Chapter 4 Homework Exercises

Directions: Complete each of the assigned questions in Excel. A template for each problem is found in the appendix.

1. As the new chief of Mound Bayou's Fire Department, it is your job (budget analyst) to write the justifications for the department's proposed FY 2015 capital budget. Specifically, you must prepare justifications for the proposed new fire station near the new Loudon Subdivision. Remember, you are trying to convince the city's elected officials that the construction of a new fire department will allow your department to be more efficient and effective. Further, your justifications should show that you have considered the long range plans of the city's elected officials to expand public services.

The items needed to construct the fire department are listed below the table. Land that could be used for the station was purchased in FY 2014. Although some of the items in the estimated and proposed budgets are for existing services, the majority of the items are for the new station. This is particularly true in FY 2015. Exhibit 4.1 serves as a point of departure.

Also, there is an example of a proposal in Appendix 4a and 4b. Take a look at them for ideas. Your proposal should have: a *project summary* and a *project description* in your justification along with the *proposed capital budget* that is listed below. While there can be legal reasons to build the station, remember: economic growth, population growth, and other factors contribute to the need to build the station. Use logic and creativity when writing your justifications (use paragraphs). Include your justifications within the project description (also include comments on the individuals items in the budget).

Mound Bayou Fire Department's FY 2015 Proposed Capital Budget

Object Code	Item	Quantity FY 2013	FY 2014 Cost (Est.)	FY 2015 Cost (Proposed)
3003	Computers	5	$5,000.00	$5,000.00
3004	Security System	1		30,000.00
3005	Copy Machine	2	4,000.00	4,000.00
3007	¾ Ton Truck	1		25,000.00
3008	Office Desks	3	1,500.00(10)	450.00
3009	Pumper	1		95,000.00
3010	Tanker	1		125,000.00
3011	New Fire Station	1		756,000.00
3012	Water Well	1		195,000.00
3013	Land	4 acres	4,500.00(acre)	9,000.00
TOTAL			$15,000.00	$1,244,450.00

Items Needed for the Fire Station:

Computers	Office Desks	Water Well
Security System	Pumper	Fire Station
Copy Machines	Tanker	Land
¾ Ton Truck		

Note: A Tanker and Pumper are large fire trucks.

2. Mound Bayou has several capital projects that the mayor wants to complete over the next 2-3 years (FY 2014-2016). She has asked you, the city manager, to prioritize the eight projects and justify each placement based on some sort of rational methodology. Your rankings will determine where the project will be placed in the final CIP which will be completed by another group. Hence, review, rank, and justify the list of projects on a scale of 1 to 8. The most important project should be listed first (include the projected cost with the name of the project). In addition to considering the information in the text, pay special attention to the list of questions in Table 4.1. I have included some background information on the city that should be useful in your rankings and justifications. Your justifications should be logically creative. See Appendix 4C.

Projects and Costs:

- *CBD Sewers*: Add 3 miles of sewers in the central business district ($4.2 million).
- *NRA*: Add 2 miles of sewer lines in the northern residential area ($3 million).
- *SRA*: Build a new waste treatment lift station in the southern residential area ($1.8 million).
- *Beltway Project*: Complete the final stage of the beltway around the city (3 miles) ($4.3 million).
- *Storm Water Project*: Construct two storm water management ponds ($1 million).
- *Library Renovation:* Update the entry to the building, remodel the circulation department and install a new book checkout system ($700,000).
- *Downtown Garage*: Construct a downtown parking garage for city employees and public use ($2.5 million).
- *Downtown Artery*: Landscaping the main downtown artery ($800,000).

Background Information:

- The population of the city has grown an average of 4% a year for the last 5 years.

- The number of public service employees has increased an average of 2% a year for the last 10 years.
- Ten new corporations have moved into the city over the last three years employing 2770 new employees. Roughly half of them are located in the southern region and the other half in the northern region. However, those in the southern region tend to be more dependent upon water given the nature of the business.
- The city has 98,000 residents and lies in between two large cities exceeding 1 million residents.
- The land selected for the construction of the ponds is located near a school and a public park.
- The average household income in the city is $60,000 per year.

3. You have been hired by the state of Schaefer as a budget analyst to develop a capital improvement plan. The state had an economic windfall with the collection of revenue from the gaming industry and wants to make good use of some of these funds to improve the states' infrastructure among other public institutions in the state. You have been given a budget of $600 million to develop a five-year CIP. You cannot spend more than your total allotment under any circumstance. Here is some useful information that you should use in developing your FY 2013-2017 CIP. The state assumes that you will not be able to "solve" all of the problems in the state over a five-year period, but they do expect a lot.

First, complete the spreadsheet showing that you have spent no more than $600 million. Second, briefly justify your spending patterns using the two headings: High Priority Tasks and Low Priority Tasks. The projects that you expect to complete should be justified in the *High Priority Tasks* section. The projects that you will not complete should be justified in the section *Lower Priority Tasks*. Read all of the information before you begin to work on the justifications.

The bullet points below provide all of the information that you need to in order to complete your CIP. See Appendix 4D for a copy of the spreadsheet.

- The state's primary and secondary educational facilities can essentially be split into two types: Functional and Dysfunctional. Dysfunctional educational facilities are located primarily in the economically depressed Schaefer Delta. There are 45 schools in this area that are identical and each is in need of repair and renovations. Repair and renovation cost average $250,000.00 per school. School renovations should be completed within the first three years of the CIP (equal amounts spent each year). The Functional schools are completely up to date and require no repair or renovations.

- The state is plagued with a number of two lane highways that cross the state. The first highway is *Highway 66* and it goes south of the Davisville state line through the Schaefer Delta to Brownsville (240 miles in length). It is the main north-south route. Given the low economic productivity in the state, it is vital that this highway be completed at some point. Should you decide to expend funds to complete Highway 66, you must complete at least 90% of the highway.
- *Highway 87*is the second major highway in the state and it goes from the Arkadelphia border to the Columbia border (85 miles that is currently two-lane). It is the main east-west corridor. Improvement to the highway system should reap multiple economic benefits. Particularly in the Delta Region. Should you decide to expend funds to complete the highway, you must complete at least 95% of Highway 87. It will cost $2 million per mile to complete the four-lane highway system (Highway 66 and 87).
- The state also has 87 county health departments. Thirty-six of these building are in need of repair. Three additional buildings should be constructed adjacent to existing health departments in Desoto, Jackson and Bolivar counties. It is estimated that it would cost $300,000.00 to build each building. Repair costs are estimated to cost a total of $10 million. Bolivar County has the greatest need followed by Jackson and Desoto County respectively.
- The state Supreme Court building is in need of repair. Given the nature of the repair, at least two fiscal years will be involved with the same amount spent each year. The repairs cost $5 million.
- For the sake of beautification, the state has also decided to build six new Welcome Centers in the state. These fully functional centers will cost the state $1,000,000.00 each. The Welcome Centers will be located at both ends of the border for Highway 66, Highway 87 and Interstate 55. With the new highways under construction, the Welcome Centers should improve the image of the state.
- You can spend up to the following amounts per fiscal year: 2013, $115 million; 2014, $110 million; 2015, $40 million; 2016, $165 million; and 2017, $180 million. Note: the preceding amounts exceed your total allotment.

The table below shows the total costs of all projects fully funded. However, please remember that you are limited to *$600 million* in your CIP budget.

Fully Funded Projects		Cost
Dysfunctional Schools		$11,250,000
HWY 66		480,000,000
HWY 87		170,000,000
Welcome Centers		6,000,000
New Health Departments		900,000
Health Department Repair		10,000,000
Supreme Court BDLG		5,000,000
	Total	$683,150,000

4. Optional In-class Exercise: Discussing CIP Items in the Mound Bayou City Council Meeting (1 hour exercise)

A. Before Class Assignment: Each student should examine and make copies of a city's CIP plan in order to see how projects are justified for different departments. In addition, print out the Excel spreadsheet for question 4.

B. In-Class Scenario: The City Council has planned a hearing to discuss the CIP for FYs 2014-2018 and each of the city's departments must present their individual CIP to the council. The city has $400 million to fund projects over the five year CIP with no spending caps in any particular year. A template with the total amount of funds requested from the city's department in each fiscal year is provided below. Hence, you should keep this in mind as you plan your spending priorities. You should also remember that it is your objective to fully fund all of the items in your agency CIP. Please review the spreadsheets in Appendix 4E (and below) for the agency line-item requests.

Fully Funded Allocations by Fiscal Year (Amounts in millions)

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Total
Public Works	$39.75	$44.75	$44	$38	$38	$204.5
Engineering	55.7	32.7	34.2	32.2	30.7	185.5
Parks & Rec.	17.5	32.5	15	15	5	85
Police Dept.	8	9,.5	15.5	15.5	10.5	59
Housing & Com. Dev.	10	15.5	23.5	16	10	75
Total	$130.95	$134.95	$132.2	$116.7	$94.2	$609.0

Step 1: Divide into small groups (4-6). One group will represent the City Council (4-5 members) while the remaining groups will represent Bureaucratic departments/agencies within the city. One person should be selected to serve as the

City Council Chairman. In addition, one person in each bureaucratic group will serve as Department Head to coordinate and record the outcome of the meeting with their staff. Reduce the number of group members as needed to ensure that all five departments are represented.

Step 2: Using the data provided below, each bureaucratic group should prioritize (numerically) the items listed for their agency capital improvement plan (The amount listed below for each item is the total amount budgeted for the item). This priority list will be presented by the department head to the city council. Although the agency head will have the final say in their department, all group members should feel free to offer their recommendations. Remember, your job is to convince the city council that all of your projects should be included in the final CIP. You have 20 minutes to prioritize and justify your projects.

Step 3: Each department head will present their priority list to City Council. The Council will listen and ask the department heads questions and eventually adjourn to decide whose projects will be added to the CIP. Each department will have 5 minutes to present their plan with no more than five questions from the Council to each agency.

Step 4: The Council will take ten minutes to contemplate the plan and then reveal the final CIP to the department heads and their staff. They should include justifications for their actions. Under no circumstances should the CIP be extended to more than five years and no additional funds should be added to the CIP ($400 million maximum). The Council has 15 minutes maximum to contemplate and present the plan.

Additional Information and Suggestions

- Agencies should rank each of the bulleted items from highest to lowest.
- Groups should request the full amount listed.
- There are five districts in Youngstown. The population is growing in district 1, 2, and 3 at a faster rate than 4 & 5.
- Industrial growth is occurring in district 4 and 5 at a faster rate than the other districts.
- New schools are needed in district 1 and 2.
- Roughly 75% of the housing and community development projects are in district 3 and 5.

Department Information and Projects (Total cost in parenthesis)

1. Public Works ($204.5million)
    - Road Resurfacing ($35million spent equally over the five year CIP)

- Curb Ramps at Intersections ($15 million spent equally over the five year CIP)
- Vehicles ($5 million spent equally over the first two years of the CIP)
- Equipment ($15 million spent equally over the five year CIP)
- Information Technology ($30 million spent equally during the latter three years of the CIP)
- Safety Enhancement on School Pedestrian Route ($500,000 spent equally during the first two years of the CIP)
- Contract Construction ($75 million spent equally over the five year CIP)
- Land Acquisition (widen roads and create storm water funds) ($18 million spent equally over the first two years of the CIP)
- Street Lights Replacement and Expansion ($1 million in FY 2016)
- Expand Airways Rd to accommodate industrial growth ($10 million spent equally in FY 2015 and 2016)

2. Engineering ($185.5 million)
   - Street Repair ($50 million spent equally over the five year CIP)
   - Replacement Bridge at County Road & Hwy 4 ($25 million in FY14)
   - Land Acquisition ($10 million spent equally over the five year CIP)
   - Traffic Signals ($3.5 million spent equally over five year CIP)
   - Contract Construction ($75 million spent equally over four years of the CIP)
   - Pedestrian Walking Trails ($4 million spent equally over the second and third fiscal years of the CIP)
   - Bike Riding Lanes ($3 million spent equally over third and fourth fiscal years of the CIP)
   - Vehicles ($15 million spent equally over the latter four fiscal years of the CIP)

3. Parks and Recreation ($85 million)
   - Vehicles ($15 million spent equally over the latter three years of the CIP)
   - Equipment ($15 million spent equally over the first two years of the CIP)
   - Zoo Major Maintenance ($20 million spent equally over years three and four of the CIP)
   - City Museum Major Maintenance ($10 million during year one of the CIP)
   - City Park Rehabilitation and Maintenance ($25 million in year two of the CIP)

4. Police Department ($59 million)
   - Vehicles ($25 million spent equally over the five year CIP)
   - Equipment ($15 million spent equally over the five year CIP)
   - New Station with furniture, fixtures, equipment and information technology ($1.5 million in year two of the CIP)
   - Main Office Renovations ($5 million spent equally in years four and five of the CIP)
   - Helicopter ($2.5 million in year three of the CIP)
   - Traffic Light Cameras ($10 million spent equally in years three and four of the CIP)

5. Housing and Community Development ($75 million)
   - Vocational and Rehabilitation Center ($10 million spent equally during the first year of the CIP)
   - Young Public Housing Complex ($24 million spent equally during the middle three years of the CIP)
   - Boone Gardens Housing Complex Renovations ($15 million spent equally during the second and third years of the CIP)
   - Boone Gardens Housing Complex Swimming Pool Renovations ($2 million in FY 2018)
   - Anderson Housing Complex ($24 million spent equally during the last three years of the CIP)

Note: If the class is too small to complete the full blown project, simply reduce the CIP Budget to $300 (maximum) and only use the first two items in the list or reduce the budget to $250 million and use items 1 and 5. The remaining items in the directions would remain the same.

References

Aronson, J. Richard and Eli Schwartz. 2004. "Cost-Benefit Analysis and the Capital Budget. In J. Richard Aronson and Eli Schwartz's *Management Policies in Local Government Finance*. 5th Edition. Washington, D.C.: ICMA.

Axelrod, Donald. 1995. *Budgeting for Modern Government*. 2nd Edition. NY: St. Martins.

Bifulco, Robert., Bunch, Beverly, Duncombe, William, Robbins, Mark, & Simonsen, William. 2012. Debt and deception: How states avoid making hard fiscal decisions. *Public Administration Review*. doi: 10.1111/j.1540-6210.2012.02533.x

Bland, Robert and Irene Rubin. 1997. *Budgeting: A Guide for Local Governments*. Washington, D.C.: ICMA.

Bland, Robert L. and Wes Clarke. 1999. "Budgeting for Capital Improvements." In Roy Meyer's (ed) *Handbook of Government Budgeting*. San Francisco, CA: Jossey Bass.

Doss, Bradley C. 1993. "Capital Budgeting Practices." In Thomas D. Lynch and Lawrence L. Martin's (eds) *Handbook of Comparative Public Budgeting and Financial Management.* NY: Marcel Dekker.

Gianakis, Gerasimos A. and Clifford P. McCue. 1999. *Local Government Budgeting: A Managerial Approach*. Westport, Connecticut: Praeger.

Kittredge, William P. and Sarah M. Ouart. 2005. *Budget Manual for Georgia Local Government*. Athens, GA: Vinson Institute.

Krueger, Skip. and Walker, Robert. W. 2010. Management Practices and State Bond Ratings. *Public Budgeting & Finance*, 30(4): 47–70.

Lee, Robert D. Ronald W. Johnson, and Philip G. Joyce. 2008. *Public Budgeting Systems*. 6th ed. Sudbury, MA: Jones and Bartlett Publishers.

Nice, David. 2002. *Public Budgeting*. Stamford, Connecticut: Wadsworth.

Riley, Susan L. and Peter W. Colby. 1991. *Practical Government Budgeting: A Workbook for Public Managers*. NY: State University of New York Press.

Smith, Robert W. and Thomas D. Lynch. 2004. *Public Budgeting in America*. 5th ed. Upper Saddle River, NJ: Pearson/Prentice Hall.

Srithrongrung, Arwiphawee. 2008. The Impacts of State Capital Management Programs on State Economic Performance. *Public Budgeting & Finance*, 28(3): 83–107.