

An Analysis of Company XYZs Owner Controlled Insurance Program

by

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A Research Paper

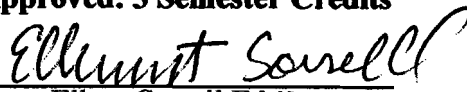
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ABSTRACT

The purpose of this study was to evaluate company XYZ's deductible owner controlled insurance program (OCIP) versus alternative risk financing options. In order to achieve the study's purpose the following objectives were developed and served as the basis of the study: provide an overview of the risk financing approaches for OCIPs, provide an overview of owner controlled insurance program including the overall cost of the program, conduct an analysis of the administrative costs associated with the owner controlled insurance program and compare the overall cost of owner controlled insurance program versus traditional insurance approach. The study includes 42 pages written in APA format.

The methodology in this study included a review of literature, past loss history on similar projects to identify the estimated or expected amount of loss and cost associated with company XYZ's planned construction project and an interview instrument that

specifically addressed the overall cost and administrative costs associated with company XYZ's owner controlled insurance program. The researcher was able to provide an overview of the risk financing approaches for OCIPs and the costs associated with an OCIP. The researcher was also able to provide an analysis of the administrative costs associated with an OCIP and compare the overall cost of an OCIP versus traditional insurance approach. The researcher found that there was an added cost benefit for company XYZ to use an OCIP versus traditional insurance approach. The researcher also identified recommendations and areas for further research pertaining to company XYZs owner controlled insurance program.

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## CHAPTER I: INTRODUCTION

The development of insurance began thousands of years ago for the function of transferring risk between individuals in the form of a contract. In the contract, the insurer agrees to pay for any financial loss the insured individual may suffer within the extent of the insurance contract, while the insured pays a premium to guarantee the contract (Grenier, 2001).

Today, insurance has evolved into a necessity for companies to finance and transfer their risks, especially in a large construction project. Some companies may finance their risk through risk retention where funds are set aside with the hopes of offsetting any unexpected financial claims. Companies may use risk transfer to help offset their losses, which is when the insurer bears the direct financial consequences of the loss for those actually experiencing the loss (Smith and et al, 1998). Other companies may use a combination of risk retention and risk transfer techniques such as deductibles, experience-rated insurance, loss-sensitive insurance (i.e. retrospective rated plans), captives or self-insurance (International Risk Management Institute, 1996).

Large construction projects contain numerous known and unknown risks that may involve the owner, designers, engineers, contractors or subcontractors. There are two different types of insurance approaches that the owners can utilize in order to help manage and mitigate the risks that arise from their contractors or subcontractors. The owner's first option may be to require the contractor and subcontractors to provide their own insurance coverage for exposures and risks during construction of the project, which can be considered the traditional approach that is used on the majority of projects today (Aon, 2004).



The owner may also use a wrap up insurance program also known as an owner controlled insurance program (OCIP), which insures specified risks of the owner and all contractors and subcontractors for a particular construction project (Aon, 2004). With respect to OCIPs, the owner provides insurance coverage and assumes the risks of all of those that are involved in the project, namely the contractors and subcontractors.

Company XYZ is an electrical utility company who is the project owner of a \$750 million construction project. The construction project has employed approximately 30 different contractors and subcontractors and 1200 construction workers during the project. During the beginning of the construction project company XYZ determined that this project may be a feasible candidate for consideration of an owner controlled insurance program, based on the expectation that an OCIP would cost less than if each contractor and subcontractor were to provide their own insurance. The expectation that an OCIP was the appropriate risk financing approach for this particular project has yet to be proven. Thus, the owner controlled insurance program utilized by company XYZ may not necessarily be the appropriate risk financing approach verses the traditional approach for a large construction project.

#### *Purpose of the Study*

The purpose of this study is to evaluate company XYZ's owner controlled insurance program versus alternative risk financing approaches.

#### *Goals of the Study*

The objectives of the study are:

1. Provide an overview of the risk financing approaches available for OCIPs.

2. Provide an overview of owner controlled insurance program including the overall cost of the program.
3. Conduct an analysis of the administrative costs associated with the owner controlled insurance program.
4. Compare the overall cost of owner controlled insurance program versus traditional insurance approach.

### *Background and Significance*

Company XYZ decided to undertake an OCIP in 2004 at the early stages of the construction project. The OCIP was introduced to Company XYZ by their broker because of the potential for cost savings on the construction project. The OCIP included workers compensation and general liability to everyone that was involved within the construction project.

The primary reason in the decision for Company XYZ to sponsor an OCIP was the expectation that the OCIP would cost less than the cost of each contractor providing insurance. But, there may be administration costs to the owner associated with the administration of the insurance program which could put the company at a higher financial disadvantage. These costs could include risk control efforts on the project, workers compensation management and third party administration efforts for the program.

Risk control efforts on the project include the management of the projects proactive safety program. Workers compensation management includes the management of each individual's claim after an injury has occurred, which includes early intervention between the injured employee, the employer and the treating medical facility (Smith and

et al, 1998). The third party administration effort helps to administer the workers' compensation program, which was also not included in the overall cost of the OCIP. Company XYZ has not critically analyzed the true cost of the owner controlled insurance program, which may actually be putting them at a financial disadvantage. This may be very important to company XYZ when considering future construction projects.

#### *Assumptions of the Study*

It is assumed that the Wisconsin workers' compensation rates did not change during this study and there was no significant change in the insurance market.

#### *Limitations of the Study*

There may be areas of potential weakness in the study. Examples of areas which there may be limitations to the study are:

1. Time may be an issue when completing this study. The researcher will have approximately five months to complete the study. It could be difficult to get follow-up information from the researcher's contact person within Company XYZ.
2. The study is limited to the owner controlled insurance program from 2004-2008.
3. The sampling population may in fact be relatively small to work with and may not be generalized to other company's.
4. The researcher may find it difficult to get needed information during the study.

*Definition of Terms*

Deductible - is the portion of the claim that is covered by the insured and not the insurance company (Weining, 2002)

Dividend - is a portion of the original premium that is refunded to the insured when loss ratios are equal to or below the maximum losses allowed for the insurance program (Weining, 2002)

Dividend plan - premiums are paid using standard rates and are usually paid based on a predetermined sliding scale (International Risk Management Institute, 2006)

Guaranteed cost insurance - is the purest form of risk transfer in which, the insurer agrees to reimburse any losses of the insured in exchange for a premium (Smith and et al, 1998)

Incurred-loss retrospective plan - the insured pays a deposit premium at the beginning of the policy, but the premium is determined by the predicted incurred losses for the policy period (Weining, 2002)

Insurance broker - performs tasks such as managing a company's workers' compensation cases (Aon, 2004)

Owner controlled insurance program – (aka wrap up) a single insurance program that insures specified risks of the owner and all contractors and subcontractors for a particular project (Aon, 2004)

Paid-loss retrospective plan - occurs when an insured pays a deposit premium at the beginning of the policy and pays the insurer for a part of the losses as they occur (Weining, 2002)

Participating plan - is participatory in nature and involves a very limited amount of loss sensitivity when calculating the premium (International Risk Management Institute, 2006)

Retrospective rated plan - is an insurance program where the final premium is calculated by using the losses experienced after the policy has ended (Weining, 2002)

Retention plan - involves retaining part of the loss, while transferring the rest to the insurance company (Wiening, 2002)

Traditional approach- approach of having each contractor and subcontractor provide its own insurance on a project to insure construction project risks (Aon, 2004)

Wrap up captive - captives retain and transfer risk and perform the same functions as an insurance company performs (Weining, 2002)

## CHAPTER II: Literature Review

The purpose of this study is to evaluate company XYZ's deductible owner controlled insurance program (OCIP) versus alternative risk financing approaches. In this chapter relevant literature will be reviewed for the purpose of analyzing and evaluating company XYZ's owner controlled insurance program. Based on the relevant review there appear to be two risk financing approaches available to company XYZ's construction project, which include a deductible program OCIP or traditional insurance approach. Traditional insurance approach is defined by Aon as having each contractor and subcontractor provide its own insurance on a project to insure construction project risks (2004).

The two risk financing approaches were determined through a preliminary feasibility study conducted by Aon, which determined the potential savings to the owner for implementing a deductible OCIP or traditional insurance approach (2004). The variables that determined the two risk financing approaches were determined by the project size, scope and duration of the project and the expected losses assumed on the project based on experience with similar projects in the past (Aon, 2004).

Additionally, this chapter will provide relevant literature allowing the goals of the study to be answered. The goals of the study include:

- Provide an overview of the risk financing approaches for OCIPs
- Provide an overview of owner controlled insurance program including the overall cost of the program
- Conduct an analysis of the administrative cost associated with the owner controlled insurance program

- Compare the overall cost of owner controlled insurance programs versus traditional insurance approach

#### *Overview of OCIP risk financing approaches*

The use of OCIPs can be traced back to the late 1940's and early 1950's with the boom of mega-construction projects (Marsh, 2008). An owner controlled insurance program (aka wrap up) is a single insurance program that insures specified risks of the owner and all contractors and subcontractors for a particular project (Aon, 2004).

Today OCIPs have evolved and include different OCIP risk financing approaches for workers' compensation insurance that may be used on construction projects (International Risk Management Institute, 2006). The OCIP risk financing approaches available present different levels of risk and potential cost savings for the project owner. Several OCIP risk financing approaches are available to the project owner, which include: guaranteed cost insurance, participating plans (i.e. dividend and retention plans), loss sensitive plans (i.e. deductible program or retrospective rated program) and wrap-up captives (International Risk Management Institute, 2006).

Guaranteed cost insurance is the most basic and conservative type of insurance plan (International Risk Management Institute, 2006). Guaranteed cost insurance is the purest form of risk transfer in which the insurer agrees to reimburse any losses of the insured in exchange for a premium (Smith and et al, 1998). This risk financing approach has administrative simplicity, favorable pricing, cost certainty and supportive loss control efforts and claims management (Pelland, 1997). This approach offers a greater certainty about the cost because it is fixed and is not going to fluctuate like a retrospective rating plan. Retrospective rated plans calculate the final premium, which is determined by the

losses experienced after the policy period has ended (Weining, 2002). Historically, a company that incurs less loss during the policy period will pay less than a company that experiences more loss during the same policy period (International Risk Management Institute, 1996).

A participating plan, such as a dividend or retention plan, is participatory in nature and involves a very limited amount of loss sensitivity when calculating the premium (International Risk Management Institute, 2006). A retention plan involves retaining part of the loss while transferring the rest, usually to the insurance company (Weining, 2002). A dividend is a portion of the original premium that is refunded to the insured when loss ratios are equal to or below the maximum losses allowed for the insurance program (Weining, 2002). Under a dividend plan premiums are paid using standard rates and are usually paid based on a predetermined sliding scale that is obtained from a range of net loss ratios (International Risk Management Institute, 2006). There is a risk inherent to this approach because dividends cannot be guaranteed, which is similar in style to retrospective rating plans (International Risk Management Institute, 2006).

There are two types of retrospective plans that are available. A paid-loss retrospective rating plan is where an insured pays a deposit premium at the beginning of the policy and pays the insurer for a part of its losses as they occur. Another retrospective rating plan is an incurred-loss retrospective. Here the insured also pays a deposit premium at the beginning of the policy, but the premium is determined by the predicted incurred losses for the policy period. At the end of the policy the insured may be refunded a portion of the premium if losses are kept at a minimum, while on the other hand the insured may also pay additional money towards the premium if losses were



higher than predicted at the end of the policy period (Weining, 2002). A loss sensitive plan usually generates a refund for low losses and charges additional premiums for high losses (GAO, 1999). A typical retrospective premium is determined using a formula, which is calculated by adding the basic premium, the converted losses, the excess loss premium and the retro development premium, and multiplying this by the tax multiplier. This amount then equals the retro premium (Ex:  $(BP+CL+ELP+RDL) \times TM = RP$ ).

A variation of a dividend plan is a retention plan, in which a base premium or retention amount is established to cover purchase costs, administrative costs, loss control expenses and claims handling expenses of a controlled insurance program (International Risk Management Institute, 2006). The retention amount is the minimum premium that the project owner will pay, even if the project experiences no losses. The base premium minus the retention amount will be available for the payment of losses and loss adjustment expenses. If there are in fact any funds remaining at the end of the adjustment they will be returned to the project owner as a dividend, which may not be guaranteed because of the financial risk that is inherent to this risk financing option (International Risk Management Institute, 2006).

An increasing amount of controlled insurance programs are currently written as some form of loss sensitive plan, which typically includes a deductible program or retrospective rate plan (International Risk Management Institute, 2006). A deductible is the portion of a claim that is covered by the insured and not the insurance company. In order to keep insurance premiums low the insured must agree to a high deductible. The insured retains losses below the deductible level, while transferring the costs of losses that would exceed the deductible level (Weining, 2002).

Under this plan the insurer is responsible for making payments for the loss, and thereafter the insurer bills the insured's for the portion of the loss that would fall within the deductible (International Risk Management Institute, 2006). In order to protect the insurance company they require a letter of credit and an account fund set aside for expected losses.

The other loss sensitive plan available as an owner controlled insurance program is a retrospective rated plan. There are two types of retrospective plans that are available. A paid-loss retrospective rating plan is where an insured pays a deposit premium at the beginning of the policy and pays the insurer for a part of its losses as they occur. Another retrospective rating plan is an incurred-loss retrospective. Here the insured also pays a deposit premium at the beginning of the policy, but the premium is determined by the predicted incurred losses for the policy period. At the end of the policy the insured may be refunded a portion of the premium if losses are kept at a minimum, while on the other hand the insured may also pay additional money towards the premium if losses were higher than predicted at the end of the policy period (Weining, 2002). A loss sensitive plan usually generates a refund for low losses and charges additional premiums for high losses (GAO, 1999).

Since most losses are not paid immediately because they may require months or years to develop properly, the owner (insured) gains the cash flow benefits associated with the delayed payments (International Risk Management Institute, 2006). According to the International Risk Management Institute, loss sensitive plans may present the OCIP sponsor with greater risk, but may also offer the opportunity for greater cost savings (2006).

The final risk finance approach available to controlled insurance program sponsors is a wrap up captive. A wrap up captive is an innovative approach that may offer many financial advantages (Parry, 1999). Captives can be subsidiaries of a single company or between several companies, which is a group captive. Captives usually retain and transfer risk and perform the same function an insurance company would perform (Weining, 2002). The losses that can not be retained are usually transferred through the purchase of reinsurance, which helps transfer some of the risk of loss to another insurance company (Weining, 2002).

Through this approach some insurers will allow reinsurance of an OCIP through the owner's captive insurance company. This will be a viable option if the OCIP sponsor is involved in a number of major construction projects (International Risk Management Institute, 2006). Additionally, each one of these OCIP risk financing approaches has costs that are associated with each one.

*Overall costs associated with an owner controlled insurance program*

The insurance industry created an insurance program, known as a wrap-up or owner controlled insurance program, for insuring large construction projects. The term wrap-up is derived from the concept of pooling or "wrapping" the risks of several parties into a single insurance program (Aon, 2004).

Traditionally each of the parties involved in a construction project must purchase insurance to help cover themselves from the risks and losses associated within a construction project (International Risk Management Institute, 2006). Many of these risks and/or losses are allocated between everyone involved within a construction project. The

parties that are involved in a construction project include: owner, construction manager, general contractor and subcontractors (International Risk Management Institute, 2006).

The traditional insurance approach usually gives the responsibility to each party involved in a large construction project the obligation of providing their own insurance for exposures that are inherent to the specific project. Each individual party is usually in the best position to evaluate, measure, and control the risk associated with the exposure, which makes this approach both valid and reasonable (International Risk Management Institute, 2006). The traditional approach may bring with it inefficiencies associated with having many different options and overlaps in risk control, claims handling and insurance coverage's on the construction project (International Risk Management Institute, 2006).

These gaps, overlaps and inefficiencies in insurance coverage may affect the project cost, which may directly impact the owner (International Risk Management Institute, 2006). Additionally, in an article written by the GAO, when contractors and subcontractors buy separate insurance policies (i.e. traditional insurance approach) it creates inefficiencies because it results in a duplication and overlap when contractors are insuring themselves for the same type of risks (1999).

To address these inefficiencies wrap-up or owner controlled insurance programs have been developed as a way to drive down project costs (Aon, 2004). Pooling the insurance purchase for all contractors reduces the total insurance cost (Aon, 2004). Wrap-up insurance programs can reduce the cost of workers' compensation costs by as much as 25-50% (Aon, 2004).

There are many factors and considerations the owner shall take into account when factoring the overall cost of an OCIP. The owner of the project may potentially

experience a total construction project cost by approximately one to two percent lower when compared to traditional insurance programs (Lynch, 2005). A study conducted by the Risk and Insurance Management Society provided statistical data from 30 contractors on the cost of risk based on their annual revenue. The largest contractors in this study indicated a cost of risk to be approximately \$25 per \$1000 of revenue. On the other hand, an OCIP provided insurance cost would be less than \$20 per \$1000 of revenue. Assuming that the contractors bid the project without insurance, it can be assumed that the project would save the owners 2% of overall construction costs (Grenier, 2001).

Hiring a safety management staffing team, which helps to effectively manage the site's safety program, is another additional cost associated with an OCIP. Most times owners hire safety engineers to help supplement the safety program at the site (GAO, 1999). OCIPs stress job site safety, and this is done through the risk control and site safety programs that are many times managed and implemented by the owner (GAO, 1999). According to the National Cooperative Highway Research Program an OCIP safety and loss control program assists in achieving accident and loss reductions by:

- Education
- Encouraging safe work practices and attitudes
- Awareness of factors that create accident situations
- Training
- Use of safety equipment and personal protective equipment (PPE)
- Monitoring of compliance to regulations and
- Inspections and enforcement actions (2002)

In a similar article written by Grenier, a good safety program is critical to minimize OCIP losses. According to Grenier a safety program should have the following characteristics:

- Structured written safety manual that is site specific
- Contractor safety prequalification procedures
- Safety training, monitoring and safety audits
- Full-time safety representatives and onsite safety staffing
- Safety orientation process
- Drug and alcohol testing programs (2001)

A further cost associated with managing the OCIP is having a medical staff on-site, which will help to manage the first aid cases before they become workers' compensation issues and normally will complete drug testing that typically runs \$35 per test and approximately \$25/hr. - \$50/hr. to staff a paramedic (Aon, 2004).

#### *OCIP Administrative Costs*

The last cost associated with an OCIP is the additional administrative costs. In order to effectively implement and manage an OCIP there is an additional administrative load on the organization when using an OCIP. According to Lynch, owners may also experience an additional administrative burden associated with the OCIP (2005).

According to an article written by Grenier, some key implementation and administrative duties would include:

- Preparation of written manual with information about implementation procedures, insurance coverage's and limits, safety programs, claims reporting, record keeping and other OCIP requirements.

- Preparation of insurance clauses for bid documents and contract administration.
- Contractor and subcontractor orientation.
- Provide evidence of insurance information not provided within the OCIP for contractors.
- Prepare claims administration procedures for insurers and/or claims administer.
- Review of contractor bid deductions for all OCIP provided coverage's.
- Review of initial bids and change orders to ensure correct insurance deductions.
- Collect payroll data from contractors and complete payroll audits (2001).

Additionally, according to Aon, an OCIP involves various administration efforts from employees of the owner's risk management and project management team (2004). Owner employees participate in various meetings to obtain and evaluate the insurance coverage, training and implementation of the program and ongoing administration and monitoring of the program. Some of the following meetings and risk management activities may include:

- Agent/broker selection
- Underwriter pre-quotation meeting
- Insurance quotation review
- Review policies
- Execute agreements between owner and insurer
- Execute agent/broker agreement

- Meeting with the department of workforce development for approval
- Kick off meeting with project team, insurer claims and loss control
- Pre-bid meetings
- Quarterly claims loss reports review (2004)

In 1998 the Transit Construction Roundtable surveyed transit agencies regarding their use of wrap up insurance and their administrative burdens. According to the survey, all the respondents confirmed that the wrap up insurance program added an additional administrative burden that included time, money and resources (GAO, 1999). One of the biggest issues with the literature regarding OCIPs is the lack of quantifiable data regarding administrative costs associated with an OCIP.

It takes time and many resources from the owner in order to effectively plan and implement the OCIP. The program requires administrative work from the owner's employees, outsourced brokers and/or risk management consultants, such as third party administrators (Kang and et al, 2007). Some of the administrative burden is claims management (i.e. primarily workers' compensation management) and outsourced third party administration efforts. Additionally, third party administrative costs vary by broker and the level of services provided, which may run \$500,000-\$750,000, based on a 36 month rotation (Aon, 2004).

A number of departmental resources such as legal, human resources, accounting, finance, purchasing, facilities and construction, safety and risk management are involved throughout the OCIP implementation and administration (Grenier, 2001). These additional resources would be putting an additional burden and constraint on the



organization's resources. The time burden placed on the risk management department would be the greatest during the implementation and administration of the OCIP.

Typically, the greatest time expenditure to the owner will be on the design and implementation of the OCIP. However, once the OCIP is in place, the time required for administration may be reduced from the initial implementation (Grenier, 2001).

#### *Cost of OCIP's versus Traditional Insurance Approaches*

One of the first steps when determining if an OCIP shall be used for the particular construction site is to estimate the cost of contractor insurance costs. The methodology that is used by Aon to anticipate the potential cost savings is to take the manually published workers' compensation rate and discount it for reductions in rates that contractors experience based on historical loss experience (EMR), premium discounts, safety discounts and loss sensitive financing approaches (Aon, 2004).

Additionally, the estimated amount of payroll as defined by the workers' compensation rating rules, must be taken into account (Aon, 2004). According to a study completed by Aon, the estimated cost of workers' compensation for company XYZ's construction project was \$9,265,962. The initial study also assumed that company XYZ's total construction cost was \$750 million and the workers' compensation (WC) payroll percentage was estimated at 18% of construction cost. The whole process to estimate the workers' compensation costs for the contractors is illustrated in Table 1 below.

Table 1

<b>WC Code</b>	<b>WC Classification</b>	<b>Dist. Of CV</b>	<b>Estimated Construction Value</b>	<b>Estimated 18% WC Payroll</b>	<b>WI WC Rate</b>	<b>Estimated WC Premium</b>
0042	Landscaping	.60%	4,500,000	810,000	9.52	77,112
3724	Machinery Install	2.10%	15,750,000	2,835,000	9.49	269,042
3726	Boiler Installation	17.00%	127,500,000	22,950,000	8.49	1,948,455

5022	Masonry	.90%	6,750,000	1,215,000	17.44	211,896
5040	Steel Erection	11.40%	85,500,000	15,390,000	39.18	6,029,802
5160	Elevator Install	.20%	1,500,000	270,000	5.28	14,256
5183	Plumbing	12.50%	93,750,000	16,875,000	6.40	1,080,000
5183	Boiler Insulation	3.30%	24,750,000	4,455,000	6.40	285,120
5188	Sprinkler	.20%	1,500,000	270,000	5.19	14,013
5190	Electrical	18.00%	135,000,000	24,300,000	4.78	1,161,540
5213	Concrete	3.00%	22,500,000	4,050,000	11.96	484,380
5403	Carpentry	2.60%	19,500,000	3,510,000	18.46	647,946
5445	Drywall	.70%	5,250,000	945,000	15.39	145,436
5462	Glazier	.10%	750,000	135,000	14.43	19,481
5474	Painting	.90%	6,750,000	1,215,000	11.44	138,996
5478	Carpet	.20%	1,500,000	270,000	9.12	24,624
5479	Insulation	.50%	3,750,000	675,000	14.33	96,728
5538	Sheet Metal	3.10%	23,250,000	4,185,000	7.27	304,250
5551	Roofing	.10%	750,000	135,000	40.73	54,986
5606	Exec. Supervision	12.00%	90,000,000	16,200,000	2.15	348,300
6217	Excavation	2.00%	15,000,000	2,700,000	7.16	193,320
8810	Clerical	2.10%	15,750,000	2,835,000	.30	8,505
9534	Crane & Hoisting	6.50%	48,750,000	8,775,000	11.13	976,658
	<b>Total</b>	<b>100%</b>	<b>750,000,000</b>	<b>135,000,000</b>	<b>10.77</b>	<b>14,534,843</b>
<b>Estimated Manual Premium Before Discounts</b>						<b>14,534,843</b>
<b>Discount for EMR's, Current Market Conditions &amp; Self-Insureds</b>						<b>-36.25%</b>
<b>Estimated Cost for Contractors Workers' Compensation</b>						<b>9,265,962</b>

According to a similar OCIP cost analysis study completed at the Marquette Interchange project completed by Kang and et al, the OCIP lowered workers compensation costs by 19% (2007). They conducted their analysis using the logic of estimating the cost of the contractor's insurance compared to the cost of providing an OCIP program (Kang et al, 2007). The workers compensation of the Marquette Interchange Project was a loss sensitive retrospective plan, which would be similar to company XYZ's loss sensitive deductible plan. The \$650,000,000 project was broken down into eight job classifications. Product of payroll and the corresponding workers' compensation rate provides the estimated workers' compensation premium as shown in Table 2 (Kang et al, 2007).

Table 2

<b>WC Code</b>	<b>WC Classification</b>	<b>Estimated Construction Value</b>	<b>Estimated WC Payroll</b>	<b>Wisconsin WC Rate</b>	<b>Estimated WC Premium</b>
0042	Landscaping	45,500,000	9,100,000	9.52	866,320
5213	Concrete Drives	39,000,000	7,800,000	11.96	932,880
5222	Concrete Bridges	149,500,000	29,900,000	7.34	2,194,660
5506	Street or Road	338,000,000	67,600,000	8.79	5,942,040
5190	Electrical	45,500,000	9,100,000	4.78	434,980
5437	Carpentry	11,375,000	2,275,000	2.15	48,913
5606	Exec. Supervision	14,625,000	2,925,000	0.30	8,775
8810	Clerical	6,500,000	1,300,000	9.54	124,020
<b>Estimated Manual Premium Before Discount:</b>					<b>\$ 10,552,588</b>
<b>Discount for Current Market Condition &amp; Self-Insureds:</b>					<b>35%</b>
<b>Estimated Cost For Contractors Worker's Compensation:</b>					<b>\$ 6,859,182</b>
<b>Average Annual Worker's Compensation cost:</b>					<b>\$ 1,371,836</b>

Using a retrospective plan OCIP the annual workers' compensation premium would have been \$1,113,641 or a 19% savings in premium as outlined in Table 3 (Kang et al, 2007).

Table 3

<b>Factors</b>	<b>Formula</b>	<b>Amount</b>
Payroll <sup>a</sup>		42,893,278
Basic Premium	1.944% <sup>b</sup> * Payroll =	833,845
Losses (2005-2006) <sup>a</sup>		1,309,834
Loss Conversion Factor <sup>b</sup>		1
Tax Multiplier <sup>b</sup>		1.039
Premium (2005-2006)	(Basic premium + (Losses * LDF)) * Tax Multiplier =	2,227,283
<b>Average Annual WC cost:</b>		<b>\$1,113,641</b>

According to the cost analysis of the Marquette Interchange, there were assumptions that were made such as the estimation of payroll, losses and market conditions (Kang et al, 2007). The study was also noted to be more illustrative and hypothetical than empirical in nature (Kang et al, 2007).

The owner may experience lower construction costs when using an OCIP, but there are also many costs associated with providing safe construction under the controlled insurance program (International Risk Management Institute, 2006). According to the International Risk Management Institute these additional costs will be endured by the owner, who is taking the financial risk (2006). Among the owner's cost is administration of the program and additional safety staff overseeing the activities of the contractors and subcontractors.

There are many costs associated with providing safe construction when using an OCIP that the owner of the project may experience. The majority of these additional expenses will be indirect, which may be difficult to track and measure (International Risk Management Institute, 2006). Typically these indirect costs are not factored into the OCIP when determining the overall cost of the program.

Another issue with OCIPs is whether cost savings are accurately measured because it may in fact be difficult to prove (Kang and et al, 2007). Sometimes it is difficult to determine if in fact the contractors have actually bid a project without their insurance costs when bidding work on an OCIP construction project. To determine if contractors have bid a project without insurance, owners need to pay close attention to whether or not contractors and subcontractors have carved out their own insurance premiums out of their bids (Kang and et al, 2007). Contractors that bid on an OCIP project with insurance would be following the traditional approach and the project owner would not be experiencing a cost benefit from using the OCIP.

*Summary*

A review of literature identifies the risk financing approaches available to the owner of a large construction project. A traditional insurance approach is a simple insurance design that allows each party to provide their own insurance, but this approach may not be appropriate for each particular project because of the lack of cost benefits to the project owner. Guaranteed cost insurance is the most basic and conservative type of insurance plan. This risk financing approach has administrative simplicity, favorable pricing, cost certainty and supportive loss control efforts and claims management.

A participating plan, such as a dividend or retention plan is participatory in nature and involves a very limited amount of loss sensitivity when calculating the premium. Under a dividend plan premiums are paid using standard rates and are usually paid based on a predetermined sliding scale that is obtained from a range of net loss ratios. There is a risk inherent to this approach because dividends cannot be guaranteed, which is similar in style to retrospective rating plans. A variation of a dividend plan is a retention plan, in which a base premium or retention amount is established to cover purchase costs, administrative costs, loss control expenses and claims handling expense of a controlled insurance program.

An increasing amount of controlled insurance programs are currently written as some form of loss sensitive plan, which includes a deductible program or retrospective rate plan. When using a deductible program the insurer is responsible for making payments for the loss and thereafter the insurer bills the insured's for the portion of the loss that would fall within the deductible. A loss sensitive plan usually generates a refund for low losses and charges additional premiums for high losses.

The two forms of retrospective rate plan are a paid-loss retrospective rating plan or an incurred-loss retrospective rating plan. When using a paid-loss retro the insured pays a deposit premium at the beginning of the policy, but the premium is determined by the predicted incurred losses for the policy period. An incurred-loss retrospective is when the insured also pays a deposit premium at the beginning of the policy, but the premium is determined by the predicted incurred losses for the policy period.

A wrap up captive is an innovative approach that may offer many financial advantages. The losses that can not be retained are usually transferred through the purchase of reinsurance, which helps transfer some of the risk of loss to another insurance company. This will be a viable option if the OCIP sponsor is involved in a number of major construction projects.

Of the different risk financing options available, a construction project owner needs to determine which option is the most viable when is planning to sponsor an OCIP. Along with the risk financing options available, a project owner has to analyze all the financial risks and resources that may be needed when sponsoring an OCIP. These financial risks could be considered the additional administrative costs, and indirect costs associated with the OCIP.

### CHAPTER III: METHODOLOGY

The purpose of this study was to evaluate company XYZ's deductible owner controlled insurance program versus alternative risk financing approaches. To achieve this purpose, goals were developed to:

1. Provide an overview of the risk financing approaches available for OCIPs
2. Provide an overview of owner controlled insurance program including the overall cost of the program.
3. Conduct an analysis of the administrative costs associated with the owner controlled insurance program.
4. Compare the overall cost of owner controlled insurance program versus traditional insurance approach.

The sections that will be addressed in this chapter include subject selection and description, instrumentation, data collection procedures, data analysis and limitations.

#### *Subject Selection and Description*

Participants were chosen based on their subject matter expertise, specifically focusing on the owner controlled insurance program. The participant within the study will include the director of insurance of company XYZ. The researcher approached the subject to ask him/her to participate in the study.

The participants agreed to participate in the study, and the researcher explained the informed consent and interview process required to obtain information for the researcher. The researcher assured the participant that no names would be linked to the information provided within the study. Next, the researcher asked the participant detailed questions regarding the owner controlled insurance program for the study.

### *Instrumentation*

The following instrumentation was used to collect and analyze the data:

- A participant interview questionnaire regarding the owner controlled insurance program, including an analysis of the administration costs of the owner controlled insurance program.
- An analysis regarding the estimated cost of traditional insurance approach on company XYZ's construction project.
- An analysis of the estimated cost and losses associated with company XYZ's owner controlled insurance program.

### *Data Collection Procedures*

The process of interviewing the participant at company XYZ allowed for the researcher to collect needed information regarding the administration costs associated with the owner controlled insurance program. The interview was performed by the researcher and participant.

### *Data Analysis*

The data analysis was performed using:

- A literature review relating to owner controlled insurance programs.
- Past loss history on similar projects to identify the estimated or expected amount of loss and cost associated with company XYZ's planned construction project.
- Experienced losses and costs associated with company XYZ's owner controlled insurance program.



- Costs associated with the overall administration and costs associated with implementing and administering company XYZ's owner controlled insurance program.

#### *Limitations of the Study*

This study may have potential weaknesses and limitations. Examples of areas where there may be limitations to the study are:

1. Time may be an issue when completing this study. The researcher will have approximately five months to complete the study. It could be difficult to get follow-up information from the researcher's contact person within Company XYZ.
2. The study is limited to the owner controlled insurance program from 2004-2008.
3. The sampling population may in fact be relatively small to work with and may not be generalized to other companies.
4. The researcher may find it difficult to get needed information during the study.

## Chapter IV: Results

### *Introduction*

The purpose of this study was to evaluate company XYZ's deductible owner controlled insurance program versus alternative risk financing approaches. The objectives of the study were:

1. Provide an overview of the risk financing approaches available for OCIPs.
2. Provide an overview of owner controlled insurance program including the overall cost of the program.
3. Conduct an analysis of the administrative costs associated with the owner controlled insurance program.
4. Compare the overall cost of owner controlled insurance program versus traditional insurance approach.

In order to achieve the study's objectives, the methodology in this study included a review of literature, the use of an interview instrument and an analysis of data using expected project workers' compensation losses relative to actual project losses. The literature review was used to provide information regarding the first objective. Table 4 breaks down the overview of the risk financing approaches available for OCIPs.

The interview instrument was an onsite interview with the director of insurance from company XYZ. The interview instrument specifically provided questions regarding the second and third objectives, which included the overall cost and the administration cost associated with company XYZ's owner controlled insurance program.

The fourth objective used the analysis of data which included the expected project workers' compensation costs that were determined from similar types of projects. This

data was used to contrast the cost of the OCIP to a traditional insurance approach. The expected workers' compensation cost was then compared to the actual workers' compensation losses that were experienced at company XYZ's construction project. Along with the actual workers' compensation losses, the total administration costs were also added into the overall cost of managing the owner controlled insurance program.

*Presentation of Collected Data*

Table 4

Objective I: Provide an overview of the risk financing approaches available for OCIPs.

Guaranteed Cost OCIP	<ul style="list-style-type: none"> <li>• Administrative simplicity</li> <li>• Favorable pricing</li> <li>• Greater cost certainty</li> <li>• Supportive loss control efforts and claims management</li> </ul>
Dividend Plan OCIP	<ul style="list-style-type: none"> <li>• Participatory in nature</li> <li>• Very limited amount of loss sensitivity</li> <li>• Portion of the original premium is refunded to the insured when loss ratios are below the maximum losses allowed</li> <li>• Dividends cannot be guaranteed</li> </ul>
Retention Plan OCIP	<ul style="list-style-type: none"> <li>• Participatory in nature</li> <li>• Involves retaining part of the loss and transferring the rest to the insurance company</li> <li>• Very limited amount of loss sensitivity</li> </ul>
Deductible OCIP	<ul style="list-style-type: none"> <li>• Portion of the claim is covered by the insured</li> <li>• Once the losses reach a certain price level, they are covered by the insurance company</li> </ul>
Retrospective Rated OCIP	<ul style="list-style-type: none"> <li>• Generates a refund for low losses and charges additional premiums for high losses</li> <li>• Owner gains cash flow benefits associated with delayed payments</li> <li>• Greater risk, but may also offer the opportunity for greater cost savings</li> </ul>
Wrap Up Captive OCIP	<ul style="list-style-type: none"> <li>• Many financial advantages</li> <li>• Losses are usually retained or transferred between several</li> </ul>

	<p>companies</p> <ul style="list-style-type: none"> <li>• Losses that can not be retained are usually transferred through reinsurance</li> <li>• Viable option if OCIP sponsor is involved in many major construction projects</li> </ul>
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*Results from Interview Instrument*

Table 5

Objective II: Provide an overview of owner controlled insurance program including the overall cost of the program.

<i>Question 1 from Interview Instrument:</i>	<i>Would you say that there was an additional administrative burden for company XYZ, associated with the owner controlled insurance program?</i>
Response Director of Insurance:	Yes, the OCIP does require proper management and administration. A company's involvement can be minimized by hiring a contractor to perform much of the OCIP administration. We put out a request for proposal and reviewed several vendors before selecting our OCIP vendor. In our case, we selected a recognized insurance brokering company was chosen to assist in buying the necessary insurance and also providing case management support for the OCIP. This method lessened the burden on me and our project team.
<i>Question 2 from Interview Instrument:</i>	<i>What would you say is the administrative cost associated with company XYZ's owner controlled insurance program?</i>
Response Director of Insurance:	For our OCIP we hired contractors to manage the safety and on-site medical treatment programs and we hired the insurance broker to purchase insurance and manage the OCIP claims process. The total fee paid to the broker as an administration fee was approximately \$780,000 for the approximately four year project. In addition, the time spent by company XYZ personnel is an additional cost.
<i>Question 3 from Interview Instrument:</i>	<i>How much time was spent by company XYZ planning the owner controlled insurance program?</i>
Response Director of Insurance:	The planning began approximately one year prior to the project construction start date. It was important to have the program developed to enough detail to include the OCIP into the contracts

	being issued to vendors.
<i>Question 4 from Interview Instrument:</i>	<i>Who was involved in managing the owner controlled insurance program and the associated workers' compensation claims?</i>
Response Director of Insurance:	The director of insurance was actively involved in interfacing with the broker and the project team. Quarterly meetings were held at the site with the State of Wisconsin Division of Workforce Development, our insurer, the project team and our broker. Claims status, contractor enrollment issues, and the safety program update were always on the agenda. The insurance company's adjusters would actively manage any open insurance claims. Our broker had a claims manager assigned to our program. The claims manager reviewed the status of the insurer's claims processing and would provide status reports at our quarterly meetings. The claims manager also provided a summary of claims by type and by contractor to the safety manager. The safety manager onsite would follow up with contractors as appropriate.
<i>Question 5 from Interview Instrument:</i>	<i>How much time and money was spent managing the workers' compensation claims by company XYZ or contract employees of company XYZ?</i>
Response Director of Insurance:	The claims were adjusted by the insurer and the broker provided concise summaries for the project team's assessment. The cost for the broker service was \$780,000, which are also discussed in question 2. The project staff and safety manager would review the reports and meet with contractors as required to follow up on any adverse safety trends.
<i>Question 6 from Interview Instrument:</i>	<i>How much time was spent on a monthly basis managing the owner controlled insurance program? And the associated costs?</i>
Response Director of Insurance:	The amount of time varied depending on the status of the project. During early stages much more time is needed to address issues that arise as the new process is being implemented. On our project I would estimate that approximately 10% of my time over the last four years was spent on the OCIP administration. If we did not hire a broker to administer the process, the director of insurance would be spending more time and so would other members of our staff.
<i>Question 7 from Interview Instrument:</i>	<i>What was the cost of hiring an onsite medical staff?</i>

Response Director of Insurance:	The approximate estimate of the cost of hiring an onsite medical staff was \$260,000 over the four year span of the project. The medical staff consisted of one full time medical professional onsite approximately 50 hours per week.
<i>Question 8 from Interview Instrument:</i>	<i>What was the cost of hiring a construction management company to manage the construction sites' safety program?</i>
Response Director of Insurance:	The contractor did provide approximately four full time equivalent employees that were dedicated to safety management. Also our contracts required any vendor with more than 30 employees' onsite to provide their own site safety manager that was dedicated to safety management. It would be a reasonable assumption that approximately \$250,000 annually of the construction company's contract price was associated with safety management. The total estimated cost would be \$1,000,000.

Table 6

Objective III: Conduct an analysis of the administrative costs associated with an owner controlled insurance program.

*Company XYZ's owner controlled insurance program administration costs (2004-2008):*

<b>OCIP Administration Activities</b>	<b>Estimated Administration Cost</b>
3 <sup>rd</sup> Party Administrator (Broker)	\$780,000
Project Safety Management	\$1,000,000
On-site Medical Staff	\$260,000
Company XYZ estimated Internal Administration Cost	\$100,000

*Results from Data Analysis*

Table 7

*Company XYZ's construction project expected workers' compensation losses (2004-2008):*

<b>WC Code</b>	<b>WC Classification</b>	<b>Dist. Of CV</b>	<b>Estimated Construction Value</b>	<b>Estimated 18% WC Payroll</b>	<b>WI WC Rate</b>	<b>Estimated WC Premium</b>
0042	Landscaping	.60%	4,500,000	810,000	9.52	77,112
3724	Machinery Install	2.10%	15,750,000	2,835,000	9.49	269,042
3726	Boiler Installation	17.00%	127,500,000	22,950,000	8.49	1,948,455
5022	Masonry	.90%	6,750,000	1,215,000	17.44	211,896
5040	Steel Erection	11.40%	85,500,000	15,390,000	39.18	6,029,802
5160	Elevator Install	.20%	1,500,000	270,000	5.28	14,256
5183	Plumbing	12.50%	93,750,000	16,875,000	6.40	1,080,000
5183	Boiler Insulation	3.30%	24,750,000	4,455,000	6.40	285,120
5188	Sprinkler	.20%	1,500,000	270,000	5.19	14,013
5190	Electrical	18.00%	135,000,000	24,300,000	4.78	1,161,540
5213	Concrete	3.00%	22,500,000	4,050,000	11.96	484,380
5403	Carpentry	2.60%	19,500,000	3,510,000	18.46	647,946
5445	Drywall	.70%	5,250,000	945,000	15.39	145,436
5462	Glazier	.10%	750,000	135,000	14.43	19,481
5474	Painting	.90%	6,750,000	1,215,000	11.44	138,996
5478	Carpet	.20%	1,500,000	270,000	9.12	24,624
5479	Insulation	.50%	3,750,000	675,000	14.33	96,728
5538	Sheet Metal	3.10%	23,250,000	4,185,000	7.27	304,250
5551	Roofing	.10%	750,000	135,000	40.73	54,986
5606	Exec. Supervision	12.00%	90,000,000	16,200,000	2.15	348,300
6217	Excavation	2.00%	15,000,000	2,700,000	7.16	193,320
8810	Clerical	2.10%	15,750,000	2,835,000	.30	8,505
9534	Crane & Hoisting	6.50%	48,750,000	8,775,000	11.13	976,658
	<b>Total</b>	<b>100%</b>	<b>750,000,000</b>	<b>135,000,000</b>	<b>10.77</b>	<b>14,534,843</b>
<b>Estimated Manual Premium Before Discounts</b>						<b>14,534,843</b>
<b>Discount for EMR's, Current Market Conditions &amp; Self-Insureds</b>						<b>-36.25%</b>
<b>Estimated Cost for Contractors Workers' Compensation</b>						<b>9,265,962</b>

Table 8

*Company XYZ's construction project actual workers' compensation losses, insurance premium cost and total administration cost (2004-2008):*

<b>Total Administrative Costs</b>	<b>Estimated Actual Workers' Compensation Losses</b>	<b>Total OCIP Workers' Compensation Insurance Premium</b>	<b>Total Cost of OCIP Approach</b>
\$2,140,000	\$1,100,000	\$3,850,000	\$7,090,000

Table 9

Objective IV: Compare the overall cost of owner controlled insurance program versus traditional insurance approach.

*Company XYZ's overall OCIP cost versus traditional insurance approach:*

<b>Traditional Insurance Approach Cost</b>	<b>Total Cost of OCIP Approach</b>	<b>Total Savings</b>
\$9,265,962	\$7,090,000	\$2,175,962

### *Discussion*

The purpose of this study was to evaluate company XYZ's deductible owner controlled insurance program versus alternative risk financing approaches. The review of literature included topics related to the study such as an overview of OCIP risk financing approaches, the overall cost associated with an OCIP, administrative costs associated with an OCIP and, finally, a cost comparison of an OCIP versus traditional insurance approach. The literature review also identified the two possible risk financing approaches for company XYZ's construction project, which were a deductible OCIP or the use of a traditional insurance approach where contractors provide their own insurance. Based on



the results of the study shown above, Table 9 shows that company XYZ's use of a deductible OCIP saved \$2,175,962 versus using a traditional insurance approach.

According to the literature review the study confirmed that pooling insurance through the use of an OCIP may drive down the cost of a construction project. The results from Table 6 also show that along with pooling insurance, a project safety management staffing team, onsite medical staff and managing the OCIP through additional administrative costs help to minimize the overall insurance cost on a particular construction project.

### *Summary*

This chapter discussed the objectives that were established for the study. The results that were drawn from the study are the basis for the conclusions and recommendations that are presented in Chapter V.

## Chapter V: Summary, Conclusions and Recommendations

### *Summary*

**Statement of the Problem:** The owner controlled insurance program utilized by company XYZ may not necessarily be the appropriate risk financing approach versus the traditional approach for a large construction project.

**Purpose of the Study:** The purpose of this study was to evaluate company XYZ's deductible owner controlled insurance program versus alternative risk financing approaches.

**Goals of the Study:** The following objectives served as the basis for the study:

1. Provide an overview of the risk financing approaches available for OCIPs.
2. Provide an overview of owner controlled insurance program including the overall cost of the program.
3. Conduct an analysis of the administrative costs associated with the owner controlled insurance program.
4. Compare the overall cost of owner controlled insurance program versus traditional insurance approach.

**Procedures:** To achieve the objectives, the methodology in this study included a review of literature, the use of an interview instrument and an analysis of data using expected project workers' compensation losses relative to actual project losses. The literature review was used to provide information regarding the first objective.

The interview instrument was an onsite interview with the director of insurance from company XYZ. The interview instrument specifically provided questions regarding

the second and third objectives, which included the overall cost and the administration cost associated with company XYZ's owner controlled insurance program.

The fourth objective used the analysis of data which included the expected project workers' compensation costs that were determined from similar types of projects. This data was used to contrast the cost of the OCIP. The expected workers' compensation cost was then compared to the actual workers' compensation losses that were experienced at company XYZ's construction project. Along with the actual workers' compensation losses, the total administration costs were also added into the overall cost of managing the owner controlled insurance program.

Findings: Objective I: Provide an overview of the risk financing approaches available for OCIPs. The study determined that:

- Guaranteed cost OCIP can include administrative simplicity, favorable pricing, greater cost certainty, supportive loss control efforts and claims management.
- Dividend plan OCIP can include being participatory in nature, a very limited amount of loss sensitivity, a portion of the original premium is refunded to the insured when loss ratios are below the maximum losses allowed and dividends cannot be guaranteed.
- Retention plan OCIP can include participatory in nature, involves retaining part of the loss and transferring the rest to the insurance company and has a very limited amount of loss sensitivity.
- Deductible OCIP can include a portion of the claim is covered by the insured and once the losses reach a certain price level, they are covered by the insurance company.

- Retrospective rated OCIP can include generating a refund for low losses and additional premiums for high losses, owner gains cash flow benefits associated with delayed payments and greater risk, but may also offer the opportunity for greater cost savings.
- Wrap up captive OCIP can include many financial advantages, losses are usually retained or transferred between several companies, losses that can not be retained are usually transferred through reinsurance and maybe a viable option if OCIP sponsor is involved in many major construction projects.

Findings: Objective II: Provide an overview of owner controlled insurance program including the overall cost of the program. The study determined that:

- Cost of buying the insurance policy
- Cost of the experienced workers' compensation losses
- Insurance broker fees
- Onsite medical treatment
- Project safety management

Findings: Objective III: Conduct an analysis of the administrative costs associated with the owner controlled insurance program. The study determined that:

- Insurance broker fees were \$780,000
- Onsite medical treatment was \$260,000
- Project safety management was \$1,000,000
- Internal administration fees were \$100,000

Findings: Objective IV: Compare the overall cost of owner controlled insurance program versus traditional insurance approach. The study determined that:

- Traditional insurance approach was estimated to be \$9,265,962
- Total cost of OCIP approach was \$7,090,000
- Total savings was \$2,175,962

### *Conclusions*

Objective I: The first objective of this study was to provide an overview of the risk financing approaches available for OCIPs. Based on the results of the study, it can be concluded that:

- There are a number of factors involving OCIPs and a traditional insurance approach for a company to consider before making a decision about their insurance program. Some key factors can include project size, estimated duration of the project, as well as the final cost in workers' compensation losses.
- Given the information that company XYZ had at the beginning of the project, a deductible OCIP or the use of a traditional insurance approach would have been the most viable options for company XYZ at this time. A deductible OCIP would transfer any losses beyond a certain price range from company XYZ to the insurance company to cover. This means that if their losses had risen above a certain point they would not be responsible for any additional cost, which is beneficial considering the size of the project. A traditional insurance approach would have enabled company XYZ to hold each individual contractor responsible for any losses that occur as a result of their own employees.

Objective II: The second objective of this study was to provide an overview of owner controlled insurance program including the overall cost of the program. Based on the results of the study, it can be concluded that:

- The cost of the insurance policy, administrative costs and associated workers' compensation losses can add up to unanticipated costs with an OCIP. If costs such as contractor orientations, training and implementation of programs, losses due to accidents on-site, record keeping and others are not factored into the cost of an OCIP a company may be making decisions on insurance programs based on incomplete data.

Objective III: The third objective of this study was to provide an analysis of the administrative costs associated with the owner controlled insurance program. Based on the results of the study, it can be concluded that:

- There are several administrative costs associated with an OCIP that can also go unnoticed and can add up to part of the cost of an OCIP. These costs can include the brokers' fees, internal administration costs, on-site medical staff and safety management fees.

Objective IV: The fourth objective of this study was to provide a comparison in the overall cost of owner controlled insurance program versus traditional insurance approach. Based on the results of the study, it can be concluded that:

- With a savings of 23.5% that was incurred through an OCIP, company XYZ's decision to use an OCIP over a traditional approach was the most viable option for them.
- A decrease in the overall expected workers' compensation costs may be experienced on a similar sized project if company XYZ were to use the information they gathered from this project's losses to plan preventative measures for any future projects.

### *Recommendations for Improvement*

There are five areas the researcher has determined that company XYZ should look to improve upon. These areas are:

1) Fully anticipate the cost of an OCIP.

Before deciding to sponsor an OCIP company XYZ must take into account all of the costs that are anticipated when sponsoring an OCIP. Some of these costs include: the insurance policy, actual workers' compensation losses, insurance broker fees, project safety management, onsite medical staffing and internal administration time and cost. All of these costs should then be compared to the cost of a number of other insurance approaches in order to get a better idea of what options are available to them. By looking at all of these costs as a whole company XYZ will be able to make a more definitive choice as to what their best option is.

2) Sponsor a retrospective rated OCIP instead of a deductible OCIP.

In the future company XYZ should look into sponsoring a retrospective rated OCIP for any similar planned projects. Because company XYZ experienced very low losses from this specific project and this approach deals with a final premium that is calculated by using the losses experienced after the policy has ended, company XYZ may have experienced an insurance policy refund for these low losses. Company XYZ could have also gained some cash flow benefits from a retrospective rated OCIP through delayed payments, instead of paying

the lump sum deductible insurance policy at the beginning of the project. This allows company XYZ to retain their own money for a longer period of time, instead of spending all of their money up front.

- 3) Inform all bidding contractors before the bidding process begins that they must make their bid without the cost of insurance included.

In the future company XYZ should inform all contractors that their bid should not include the cost of insurance. Since the owner will be buying all the necessary insurance, the contractors should be stripping the cost of insurance out of their bids. This will help company XYZ fully anticipate a cost benefit for sponsoring an OCIP, and contractors may be able to adjust their own individual costs based on this information as well.

- 4) Analyze the losses incurred through workers' compensation and implement stronger safety standards and training programs for future projects.

By breaking down the losses they encountered through workers' compensation costs, company XYZ should take preventative steps to head off any similar problems. Implementing and enforcing stronger safety standards has the potential to keep some accidents and losses from occurring.

- 5) Strengthen training programs and offer continuing education for all employees to keep them updated on changes within the project and clear up areas of confusion that may arise.



Company XYZ should carefully look at their training programs for each type of employee on the project. By making sure that each employee fully understands the scope of his or her responsibilities and expectations within their position, it may reduce inconsistencies that can cause accidents. Offering continuing education or training sessions for all employees, along with information about changes or areas of confusion in the project will allow each employee to be more comfortable with their position and possibly alleviate some issues that can come up.

*Areas of Future Study:*

- 1) Conduct research using a larger sample size of similar size projects which may be used to strengthen the results.
- 2) Explore what insurance agencies can do to anticipate which risk financing option would be more viable for a similar sized company.

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