NCTCOG Economic Resilience Project

- Goal: To assist local businesses, economic development organizations, and local jurisdictions to improve their ability to quickly recover from disasters.
Workshop Organization

- Module One: Resilience and Critical Business Functions
- Module Two: Managing Economic Resilience
- Open Discussion of Issues

Module 1: Small Businesses and Critical Business Functions
Economic Resilience and the Region
Overview of risks and issues

What’s at Stake?
- Approximately 7 million residents
- 4th largest MSA (by population)
- Key financial center
- 6th largest concentration of high tech jobs
- 3rd busiest airport in the world
- National distribution hub
- 21 Fortune 500 companies
- If a country, 27th GDP in the world
North Central Texas Region at Risk for Natural Disasters

<table>
<thead>
<tr>
<th>Date</th>
<th>Presidential Disaster Declarations</th>
<th>Declared Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 2015</td>
<td>Dallas, Ellis, Kaufman, Navarro, Rockwall</td>
<td></td>
</tr>
<tr>
<td>Oct 2015</td>
<td>Navarro</td>
<td></td>
</tr>
<tr>
<td>May 2015</td>
<td>Dallas, Denton, Ellis, Erath, Hood, Johnson, Kaufman, Navarro, Palo Pinto, Parker, Somervell, Tarrant, Wise</td>
<td></td>
</tr>
<tr>
<td>Aug 2011</td>
<td>Hunt, Navarro, Wise</td>
<td></td>
</tr>
<tr>
<td>Apr 2011</td>
<td>Erath, Palo Pinto, Somervell</td>
<td></td>
</tr>
<tr>
<td>Apr 2007</td>
<td>Denton</td>
<td></td>
</tr>
<tr>
<td>Jan 2006</td>
<td>Erath, Hood, Palo Pinto, Tarrant, Wise, and all counties in the State</td>
<td></td>
</tr>
</tbody>
</table>

The Cost of Disasters in North Central Texas

- $1.2 billion in the Dallas metropolitan area from December 2015 tornadoes.
- $2 billion in the Dallas/Fort Worth area from tornadoes and hail storms in 2012.
- $400 million dollars from 2009 “extraordinary windstorm” in the Dallas/Fort Worth area.
- $1.1 billion in Tarrant County in 1995 due to hail, flash flooding, and high winds.
- Over $347 million between 1955 and 2012 from hailstorms and tornadoes in Collin and Denton counties.
- Hail storm damage in the region resulted in 4 of the top 10 costliest disasters in Texas
  - May 1995 cost North Texas $1.7 billion
  - April 1992 caused $1.2 billion in damages to Ft. Worth/Waco
  - April 2003 caused $1.2 billion in damages to North Texas
  - June 2012 caused $917 million to Dallas/Fort Worth
What is Resilience?

The ability to adapt to changing conditions, and withstand and rapidly recover from disruption due to emergencies.

What is Economic Recovery and Why Do We Care?

• Business losses translate into the loss of resources for local residents as they try to recover, and the loss of taxes and services to local governments as they try to manage the recovery.
• Businesses employ workers, provide for community needs and services and generate revenue once again, allowing the community to provide for itself.
• 85% of our nations critical infrastructure (ag, food, telecommunications, energy, banking) is concentrated in the private sector.
How Prepared are Businesses for Disasters

• Only 26% of small to mid-sized businesses have a plan
• 40% to 60% of small businesses never reopen after a disaster
  ▪ Of those that do, 25% will close within 2 years
• Less than 25% of Fortune 500 companies could be considered capable of successfully managing a corporate crisis
• Survey of 100 financial executives ($1 billion in annual revenue) - fewer that 21% were concerned about negative impact of a financial disaster

Economic Development = Economic Resilience

• Economic development and economic recovery share a common outcome: increasing the resiliency of local economies.

• Investing into resilience reaps profits regardless of a disaster.
✓ Check-In

• Have any of your businesses been affected by a disaster?

• What are you concerned about in terms of disasters or economic shocks?

Critical Business Functions
Overview of risks and
Critical Business Functions

- Most sensitive to downtime
- Fulfill legal or financial obligations to maintain cash flow
- Play a key role in maintaining the business’ market share and reputation
- Safeguard an irreplaceable asset

Categories of Critical Functions

- Structures and Equipment
- Utilities and Information Technology
- Transportation and Supply Chain
- Employees/ Workforce
- Customers, Markets, & Procurement
- Finance & Financial Systems
Business Continuity Plan

• Essential Functions
• Delegation of Authority
• Order of Succession
• Alternate Operating Facilities
• Interoperable Communications
• Vital Records and Databases
• Human Capital Planning and Preparedness
• Test, Training, and Exercise Program
• Devolution of Control and Direction
• Reconstruction

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Business Impact Assessment

<table>
<thead>
<tr>
<th>Business Name</th>
<th>Date of Assessment</th>
<th>Type of Threat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arlington Printastic, Inc.</td>
<td>25-May-16</td>
<td>All Hazards</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business Function</th>
<th>Priority</th>
<th>Vulnerability</th>
<th>Recovery Time</th>
<th>Mitigation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: Payroll</td>
<td>Essential</td>
<td>Vulnerable</td>
<td>Medium-Term</td>
<td>Move to a 3rd party payroll system</td>
</tr>
<tr>
<td>Physical Capital/Facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access/stability of primary business site</td>
<td>Critical</td>
<td>Highly Vulnerable</td>
<td>Immediate</td>
<td></td>
</tr>
<tr>
<td>Access/stability of other sites (e.g. warehouse)</td>
<td>Not Essential</td>
<td>Not Vulnerable</td>
<td>Long-Term</td>
<td></td>
</tr>
<tr>
<td>Availability/capacity of building owner(s)</td>
<td>Essential</td>
<td>Vulnerable</td>
<td>Medium-Term</td>
<td></td>
</tr>
<tr>
<td>Security of sites (e.g. alarms/guards/etc.)</td>
<td>Essential</td>
<td>Vulnerable</td>
<td>Short-Term</td>
<td></td>
</tr>
<tr>
<td>Working condition of equipment</td>
<td>Critical</td>
<td>Highly Vulnerable</td>
<td>Short-Term</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of inventory</td>
<td></td>
</tr>
<tr>
<td>Availability of supplies/products</td>
<td></td>
</tr>
</tbody>
</table>
Break
Drink some coffee!!

Mitigating Losses of Critical Business Functions
Tools and Ideas
Mitigation: Structures/Operations/Utilities

- Develop an evacuation or shelter-in-place plan
- Have a plan in place to move or protect critical equipment and inventory that are likely to be compromised
- Develop a business continuity plan
- Have appropriate insurance and levels of coverage for the full range of losses associated with likely disasters
- Identify alternate spaces or potential colocation partners before a disaster strikes so there are fallback opportunities for siting business activity
- Identify back-up utility sources
- Protect electronic data through appropriate backups and redundant access

BIA Tool - Mitigation

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<thead>
<tr>
<th>Business Name</th>
<th>Date of Assessment</th>
<th>Type of Threat</th>
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</thead>
<tbody>
<tr>
<td>Arlington Printastix, Inc.</td>
<td>23-May-16</td>
<td>All Hazards</td>
</tr>
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</table>

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<thead>
<tr>
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<th>Priority</th>
<th>Vulnerability</th>
<th>Recovery Time</th>
<th>Mitigation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access/availability of primary business site</td>
<td>Critical</td>
<td>Highly Vulnerable</td>
<td>Immediate</td>
<td>Evacuate and secure building for potential flood damage.</td>
</tr>
<tr>
<td>Access/availability of other sites (e.g., warehouse)</td>
<td>Not Essential</td>
<td>Not Vulnerable</td>
<td>Long Term</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Availability/capacity of building owner(s)</td>
<td>Essential</td>
<td>Vulnerable</td>
<td>Medium Term</td>
<td>Continue to maintain building, and work on improving security.</td>
</tr>
<tr>
<td>Security of sites (e.g., alarm/backup/guards/etc.)</td>
<td>Essential</td>
<td>Vulnerable</td>
<td>Short Term</td>
<td>Continue to maintain security measures.</td>
</tr>
<tr>
<td>Working condition of equipment</td>
<td>Critical</td>
<td>Highly Vulnerable</td>
<td>Short Term</td>
<td>Minor equipment can be moved to a secure area for protection.</td>
</tr>
</tbody>
</table>

The Business Impact Assessment and Planning Tool can be used to identify critical business functions, and plan for their resilience. The assessment tool can be used for any particular hazard (e.g., tornado, flood, terrorism, etc.) or for “All Hazards”. Use drop-down menus in the digital version to mark the priority, vulnerability, and recovery time needed for each business function.
Mitigation: Transportation and Workforce

- Plan for back-up modes and routes of transportation
- Diversify number and location of suppliers
- Prepare for surge or softening of demand
- Encourage employees to create their own continuity plans
- Establish good communication protocols for employees

Mitigation: Markets and Finance

- When possible, diversify consumers geographically
- Prepare for government contracting
- Keep cash reserves
- Protect and back-up all important business documents
- Keep good accounting records of post-disaster losses
- Do not rush into debt
BIA Tool - Planning

<table>
<thead>
<tr>
<th>Business Name</th>
<th>Date of Assessment</th>
<th>Type of Threat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arlington Printastic, Inc.</td>
<td>5/25/2016</td>
<td>All Hazards</td>
</tr>
</tbody>
</table>

Post-Disaster Activities for Businesses

• Short –Term
  ▪ Implement the business continuity plan
  ▪ Contact utilities /set-up back up power
  ▪ Gather paperwork

• Mid-Term
  ▪ Access site and determine physical damage
  ▪ Communicate with employees
  ▪ Contact insurance carriers and bank
  ▪ Communicate with customers

• Long-Term
  ▪ Seek technical assistance
  ▪ Collaborate with other businesses
  ▪ Provide services for employees
  ▪ Seize opportunities after a disaster
Case Study: Munro Workforce Support

• Prior to Hurricane Rita, Munro Inc. had a rudimentary emergency plan in place. It did not, however, account for power outages or food shortages.
• When employees were allowed to return to the area, schools remained closed, causing an issue with day care. The company solved this problem by allowing employees to bring their children to work with them.
• Based on lessons learned from the disaster, the company expanded its business continuity plan.
  ▪ Steps for securing facilities prior to an evacuation
  ▪ Implementing strategies for improving post-disaster employee communication.
  ▪ Stockpiling materials and supplies to support up to fifteen key employees for three days
  ▪ Working closely with local authorities to obtain clearance for key employees to return to impacted areas early.

Open Discussion of Issues
Investing in Resilience is an Investment in the Health of the Community

- Good economic resilience depends on good economic development
- Resilient economic development can be a profitable investment, not just an expense.
- Not all kinds of economic resilience are the same.
- Not every business will, or should, survive a disaster
- The costs of economic resilience should be a shared endeavor

Questions and Closing Remarks