OnTheMap for Emergency Management

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Center for Economic Studies
U.S. Census Bureau
Overview

- LEHD vs LED
- Data Sources
- Need for Social and Economic Data during Emergencies
- Overview of Application
- Application Uses
- New Features
- Live Demo
- Questions and Answers
LED vs. LEHD

- LED: Local Employment Dynamics
  - Partnership between Census and States
  - Begun in late 1990s with a few states – now 53 partner states/territories
  - States voluntarily submit quarterly data (UI Wage Records and QCEW reports)

- LEHD: Local Employer-Household Dynamics
  - Census processes and develops public use products
    - 3 data products
    - 4 web-based data tools
OnTheMap for Emergency Management

Hurricanes, Floods, Winter Storms

Disaster Areas

Wildfires

Demographic & Economic Data

New Public Data Service for Emergency Preparedness & Response

- Comprehensive Reports
- Real-time Data Updates
- Easy-to-use & Interoperable
- Historical Event Archive
- Flexible Analyses & Visualizations
Data Integration

Real-time Weather & Disaster Data

Census Demographic & Economic Data
OnTheMap for Emergency Management —
Application & Data Architecture

- NWS: Hurricanes, Floods, Snowfall
- DOI/DOA: Wildfires
- FEMA: Disaster Areas

Census
- Event Archive & Cached Analyses
  - Event Reader (Updates Every 4 Hours)
- OnTheMap for Emergency Management
- Population 2010
- ACS
- LODES
  - Detailed Social
  - Workforce
Need for Social and Economic Data during Emergencies

Assessing Workforce Impacts
- Identify the number and location of affected workers
- Examine workforce demographics
- Identify affected Industries
- Visualize where affected workers live

Assessing Population & Housing Impacts
- Identify the number and location of affected residents
- Examine population demographics of affected areas
- Identify vulnerable population groups
- Examine housing characteristics of affected areas

Emergency Preparedness & Response Planning
- Where should response efforts concentrate?
- Uncover surrounding communities with secondary affects to workforce
- Are there special or vulnerable population segments?
Version 4 Improvements

• Addition of detailed social, economic, and housing data from the American Community Survey (ACS)
• New community level reporting
• New tools for local, regional, and comparative analyses
• Improved dashboard interface with new interactive reports, charts, and maps
• Improved event search tool
• New linkable maps and reports for easier sharing
Application Interface

Recent Events

List

Event Search

Emergency Event Polygons

Legend

Toggle

Map Frame

Map Selection View

United States Census Bureau

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov
Hurricane Sandy
Physical Vulnerabilities

- Construction
  - Housing Units
    - Vacant and Occupied
    - Year Structure was Built
    - Value of Owner Occupied Housing
    - House Heating Fuel
    - Mobile Homes
Economic Vulnerability

- Total workers in the Area
- Industry Sectors
- Earnings
- Age
- Education
Social Vulnerability

- Poverty
- Minority
- Disability
- Elderly
- Gender
- Low Educational and Technical Skills (LODES Data)
http://onthemap.ces.census.gov/em/

<table>
<thead>
<tr>
<th>Event Name</th>
<th>Location</th>
<th>Affected Population</th>
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</thead>
<tbody>
<tr>
<td>Hurricanes</td>
<td></td>
<td></td>
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<tr>
<td>Tropical Depression Nine</td>
<td>No data available</td>
<td>0</td>
</tr>
<tr>
<td>Wildfires</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valley Fire</td>
<td>Lake County, CA, Sonoma County, CA, Napa County, CA</td>
<td>1,052</td>
</tr>
<tr>
<td>Butte Fire</td>
<td>Calaveras County, CA, Amador County, CA</td>
<td>4,053</td>
</tr>
<tr>
<td>Chelan Complex Fire</td>
<td>Okanogan County, WA, Douglas County, WA, Chelan County, WA</td>
<td>2,172</td>
</tr>
<tr>
<td>County Line 2 Complex Fire</td>
<td>Jefferson County, OR, Wasco County, OR</td>
<td>1,146</td>
</tr>
<tr>
<td>North Star Fire</td>
<td>Okanogan County, WA, Ferry County, WA</td>
<td>1,144</td>
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<td>Okanogan Complex Fire</td>
<td>North Okan CDP, WA, Dusted CDP, WA</td>
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<tr>
<td>Sockeye Fire</td>
<td>Zips 99760</td>
<td>292</td>
</tr>
<tr>
<td>Canyon Creek Complex Fire</td>
<td>Zips 97805, 97869</td>
<td>616</td>
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<tr>
<td>Nulato Fire</td>
<td>Zips 99765</td>
<td>222</td>
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<td>Card Street Fire</td>
<td>Zips 99762</td>
<td>138</td>
</tr>
<tr>
<td>Carpenter Road Fire</td>
<td>YUKON, YUKT, YUKY and 3 other ZIP Codes (ZCTA)</td>
<td>134</td>
</tr>
<tr>
<td>First Creek Fire</td>
<td>Zips 99746</td>
<td>95</td>
</tr>
<tr>
<td>Rock Fire</td>
<td>Zips 99748</td>
<td>86</td>
</tr>
<tr>
<td>Tonopa Siskans Fire</td>
<td></td>
<td></td>
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</table>
Hurricane Sandy and OnTheMap for Emergency Management
Hurricane Sandy in Connecticut
Social Vulnerabilities
Disability by Age

OnTheMap for Emergency Management

Hurricane Sandy
Event Class: Wind History 34kn (Cumulative Swath)  
Time: Tue, 30 Oct 2012 02:49:56 GMT

Detail by: Characteristics  
Topic: 2009-2013 ACS Char...  
Analysis Area: Connecticut (or Part of Event Area)

- Ability to Speak English by Language Spoken at Home
- Disability Status by Poverty Status

Universe: Civilian population 18 years and over for whom poverty status is determined
Source: American Community Survey, 2009-2013. [Source info.xz]

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Estimate</th>
<th>Margin of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2,673,608</td>
<td>542</td>
</tr>
<tr>
<td>With a disability</td>
<td>341,537</td>
<td>3,971</td>
</tr>
<tr>
<td>Income in the past 12 months below poverty level</td>
<td>59,123</td>
<td>1,561</td>
</tr>
<tr>
<td>Income in the past 12 months at or above poverty level</td>
<td>282,404</td>
<td>3,146</td>
</tr>
</tbody>
</table>

- Disability Status by Age

Universe: Civilian population 18 years and over for whom poverty status is determined
Source: American Community Survey, 2009-2013. [Source info.xz]

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<tr>
<td>With a disability</td>
<td>341,537</td>
<td>3,971</td>
</tr>
<tr>
<td>18 to 64 years</td>
<td>180,849</td>
<td>7,748</td>
</tr>
<tr>
<td>65 years and over</td>
<td>160,688</td>
<td>2,281</td>
</tr>
</tbody>
</table>

- Ratio of Income to Poverty Level in the Past 12 Months
- Poverty Status in the Past 12 Months
- Population 65 Years and Over Living Alone
- Households With One or More People 60 Years and Over
- Earnings in the Past 12 Months for Households

Physical Vulnerabilities

Year Structure Was Built
Economic Vulnerabilities Employed in the Event Area
Hurricane Sandy in Massachusetts
Thank You

- Local Employment Dynamics
  - lehd.ces.census.gov

- Contact
  - Earlene.KP.Dowell@census.gov

- Tools
  - QWIExplorer.ces.census.gov
  - LEDExtract.ces.census.gov
  - OnTheMap.ces.census.gov
  - OnTheMap.ces.census.gov/em.html