

A Benefit-Cost Analysis of the San Marcos Conference Center in San Marcos, Texas

by

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An Applied Research Project
(Political Science 5397)
Submitted to the Department of Political Science
Texas State University
In Partial Fulfillment for the Requirements for the Degree of
Masters of Public Administration
Fall 2007

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Abstract

This study accomplishes three things. First, it presents a detailed discussion of benefit-cost analysis and how public officials use this information to impact and improve capital budgeting decisions. Second, it applies the theory of benefit-cost analysis to a real project: the Conference Center in San Marcos, Texas. Finally, this research pinpoints the motivation behind building the Conference Center and whether city officials used internal analysis to assess need or if the decision was based on perceived indirect benefits and/or other political factors.

A discussion detailing benefit-cost analysis identifies how to properly assess the benefits and costs associated with a project using monetary amounts. The conceptual framework links these benefits and costs associated with conference centers to existing scholarly literature. The operationalization of the benefit and cost variables from the conceptual framework are identified, showing how the research measured each variable of the project. To ensure a credible study, an appropriate discount rate and time horizon were used to calculate the viability of the project.

The decision criteria of present value and net present value were used to determine the viability of the project. The results of the benefit-cost analysis of the Conference Center project found that the project is not economically viable at either discount rate. However, indirect (external) benefits from the project are expected to economically benefit the City and outweigh the costs of the conference center. This project will be the first of its size in the I-35 corridor between San Antonio and Austin and is expected to attract business, association, and organizational meetings.

About the Author

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Chapter One: Introduction

Introduction

Conducting a benefit-cost analysis is a tool that decision makers in both the private and public sectors utilize when making accurate and credible spending decisions. Without such a tool, individuals often make decisions without proper consideration of a project's potential risks or benefits. A sound benefit-cost analysis helps decision makers assure that a project will be a viable use of public funding (Mikesell 2007, 263). Conducting such an analysis also allows administrators to have a sense of confidence and assurance of cost efficiency.

The City of San Marcos committed \$20 million dollars over the next 25 years to develop a state of the art conference center, without the aid of benefit-cost analysis. Cities often make such capital project decisions without formal analysis. San Marcos did, however, review the feasibility study and economic viability estimates of a similar project made by city officials of New Braunfels, Texas as well as other construction projects by the developer John Q. Hammons. Because of the project size and the length of financial commitment required, the conference center decision carries potential financial risks if the expected revenue sources do cover the costs of the project. If the project is underutilized or experiences major cost overruns, future capital development might have to be deferred.

A benefit-cost analysis is beneficial when projects are costly or increase financial risks to a community. When public funding becomes scarce, a benefit-cost analysis takes on more importance and helps assure the project will provide the best return on investment. Many public sector entities are relying more heavily on benefit-cost analysis to help make decisions that will benefit their community or constituents by effectively using public resources (Fuguitt and Wilcox 1999, 3). However, while conducting a benefit-cost analysis can be a useful tool when

making public decisions, problems in the system can exist.

Research Purpose

This research will accomplish three things. First, it will present a detailed discussion of benefit-cost analysis and how public officials use this information to impact and improve capital budgeting decisions. Second, it will apply the theory of benefit-cost analysis to a real project: the Conference Center in San Marcos, Texas. Finally, this research will explore the motivation behind building the Conference Center and whether city officials used internal analysis to assess need or if that need was based on perceived indirect benefits and/or other political factors.

This research will consider the many uses of a benefit-cost analysis primarily at the public sector level. A benefit-cost analysis reviews potential long-term projects often in government entities' capital improvement plans for future development. When such analysis is properly designed and employed by a government entity, decision makers will normally be able to choose the development that best suits their needs (Markovits 1984, 1171).

Public officials use benefit-cost analysis as a technique for evaluating the social profitability¹ of alternative uses of local government's scarce resources (Galambos & Schreiber 1978, 62). The scarcity of public funds and limited resources encourages decision makers to use tools to make sound financial decisions. A proper benefit-cost analysis considers the monetary and non-monetary benefits and costs of potential projects. Non-monetary benefits and costs included in a benefit-cost analysis are variables important to the morale, growth and economic standing of the community (Fuguitt and Wilcox 1999, 173). An example of non-monetary costs might include the potential negative environmental impact from a project on the surrounding

¹ Generating the most benefits for the community relative to the costs incurred.

community while an example of non-monetary benefits might include a sense of community unity or accomplishment.

Government entities regularly evaluate capital improvement projects, such as conference centers, to determine their potential benefits and risks to the community. Using a benefit-cost analysis, government entities can make more informed decisions, using accurate and credible data that forecast the benefits of capital improvement projects rather than coping with the negative effects of an ineffective project after its completion (Markovits 1984, 1171). Even though a project may already be underway, government entities may still use the information from a benefit cost analysis to anticipate problems and make adjustments where necessary.

Though the City of San Marcos has already approved the Conference Center (which is currently under construction) a benefit-cost analysis will serve the city by identifying factors that could affect the project once completed. The City of San Marcos considers the conference center project a development that will advance the City's economic tourism strategy as well as bring more people to the area. Though the City of San Marcos did not perform an official benefit-cost analysis of the project, the City Council did look at similar conference center projects that were completed by Hammons in other cities of similar size and economic standing.

The planned development of the New Braunfels Convention Center is a similar project in close proximity, less than thirty minutes, to the City of San Marcos. This duplication of efforts could present a financial risk to the San Marcos Conference Center, as both will compete to host for similar events (Millar 1988, 67). Indirect factors, such as the planned New Braunfels Project, could affect the San Marcos Conference Center and should be considered when analyzing the results of the benefit-cost analysis.

This benefit-cost analysis will determine if the City of San Marcos made a sound decision and if that decision was motivated by indirect (secondary) or political factors. The results of this research will determine if the Conference Center project was a viable use of public funds. This research project will provide public decision makers with a method for reviewing future capital improvement projects using public resources.

Chapter two will provide a literature review defining benefit-cost analysis while discussing in detail the variables associated with this type of project. This literature review will also pinpoint benefit-cost variables specifically related to conference center projects.

Chapter three will review both the demographics of the City of San Marcos and the credentials of Hammons Development as well as the contributing factors behind the project's progression and the role of the private developer. This research also will review the feasibility study performed by the City of San Marcos and analyze each variable provided as it relates to the overarching conceptual framework of the project.

Chapter four will describe the methodology of the analysis. An operationalization table will present the measurement and source of each benefit and cost variable. This chapter will discuss these variables in detail validating their inclusion of the data within the analysis.

Chapter five will reveal the results of the analysis and calculate the present value of each benefit and cost. Each present value table will articulate the value of the variables throughout the life of the project. Once the total present value is determined, the net present value and benefit-cost ratio of the project will be apparent.

Chapter six will conclude the analysis and review the research. This chapter will also support recommendations that the City of San Marcos and similar entities conduct future analysis when considering extensive capital improvement projects.

Chapter Two: Literature Review

Introduction

The purpose of this chapter is to review and examine the available literature on benefit-cost analysis. This literature defines benefits and costs, details the history and uses of benefit-cost analysis, reviews the appropriate discount rate, identifies financing sources for conference centers, and articulates decision criteria used in performing a benefit-cost analysis. Additionally, this literature review will lay the foundation for conducting a benefit-cost analysis of the San Marcos Conference Center in San Marcos, Texas.

Benefit-Cost Analysis: Background

Benefit-cost analysis is a tool used by decision makers to explore and evaluate the appropriateness of potential projects. In the public sector, benefit-cost analysis is viewed as a technique for evaluating the social profitability² of alternative uses of local government's scarce resources (Galambos and Schreiber 1978, 62). Such an analysis considers the monetary and non-monetary benefits and costs of a project and is a primary tool in determining economic efficiency. Using this tool, decision makers have a more systematic way to evaluate a project and determine if the total benefits outweigh the total costs prior to committing major resources to long-term debt retirement for capital improvements (McKenna 1980, 127).

² Generating the most benefits for the community relative to the costs incurred.

Uses of Benefit-Cost Analysis

Benefit-cost analyses are frequently used to determine if projects can be economically justified, particularly for long-term capital improvement projects (McKenna 1980, 128).

Mikesell (2007, 264) isolates three incentives to use benefit-cost analysis.

1. Making it more difficult for the unrepresented to be ignored in political bargaining when a clear display of costs and benefits are visible.
2. Determining economic efficiency.
3. Forcing public decision makers to focus on the value of competing alternatives that would use the same resources or funding to determine which would be the best choice for the community.

As a result, benefit-cost analysis helps direct attention to the vital questions that potential projects often raise, encouraging public officials to review and choose the best possible alternative (Mikesell 2007, 264).

In order to choose projects that best suit a community's needs, government entities often consider factors such as the availability of funds, conformance to adopted plans, goals, objectives and policies, existing deficiencies, elected official preferences, and environmental effects (Millar 1988, 72). The criteria used by various government entities conducting benefit-cost analysis vary significantly, with about only one-quarter of them utilizing formal procedures for assessing and prioritizing capital proposals according to a pre-specified set of criteria (Millar 1988, 64). Depending on the project, government entities often will change their selection criterion and focus on other factors. The priority of specific factors is generally based on fiscal impact, health and safety effects, community economic effects, environmental, aesthetic, and social effects (Millar 1988, 66).

Because of the considerable amount of public funds committed long-term, major capital improvement projects such as conference centers should be evaluated using a tool, such as

benefit-cost analysis, to determine their potential benefits and risks to the community. By using such analysis, government entities can make more informed decisions by considering accurate and credible data to forecast the worth of capital improvement projects. Development projections often are available before the project is completed, enabling decision makers to counter potential negative effects of a project before the problems arise (Markovits 1984, 1171).

History of Benefit-Cost Analysis

The use of benefit-cost analysis to justify the development of public projects is not new to the public sector. The first practical use of benefit-cost analysis occurred over one hundred and fifty years ago when the French engineer Jules Dupuit (Portney 1993, 1) wrote a paper on the utility of public works, considered ground breaking writing for economics in 1884 (Prest and Turvey 1965, 683).

In the United States, the formal practice of benefit-cost analysis began in the public sector to aid government decision-makers during the 1930s. The federal government wanted to assure that viable public projects, mainly federally-funded water developments, were selected (Fuguitt and Wilcox 1999, 3). Acceptance of benefit-cost analysis emerged from an idea of broader social justification for the projects being developed and who would fund them (Prest and Turvey 1965, 694). The use of benefit-cost analysis has continued to grow and is used to appraise water resource projects, transportation projects, urban programs, education programs, health and nutrition policies, pollution control projects, endangered species preservation, and the assessment of government regulations in the areas of health, safety, and the environment (Fuguitt and Wilcox 1999, 3). Though benefit-cost analyses have evolved through the years, identifying the benefits and costs of projects remains a difficult task.

Identifying Benefits and Costs

Public officials are required to consider the direct and indirect (external) associated benefits and costs of a project. Though various projects may differ in associated benefits and costs, the steps to identifying them are similar. In the case of conference centers projects, a unique set of benefits and costs are required, and a detailed look at those unique factors will occur in the chapter.

Project Benefits

The benefits of a project may include the gains in goods or services that are generated by the development. These benefits can be derived directly or indirectly during the development of the project.

Direct Benefits

Direct benefits are those directly associated with the development of the project. For example, direct benefits from a conference center might include the revenue from hosting events, such as the rental of the conference room to the selling of concessions. Direct benefits are represented on the credit side of the ledger within the accounting records and are imperative in calculating and justifying the development of a project. The distribution of direct and indirect benefits is rarely evenly dispersed in conference center projects and is generally more heavily weighted toward indirect benefits (Safavi 1971, 21).

Indirect Benefits

Indirect benefits include additional benefits that are not directly associated with the project but are spawned from it. For example, these types of benefits might include increases in hotel occupancy tax, sales tax, and property tax revenue as a result of conferences held in a city (Safavi 1971, 21). Indirect benefits play a vital role in the decision-making process and are

frequently the main reasons such building projects move forward. Indirect benefits from conference centers also include the creation of employment opportunities, new development, and the expansion of existing businesses near the conference center location (Talbert 1998, 14).

Cities generally benefit more from indirect revenues of conference centers than from the direct revenue generated. Conference centers alone often do not produce a meaningful flow of revenue. It is the money spent by conference delegates before, after, and between conference meetings that is the prime reason such centers exist (Talbert 1998, 13). It is important that the analyst performing the benefit-cost analysis take indirect benefits into consideration in determining their overall effects on the surrounding community.

Intangible Benefits

Intangible benefits and costs cannot be measured in monetary terms and are generally associated with projects such as conference centers. Intangible benefits include those that enhance a city's reputation and boost civic pride (Talbert 1998, 19). These types of benefits allow projects, such as a conference center, to create a sense of innovation and technology within a city and give the public a sense of competition and leadership in the market. Building a new conference center in a small city such as San Marcos, Texas, allows the city to feel it has something to offer to potential conference attendees by providing new facilities and an attractive community. These types of benefits cannot be quantified or valued in a market sense but are important when making decisions on potential projects (Prest and Turvey 1965, 696).

Project Costs

The costs of a project relate specifically to the goods and services required to build and maintain the project. Much like benefits, costs can be either direct or indirect.

Direct Costs

Direct costs are the capital costs of building the project along with the costs of operation and maintenance of the facility (Safavi 1971, 21). These direct costs include construction, operating, and maintenance costs for each year over the life of the project (Mikesell 2007, 269). Direct costs of a conference center include the initial costs of construction, materials, supplies, labor, the purchase of the land, and the ongoing costs of operating and maintaining the facility.

Other initial costs defined by McKenna (1980, 134) include research and development, planning, testing and evaluation, vehicles and equipment. Recurring (ongoing) costs also associated with conference centers include salaries and benefits of personnel, materials, rental of buildings and equipment, maintenance of facilities, payments of supplied services, administrative overhead, public relations, education, security, and insurance (McKenna 1980, 135). Initial and recurring costs can be substantial when developing conference centers and can prove costly to municipalities. A discussion of the recouping and financing of such costs will occur later in the chapter.

Indirect Costs

The indirect (external) costs of a project include the costs of goods and services that government entities must consider when developing a project. These costs usually affect the municipality because they require additional facilities or services for the conventioners (Safavi 1971, 21). Indirect (external) costs that many government entities must face when hosting conferences include added pollution, traffic congestion, police services, and an increased need for emergency services (Gupta 1994, 336). Indirect costs are not considered in the official accounting records of a project but should be taken into consideration by the analysts to determine their effect on the community. When performing a benefit-cost analysis, the indirect

costs of the project should be included when evaluating the location, size, and costs of a project. The consideration of indirect costs is significant when evaluating potential development sites, which should be easily accessible to diverse modes of transportation, including pedestrian and vehicle traffic.

Intangible Costs

Intangible costs are the non-monetary costs of the project to the community (Safavi 1971, 21). These costs are manifested by negative feelings toward the project. Intangible costs can include the perception of wasted public dollars or the view that the project is a burden to the community. These costs are not defined easily and require public input to assess. After benefits and costs have been identified, decision makers may begin measuring each social benefit and cost relevant to the project in order to proceed with the analysis.

Measuring Benefits and Costs

After the benefits and costs have been identified, they must then be properly measured. When conducting a benefit-cost analysis, all the relevant variables should be measurable and placed in the formulas. Measurement in dollars allows both the benefits and costs to be stated in common denominator units that can be compared with other potential alternative projects (Galambos and Schreiber 1978, 62). Many critics of benefit-cost analysis argue that flaws and biasness occur when measuring benefits and costs (Markovits 1984, 1169). It also is important to consider all direct, indirect, and intangible benefits and costs when evaluating the measured variables. Sometimes it may be impossible to assign a value for comparison and, instead, that value must be estimated. However, the estimation of benefit and cost variables can lead to flawed results and discredit the analysis (Gupta 1994, 336). Many of the flaws that exist in a benefit-cost analysis result from human error and can affect negatively the results of the analysis.

In order to conduct an accurate and precise analysis, decision makers should use estimates based on available data. Because capital improvement projects vary, the process of conducting a benefit-cost analysis must conform to the specifics of the project. The purpose and details of each project should be considered separately when evaluating the effect on the community.

Often, during a benefit-cost analysis, there are unknown external variables that are not easily estimated but should be considered. Unknown external variables of a project should be estimated using shadow pricing³ (David 1979, 24). Shadow pricing is important when the effects of an externality are unknown but must be included and accounted for in the analysis (Campbell 1981, 397). This technique allows estimates to be placed into consumption streams as hypothetical consumption payments to assist in the analysis (Campbell 1981, 398). Shadow pricing is an important part of conducting a benefit-cost analysis since many indirect (external) costs or benefits are difficult to measure when a project is incomplete and those externalities do not yet exist.

When measuring intangibles, it is vital that the decision maker consider the unmeasured benefits and determine whether or not these exceed an estimated threshold of acceptance (Fugitt and Wilcox 1999, 173). The decision maker decides how important the intangible benefits and costs are to the decision by incorporating un-quantifiable human judgment. Analysts should remember that they cannot include increased profits from a business as a social benefit (intangible) because there is a decrease in profit sales elsewhere (Galambos and Schreiber 1978, 71).

³ Shadow pricing is the use of data from a similar external source to account for unknown external variables, allowing for a more accurate estimate of cost or revenue

Decision makers should consider factors such as the availability of funds, conformance to adopted plans, goals, objectives and policies, existing deficiencies, elected official preferences, and environmental effects (Millar 1988, 72). Consideration of these factors can assist decision makers in choosing projects that will suit the needs of the community.

Critics of benefit-cost analysis claim that, in practice, the analysts tend to undervalue decision consequences. They claim these consequences are either difficult to monetize, or that to use this technique masks the real value choices that underlie judicial, administrative, or legislative decisions (Markovits 1984, 1169). It is important that ethical decision makers conduct the analysis to ensure a fair and balanced report (Markovits 1984, 1169). Correctly measuring and estimating benefits and costs is essential for an accurate analysis.

Discount Rate and Time

To determine the future and costs of the project, analysts must incorporate a discount rate and the time associated with the project. Since most public projects create a flow of cost returns over several years, both benefits and costs must be converted or discounted to present value for comparison (Mikesell 2007, 272). Future benefits of a project are generally assessed at a lesser amount than present benefits, reducing the value of future benefits and emphasizing the selection of an appropriate discount rate. There is no universally accepted procedure for determining the appropriate discount rate for evaluating public projects (McKenna 1980, 135). Public and private entities generally use varying discount rates depending on the type of project being financed and the amount of time that perceived benefits and costs are projected to last. There are a number of discount rates used by the public and private sector to assess the future value of a project in present terms.

Public v. Private Rates

Discount rates can have a significant impact on the results of the benefit-cost analysis. Critics differ over which discount rate is appropriate: public or private. The two important considerations for discounting are the cost of borrowed funds to the government (the interest rate the government must pay) and the opportunity cost of displaced private activity (the return that private resources could earn) (Mikesell 2007, 272). Both of these discount rates are appropriate in conducting a benefit-cost analysis.

Choosing an appropriate discount rate depends on the projected returns of the project and when the flow of costs and benefits end. If the flow of returns is short-term, a higher discount rate is recommended; if the flow of benefits and costs are long-term, a lower discount rate is recommended (McKenna 1980, 351). Public discount rates are usually significantly lower than their private counterpart, and some critics view them as inappropriate. William Davisson (1964, 155) argues that the relevant rate for discounting future benefits for a public project should be the market rate (private rate), but many public entities do not follow this practice. The private discount rate is the rate a private business would use to borrow funds for a project. The discount rate chosen differs for public projects since government entities do not borrow at the same rate as the private sector.

Others claim that public investment projects only should be approved if they yield at least as high a return as private investments, and the social discount rate for determining that yield should be equal to the private rate of return (Newberry 1990, 236). Newberry's position is that public projects should be discounted the same as private projects to ensure the best return on investment. However, issues such as risks and financing opportunities must be considered when making this judgment.

According to Grout, the public sector should project a lower discount rate than the private sector. The failure to recognize the difference between the two sectors suggests that private provision is less efficient than public provision since the present value of private provisions will be overestimated relative to the public sector (Grout 2003, 67). While critics and scholars disagree on the appropriate discount rate, both agree that the final determination rests with the entities' decision maker(s). Political parties view the appropriate discount rate differently due to conflicting views about the role of government investments and alternative investments (Gupta 1994, 351). The use of higher discount rates is more consistent with smaller governments, and larger governments tend to discount at lower rates (Gupta 1994, 351-352).

Public-Private Partnership Discount Rates

As public projects have become more complex and expensive, partnerships between public and private entities are more common. These types of partnerships can be found in the development of large facilities such as conference centers, when municipalities cannot afford to finance and operate a facility on their own. When both public and private partners finance a project, the issue of an appropriate discount rate must be decided. Generally, a 3% discount rate is utilized in public-private partnerships. With these partnerships, the public entity agrees on a long-term contract with a private partner to supply a specific service for the government. The private partner also will design, build, partially own, and run the physical assets required for the delivery of the service (Grout 2003, 62). The appropriate discount rate in public-private partnerships should be different for both parties. The public partner should assess the project with a lower discount rate, while the private partner should assess the project at the higher discount rate (Grout 2003, 67). These separate discount rates are appropriate due to the difference in risks and cash flow.

Current Discount Rates

The current discount rates used at all levels of government for capital improvement projects are set by three government offices: the Office of Management and Budget (OMB), the Government Accountability Office (GAO), and the Congressional Budget Office (CBO) (Mikesell 2007, 272). Each of these government offices uses discounting in capital improvement projects, lease-purchase decisions, regulatory reviews, and valuation of assets for sale, but each uses differing rates (Mikesell 2007, 272).

The OMB establishes the discount rate for almost all executive agencies and is currently discounting projects at 7% (Mikesell 2007, 272). The OMB rate “approximates the marginal pretax rate of return on average private sector investments” (Mikesell 2007, 272).

The discount rate used by the GAO is “based on the average nominal yield of marketable Treasury debt with maturity between one year and the life of the project, with benefits and costs in nominal terms” (Mikesell 2007, 272). The GAO discount rate is used for evaluation purposes for projects that the office endorses and is typically very low and close to zero.

Last, the CBO discounts using “the real yield of Treasury debt and estimates that rate to be 2% with a sensitivity analysis⁴ of two percentage points to test variability” (Mikesell 2007, 272). The CBO uses this discount rate for evaluating congressional projects and conducting asset valuation comparable to the private sector interest rates. Due to the CBO’s rate being a primary choice for legislative projects, the discount rate of 2% will not be used in the local government setting.

⁴ Analysis of how sensitive outcomes are to changes in the assumptions. The assumptions that deserve the most attention should depend largely on the dominant benefit and cost elements and the areas of greatest uncertainty of the program or process being analyzed. [GAO]

The discount rates used by the three government offices vary considerably. It is important that the analyst conducting the benefit-cost analysis select the rate that corresponds with the project and the general financial rules that the government entity follows.

Determining the Discount Rate and Time

Discount Rate

Choosing the discount rate is an essential part of the benefit-cost analysis, and can significantly affect the outcome. When determining a discount rate, the analyst should use more than one discount rate in order to compare the influences of changing discount rates on the viability of a project (Grout 2003, 67). Using multiple discount rates allows the analyst to objectively determine the rate that works best for the entity. Various rates should be used to evaluate the changes in the analysis until the stream of benefits exactly offsets the stream of costs (McKenna 1980, 150). A discount rate should be chosen that reflects the entities' economic and financial standing to accurately show if the benefits exceed the costs.

Mendelsohn (1981, 241) argues that “no single discount rate can act as a satisfactory rule of thumb under all circumstances”, signifying the importance of choosing a rate that corresponds with the type of project and its expected life (time in years). Public officials should choose a discount rate consistent with all of the potential projects being considered, and differing rates should not be applied to undesirable projects. Choosing differing discount rates for different projects at the same time is unfair and provides flawed results in the evaluation of the benefit-cost analysis (Galambos and Schreiber 1978, 74).

Time Horizon

Along with selecting an appropriate discount rate, decision makers must choose a suitable time horizon. An appropriate time horizon is crucial to an effective benefit-cost analysis and can have a significant effect on the outcomes of the benefits and costs.

The time horizon for projects should include the entire time period that a policy's benefits and costs occur (Fuguitt and Wilcox 1999, 133). A set time horizon ensures that the policy (project) will end when the flow of benefits has stopped. If the time period is shortened, it is likely to lower the net present value by reducing the future benefit stream (Fuguitt and Wilcox 1999, 133). However, if a stream of benefits is lengthened, it can increase unreasonably the benefits further into the future, skewing the decision criterion and providing inaccurate results (Fuguitt and Wilcox 1999, 133).

When choosing an acceptable time horizon, the useful life of the project should be carefully selected to ensure that the benefits and costs of the project have been exhausted and are not overestimated. The useful life of projects can vary considerably. For example, conference centers are generally expected to have useful lives of twenty-five years or more (Safavi 1971, 22). Depending on the discount rate and time horizon selected for the project, the financing sources available to each city may differ.

Financing Sources

There are numerous financing options that public sector leaders can utilize in financing capital improvement projects. Some of the most commonly used financing sources include general obligation bonds, revenue bonds, municipal authorities or special tax districts, and intergovernmental agreements or loans (Talbert 1998, 21).

General obligation bonds, also known as full-faith and credit obligations, are securities of a municipality supported by the taxing power of the issuing community. Due to the security of these bonds, they tend to have lower interest rates and must be approved by the voters (Talbert 1998, 21). Surplus revenue from the entity's operations is put into the government's general fund or reserved to pay for capital improvement projects (Petersen 1996, 103). These types of bonds can have a negative effect on a city if the conference center is carrying a net operating deficit that requires further funding from the city's general fund (Norton 1994, 40).

Revenue bonds are a major source of financing for conference centers. These are non-guaranteed bonds. Revenue bonds are generally repaid by income from the project. Typical revenue sources include operating surpluses, hotel occupancy taxes, sales, and food and beverage taxes. These are typical revenue sources generated by conventioners and other travelers (Norton 1994, 40).

Municipal authorities and special tax districts are public entities with powers outside the main government body that are allowed to tax citizens for specific purposes. Special tax districts and municipal authorities are located in specific and defined areas that can be created around projects such as a conference center (Talbert 1998, 24). Within these districts, revenue from various taxes can be used to pay the debt of specific projects and are usually paid by the users or participants of the project. For example, specific taxes from purchases made by conventioners would go toward paying for the convention center if it was located in a special tax district.

Intergovernmental agreements are agreements made by multiple government entities to finance specific projects. Since state governments, and not local governments, are the primary beneficiary's of sales tax revenue, states will help finance projects such as conference centers (Talbert 1998, 25). Recent studies show that state governments' benefits from tax revenue

increases generated by conference centers are four to five times greater than local government benefits (Petersen 1996, 104). Conference attendees frequently travel to other areas of the state before and after a conference, financially benefiting the state and other municipalities.

Each of these income sources contribute to financing conference centers and alleviate much of the financial burden resulting from such capital improvement projects. The conference center funding source has changed considerably over the past thirty years. These additional sources allow public officials to finance projects that a single government entity, using its general revenue account alone, could not afford.

Past Financing Sources

Convention center projects in the 1950s to 1970s were financed with general obligation debt that required a majority vote from the people of the municipality (Sanders 1992, 139). Voters were given a direct voice in the development of a project because local officials were required to package a proposal in an acceptable fashion. Giving voters this power allowed them to voice their opinion on projects by voting to accept or decline bond packages (Sanders 1992, 139). Voting on a project allowed the people to decide which capital improvement projects they thought were appropriate. As a result, bond proposals often were tied to other neighborhood development proposals to increase the chances of passing. Public involvement changed in the 1980s after voters turned down many proposed larger and more expensive capital improvement projects.

Current Financing Sources

Financing approaches used by government entities has evolved from requiring public approval and providing incentives to the community to silencing the public's voice in determining which public projects should be funded. The "new convention center fiscal politics"

of the eighties were based on approaches of specialized financing and a new role for state and special purpose governments (Sanders 1992, 139). This shift in financing allows capital improvement projects to be controlled in a political arena dominated by business interests and specialized local agencies. This type of financing is now the norm in large cities, with very few projects requiring a public vote (Sanders 1992, 157).

Many cities, such as San Marcos, Texas, have created a Tax Increment Reinvestment Zone (TIRZ) to pay for the costs of major projects (San Marcos 2007, 1). These zones strengthen the tax base for funding specific public projects and spread the cost of tax services throughout the designated TIRZ plotted area (Mitchell 1977, 120). The tax revenue from these created zones offset construction costs by designating all tax revenue from the specified TIRZ area into a debt retirement fund.

Other revenue sources, such as tax and revenue certificates of obligation, have also been used to finance conference centers. Tax and revenue certificates of obligation are bonds issued by a government entity at low interest rates to cover the costs of a capital improvement project which is repaid by other anticipated revenue sources (San Marcos TIRZ 2007, 7). For example, the City of San Marcos has issued over twenty two million dollars in tax and revenue certificates of obligation to construct the conference center. The construction costs of the conference center will be reimbursed through the TIRZ. These types of financing approaches allow cities of various sizes to obtain facilities they could not finance by tax revenue alone. Since most cities do not have funding reserves for large and expensive projects, they turn to certificates of obligation to acquire funding to develop the project.

As a public-private partnership, San Marcos will lease the conference center to Hammons for twenty-five years (San Marcos 2007, 1). The total lease payments made by Hammons will

equal thirty percent of the total debt held by the City. The city will benefit from this arrangement by owning a state-of-the-art conference center without having to fully pay for or operate the facility. Many state and local governments commonly use this type of public-private partnership when funding expensive facilities (Dyl and Joehnk 1987, 66).

Leasing a completed facility allows municipalities to indirectly benefit from private funding, since the leaser provides critical resources (Dyl and Joehnk 1987, 66). Cities, such as San Marcos, have employed a variety of creative financing approaches to finance public projects. Expensive projects, such as a conference center, require government entities to either increase taxes and face public opposition, or partner with private sector investors. Public and private partnerships are now a powerful tool for government entities who are able to reap the benefits of increased tax revenues while not fully funding a project.

After an entity has chosen a financing source for a capital improvement project, it must then choose the criterion by which to perform an analysis. This criterion should be appropriate for the type of analysis being conducted.

Decision Criterion

When entities choose a criterion for a project analysis, they may choose from a variety of methods. The most common methods are the Pareto Criterion, present value, net present value, benefit-cost ratio, and pay-back period. However, with the Pareto Criterion only economic efficiency can be met, because where government financing is concerned, the rest of the criterion cannot be met (that no one is worse off and at least one person is better off). Each of these methods may be implemented in a benefit-cost analysis to improve the decision making process and later to evaluate an actual project such as the San Marcos Conference Center.

There are three general decision principles distinguished by Fuguitt and Wilcox (1999, 81) when considering new projects:

1. The decision maker might be considering whether to pursue one (and only one) policy.
2. The decision maker might consider several alternative, mutually exclusive, policies in order to determine which one, if any, to implement.
3. The decision maker might consider several policies that are not mutually exclusive with plans of pursuing a subset.

These principles allow an analyst to accurately determine the calculation method that best suits the project. He or she also must know how many project alternatives the entity is considering prior to implementing the calculation measures. These measures, described below, assist the analyst in making accurate predictions.

Pareto Criterion

The use of the Pareto Criterion is viewed by McKenna (1980, 148) as a conservative approach in evaluating capital projects. This decision method states that not only should no one be worse off, at least someone must be better off as a result of the project. Mikesell (2007, 16) reiterates this concept by claiming that the community as a whole should be better off. The Pareto Criterion is rarely used because few projects can satisfy this requirement. According to Galambos and Schreiber, a benefit-cost analysis is primarily concerned with achieving economic efficiency in the use of resources, regardless of who derives the benefits and who bears the costs (1978, 73). Contrary to the Pareto criterion theory, this statement indicates that when conducting a benefit-cost analysis, distribution of costs to individuals is not as important as the distribution of costs overall. The most popular alternative to the Pareto Theory is the net welfare

improvement or net present value, requiring that the total benefits exceed total costs (McKenna 1980, 148).

Present Value

Present value (PV) is a measure that allows analysts to predict the value of an investment today in future dollars. This measure often is used in conjunction with a benefit-cost ratio (explained later) since it also takes into account the time and value of money. The determination of a project’s present value is conducted using the annual capital flow S , the annual benefits minus annual expenditures, the discount rate r , and the useful life of the project (in number of years n) in a specific formula (Mikesell 2007, 262-263). The present value annuity formula is used to find a project’s present value when the annual capital flow is constant throughout the life of the project. The present value formula is presented in figure 2.1.

Figure 2.1 Present Value Annuity Formula

$$PV = \frac{S}{r} \left[1 - \left(\frac{1}{1+r} \right)^n \right]$$

$S = \text{Annual Net Flow}$
 $r = \text{Discount Rate}$
 $n = \text{Number of Years}$

Computing a project’s present value may require the use of additional formulas when an annual net flow of constant benefits and costs does not exist. In some cases, the benefits and costs of a project may fluctuate throughout the life of the project (Fuguitt and Wilcox 1999, 45). In order to accurately compute the present value of such projects, the following formula should be used:

Figure 2.2 Present Value of Benefits and Costs Formula

$$PVB = \sum_{i=1}^T \frac{B_i}{(1+r)^i}$$

$$PVC = C + \sum_{i=1}^T \frac{C_i}{(1+r)^i}$$

$B_i = \text{Benefits in year } i$
 $C_i = \text{Costs in year } i$
 $T = \text{Final year of project}$
 $r = \text{Discount rate}$

After the present value of total benefits and total costs are derived, the net present value of a project can be calculated.

Net Present Value

The net present value (NPV) for a project is measured by the present value of total benefits less the present value of total costs. The net present value, as defined by McKenna (1980, 148) is when “the total improvements by the gainers outweighs the combined setbacks of the losers”. The formula for NPV is present value of the total benefits (PVB) minus the present value of total costs (PVC) (Fuguitt and Wilcox 1999, 45). Figures 2.2 and 2.3 depict the formulas to calculate NPV.

Figure 2.3 Net Present Value Calculations of Benefits and Costs

$$PVB = \frac{B_0}{(1+r)^0} + \frac{B_1}{(1+r)^1} + \frac{B_2}{(1+r)^2} + \frac{B_3}{(1+r)^3} + \dots + \frac{B_n}{(1+r)^T}$$

$$PVC = \frac{C_0}{(1+r)^0} + \frac{C_1}{(1+r)^1} + \frac{C_2}{(1+r)^2} + \frac{C_3}{(1+r)^3} + \dots + \frac{C_n}{(1+r)^T}$$

B_i = Benefits in year *i*
C_i = Costs in year *i*
T = Final year of project
r = Discount rate

Figure 2.4 Net Present Value Calculation

$$NPV = PVB - PVC$$

The measurement of NPV alone is insufficient when comparing projects that are dissimilar in size. However, when comparing projects of dissimilar size, a benefit-cost ratio is appropriate.

Benefit-Cost Ratio

The benefit-cost ratio (BCR) is a measurement that is not influenced by the size of the investment. As a result, it is a better tool when comparing projects of differing size (McKenna 1980, 149). The BCR is calculated by dividing the present value (PV) of the project by the initial capital outlay (ICO).

$$BCR = \frac{PV}{ICO}$$

If the ratio exceeds one, the project is sound; if it is below one, the opposite is true. Using the benefit-cost ratio criterion, projects with the highest benefit-cost ratios are chosen unless budget constraints exist (Galambos and Schreiber 1978, 70). This criterion allows analysts to see how the benefit-cost ratios of differing alternative projects compare to one another. In this analysis, only the conference center project, and no other alternative capital improvement project, was being considered by the City of San Marcos so choosing the best alternative was not applicable.

Pay Back Period

The pay-back period (PBP) is the final step and has the least impact of the decision criterion. The pay-back period method is derived by dividing the estimated net annual flow of the projects returns into the capital cost of the project to determine the number of years it would take to fully recover the capital costs (Mikesell 2007, 274). In simpler terms, the pay-back period can be found by dividing the initial capital outlay (ICO) (project costs) by the annual net flow (S) of the project.

$$PBP = \frac{ICO}{S}$$

The pay-back period does not take into account time or the changing value of money. This method should be used to determine the potential date for paying the capital costs off and not as a sole method for making a decision.

When conducting the benefit-cost analysis, the best evaluation measure for deciding on potential projects is the net present value (NPV). This value allows decision makers to see the expected benefits and costs over time. When making a final decision on whether or not to implement a project, the decision should reflect whether total benefits outweigh the total costs.

The following NPV formula indicates the desired results of a project and identifies the most efficient choice:

$$\text{NPV} = \text{Present value benefits} - \text{Present value costs} > 0$$

(Fuguitt and Wilcox 1999, 82). The combination of using NPV and the BCR allows analysts to make recommendations based on the expectations gained from the analysis. Based on the recommendations, the decision makers will determine if the project will meet original expectations.

Chapter Summary

In summary, a benefit-cost analysis is an important tool available to public sector officials considering capital improvement projects. Though conducting such a benefit-cost analysis is not mandated by law or required by government entities, this tool assists public officials in making difficult decisions when public resources are involved. Conducting an analysis where indirect and intangible factors of a project are difficult or impossible to convert into monetary terms requires that the analysts find other ways to consider their impact on the final results. Though human error in measuring and weighing benefits and costs are inevitable, making a blind decision on the effects of a potential project or policy can have even more serious financial repercussions. Benefit-cost analysis is a process that can be implemented by government entities to ensure that decisions consider all direct and indirect benefits and costs that might affect the use of scarce resources and community infrastructure. Because of its flexibility, benefit-cost analysis allows government officials to test different outcomes when considering large public project.

This research will apply benefit-cost analysis to an actual project to determine its economic viability for a local government. This analysis will consider each variable associated with the project and appropriate decision criteria to obtain an accurate projection of the project's results.

Chapter Three: Setting

Introduction

The focus of the research now moves to a benefit-cost analysis of an actual project, the San Marcos Conference Center. The City Council of San Marcos approved a state-of-the-art conference center in order to attract visitors and conference attendees into the city and improve San Marcos' economic standing. This conference center project is a public-private partnership between the City of San Marcos (City) and John Q. Hammons, LLC (Hammons Development).

Background of San Marcos

The City of San Marcos is a rapidly growing community and the third most popular tourist destination in the State of Texas (City of San Marcos 2007). The City's location in the I-35 corridor, between Austin and San Antonio, provides opportunities for development and growth. San Marcos' current population is approximately 50,000 people (City of San Marcos 2007, 5). The city's rapid growth and development makes it attractive to investors from the private sector.

Major tourist destinations, such as the Prime and Tanger Outlet malls, Wonder World Theme Park, Aquarena Springs, the LBJ Museum, Rio Vista Falls and the San Marcos River have made the city a popular tourist destination year round (City of San Marcos 2007, 5). Texas State University also contributes to the development in San Marcos. The university has an enrollment of over 28,000 students, the highest in its history. The location, attractions, and institutions located within the city have made the idea of building a conference center a practical and desired project.

The Conference Center was approved by the City of San Marcos after the developer, John Q. Hammons, approached the council in October of 2003 regarding the development of a hotel and conference center on a site located above Spring Lake. The San Marcos City Council discussed the proposed project and researched other Hammons projects and properties that were similar to the proposal for San Marcos. The council encouraged public input by holding public stakeholder meetings and providing an open forum at City Council Meetings. The original site of the project was to be on a fifteen-acre tract overlooking Spring Lake that drew wide-spread opposition by residents due to its environmental impact. Despite these concerns, the City Council signed a Memorandum of Understanding (MOU) at the December, 2004, City Council meeting demonstrating an interest in a public-private partnership to develop a hotel and conference center project.

The MOU did not establish a commitment to the project but rather an opportunity for the City Council and staff to review Hammons' proposal and conduct further research prior to proceeding. City of San Marcos officials also reviewed the New Braunfels conference center plans, including a *Feasibility Analysis of a Potential New/Expanded Convention Center*. This report was evaluated by the City of San Marcos because both cities are of similar size, economic standing, and location. In March, 2005, the convention center site was changed to its current 15-acre location on I-35 and McCarty Lane (City of San Marcos 2007, 3). After several negotiations, the city finally agreed with Hammons on a financing schedule and time line.

In March of 2006, the City Council voted and approved the Master Development Agreement (the Agreement) with Hammons. The Master Development Agreement established a contractual arrangement between the City of San Marcos and Hammons to construct a conference center. The agreement details the specifics of the project, including the general

expectations and obligations of both parties. The agreement also details the 15-acre land purchase by the City of San Marcos and Hammons. The City of San Marcos will own five acres for the conference center, and Hammons will own the remaining ten acres for the hotel.

The City then hired Broaddus & Associates as the project manager along with Lohmeyer-Russell Architects as the hotel and conference center designers. The City of San Marcos chose Flintco as the Design-Build General Contractor to construct both the hotel and conference center (City of San Marcos, 2007, 3). The project broke ground on January 31, 2007, and construction began on February 1, 2007.

Upon completion in October of 2008, this project will provide the area with a ten story, upscale, full service hotel with two hundred eighty three rooms and a 77,300 gross-square-foot conference center that will hold up to one thousand people (City of San Marcos 2007, 1). The conference center is expected to attract a wide range of conferences such as auto and boat shows, high tech exhibitions, graduations, special events, and business meetings of all sizes (City of San Marcos 2007, 1). Conferences are expected to take place mainly outside of the peak summer period and are estimated to attract mostly association, business, and university events that require break-out rooms⁵. Approximately four to eight break-out rooms with a capacity of 250-500 people are traditionally needed for the type of meetings and conferences expected by the city (City of San Marcos- TIRZ 2006, 13). This development will be the first of its kind in the City of San Marcos and surrounding communities.

The City of San Marcos will fund 100% of the conference center cost, and Hammons will lease the conference center from the City and operate it for twenty-five years. The City of San Marcos will apply the lease payments made by Hammons toward the conference center debt.

⁵ Rooms that can be made by sub-dividing large open ballrooms and halls into smaller more manageable rooms.

The total lease payments made by Hammons will equal thirty-percent of the total debt held by the City. Even though Hammons has agreed to pay for thirty-percent of the debt through the lease payments, the City is ultimately responsible for the entire debt obligation.

The lease will commence on the operational date of October, 2008, and terminate in August of 2031. Hammons will have the option to extend the lease for an additional fifteen years. Should they do so, they would be required to pay a lease based on the consumer price index⁶ finalized by the City.

The conference center project is expected to attract conferences, tourism, and developments near the project site and, in-turn, boost the city's economy by providing additional revenue and property value. The location of the conference center site and the locations of surrounding attractions can be viewed in Figure 3.1. Figure 3.1 shows the conference center site in relation to the outlet malls, Texas State University, the city square, and new development areas between Wonder World Drive and McCarty Lane.

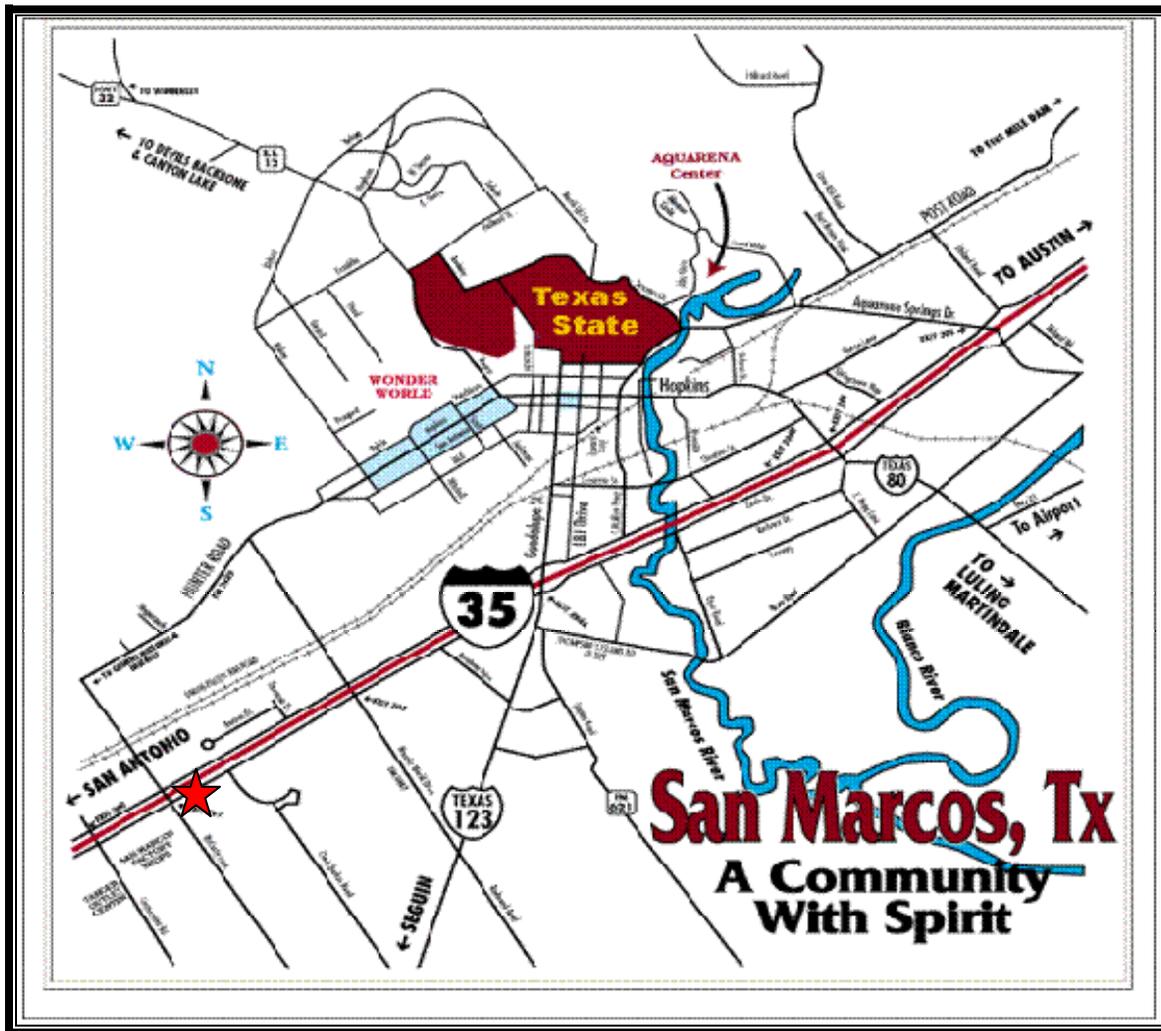
Background of Hammons Development

John Q. Hammons Hotels and Resorts, LLC is a Springfield, Missouri based company and is the nation's leading independent builder, developer, owner and manager of upscale, full-service hotels, resorts and suites (Strauss 2006). Hammons has strategically planned developments in areas such as state capitals, universities, airports, corporate headquarters or office parks in prominent markets throughout the country. Hammons operates nationwide under many recognized brands such as Embassy Suites, Renaissance, Marriot, Radisson, Residence

⁶ CPI- A price index that measures the cost of a fixed basket of consumer goods with weights based on consumption shares of urban consumers. It is published by the Bureau of Labor Statistics (BLS) for the United States. CPIs are published regularly in the United States and many other countries around the world. There are many component indexes of the CPI, as well as international comparisons, which are available from BLS.

Inn, Homewood Suites, Holiday Inn, and Hampton Inn and Suites (City of San Marcos 2007, 7). Hammons manages over 1.8 million square feet of meeting and convention area throughout the nation and has been recognized by organizations such as the Americas Lodging Investment Summit, the Intercontinental Hotels Group Owners Association, Hotels Magazine, Hilton Hotels Corporation, and USA Today (John Q. Hammons 2007).

Figure 3.1: Map of the City of San Marcos, Texas



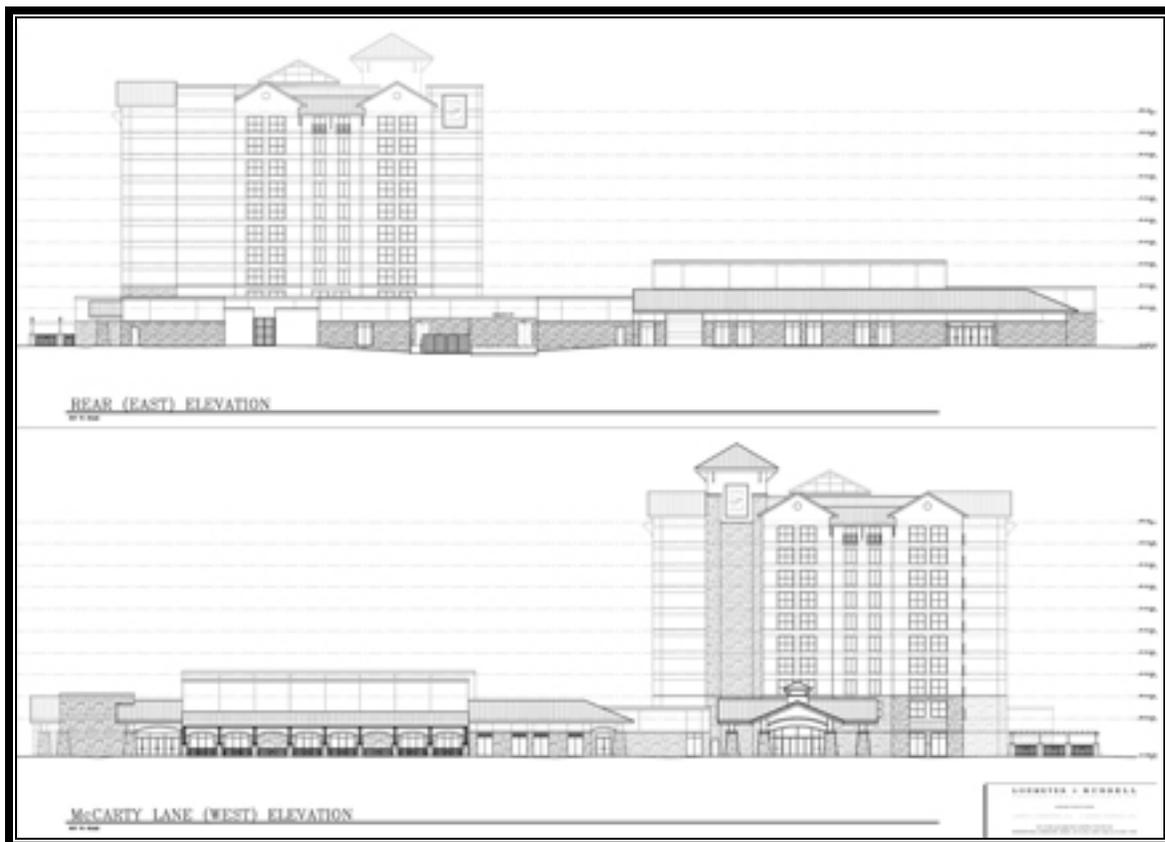
City of San Marcos, 2007.

★	Site of Conference Center
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Description of Facility

This Embassy Suites Hotel will be ten stories tall and contains 283 suites, including two presidential suites and two hospitality suites. Hammons also has incorporated a fully staffed resort-style spa with massage and treatment rooms, fitness rooms, heated outdoor pool and spa, full-service restaurant, coffee shop, atrium bar, business center, and an open atrium with skylights, a dramatic water feature and extensive interior landscaping (City of San Marcos 2007, 2). The hotel and conference center will provide exceptional facilities for medium-sized meetings and conferences while incorporating up-scale hotel accommodations. Figures 3.2 and 3.3 show the architectural and artist's renditions of the hotel and conference center. These figures show the hotel and conference centers relative elevation and design.

Figure 3.2: Architectural Drawing of the Hotel and Conference Center Project



City of San Marcos, 2007.

Figure 3.3: Artist's Rendition of Hotel and Conference Center Project



City of San Marcos, 2007.

Financing of the San Marcos Conference Center

The City of San Marcos took many steps in financing the conference center project. First, the City Council approved a Chapter 380 Economic Development Grant and Loan Agreement for the hotel and conference center project on July 14, 2005 with Hammons. Under the agreement, the City loaned \$1,500,000 and granted \$500,000 to the Hammons Trust to move forward with the purchase of the hotel site. In December, 2006, the \$1.5 million loan was converted to a future economic development grant in order to collect taxes from the TIRZ (City of San Marcos 2007, 3). To do so, the project would have to fall under Chapter 334 of the Texas

local government code and section 321.508 of the tax code. The establishment of a “venue”⁷ allows the city to collect additional tax revenue from the project that would not be possible if an economic development grant was not established. The economic development grant secured funding and allowed the City to initiate the construction process.

Second, the City created a Tax Reinvestment Zone (TIRZ)⁸ in March of 2006 to pledge tax revenue from the project to reimburse the construction costs of the conference center. The TIRZ encompasses the hotel and conference center site (15-acres), referenced in Appendix A. The TIRZ will continue for twenty-five years and will terminate on September 30, 2031, or earlier. The termination date of the TIRZ corresponds to the ending date of the conference center lease. In November of 2006, Hays County signed an Interlocal Agreement with the City of San Marcos to participate in the TIRZ (City of San Marcos-TIRZ 2006, 7). Texas Tax Code Section 311.005 (a) (2)-311.017 requires that the TIRZ be agreed upon by both Hays County and the City of San Marcos in order to collect county related tax revenue from the zone. All tax increment revenue collected from property taxes by Hays County within the TIRZ will be used to make payments on the City of San Marcos’ portion of the conference center debt (City of San Marcos-Interlocal Agreement 2006, 2).

Third, the City Council of San Marcos sold \$23 million in combination tax⁹ and revenue¹⁰ certificates of obligation¹¹ to finance the construction costs of the conference center

⁷ Any facility or building that will benefit the economy of the City

⁸ A financing vehicle used by government entities to collect tax revenues from the project site in order to fund it. The tax revenue from the TIRZ is automatically allocated to retiring the debt of the project.

⁹ Certificates of obligation that pledge ad valorem taxes, taxes based on the assessed value of the property, in order to acquire funding for the construction of the project.

¹⁰ Certificates of obligation that pledge other revenues gained from the project by the City, including lease revenues, hotel-motel occupancy taxes, and property taxes from the TIRZ, in order to acquire funding for the construction of the project.

project. The certificates of obligation included \$15, 670,000 in tax-exempt combination tax and revenue certificate of obligation, and \$6,935,000 in taxable combination tax and revenue certificates of obligation (City of San Marcos-TIRZ 2006, 5-6). The interest rate for the certificates of obligation is 5.5% over the life of the debt.

The cost estimates for the Conference Center project were provided by the developer and then adjusted during negotiations between Hammons and the City of San Marcos. Because cost estimates exceeded the target amount set by the City of San Marcos, engineers revised the conference center design, allowing the project to move forward.

Distribution of Costs

The City of San Marcos will fund 100% of the conference center's construction cost of \$23 million and Hammons will lease the conference center from the City for twenty-five years. The total lease amount paid over the twenty-five years will equal thirty percent of the construction costs. However, the total construction cost (debt obligation) is ultimately the responsibility of the City, even if Hammons fails to uphold its portion of the Agreement.

Infrastructure Improvements and Costs

The City is responsible for funding the infrastructure improvements to the hotel and conference center site costing approximately \$2,073,875. Infrastructure improvements include extending electric services to the conference and hotel site along with road improvements and expansion of McCarty Lane from I-35 west to the Hotel and Conference Center property line. The improvements to McCarty Lane required in the Agreement became the responsibility of the

¹¹ Combination tax and revenue certificates of obligation are similar to bonds, but do not require voter approval. These types of obligations bear interest and can be secured through a variety of tax sources to fund municipal projects. Tax certificates of obligation include the pledging of ad valorem taxes

City when the road bond package failed in the spring of 2007 (City of San Marcos- Development Agreement 2006, 12). The road improvements caused an unexpected additional cost to the City of two million dollars and the City Manager's Office does not expect the cost to exceed that amount.

Hays County and Texas Department of Transportation (TxDOT) have been negotiating an agreement to improve and expand McCarty Lane¹² from the hotel and conference center site to Highway 123, but an estimated amount has not been provided and is not included in this analysis. TxDOT also has considered expanding the I-35 frontage roads near and around the hotel and conference center site to help alleviate future traffic problems, but no estimate has been made. Since the party responsible for maintaining the expanded or extended roads is unknown, it will not be considered in this analysis. The hotel and conference center project will use natural gas, but the cost of extending gas service to the site is the responsibility of a private gas utility, CenterPoint Energy. Utilities such as water, waste/water, and re-use water lines pre-exist, and connection costs already are included in the construction costs.

The benefit and cost variables associated with the conference center will be outlined in the conceptual framework. This framework establishes each variable that will be used in the benefit-cost analysis and is supported by scholarly works.

Conceptual Framework

The conceptual framework for this applied research project outlines the variables involved in conducting a benefit-cost analysis and links those variables to existing literature. These variables include the direct and indirect costs of the project, the perceived direct and

¹² Since the plans for expanding and improving McCarty Lane are not finalized, the government entity responsible for the annual maintenance of the road is unknown. In-turn, the estimated maintenance costs for the road improvements will not be included in this analysis.

indirect benefits from the project, and the discount rate. Though a benefit-cost analysis can measure social benefits, this research will confine itself to economic aspects along with a few indirect (estimated) and/or external benefits and costs. This project will identify each of these variables through scholarly research as essential for a sound analysis of the San Marcos Conference Center project. Table 3.1 on page 49 that follows contains the conceptual framework table that will guide this research project.

Identifying the Benefits and Costs for the Conference Center

The benefits and costs of the Conference Center identified have been defined by scholarly works and are reflected in the literature review. The literature review identified the main variables and categories needed to conduct a benefit-cost analysis. The cited scholars named in the conceptual framework have explored the importance of these factors in determining the viability of a conference center project. Except for the variables of *traffic congestion, environmental impact, competition from other conference centers, indirect development and property tax revenue from indirect development*, the benefits and costs of the project are tangible items that can be converted to monetary value. In order for a conference center project to be deemed viable, the analysis should indicate that the benefits outweigh the costs throughout the center's useful life (Galambos and Schreiber 1978, 73).

The discount rate can have a substantial effect on the overall viability of the project. Varying discount rates will be used in order to assess the present value of future costs and benefits (McKenna 1980, 135). For example, the higher the discount rate, the lower the value of future benefits. The combined factors of discount rate, benefits, and costs will determine the economic feasibility of a capital improvement project. Many small cities are considering investing in the construction of conference centers to increase the city's economy or boost

tourism and visitors to the community (Talbert 1998, 6). Cities such as San Marcos and New Braunfels expect to capitalize on such economic benefits by investing in conference centers, as larger cities have already done.

Table 3.1: Conceptual Framework: Identifying the Benefits and Costs of the Project

CONCEPTUAL FRAMEWORK TABLE	
Research Purpose: To perform a Benefit-cost Analysis of the San Marcos Conference Center in San Marcos, TX.	
BENEFITS:	SCHOLARLY SUPPORT:
<i>Direct Benefits:</i>	
(R) Revenue from leasing the conference center (RT) Revenue from hotel occupancy taxes (PT) Property Tax Revenue from Hammons Hotel (ST) Sales tax revenue from: <ul style="list-style-type: none"> • Food • Mixed Beverage • Telephone (CI) Capitalized Interest	City of San Marcos (2004-2007), Davisson (1964), Gupta (1994), Kornhauser (2000), McKenna (1980), Mikesell (2007), Millar (1988), Musgrave (1969), Prest and Turvey (1965), Safavi (1971), Talbert (1998)
COSTS:	SCHOLARLY SUPPORT:
<i>Direct Costs:</i>	
(IC) Initial Project Costs (Debt Retirement) (PL) Property Tax Loss from conversion of taxable to nontaxable land (IN) Insurance coverage costs for the conference center (II) Infrastructure Improvements: McCarty Lane Improvements and Extension of Electric Utilities	City of San Marcos (2004-2007), David (1979), Davisson (1964), Galambos and Schreiber (1978), Gupta (1994), Harlow and Windsor (1988), Matzer (1983), McKenna (1980), Mikesell (2007), Millar (1998), Musgrave (1969), Newberry (1990), Prest and Turvey (1965)
DISCOUNT RATE:	SCHOLARLY SUPPORT:
Social: 3% Private: 7%	Gupta (1994), McKenna (1980), Mendelsohn (1981), Mikesell (2007), Walters (1970), Warr and Wright (1981)

Direct Benefits

The benefits of a project include the increases or gains in goods or services generated by that project. Direct benefits are those directly associated with the development of the project. For example, direct benefits from hosting events at a conference center might include revenue

from the rental of the conference room to the sale of concessions (Safavi 1971, 21). The types of direct benefits that are typically associated with hotel and conference center projects include the creation of jobs, increases in hotel occupancy taxes from conference attendees staying in local hotels, sales tax revenue from food, entertainment, and goods, and property tax revenue from the attached private hotel (Safavi 1971, 21). The City of San Marcos also will directly benefit from revenue derived from the leasing of the conference center to Hammons. Though the lease amount will go toward retiring the debt for the first twenty-five years, once the debt is retired the consumer price index will dictate the future costs of the lease to Hammons or any other private entity.

Direct benefits are represented on the ledger of the accounting records and are essential in justifying the development of a project. Indirect benefits are not included in the accounting records of the project but are essential when determining the viability of a project. As mentioned earlier, indirect benefits are occasionally the primary reason why projects are selected.

Indirect Benefits

Indirect benefits include those not directly associated with the project but arise as a direct result. Indirect benefits allow government entities to develop capital improvement projects that will affect positively the surrounding area. Indirect benefits from conference centers include the creation of employment opportunities outside of the hotel and conference center project; new development; property tax revenue and sales tax revenue from indirect development; and the expansion of existing businesses near the conference center (Talbert 1998, 14).

The San Marcos Conference Center and other similar conference centers tend to benefit more from indirect revenues than from direct revenues. Conference centers generally do not produce a meaningful flow of revenue, so revenue that government entities gain from money

spent by conference delegates before, after, and between conference meetings is vital and a compelling motivation to build such centers (Talbert 1998, 13). Indirect benefits should be considered and estimated when performing a benefit-cost analysis, but are not part of the project's official financial records.

Direct Costs

Direct costs are the direct capital costs of building the project (Safavi 1971, 21). These direct expenses include construction and operating and maintenance costs over the life of the project, accounted for on an annual basis (Mikesell 2007, 269). Other direct costs include supplies, labor, and the purchase of the land. The operating and maintenance costs of the facility will not be considered in this analysis due to Hammons' obligation to pay for these costs throughout the lease terms. The City may have to fund maintenance on some equipment and appliances. However, because these items are likely to carry initial warranties, these costs will be excluded from the analysis. Other initial costs defined by McKenna (1980, 134) include research and development, planning, testing and evaluation¹³, and vehicles and equipment. These initial costs are included by the builder in the total cost of the project.

Recurring (ongoing) costs also associated with conference centers include salaries and benefits of personnel, materials, rental of buildings and equipment, facility maintenance, service expenses, administrative overhead, public relations, education, security and insurance (McKenna 1980, 135). Initial and recurring costs can be substantial for government entities. The recurring costs of the San Marcos Conference Center will be paid by Hammons through the life of the

¹³ After the construction of a structure is complete, a testing and evaluation of the integrity of the structure must be done as part of the permitting and certification process. Buildings must be tested and evaluated to receive a certification of occupancy and deemed safe by building code standards.

lease and, consequently, will not be considered in the analysis (City of San Marcos-Development Agreement 2006, 18-19).

Indirect Costs

The indirect (external) costs of a project include the costs of goods and services that government entities must consider in developing and sustaining such a project. Indirect costs affect a government entity by requiring additional facilities or services for the conventioners (Safavi 1971, 21). Indirect (external) costs that many municipalities face because of conferences include added pollution, traffic congestion, and an increased need for emergency services (Gupta 1994, 336). Other indirect costs from the development of a conference center include competition from conference centers in cities of close proximity and the threat of a potential negative environmental impact. Traffic congestion and added pollution have caused many cities to evaluate proposed locations for conference centers and make recommendations that would not severely impact the city's mobility and environmental issues (Sanders 1971, 153).

Since this project is located in an unpopulated area of the city next to the interstate and with direct access to north and southbound lanes, traffic congestion is not expected to be a major concern. An increase in emergency services, such as police to direct traffic, is expected not to be an issue since the conferences will be small in size (around 250-500 people). Should additional law enforcement services be warranted, Hammons would assume this responsibility. Since private entities are responsible for funding police services that extend beyond the normal duties of the police department, the need for police services will not be part of this analysis.

This analysis will consider the project's potential environmental impact on the City and on the area. So far, the environmental impact on the current location of the conference center has been minimal. A copy of the environmental impact statement (EIS) is available at the City

Manager's Office and from the Texas Commission on Environmental Quality. The state requires an EIS on all physical improvements to the land and that it be a matter of public record. Dan O'Leary, the City Manager of San Marcos and direct contact for the conference center project, stated that there were no significant environmental concerns from the development of the hotel and conference center. This outcome is a positive result of moving the location from above the head waters of the San Marcos River, which brought up many concerns of a significant environmental impact from environmental agencies, environmental groups, and the general public, to its current location. The existing location of the project's site has eliminated any opposition about its environmental concerns.

Competition from conference centers in San Antonio and Austin, and from the proposed New Braunfels project, could have a potential negative affect on the viability of the San Marcos Conference Center. Though the San Marcos project is ideal for smaller groups and associations that do not need large spaces, other cities also are competing for similar patrons. The proposed New Braunfels project is the closet to San Marcos and is the most apparent risk to the City's project. The City expressed that the lack of sufficient parking and hotels adjacent to the proposed New Braunfels site is expected to deter some conference planners. However, the City Manager's Office does view the proposed New Braunfels project as a potential risk to the economic viability of the San Marcos Conference Center. The indirect costs mentioned are not considered in the accounting records of a project since they are nearly impossible to measure, but should be considered when evaluating the location, size, and accessibility of the project.

Discount Rate and Time

The benefit-cost analysis must incorporate the discount rate and time for a project to determine the future benefits and costs of the project. Since most public projects create a flow of

costs returns over several years, both benefits and costs should be converted or discounted to present value for comparison (Mikesell 2007, 272). Future benefits of a project are generally assessed at a lesser rate than present benefits. This reduces the value of future benefits and emphasizes the selection of an appropriate discount rate. There is no universally accepted procedure for determining the appropriate discount rate when evaluating public projects beyond the break-even analysis (McKenna 1980, 135). Public and Private entities generally use varying discount rates in accordance with the project being financed and the amount of time that benefits and costs are projected to occur.

An analysis is more objective when a variety of discount rates are used. Scholars Jean-Francois Mertens and Anna Rubinchik-Pessach explained the importance of using discount rates in their paper presented at the spring, 2006, Microeconomics Theory Workshop at Yale University. The paper stated that discount rates being used today were a result of Circular A4 of the U.S. Office of Management and Budget (September 2003). The circular mandated that all executive agencies and establishments conduct a regulatory analysis for any new proposal and, more specifically, a benefit-cost analysis, at the rates of both 3% and 7% (Mertens and Rubinchik 2006, 1). Private entities also use the rate of 7% to discount future values when conducting their analyses.

These scholars indicated that both discount rates are rational choices when conducting a benefit-cost analysis. Since the San Marcos Conference Center Project is a public-private partnership, this benefit-cost analysis will consider the public rate, 3%, and the private rate, 7%, when examining the difference in project values using varying discount rates as mandated by the OMB Circular.

Chapter Summary

This chapter discussed the public-private partnership between the City of San Marcos and Hammons Development, the two entities responsible for the construction and financing of the Conference Center project. The benefits and costs of the conference center were identified and explained. Completion of the conference center is estimated for October of 2008 and is expected to create an economic boost by attracting conference attendees. The following chapter details the methodology used to measure the benefits and costs of the conference center project.

Chapter Four: Methodology

Introduction

This chapter will review and describe the methodology used to operationalize the benefits and costs identified in the conceptual framework to calculate the Present Value, Net Present Value, and Benefit-Cost Ratio for the San Marcos Conference Center. This analysis will discuss each benefit and cost and explain how they are measured. The final section of the chapter will discuss the discount rate and decision criterion used in the benefit-cost analysis of the San Marcos Conference Center. Table 4.1 contains the operationalization of the benefits and costs and explains how each is measured in the analysis.

Explanation of Methodology

The methodology used in this applied research project is a benefit-cost analysis. A benefit-cost analysis is a decision making tool which helps determine economic efficiency and encourages decision makers to evaluate whether the total benefits of a potential project outweigh the total costs. (McKenna 1980, 127). A benefit-cost analysis can help decision makers determine whether scarce resources should be used for a particular project.

The main purpose of conducting a benefit-cost analysis of a public project is to evaluate the social profitability of alternative uses of local government's scarce resources (Galambos & Schreiber 1978, 62). Benefit-cost analyses allow public and government officials to formally identify the expected and unexpected benefits and costs of a project to create a recommendation for project implementation. In instances where a project, such as the San Marcos Conference Center, exists without benefits of such an analysis, the results of this research will demonstrate

whether the conference center decision corresponded with the expectations of the City Council in relation to the benefits outweighing the costs.

Due to the restraints of time and resources, this research will focus on a limited number of benefit and cost variables. Though there may be many other benefits and costs beyond the scope of this research, the assumptions and estimates will be made from the available data for the indirect economic variables of the conference center project.

This project's data were acquired from the City of San Marcos, Hammons, and the San Marcos Chamber of Commerce. The City of San Marcos has been working with the Hammons Company for over four years to determine the appropriate monetary amounts and economic figures for the proposed conference center (City of San Marcos 2004-2007). Data analysis of available information from the City is used to operationalize the benefits and costs of the project. Available data from the City includes preliminary budgeted costs of the project along with estimated revenue from hotel occupancy taxes and project sales taxes. This research will convert relevant variables into monetary values to perform the actual analysis. Since most of the indirect benefits and costs are immeasurable in monetary terms, indirect benefits and costs are identified and explained in the final analysis of the project.

Additional estimates of the indirect benefits and costs of the project will be provided through structured interviews with appropriate City officials, such as the Dan O'Leary, City Manager, Jamison Collette, Project Manager of the Conference Center and Assistant City Manager, Rebecca Ramirez, Director of the Conference and Visitors Bureau, and Bob Higgs, the Director of San Marcos Electric Utility. These individuals were asked a series of questions about how the benefit and cost factors listed will affect the project. A copy of the structured interview

questions can be found in Appendix C. The operationalization table, Table 4.1, displays the measurement of the benefits and costs.

Table 4.1: Operationalization Table: Measuring the Benefits and Costs of the Project

OPERATIONALIZATION OF THE CONCEPTUAL FRAMEWORK TABLE	
BENEFITS:	MEASUREMENT:
<i>Direct Benefits:</i>	
(R) Revenue from leasing the conference center	(R): The city will lease the conference center and allow Hammons to operate it for 25 years. The lease amount will be in the form of a franchise fee that varies every year and is dedicated to paying Hammons' portion, 30%, of the total conference center cost. A detailed table showing the dollar increases was provided by the City of San Marcos and will be available in Chapter 5.
(RT) Revenue from hotel occupancy taxes	(RT): The revenue from hotel taxes is expected to increase due to the new hotel's tax contribution to the City. A detailed table forecasting the actual amounts was provided by the City of San Marcos and will appear in Chapter 5.
(PT) Property Tax Revenue from the Hammons Hotel	(PT): The property tax revenue from the hotel project will be based on the tax increment reinvestment zone created by the city and county. The appraised value of taxable property for the Hotel (10 acres) is \$1,306,800 as of 2006 and is expected to increase by one percent each year. A detailed table forecasting the property tax revenue from the City and the County will be included in the research. The forecasts were provided by the City of San Marcos.
(ST) Sales tax revenue from: <ul style="list-style-type: none"> • Food • Beverage • Telephone 	(ST): A detailed table of expected sales tax revenue from 2008 to 2031 will be included in the research. The expected sales tax revenue forecasts were provided by the City of San Marcos.
(CI) Capitalized Interest	(CI): Additional funding from the Certificates of Obligation to fund construction costs. Estimate was provided by the City.
COSTS:	MEASUREMENT:
<i>Direct Costs:</i>	
(IC) Initial Construction Costs: (PL) Property Tax Loss from conversion of taxable land to non-taxable land	(IC): The total budgeted cost of the conference center is approximately \$23 million. The City of San Marcos is responsible for 100% of the cost. The cost of connecting water and sewer lines to the existing infrastructure is included in the cost of the project. (PL): The land on which the conference center is being built will be tax exempt and will cost the city about \$653,400 in lost property taxes. The value of the land was provided by the City of San Marcos in its TIRZ guide.
(DR) Debt Retirement	(DR): The amount paid by the City and Hammons each year to retire the debt. An amortization schedule from the City of San Marcos will be provided in the Appendix.
(IN) Insurance coverage costs for the conference center	(IN): The insurance coverage costs for the conference center were provided by the City of San Marcos.
(II) Infrastructure Improvements: McCarty Lane Improvements and Extension of Electric Utilities	(II): The infrastructure improvement costs to McCarty Lane and the extension of Electric Utilities will cost \$2,073,875. Improvements to McCarty lane and the extension of utilities will be paid for by the City of San Marcos.

OPERATIONALIZATION OF THE CONCEPTUAL FRAMEWORK: CONTINUED

DECISION CRITERION	MEASUREMENT:
(PV) Present Value of Benefits and Costs	(PV): The present value of the project is derived by using the annual capital flow, which is the annual benefits minus annual costs, in a formula with the discount rate and the useful life of the project in years. These variables will be used to determine the present value of the project today in future dollars.
(NPV) Net Present Value	(NPV): The Net Present Value is derived from the subtraction of the Present Value of the Benefits and the Present Value of the Costs.
(BCR) Benefit-Cost Ratio	(BCR): To find the BCR the Present Value of Benefits and Costs must be divided by the Initial Capital Outlay of the project.

Benefits

Direct Benefits

Conducting document analysis of available and existing data from the City of San Marcos will allow operationalization of the direct benefits of the conference center project. The project’s direct benefits include estimated revenue from leasing the conference center and estimated revenue from sales tax and hotel occupancy tax. This information was provided by the City of San Marcos and Hammons Development encompassing the time period from the opening of the conference center until the end of the lease term.

Leasing of the Conference Center

The City of San Marcos will lease the conference center to Hammons for 25 years. This lease will allow the private developer to operate the conference center while marketing the facility to organizations and associations without any additional costs to the City. Hammons will assume responsibility of the conference center throughout the term of the lease and will be responsible for all associated operating and maintenance costs. The total lease payments made by Hammons to the City will equal 30% of the total debt of the conference center. The City of San Marcos is expecting to make no additional revenue directly from Hammons’ lease since all

of the payments will go toward retirement of the City's debt. Appendix C contains the amortization schedule that Hammons will follow throughout the life of the lease.

Hotel Occupancy Taxes

Along with conference attendee's spending money to enhance their experience within the city, attendants also are providing money to the city by staying in a local hotel and paying hotel occupancy taxes. Conference centers located within hotels or in close proximity expect to receive greater patronage and, therefore, greater revenue from hotel occupancy taxes. Additional local government revenue in the form of Hotel occupancy taxes is incorporated into the final price of the hotel room. With the new hotel being built in conjunction with the conference center, hotel occupancy taxes are expected to increase. A detailed chart forecasting the actual amounts of hotel occupancy taxes throughout the life of the lease is located in Appendix B. It is important that cities that build conference centers provide adequate hotel/motel space in order to increase the hotel occupancy taxes for the city. An increase in hotel occupancy tax revenue is a primary reason why cities create new or expand existing conference center facilities.

Property Tax Revenue

The property tax revenue from the hotel site will benefit the City of San Marcos. The 10-acre property was originally assessed as agriculture property by the City of San Marcos in 2006 at \$1,306,800. Since the land purpose has changed, the value is expected to increase approximately one-percent each year. No property tax abatement was granted to Hammons. Although residential property values are expected to rise significantly more than one percent each year, the TIRZ has established a limit on the amount of increase allowed on the property throughout the life of the zone. The five-acre tract owned by the City is non-taxable and will not be included in property tax revenue generated by the project. The property tax revenue from the

hotel site is part of the Tax Increment Reinvestment Zone (TIRZ) and provides reimbursement to the City for the project's construction costs. The TIRZ took effect August 15, 2006, and will terminate on September 30, 2030 (San Marcos 2006- TIRZ, 8). The City created a detailed table forecasting the property tax revenue from the hotel site which appears in Appendix D.

Sales Tax Revenue

Sales tax revenue is one of the most sought out benefits of building a conference center (Talbert 1998, 14). Conference attendees also will purchase items that produce additional tax revenue for the city in food, beverage, and telephone call purchases. Sales tax revenue is a direct benefit to the city and also assists in stimulating the local economy by increasing dollars to local businesses. The City of San Marcos has estimated the expected sales tax revenue from 2008 to 2025. This analysis extends the sales tax revenue forecast to the end of the lease term. The expected sales tax revenue appears in Appendix E-G.

Capitalized Interest

Capitalized interest was accrued from the issuance of the Certificate's of Obligation between the City's holding of the issued amount until financing the builder for the project's costs. This interest is only included during the first year of construction, FY 2007, because it is only accrued during that period. Capitalized interest is additional revenue that is typically applied to funding a project and is not part of the initial project cost or included in the total amount of issued Certificates of Obligation.

Along with the direct benefits of a project, the indirect benefits also are essential when determining if the overall benefits will outweigh the costs of the project. Though indirect benefits are impossible to measure, they should be considered when determining the overall benefits of a project.

Indirect Benefits

This analysis will not operationalize the indirect benefits of the conference center project in monetary terms but will instead conduct document analysis of available and existing data as clarified by interviews with City of San Marcos officials. The indirect benefits from job creation, indirect development, and property and sales tax revenue from those developments near the conference center are virtually immeasurable since the development does not currently exist. However, additional revenue associated with conference centers are expected to improve the local economy.

Job Creation

Hammons is expected to create approximately 250 jobs as a result of the Hotel and Conference Center project. Since the variable of job creation cannot be easily measured in monetary terms and will not affect the City's payroll, this variable will be discussed at the conclusion of this analysis. Interview results confirmed that the City of San Marcos did not take this factor into consideration when contemplating building the conference center. The City typically only considers job creation in private manufacturing projects because the City strives to provide better wages to middle class individuals within the community.

Indirect Development

Indirect or secondary development is expected to boom within the conference center area. Though the City of San Marcos did not consider indirect development in its assessment for building the conference center, City officials articulated that they were aware that such development would arise in close proximity to the project. Many cities, such as San Marcos, construct conference centers in open areas in the hopes of expanding and increasing

development. Along with additional revenue from sales taxes, property taxes from these indirect developments can make a substantial impact on tax revenue.

Property Tax and Sales Tax Revenue from Indirect Development

As new development is created, additional property taxes are collected, boosting the local budget. In instances where development occurs in areas previously zoned for agricultural purposes, property tax revenue will significantly increase as property is rezoned for commercial or residential development. This analysis only will consider and discuss the expected effect of property tax and sales tax revenue from indirect development on a non-monetary level. The indirect benefits of the conference center project are expected to provide a substantial benefit to the City, but estimates by the City or Hammons were not provided.

Costs

Direct Costs

Conducting document analysis of available and existing data from the City of San Marcos will allow operationalization of the direct costs of the conference center project. The most current city data is used in the analysis. The City of San Marcos and Hammons have estimated the project's initial construction costs, annual maintenance, and annual operating expenses from the beginning of the project to the end of the lease agreement. Each of the direct costs is estimated in monetary amounts, but the indirect costs associated with the project will be qualitatively considered in this analysis and not converted into monetary terms.

Initial Construction Costs

The initial construction accounts for the largest share of the project's cost. While the City is responsible for 100% of the cost, Hammons Development has agreed to pay for thirty percent of the total costs of the project through a guaranteed lease term of twenty-five years.

Initially the City stated the project would cost \$20 million, but Taxable Certificates of Obligation for \$6,819,538 and Non-Taxable Certificates of Obligation for \$16,084,556 were issued on September 5, 2006, totaling nearly \$23 million (San Marcos 2006- TIRZ, 21). Since the City is ultimately responsible for the full issued amount, this analysis is based on the \$23 million cost of the project.

Initial project costs include the land purchase, construction labor, materials, supplies, and any other costs associated with the evaluation and safety testing of the structure. The builder, Broaddus & Associates, of the San Marcos Conference Center expects the cost to exceed the twenty million dollar threshold stated initially by the City once associated fees, cost of work, construction contingency¹⁴, owner's contingency costs¹⁵, consultant fees¹⁶, testing and evaluation costs¹⁷ are derived near the end of the construction process, but Hammons is responsible for any cost overruns.

Due to the Agreement, the initial project costs to the city are expected to stay on budget. As of fall, 2007, the project is on budget and on schedule for completion (Landis 2007, 1). The cost of building and maintaining a conference center far exceed the initial construction expense and can add an overwhelming financial burden to government entities. Excessive costs in conference center development are the common reason for private developers to partner with governments in large and expensive ventures.

¹⁴ Any changes to the agreed cost of the project that is associated with unforeseen changes in the costs of building materials and/or supplies. This contingency is set forth in the budget of the project's cost as a buffer for any unforeseen builder costs and is refunded if not used.

¹⁵ Any contingency's or changes in the design of the project that the owner requests and is not set within the initial contract agreement.

¹⁶ Fees that are associated with a project when technical expertise is needed to advise on problem areas.

¹⁷ The costs associated with a project when the structure must be evaluated and tested by an outside party. Evaluation and testing ensures a sound and safe project and is required to gain a certificate of occupancy.

Property Tax Loss

The City must also consider the property tax loss that the city-owned land of five acres will create. Since city owned land is not taxable, the city will lose property tax revenue on a tract of land currently valued by the Hays County Appraisal District at \$653,400. The property value is expected to increase by 1% each year and is set by the TIRZ.

Annual Maintenance and Operating Costs

The annual maintenance and operating costs¹⁸ for the project can be very expensive and affect negatively the overall revenue of conference centers. In this analysis, annual maintenance and operating costs for the conference center will not be included in the analysis since Hammons has agreed to bear the burden of these costs in the lease agreement. Hammons is responsible for all annual maintenance and operating costs of the conference center throughout the term of the lease. The city only will be held liable for any major appliances or equipment, but since the majority of the appliances and equipment are under extended warranties (five years or over), these cost estimates will not be reflected in the analysis. The City will be held liable for maintenance and operating costs of the project after the lease has expired, but for the purpose of this analysis, these variables will not be considered beyond the life of the lease.

Insurance Coverage

Under the contractual agreement signed by the City and Hammons, each entity must provide insurance coverage for their own property even though the conference center will be leased to the private party (San Marcos 2007- Contract agreement). The City is required to hold

¹⁸ Costs associated with maintaining and operating the project, including employee salaries, upkeep of the grounds, general supplies, utilities, and other pertinent costs associated with hotel and conference centers.

sufficient insurance to cover the value of the conference center throughout the life of the project. An estimate of the insurance costs for the project has been completed by the City of San Marcos.

Infrastructure Improvements

The site of the conference center project also requires infrastructure improvements including the extension of basic utilities and the expansion of roads. The infrastructure improvements were not considered in the initial construction costs of the project but must be included in the analysis. Since water and waste/water lines already extend to the site, the cost of construction includes only tapping into the existing lines and laying pipe to the facility. The cost of connecting the water and waste/water lines is the responsibility of the city, but the associated costs are included in the total construction costs of the project. The local gas supplier, CenterPoint Energy, will pay for the gas lines leading to the hotel and conference center and these costs will not be included in this analysis.

The City will be responsible for extending electric utilities out to the project site along with expanding McCarty Lane. The amount of \$73,875 to extend electric utilities to the hotel and conference center site includes the installation of poles, lines, and transformers. The contractual agreement of the project obligates the City to pay for the cost of extending electric utilities. The additional expense of expanding McCarty Lane has placed an additional financial burden on the City.

During the spring of 2007, the City of San Marcos put a bond package on the ballot that would expand many roads around the city (including McCarty Lane). When the bond package failed, the City was required, under contract, to fund the expansion of McCarty Lane from I-35 East to the end of the property line. The cost is not expected to exceed two million dollars. Since

the road improvements are required under the contractual agreement, this cost will be considered during the analysis of the project.

The conference center project also must anticipate the indirect costs associated with these types of projects. Indirect costs can cause many conferences centers to fail in cities of all sizes and must be considered when choosing the site for the project.

Indirect Costs

The indirect costs of the conference center project include traffic congestion, the environmental impact of the development, and competition from other conference centers in close proximity. Since the effects of indirect costs are different in each area, structured interviews were conducted with city officials to determine their potential effect on the City. The indirect costs of the conference center are essential in determining the social aspects of a project on a community.

Traffic Congestion

Many cities find themselves plagued by traffic congestion in conference or convention center areas. The unexpected vehicle and pedestrian traffic must be considered when selecting the most appropriate site for the project to minimize its affect on the area. San Marcos officials have stated that traffic congestion would be minimal because of the unpopulated location of the project. Since the conference center site is located in an undeveloped area of I-35, traffic from conference attendees should not be a factor. Though indirect development is expected to be placed in the area, traffic conditions cannot be estimated prior to their construction. The expansion of McCarty Lane and the proposed expansion of the I-35 frontage road should alleviate traffic congestion within the conference center area.

Environmental Impact

The environmental impact of building this type of project can be a substantial on the community and the state. The San Marcos Conference Center's previous location above the San Marcos River Head Waters was found to be a substantial threat to the environment and the San Marcos River. Public outcry and significant opposition to the proposed conference center location, prompted officials to move it to its present location on I-35 and McCarty Lane. The current site was found to have minimal environmental impact on the area and the community. The relocation of the project because of environmental concerns will be discussed in the conclusion but will not be measured in the analysis.

Competition from Other Conference Centers

Competition due to conference centers in close proximity to the San Marcos facility can have a substantial impact on the success of the project. Though the City officials feel that the project is more luxurious than others in the area when comparing size and accommodations, the fact that many other conference centers are located in close proximity to San Marcos could have a substantial effect. Large conference centers in San Antonio and Austin have a significant advantage in attracting conferences from around the nation. Though the San Marcos Conference Center is expecting to host more association and business meetings as opposed to exhibitions or trade shows, the locals of New Braunfels, San Antonio and Austin could have a substantial effect on the project's viability as they pursue similar markets. Although the effect of competition cannot be measured, this analysis will consider the effect that competition may have on the facility. The City of San Marcos will have to compete with other markets in close proximity when attempting to attract conferences to the city.

Discount Rate

The discount rate used in this benefit-cost analysis is critical to the results. The outcome of the present value will vary significantly with the use of differing discount rates. Since the San Marcos Conference Center Project is a public-private partnership, this analysis will use the rates of 3% and 7% to examine the differences in the results. As stated by Mertens and Rubinchick (2006, 1), the OMB must conduct a regulatory analysis including a benefit-cost analysis for all new proposals at the rates of both 3% and 7% to determine a project's viability. The present value of the San Marcos Conference Center will be evaluated at the social discount rate of 3% and the private discount rate of 7%.

Decision Criterion

After the benefit and cost variables have been measured in monetary terms, they can be assessed using the appropriate decision criterion. The primary decision criterion will be the Net Present Value, representing the present value of the project in future values minus its initial cost. If the project is beneficial for the city and the economic benefits outweigh the costs, the net present value will be positive. A project's present value is essentially the value of a project today represented in future dollars that can be reduced due to inflation, uncertainty, risk, and currency value (Gupta 1994, 345). Since the present value and net present value calculations take into account both the time and value of money, they are the most appropriate criteria to use when conducting a benefit-cost analysis.

The benefit-cost ratio and the pay-back period also will be discussed in the research project but will not be significantly weighted in the final analysis of the project. The benefit-cost ratio (BCR) is a measure that is not influenced by the size of the investment but compares alternatives of different sizes (McKenna 1980, 149). If the value of BCR is determined to

exceed one, then it is a viable project, but if the BCR is found to be below one, then the project is not economically feasible and not recommended since the costs outweigh the benefits.

The pay-back period is the least influential of the decision criterion because it does not take into account the time and value of money (Mikesell 2007, 273). As a result, the pay-back period will not be analyzed in this research project, and the data obtained from the city's estimate of the pay back period will be substituted. The pay-back period can prove useful when comparing similar projects and when a shorter time frame is recommended (Mikesell 2007, 273). The decision criterion and methods listed in the operationalization table show the formulas that will be used to assess the San Marcos Conference Center Project.

Chapter Summary

This chapter explained the methods that will be used to operationalize the benefits and costs for the San Marcos Conference Center Project. The chapter also discussed the proper public and private discount rates as recommended by the OMB and used in this analysis. The decision criteria that will be used in this benefit-cost analysis includes the present value and net present value in order to evaluate the viability of the project in terms of benefits and costs. Since the conference center project is not weighted or compared to any other project, if the net present value of the project is calculated and the results are positive, then the project meets the threshold and is a viable project for the City of San Marcos. Each benefit and cost variable for the conference center project has been measured and calculated according to the decision criteria. The result of each benefit and cost variable is discussed in the following chapter.

Chapter Five: Results

Introduction

This chapter presents the findings of the benefit-cost analysis conducted of the City of San Marcos Conference Center. The results of this analysis reinforce the importance of identifying relevant variables and appropriate discount rates to determine a project's economic viability. Since the conference center is a public-private partnership, both the social rate of 3% and the private rate of 7% were used.

Revenue and expense estimates were provided by the City of San Marcos and forecasted throughout the project's life. Since the lease term and life of the conference center is twenty-five years, this analysis considers data from FY2006 to FY 2031. Though the project's obligation began in FY 2006, not all variables were relevant during the first fiscal year. Benefit and cost variables pertinent to the project did not begin until the project was operational¹⁹.

Results of calculations measuring the benefits and costs of the project were derived from formulas presented in the research found in Figures 2.1-2.4. Present value and net present value were used to determine the project's viability for the City of San Marcos. The results of the decision criteria are discussed further in the chapter.

Benefits

Direct Benefits

Benefits that are a direct result of the conference center project include variables such as the lease payment revenue for the conference center, hotel occupancy taxes, property tax

¹⁹ The benefit and cost variables of hotel occupancy tax from the Hammons Hotel, sales tax revenue from goods sold at the conference center, the lease payments made by Hammons, and property tax revenue from the site did not begin until the project was operational in FY 2008.

revenue, sales tax revenue, and capitalized interest. The calculated results of each benefit will be discussed consecutively.

Present Value of Conference Center Lease Payments

As a result of the contractual agreement, Hammons will lease the conference center from the City of San Marcos for twenty-five years. The total lease payments made by Hammons to the City of San Marcos will be used to retire Hammons’ portion of the conference center debt. The total lease payments made by Hammons will equal thirty percent of the total debt held by the City. The lease payment schedule is found in Appendix B.

The City of San Marcos issued nearly twenty-three million dollars in Certificates of Obligation to cover the builder’s estimates of the project’s cost²⁰. Table 5.1 displays the debt owed the City of San Marcos for the conference center project.

Table 5.1: Debt Retirement Owed by the City of San Marcos

Taxable Certificates of Obligation	\$6,819,537.50
Tax-Exempt Certificates of Obligation	\$16,084,555.55
Total Debt	\$22,904,094.00

Source: City of San Marcos Tax Increment Reinvestment Zone No.3, 2006.

The lease amount for the conference center project was determined by using the issued amount from the Certificates of Obligation plus an additional 5.5% interest cost over the debt repayment period. Though nearly twenty-three million dollars in Certificates of Obligation were issued, the actual conference center cost, with principal and interest over 25 years, is \$40,471,573. Table 5.2 depicts the total cost of the project, including principal and interest for the twenty-five year term, used by the City of San Marcos to calculate the lease amount.

²⁰ The builder of the conference center has estimated that the total construction cost will equal \$22,904,094. This amount accounted for any unforeseen costs that the builder may encounter during construction.

Table 5.2: Modified Total Cost of Debt Retirement with Principal and Interest

Taxable Certificates of Obligation	28,330,101.10
Tax-exempt Certificates of Obligation	12,141,471.90
Total Cost of Conference Center with Principal and Interest	\$40,471,573.00

Source: City of San Marcos Tax Increment Reinvestment Zone No.3, 2006.

The actual total cost of the conference center is \$17,567,479 more than initially stated by the City. Table 5.2 provides an accurate representation of the total cost of the project and the actual amount of the debt owed by the City of San Marcos. The present value of the lease payments for the conference center made by Hammons to the City is detailed in Table 5.3 at 3% and 7% using the modified total cost of debt retirement with principal and interest from Table 5.2.

Table 5.3: Present Value of Lease Payments for the Conference Center

FY	Estimated Revenue	PV @ 3%	PV @ 7%	<i>i</i>
2006	-	-	-	1
2007	-	-	-	2
2008	\$338,168	\$309,471.62	\$276,045.82	3
2009	338,168	300,457.89	257,986.75	4
2010	338,168	291,706.69	241,109.11	5
2011	338,168	283,210.38	225,335.62	6
2012	515,168	418,878.73	320,820.74	7
2013	514,432	406,097.37	299,404.11	8
2014	514,702	394,476.22	279,963.79	9
2015	514,396	382,758.93	261,492.84	10
2016	515,010	372,054.18	244,677.54	11
2017	514,966	361,186.79	228,651.06	12
2018	514,260	350,186.04	213,399.62	13
2019	514,396	340,076.35	199,491.64	14
2020	513,788	329,780.97	186,220.42	15
2021	513,938	320,269.17	174,088.58	16
2022	514,762	311,439.48	162,960.47	17
2023	514,680	302,320.26	152,275.24	18
2024	513,690	292,950.23	142,039.57	19
2025	514,792	285,027.85	133,032.04	20
2026	597,601	321,239.98	144,328.46	21
2027	597,601	311,883.48	134,886.41	22
2028	597,601	302,799.50	126,062.07	23
2029	597,601	293,980.09	117,815.02	24
2030	597,601	285,417.57	110,107.49	25
2031	597,815	277,203.66	102,941.05	26
Totals: 2006 to 2031		\$7,844,873.43	\$4,735,135.44	

The present value of future conference center lease payments to be paid by Hammons to the City of San Marcos is \$7,844,873 at 3% and \$4,753,135 at 7%. The present value of the conference center lease payments is \$3,109,738 more at the end of the lease term at 3% than at 7%.

Hotel Occupancy Taxes

Tax revenue from hotel occupancy is expected to grow as more conferences are held and additional hotel space is occupied. Expected hotel occupancy tax revenue from the Hammons Hotel and other local hotels were estimated by the City of San Marcos. The hotel occupancy tax rate charged is based on the cost of the hotel room. The city charges a daily rate of 7% for each hotel room rented. Hotel occupancy taxes for the Hammons Hotel were estimated from the anticipated opening in October, 2008, and are expected to rise 6.8% each year. The schedules of expected hotel occupancy tax revenue each fiscal year from the Hammons hotel and other local hotels are shown in Tables 5.4 and 5.5.

The present value calculation for hotel occupancy taxes was split into two groups, hotel occupancy taxes from the Hammons Hotel and hotel occupancy taxes for other local hotels. Table 5.4 shows the present value of the hotel occupancy taxes from the Hammons Hotel at 3% and 7%.

Over the life of the project, the present value of the Hotel Occupancy Taxes from the Hammons Hotel is \$10,382,256 at 3% and \$6,285,862 at 7%. Hotel Occupancy Tax revenue from the Hammons Hotel is \$4,096,394 more at a discount rate of 3% than at the 7% discount rate.

The hotel occupancy taxes in San Marcos are expected to increase due to additional conference attendees staying within the city at local hotels and motels. The estimates for the

hotel occupancy tax revenue were completed by the City of San Marcos to determine additional tax revenue. Table 5.5 shows the present value of the Hotel Occupancy Tax Revenue from the other local hotels and motels in San Marcos at 3% and at 7%.

Table 5.4: Present Value of Hotel Occupancy Tax Revenue- Hammons Hotel

FY	Estimated Revenue	PV @ 3%	PV @ 7%	<i>i</i>
2006	-	-	-	1
2007	-	-	-	2
2008	\$459,869	\$420,845.28	\$375,390.09	3
2009	499,763	444,032.95	381,266.80	4
2010	533,675	460,352.74	380,502.90	5
2011	552,354	462,587.78	368,056.79	6
2012	571,687	464,833.85	356,017.93	7
2013	591,696	467,090.29	344,372.46	8
2014	612,405	469,357.44	333,107.74	9
2015	633,839	471,635.74	322,211.61	10
2016	656,023	473,924.97	311,671.80	11
2017	678,984	476,225.72	301,477.02	12
2018	685,774	466,978.72	284,571.83	13
2019	692,632	457,911.35	268,614.63	14
2020	699,558	449,019.66	253,552.01	15
2021	706,554	440,301.09	239,334.29	16
2022	713,619	431,751.23	225,913.50	17
2023	720,755	423,367.60	213,245.40	18
2024	727,963	415,147.13	201,287.84	19
2025	735,243	407,086.22	190,000.76	20
2026	742,523	399,142.70	179,329.02	21
2027	749,803	391,316.56	169,240.41	22
2028	757,083	383,607.71	159,704.30	23
2029	764,363	376,015.95	150,691.58	24
2030	771,643	368,540.99	142,174.59	25
2031	778,923	361,182.49	134,127.03	26
Totals: 2006 to 2031		\$10,382,256.17	\$6,285,862.32	

Table 5.5: Present Value of Hotel Occupancy Tax Revenue from Other Local Hotels

FY	Estimated Revenue	PV @ 3%	PV @ 7%	<i>i</i>
2006	\$85,420	\$82,932.04	\$79,831.78	1
2007	264,985	249,773.78	231,448.16	2
2008	267,635	244,923.94	218,469.88	3
2009	270,311	240,167.82	206,218.97	4
2010	273,014	235,504.27	194,655.21	5
2011	275,744	230,931.26	183,739.87	6
2012	278,502	226,447.61	173,437.05	7
2013	281,287	222,050.56	163,711.59	8
2014	284,100	217,738.99	154,531.58	9
2015	286,941	213,511.05	145,866.25	10
2016	289,810	209,364.91	137,686.64	11
2017	292,708	205,299.50	129,965.85	12
2018	295,635	201,313.05	122,678.01	13
2019	298,592	197,404.49	115,799.13	14
2020	301,578	193,571.44	109,305.75	15
2021	304,593	189,812.29	103,176.19	16
2022	307,639	186,126.65	97,390.63	17
2023	310,716	182,512.90	91,929.65	18
2024	313,823	178,968.87	86,774.67	19
2025	316,961	175,493.62	81,908.75	20
2026	320,099	172,068.99	77,308.10	21
2027	323,237	168,694.97	72,958.85	22
2028	326,375	165,371.52	68,847.79	23
2029	329,513	162,098.56	64,962.37	24
2030	332,651	158,875.97	61,290.67	25
2031	335,789	155,703.59	57,821.35	26
Totals: 2006 to 2031		\$5,066,662.64	\$3,231,714.74	

The estimated present value for hotel occupancy tax revenue from other local hotels is \$5,066,663 at 3% and \$3,231,715 at 7%. Projected hotel occupancy tax revenue is \$1,834,948 more at a discount rate of 3% than at the 7% discount rate.

Property Tax Revenue

The hotel site will contribute to property tax revenue for the City of San Marcos. The ten-acre hotel site is assessed at a value of \$1,306,800 as of FY 2007 and is expected to increase by one percent each fiscal year. The one percent increase in appraised value has been set by the TIRZ and will end with its expiration. The five-acre conference center site is appraised at \$653,400 as of FY2006 and also is expected to increase by one percent each year. The conference center site is tax exempt and will be evaluated in the costs section of the analysis as property tax loss. The property tax revenue from the hotel site is part of the TIRZ and will contribute to retiring the City of San Marcos' debt. Property tax revenue gained from the City of San Marcos and Hays County also will be used to help retire the City's debt. The City of San Marcos and Hays County have set a dedicated tax rate for the TIRZ in effect until the zone expires. The dedicated tax rate for the TIRZ was used to determine the property tax revenue based on the assessed value of the property. San Marcos' dedicated tax rate for the TIRZ is \$0.4702/\$100 Assessed Value, and Hays County's dedicated tax rate is \$0.3229/\$100 Assessed Value.

The present value of the property tax revenue generated by the Hammons Hotel for both the City of San Marcos and Hays County is shown in Appendix D. Since the Hammons Hotel is located within the TIRZ, the property tax revenue will be used by the City to retire the conference center debt. The portion of property tax revenue received by the County also will be applied toward the City's debt.

The present value of the estimated property tax revenue of the Hammons Hotel for the City of San Marcos is \$3,123,312 at 3% and \$1,879,956 at 7%. The present value of property tax revenue at 3% is \$1,243,356 more than at 7%.

The present value of the estimated property tax revenue of the Hammons Hotel for Hays County is \$2,603,859 at 3% and \$1,567,294 at 7%. The difference in the present value of the estimated property tax revenue to Hays County is \$1,036,565 more at 3% than at 7%.

Sales Tax Revenue

The City of San Marcos and Hammons have estimated the additional sales tax revenue expected from the hotel and conference center project. Sales tax revenue from food, mixed beverages, and telephone use is expected to increase each year as more conferences are held. Estimated sales tax revenue from the project is shown in the financing schedule located in Appendix B.

The present value of the estimated sales tax revenue from food sold at the Hammons Hotel from conference attendees is \$567,427 at 3% and \$334,744 at 7%. The present value of sales tax revenue from food sold at the project is \$232,683 more at 3% than at 7%. The present value of the estimated sales tax revenue from food is shown in Appendix E at 3% and 7%.

Appendix F shows the present value of the estimated sales tax revenue from mixed beverages sold at 3% and 7%. The estimates for sales tax revenue from mixed beverages sold at the project are expected to increase as the size and number of conferences increase over time. The present value of the estimated sales tax revenue from mixed beverages sold at the Hammons Hotel from conference attendees is \$72,504 at 3% and \$43,282 at 7%. The present value of sales tax revenue from mixed beverages is \$29,222 more at 3% than at 7%.

Appendix G shows the present value of the estimated sales tax revenue from telephone taxes at 3% and 7%. The estimates for sales tax revenue from telephone calls made at the project are expected to increase as the number of conference center attendees increases over time. The present value of the estimated sales tax revenue from telephone taxes at the Hammons Hotel

from conference attendees is \$63,045 at 3% and \$37,193 at 7%. The present value of sales tax revenue from telephone calls at the project is \$25,852 more at 3% than at 7%.

Capitalized Interest

The capitalized interest amount included in the financing schedule accounts for additional funding from the Certificates of Obligation to fund construction costs. According to the contract agreement, capitalized interest is part of the total debt but is included only in FY 2007 during the initial construction phase of the project. Table 5.6 shows the present value of the capitalized interest for the project at 3% and 7%.

Table 5.6: Present Value of Capitalized Interest

FY	Estimated Revenue	PV @ 3%	PV @ 7%	i
2006	-	-	-	1
2007	\$930,258	\$876,857.39	\$812,523.36	2
2008	-	-	-	3
Totals: 2006 to 2031		\$876,857.39	\$812,523.36	

The present value of the capitalized interest for the conference center project is \$876,857 at 3% and \$812,523 at 7% during FY 2007. The present value of capitalized interest from the project is \$64,334 more at 3% than at 7%.

Present Value of Benefits

In order to find the total present value of benefits, the present value of the conference center lease amount, hotel occupancy tax revenue, hotel property tax revenue, hotel sales tax revenue, and capitalized interest were added together. Individual totals of each benefit outlined in Table 5.7 show the present value differences when varying discount rates are applied.

Table 5.7: Present Value of Benefits

Present Value: Benefits	PV 3%	PV 7%
Revenue from Leasing the Conference Center	7,844,873.43	4,735,135.44
Hotel Occupancy Tax Revenue- Hammons Hotel	10,382,256.17	6,285,862.32
Hotel Occupancy Tax Revenue- Other Area Hotels	5,066,662.64	3,231,714.74
TIRZ Property Tax Revenue from Hammons Hotel- City (100%)	3,123,311.92	1,879,956.24
TIRZ Property Tax Revenue from Hammons Hotel- County (100%)	2,603,859.24	1,567,293.53
Sales Tax Revenue from Hammons Hotel- Telephone	63,045.31	37,192.62
Sales Tax Revenue from Hammons Hotel- Food	567,427.32	334,744.16
Sales Tax Revenue from Hammons Hotel- Mixed Beverage Tax	72,503.99	43,281.62
Capitalized Interest	876,857.39	812,523.36
Total PV of Benefits	30,600,797.41	18,927,704.04

The total present value of benefits is \$30,600,797 at 3% and \$18,927,704 at 7%. The total benefits of the conference center project are \$11,673,093 more at 3% than at 7%.

Costs

Direct Costs

Costs that are a direct result of the conference center project include variables such as the initial project costs, property tax loss, insurance coverage, and infrastructure improvements. The calculated results of each cost will be discussed in consecutive order.

Initial Project Costs

The initial project costs of the San Marcos Conference Center are found by adding the taxable and non-taxable certificates of obligation. Approximately twenty-three million dollars in taxable and non-taxable certificates of obligation were issued by the City to construct the conference center.

In determining the total cost of the project over the debt repayment period, principal and interest must be considered. The total cost, with principal and interest through the debt repayment period, is \$40,471,573. The City of San Marcos' estimated debt retirement schedule is located in Appendix B, and Table 5.2 shows the break down of debt retirement owed.

In determining the present value of the total cost of the conference center, the project cost and the interest accrued through the debt repayment period are separate. Table 5.8 depicts the total cost of the project, including the present value of the project cost and the present value of the interest.

Table 5.8: City of San Marcos: Total Conference Center Costs: Principal + PV of Interest

PV of Project Costs	\$22,904,093.05
PV of Interest for Certificates of Obligation	9,453,665.74
Total	32,357,758.79

The present value of the interest is discounted at 5.5%, also the interest rate for the Certificates of Obligation. Table 5.9 shows the present value of the total interest accrued each fiscal year.

The present value of the project cost is \$22,904,093. The present value of the total interest from the Certificates of Obligation is \$9,453,666 at 5.5%. The present value of the total conference center cost, including the present value of the project costs and the present value of total interest, is \$32,357,759.

Table 5.9: Present Value: Total Interest from Debt Retirement of Certificates of Obligation

FY	Estimated Interest	Tax-Exempt PV @ 5.5%	<i>i</i>
2006	-	-	1
2007	-	-	2
2008	1,148,107	977,743.86	3
2009	1,194,563	964,270.85	4
2010	1,194,563	914,000.81	5
2011	1,194,563	866,351.48	6
2012	1,160,063	797,469.66	7
2013	1,123,688	732,193.51	8
2014	1,085,438	670,397.96	9
2015	1,045,000	611,774.96	10
2016	1,002,375	556,228.41	11
2017	957,625	503,693.05	12
2018	910,438	453,908.34	13
2019	860,500	406,645.94	14

Present Value: Total Interest from Debt Retirement of Certificates of Obligation: Continued			
2020	807,875	361,873.91	15
2021	752,250	319,391.12	16
2022	693,625	279,146.97	17
2023	631,750	240,991.09	18
2024	566,625	204,879.73	19
2025	497,938	170,657.60	20
2026	425,438	138,208.30	21
2027	349,125	107,504.55	22
2028	268,750	78,440.78	23
2029	184,000	50,904.81	24
2030	94,313	24,731.92	25
2031	-	-	26
Total	18,148,607	9,453,665.74	

Property Tax Loss

The City property was originally appraised for agriculture purposes by the Hays County Appraisal District in FY2006 at \$653,400 and is expected to increase in value by one percent each year. The one percent increase in appraised value was set by the TIRZ and will end when the zone expires. Appendix H shows the property tax loss for the City of San Marcos.

Over the course of twenty-five years, the total tax loss from the conference center site to the City of San Marcos is approximately \$95,053. The tax loss to the City is expected to rise when the TIRZ is terminates and market conditions influence the land value. Table 5.10 shows the present value of the property tax loss from the conference center site to the City of San Marcos tax rolls at 3% and 7%. Since the property is prime commercial real estate, the property tax revenue losses from the site could be substantial.

Table 5.10: Present Value of Property Tax Loss to the City of San Marcos

FY	Estimated Expense	PV @ 3%	PV @ 7%	<i>i</i>
2006	\$3,084.05	\$2,994.22	\$2,882.29	1
2007	\$3,114.89	2,936.08	2,720.66	2
2008	\$3,146.04	2,879.07	2,568.10	3
2009	\$3,177.50	2,823.17	2,424.10	4
2010	\$3,209.27	2,768.35	2,288.17	5
2011	\$3,241.37	2,714.59	2,159.86	6
2012	\$3,273.78	2,661.88	2,038.75	7
2013	\$3,306.52	2,610.19	1,924.42	8
2014	\$3,339.58	2,559.51	1,816.51	9
2015	\$3,372.98	2,509.81	1,714.65	10
2016	\$3,406.71	2,461.08	1,618.50	11
2017	\$3,440.77	2,413.29	1,527.75	12
2018	\$3,475.18	2,366.43	1,442.08	13
2019	\$3,509.93	2,320.48	1,361.21	14
2020	\$3,545.03	2,275.42	1,284.88	15
2021	\$3,580.48	2,231.24	1,212.83	16
2022	\$3,616.29	2,187.91	1,144.82	17
2023	\$3,652.45	2,145.43	1,080.63	18
2024	\$3,688.98	2,103.77	1,020.03	19
2025	\$3,725.87	2,062.92	962.83	20
2026	\$3,763.12	2,022.86	908.84	21
2027	\$3,800.76	1,983.59	857.88	22
2028	\$3,838.76	1,945.07	809.78	23
2029	\$3,877.15	1,907.30	764.37	24
2030	\$3,915.92	1,870.27	721.51	25
2031	\$3,955.08	1,833.95	681.05	26
Totals: 2006 to 2031		\$61,587.90	\$39,936.50	

The present value of property tax loss to the City of San Marcos from the conference center site is \$61,588 at 3% and \$39,937 at 7%. The present value of property tax loss from the project site is \$21,651 more at 3% than at 7%.

Insurance Coverage

Under the contract agreement between Hammons and the City of San Marcos, each owner must provide sufficient insurance. For example, the City of San Marcos is required to provide insurance coverage for the conference center while Hammons is required to provide insurance coverage for the hotel. Since insurance coverage is not required until the conference center is completed, insurance coverage costs are not included until the date of anticipated opening in October, 2008. Insurance coverage costs are estimated to increase by 5% each year to meet the appreciation value of the project. Table 5.11 shows the present value of the cost of insurance coverage for the San Marcos Conference Center at 3% and 7%.

Table 5.11: Present Value: Conference Center Insurance Coverage Costs

FY	Estimated Expense	PV @ 3%	PV @ 7%	<i>i</i>
2006	-			1
2007	-			2
2008	-			3
2009	55,000	48,866.79	41,959.24	4
2010	57,750	49,815.66	41,174.95	5
2011	60,638	50,782.95	40,405.33	6
2012	63,669	51,769.03	39,650.09	7
2013	66,853	52,774.25	38,908.96	8
2014	70,195	53,798.99	38,181.69	9
2015	73,705	54,843.64	37,468.02	10
2016	77,391	55,908.56	36,767.68	11
2017	81,260	56,994.16	36,080.43	12
2018	85,323	58,100.85	35,406.03	13
2019	89,589	59,229.02	34,744.24	14
2020	94,069	60,379.10	34,094.81	15
2021	98,772	61,551.51	33,457.53	16
2022	103,711	62,746.68	32,832.15	17
2023	108,896	63,965.06	32,218.47	18
2024	114,341	65,207.10	31,616.25	19
2025	120,058	66,473.26	31,025.30	20
2026	126,061	67,764.00	30,445.38	21
2027	132,364	69,079.81	29,876.31	22
2028	138,982	70,421.16	29,317.87	23

Present Value: Conference Center Insurance Coverage Costs: Continued				
2029	145,931	71,788.57	28,769.88	24
2030	153,228	73,182.52	28,232.12	25
2031	160,889	74,603.54	27,704.42	26
Totals: 2006 to 2031		1,400,046.21	790,337.16	

The present value of the estimated insurance costs of the San Marcos Conference Center is \$1,400,046 at 3% and \$790,337 at 7%. The present value of insurance costs for the project is \$609,709 more at 3% than at 7%.

Infrastructure Improvements

The contract between the City of San Marcos and Hammons requires infrastructure improvements to the project site. The extension of electric utilities to the conference center location and the expansion of McCarty Lane are one time costs that are required under the contract and paid by the City. The dollar amounts for these improvements were provided by Dan O’Leary, City Manager of San Marcos, and Bob Higgs, the Director of Electric Operations. The cost of extending electric utilities to the conference center site in FY 2007 was \$73,875. The responsibility for the McCarty Lane expansion is still being negotiated by Hays County and TxDOT, but the one time cost to the City of San Marcos is estimated to be two million dollars. Since the expansion plans are not finalized, the government party responsible for maintaining the improvements has not been determined and is not included in this analysis. Table 5.12 shows the present value of the cost for extending electric utilities to the conference center site at 3% and 7%.

Table 5.12: Present Value of Cost for Extension of Electric Utilities

FY	Estimated Expense	PV @ 3%	PV @ 7%	i
2006	-	-	-	1
2007	\$73,875	\$69,634.27	\$64,525.29	2
2008	-	-	-	3
Totals: 2006 to 2031		\$69,634.27	\$64,525.29	

The present value of the cost of extending electric utilities to the San Marcos Conference Center is \$69,734 at 3% and \$64,525 at 7%. The present value of the cost of extending electric utilities to the project is \$5,109 more at 3% than at 7%.

As mentioned earlier, the expansion is a one-time cost to the City and is obligated in FY 2007. Table 5.13 shows the present value of the cost of expanding McCarty Lane from I-35 to the end of the Conference Center Property Line at 3% and 7%.

Table 5.13: Present Value of Cost for Expansion of McCarty Lane

FY	Estimated Expense	PV @ 3%	PV @ 7%	i
2006	-	-	-	1
2007	\$2,000,000	\$1,885,191.82	\$1,746,877.46	2
2008	-	-	-	3
Totals: 2006 to 2031		\$1,885,191.82	\$1,746,877.46	

The present value of the cost of expanding McCarty Lane from I-35 to the end of the Conference Center property line is \$1,885,191.82 at 3% and \$1,746,877 at 7%. The present value of the cost of expanding McCarty Lane is \$138,314 more at 3% than at 7%. The extension of electric utilities and the expansion cost of McCarty Lane are one time costs to the project and are not significantly affected by the choice of discount rate.

Present Value of Costs

To find the total present value of costs, the present values of the Initial Construction costs, Property Tax Loss, Insurance Coverage Costs, and Infrastructure Improvements were added together. Individual totals of each cost outlined in Table 5.14 show the present value differences when varying discount rates are applied.

Table 5.14: Present Value of Costs

Present Value: Costs	PV 3%	PV 7%
Initial Construction Cost of the Project	\$32,357,758.79*	\$32,357,758.79*
Property Tax Loss- San Marcos Taxes	61,587.90	39,936.50
Insurance Coverage Costs	1,400,046.21	790,337.16
Infrastructure Improvements: Extension of Electric Utilities	69,634.27	64,525.29
Infrastructure Improvements: Expansion of McCarty Lane	1,885,191.82	1,746,877.46
Total PV of Costs	35,774,218.98	34,999,435.19

* The PV calculation used the interest rate of the certificates of obligation, 5.5%, as the discount rate and not 3% or 7%

The total present value of costs is \$35,774,219 at 3% and \$34,999,435 at 7%. The total present value cost of the conference center project is \$774,784 more at 3% than at 7%.

Net Present Value of the San Marcos Conference Center

This analysis has determined the total present values of the benefits and costs for the San Marcos Conference Center. As discussed in the Literature Review and Settings chapters, the most appropriate measure in determining economic viability is finding the net present value for the project. To find the net present value, the total present value of benefits stated in Table 5.7, page 79, is subtracted from the total present value of costs stated in Table 5.14. The net present value formula is shown in Figure 2.4. The net present value of the San Marcos Conference Center at each discount rate is presented in Table 5.15.

Table 5.15: Net Present Value of the San Marcos Conference Center

	NPV= PVB-PVC	Social Rate: 3%	Private Rate: 7%
Present Value of Benefits		\$30,600,797.41	\$18,927,704.04
Present Value of Costs		\$35,774,218.98	\$34,999,435.19
Net Present Value		(\$5,173,421.57)	(\$16,071,731.15)

This analysis finds the NPV for the San Marcos Conference Center to be negative at both the social (3%) discount rate and the private (7%) discount rate, with the stream of costs outweighing the stream of benefits. The NPV for the conference center at 3% is (\$5,173,422) and at 7% is (\$16,071,731). According to the results of the NPV, the conference center project is not economically viable at either discount rate.

Critics may claim the estimated benefits and costs are not accurate because of the contribution of data from the City of San Marcos and Hammons. To avoid unbiased results, the analysis used conservative estimates, additional forecasting, and document analysis.

Benefit-Cost Ratio of the San Marcos Conference Center

The benefit-cost ratio is a helpful tool for decision makers to use when comparing several projects. Though the San Marcos Conference Center is a single-decision model and no other projects were being evaluated, this ratio provides a result that allows universal comparability not affected by the amount of benefits or costs involved. Table 5.16 shows the benefit-cost ratio for the conference center project.

Table 5.16: Benefit-Cost Ratio of the San Marcos Conference Center

	BCR= PVB/PVC	Social Rate: 3%	Private Rate: 7%
Present Value Benefits		\$30,600,797.41	\$18,927,704.04
Present Value Costs		\$35,774,218.98	\$34,999,435.19
BCR		0.855	0.541

The ratio for the project is 0.855 at 3% and 0.541 at 7%. The general rule pertaining to benefit-cost ratio is that if the ratio is above one, then the project is viable, but if the ratio is below one, then the project is not viable. The benefit-cost ratio for this project affirms the results of the NPV.

Chapter Summary

This chapter reviewed and discussed the results of the present value and net present value calculations for the benefits and costs of the San Marcos Conference Center. The social and private discount rates used in the analysis provided similar net present values and benefit-cost ratios. With either discount rate, the project's net present value result is negative and the benefit-cost ratio is below one. The conference center is not economically viable.

In spite of these results, supporters of the project believe there are many other reasons that the conference center should be built. The indirect or external benefits of the conference center project that were not discussed or measured in the results chapter do have a positive economic impact on the community. Many feel that job creation is an excellent reason to initiate large projects such as conference centers. The San Marcos Conference Center and Hotel is expected to create approximately 250 jobs that could directly benefit the community. However, job creation is very difficult to measure and, therefore, was not included in the analysis.

Indirect or external development is expected within close proximity to the conference center. Indirect development such as additional hotels, restaurants, and shops are expected to attract conference attendees and other city visitors. Since development around the conference center site has not begun, this variable could not be measured or estimated correctly at this time.

During Hammons' lease term, revenue from the Hotel is expected to offset any loss the conference center creates. The City of San Marcos will begin collecting actual revenue from the leasing of the conference center once the lease term expires. The City will determine the lease amount based on the consumer price index. This conference center may follow the national trend where revenue is insufficient to cover the annual costs. This negative trend could be offset

by the indirect benefits previously discussed, allowing the City to collect additional revenue to assist in countering any loss from the project.

The conference center being built in San Marcos will be one of the only facilities of its size, location, and luxury between Austin and San Antonio. This conference center is ideal for smaller groups and associations that do not need large spaces such as those offered in the larger cities close to San Marcos. Because of Hammons' history with other projects, City Council members and City administration feel that the project will be successful. The proximity of New Braunfels' proposed convention center could affect the economic viability of the San Marcos Conference Center. The City of San Marcos feels that the lack of sufficient parking and hotels adjacent to the New Braunfels proposed site will deter some conference planners.

The conference center also should appeal to the University and will offer additional space for meetings and other gatherings without the parking and accessibility issues campus visitors sometimes experience. Though there are other conference and convention centers in close proximity to San Marcos, this state-of-the-art facility should attract conference attendees and community planners. As the community continues to develop, more conferences are expected that should economically benefit the City.

Chapter Six: Conclusion

Introduction

This chapter provides a summary of the benefit-cost analysis performed of the San Marcos Conference Center. This chapter also recommends that the City of San Marcos conduct benefit-cost analysis for future capital improvement projects, particularly those that require partnering with private developers.

Summary

This research project began by discussing the history of and processes for conducting a benefit-cost analysis. Chapter two of the research contained the Literature Review and discussed the theories and opinions of scholars regarding the utility of benefit-cost analysis and where such is appropriate. Benefit-cost analysis is a decision making tool used by public and private decision makers to determine the viability of funding and in developing capital improvement projects. The literature review chapter detailed the steps for properly conducting a benefit-cost analysis along with the proper way to identify the benefits and costs of a project.

Chapter two also reviewed similar conference center projects and evaluated their effect on the surrounding community. The Literature Review determined that conference centers were only beneficial in select markets and were generally plagued by funding problems due to poor revenue. This review detailed the specific benefits and costs that conference center cities face and those data were included in the analysis of the San Marcos Conference Center. The City of San Marcos identified many of the benefits and costs discussed in scholarly works that could positively and negatively affect the conference center project. Though the City conducted a

feasibility study for the conference center, a benefit-cost analysis was completed in this research to provide an outside and unbiased review of the project.

Chapter three, the Setting Chapter, explored the background of the City of San Marcos along with the unique benefits and costs associated with the project. Benefits and costs were identified by conducting document analysis of the City of San Marcos' data. Additional variables were evaluated to ensure an accurate analysis. The Conceptual Framework of the analysis outlined the benefits, costs, discount rate, and decision criterion used in the research.

Chapter four, the Methodology Chapter, reviewed how each benefit and cost would be measured. Benefit and cost measurements included the direct and indirect factors for both benefits and costs and were converted into monetary terms where possible. Most of the indirect benefits and costs of the project could not be placed into monetary terms but were still considered in the final results of the analysis. The discount rates of 3% (social rate) and 7% (private rate) were used throughout the present value analysis of each measurable variable to show the difference that each discount factor can have on each variable. The project's useful life is 25 years which corresponds to the lease period. The TIRZ area that includes the conference center area also expires at the end of twenty-five years, what most literature defines as an appropriate time frame for a conference center. Since most conference centers will require extensive renovations after a twenty-five year period, this research only considers the flow of benefits and costs within this time frame.

The benefit-cost analysis used Net Present Value to determine the viability of the conference center project. This research also used benefit-cost ratio analysis as a second evaluation technique to ensure the most comprehensive analysis possible. The purpose of this research and the analysis is to determine if the San Marcos Conference Center project is a viable

project. The net present value derived in the analysis found the project to not be economically viable when applying either discount rate.

Many benefit and cost factors influenced the outcome of this analysis. Many other factors may have a significant effect on the conference center project, yet are impossible to measure. Competition from conference centers within the area, traffic congestion, and environmental impact on the community are important considerations when determining the viability of the project. These factors are indirect costs discussed in the setting and methodology chapters but could not be measured in this analysis. The indirect benefits such as job creation, indirect development, and the property and sales tax revenue from indirect development also are important considerations in the final results. Indirect benefits are often the deciding factors when contemplating constructing conference centers, as they provide additional revenue to the community by attracting visitors.

The results chapter demonstrates how the discount rate plays an intricate role in the analysis. By evaluating a project using more than one discount rate, decision makers can clearly see the impact of the rates on projections and use this information to more accurately evaluate a project's viability.

Choosing appropriate benefit and cost variables is essential when completing a benefit-cost analysis. Incorrectly choosing and measuring benefits and costs can cause errors in the analysis. This analysis used benefits and costs that were estimated by the City of San Marcos along with other variables that are common factors to any conference center project.

This benefit-cost analysis was performed of the San Marcos Conference Center even though construction is currently underway. The research for this benefit-cost analysis began in January, 2007, after the San Marcos Conference Center was already approved by the City

Council and construction had begun. Though a benefit-cost analysis is intended to be completed prior to the approval and construction phases of a project, this research still provides value to the City by outlining the estimates of the project and identifying flaws or indirect costs that could affect the project.

The conference center project is the first public-private partnership of this magnitude undertaken by the City of San Marcos. This analysis provides the City with estimates of the project's value throughout the life of the project and what the City can expect in the future. The research and analysis conducted also provides substantial data and a process that other government entities can follow to conduct a benefit-cost analysis of a proposed conference center or any appropriate capital improvement project.

Recommendations for Future Analyses

The results of this benefit-cost analysis are essential in accurately forecasting the future effects of the project. By following the steps outlined in this research, the City of San Marcos and other cities can duplicate this process to determine the viability of a conference center or other warranted capital improvement projects.

The research suggests that the City of San Marcos complete a benefit-cost analysis of all appropriate projects that require a substantial amount of funding and public resources. A benefit-cost analysis should be completed prior to project approval and construction. By conducting the research prior to the start of the project, government entities and public decision makers will be able to consider valid benefit and cost factors.

Though some critics claim that a benefit-cost analysis can be flawed by inaccurate data and biased results, it is important to complete this type of analysis rather than to develop a capital improvement project without any information or expectations. To avoid biased results or flawed

data, a third party should complete a benefit-cost analysis. A study or analysis completed within the administration of the government entity could prove less valuable due to the lack of independence. By reviewing both quantitative and qualitative data, benefit-cost analyses provide substantial evidence and support for a project's success or failure prior to completion. Government entities can use a benefit-cost analysis or other suitable analysis to properly plan projects to ensure economic viability.

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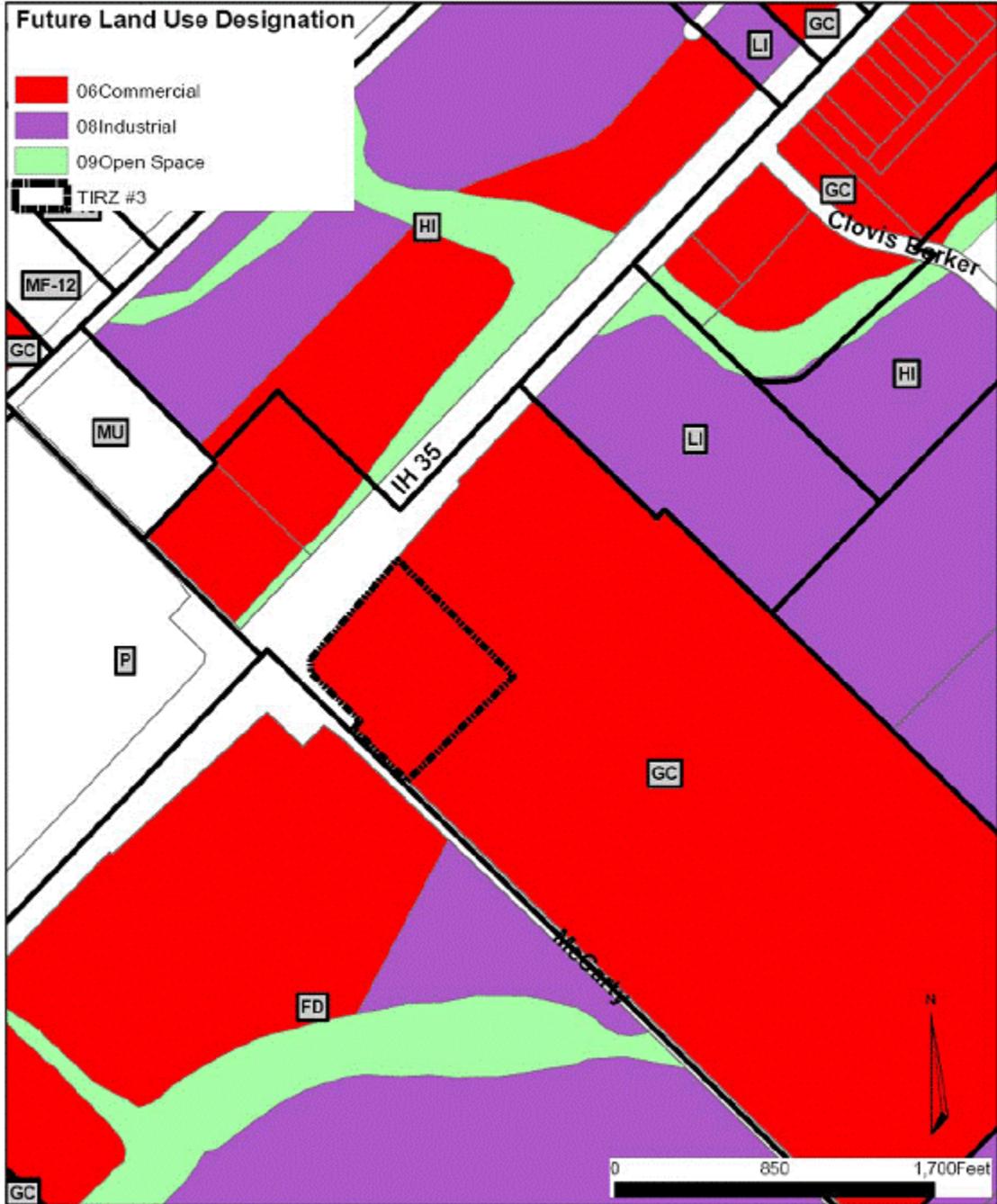
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Appendix A

Map of TIRZ No. 3

Zoning and Future Land Use TIRZ #3



Source: City of San Marcos-TIRZ No. 3, 2006

Appendix B

Conference Center Financing Schedule from FY 2006 to 2031

Revenue (Benefits) and Expense (Costs) Schedule for the San Marcos Conference Center - \$

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015						
Revenue Sources																
Hotel Occupancy Tax - Hammons Hotel	-	-	459,869	499,763	533,675	552,354	571,687	591,696	612,405	633,83						
Hotel Occupancy Tax - FY 2006 Allocation (7.0%)/ FY 2007 Allocation (21.5%)	85,420	264,985	267,635	270,311	273,014	275,744	278,502	281,287	284,100	286,94						
Tax Increment Financing Revenue from Hammons Hotel- City at 100%	-	-	188,080	189,961	191,860	193,779	195,717	197,674	199,65	199,65						
Tax Increment Financing Revenue from Hammons Hotel- County at 100%	-	-	156,800	158,368	159,952	161,551	163,167	164,798	166,44	166,44						
Tax Increment Financing Revenue from Hammons Hotel- School District at 0%	-	-	-	-	-	-	-	-	-	-						
Sales Tax - Telephone	-	-	2,521	2,741	2,928	3,031	3,137	3,247	3,360	3,478						
Sales Tax - Food	-	-	22,688	24,672	26,356	27,278	28,233	29,221	30,244	31,303						
Mixed Beverage Tax	-	-	3,163	3,439	3,674	3,802	3,936	3,975	4,015	4,055						
Hammons Contribution to Debt Service- Conference Center (aka Lease Amount)	-	-	338,168	338,168	338,168	338,168	338,168	338,168	338,168	338,168						
Capitalized Interest	-	930,258	-	-	-	-	-	-	-	-						
Total Revenue Sources	85,420	1,195,243	1,094,044	1,483,974	1,526,144	1,552,189	1,755,993	1,782,742	1,811,298	1,840,110						
Expenses																
Debt Service on Conference Center (Construction Costs)- San Marcos and Har	-	642,009	1,179,200	1,179,200	1,179,200	1,179,200	1,179,200	1,179,200	1,179,200	1,179,200						
Property Tax Loss (increases by 1% each year) - Land Value: \$653,400	-	-	-	-	-	-	-	-	-	-						
San Marcos Taxes	3,084	3,115	3,146	3,177	3,209	3,241	3,274	3,307	3,340	3,373						
Hays County Taxes	2,110	2,131	2,152	2,174	2,195	2,217	2,240	2,262	2,285	2,307						
Infrastructure Improvements	-	-	-	-	-	-	-	-	-	-						
Extension of Electric Utilities	-	73,875	-	-	-	-	-	-	-	-						
Expansion of McCarty Lane	-	2,000,000	-	-	-	-	-	-	-	-						
Insurance Coverage (increase by 5% each year)	-	-	55,000	55,000	55,550	56,106	56,667	57,233	57,806	58,384						
Total Expenses	5,194	2,721,130	1,184,498	1,239,551	1,240,155	1,855,764	1,857,555	1,857,427	1,855,380	1,856,411						
Excess/(Deficit)	80,226	(1,525,887)	(90,454)	244,423	285,989	(303,575)	(101,562)	(74,685)	(44,082)	(16,301)						
25 Year Totals																
656,023	678,984	685,774	692,632	699,558	706,554	713,619	720,755	727,963	735,243	742,523	749,803	757,083	764,363	771,643	778,923	16,036,73
289,810	292,708	295,635	298,592	301,578	304,593	307,639	310,716	313,823	316,961	320,099	323,237	326,375	329,513	332,651	335,789	7,567,65
201,647	203,664	205,700	207,757	209,835	211,933	214,053	216,193	218,355	220,539	222,708	224,881	227,054	229,227	231,400	233,573	4,835,24
168,111	169,792	171,490	173,205	174,937	176,686	178,453	180,238	182,040	183,860	185,668	187,479	189,290	191,101	192,912	194,723	4,031,06
3,600	3,726	3,856	3,991	4,131	4,275	4,425	4,580	4,740	4,906	5,068	5,231	5,394	5,557	5,720	5,883	99,524
32,398	33,532	34,706	35,920	37,178	38,479	39,826	41,220	42,662	44,155	45,614	47,082	48,549	50,017	51,484	52,952	895,76
4,095	4,136	4,281	4,431	4,586	4,746	4,913	5,085	5,262	5,447	5,627	5,808	5,989	6,170	6,351	6,532	113,51
515,010	514,966	514,260	514,396	513,788	513,938	514,762	514,680	513,690	514,792	514,601	514,680	514,601	514,601	514,601	514,601	12,141,47
1,870,694	1,901,508	1,915,702	1,930,924	1,945,591	1,961,204	1,977,690	1,993,467	2,008,535	2,025,903	2,124,908	2,141,122	2,157,335	2,173,549	2,189,762	2,206,190	46,651,23
1,795,550	1,796,275	1,794,525	1,795,300	1,793,325	1,793,600	1,795,850	1,794,800	1,795,450	1,792,525	1,792,525	1,792,525	1,792,525	1,792,525	1,792,525	1,792,525	413,639
3,407	3,441	3,475	3,510	3,545	3,580	3,616	3,652	3,689	3,726	3,763	3,801	3,839	3,877	3,916	3,955	91,058
2,331	2,354	2,377	2,401	2,425	2,449	2,474	2,499	2,524	2,549	2,574	2,600	2,626	2,652	2,679	2,706	62,294
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73,875
58,967	59,557	60,153	60,754	61,362	61,975	62,595	63,221	63,853	64,492	65,137	65,788	66,446	67,110	67,782	68,459	2,000,00
1,860,255	1,861,627	1,860,530	1,861,965	1,860,657	1,861,605	1,864,535	1,864,172	1,865,516	1,863,292	1,863,999	1,864,714	1,865,436	1,866,165	1,866,901	1,867,639	488,759,44
10,439	39,881	55,172	68,959	84,934	99,599	113,155	129,295	143,019	162,611	260,909	276,407	291,899	307,383	322,861	1,717,430	2,538,04

Appendix C

Structured Interview Questions

Structured Interview Questions: To clarify questions about the conference center project from factors and variables mentioned in the City of San Marcos' Data	
Questions	Response
1. What will the effect of traffic congestion from the conference center have on the city? i.e. Police services	
2. Are there any estimates on the indirect or secondary development that will occur from the project?	
3. Are property taxes expected to rise in this area?	
4. Is competition from conferences centers in close proximity a risk to San Marcos? i.e. New Braunfels, Austin, San Antonio. Why or Why Not?	
5. What is the environmental impact of the conference center at its present location?	
6. Is the project currently on budget? If not, why?	
7. Are infrastructure improvements to McCarty Lane and to the utility lines being paid for by the city? If so, how much will it be?	
8. Are there any expected meeting events to be booked when the conference center opens?	
9. Has there been interest from any entities about using the conference center for their event?	
10. Is limited hotel space a challenge for the city? If so, how is this expected to be resolved?	
11. How does the city estimate the benefit of job creation from a development such as the conference center?	
12. Is there any groups or people of major opposition to the project?	
13. Is there any unforeseeable benefits or costs not mentioned that should be covered?	

Appendix D

Present Value of Property Tax Revenue from Hammons Hotel- County (100%)

FY	Estimated Revenue	PV @ 3%	PV @ 7%	<i>i</i>
2006	-	-	-	1
2007	-	-	-	2
2008	-	-	-	3
2009	156,800	139,314.77	119,621.97	4
2010	158,368	136,609.63	112,914.20	5
2011	159,952	133,957.28	106,582.77	6
2012	161,551	131,355.75	100,605.84	7
2013	163,167	128,805.54	94,964.68	8
2014	164,798	126,303.94	89,639.19	9
2015	166,446	123,851.46	84,612.71	10
2016	168,111	121,446.96	79,868.33	11
2017	169,792	119,088.69	75,389.68	12
2018	171,490	116,776.35	71,162.25	13
2019	173,205	114,508.91	67,171.89	14
2020	174,937	112,285.40	63,405.22	15
2021	176,686	110,104.87	59,849.66	16
2022	178,453	107,967.00	56,493.65	17
2023	180,238	105,870.83	53,325.92	18
2024	182,040	103,814.87	50,335.58	19
2025	183,860	101,798.82	47,512.92	20
2026	185,668	99,805.70	44,841.25	21
2027	187,479	97,843.88	42,316.48	22
2028	189,290	95,911.68	39,930.14	23
2029	191,101	94,009.03	37,674.92	24
2030	192,912	92,135.85	35,543.88	25
2031	194,723	90,292.03	33,530.42	26
Totals: 2006 to 2031		2,603,859.24	1,567,293.53	

Present Value of Property Tax Revenue from Hammons Hotel- City (100%)

FY	Estimated Revenue	PV @ 3%	PV @ 7%	<i>i</i>
2006	-	-	-	1
2007	-	-	-	2
2008	-	-	-	3
2009	188,080	167,106.64	143,485.33	4
2010	189,961	163,862.03	135,439.57	5
2011	191,860	160,679.73	127,844.42	6
2012	193,779	157,560.06	120,675.82	7
2013	195,717	154,500.81	113,909.08	8
2014	197,674	151,500.66	107,521.56	9
2015	199,651	148,559.09	101,492.44	10
2016	201,647	145,674.08	95,801.04	11
2017	203,664	142,845.83	90,429.25	12
2018	205,700	140,071.69	85,358.19	13
2019	207,757	137,351.85	80,571.75	14
2020	209,835	134,685.10	76,053.86	15
2021	211,933	132,069.64	71,789.04	16
2022	214,053	129,505.59	67,763.70	17
2023	216,193	126,990.60	63,963.71	18
2024	218,355	124,524.81	60,376.98	19
2025	220,539	122,107.10	56,991.47	20
2026	222,708	119,716.70	53,786.98	21
2027	224,881	117,363.88	50,758.68	22
2028	227,054	115,046.56	47,896.40	23
2029	229,227	112,764.66	45,191.39	24
2030	231,400	110,518.09	42,635.32	25
2031	233,573	108,306.72	40,220.28	26
Totals: 2006 to 2031		3,123,311.92	1,879,956.24	

Appendix E

Present Value of Sales Tax Revenue from Hammons Hotel- Food

FY	Estimated Revenue	PV @ 3%	PV @ 7%	<i>i</i>
2006	-	-	-	1
2007	-	-	-	2
2008	22,688	20,762.73	18,520.17	3
2009	24,672	21,920.75	18,822.15	4
2010	26,356	22,734.92	18,791.46	5
2011	27,278	22,844.90	18,176.48	6
2012	28,233	22,956.01	17,582.09	7
2013	29,221	23,067.33	17,006.89	8
2014	30,244	23,179.51	16,450.73	9
2015	31,303	23,292.37	15,912.86	10
2016	32,398	23,405.00	15,392.06	11
2017	33,532	23,518.67	14,888.61	12
2018	34,706	23,633.10	14,401.76	13
2019	35,920	23,747.35	13,930.40	14
2020	37,178	23,863.14	13,475.02	15
2021	38,479	23,978.84	13,034.17	16
2022	39,826	24,095.38	12,607.89	17
2023	41,220	24,212.41	12,195.51	18
2024	42,662	24,329.54	11,796.40	19
2025	44,155	24,447.55	11,410.49	20
2026	45,614	24,519.77	11,016.38	21
2027	47,082	24,571.48	10,626.91	22
2028	48,549	24,599.38	10,241.26	23
2029	50,017	24,604.80	9,860.58	24
2030	51,484	24,589.05	9,485.88	25
2031	52,952	24,553.33	9,118.01	26
Totals: 2006 to 2031		567,427.32	334,744.16	

Appendix F

Present Value of Sales Tax Revenue from Hammons
Hotel- Mixed Beverages

FY	Estimated Revenue	PV @ 3%	PV @ 7%	<i>i</i>
2006	-			1
2007	-			2
2008	3,163	2,894.59	2,581.95	3
2009	3,439	3,055.51	2,623.60	4
2010	3,674	3,169.22	2,619.51	5
2011	3,802	3,184.12	2,533.43	6
2012	3,936	3,200.33	2,451.14	7
2013	3,975	3,137.90	2,313.49	8
2014	4,015	3,077.16	2,183.89	9
2015	4,055	3,017.30	2,061.36	10
2016	4,095	2,958.32	1,945.51	11
2017	4,136	2,900.91	1,836.43	12
2018	4,281	2,915.15	1,776.46	13
2019	4,431	2,929.41	1,718.42	14
2020	4,586	2,943.58	1,662.18	15
2021	4,746	2,957.55	1,607.63	16
2022	4,913	2,972.45	1,555.33	17
2023	5,085	2,986.90	1,504.47	18
2024	5,262	3,000.85	1,454.99	19
2025	5,447	3,015.87	1,407.61	20
2026	5,627	3,024.61	1,358.91	21
2027	5,808	3,030.98	1,310.87	22
2028	5,989	3,034.41	1,263.29	23
2029	6,170	3,035.07	1,216.33	24
2030	6,351	3,033.11	1,170.11	25
2031	6,532	3,028.70	1,124.72	26
Totals: 2006 to 2031		72,503.99	43,281.62	

Appendix G

Present Value of Sales Tax Revenue from Hammons Hotel-
Telephone Tax

FY	Estimated Revenue	PV @ 3%	PV @ 7%	<i>i</i>
2006	-	-	-	1
2007	-	-	-	2
2008	2,521	2,307.07	2,057.89	3
2009	2,741	2,435.34	2,091.10	4
2010	2,928	2,525.72	2,087.62	5
2011	3,031	2,538.41	2,019.68	6
2012	3,137	2,550.67	1,953.57	7
2013	3,247	2,563.21	1,889.78	8
2014	3,360	2,575.16	1,827.62	9
2015	3,478	2,587.96	1,768.04	10
2016	3,600	2,600.72	1,710.33	11
2017	3,726	2,613.34	1,654.39	12
2018	3,856	2,625.75	1,600.10	13
2019	3,991	2,638.52	1,547.78	14
2020	4,131	2,651.53	1,497.26	15
2021	4,275	2,664.04	1,448.09	16
2022	4,425	2,677.20	1,400.84	17
2023	4,580	2,690.27	1,355.06	18
2024	4,740	2,703.16	1,310.65	19
2025	4,906	2,716.33	1,267.80	20
2026	5,068	2,724.30	1,223.99	21
2027	5,231	2,730.02	1,180.71	22
2028	5,394	2,733.10	1,137.85	23
2029	5,557	2,733.68	1,095.54	24
2030	5,720	2,731.90	1,053.91	25
2031	5,883	2,727.92	1,013.03	26
Totals: 2006 to 2031		63,045.31	37,192.62	

Appendix H

Property Tax Loss from the Conference Center Site: 5 acres owned
by the City of San Marcos (tax exempt)

Tax Year	Collection Year	Land Value	City Tax Rate	City Zone Collection
2005	2006	\$653,400.00	\$0.472	\$3,084.05
2006	2007	\$659,934.00	\$0.472	\$3,114.89
2007	2008	\$666,533.34	\$0.472	\$3,146.04
2008	2009	\$673,198.67	\$0.472	\$3,177.50
2009	2010	\$679,930.66	\$0.472	\$3,209.27
2010	2011	\$686,729.97	\$0.472	\$3,241.37
2011	2012	\$693,597.27	\$0.472	\$3,273.78
2012	2013	\$700,533.24	\$0.472	\$3,306.52
2013	2014	\$707,538.57	\$0.472	\$3,339.58
2014	2015	\$714,613.96	\$0.472	\$3,372.98
2015	2016	\$721,760.10	\$0.472	\$3,406.71
2016	2017	\$728,977.70	\$0.472	\$3,440.77
2017	2018	\$736,267.47	\$0.472	\$3,475.18
2018	2019	\$743,630.15	\$0.472	\$3,509.93
2019	2020	\$751,066.45	\$0.472	\$3,545.03
2020	2021	\$758,577.12	\$0.472	\$3,580.48
2021	2022	\$766,162.89	\$0.472	\$3,616.29
2022	2023	\$773,824.52	\$0.472	\$3,652.45
2023	2024	\$781,562.76	\$0.472	\$3,688.98
2024	2025	\$789,378.39	\$0.472	\$3,725.87
2025	2026	\$797,272.17	\$0.472	\$3,763.12
2026	2027	\$805,244.89	\$0.472	\$3,800.76
2027	2028	\$813,297.34	\$0.472	\$3,838.76
2028	2029	\$821,430.32	\$0.472	\$3,877.15
2029	2030	\$829,644.62	\$0.472	\$3,915.92
2030	2031	\$837,941.07	\$0.472	\$3,955.08
2031	2032	\$846,320.48	\$0.472	\$3,994.63
Total City Zone Collection				\$95,053.09