Community Decision Support to Local Governments in Budget Planning Under Coastal Risk

Extension Program Manual
Second Edition

This publication was supported by the National Sea Grant College Program of the U.S. Department of Commerce's National Oceanic and Atmospheric Administration, the Louisiana Sea Grant College Program under NOAA Grant NA10OAR4170077-Project R/SPS-08, the Mississippi-Alabama Sea Grant Consortium under NOAA Grant NA07OAR4170510-Project R/MG/CSP-03 and NA10OAR4170078-Project R/MG/CSP-21, Louisiana Agricultural Experiment Station Hatch Projects LAB94080 and LAB93793, Louisiana State University and the LSU AgCenter. Statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the supporters.

Cover photos courtesy the National Oceanic and Atmospheric Administration and the Louisiana Sea Grant College Program
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Introduction

This manual serves as a guide for Extension agents and local practitioners - those working through the process of educating governmental entities or a community’s leadership in attaining a desired level of financial resiliency for communities vulnerable to tropical natural disaster events. When assessing the financial health of a community, potential risks and assets to be appropriated during a disaster and recovery are the central topics aligning communities with resiliency planning. Examples of local governments’ fiscal condition before and after hurricanes during the 2005-06 and 2008 seasons will be used to show difficulties encountered. The local government of Tangipahoa Parish, La. serves as the case study used in this manual to show how to execute a participatory research-driven advisory panel process with constituents of a local government to generate policy alternatives to improve a community’s financial resiliency to future tropical natural disasters.

Manual Highlights

The Extension program manual is broken into the following four sections:

• The Need for Local Government Financial Disaster Planning
• Identifying and Preparing a Community for Financial Risk Resiliency Planning
• Four modules which comprise the following:
  
  Module 1 - Identifying the Community and Advisory Group
  Module 2 - Establishing a Foundation for Advisory Group Decision Making
  Module 3 - Representative Storm Analysis
  Module 4 - Wrap-Up Meeting, Post-Meeting Deliverables and Action Steps

Each of the modules is laid out with a Module Overview and Module Objectives, which help both the facilitator as well as the advisory panel understand what educational or decision making information will be the outcome of the specific module. Also included is a list of the advanced materials needed and a proposed timeline for a two-hour meeting so that Extension agents or practitioners delivering the training know from past experience how much time they should be committing to each of the presentations, including questions and discussion periods.

Next, we provide a section titled Suggestions that provides key information elements for each module. Some of the suggestions actually serve as editing elements for the slide show templates provided for each module. Other suggestions serve to provide clarifying comments about the material and answers to common questions that have come up in past advisory panel meetings. As you use the manual for delivering your own financial disaster resiliency educational programming, we ask that you keep notes and send feedback to us, as we will be updating this manual over time with additional information from both best practices and regulatory and policy changes that affect educational outcomes. Finally, slides from our Calcasieu Parish Police Jury and City of Foley government case study examples are provided in modules throughout the manual.
Thanks again for your interest in delivering financial disaster resilience programming. If you have any questions or comments, please do not hesitate to contact us.

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April 2014
The Need for Local Government Financial Disaster Planning

Disaster resilience for local governments is defined as “the capacity of a community exposed to hazards to adapt, by resisting or changing, in order to reach and maintain an acceptable level of functioning and structure.”

An easy way to understand risk resilience is to look at individual household preparedness.

Recommendations for an individual household include having a disaster plan, generator, water, food and cash on hand for the short-term. Similarly, you might expect local government to have safe shelter, access to clean drinking water and a debris removal contract. However, typical upfront payment for these services requires advanced planning. Getting roads open for emergency relief efforts requires gasoline and chainsaws. A lack of electricity, for example, greatly complicates this process. Local pumps may not be accessible without electricity, and cash would likely be required for purchases. Additionally, costs for services like debris removal can increase appreciably from one storm to the next. This became most evident when local governments in South Louisiana tried to bounce back from Hurricane Gustav in 2008.

Case: Louisiana Parishes and Hurricane Gustav

Hurricane Gustav caused the heaviest physical damage in South Central and Southeast Louisiana and caught many local jurisdictions off-guard regarding the severity of impacts to the delivery of local services such as electricity, cable and sewer services. In addition to expenses incurred by public and private providers of these services, costs of clean-up such as debris removal were greater for many of these parishes than the costs following Hurricane Katrina (Lundin 2008, Colvin 2008, Anderson 2008). These expenses overwhelmed planning efforts of many parish (county) and municipal governments, which began to scramble to pay for such services.

A good example of the financial impact Gustav has had on parish and municipal governments is the case of Livingston Parish, an outlying parish of the Baton Rouge Metropolitan Statistical Area and one of the fastest growing parishes in terms of population and housing in Louisiana over the past two decades. As a form of self-insurance, the parish set aside $2 million as a “rainy day” fund to cover such emergency expenses as recovery from a tropical event. Unfortunately, the total FEMA-reimbursable clean-up costs from Gustav parish-wide was expected to exceed $15 million. Later, after it was found that a measurable percentage of the debris removed by contractors was “non-reimbursable,” the parish was on the hook for $46 million (Ball 2011).

These costs create a burden of liquidity. FEMA, which typically reimburses between 75 percent and 90 percent of debris removal costs for the parish, does not typically pay a parish its cost-share at the time the bills are due for payment to contractors. As stated by Livingston Parish Finance Director John P. Gabel, III, “We do not expect to receive the off-setting revenues for these expenses until the last six months of 2009” (Harper and Dyer 2008). The lag time between payment to debris removal contractors and reimbursement by FEMA requires parish governments to cover 100 percent of the debris removal costs, or to request payment terms that increase the total costs to the parish.
The second burden is a solvency challenge. Local political jurisdictions were allowed 100 percent reimbursement of recovery costs after Hurricanes Katrina and Rita. While eliminating the complete financial burden of reimbursable recovery costs, such decisions potentially create expectations of similar adjustments made to reimbursable costs for tropical events in the future. In this case, not preparing financially for covering the local cost share of FEMA reimbursable recovery costs can create damaging consequences to long-term local government finances.

This solvency issue was an acute problem for many parishes and municipalities when FEMA was requiring the statutory 25 percent local match. While the federal government reduced that match to 10 percent (Harper and Dyer 2008), the federal bailout of local jurisdictions did not generate the natural incentives that the 25 percent local match creates in having these jurisdictions prepare their annual budgets and balance sheets to align themselves with the risk they face from tropical natural disasters. As was stated by Livingston Parish President Mike Grimmer, when the local match was still at the higher rate and the out-of-pocket costs to the parish would be $3 million, “that [the $3 million] we don’t have.” (Harper and Dyer 2008). In fact, the proposed Livingston Parish budget for 2009 projected a two-thirds reduction in its ending general fund balance, leaving little room for variance between projected and actual expenditure going forward into 2009.

While growing parishes like Livingston have existing emergency funds and general fund surpluses to cover some of these costs, other parish governments and municipalities are less fortunate. Parishes and counties along the Gulf Coast have benefitted from several factors in the past that assisted in the recovery from the most recent tropical storm seasons (2004, 2005 and 2008): (1) the storms occurred in years during an expansionary national economy; (2) there were few additional expensive natural disasters to compete for federal funds during these storm years; and (3) leadership by coastal state representatives of the majority party occupied both legislative and executive branches of federal government during most of the period. The alignment of these conditions led to additional dollars through ad hoc add-ons to appropriations bills that softened the blow and created a greater safety net for local governments impacted by such storms as Ivan, Katrina and Rita.

Our approach to helping local governments prepare financially for future events uses a participatory research methodology to organize and apply tools to both learn about and identify optimal financial preparation in advance. The program objectives involve financial planning using human dimensions of resiliency by addressing two key priority areas: (1) improving planning for response to and recovery from coastal hazards and climate associated risks and (2) developing tools and information related to the human dimensions of resilience (i.e., economic, social and cultural factors). This manual helps to guide Extension agents and local practitioners through the process in their own communities.

The following modules guide users through the process of improving financial resilience of local governments by identifying community needs, assessing options for increased financial solvency and presenting options to local government for positive change. Each module contains issues a local government may face, interconnected with economic, social and cultural factors. Real-world examples are used to clarify the experiences of local governments.
Identifying and Preparing a Community for Financial Risk Resilience Planning

Achieving financial resiliency can be accomplished using a participatory method comprised of the local government executive leader, a community advisory group and a facilitator – in this case local Extension agents or practitioners. Using the modules outlined in this section, Extension agents can help local governments identify community needs, assess options for increased solvency and present viable options to local government for positive change. Having the community leader on board will improve the success of this program, not to mention the benefit of having the highest ranking decision maker of the community open to program findings.

Top left: Fishing vessels stranded on the highway near Empire, La. (Hurricane Katrina).
Top right: A delivery truck deposited on a tree by the force of storm surge (Hurricane Katrina).
Bottom left: Storm debris swept to the side of a street in New Orleans.
Bottom right: A debris staging area in Cameron Parish self-combusted as organic material began to decompose (Hurricane Rita).

*Photos courtesy Louisiana Sea Grant.*
Module 1: Identifying the Community and the Advisory Group

Module Overview

The community you are working in will be best served by a diverse advisory group. In this module you will be identifying a community leader who will be the “cheerleader” for the proposed project. The community leader you identify will help recommend individuals he or she has worked with or knows as leaders in the community in order to make the outcomes of the advisory panel process a success.

Module Objectives

1) Develop community leader buy-in to the financial disaster resilience program.
2) Identify a trusted group of community stakeholders to serve on an advisory panel.

Strategies on forming a successful advisory panel

- Obtain list of potential participants from community leader
- 15 – 20 people
- Civic minded
- Diverse backgrounds
- Potential for effecting community change
- Establish contact with potential participants detailing commitment and obtaining availability
- Confirm participation

Once a potential participant list has been created, establishing contact and scheduling begins. Do not assume potential participants were informed about the program or they have been named by the community leader as a potential participant in advance. A verbal invitation to participate combined with a synopsis of the program, followed by written or electronic confirmation of participation will achieve the highest results for meeting attendance. Explain the time commitment participants should expect throughout the project. The program is expected to occur over three (3) to four (4) two-hour meetings. There is no time commitment outside of the determined meetings for participants. In addition to establishing communication, polling advisors for availability will reduce redundant communication.

Advisory group participants should understand what the program is and how they fit into the process.

As a committee member in a participatory research framework, members will assist in identifying the highest financial health priorities for their local government; “ground truth” official statistics against personal experience and knowledge; and propose policies that safeguard the financial health of local government from future tropical disaster events.
Meeting Logistics Tips

- Arrange meetings on the same day, time and week of each meeting month.
- Avoid public government meeting times, church services, holidays and weekends.
- Meeting location should either be central for participants or in a local government facility.
- Provide a light meal, since meetings usually take place during the normal dinner hour.

Providing a meal for the advisory panel at the beginning of the meeting helps keep everyone on task and encourages relaxed conversation for participants. Light meals are suggested, but keep in mind that this meal will need to carry participants through the evening, as meetings can last well past the normal dinner hour. This social time allows participants to get to know each other and you as the facilitator.

Why a participatory research process? Is a community ready to participate?

The participatory research process suggested here has been called “Community Decision Support” (CDS) and has several advantages over alternative methods of research practice (Scott and Fannin 2007). Variations of this approach have been popularized in community service learning research and instruction such as action or participatory action research (Fannin and LeBlanc 2007). These approaches assume both the goals and objectives of the advisory panel are well-defined and the desired outcome is also well-defined. In CDS, the goal of the research is typically agreed on by the community, but the objectives may or may/not be well defined. When the community is in agreement on the goals and objectives, then CDS focuses on identifying the tradeoffs of alternative outcomes of various decision alternatives.

In financial disaster resilience, having local community stakeholders in agreement that the local government should improve its financial disaster resiliency as a goal is the first step in identifying if a community is ready to participate. If a community is willing to agree on the objectives, to assess its current financial health, to identify how its financial health changes under a future tropical natural disaster scenario, and to evaluate the outcomes of financial decisions that improve financial resilience to these scenarios, then a community is ready to receive the financial disaster resilience extension program.

A necessary condition for a community to participate is adherence to the goals and objectives set by the elected local government officials. In county (parish) settings, this is typically the presiding commissioner, parish or county president or police jury president. For municipalities, this usually involves the mayor. Many local governments do not have sole authority to undertake a participatory research process with an advisory panel without first receiving legislative authority. This typically involves approval of the entire county commission, police jury or parish or town council. In some cases, it is helpful for the Extension agent providing the training to attend such meetings to answer any questions of the council prior to their approval.

Additional Resources

In the module overview, it was identified that a local community leader is typically identified to be the “cheerleader” for the proposed extension program. In many communities, a “cheerleader”
may not be immediately apparent, or elected officials may not understand the relative financial vulnerabilities and capacities they have at their disposal in a future disaster event. If through initial discussions, a cheerleader for this program does not emerge, highlighting initial evidence to key local government stakeholders may help to develop those cheerleaders.

Through collaboration between the Rural Policy Research Institute (RUPRI) (www.rupri.org), the National Association of Development Organizations (NADO) (www.nado.org) and the LSU AgCenter (www.lsuagcenter.com), a workbook was created to provide local governments a self-assessment tool to identify financial vulnerabilities and capacities for future natural disasters. This workbook titled “Financial Planning for Natural Disasters: A Workbook for Local Governments and regions” (http://www.nado.org/wp-content/uploads/2014/01/FINAL_Workbook.pdf) contains five modules with simple worksheets a local government can complete to gain an initial financial assessment.

A local extension professional or practitioner could assist a local government’s financial or emergency operations personnel to complete the worksheets and allow the initial evidence from the self-assessment to determine the need for a more expansive and facilitated decision support process.
Module 2: Establishing a Foundation for Advisory Group Decision Making

Module Overview

A review of the current demographic, economic and fiscal condition of the local government is the platform to begin assessing financial resilience. In this module, you will begin to engage the advisory panel in its first meeting. In particular, you will focus on engaging members’ backgrounds about the demographic and economics of the parish (county) or municipality. After a brief overview of these statistics, an overview of the current fiscal health of the local government is presented using various financial indicators. These indicator topics serve as tools to assist in future decision making.

Module Objectives

1) Introduce advisory panel to Extension agents and the objectives of project.
2) Educate advisory panel about current demographics and economics of the parish (county) or municipality.
3) Educate advisory panel about local and comparative governments’ financial health.

Advanced Materials

• Agenda – emailed one week in advance of advisory panel meeting
• Introduction of Project PowerPoint (Slide Show 2-1)
• Current Demographic and Economic Conditions PowerPoint (Slide Show 2-2) (Clickers Required)
• Introduction to Local Government Finances PowerPoint (Slide Show 2-3)

Timeline of Meeting (Assuming a 6:00 p.m. start time)

6:00 p.m. Meal
6:20 p.m. Overview of Agenda
6:30 p.m. Introduction of Project
6:45 p.m. Current Demographic and Economic Conditions
7:15 p.m. Introduction to Parish Government Finances
7:45 p.m. Questions and Feedback
7:55 p.m. Schedule Next Advisory Panel Meeting
8:00 p.m. Adjournment

Suggestions

The initial meeting is designed to acquaint each member of the panel with other members as well as the Extension facilitator. During the introduction of the project, you as the facilitator should clearly define the objectives of Risk Resilience Planning and identify what is expected of the advisory group. In particular, they need to know what the key objectives are from this proposal and how it will benefit the community at large. Please see Slide Show 2-1 “Introduction of
Project” at the end of this module for an example. This PowerPoint presentation is included in your packet and can be edited to fit your specific community and project team.

One of the biggest challenges with this project is the level of detailed financial data that are presented to the advisory panel. While in some cases these data are simply used for descriptive purposes, in most cases, the data are presented for the advisory panel to make decisions or define preferences.

To engage the advisory panel, we recommend you use a remote response device that will allow advisory panel members to provide anonymous responses to questions you may ask during the presentations. This allows for an interactive advisory panel experience.

The authors have used a product called TurningPoint® (www.turningtechnologies.com). TurningPoint® is an interactive response system that provides free software that integrates with Microsoft PowerPoint to allow for polling of audience members who have remote response devices. It simply requires purchase of a sufficient number of compatible devices for the advisory panel to use and a USB receiver that plugs into the laptop that has TurningPoint® modified PowerPoint software.

This technology is a fully interactive group response system enabling the speaker to collect instant feedback to the audience from polling. It gathers anonymous responses and immediately translates results into scores, charts and/or graphs. The data can also be saved for future reference.

Please work with your program trainer regarding steps in creating, editing and executing a TurningPoint® enabled Microsoft PowerPoint file. Specific steps on executing and saving results are included in Appendix 1.

Slide Show 2-2 (Current Demographic and Economic Conditions) use TurningPoint® enabled PowerPoint files. Please go to the Turning Technologies website to download the integrated software and follow the steps in Appendix 1.

In the Current Demographic and Economic Conditions Slide Show (2-2), Slides 7-9, 12 and 14-16 will need to be modified to include your own parish (county) or municipality’s data. Your program trainer should provide you with the data needed to update these slides. In the future, an updated manual will include a spreadsheet from which you can select the specific parish, county or municipality and the year from which to obtain the data directly for your slides.

In the Introduction to Government Finances Slide Show (2-3), all slides require using government-specific data including financial ratios. Your program trainer will provide these data to you for creating the appropriate slides. For comparison, include adjacent counties/parishes or similar municipalities to focus government.

If you did not take an accounting class in college, much of the data (including financial ratios) may be foreign to you. References such as Finkler (2010) provide a good overview of these ratios for interpretation and application to local governments. Facilitators should also ask
questions of their program trainer to get better acquainted with each of these indicators of local
government financial health. An example of financial ratio analysis measures is presented in
Appendix 2.

It is suggested that you attempt to make the interactive polling slides fun. Since the results come
up on the screen (bar chart) with one click after the time clock has turned zero, then everyone
gets a chance to see if they chose the correct answer. Keep in mind the results are anonymous;
everyone can answer truthfully without being singled out. In some cases it can be fun to ask
individual panel members in the audience to raise their hands if they answered the question
correctly. Also, you may have support personnel from the local government (elected or full-time
staff) that do not sit on the advisory panel but do listen in on the presentations. Sometimes it
makes for a more lively presentation to ask them orally which answer they think is correct. You
often find that those who should know the most about the community know less than you think.

At the end of the last presentation, it is helpful to ask for feedback from the panel in terms of
things they learned from the presentations that evening and questions they may have that were
not asked during the formal presentations. In some cases, you may know the answer and can
respond immediately. In other cases, you may have to go back to the office and look up the
answer. Don’t be afraid to let panel members know you will look up the answer and get back to
them at the next meeting. This instills a level of credibility with the panel and shows that you are
not trying to dodge questions. Further, it creates a level of engagement necessary for these
meetings to be truly interactive and to obtain the necessary “local” information to improve the
decision making process.
Introduction of Project

[Instructor’s Name]
[Date]
[City/Parish/or County, State]

Overview

• Project Title
  – Measuring the Relative Financial Vulnerability of Municipal Governments to Tropical Natural Disaster Risk

• Purpose of Research
  – Develop a decision making process to allocate financial resources to minimize burden of cleanup, recovery and reconstruction costs to local governments from future tropical storm events
Overview

• Funded by
  – Mississippi-Alabama Sea Grant

• Project Investigators
  – Matt Fannin, Associate Professor, Dept of Ag. Economics and Agribusiness, LSU AgCenter
  – Jody Thompson, Extension Specialist, MS-AL Sea Grant and Auburn Extension
  – Carol Franze, Assoc. Area Agent, Southeast Region, LSU AgCenter

Objectives

Objective A

• Estimate selected financial health metrics for selected municipalities including key financial disaster resilience metrics such as liquidity, performance, and capital structure ratios.
Objectives

Objective B

- Identify adjusted “rules of thumb” for financially healthy ratio levels for local governments based on local government disaster costs for municipal and county (parish) governments.

Objectives

Objective C

- Estimate the differential effects that natural disaster emergency operations and debris removal and cleanup have on municipal governments versus county (parish)
Role of Committee

- As a committee member in a participatory research framework you will
  - assist in identifying the highest financial health priorities;
  - “ground truth” official statistics against personal experience, and
  - propose policies that improve financial health of city from future coastal events.

Questions?

Contact Information

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- **Carol Franze**
  - Phone: (985) 543-4129
  - E-mail: cifranze@agcenter.lsu.edu
Current Demographic and Economic Conditions: [City]

[Instructor’s Name]
[Date]
[City/Parish/or County, State]

Ice Breaker

• We will try the clicker devices on a few practice exercises
• You will be given a word with blanks. You will be given 4 options of letters that can be applied to correctly complete a familiar word.
• Once you identify the correct response, push that number button on you device for it to record.
Slide 3 (2-2)

B_L_W_N

1. T U I
2. D I A
3. N A O
4. U K O

Slide 4 (2-2)

G_L_ _F M_X_C_

1. E I U Q A A
2. U A I P A I
3. E O M U A A
4. O I U F O E
Now, let’s try some harder questions!

Slide 6 (2-2)

What was the federal estimate of population in Foley in 2010?

1. 11,719
2. 14,618
3. 12,743
4. 15,716

Source: American Community Survey, 2008. factfinder.census.gov
Slide 7 (2-2)

What percent of population 25+ years of age have a bachelor’s degree or higher in Foley?

1. 14%
2. 22%
3. 18%
4. 16%
5. 10%

Source: American Community Survey. Actual percentage is 21.7%. Percentage with associate’s degree is 3.7%. Percentage with some college, but no degree is 19.4%.

Financial Resilience

Slide 8 (2-2)

What were the total value of assets for Foley Government at the end of 2010?

1. $120 million
2. $135 million
3. $240 million
4. $300 million
5. $800 million

Source: 2008 TPG Audited Financial Statements, SONA.
Slide 9 (2-2)

What were total revenues for Foley Government in 2010?

1. $28 million
2. $19 million
3. $34 million
4. $46 million

Slide 10 (2-2)

What does focusing on liquidity for a local government mean?

1. Examines the relative debt of local government
2. Examines the ability of local government to make required interest and principal payments on debt
3. Examines the relative profitability of local government
4. Examines whether local government has enough cash and quickly convertible assets to cash to meet near term liabilities

**Slide 11 (2-2)**

The current ratio measures current assets divided by current liabilities. What is a minimum healthy current ratio for local government?

1. 0.75
2. 1
3. 2
4. 4
5. 10

Source: Finkler 2010.

**Slide 12 (2-2)**

What was the current ratio for the general fund of Foley Government in 2010?

1. 10.28
2. 11.34
3. 13.53
4. 14.41
5. 16.70

Source: TPG Audited Financial Statements 2008, SONA. Calculated as (cash and cash equivalents + receivables) / (Accounts, salaries, and other payables)
Slide 13 (2-2)

A debt to equity ratio equals total liabilities divided by total net assets. What is a good maximum debt to equity ratio for local government?

1. 0.33
2. 0.50
3. 0.75
4. 1
5. 2

Source: Finkler 2010

Slide 14 (2-2)

What was the debt to equity ratio for Foley Government at the end of 2010?

1. 0.40
2. 0.28
3. 0.46
4. 0.89
5. 3.41
**Slide 15 (2-2)**

What is the historical probability that a tropical system will reach Foley with sustained hurricane force winds in a given year?

1. 0.75%
2. 1.50%
3. 3.1%
4. 6%
5. 12%

Actually 0.80%

**Slide 16 (2-2)**

What is the historical probability that a tropical system will reach Foley with sustained hurricane force winds over a 50 year period?

1. 25%
2. 33%
3. 50.2%
4. 66%
5. 79.7%
Thanks for Completing the Assessment!

- Questions or comments on assessment can be submitted to:
  - Matt Fannin
    - Phone: (225) 578-0346
    - E-mail: mfannin@agcenter.lsu.edu
Introduction to Local Government Finances

[Instructor’s Name]
[Date]
[City/Parish/or County, State]

Source Data

- Audited Financial Statements of City of Foley
  - Recent years (2007-11) on city website
  - Prior years provided by city
- Audited Financial Statements of Baldwin and Monroe Counties
  - Obtained from Alabama Dept of Examiners of Public Accounts
Slide 3 (2-3)

**Foley Current Ratio History**

![Graph showing current ratio history from 2003 to 2011.]

Slide 4 (2-3)

**Current Ratio Comparison**

<table>
<thead>
<tr>
<th>City/County</th>
<th>2006</th>
<th>2010</th>
<th>% Change in Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foley</td>
<td>10.26</td>
<td>16.70</td>
<td>62.85</td>
</tr>
<tr>
<td>Baldwin</td>
<td>7.04</td>
<td>6.81</td>
<td>-3.23</td>
</tr>
<tr>
<td>Mobile</td>
<td>28.31</td>
<td>2.09</td>
<td>-92.62</td>
</tr>
</tbody>
</table>

Notes: Current Ratio (current assets / current liabilities) based on General Fund accounts only. Current ratio > 2 considered financially healthy for the public sector.
Slide 5 (2-3)

Foley Quick Ratio History

Financial Resilience

Quick Ratio Comparison

<table>
<thead>
<tr>
<th>City/County</th>
<th>2006</th>
<th>2010</th>
<th>% Change in Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foley</td>
<td>8.78</td>
<td>5.43</td>
<td>-38.15</td>
</tr>
<tr>
<td>Baldwin</td>
<td>3.33</td>
<td>4.36</td>
<td>31.10</td>
</tr>
<tr>
<td>Mobile</td>
<td>2.55</td>
<td>0.86</td>
<td>-66.23</td>
</tr>
</tbody>
</table>

Notes: Quick Ratio (cash / current liabilities) based on General Fund accounts only. Quick ratio >1 considered financially healthy for the public sector.
Slide 7 (2-3)

Foley Debt to Asset History

Slide 8 (2-3)

Debt to Asset Ratio Comparison

<table>
<thead>
<tr>
<th>City/County</th>
<th>2006</th>
<th>2010</th>
<th>% Change in Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foley</td>
<td>0.23</td>
<td>0.28</td>
<td>21.71</td>
</tr>
<tr>
<td>Baldwin</td>
<td>0.42</td>
<td>0.40</td>
<td>-4.23</td>
</tr>
<tr>
<td>Mobile</td>
<td>0.47</td>
<td>0.42</td>
<td>-10.45</td>
</tr>
</tbody>
</table>

Notes: Debt to Asset (total liabilities / total assets) ratio based on Statement of Net Assets. Debt to Asset ratio <0.5 considered financially healthy for the public sector.
Slide 9 (2-3)

Foley Debt to Net Asset History

Slide 10 (2-3)

Debt to Net Asset Ratio

<table>
<thead>
<tr>
<th>City/County</th>
<th>2006</th>
<th>2010</th>
<th>% Change in Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foley</td>
<td>0.30</td>
<td>0.40</td>
<td>30.30</td>
</tr>
<tr>
<td>Baldwin</td>
<td>0.71</td>
<td>0.66</td>
<td>-7.03</td>
</tr>
<tr>
<td>Mobile</td>
<td>0.89</td>
<td>0.73</td>
<td>-18.08</td>
</tr>
</tbody>
</table>

Notes: Debt to Net Asset ratio (total liabilities / (total assets – total liabilities)) based on Statement of Net Assets. Debt to Asset ratio <1 considered financially healthy for the public sector.
Foley Debt to Marketable Asset Ratio History

Debt to Marketable Asset

Year
2004 2005 2006 2007 2008 2009 2010 2011
Value
0.0 0.2 0.4 0.6 0.8 1.0

Financial Resilience

Slide 12 (2-3)

Debt to Marketable Asset Ratio

<table>
<thead>
<tr>
<th>City/County</th>
<th>2006</th>
<th>2010</th>
<th>% Change in Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foley</td>
<td>0.48</td>
<td>0.75</td>
<td>54.35</td>
</tr>
<tr>
<td>Baldwin</td>
<td>0.71</td>
<td>0.73</td>
<td>1.94</td>
</tr>
<tr>
<td>Mobile</td>
<td>0.58</td>
<td>0.60</td>
<td>2.39</td>
</tr>
</tbody>
</table>

Notes: Debt to Marketable Asset ratio (total liabilities / (total assets-infrastructure)) ratio based on Statement of Net Assets.
Debt Burden  
(Dollars Per Capita)

<table>
<thead>
<tr>
<th>City/County</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foley</td>
<td>2,613.75</td>
</tr>
<tr>
<td>Baldwin</td>
<td>952.45</td>
</tr>
<tr>
<td>Mobile</td>
<td>604.56</td>
</tr>
</tbody>
</table>

Notes: Debt burden (total liabilities / population).

Slide 14 (2-3)

Conclusions

- City of Foley financially healthy in major liquidity and solvency indicators and strong compared to county neighbors
- An increasing percentage of total assets of county are allocated to infrastructure
  - Provides returns to residents and businesses
  - May/may not add to ability to leverage asset to cover long-term liabilities based on direct marketability of infrastructure
Module 3: Representative Storm Analysis

Module Overview

In Module 3, a discussion of representative storm analysis will show you how to guide the advisory panel through the process of risk-based decision making. Using the objectives below, the advisory panel will gain a better understanding of local government risk and what that risk means in real and potential cost for government budgets.

Module Objectives:

1) Identify the role of risk in decision making.
2) Quantify the “cost of risk.”
3) Measure the financial vulnerability and capacity of local governments to tropical storm events.
4) Identify policy preferences for financing future tropical natural disasters

Advanced Materials

• Agenda - emailed one week in advance of advisory panel meeting
• Slide Show 3-1 – Introduction to Local Government Financial Risk (No Clickers)
• Slide Show 3-2 – Financial Vulnerability and Capacity of Local Governments to Finance Tropical Storm Events (No Clickers)
• Slide Show 3-3 - Policy Preferences for Financing Future Tropical Storm Events (Clickers Required)

Timeline of Meeting (Assuming a 6:00 p.m. start time)

6:00 p.m. Meal
6:20 p.m. Overview of Agenda
6:30 p.m. Introduction to Local Government Financial Risk
7:00 p.m. Financial Vulnerability and Capacity of Local Government to Tropical Disasters
7:30 p.m. Policy Preferences for Financing Future Tropical Storm Events
7:45 p.m. Questions and Feedback
7:55 p.m. Schedule Next Advisory Panel Meeting
8:00 p.m. Adjournment

Suggestions: Slide Show 3-1

The second meeting in which you present Module 3 will begin with the Introduction of Local Government Financial Risk. This presentation serves as a refresher from the discussions presented in Module 2 on risk. Your objectives from the presentation of this slide show are to:

• Remind the panel of what “risk” is in general.
• Remind panel members how they manage “risk” in their daily lives (through products like insurance).
• Remind the panel how risk can be incorporated to identify “expected loss.”
• Talk about the differences between covering expected loss and an individual’s “risk preference” toward impacting his or her willingness to pay to avoid risk.

Slides to be customized in Module 3-1 include:

*Slide 17* – Pull data from Slide 19 table.
*Slide 19* – Insert Your Parish’s (County) Tropical Event Probability table in this slide

One of the keys you should highlight about slide 18 “Measuring the Odds for Tropical Storms – Selected Parishes” is that these are the probabilities of one storm with sustained winds passing through the parish (county) over the given timelines presented. For areas closer to the shoreline within a parish, these probabilities are likely greater than for those areas farther away from the shore. Also note that sub-parish (county) grid data from the national hurricane center can identify sustained wind speed estimates for all tropical storms that made landfall in the past 20 years.

*Suggestions: Slide Show 3-2*

Slides 6-22 will need to be customized based on the spreadsheet provided by your program trainer for your specific parish, county or municipality. Check with your trainer for the appropriate spreadsheet program to generate these slides.

It should be noted that the unassigned general fund balance is typically a more liquid fund than any other fund balance the local government will have available. It is more likely that without additional information from the local government, evaluating the percent of the unreserved general fund that would be consumed from future tropical natural disaster costs would be most appropriate to determine if the local government was financially prepared for the next tropical natural disaster of a given size.

*Suggestions: Slide Show 3-3*

This slideshow focuses on identifying policy preferences of your local advisory panel for mitigating any gaps between a local government’s financial vulnerability and their capacity. Slides 1-6 represent slides that can be presented to all advisory panels regardless of whether a gap exists between a local government’s financial vulnerability and their capacity. They include the use of clickers to help identify the number and quantity of tropical natural disasters a local government should financially prepare for and what time horizon should be considered in that financial plan.

Slides 9-21 represent a set of optional slides for the advisory panel if financial vulnerability is greater than financial capacity. In these slides, the advisory panel uses clickers to evaluate preferences and tradeoffs between different policy alternatives for addressing the financial gap.
Introduction to Representative Storm Modeling

[Instructor’s Name]
[Date]
[City/Parish/or County]

Objective

- Identify the Role of Risk in Decision Making
- Quantifying the “cost” of risk
- Measuring risk for City of Foley from tropical storm events
- Quantifying the “cost” of tropical storm event risk
Risk in Decision Making

- Did you ever hear one of these types of finance tips prior to the current economic recession?
  - If your mortgage rate is 6% and the average return on stocks is 10-12% historically, then you should invest extra savings in the stock market rather than paying on extra on your mortgage.

Risk in Decision Making

- The “spread” on the interest rate suggests you earn 4%-6% more on your money by investing in the stock market.
- BUT
- The “return” on your stock investment is “uncertain”
- However, if you pay early on a fixed rate mortgage, the return is guaranteed!
The “Cost” of Risk

- Imagine you have the opportunity to play a lottery by flipping a fair coin
  - If the coin lands heads, you win $10,000; if the coin lands tails, you lose $1,000.

- What is the expected value you would receive from playing this lottery?

The “Cost” of Risk

- The expected value of a lottery is basically the summation of the value of each potential outcome of the lottery times the probability of that outcome

- In our example
  \[ 0.50 \times \$10,000 + 0.50 \times -\$1,000 \]
  \[ = \$4,500 \]
The “Cost” of Risk

• Would you be willing to play this lottery? Or would you be willing to pay someone to avoid playing this lottery?
  • If so, how much? $50, $100, $500?
  • If you are willing to pay, you are considered being “risk averse”
  • The additional amount you are willing to pay to avoid playing the lottery is called the “risk premium”

The “Cost” of Risk

• Suppose you play a different lottery
  – You have a 5% probability that you lose $20,000, and a 95% chance that you lose nothing.

• How much would you pay not to play this lottery?
  – If you pay more than $1,000, then you are risk averse
Risk Aversion

- In the first example, if you were sufficiently wealthy, you might be willing to play that lottery – even if you are risk averse

- On the other hand, you may likely choose to pay someone else to play that lottery for you – this is typically called purchasing insurance

Risk Aversion

- When you can’t afford for the negative outcome of a lottery to come up even after one flip, then paying someone to play makes sense to avoid the risk aversion
Risk Aversion

- If you are sufficiently wealthy, and are allowed to play the lottery several repeated times, you can either make money or pay out less than if you purchased insurance yourself.

- This is called “self-insuring”

Measuring Financial Risk from Tropical Storm Events

- Measuring financial risk to a tropical storm is like playing a lottery
- First, you need to identify all possible “outcomes” and then assign odds to those outcomes
- We’ll deal with identifying the second question first – How might we assign odds to tropical storms?
Measuring Odds of Tropical Systems

- Adopt US Landfall Hurricane Probability Project Approach
- Developed by Philip Klotzbach and William Gray, Colorado State University
- This is the same Dr. Gray that makes annual forecasts for the number of hurricanes to make landfall in the US each year


Measuring Odds of Tropical Storms

- They estimate probabilities of two types of events
  - The probability that a tropical system with sustained winds of a tropical storm, hurricane, or major hurricane will make landfall in your county, and
  - the probability that a tropical system with threshold wind gusts of similar speeds will make landfall in your county.
Measuring the Odds of Tropical Storms

- This is simply calculated by identifying historically (over the past 127 years) the number of storms that make landfall in specified regions of the Gulf and Atlantic seaboard.

- The number of storms over that period attributed to your county is attributed to the percentage of shoreline (borderline) your county has as part of that region.

Measuring the Odds of Tropical Storms

- A special mathematical distribution (Poisson) is applied to calculate the single year probability.

- Also 50 year sustained wind probabilities are estimated.
Measuring the Odds for Tropical Storms

- For Foley, AL, the historical probability of one tropical storm entering the city in a given year is 6.20%
- For a Cat 1 or 2 hurricane entering the city, it is 3.10%, and for a major hurricane (Cat 3+) entering the city, it is 0.6%
- Based on 127 years of climatological data

Measuring the Odds for Tropical Storms

- However, in other communities along Gulf Coast, residents believe the more recent past is a better predictor of future tropical events occurring
- We also apply more recent history to minor and major hurricanes to provide adjusted measure of risk
**Tropical Event Probabilities**

<table>
<thead>
<tr>
<th>Tropical Event</th>
<th>Climate History</th>
<th>Probability one tropical event will occur over time window</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1 Year</td>
</tr>
<tr>
<td>Named Storm</td>
<td>127 Years</td>
<td>6.20%</td>
</tr>
<tr>
<td>Minor Hurricane</td>
<td>127 Years</td>
<td>3.10%</td>
</tr>
<tr>
<td>Major Hurricane</td>
<td>127 Years</td>
<td>1.40%</td>
</tr>
<tr>
<td>Minor Hurricane</td>
<td>30 Years</td>
<td>6.36%</td>
</tr>
<tr>
<td>Major Hurricane</td>
<td>30 Years</td>
<td>2.80%</td>
</tr>
</tbody>
</table>

**Quantifying the Cost of Tropical Storms**

- In addition, to using the probabilities of certain wind speed storms in deciding the strength of construction of buildings, it can be helpful in the in financial preparation of local governments.

- We can calculate the expected cost in a given year from a tropical system based on the “expected valuation” approach.
Quantifying the Cost of Tropical Storms

- We can simply take the probability that a given storm will make landfall in a given year times the loss that a storm would incur on the county if it occurred
- Challenges:
  - Identifying the appropriate probability
  - Identifying the appropriate loss incurred
- These issues will be addressed in our and municipal loss scenario presentation

Conclusion

- Risk should be taken into account when identifying returns and loss to individual and public decision making
- Risk aversion suggests paying someone else (e.g. insurance) to bear the risk
- Historical tropical storm activity helps to provide an estimate of risk which can be used to identify expected losses to the public sector
Contact Information

- Matt Fannin
  - Phone: (225) 578-0346
  - E-mail: mfannin@agcenter.lsu.edu
Financial Vulnerability and Capacity of Local Governments to Tropical Disasters

[Instructor’s Name]
[Date]
[City/Parish/or County, State]

Objective

- Identify vulnerability of City of Foley to future tropical natural disasters
- Identify financial capacity to address vulnerability and identify financial gaps
- Identify “risk-adjusted” fiscal health from expected losses to future tropical natural disasters
Vulnerability

- Measured as both likelihood of occurrence and financial losses if it were to occur
- We have Dr. Gray’s climatology estimates for sustained winds
- We now must define losses

Categories of Storm Costs

- Total costs include FEMA Public Assistance categories (partial list)
  - Category A costs (debris removal)
  - Category B Costs (emergency protective measures such as search and rescue, shelter operations, mass feeding, evacuation and re-entry efforts, traffic control, etc)
  - Category E costs (public buildings and contents)
Identifying Loss

- We can use one of three strategies:
  - Apply historical actual losses incurred for one’s own region
  - Simulate losses from computer models for a region
  - Apply projections from inferential statistics on actual losses incurred from historical storms from multiple regions

Identifying Loss

- Use Historical Storms for City
  - Small to Medium – Katrina (2005)
Historical Losses

City of Foley Costs - Hurricane Iran

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category A</td>
<td>$4,096,499</td>
</tr>
<tr>
<td>Category B</td>
<td>$98,728</td>
</tr>
<tr>
<td>Category E</td>
<td>$10,485</td>
</tr>
<tr>
<td>Administrative</td>
<td>$58,425</td>
</tr>
<tr>
<td>Eligible Subtotal</td>
<td>$4,900,967</td>
</tr>
<tr>
<td>Non-Eligible</td>
<td>$235,679</td>
</tr>
<tr>
<td>Total</td>
<td>$5,036,646</td>
</tr>
</tbody>
</table>

Slide 7 (3-2)

Historical Losses

City of Foley Costs - Hurricane Katrina

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category A</td>
<td>$297,519</td>
</tr>
<tr>
<td>Category B</td>
<td>$13,988</td>
</tr>
<tr>
<td>Administrative</td>
<td>$7,228</td>
</tr>
<tr>
<td>Eligible Total</td>
<td>$318,735</td>
</tr>
</tbody>
</table>

Slide 8 (3-2)
Capacity

- Financial ability to cover costs
  - Short-Term – Liquidity
    - Impacted by debris removal, emergency contract terms, percentage of city labor and equipment used
  - Long-Term – Solvency Issue
    - Impacted by if and how much the federal and/or state government serves as an “insurer of last resort”

Capacity

- FEMA as “Insurer of Last Resort”
  - Certain pre-storm and post-storm expenses are reimbursable based on federal disaster declaration
  - FEMA rules require minimum state level damage to declare impacted areas eligible for public assistance (2013: $1.37 per capita)
  - Non-federal cost share 25% unless damage exceed $133 per capita in state (2013)
Capacity

- Communities have various “flexibility” in using funds for disaster response and recovery
- All communities typically have undesignated general fund balance to address disaster response and recovery costs
- 2012 audited financial report for city shows unassigned fund balance from general fund of $16,921,540

Vulnerability vs Capacity

Short-Term
- Vulnerability (Ivan Plus Katrina type storm – Category A, B, and E)
  - $6,712,469 (2013 dollars)
- Capacity (Unassigned General Fund Balance (September 30th, 2012)
  - $16,921,540
- Capacity minus Vulnerability
  - $10,209,071
Vulnerability vs Capacity

Long-Term
- FEMA “Insurer of Last Resort”
  - 75% reimbursable costs
    - 0.75 x $6,476,790 = $4,857,592 (2013 dollars)
- Local Cost Share
  - 25% reimbursable costs plus non-reimbursable costs
    - 0.25 x $6,476,790 = $1,619,197 (2013 dollars)
    - $295,911 (non-reimbursable) (2013 dollars)
  - Total local long-term liability
    - $1,915,908 (2013 dollars)

Vulnerability vs Capacity

- In recent past storms, State of Alabama has been reimbursed 10% of eligible federal cost
- If pattern continues, then
  - 25% local cost share reduced to 15%
  - 10% local cost share reduced to 0%
- In either case, overall long-term capacity is further strengthened by any state-level support
Vulnerability vs Capacity

- Capacity – Long Run Vulnerability
  $16,921,540 - $1,915,108 = $15,006,432
- Local capacity more than sufficient to cover short-term liquidity and long-term solvency challenges from planning for both future Ivan and Katrina storms
- City of Foley currently has the financial capacity to cover long-term liability of a storm 10X the financial cost of Ivan (assuming 75% federal reimbursement)

Risk-Adjusted Fiscal Health

- Probabilities for recorded history (127 years) plus more recent history of tropical event with sustained winds passing through Foley

<table>
<thead>
<tr>
<th>Tropical Event</th>
<th>1 Year</th>
<th>4 Year</th>
<th>10 Year</th>
<th>20 Year</th>
<th>50 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Named Storm 127 Years</td>
<td>6.20%</td>
<td>23.20%</td>
<td>48.40%</td>
<td>73.30%</td>
<td>96.30%</td>
</tr>
<tr>
<td>Minor Hurricane 127 Years</td>
<td>3.10%</td>
<td>12.00%</td>
<td>27.30%</td>
<td>47.10%</td>
<td>78.70%</td>
</tr>
<tr>
<td>Major Hurricane 127 Years</td>
<td>1.40%</td>
<td>5.50%</td>
<td>13.30%</td>
<td>24.80%</td>
<td>50.90%</td>
</tr>
<tr>
<td>Minor Hurricane 30 Year</td>
<td>6.38%</td>
<td>22.80%</td>
<td>49.06%</td>
<td>77.63%</td>
<td>99.00%</td>
</tr>
<tr>
<td>Major Hurricane 30 Year</td>
<td>2.80%</td>
<td>10.34%</td>
<td>24.24%</td>
<td>44.02%</td>
<td>84.09%</td>
</tr>
</tbody>
</table>
## Risk-Adjusted Fiscal Health

### Actual vs. Risk-Adjusted (127 Year) vs. Risk-Adjusted (30 Year)

<table>
<thead>
<tr>
<th></th>
<th>Actual 2012</th>
<th>Risk-Adjusted (127 Year) 2012</th>
<th>Risk-Adjusted (30 Year) 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Assets</td>
<td>$130,129,554</td>
<td>$130,129,554</td>
<td>$130,129,554</td>
</tr>
<tr>
<td>Marketable Assets</td>
<td>$42,906,982</td>
<td>$42,006,982</td>
<td>$42,006,982</td>
</tr>
<tr>
<td>Total Liabilities</td>
<td>$33,491,406</td>
<td>$37,019,083</td>
<td>$39,103,712</td>
</tr>
<tr>
<td>Net Assets</td>
<td>$56,638,140</td>
<td>$83,109,571</td>
<td>$80,935,842</td>
</tr>
<tr>
<td>Marketable Net Assets</td>
<td>$8,515,577</td>
<td>$4,986,999</td>
<td>$2,813,270</td>
</tr>
</tbody>
</table>

### Solvency

<table>
<thead>
<tr>
<th></th>
<th>Actual 2012</th>
<th>Risk-Adjusted (127 Year) 2012</th>
<th>Risk-Adjusted (30 Year) 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt to Net Asset Ratio</td>
<td>0.35</td>
<td>0.40</td>
<td>0.43</td>
</tr>
<tr>
<td>Debt to Asset Ratio</td>
<td>0.26</td>
<td>0.28</td>
<td>0.30</td>
</tr>
<tr>
<td>Debt to Marketable Asset Ratio</td>
<td>0.80</td>
<td>0.88</td>
<td>0.93</td>
</tr>
</tbody>
</table>
Risk-Adjusted Fiscal Health

• Liquidity

<table>
<thead>
<tr>
<th>General Fund</th>
<th>Actual 2012</th>
<th>Risk-Adjusted (127 Year)</th>
<th>Risk-Adjusted (30 Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Assets</td>
<td>21,199,839</td>
<td>21,199,839</td>
<td>21,199,839</td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>1,284,168</td>
<td>4,782,746</td>
<td>8,956,475</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>16.90</td>
<td>4.43</td>
<td>3.95</td>
</tr>
</tbody>
</table>

Implications

• Risk-adjusted fiscal health extremely strong for City of Foley
• Both liquidity and solvency positions maintain healthy levels under expected losses from combining a (Hurricane Ivan and Katrina storm)
• City should carefully consider additional debt they may incur for non-marketable capital assets given high debt to marketable asset ratio
Lagniappe

- Two important thresholds to consider for federal reimbursement:
- $1.37 – per capita state threshold of storm damage for FEMA to provide public assistance (at 25% local cost share)
- $133 – per capita state threshold of storm damage for FEMA to adjust to lower local cost share threshold (10%)
- Based on Federal FY 2013 thresholds

Lagniappe

- What happens if a tornado came through and only created damage that impacted the City of Foley and no other public jurisdiction?
- If the total damage was less than $6,606,172 ($1.37 x 4,822,023 (2012 Alabama pop.,) Foley would have to pay 100% of costs
- City of Foley Resolution (3649-09) requires $6,607,194 to be held in undesignated fund balance for such an event in 2013 budget
- Resolution sufficiently addresses minimum fund balance required to finance non-reimbursable disaster events
Questions?
Policy Preferences for Financial Future Tropical Storm Events

[Instructor's Name]
[Date]
[City/Parish/County, State]

Planning Alternatives

- Now that you have seen profiles of emergency operations and debris removal costs, probabilities of sustained wind hurricane events, actual losses, and risk-adjusted fiscal health, we need to provide input to City of Foley on financial planning for future disasters
1. What should be the financial planning horizon for the City of Foley?

1. 1 Year
2. 4 Years
3. 10 Years
4. 20 Years
5. 50 Years
6. Other

2. How many storms should Foley financially plan for over the next 10 years?

1. One tropical storm only
2. One minor hurricane only
3. One major hurricane only
4. One tropical storm, one minor hurricane
5. Two tropical storms, one minor hurricane
6. Two tropical storms, two minor hurricanes
7. Two tropical storms, one minor hurricane, one major hurricane
8. Greater than #7
2. How many storms should Foley financially plan for over the next 20 years?

1. One tropical storm only
2. One minor hurricane only
3. One major hurricane only
4. One tropical storm, one minor hurricane
5. Two tropical storms, one minor hurricane
6. Two tropical storms, two minor hurricanes
7. Two tropical storms, one minor hurricane, one major hurricane
8. Greater than #7

Slide 6 (3-3)

2. How many storms should the City of Foley financially plan for over the next 50 years?

1. One tropical storm only
2. One minor hurricane only
3. One major hurricane only
4. One tropical storm, one minor hurricane
5. Two tropical storms, one minor hurricane
6. Two tropical storms, two minor hurricanes
7. Two tropical storms, one minor hurricane, one major hurricane
8. Greater than #7
Slide 7 (3-3)

Which of the following alternatives do you prefer?

1. Maintain existing resolution for “guidance” of size of undesignated fund balance for funding natural disaster recovery
2. Lower financial threshold to a level more consistent with local cost share liability of city when federal disaster is declared
3. Adjust existing resolution so that minimum threshold also exceeds threshold for federal disaster declaration in state
4. Increase legal standing by making resolution a formal amendment to municipal code/city charter, etc

Slide 8 (3-3)

Financial Gap Exists

- If a financial gap exists between the financial vulnerability of a local government and their financial capacity, policy alternatives should be considered
- In the case of Calcasieu Parish the following slides were presented
- If your local government’s financial capacity exceeds its financial vulnerability, these slides can be skipped
Financing Alternatives

- Fortunately, there are many ways to fund tropical storm/hurricane recovery costs. There are many short-term ways to finance storm recovery costs. They include:
  - Liquidity of dedicated funds
  - Liquidity of undedicated funds
  - Debt financing

Tradeoffs of Alternatives

- Liquidity of existing dedicated funds
  - Advantage: Use dedicated funds to cover costs. Some dedicated funds have unrestricted revenue streams
  - Disadvantage: Some dedicated funds/revenue streams cannot be spent on cleanup and debris removal. Removes liquidity and leverages day-to-day operations of restricted funds
Tradeoffs of Alternatives

• Liquidity of undedicated funds
  – Advantage: It minimizes potential problems financing day-to-day operations
  – Disadvantage: Makes parish more vulnerable to future financial emergencies; lowers liquidity position of overall government

Tradeoffs of Alternatives

• Debt Financing
  – Advantage: Does not measurably impact liquidity of local government. Provides multiple year period for payback
  – Disadvantage: Increases debt burden and lowers financial health. May not be available to parishes with poor financial condition.
Tradeoffs of Alternatives

- You will now be asked a series of preferences
- Please make your decisions based on the knowledge you’ve gained about the financial condition of CPPJ from this process
- Assume alternatives chosen will address the costs to cover the 25% cost share required by FEMA for a Rita-sized Event (FEMA+Army Corps)

Which of the following alternatives do you prefer?

1. Identify special category or “dedicated” funds
2. Use undedicated funds (from general fund)
3. Use debt financing
4. Use combination of 1 and 2
5. Use combination of 2 and 3
6. Use combination of 1 and 3
7. Use 1, 2, and 3
Which of the following alternatives do you prefer?

1. Use existing dedicated fund or creation of new dedicated funds
2. Use undedicated funds (from general fund)

Which of the following alternatives do you prefer?

1. Use undedicated funds (from general fund)
2. Use debt financing
Which of the following alternatives do you prefer?

1. Use existing dedicated funds or creation of new dedicated funds
2. Use debt financing

Assume you chose to use a restricted or dedicated fund, what would you choose?

1. Vote to open up restricted funds (like solid waste, roads, etc) to finance disaster storm recovery only
2. Create a new dedicated fund restricted to finance disaster storm recovery only financed by excess reserves
Slide 19 (3-3)

Assuming you used undedicated funds, what would you choose?

1. Use unrestricted funds regardless of size of unrestricted funds
2. Use unrestricted funds up to a point where sufficient liquidity remained (remainder funded through restricted funds or debt financing)

Slide 20 (3-3)

Now assume that CPPJ has to cover the short-term burden of debris removal costs until FEMA reimburses 12 months later? How should they respond?

1. Establish reserves to cover 100% of costs and negotiate short-term payment schedules (30 or 60 days) to elicit reduced cost per cubic yard of debris removed
2. Obtain per cu yard cost of debris removed based on 12 month terms to eliminate short-term financing burden
3. Obtain line of credit/other debt financing and elicit reduced contractor cost for short terms (30 or 60 days)
4. Obtain both short term (30-60 day terms) and long term (12 month) terms and use debt financing if debt costs are smaller than net higher debris removal costs from longer term
Thank You!
Module 4: Wrap-Up Meeting, Post-Meeting Deliverables and Action Steps

Module Overview

In this module, the focus is placed on taking knowledge obtained about the financial vulnerability and capacity of the local government as well as the policy preferences of the advisory panel to generate final products and action steps that maintain or improve financial resilience.

Module Objective

The primary objective of this module is to identify strategies to effectively transfer knowledge gained in the preceding modules to create long-run financial resilience and sustainability in local communities. A secondary objective of this module is for extension professionals and practitioners to evaluate approaches that were effective and ineffective in presenting the financial resilience program.

Final Meeting with Advisory Panel (Optional)

In Module 3, you may have had several questions asked of you about data sources and assumptions used in calculating local financial vulnerability and financial capacity. In some cases, the local advisory panel may have evaluated the financial vulnerability data provided and identified additional financial burdens that were not obtained from existing state or local government records.

For example, in the Calcasieu Parish case, the Extension team was made aware that the debris costs did not include any cost for debris picked up by the U.S. Army Corps of Engineers. Consequently, the extension team was able to work with local government officials to obtain estimated debris levels and costs the parish would have incurred if the debris would have been picked up by parish government.

As a result, in a follow-up meeting, the Extension team presented revised results that incorporated the additional financial vulnerability and compared it against the parish’s financial capacity. In a scenario such as this, one should be able to take Slideshow 3-2 and slightly modify to provide updated results. Also, if a local government identified additional restricted funds that could be used to cover these financial burdens, a revised Slideshow 3-2 could also be performed.

Alternatively, if the financial capacity of the local government exceeds its financial vulnerability to future tropical disasters, then the Extension team may desire to use this third and final meeting to present a draft project report or project brief of the key findings from the financial resilience program. If developing a short brief (two to five pages), members of the advisory panel could review the draft at the meeting and provide suggestions to improve the narrative of the document for its intended audience (elected local government officials). Alternatively, if your Extension team generates a larger report, you may desire to e-mail the report to advisory panel members a few weeks before the meeting so that can review and bring suggestions to the meeting.
Post Meeting Deliverables and Action Steps

On completion of Module 4, the local advisory panel will have completed the participatory research process and identified one or more strategies for addressing financing future tropical natural disaster emergency operations and clean up and debris removal costs. At this point, it is important for you as the Extension facilitator to maintain contact with the local government and advisory panel that have been a part of this process. It should be noted that to transform the knowledge gained into actual decision making, the costs and policy alternatives need to be translated from the advisory panel to decision making authorities. These decision making authorities include the county (parish) government or municipal government elected bodies who can make changes to policies that impact revenues and expenditures in their budget. The goal is to transform the knowledge into “outcomes” and eventually “impacts.” Key actions steps include:

• Prepare, disseminate and present case study brief/report to advisory panel and elected leaders.
• Disseminate web-based survey instrument for post advisory panel evaluation.
• For facilitators finishing up their first or second financial disaster resiliency Extension program, a meeting with the program trainer, or other experienced agent, should be conducted to identify strengths and weaknesses of the program. Questions or issues that remained unanswered or challenges facilitators found with the current program should be sent back to Extension program authors for program and manual updates.

Extension facilitators should check back with local stakeholder communities on a periodic basis to identify any key policy changes made and document them. Given these changes, extension facilitators should consider follow-up meetings with local governments in two to three years after any policy changes were made to see if any measurable outcomes can be identified through increased financial condition or disaster reserves funds developed or expanded. These findings should be disseminated back to extension program developers to highlight success stories in future iterations of the manual.
References


Appendix 1

Steps in Executing a TurningPoint® enabled PowerPoint File

1) **Click on TurningPoint® 2008 program.** This will open PowerPoint with the TurningPoint® 2008 add-on installed into your PowerPoint software. **Click on the TurningPoint® 2008 Tab.**

2) **Test the advisory panel clickers by clicking on “Tools/Settings/Polling Test Tab” and click the “Start Test” button.** Each respondent should have their clicker devices ID show up under the Device ID column on the screen. If not, please provide a backup clicker to the respondent. **When all have been verified, click “Done” and close the TurningPoint® Settings Box.**

3) **Click the Reset button and select the “Session” option.** This activity deletes all previous data that may have been collected from a previous use of the slides.

4) **Next, click on the slide show Tab and “From Beginning” to start the slide show.** Slides that do not record responses will not have numbered options. You discuss these slides.

5) **After you click to the first numbered tab, click once only to turn on the timer and allow advisory panel respondents to make their selection. DO NOT click your mouse or the next arrow a second time.** This will immediately close the polling and not allow all respondents to complete the question. **YOU CANNOT GO BACK AND REDO THE QUESTION.** Once the timer gets to zero, the program automatically closes polling. You are then to move to the next slide by clicking once. This will move you to the next polling slide (a slide with numbered options). You then click one more time to start the timer. You continue this process until you get to the end of a section and/or all numbered slides in the slide show.

6) **Once you have completed the slide show, click on the TurningPoint® 2008 tab.** Click on the “Save Session” tab. Save your file in an appropriate place where you can take it back to the office for analysis.

*Analyzing your data should not be performed in isolation but in tandem with a previous facilitator of a financial disaster resiliency case study. Analysis results from a previous facilitator will be used in constructing your results slides in Module 4.*
## Appendix 2

### Financial Ratio Analysis Measures.

<table>
<thead>
<tr>
<th>Ratio Type</th>
<th>Ratio Name</th>
<th>Ratio Name Abbreviation</th>
<th>Ratio Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Profitability Ratios</strong></td>
<td>Return on Equity (Return on Net Assets)</td>
<td>ROE</td>
<td>Net Surplus (Deficit) / Net Assets</td>
</tr>
<tr>
<td></td>
<td>Return on Assets</td>
<td>ROA</td>
<td>Net Surplus (Deficit) / Total Assets</td>
</tr>
<tr>
<td></td>
<td>Profit Margin</td>
<td>PM</td>
<td>Net Surplus (Deficit) / Total Revenues</td>
</tr>
<tr>
<td><strong>Liquidity Ratios</strong></td>
<td>Current Ratio</td>
<td>CR</td>
<td>Current Assets / Current Liabilities</td>
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<tr>
<td><strong>Capital Structure Ratios</strong></td>
<td>Debt to Equity</td>
<td>D/E</td>
<td>Total Liabilities / Equity</td>
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<td>Long-Term Liabilities to Total Assets</td>
<td>LTL/TA</td>
<td>Long-Term Liabilities / Total Assets</td>
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<tr>
<td><strong>Performance Ratios</strong></td>
<td>Assets Turnover</td>
<td>AT</td>
<td>Total Revenues / Total Assets</td>
</tr>
<tr>
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<td>Tax Revenues to Total Revenues</td>
<td>Tax/TR</td>
<td>Tax Revenues / Total Revenues</td>
</tr>
<tr>
<td></td>
<td>Operation Ratio</td>
<td>OR</td>
<td>Total Revenues / Total Assets</td>
</tr>
</tbody>
</table>