OnTheMap
for
Emergency Management

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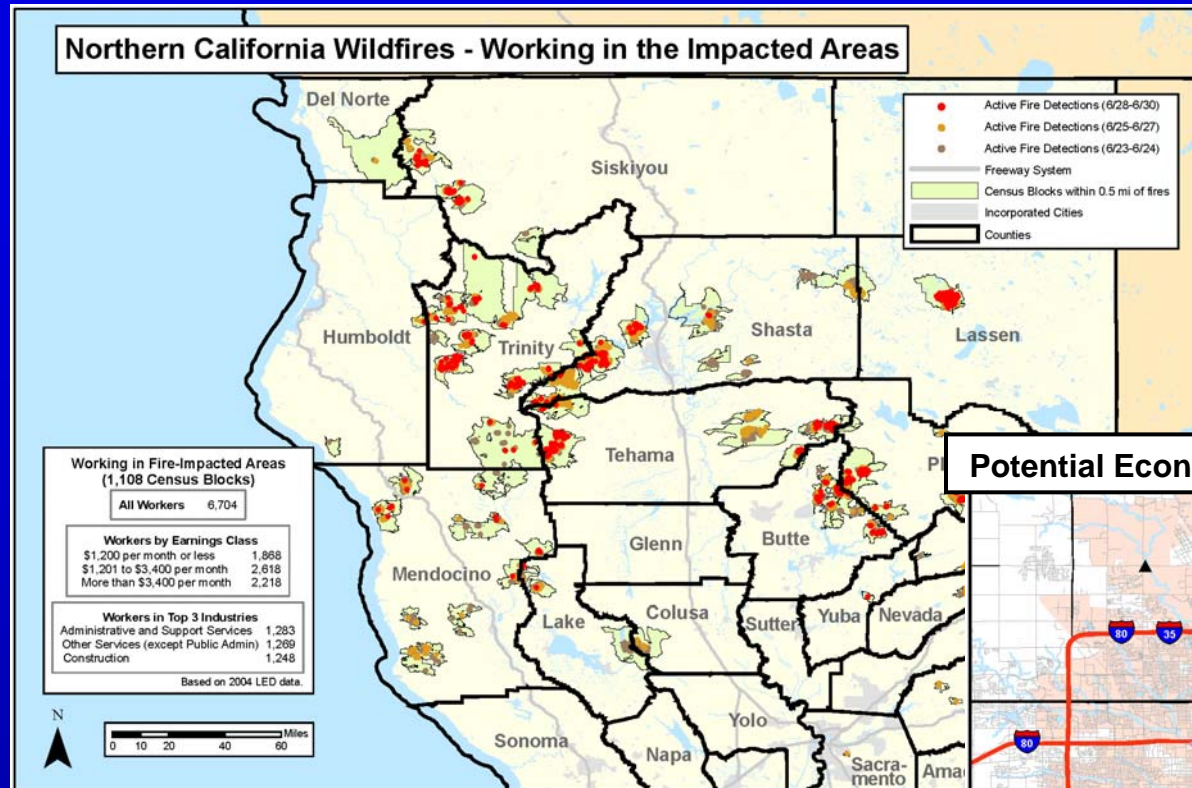
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OnTheMap
Emergency Management Uses

✓ **Emergency Preparedness & Response Planning**

  ✓ **Where should response efforts concentrate?**

  ✓ **What are the major commuting & evacuation patterns?**

  ✓ **How do different emergency scenarios compare?**

  ✓ **How do future scenarios compare to historical events and measured impacts?**

OnTheMap
Emergency Management Uses

✓ **Assessment of Impact on Labor Market**

    ✓ **How many affected workers and employers?**

    ✓ **Are they living or working in the affected area?**

    ✓ **What are the affected industries?**

Emergency Management Examples: Wildfires & Floods

Northern California Wildfires - Working in the Impacted Areas

Del Norte

Siskiyou

Active Fire Detections (6/28-6/30)
Active Fire Detections (6/25-6/27)
Active Fire Detections (6/23-6/24)
Freeway System
Census Blocks within 0.5 mi of fires
Incorporated Cities
Counties

Humboldt Trinity

Shasta Lassen

Working in Fire-Impacted Areas
(1,108 Census Blocks)

All Workers	6,704

Workers by Earnings Class

$1,200 per month or less	1,868
$1,201 to $3,400 per month	2,618
More than $3,400 per month	2,218

Workers in Top 3 Industries

Administrative and Support Services	1,283
Other Services (except Public Admin)	1,269
Construction	1,248

Based on 2004 LED data.

Tehama

Mendocino

Glenn Butte

Lake Colusa Sutter Yuba Nevada

N
0 10 20 40 60 Miles

Sonoma Napa Sacra-mento Ama

Yolo

Detailed GIS Analysis Using OnTheMap's Synthetic Microdata

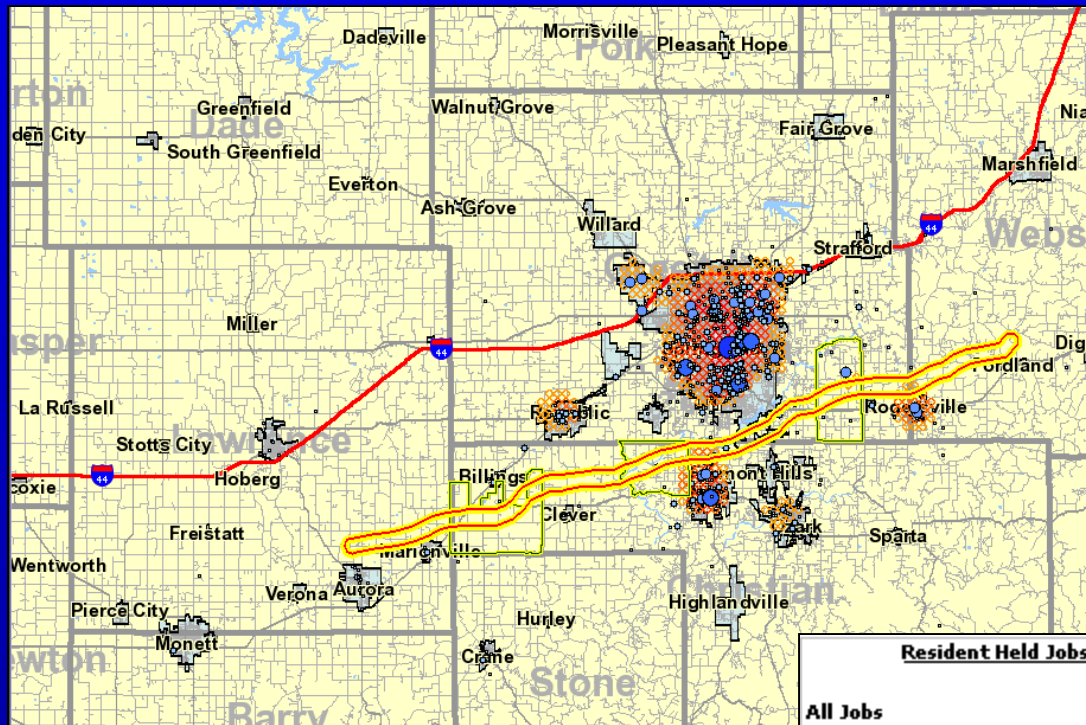**Potential Economic Impact of Flooding: Des Moines, IA**

Des Moines
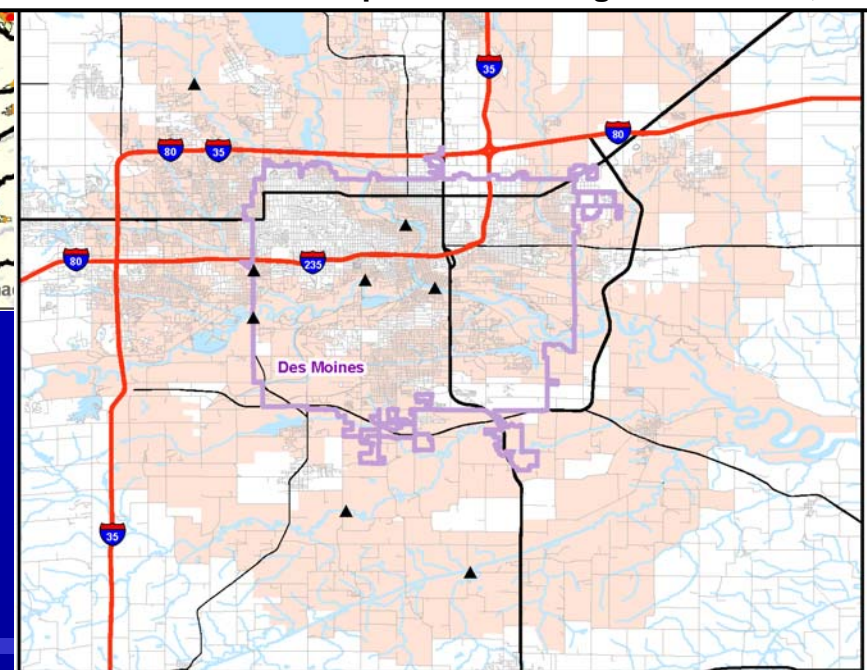
Analysis at the Census Block level of geographical detail

Emergency Management Examples: Tornadoes

Where Tornado-Zone Residents Go to Work

Workers by Industry Type (2-digit NAICS)	2003	
	Count	Share
* Agriculture, Forestry, Fishing and Hunting	5	0.3%
* Mining	1	0.1%
* Utilities	3	0.2%
* Construction	134	8.6%
* Manufacturing	195	12.5%
* Wholesale Trade	132	8.5%
* Retail Trade	230	14.8%
* Transportation and Warehousing	79	5.1%
* Information	54	3.5%
* Finance and Insurance	82	5.3%
* Real Estate and Rental and Leasing	25	1.6%
* Professional, Scientific, and Technical Services	70	4.5%
* Management of Companies and Enterprises	35	2.2%
* Administration & Support, Waste Management and Remediation	76	4.9%
* Educational Services	13	0.8%
* Health Care and Social Assistance	202	13%
* Arts, Entertainment, and Recreation	23	1.5%
* Accommodation and Food Services	124	8%
* Other Services (excluding Public Administration)	74	4.8%
* Public Administration	0	0%

Resident Held Jobs		
All Jobs	1,943	100.0%
All Jobs (Private Sector Only)	1,644	84.6%
All Primary Jobs (Worker's highest paying job)	1,843	94.9%
All Primary Jobs (Private Sector Only) and Baseline Count of Workers	1,557	80.1%

Workers by Earnings Paid	2003	
	Count	Share
$1,200 per month or less	452	29%
$1,201 to $3,400 per month	674	43.3%
More then $3,400 per month	431	27.7%

Emergency Management Examples: Hurricanes

Hurricane Hanna Impact on Work Area

U.S. Census Bureau *LED OnTheMap* LED Home Help Return to Entry Page

Search | Map Key | Layers | Analysis | Results

Hurricane Hanna Work Area Profile (NWS Path Prediction Through 8AM Sat.)

Overlay Controls

2006

Points	☐
Thermals	☑
Selection Outline	☑
Selection Fill	☐
Animate	Points: ☑ [Animate] Thermals: ☑

Zoom to Selection

Report Output Options:
View Report As:
- HTML
- Excel (XLS)
- View Map and Report PDF
- View Report-only PDF

Analysis Settings

Report Year(s):	2006
Employment Type:	Jobs
Labor Market Segment:	All Workers
Primary Selection Layer:	No layer selected.

Cincinnati
Lexington-Fayette
Raleigh
Charlotte
Virginia Beach
Atlanta
cksonville
mpa
Miami

Total Jobs	2006	
	Count	Share
Total Jobs	3,851,764	100.0%

Jobs by Worker Age	2006	
	Count	Share
Age 30 or younger	986,540	25.6%
Age 31 to 54	2,223,878	57.7%
Age 55 or older	641,341	16.7%

Jobs by Earnings Paid	2006	
	Count	Share
$1,200 per month or less	1,151,809	29.9%
$1,201 to $3,400 per month	1,607,250	41.7%
More than $3,400 per month	1,092,703	28.4%

Jobs by Industry Type (2-digit NAICS)	2006	
	Count	Share
Agriculture, Forestry, Fishing and Hunting	27,209	0.7%
Mining, Quarrying, and Oil and Gas Extraction	2,960	0.1%
Utilities	20,313	0.5%
Construction	250,366	6.5%
Manufacturing	432,164	11.2%
Wholesale Trade	156,254	4.1%
Retail Trade	484,900	12.6%
Transportation and Warehousing	112,670	2.9%
Information	79,120	2.1%
Finance and Insurance	124,910	3.2%

Work Area Profile Map
- Shows where workers are employed in the impact zone.
- Projected path of Hanna based on NWS data.
- Plume selection from 20 miles to 150 miles.
- Approx. 3.9 million jobs in this selection for 2006.

50 mi

291842.50000, 889055.83333

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Helping You Make Informed Decisions

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Source: U.S.Census Bureau, Center for Economic Studies, Longitudinal Employer-Household Dynamics Program | e-mail: oes.local.employment.dynamics@census.gov

Current Data Import Capability

U S C E N S U S B U R E A U

Conceptual Application Overview

✓ **Spin-off application from OnTheMap**

✓ **Utilizes existing system architecture & technology**

✓ **Proof-of-concept incorporating hurricanes & tornadoes**

OnTheMap

Web Tier

Emergency Management

Application Tier

Database Tier

Natural Hazards

Hurricanes	Floods	Other Storms
Tornadoes	Earthquakes	Tsunamis
Wildfires	Volcanoes	Drought

Human-made Hazards

Structural Collapse	Pollution	Terrorism
Power Outage	Cyber Attack	War
Contamination	Water System Outage	Crime
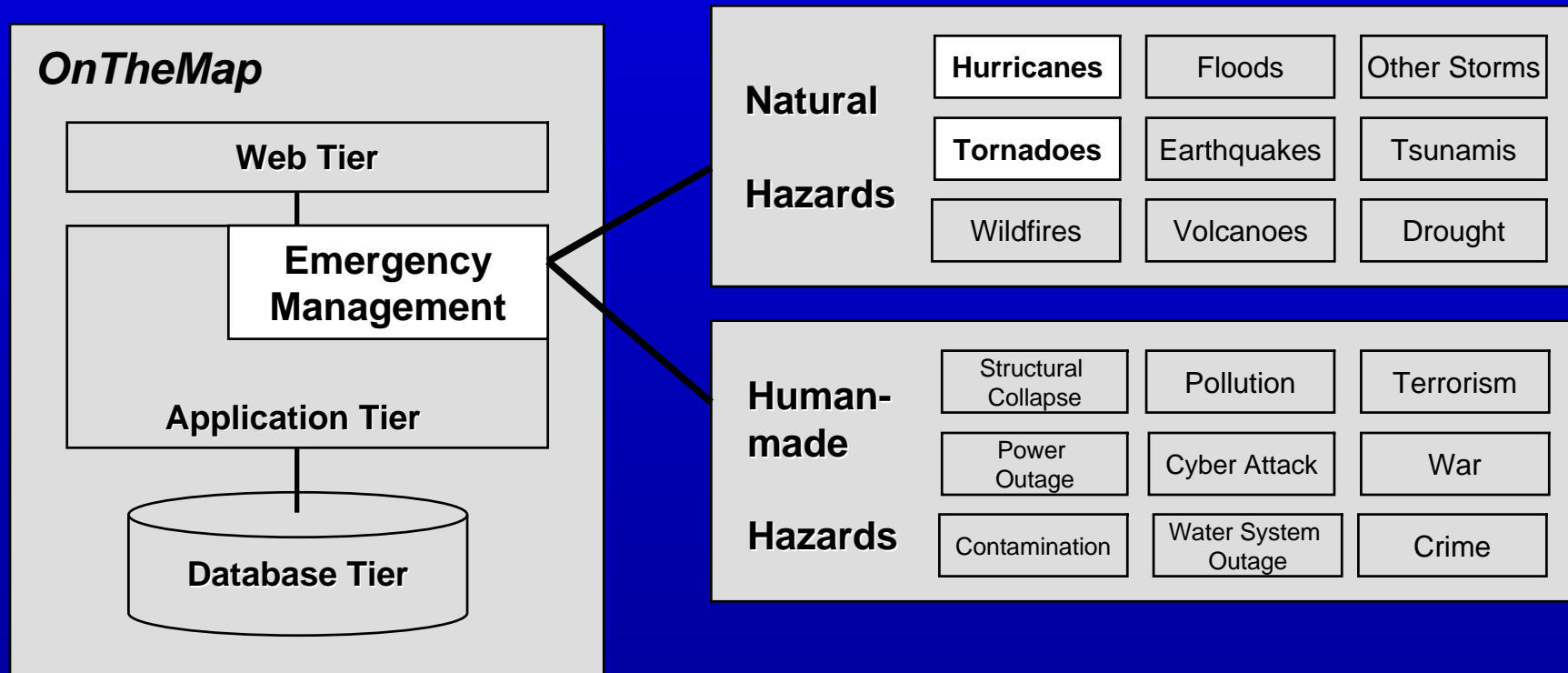
Census – NOAA NWS Collaboration

✓ **Dashboard integrating OnTheMap / NWS hurricane & tornado data**

✓ **Real-time data integration/update**

✓ **No user interaction or specialized expertise required**

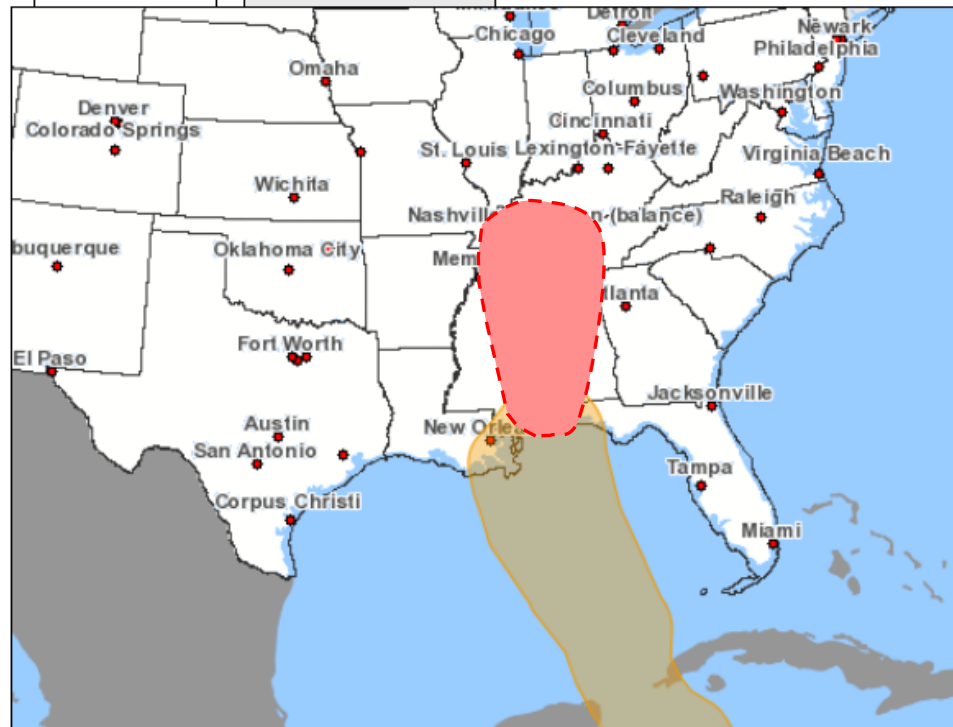✓ **Efficiency and value of existing data and systems increased**
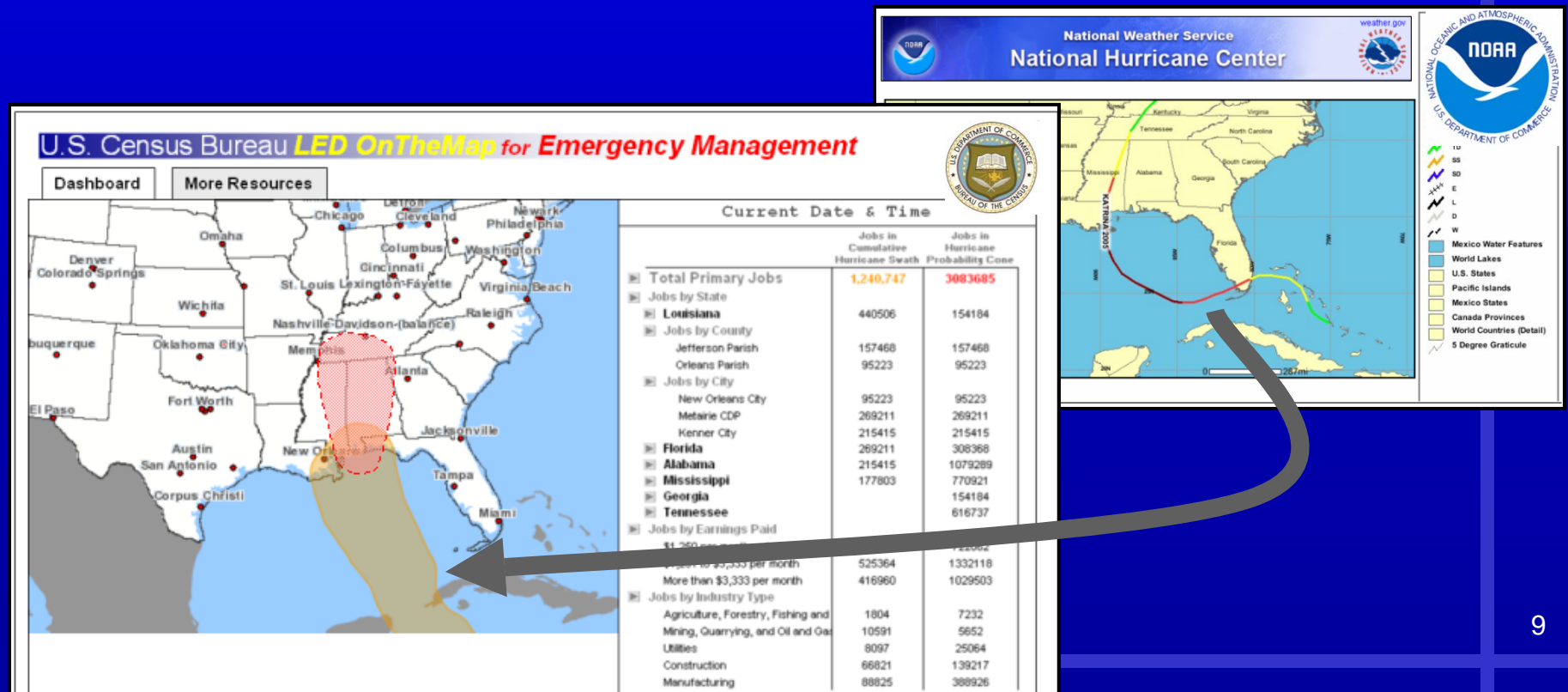
Dashboard Mockup

U.S. Census Bureau *LED OnTheMap* for *Emergency Management*

Dashboard | More Resources

Current Date & Time

	Jobs in Cumulative Hurricane Swath	Jobs in Hurricane Probability Cone
► Total Primary Jobs	1,240,747	3083685
► Jobs by State		
► **Louisiana**	440506	154184
► Jobs by County		
Jefferson Parish	157468	157468
Orleans Parish	95223	95223
► Jobs by City		
New Orleans City	95223	95223
Metairie CDP	269211	269211
Kenner City	215415	215415
► **Florida**	269211	308368
► **Alabama**	215415	1079289
► **Mississippi**	177803	770921
► **Georgia**		154184
► **Tennessee**		616737
► Jobs by Earnings Paid		
$1,250 per month or less	298423	722062
$1,251 to $3,333 per month	525364	1332118
More than $3,333 per month	416960	1029503
► Jobs by Industry Type		
Agriculture, Forestry, Fishing and	1804	7232
Mining, Quarrying, and Oil and Gas	10591	5652
Utilities	8097	25064
Construction	66821	139217
Manufacturing	88825	388926

Resources Page Mockup
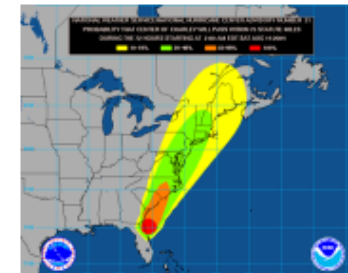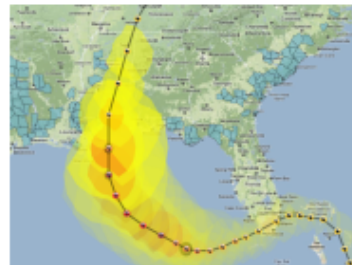
What's Next?

✓ **Release of OnTheMap for Emergency Management Beta Version this summer**

✓ **If interested in getting involved, sharing experiences, or providing feedback…please contact:**

CES.Local.Employment.Dynamics @census.gov

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