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Georgia CITY-COUNTY MANAGEMENT ASSOCIATION

AI Readiness Across Georgia's Counties: Insights and Strategies from a Statewide Assessment

Presented by the Georgia Tech Research Institute

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Agenda

From PCs to AI –Kevin Caravati, Principal Research Scientist

State AI Assessment Results--Dr. Khatereh (Kati) Hadi, Senior Research Scientist

Strategies for Local AI Usage, Matthew Swarts, Senior Research Scientist

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From PCs to AI – Three Key Technological Waves Are Redefining the U.S. Workforce

1. The Personal Computer
2. The Internet
3. Artificial Intelligence
4. How each shaped productivity, skills, and the economy



Credit: Alamy

How PCs Transformed the Workplace

- **Automation of Routine Tasks**
  - Word processors → 30 % reduction in clerical hours (BLS, 1998).
  - Spreadsheets → real time financial modeling, inventory control.
- **Emergence of New Occupations**
  - Software engineers (↑ 4.7 % annual growth 1990-2000).
  - Desktop support specialists (≈ 1 M jobs by 2005).
- **Workplace Flexibility**
  - Laptops → remote work possibilities; the first “telecommuter” wave in the late 1990s.

The Internet: Connecting People, Data, & Markets

- **Adoption Curve**
  - 1993: 1 % of U.S. adults online → 1999: 45 % (Pew Research).
  - Broadband (2005) → 68 % of households with high speed access (2010).
- **Economic Ripple Effects**
  - E commerce sales grow from $5 B (1995) to >$870 B (2023) – creating logistics, digital marketing, and platform management careers.
  - Cloud computing: SaaS market $220 B (2022); reduces on premise IT staff needs by ~30 % (Gartner, 2021).
- **Workplace Transformation**
  - Email & instant messaging cut internal communication latency from days to minutes.
  - Virtual collaboration tools (e.g., Zoom, Slack) enable geographically dispersed teams.

Workforce Changes Driven by the Internet

- **Gig & Platform Economy**
  - Uber, Lyft, Upwork, Instacart – > 57 M workers in 2023 (Economic Policy Institute).
- **Remote & Hybrid Work**
  - 2022: 27 % of U.S. employees “always remote” (Gallup).
  - Productivity gains of 4-9 % for remote teams (McKinsey, 2021).
- **Skill Shifts**
  - Demand for digital fluency (data literacy, digital marketing) ↑ 21 % (WEF, 2020).
  - Traditional “middle skill” jobs (e.g., clerical) decline → upskilling imperative.

How AI Could Shape Local Government

- Higher wages and demand for workers with AI skills
- New roles emerge (budget and finance officers with AI specialties; AI risk and cybersecurity analyst; AI trainer/systems architect and policy advisor)
- Companies integrating AI see higher revenue, profits, and employment growth
- **Challenges**

  Skill gaps: ***Only about 12% of workers received any AI related training*** (Pew Research, 2025)

  Local governments are eager to adopt AI but face uncertainty about responsible use, trust, and misinformation; peer organizations play a critical role.

  AI is seen as a way to do more with less, especially amid staffing shortages and rising service demands.

  Cities are publishing AI policies that emphasize transparency, risk mitigation, and human oversight, creating demand for specialized staff (Urban Institute, 2025.)

Opinion

For now, policymakers and the public should recognize just how unusual this moment is. A.I. competition is delivering rapid innovation, falling prices and real choice at a pace few expected.

Over time, policy will need to adapt to protect users, preserve competition and spread the gains. For the moment, the market is doing that far more than anyone would reasonably have thought possible. *Andrew Furman, Chairman of the White House Council of Economic Advisors, 2013-2017. "The Race to Dominate A.I. Is Brutally Competitive. That's Good for Everyone". New York Times, February 25,2026.*

AI Tools: The Current Disruptive Wave

- **Recent Adoption Milestones**

  2022: Release of ChatGPT (OpenAI) → 100 M users in 2 months (OpenAI, 2023).

- 2023-2024: Generative AI integrated into Office 365, Google Workspace, Salesforce.

- **Economic Scale**

- AI driven productivity gains projected at $2.6 T annually for the U.S. economy by 2030 (Accenture, 2023).

- AI related jobs expected to grow 31 % from 2022-2030 (LinkedIn Emerging Jobs Report).

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Statewide AI Assessment Results, Dr. Khatereh (Kati) Hadi, Senior Research Scientist

Introduction

- GTRI collected data from the Association of County Commissioners of Georgia (ACCG) representing 24 county respondents, and GCCMA, representing 9 city respondents.
- The surveys assessed current AI usage, barriers to implementation, and opportunities for AI across Georgia's local governments.
- Survey Dates

Survey Demographics

Counties (ACCG)

- The 24 county respondents represented diverse roles including county managers, IT directors, finance directors, and department heads.
- The majority (35%) had 11-20 years of local government experience, with 61% describing their age range as 45-54 years.
- Counties represented included Lincoln, Baldwin, Carroll, Glynn, Forsyth, and others across Georgia.

Cities (GCCMA)

- The 9 city respondents were predominantly city managers and administrators from cities including Brookhaven, Marietta, Newnan, and Grantville.
- All respondents worked in Administration departments, with 44% having 31-40 years of experience in local government. The age distribution skewed slightly older, with 44% in the 55-64 range.

Current Technology Landscape

Infrastructure Assessment

- **Counties:** 61% described their technology landscape as "Modern and Generally Up to Date," while 35% characterized it as "Functional but Lacking Key Improvements." Only 4% reported having innovative and technologically advanced systems.
- **Cities:** Cities showed more variation, with 44% reporting "Modern and Generally Up to Date" systems, 22% "Functional but Lacking Key Improvements," 22% "Innovative and Technologically Advanced," and 11% having outdated systems requiring significant modernization.

IT Staffing and Outsourcing

- **Counties:** IT staff levels varied ranging from zero dedicated staff to 15-20 employees. Regarding outsourcing, 33% outsourced less than 20% of IT needs, while 19% outsourced all IT functions.
- **Cities:** Cities showed similar variation with IT staff ranging from zero (contracting with external firms) to 23 employees. The outsourcing distribution was fairly even across categories, with 22% each in the "Less than 20%" and "Between 20%-40%" ranges.
- ***Both groups reported using similar technology stacks*** including Microsoft Office 365, Tyler Technologies products (Munis, Incode), GIS systems, financial management software, and various specialized platforms for permitting, records management, and public safety operations.

Current AI Adoption

Usage Rates

- **Counties:** 65% reported currently using AI-based tools, with 30% not using any, and 4% unsure. Common applications included ChatGPT for research and document preparation, cybersecurity solutions with AI capabilities, Microsoft Copilot, and AI-enhanced features in existing software like email security and GIS systems.

- **Cities:** 89% reported using AI-based tools, with only 11% not currently using AI. Cities demonstrated more advanced implementations, including trained AI for cybersecurity, AI-assisted utility customer care, HR processes, and collaboration with Georgia Tech on electric grid security. Individual staff members were using AI for emails, memos, document preparation, and GIS work.

Frequency of Use

- Work-related AI usage varied significantly in both groups. County respondents reported usage ranging from zero to over 40 times in two weeks, with several noting daily use. City respondents showed similar patterns, with some reporting 40+ uses biweekly and others reporting minimal to no usage.

Barriers to AI Implementation

Counties:

- Security/Privacy concerns: 68%
- Lack of technical expertise: 50%
- Lack of knowledge about AI capabilities: 41%
- Lack of funding: 36%
- Unclear ROI: 36%
- Lack of time and learning opportunities: 32% each.

Cities:

- Security/Privacy concerns: 63%
- Lack of knowledge about AI capabilities: 63%
- Lack of technical expertise: 50%
- Lack of learning opportunities/classes on AI: 38%
- Resistance to change: 25%.

Data Management Challenges

Data Collection

- **Counties:** Time constraints, manual entry errors, staff technical skills, reluctance to adopt new technology, user training needs, lack of data classification, and interdepartmental data sharing issues.
- **Cities:** Similar challenges including keeping data current, too much data to analyze, financial software limitations, outdated records management, lack of cooperation from elected officials' departments, and paper-based systems.

Storage and Organization

- **Counties:** Challenges included security concerns, multiple storage locations, outdated systems, paper records, storage costs, and lack of standardization. One county noted they're "Rural Georgia" and lack infrastructure and workforce compared to larger jurisdictions.
- **Cities:** Issues centered on maintaining current data, system limitations, IT support infrastructure constraints, backlogs of paper records, and budget requirements for servers.

Investment Priorities-Operational ($100 budget)

Counties

- Govt. compliance/reporting: $12.71
- Operations: $11.04
- Risk management: $10.63
- Citizen/Customer service: $9.50
- Communications: $7.71
- Emergency response: $7.71

Cities

- Operations: $20.00
- Communications: $12.89
- Citizen/Customer service: $11.89
- Workforce support: $10.56
- Risk management: $9.44

Investment Priorities-Support ($100 budget)

Counties

- Staff training: $20.83
- Technical expertise: $17.92
- Templates/toolkits: $16.04
- Use case demonstrations: $15.21
- Implementation guidance: $13.33

Cities

- Staff training: $37.44
- Technical expertise: $15.78
- Implementation guidance: $14.11
- Templates/toolkits: $14.11
- Use case demonstrations: $8.56

Cities allocated more to staff training ($37.44 vs. $20.83)

Potential Automation Opportunities

Counties Identified:

- Financial reporting and compliance
- Data searches and cybersecurity
- Accounts payable and payroll processing
- Meeting minutes
- Routine clerical tasks
- Permitting processes
- Employee onboarding and termination
- FAQ responses and citizen engagement
- Grants management

Cities Identified:

- Compliance and payroll reporting
- Communication reminders
- Operational benchmarking and reporting
- Monthly reports and performance measures
- Road maintenance scheduling
- Collection of fines, fees, and payments
- Licensing and permitting
- Zoning and development reviews
- Data management and security
- Employee training on systems

Integration with State and Federal Systems

State Government Integration

Both groups reported connections with various state systems, though integration levels varied:

Common state systems: Georgia Procurement Registry, GDOT, DCA, GCIC (criminal justice), court systems, GEMA, Department of Revenue, and various grant portals

Federal Government Integration

Federal integration was more limited, with connections primarily through:

- FEMA (emergency management)
- IRS (tax reporting)
- Grant management systems (HUD, FHWA, DOD)
- CJIS/NCIC (law enforcement)
- LOGIN.GOV
- Treasury systems

Key Findings and Insights

Adoption Readiness: Cities appear more advanced in AI adoption, with 89% currently using AI tools compared to 65% of counties. Cities also allocated significantly more budget priority to staff training, suggesting a more proactive approach to building internal capabilities.

Common Ground: Both groups share similar concerns about ***security and privacy*** (63-68%), lack of technical expertise (50% each), and knowledge gaps about AI capabilities (41-63%). This suggests regional or statewide training initiatives could address widespread needs.

Resource Constraints: Rural counties face particular challenges, with some noting lack of infrastructure, workforce limitations, and elected officials resistant to tax increases that would fund technology improvements. IT outsourcing patterns varied widely, from zero to complete outsourcing, indicating diverse approaches to technical capacity building.

Practical Applications: Respondents identified numerous practical automation opportunities focused on administrative efficiency: reporting, compliance, permitting, financial processing, and citizen communication. These represent immediate value-add opportunities for AI implementation.

Data Ecosystem Challenges: Both groups struggle with fundamental data management issues—collection, storage, organization, and analysis—that must be addressed before sophisticated AI implementations can succeed. Paper-based processes remain prevalent, and data silos between departments create barriers to comprehensive analysis.

Recommendations

1. **Prioritize Security and Privacy Education**: Address the top barrier (63-68% concern rate) through comprehensive training on AI security best practices and privacy-compliant implementations.
2. **Develop Regional Training Programs**: With staff training receiving the highest investment priority from both groups, create standardized AI training curricula appropriate for local government contexts.
3. **Create Use Case Libraries**: Respondents requested demonstrations and templates. Developing a repository of successful AI implementations in similar-sized jurisdictions would address knowledge gaps and provide implementation guidance.
4. **Start with Administrative Automation**: Focus initial pilots on high-impact, lower-risk applications like compliance reporting, document preparation, and routine citizen inquiries where both groups identified opportunities.
5. **Address Data Infrastructure First**: Many jurisdictions need fundamental data management improvements before advanced AI can be effective. Provide guidance on data classification, digitization, and integration.
6. **Facilitate Peer Learning**: Connect more advanced adopters (like cities already using AI for cybersecurity and customer service) with jurisdictions just beginning their AI journey.
7. **Tailor Approaches by Jurisdiction Size**: Recognize that rural counties face different constraints than larger cities and may benefit from shared services or regional collaboration models.

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Strategies for Local AI Usage

Matthew Swarts, Senior Research Scientist

What does it take to run a 'frontier' model?



- 4x DGX H100s
- 32x H100s
- ~40,000 Watts
- $1.2M-$2M

SuperPod



Slim Refrigerator



40x Microwaves

https://docs.nvidia.com/dgx-superpod/design-guides/dgx-superpod-data-center-design-h100/latest/infrastructure.html

Five Technology Myths

1. “AI is too expensive for small counties.

Reality: Cloud-based AI tools are often subscription-based and scalable. Many use cases (permit triage, 311 automation, document summarization) can be deployed cheaply. **Georgia’s regional commissions and state agencies increasingly offer shared services that reduce cost barriers.**

2. “We need perfect data before we can use AI.

Reality: Modern AI tools can work with imperfect, unstructured, or incomplete data. Data modernization is helpful, but not a prerequisite.

3. “AI will replace government workers.”

Reality: AI augments staff by reducing repetitive tasks (transcription, summarization, scheduling, form processing). Georgia municipalities using AI report redeployment, not replacement—staff shift to higher-value work like inspections, community engagement, or case management. Workforce shortages in many counties make automation a necessity, not a threat.

4. “AI adoption requires rewriting all our policies first.”

Reality: Most governments start with small, low-risk pilots while governance evolves in parallel. Georgia’s statewide AI guidance (in development across several agencies) is designed to support incremental adoption, not block it.

5. “AI is only useful for big cities like Atlanta or Savannah.”

Reality: Smaller governments often see faster ROI because they have fewer staff and more manual processes. Examples of high-impact rural use cases are Automated grant writing, code enforcement triage, public records request summarization, emergency management planning, website chatbot for citizen questions.

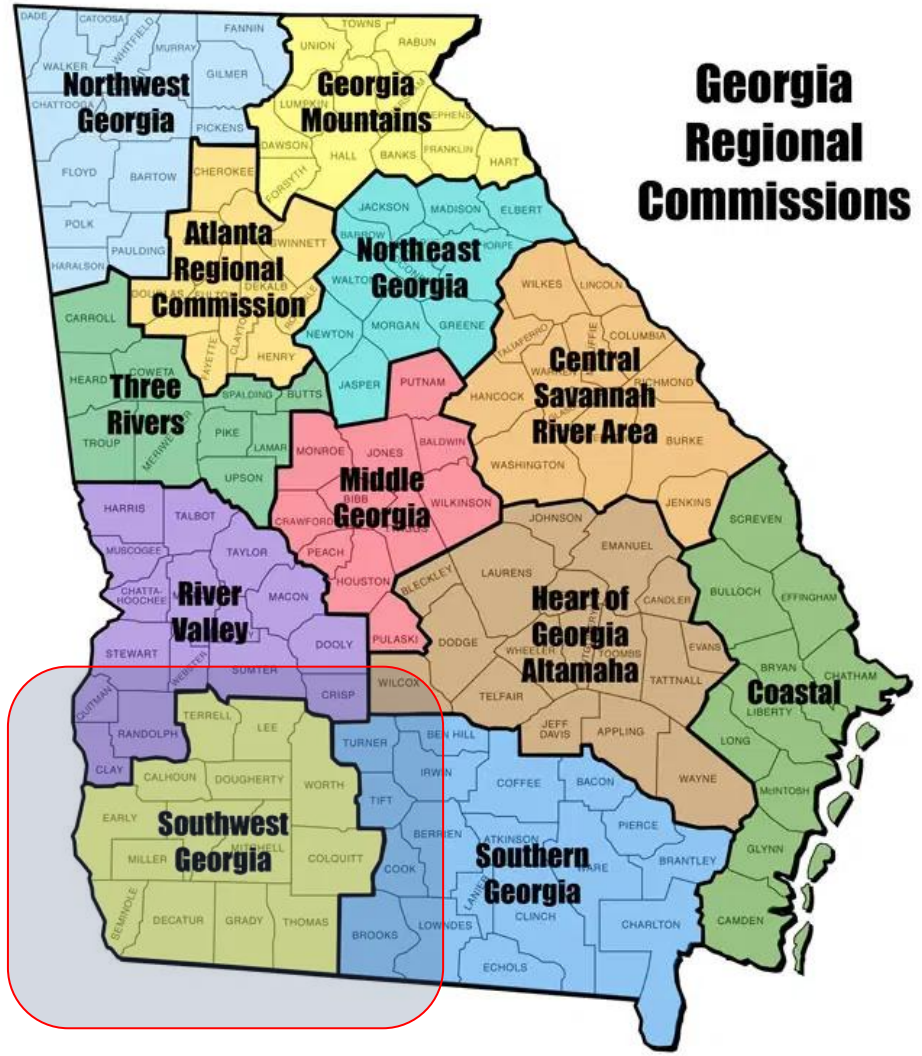
Privacy

- “AI is too risky because of privacy and security concerns.”
- Concerns about data exposure, especially around law enforcement or citizen records, can stall adoption.
- Reality: Enterprise AI platforms used by governments are designed for compliance, auditability, and data isolation.
- The biggest risks usually come from shadow AI—employees using consumer tools without governance.
- Formal adoption actually reduces risk.
- See GT Office of Information Technology
- https://oit.gatech.edu/ai/guidance

Integrated Artificial Intelligence Response (iAIR) Hub

Brief project intro

- Part of **GA AIM Program**
- Project funded by **Southwest Georgia Regional Commission** to create a regional-focused disaster mitigation and recovery tool
- **180 Stakeholders**
- **iAIR Hub: I**nteractive **A**rtificial **I**ntelligence **R**esponse Hub
  - 2-year project
  - Started in Feb 2024



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Main Goal: Empowering Georgia's Disaster Response Through Advanced AI



- **Enhance preparedness**, response, and recovery with AI
- **Protect critical infrastructure** to reduce delays and damage
- **Monitor real-time data** through intelligent analysis
- **Collaborate statewide** across sectors for tailored solutions
- **Invest strategically** to lead in AI-driven resilience

iAIR Hub Scenarios

Disaster Scenario → Event → Disruption → Outcome → Concern → Query



Natural Disasters



Infrastructure and Technological Issues



Chemical/Hazardous Material Spills and Industrial Accidents:



Healthcare Crisis/ Pandemic



Cyberattacks



Transportation Accident



Supply Chain Disruptions



Social Dynamics



Economic crisis



Terrorist or biological incident

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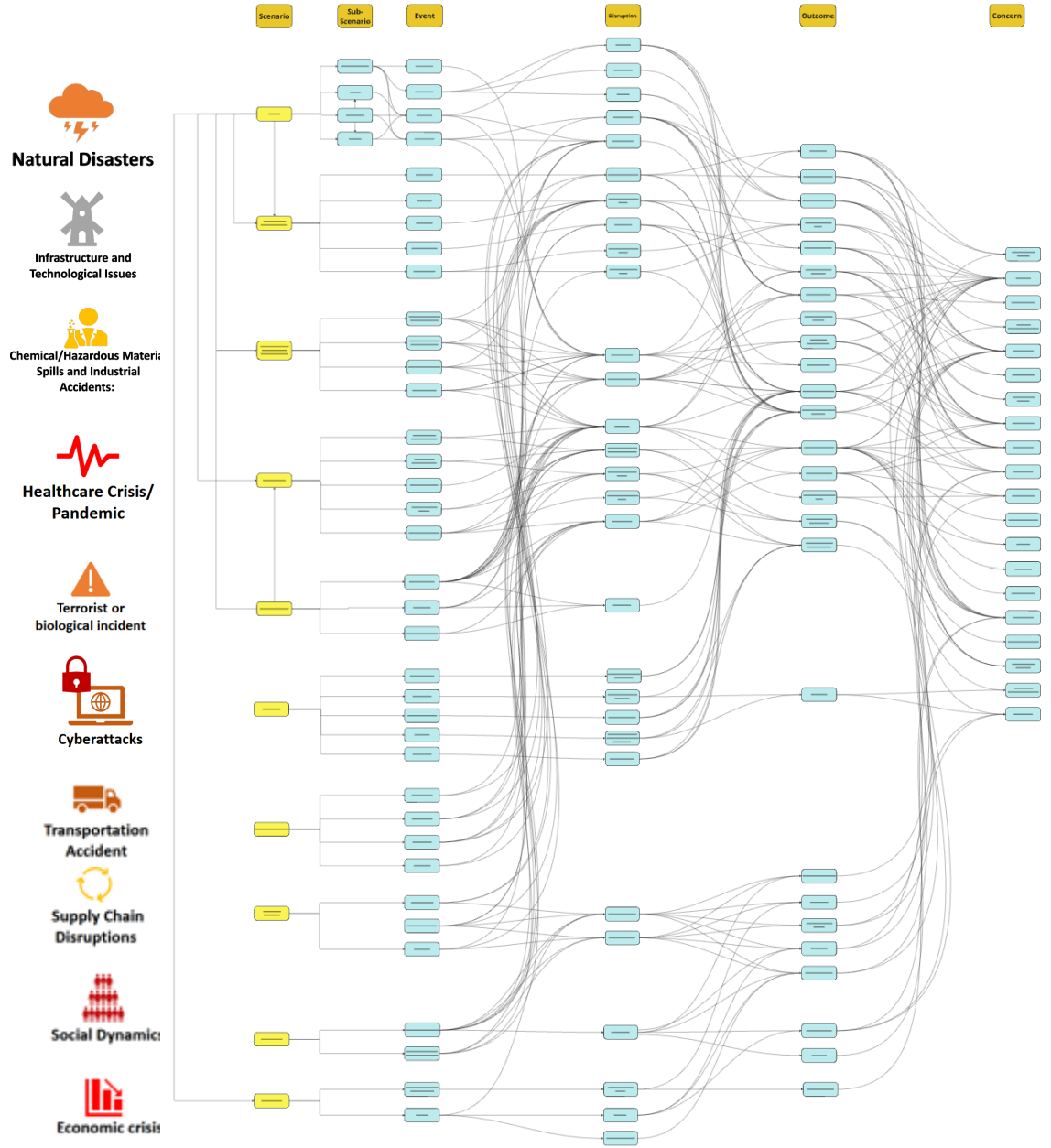
iAIR Hub Scenarios and Mapping

- Studying **10 scenarios** and mapping each to the **disruptions, concerns, outcomes**, and their **impact on Infrastructure.**

Type	Disaster Class	Disaster Sub-category	Baker	Calhoun	Colquitt	Decatur	Dougherty	Early	Grady	Lee	Miller	Mitchell	Seminole	Terrell	Thomas	Worth	Total
Natural	Natural Disasters	Tornado	2	1	3	3	2	4	3	2	2	3	1	1	3	4	34
Natural	Natural Disasters	Hurricane/Tropical Storm	3	4	2	4	2	3	3	2	3	4	3	2	2	3	40
Natural	Natural Disasters	Flood (Flash and River)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	42
Natural	Natural Disasters	Drought	1	3	3	1	1	1	1	1	1	2	2	1	1	1	20
Natural	Natural Disasters	Wildfire	1	1	4	4	1	3	4	1	2	2	2	1	3	4	33
Natural	Natural Disasters	Extreme Heat Wave	1	2	2	1	1	2	1	2	1	2	1	2	1	2	21
Technology	Infrastructure and Technology issues	Power grid failure	2	2	2	2	2	2	2	2	2	2	2	2	2	2	28
Technology	Infrastructure and Technology issues	Bridge collapse	1	2	2	2	2	2	2	1	2	2	1	2	2	2	25
Technology	Infrastructure and Technology issues	Technological malfunction	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Technology	Infrastructure and Technology issues	Aging infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Natural	Chemical/Hazardous Material Spills and Industrial Accidents	Water contamination	2	2	2	2	2	2	2	2	2	2	2	1	2	1	26
Natural	Chemical/Hazardous Material Spills and Industrial Accidents	Air contamination	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Natural	Chemical/Hazardous Material Spills and Industrial Accidents	Soil contamination	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Human	Pandemics/Health Crisis	Disease Outbreaks	3	2	2	2	4	2	2	3	2	4	2	3	2	2	35
Human	Economic Crisis	Recession/Depression	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Human	Economic Crisis	Disturbed manufacturing	2	1	2	2	2	1	1	1	1	1	1	1	2	1	19
Human	Economic Crisis	Employment crisis	1	1	2	2	2	1	1	1	1	1	1	1	2	1	18
Human	Cyber Attack	Attack on infrastructure/data centers	2	2	2	2	2	2	2	2	2	2	2	2	2	2	28
Human	Cyber Attack	Attack on communication systems	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Human	Cyber Attack	Attack on supply chain	2	2	2	2	2	2	2	2	2	2	2	2	2	2	28
Human	Supply Chain Disruptions	Supply chain blockage	2	1	2	2	2	1	1	1	1	1	1	1	2	1	19
Human	Supply Chain Disruptions	Labor strikes	2	1	2	2	2	1	1	1	1	1	1	1	2	1	19
Technology	Supply Chain Disruptions	Material shortage	2	1	2	2	2	1	1	1	1	1	1	1	2	1	19
Technology	Social Dynamics	Social unrest/civil disturbances	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Technology	Social Dynamics	large-scale migration/population shifts	2	2	1	1	2	2	1	1	2	2	1	2	1	2	22
Human	Terrorist and Biological Incidents	Attack on infrastructure	2	2	2	2	2	2	2	2	2	2	2	2	2	2	28
Human	Terrorist and Biological Incidents	Release of harmful agents	2	2	2	2	2	2	2	2	2	2	2	2	2	2	28
Technology	Transportation accidents	Large interstate accidents	1	1	2	2	1	1	2	2	1	1	2	1	2	2	21
Technology	Transportation accidents	Plane crashes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Technology	Transportation accidents	Train rerailment	1	1	2	2	2	2	2	2	1	2	2	2	2	2	25



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Overview of AI Assistant for iAIR Hub

Key Highlights:

•**Purpose**: Integrate static and real-time data to enable accurate, location aware, contextual disaster management responses.

•**Objectives**:

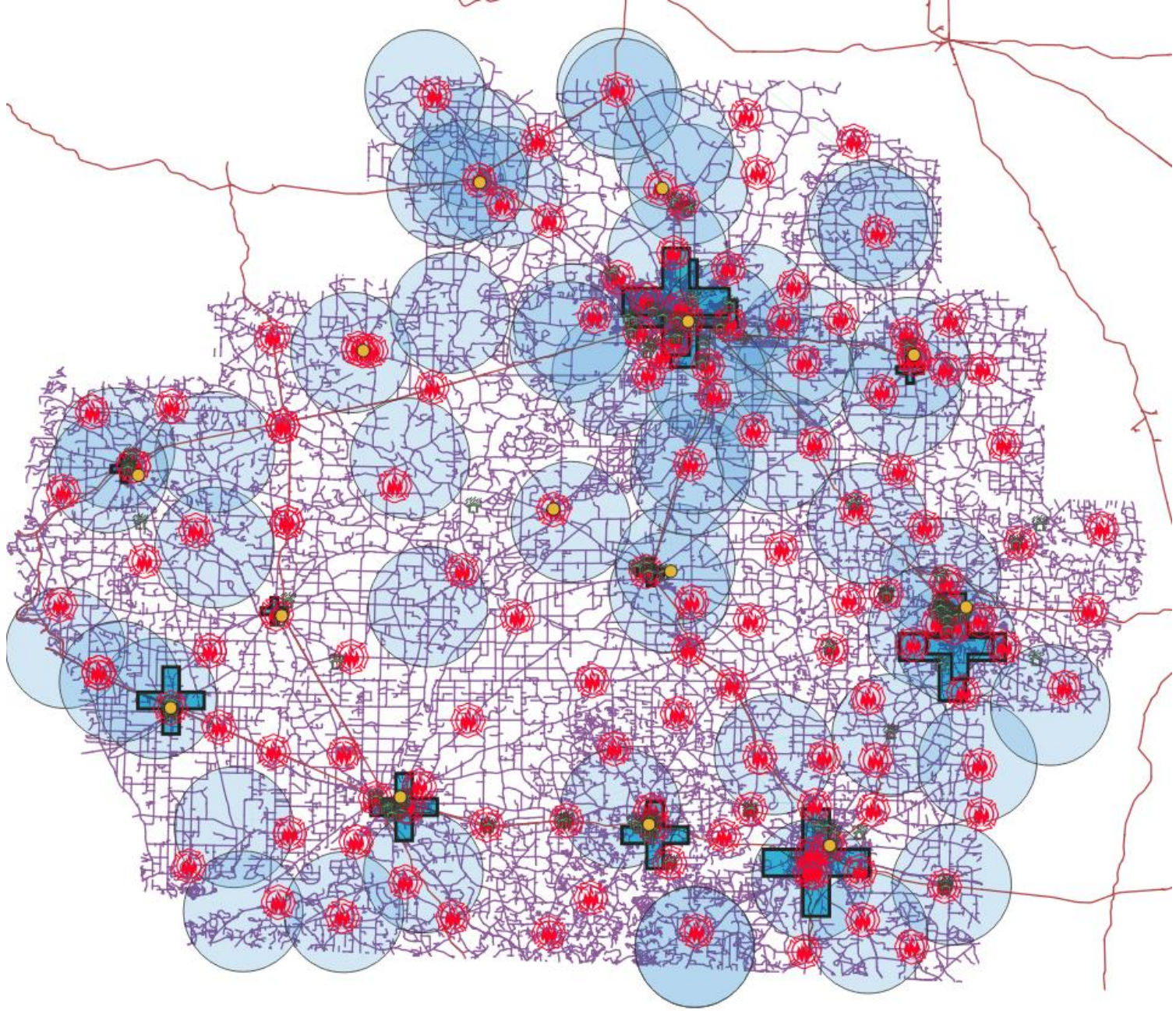
- Diagnostic queries: Assess current issues and damage.
- Resource allocation: Coordinate emergency service deployment.
- Outcome analysis: Evaluate potential consequences of ongoing events.

•**Data Sources for the Knowledge Base:**

- **Static Documents:** Emergency Plans, SOPs, Historical Records, FEMA, GEMA
- **Event Data Feeds via APIs:** NWS, 511GA, Sensor Networks
- **Event Data Feeds via Web Scraping:** School Districts, Power Providers, Water Services
- **Map/GIS Based Data:** Google, Microsoft, ESRI, Locally Hosted GeoJSON Files
- **Manual Data Entry:** Hospital Beds Available, Resource Locations

iAIR Hub GIS Data Capture:

Support for location based queries



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iAIR Hub: Summary

- **Summary**
  - Key disaster management tool, integrated AI-driven insights, and develop an intuitive user interface.
  - Dynamic + Static Knowledge-Based AI-Driven.
  - Comprehensive scenario mapping provides actionable insights for disaster response and resilience planning.

Questions-Thank You!

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