, is more readily observed and evaluated.

The mission of the NCR RSF is to protect natural and cultural resources and properties through appropriate actions to preserve and restore them consistent with post-disaster community priorities and best practices and in compliance with applicable environmental and historic laws and orders. The NCR RSF integrates Federal assets and capabilities to help State and Tribal governments and local communities address long-term environmental and cultural resource recovery needs after large-scale and catastrophic incidents. The NCR utilizes federal resources, technical assistance, and available programs to meet local community recovery needs by identifying opportunities to join natural and cultural protection with hazard mitigation strategies, encouraging partners to support local communities' recovery plans and priorities, coordinating complex issues to assure federal support consistency and communication and collaboration with all partners to ensure dialog and information sharing.

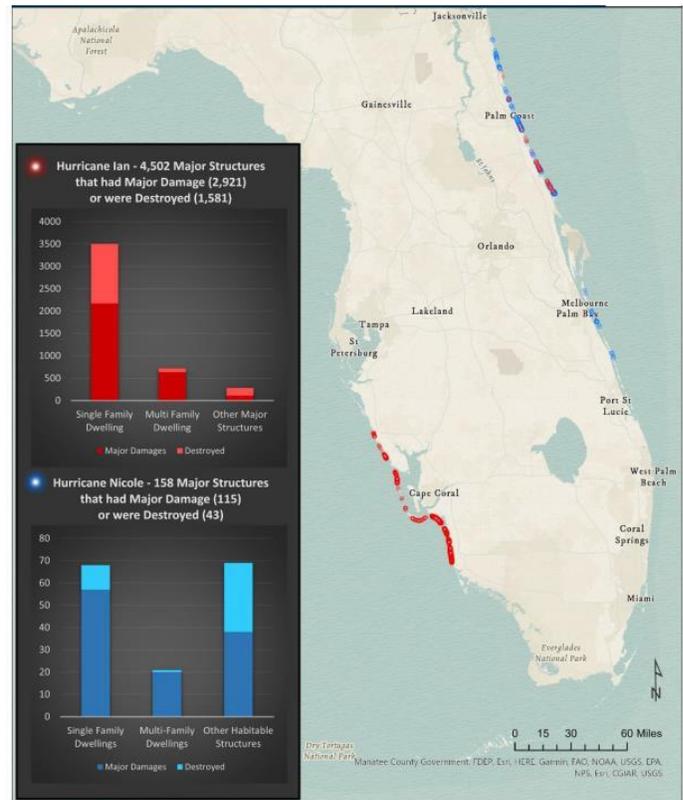
The Natural and Cultural Resources RSF has identified three primary needs and areas of concern.

Coastal Damage Assessment³⁴

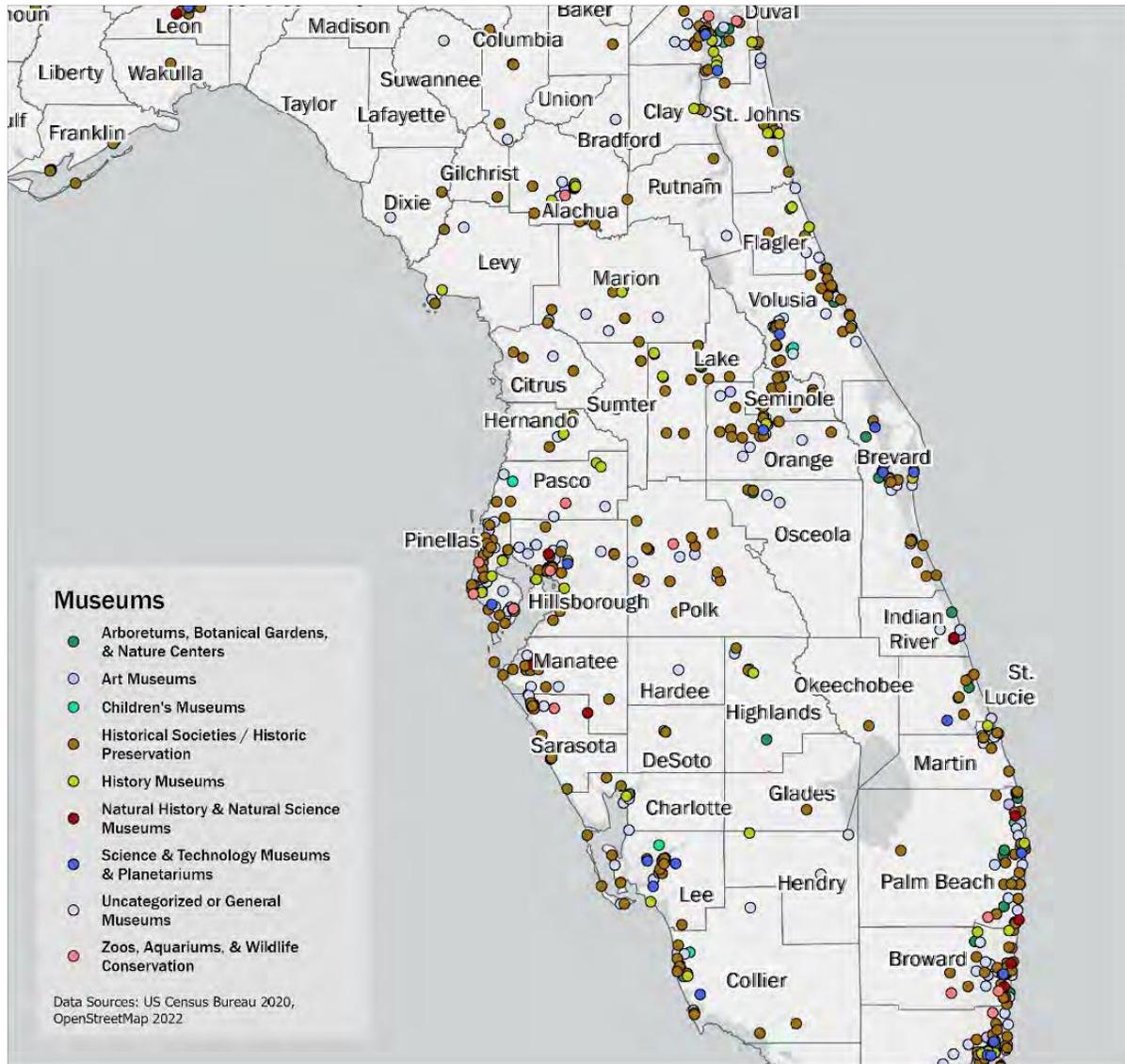
³⁴ Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023

- Coastal resilience building:** Coastal resilience is a major economic driver for the state of Florida. The state and federal parks on both sides of Florida’s west coast Lee and Charlotte counties took the brunt of Hurricane Ian’s storm surge, devastating Fort Myers Beach as well as Sanibel and Pine Islands. On the east coast, Hurricane Nicole caused significant damage to Volusia, Flagler, and Brevard beaches and structures. Currently, the primary NCR concerns are beach erosion and building resilience along the coast to protect fish and wildlife habitat, public lands/parks, recreational opportunities, historical properties, archaeological sites, museums, libraries, and other cultural institutions.

- Cultural and landmarks and collections:** There are more than 1,000 historic properties, structures, and districts throughout Florida. During both Ian and Nicole many historic properties sustained significant wind and flood damage. NCR examines damage to historic properties that are on the National Register of Historic Places (NRHP) as well as properties that are proposed for listing on the NRHP to determine what, if any, assistance may be needed and to ensure that property owners are aware of assistance that may be available through FEMA or other sources. NCR is currently working with the other RSFs evaluating communities such as Arcadia, Sanibel Island and Bonita Springs, which all have a significant number of historical properties, including NRHP-designated properties. The archaeological history of Florida predates the human occupation by the Native Americans prior to European occupation, which began in the 1500s. As a result, the state has identified more than 130 significant archaeological sites and areas, many of them along the coast. Analysis of potential impacts to all these sites is not complete and needs further investigation and identification by local, state, and tribal governments.



Cultural and Historic Landmarks³⁵



- **Natural resource restoration and resiliency building:** NCR’s focus on natural resource restoration and resiliency encompasses a large and complex set of issues, including but not limited to agriculture (aquatic and terrestrial), coral reefs, threatened and endangered species, fish and wildlife, forest, parks, lakes, and groundwater. Debris management and control of invasive species are also an important component to restoration and resiliency. Florida has one of the most diverse ecosystems, and it has been severely impacted by the two hurricanes statewide.

Summary

To achieve restoration and resiliency of the vast natural and cultural resources of the State of Florida will require immense coordination and collaboration at the local level with the state and the RSFs within the Interagency Recovery Coordination Team. The NCR has far-reaching technical resources for these issues to

³⁵ Source: Argonne National Laboratory, Hurricanes Ian and Nicole Interagency Recovery Coordination: Initial Impact Assessment, March 2023, citing data from the Florida Department of Environmental Protection

support everything from historical property and document restoration to nature-based solutions to improve habitat and livability of communities. The overall goal is to establish a flexible recovery plan that restores, protects, and revitalizes the natural, cultural, and environmental resources of the community and builds more resilience into projects in anticipation of reducing or eliminating damages in future natural disaster events.

Environmental Protection Agency (EPA) Sustainability Advisor

Overview and Status of Recovery Operations

Assessments by the Recovery Support Function Field Coordinators, IRC, and Argonne Assessments, plus community and stakeholder engagements, state engagement, integrated operations, and recovery lines of effort were reviewed and considered in these findings. Four cross-sector issues were identified: management of flood water impacts, economic development in Central Florida, delayed maintenance in wastewater and stormwater management, and septic system impacts.

Several resiliency opportunities are identified:

- Application of green infrastructure that could be supported across communities impacted with flooding issues.
- Improving access to resources to assist vulnerable communities with capacity support in accessing state and federal funding through assistance in grant writing and grant management expertise.
- Septic systems with deferred maintenance that are impacting operational efficiency and leading to water quality impacts along streams, rivers, and estuaries could benefit from upgrades or supporting connections to public infrastructure systems.
- Downtown revitalization efforts connect community tourism priorities with economic opportunities.
- Coastal resiliency strategies and tools for city and county officials to improve nature-based solutions and living shoreline applications across beaches, estuaries, and streams.

The EPA Sustainability Advisor has identified four primary needs and areas of concern.

- **Managing flood water impacts:** Rain events are more frequent and of higher intensity duration, which overwhelms existing capacity to manage stormwater.
- **Connectivity is needed in interior counties to leverage recreational assets:** For economic development, connectivity is mainly related to interior counties that have not developed links to tourism or leveraged recreational assets to bring in tourism for added stays.
- **Delayed renovations to water infrastructure maintenance are leading to failures:** Delayed renovations are leading to failures from inflow and infiltration of existing wastewater systems as well as increased population growth, stretching existing stormwater capacity beyond limits.
- **Septic system impacts on water quality and long-term ecosystem and public health:** This is an issue with the Coastal and Heartland National Estuary Partnership as well as the Indian River Lagoon National Estuary Program in addition to Regional Planning Councils and multiple county and city governments. Moving from septic to public infrastructure could provide benefits to communities, water quality, and ecosystem health.

Summary

There is growing leadership and community support to develop innovative solutions and leverage federal and state resources to improve long-term resiliency. County and city governments are evaluating capacity to work with IRC to develop projects to support their communities as well as identifying organizations that could support capacity through existing partnerships. Collaboration across city and county officials is strong, and multi-county relationships have been identified that would be necessary for possible work across jurisdictions.

U.S. Dept. of Agriculture Advisor

Overview and Status of Recovery Operations

USDA supports recovery efforts by identifying funding and technical assistance available to assist individuals, businesses, nonprofits, and SLTT entities in their recovery efforts. Programming can be comprised of disaster-activated and steady-state programming. As USDA Advisors, the mission is to inform the SLTT entities, FEMA, and Interagency Recovery Coordination members of USDA opportunities. While research on economic impact associated with production agriculture, natural resources, and rural areas is ongoing, this process identified seven primary needs and concerns that will contribute toward a shared understanding of recovery needs and indicate the level of federal support needed.

The USDA Advisor has identified seven primary needs and areas of concern.

- **Severe production losses sustained in citrus, vegetables, melons, and greenhouse/nursery:** Production losses for agricultural producers in Florida resulting from Hurricane Ian are estimated to be around \$1.03 billion. The commodity groups most affected in terms of production losses are Citrus (\$247 million), Vegetables and Melons (\$205 million), and Greenhouse/Nursery (\$195 million). The top five counties bearing the agricultural losses are Manatee (\$126 million), Hillsborough (\$104 million), Palm Beach (\$89 million), Hardee (\$73 million), and Hendry (\$72 million).
- **Individual farmers, ranchers, and units of governments lack sufficient resources for up-front expenses for reimbursable USDA programs with cost share:** Some USDA programs require a 10-25% cost share and are also operated on a reimbursement basis. Applicants must have enough funding up front to cover the expenses, creating a financial hardship for the applicants. This applies to both individual farmers/ranchers and units of governments.
- **Some impacted areas are not in eligible “rural areas,” limiting participation in business, community facilities, housing, and infrastructure programs:** Not all impacted areas are in eligible “rural areas” as defined by USDA Rural Development’s programming, which can limit their ability to participate in programs associated with business, community facilities, housing, and infrastructure. USDA Rural Development uses population limits to define “rural areas,” and those population limits vary by program, creating confusion among applicants.
- **Occupants in farm-labor housing typically do not qualify for FEMA-IA based on H-2A status or do not want to register:** The difference in the number of housing units available and farm-laborers is 38,883. Non-congregate sheltering units available for farm-labor housing are for FEMA registrants only. Individuals and households living in farm-labor housing typically do not qualify based on their H-2A status or do not want to register with FEMA. Pre-disaster, the total gap between the number of beds available and the number of unaccompanied farm-laborers was 17,350 beds in FEMA-IA designated counties. The total gap between the number of multi-family units available and accompanied farm-laborers was 21,533. USDA has received multiple inquiries associated with Non-Congregate Sheltering units being available for farm-labor housing, but based on FEMA guidance, the units are only for FEMA registrants.
- **The Disaster Supplemental Bill’s eligibility and implementation aspects for USDA programs are ambiguous:** There is a lot of ambiguity surrounding the Disaster Supplemental Bill since USDA has not yet defined how the programs will be implemented or how eligible disasters will be determined. It will be very important to get a clear understanding of all the USDA funding available in the bill, communicate those changes to all appropriate stakeholders, and target outreach to potential applicants.

- **Limited staffing at USDA is straining the ability to meet work surges and serve disaster recovery well:** USDA has limited staff capacity throughout the nation at local, regional, and state levels. This makes it very difficult to administer disaster programs and to support the increased workload associated with it. This is particularly challenging given the number of large disasters occurring across the nation, making it difficult to find “jump teams” or other staff willing to support the surge of work.
- **Access to Individual Assistance data is a barrier to supporting outreach and assistance for survivors requiring USDA assistance:** USDA does not have access to FEMA-IA registrant data. This creates a significant challenge in supporting outreach to these individuals since the responsibility to contact USDA falls on the disaster survivor. This is a critical issue early in a disaster as USDA tries to identify any tenants of USDA- financed multi-family properties participating in sheltering programs.

Summary

The USDA recovery needs assessment effort ensured engagement and coordination with key stakeholders for FEMA programs (IA, PA, Mitigation), other RSFs, and SLTT entities impacted by the disaster. Key stakeholders on the local level included University of Florida/Institute of Food and Agricultural Sciences Extension Service and the steady-state staff of USDA agencies (Farm Service Agency, Natural Resources Conservation Service, and Rural Development). Continued coordination will facilitate information sharing and ensure issues are identified that reflect community need. Once completed, scoping of recovery support strategies may begin to address them.

Philanthropy Advisor

Overview and Status of Recovery Operations

As FEMA and federal partners work with local officials to develop recovery plans, the philanthropic community is commonly, and necessarily, represented at recovery-focused events, meetings, and activities in impacted communities where federal agencies are supporting the state for Hurricane Ian and Hurricane Nicole.

Engaging foundations as effective partners and stakeholders is critical to the role private grantmaking plays in a community's recovery.

The Philanthropy Advisor's mission identifies and establishes partnerships with philanthropic entities for funding and other resources available to address disaster recovery needs. The Advisor gathers information and assists in addressing needs that could be supported with philanthropic funding and resources; connects philanthropic partners, the federal community, other potential funders, and resources with opportunities to address needs; provides timely recovery resources for the IRC team, SLTTs, the philanthropic community, NPOs, CBOs, and other stakeholders; and serves as an integral component to the funding stack and in maturing and nurturing external relationships.

The Philanthropy Advisor has identified four primary needs and areas of concern.

- **Resources to meet community recovery needs and survivor needs are limited.**
- **Utilize the opportunity to build a partnering relationship with Florida Philanthropic Network (FPN):** Identification of likely or appropriate counterparts from the state would be helpful to launch the type of collaborations necessary to form a Funders Roundtable (consortium). Funders Roundtables can be the catalyst for connecting needs or funding gaps with potential resources.
- **Coordinate with private sector to identify areas of support:** Several avenues exist for accessing appropriate corporate-giving points of contact, whether from beginning purposeful and strategic collaborations with the FEMA Private Sector program or the corresponding State PS Liaison(s) and/or the FloridaCommerce.
- Identify organizations and state agencies to champion development of the professional human resources grant writers, grant administrators, and local disaster recovery managers (LDRMs): These needs in disaster recovery “bake in” capacity building even before a disaster befalls a community. The conundrum is that these human resources (professional staffers) must be ready—first responders—because little can be done without human capital.

Summary

Philanthropy Advisor is providing targeted and focused recovery resource searches—“Requests for Recovery Resources” (RRR)—that have been generated from the state. The RSFs, Equity Advisor, Disability Integration Advisors (DIA), and other FEMA program areas such as Individual Assistance and Public Assistance also ask for potential funding or technical assistance sources. Disaster impacts range from mental health to bridge-building in waterways as a transportation device for daily commuting and as an evacuation route. Involving the private sector (corporations) through collaborations with the FEMA Private Sector program or the corresponding State Private Sector Liaison(s), Florida FloridaCommerce, can be explored as recovery matures and resource gaps emerge.

Academia Advisor

Overview and Status of Recovery Operations

The Institutions of Higher Education (IHE) are integral entities in the community as they educate the population and assist in stabilizing and advancing the nation's workforce, provide technical support and solutions through cutting-edge research, and direct services through faculty and student engagement. These institutions are often directly impacted when disasters occur. Thus, their engagement is two-fold as survivors and applicants, as well as partners in long-term recovery. They are representative of the whole community approach (FEMA 2022–2026 Strategic Plan). Their partnership and input in community recovery meetings and events are invaluable.

The Academia Advisor's mission is to assist the Interagency Recovery Coordination (IRC) in its mission of effectively, efficiently, and equitably supporting states, territories, tribal nations, and local (SLTT) governments to define and achieve their recovery outcomes, as defined in the National Disaster Recovery Support Framework (NDRF). The Academia Advisor identifies and links universities with local governments and community-based recovery groups, and coordinates with partners to leverage resources and assets to meet objectives and cultivate and sustain college and university partnerships.

The Academic Advisor has identified three primary needs and areas of concern.

- **Identify IHE programs that align with school recovery efforts:** Identify connections with a state counterpart from the State University System of Florida Board of Governors; State Board of Education, Division of Florida Colleges, and any other state education assets focused on Institutions of Higher Education to support recovery.
- **Develop partners in private, technical and minority-service institutions:** Engage and partner with the U.S. Department of Education to assist in the collaboration of private, technical, and minority-serving institutions.
- **Identify IHE resources to participate in community-based projects:** Integrate and identify Institutions of Higher Education as resources in community-based solutions to enhance project engagement and solve unmet needs in underserved communities.

Summary

The Academia Advisor has conducted outreach with institutions to address needs of students with personal property damage, participated in site visits to intersect Emergency Support Function and Recovery Support Functions in delivery of on-campus support, and has developed a resource and institution database reflecting academic program linkage with common disaster recovery needs in mental health, watershed management, beach and dune renourishment, flood surge, cemetery and historical facility preservation, and economic industries. Corresponding universities include Florida Gulf Coast University, College of the Florida Keys, St. Leo University, New College of Florida, University of Florida, Nova Southwestern University, and Seminole State College.

The Academia Advisor team will continue to identify Institutions of Higher Education with academic programs aligned with disaster recovery needs. Enhancing engagement in partnership and collaboration with the State University System of Florida–Board of Governors and other state education entities will assist in a more unified and whole community approach for long-term recovery.

Summary of Recovery Issues

RSF / ADVISOR	NEED ISSUE CONCERN	RSF PARTNERS
<p>COMMUNITY ASSISTANCE</p>	<p>Limited affordable housing options.</p>	<p>Housing, EPA, USDA, State Housing Task Force</p>
	<p>Local/regional planning process and coordination to plan and manage resources for their recovery.</p>	<p>USACE, EPA, EDA, NCR FDRM, FloridaCommerce, Dept. of Community Affairs, FDEP</p>
	<p>Coordination to support resilient infrastructure and redevelopment.</p>	<p>USACE, EPA, EDA, NCR, USDA, Philanthropy, FDEM, FloridaCommerce, Dept. of Community Affairs, FDEP</p>
	<p>Development of guidance to improve access to services by the underserved.</p>	<p>CA, Equity, USACE, EPA, EDA, NCR, USDA, Philanthropy, FDEM, FloridaCommerce, Dept. of Community Affairs, FDEP</p>
<p>ECONOMIC RECOVERY</p>	<p>Significant business loss, business closures and disruption amounted to reported damage exceeding \$1 billion; reported damage was highest in Southwest, East Central, Central, Tampa Bay, and Northeast Florida.</p>	<p>Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources RSFs; SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors</p>
	<p>Beach closures; damage to hotels, restaurants, closed parks and recreational areas; supply chain interruption; and negative press coverage have impacted tourism activities in the impacted areas.</p>	<p>Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources RSFs; SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors</p>

	<p>More than \$1 billion in estimated damage to crops, livestock and infrastructure disrupted production and the workforce.</p>	<p>Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources RSFs</p>
<p>ECONOMIC RECOVERY</p>		<p>SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors</p>
	<p>Economic impacts to the aquaculture industry, including fish production, caused an estimated \$8.3 million in damage.</p>	<p>Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources RSFs; SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors</p>
	<p>Displaced, damaged, and destroyed boats, docks, and other infrastructure are having devastating impacts on the future prospects of the fisheries.</p>	<p>Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources RSFs; SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors</p>
	<p>Displaced workers are navigating the loss of homes and livelihoods, and reportedly focusing more on survival needs than returning to work.</p>	<p>Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources RSFs; SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors</p>

	<p>Supply chain constraints have exacerbated recovery challenges to major industries in the state.</p>	<p>Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources; SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors</p>
	<p>Several of Florida’s impacted rural counties and underserved communities have limited capacity to recover from Hurricane Ian, let alone build back better.</p>	<p>Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources RSFs; SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors</p>
<p>ECONOMIC RECOVERY</p>	<p>Limited broadband capacity and resiliency continues to hamper Florida’s ability to be resilient after disaster events.</p>	<p>Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources RSFs; SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors</p>
	<p>Lack of backup in electrical power systems led to catastrophic losses in the agriculture and aquaculture, hospitality and food service industries.</p>	<p>Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources RSF; SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors</p>

	The hurricanes led to significant damage of supportive critical infrastructure for economic development.	Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources RSFs; SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors
ECONOMIC RECOVERY	State leaders are faced with a clarion call to think creatively and innovatively with respect to future land use development and how to help businesses and communities build for a more resilient future.	Economic, Community Assistance, Health & Social Services, Housing, Infrastructure, and Natural & Cultural Resources RSFs; SBA, USDA, and EPA Advisors; FEMA Equity, Private Sector, Academic, and Mitigation Advisors
SBA	Need for targeted, tailored and coordinated information, guidance, timely communication and outreach regarding disaster assistance processes and resources.	SBA
	Minority business communities may be receiving a lower share of disaster assistance and business/procurement opportunities after a disaster.	SBA
	Small businesses and private nonprofits are unaware of available resources that may support recovery efforts and promote resiliency in the private sector.	SBA
HEALTH AND SOCIAL SERVICES	Limited trained staff and operational planning (external communications, shelter transition, and staff resiliency).	Cross-sector
	Disaster recovery information is not being received and processed evenly across all populations.	Cross-sector
	Shortage of affordable and accessible housing and increased rental prices.	Cross-sector
	Need for prioritization of acute behavioral health service restoration, which is not prioritized to the same degree as physical health care post-incident.	HSS
	Inaccessible behavioral health capacity and service provision data.	HSS
	Challenges in recruiting and retaining behavioral health providers statewide.	HSS
	Care providers are experiencing compassion fatigue.	HSS
	Relocation and displacement of population in affected communities.	HSS
	Damage of varying degrees to educational facilities.	HSS
	Involvement in response planning does not translate to an understanding of available federal disaster recovery assistance.	HSS
Challenges in education workforce hiring and retention.	HSS	

	Increased behavioral and mental health concerns among students and staff.	HSS
	Concerns by healthcare partners about integration and coordination during response.	HSS
	Seniors with damaged homes are at risk of negative individual recovery outcomes.	HSS
	Impacts to seniors have placed them at significantly higher risk of emotional distress.	HSS
	Information and support needed in appropriate methods and language for seniors.	HSS
	A gap exists in the lack of comprehensive and tailored case management.	HSS
	Challenges exist in recruiting and retaining in-home health assistants and companion services.	HSS
	A pre-existing scarcity of affordable and accessible childcare may hinder long-term economic recovery.	HSS
	Infrastructure and land use changes to the built environment will have long-lasting direct and indirect impacts.	HSS
	Public health workforce retention and recruitment Challenges.	HSS
	Repetitive flooding at the Public Health Library in Jacksonville.	HSS
Lack of medical shelters to protect health and serve Communities.	HSS	
HOUSING	Increase the number of affordable, accessible and resilient housing options.	Housing
	Expand staffing capacity of the affordable housing sector.	Housing
	Enhance communication, coordination, and collaboration among recovery stakeholders.	
	Identify ways to incentivize inclusive local zoning and land use policies.	Housing
	Identify opportunities to mitigate risk and reduce repetitive loss.	Housing
	Shorten the delivery timeframe for disaster recovery Programs.	Housing
INFRASTRUCTURE SYSTEMS	Impacts to beaches and dunes.	EDA, SBA, EPA, NCR
	Coastal flooding from Hurricane Nicole caused structural damage/destruction.	IS
	Resilience of water and wastewater infrastructure.	IS
	Riverine flooding.	IS
	Roadway damage.	IS

NATURAL AND CULTURAL RESOURCES	Coastal resilience building.	NCR, Economic, Infrastructure, Housing, Community Assistance, Health and Human Services RSFs; USDA, EPA, NOAA, USFWS, USGS, DOE HENTF, National Endowment of the Arts/Humanities
	Cultural and historical landmarks and collections.	NCR, Economic, Infrastructure, Housing, Community Assistance, Health and Human Services RSFs; USDA, EPA, NOAA, USFWS, USGS, DOE HENTF, National Endowment of the Arts/Humanities
	Natural resource restoration and resiliency building.	NCR, Economic, Infrastructure, Housing, Community Assistance, Health and Human Services RSFs; USDA, EPA, NOAA, USFWS, USGS, DOE HENTF, National Endowment of the Arts/Humanities
EPA SUSTAINABILITY ADVISOR	Managing flood water impacts.	EPA/NCR/IS
	Connectivity is needed in interior counties to leverage recreational assets.	EPA/NCR/ECON
	Delayed renovations to water infrastructure maintenance are leading to failures.	EPA/IS/CA
	Septic system impacts on water quality and long-term ecosystem and public health.	EPA/IS/NCR/CA
USDA	Severe production losses sustained in citrus, vegetables, melons, greenhouse/nursery.	USDA
	Individual farmers, ranchers and units of governments lack sufficient resources for up-front expenses for reimbursable USDA programs with cost share.	USDA/EDA
	Some impacted areas are not in eligible "rural areas," limiting participation in business, community facilities, Housing, and infrastructure programs.	USDA
	Occupants in farm-labor housing typically do not qualify for FEMA-IA based on H-2A status or reluctance to register.	USDA
	The Disaster Supplemental Bill's eligibility and implementation aspects for USDA programs are ambiguous.	USDA
	Limited staffing at USDA is straining ability to meet work surges and serve disaster recovery well.	USDA

	Access to Individual Assistance data is a barrier to supporting outreach and assistance for survivors requiring USDA assistance.	USDA/IRC
PHILANTHROPY	Resources to meet community recovery needs and survivor needs are limited.	Phil
	Utilize the opportunity to build a partnering relationship with Florida Philanthropic Network.	Phil
	Coordinate with private sector to identify areas of support.	Phil
	Identify organizations and state agencies to champion fulfillment of human resources grant writers, administrators, and Local Disaster Recovery Managers.	Phil
ACADEMIA ADVISOR	Identify IHE programs that align with school recovery efforts.	Academia/HHS
	Develop partners in private, technical, and minority-service institutions.	Academia, Equity
	Identify IHE resources to participate in community-based Projects.	Academia, CA, EDA, EPA, IS, NCR, HSS

