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NORTHERN MICHIGAN UNIVERSITY'S CAMPUS**

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EXPLORATORY RESEARCH REGARDING GAMBLING ON NORTHERN
MICHIGAN UNIVERSITY'S CAMPUS

By

Stephanie Laura DePetro

THESIS

Submitted to
Northern Michigan University
In partial fulfillment of the requirements
For the degree of

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2007

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ABSTRACT

EXPLORATORY RESEARCH REGARDING GAMBLING ON NORTHERN MICHIGAN UNIVERSITY'S CAMPUS

By

Stephanie Laura DePetro

Researchers have often studied gambling among a wide range of demographic groups. Although researchers do what they can to investigate this compulsive behavior, there is one demographic that is understudied: the college age demographic. This research is designed to examine the frequency and duration of college age gamblers on the campus of Northern Michigan University, located in Marquette, MI. A self-reporting survey was used as a research tool to record gambling frequency and duration to specific types of gambling.

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DEDICATION

This thesis is dedicated to my grandparents, Laura and Robert Campbell. Also to my husband Daniel Robert DePetro and son Dayton.

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This thesis follows the format prescribed by the APA Publication Manual and the Department of Criminal Justice.

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INTRODUCTION

“Gambling: The sure way of getting nothing for something.”

Wilson Mizner (1876-1933).

One of the most understudied topics in research today is gambling in the United States. With Americans spending an estimated \$84.65 billion dollars on gambling in 2005, one would think that the controversial topic would be thoroughly researched and documented (American Gaming Association, 2006, para. 2). The lack of research on this topic is due in part to the recent economic impact that legalized gambling has had on the American economy. Although gambling was prevalent in some areas of the country, it wasn't until the late 1990's that casino gambling and state lotteries took off in the United States. In the past 10 years casino gambling has nearly doubled its profits from \$45 billion in 1995 to nearly \$85 billion in 2005. With such a huge increase in profits in such a short period of time, researchers are overwhelmed on what aspects to study, when, and where to study them.

Another reason gambling research is lacking is a fairly recent invention called the Internet. The internet as we know it today exploded in the United States after 1990. It is estimated that the first online casino website made its appearance on the Internet sometime in the mid to late 1990's. With internet gambling making an estimated \$11.9 billion in 2005, it is the fourth largest form of gambling behind commercial casinos, Indian casinos and lotteries (American Gaming Association, 2006, para. 2). In 1993 it was estimated that nearly 4.6 million households were online in the United States: by the year 2003 that number jumped to an estimated 500 million, with 76 million users online each day to surf the internet and check e-mail (Brenner, 2001). With such a huge jump in

users of the internet in such a relatively short period of time, researchers just have not had the same amount of time to conduct any type of longitudinal study to track trends in this form of gambling. Whereas other forms of gambling such as lotteries and casinos have been around for generations, internet gambling has just now reached a peak, not only in profits but in interest as well.

Of the research that is available, most of it pertains to a short list of topics such as economic impact of gambling on the elderly, adult gambling, prevention methods of pathological gambling and so on. There is very little information regarding gambling and specific demographics such as college students. Just to find basic information on the number of college students who gamble nationwide is nearly impossible. There are a couple of researchers, such as Clayton Neighbors from the University of Washington, and Owen Lightsley from the University of Memphis, who recognize the importance and lack of research on this topic, and have conducted various experiments regarding college age gambling. Their research focuses mainly on psychological aspects of gambling such as stress, impulsivity, and coping strategies associated with gambling. Other researchers have focused their research on specific types of gambling such as sports betting or lottery. There is very little research available that gives just a general overview of college age gambling that includes specific demographics such as age, race and income that also touches on the specific types of gambling as well. One consensus among researchers of college age gambling is that most adult gamblers become hooked on gambling during the college age years. It is suggested that by understanding and researching the unique problems associated with gambling at this age, pathological gambling can be prevented later in adulthood.

The purpose of this study is to explore an understudied demographic in the area of gambling: the college student. The proposed study examines the frequency and duration of various types of gambling engaged in by college students including lottery/scratch off tickets, bingo, sports betting, casino gambling and internet gambling. The data collected regarding this topic will give researchers and criminal justice professionals a new prospective of the behaviors of college age gamblers, and will aid in adding valuable research information to an understudied topic.

CHAPTER ONE: HISTORICAL OVERVIEW

According to historical records and archeological evidence, gambling has existed throughout the ages and culture of most civilizations (Dunstan, 1997). Anthropologists agree that the data collected in the 20th century lends solid implications that gambling took place within a large portion of the greatest societies to have ever existed (Gambling Ph. D., 2003). For example, gambling artifacts have been recovered from ancient China, India, Egypt, and Rome. In the 14th century we have some of the first findings of gambling becoming outlawed, such as when King Henry VIII of England did so when he discovered that his soldiers were spending more time gambling than working on drills and marksmanship (Gambling Ph. D., 2003).

The earliest evidence of card playing was found in China, where it was believed that around the year 900 A.D. the idea of shuffling paper money lead to the card games we now know as blackjack and poker (Worlds Best Online Casinos, 2003, para. 3). This eventually became card playing, which was eventually brought to Europe by merchants traveling the Silk Road. When the cards made their way to Italy and Spain, card makers began distinguishing cards with the royal ranks of men who held power in the Royal Court. The Queen of today's decks did not appear until the 1500's, when the French obtained them and replaced one of the male cards with a female figure representing a Queen (Gambling Ph. D., 2003). This pack of cards became known as the "French Pack", and served as the prototype for the 52 card deck we are so familiar with today.

The early colonies in America had very different attitudes towards gambling. Historians have classified the early settlers into two groups, the English who brought

along the English traditions and beliefs, and the Puritans (Dunstan, 1997.) Although the Puritans came from England, they came to the new world to create a better society and change from the values of their mother country. To them, the new world represented an opportunity for establishing a society enriched with Puritan values and beliefs.

Entire colonies were established along the guidelines and beliefs of one group or another. In particular, different attitudes towards gambling were enforced. In New England and Pennsylvania, Puritan attitudes toward gaming and playing were adopted. The Puritan-led Massachusetts Bay Colony outlawed not only the possession of cards, dice, and gaming tables (even in private homes), but also dancing and singing (Dunstan, 1997). Yet, in other colonies English attitudes towards gambling and recreation prevailed. These settlers brought with them the view that gambling was harmless. In these colonies, gambling was a popular and well accepted activity. Legal gambling tended to be those types that were considered proper gentlemen's games. For example, it took a long time for cock-fighting to become legal because it was not considered a suitable game for gentlemen (Worlds Best Online Casinos, 2003, para 6.).

Although the financial backers of the colonies viewed gambling as a source of the colonies' problems, they began to see it as a profitable solution as well. Back in England, the financier of the Jamestown settlement in Virginia, The Virginia Company of London, was permitted by the Crown to hold lotteries to raise money for the company's colonial venture. The lotteries were relatively sophisticated for the time and even included instant winners similar to scratch off lottery tickets available today.

This incident was not the last use of the lottery system to benefit the colonies. All 13 original colonies established lotteries, usually more than one, to help raise money.

Playing the lottery became a civic responsibility. According to Dunstan (1997), proceeds helped establish some of the nation's earliest and most prestigious universities—Harvard, Yale, Columbia, Dartmouth, Princeton, and William and Mary. Lottery funds were also used to build churches and libraries. Many of our countries' founding fathers such as Benjamin Franklin, John Hancock, and George Washington were all well-known sponsors of specific lotteries for public works projects.

Lotteries were not the only form of gambling during this era. Wagering on horse racing was a popular form of gambling, and the first racetrack in North America was built on Long Island in 1665 (Gambling Ph. D., 2003). Not surprisingly, it was not quite as organized or as elaborate as modern horse racing. The gambling was limited to a few friendly bets between owners of horses and their spectators.

Casino gambling, on the other hand, had a much slower start than lotteries and horse betting. Taverns and roadhouses would allow dice and card games, but nothing like the casinos of today. The relatively sparse population was a barrier to establishing formal gambling houses. As the population increased, by the early 1800s, the more established game houses made their appearance in the newly forming country. It wasn't until the California gold rush in 1848 did gambling spread west of the Mississippi River. It was during this time that there was a huge increase in the amount and types of gambling in California. According to Worlds Best Online Casinos, 2003, para 6, San Francisco replaced New Orleans as the center for gambling in the United States. The climax of the California gambling was from 1849 to 1855, and became widespread throughout the state. During this period, gambling tended to be integrated;

all those with the ability to pay were welcome. The patrons of roadhouses included men and women, Blacks, Whites and Chinese, businessmen and laborers.

By 1850, both the State of California as well as individual cities in California were regulating and licensing gambling establishment to raise money. In the beginning, the state laws were weak and had little real effect on gambling. The statutes outlawed specific games, making the laws difficult to enforce, and only light penalties were issued. However, the laws were gradually strengthened. In 1860, all banking games - those where the player bets against the house - were banned (Dunstan, 1997). Initially, the laws tended to focus on those who ran the games, not the players. In 1885, this was changed so that it was illegal to play banking games. Finally in 1891, the statutes imposed the penalty for playing equal to the penalty for running the game (Gambling Ph. D., 2003).

By 1910, virtually all forms of gambling were prohibited in the United States. The only legal betting that occurred was in three states which allowed horse racing, but even that number shrank in the coming years. According to Dunstan (1997), the negative feelings toward gambling ran so strong that Arizona and New Mexico were forced to outlaw casinos just to gain admission to the Union. However, the prohibition did not completely stop gambling in those states.

By the Great Depression, the United State's economy had plummeted so drastically that the outlook on gambling took a turn for the better. The antigambling mood changed, as remarkable financial distress spread across the county, especially immediately after the stock market crash of 1929. Legalized gambling was looked upon as a way to stimulate the economy and get communities back on their feet.

Massachusetts decriminalized bingo in 1931 in an attempt to help churches and charitable organizations raise money. Bingo was legal in 11 states by the 1950s, usually only for charity purposes (Worlds Best Online Casinos, 2003, para 8.).Horse racing also began to make a comeback during this era as well. In 1933, Michigan, New Hampshire, Ohio, and California legalized betting once again. The California Legislature adopted a statute in 1933 referred to as the Horse Racing Act. The statutes took effect upon implementation by the voters of an amendment to the State of California Constitution in June of 1933. It was during the 1930s that 21 other states in the Union brought back the racetracks. New laws and automated systems made horse racing much more honest than during the 1800s.

The first trend on state run legal casino gambling started in Nevada during the construction of the Hoover Dam. The Nevada Legislature was motivated to build on the tourism boom that was expected in the wake of the completion of the dam. Nevada always had a flourishing, although illegal, gambling industry prior to legalization in 1931. The motivation behind making gambling legal in Nevada was out of growing concern that the illegal gambling was compromising the law enforcement and with that the prohibition was unenforceable (Dunstan, 1997). Forty-six years later in 1978, New Jersey became the second state in the Union to legalize casino gambling in an attempt to revitalize the rundown resort area of Atlantic City.

Although there are no fancy show girls to entertain the masses, or breathtaking ocean views, Michigan has the same gaming opportunities as the more popular gambling Mecca's of Las Vegas and Atlantic City. Currently, Michigan has 17 Indian casinos, operated by nine tribes, not to mention numerous bingo halls, national and college level sporting teams, and six horse tracks. According to Federal Law Indian tribes are

sovereign nations, laws prohibiting casinos do not apply to them and, under federal law and court decrees, states do not have the right to regulate activities on Indian lands (Michigan Gaming Control Board, 2001). However, states and tribes may enter into agreements that give states some regulatory oversight over a tribe's casino operations, and this has been the case in Michigan since 1993, when the governor signed the first gaming compacts with several of the state's federally recognized tribes (Michigan Gaming Control Board, 2001). The compacts allow the tribes to operate “class III” casinos. Class III casinos are establishments that offer slot machines, video poker, and all other “casino style” games. In the Upper Peninsula alone there are 9 Indian casinos, 3 of which are just over an hours drive from Northern Michigan University’s campus.

CHAPTER TWO: CONTEMPORARY OVERVIEW

Gambling is defined as playing games of chance or betting in the hope of winning money (Encarta Dictionary, 2005). It is estimated that Americans spent more than \$50.9 billion gambling in 1997 (Platz & Millar, 2001). More money was spent on gambling than on tickets to sporting events, movies, theme parks, video games, and recorded music combined (Platz & Millar, 2001). Gambling does not require athleticism, strength, or stamina. As long as the player is at least 18 years old and has the money to play, gambling is an option for spending leisure time.

Types of Gambling

There are many different forms of gambling in the United States. The traditional casino is the image that first comes to mind. Most casinos offer a variety of games of chance including slot machines, video poker, table games such as blackjack, poker, roulette and craps, as well as lotteries such as keno and bingo. Casinos offer various prize amounts and payoffs that incite the gambler to keep playing. While for years in the United States legal casino gambling was confined to Nevada and Atlantic City, casinos have been expanding all around the country, due in large part to Native American treaties negotiated with the state and federal government. Currently, 22 states have passed legislation to allow for legal casino gambling, including Colorado, Mississippi, Louisiana, and Indiana (Dunstan, 1997). According to Winters, Bengston, & Dorr (1998), most Americans live within a 4 hour drive of a casino. These casinos make it possible for people who cannot afford to travel to traditional gambling hot spots such as Las Vegas, Reno or Atlantic City to have easy access to gambling establishments.

Casinos are an important source of entertainment, jobs, and income. The largest casino markets include Nevada, New Jersey, and Mississippi. Nevada has the largest market with 429 full-scale casinos, 1,978 slots-only locations, one Indian casino, and gross casino revenues for 1997 of \$7.87 billion. New Jersey holds the second seat with 14 casinos and gross casino revenues for 1997 of \$3.9 billion. Lastly, Mississippi, has 29 state-regulated casinos, one Indian casino, and gross casino revenues for 1997 of \$1.98 billion (National Gambling Impact Study Commission [NGISC], 1999).

In a 2001, a random digit dial (RDD) study was conducted for the Michigan Department of Community Health by Western Michigan University's Kercher Center for Social Research. Random digit dialing is a method used to give all phone numbers in a selected region an equal chance of being dialed. By adding a random four digit number to a given prefix, a complete telephone number is created. The study surveyed people living in five distinct regions of Michigan (Detroit, Detroit Metro, East Region, West Region, and the Upper Peninsula) by telephone regarding their gambling behaviors. It was found that 60.6 % of the 1, 211 persons surveyed have participated in casino gambling sometime in their life. It was also found that 37.2% of the sample had participated in casino gambling in the last year.

Another form of gambling is sports betting. Sports betting can take various forms, from wagering amongst friends on football or basketball games, to making bets through bookies, to the more traditional horse or dog track betting. Despite its popularity, sports wagering in America is illegal in all but two states. One of the two states is Nevada, which has 142 legal sports books that allow wagering on professional

and amateur sports. Oregon is the other, and runs a game called “Sports Action” that is associated with the Oregon Lottery, which allows wagering on the outcome of pro football games. Outside of these two states, wagering on sports is illegal in the United States.

Estimates of the scope of illegal sports betting in the United States range anywhere from \$80 billion to \$380 billion annually, making sports betting the most widespread and popular form of gambling in America (NGISC, 1999). Many Americans are unaware of the risks and impacts of sports wagering and about the potential for legal consequences. Even when Americans understand the illegality of sports wagering, it is easy to participate in, widely accepted, very popular, and, at present, not likely to be prosecuted (NGISC, 1999).

The NGISC (1999) points out that one reason Americans may not be aware of the illegality of sports wagering is that the Las Vegas “line,” or point spread, is published in most of the 48 states where sports wagering is illegal. In Michigan, it is reported that nearly 17.5% of those surveyed participated in sports betting and 9.8% participated within the last year (Western Michigan University, 2001).

One form of gambling that is highly advertised, easily accessible, and considered socially acceptable, is state operated lotteries. In the United States and Canada there has been an 18% increase in total sales of lottery tickets since 1994. A survey of 3,502 Canadian and American adults found lotteries to be the most popular of all gaming activities (Hardoon, Baboushkin, Derevensky, & Gupta, 2001). Data provided by Nelson

& Beggan (2004) indicate that over \$37 billion was spent on lotteries in the United States in 2000.

Lotteries take many different forms. Players can choose to let an automated computer pick numbers for them or pick their own. These types of lottery tickets are often associated with a Daily Three or Daily Four drawing that have a rather large and sometime progressive prize. Another form of lottery is scratch off game cards. These cards usually have different themes such as bingo, matching shapes to win prizes/money, tic tack toe, and even soap opera stars. These cards are entertaining because the player actually has to scratch off a coating to see if they are a winner.

Along with the lottery's rapid expansion, lottery revenues have increased dramatically over the years. In 1973 lotteries were found in 7 states and had total sales of \$2 billion. In 1997, lotteries existed in 37 states and the District of Columbia and garnered \$34 billion in sales (NGISC, 1999). This rapid growth is a result of both the expansion of lotteries into new states and increased sales. In Michigan alone, nearly 69% of those surveyed in 2001 by Western Michigan University had participated in some form of lottery gambling and 50% of them had played within the last year.

Another popular form of gambling that is played in both a casino setting as well as a charitable setting is bingo. Each player has a card with the word "bingo" spelled across the top forming columns. There are five rows under each letter in bingo making 25 squares on the card. In each square there is a number and in the center of the card is a free space. The player waits for the caller (the person who draws the numbered balls from a mixing machine) to call out a letter and a number, for example "I 29". If the

player has the number 29 in the “I” column, the player can mark off that space. When the player makes a line of 5 consecutive numbers or a specific pattern such as the postage stamp (the four numbers in any corner) the player yells out “BINGO!” After the caller verifies that the player does have all the numbers, the player wins the prize for that round. This game is well liked because it is easy to learn, easy to play, and can be relatively inexpensive to play.

According to Western Michigan University (2001) nearly 42% of Michiganders surveyed had participated in charitable bingo, and 11% had participated in non-charitable bingo sometime in their life. That statistic dropped to nearly 27% for charitable bingo, and dropped significantly to only 3% for non-charitable when asked if they participated within the last year.

Raffles are another form of gambling that is also easy to play. Raffles are often organized to benefit charitable causes such as churches, schools, or even individuals in need of financial assistance for medical bills, funeral costs, etc. Raffles are easy to play because all a player has to do is purchase a ticket with a number on it and wait to see if the number chosen matches the number purchased. The more tickets a raffle player purchases, the better the odds of winning.

A convenient and more recently devised method of gambling is to play online. From the privacy of one’s home, gamblers can sign onto the Internet and play the same games of chance found in casinos. With the world wide availability of the Internet, at any one time hundreds of thousands of gamblers from all parts of the world may be playing on the same site. In May of 1998, there were approximately 90 on-line casinos,

39 lotteries, 8 bingo games, and 53 sports books. One year later, there are over 250 on-line casinos, 64 lotteries, 20 bingo games, and 139 sports books providing gambling over the Internet (NGISC, 2001).

It is estimated that \$2.3 billion a year is spent on Internet gaming world wide and the number of online gamblers has more than tripled from approximately 4 million to 15 million people since 1997 (Griffiths & Parke, 2002). Unfortunately, online gambling is not as extensively researched as other types of gambling. According to Griffiths and Park (2002), only two prevalence studies, one conducted in the United Kingdom and once conducted in Canada, and one minor qualitative study on Internet gambling have been conducted.

The first prevalence study was conducted by Griffiths in 2001 and examined the prevalence of Internet gambling in the United Kingdom. Of the nearly 2,100 people surveyed for this study only 495 (24%) were Internet users. Not a single person surveyed gambled regularly on the Internet (meaning once a week or more). Only 1% of the Internet users were occasional Internet gamblers (meaning once a week or less). Of those surveyed, 4% had never gambled on the Internet but would like to, while the remaining 95% had never gambled on the Internet and would likely never do so. Griffiths argued that his results were not surprising given the relatively low use of the Internet in the United Kingdom. In the U.K., Griffiths (2001) points out, most people have to pay by the minute for Internet access. This he argues significantly inhibits its use.

Another study of online gambling reported on the prevalence of Internet gambling among Ontario adults (Ialomiteanu & Adlaf, 2001). The data were collected through a

telephone survey of nearly 1,300 Ontario adults. Overall, the researchers found that 5.3% of the sample had gambled on the Internet during the 12 months preceding the survey. Women were more likely than men to gamble online but only by a narrow margin (6.3% versus 4.3%). Those who responded single were more likely to gamble on the Internet than those who were married (10.9% versus 4.9%). The researchers concluded that although excessive Internet gambling was not apparent, continued monitoring is necessary due to the expansion and diffusion of Internet access.

Finally, a small qualitative study comparing case studies of Internet gamblers and traditional gamblers was reported by Parke and Griffiths in 2001. They reported that traditional gamblers expressed a strong desire to gamble on the Internet for reasons such as convenience (hours and location), improved facilities (meaning the ability to set up multiple accounts), and for tax-free betting. They also found that there were draw backs to Internet gambling such as inability to obtain valid credit or debit accounts and the rush felt when physically collecting winnings.

The researchers also found there were subtle differences between the two types of gamblers (2001). These include financial stability, physiological effects, and need for competition. When the researchers compared the financial stability of traditional and Internet gamblers, they found that Internet gamblers put away a specific amount of money each month and when that money was gone, they quit gambling. Whereas traditional gamblers admitted to gambling with money they could not afford. The traditional gamblers also reported greater physiological effects, such as increased heart rate, nausea, dizziness, and stomach aches after experiencing a sizeable loss (Parke &

Griffith, 2001). However, Internet gamblers appeared to be more competitive than traditional gamblers when placing bets.

Reasons for Gambling

Reasons for gambling are as unique as fingerprints. Some people gamble strictly for recreation, while others are addicted to it. Neighbors et al. (2002) identified fourteen reasons that people choose to gamble. These include: money: gambling to make or obtain money; enjoyment/fun: gambling for enjoyment or just to have fun; excitement: gambling for arousal, thrill or excitement (p.364-365). See Table 2-1 for additional information.

Table 2-1

Reasons for Gambling

<u>Reason</u>	<u>Meaning</u>
Social	Gambling as a means of interacting with friends or family, or to meet new people
Winning	Gambling to experience winning
Competition	Gambling to compete with others
Conformity	Gambling because others are doing it, just to go along with the crowd, or because of peer pressure
Risk	Gambling in order to take risks or to experience uncertainty
Skill	Gambling to develop or practice one's skills or to learn
Interest	Gambling because it is interesting or adds interest
Challenge	Gambling to experience a challenge
Luck	Gambling to test one's luck or because one feels lucky

<u>Reason</u>	<u>Meaning</u>
Chasing	Gambling to win back previous losses
Drinking	Gambling motivated by alcohol

An additional reason people gamble is to reduce stress. Lightsey and Hulse (2002) say gambling is often cued by a triggering event. The event could be an internal issue such as anxiety or depression, or external problem such as a fight with a spouse or coworker. The stressful situation often results in negative feelings, and the person finds a way to deal with those feelings. Escape-avoidance coping is the most common way a gambler deals with the stress. In escape-avoidance coping, the person avoids stressful situations by choosing ways to steer clear of the situation, such as going to a horse race rather than dealing with family issues. The person then views gambling as a way to deal with the stress and the negative feelings. This leads to an endless cycle of gambling to deal with the stress associated with losing money while gambling to cope with the original situation.

Another reason people choose to gamble is because gambling is an easy to learn form of entertainment. Gambling is an activity that does not require a specific time commitment; a person can play as long as they choose to. This makes gambling a perfect way for someone who has as little as ten minutes, or as long as a couple of hours of spare time to find entertainment. There are numerous books, compact disk tutorials, and even classes offered by casinos to teach people to play. In Michigan, the scratch off lottery tickets are printed with the directions on each card. They also have an informational hotline and address on the back of the card should the player have any questions.

Learning to play casino games, picking lottery numbers, or purchasing raffle tickets does not take long periods of time nor any special education. Through repetition a player can learn to play casino games, find lucky lotto numbers or even learn how to bet on horses. In a short period of time, a newcomer can learn the tricks of the trade that makes learning new games intriguing, and fulfills the boredom. Curiosity of how games are played, and the rules that govern those games are other ways players get hooked into gambling. With so many games to choose from, gambling can hold the attention of those who have the desire to learn.

Classification of Gamblers

Gambling is recognized in the medical community as a form of addiction (Sharma, 2005). The classification of gamblers is similar to those who are diagnosed with other forms of addiction. The most widely used measure of problem and pathological gambling is the South Oaks Gambling Screen (SOGS). The SOGS is based on the criteria for pathological gambling provided by the Diagnostic and Statistical Manual III (DSM III), the tool used to diagnose mental disorders in the United States and internationally. The SOGS remains the most widely used gambling instrument, having been used as both a screening measure and an outcome measure in numerous studies (Neighbors et al., 2002).

The SOGS classifies gamblers into three categories: recreational, problematic, and pathological. The first level of classification is the recreational gambler. To be classified as a recreational gambler, a person must score a zero on the SOGS (Platz & Miller, 2001). A recreational gambler is someone whose motivations for gambling are

winning, socializing with friends and family, taking risks, and simply having a good time. Those who score 1 to 4 on the SOGS are classified as problematic gamblers. A problematic gambler is one who often borrows money from other people to gamble; gambles more than intended; and feels guilty about gambling (Engwall, Hunter, & Steinberg, 2004). Lastly, those who score 5 or more on the SOGS, are classified as pathological gamblers. A pathological gambler is someone who is preoccupied with gambling and often experiences problems in their social, and work life due to gambling (Engwall et al. 2004). According to Neighbors et al. (2002), approximately 1.6% of the general population has engaged in pathological gambling with an additional 3.85% having experienced gambling related problems.

Research has shown that both problem and pathological gamblers have been known to suffer with a number of health and social consequences. These include suicide, work and educational disruption, criminal arrest, financial difficulties, and familial disruption (Neighbors et al., 2002). Problematic gambling has also been associated with combined drug and alcohol use, eating disorders, depression and anxiety. In addition, there appears to be a relationship between gambling and other addictive behaviors. Comorbidity is the simultaneous appearance of two or more psychiatric or physical illnesses, for example, alcohol dependence and depression (Encarta Dictionary, 2005). According to Welte, Barnes, Wieczorek, Tidwell and Parker (2001), pathological gamblers had approximately seven times the rate of alcohol dependence than those who are non-gamblers or low-risk gamblers. It is the combination of the pathological gambling, and other psychological disorders or substance dependency problems, that tend to show a higher gambling rate. As with other addictions, pathological gamblers

experience withdrawal symptoms such as irritability and restlessness when attempting to quit gambling (Bengston, Dorr, & Stinchfield, 1998).

Demographics of Gambling

Gambling does not discriminate. As long as the minimum age is met, anyone with money can gamble. Young or old, rich or poor, black, white or Asian, man or woman, gambling is a game of chance that welcomes anyone.

In regards to gender and gambling, Engwall et al. (2004) found that both men and women chose the state operated lottery as their game of choice. With other forms of gambling, men preferred sports betting, skill games such as darts, and casino games such as roulette, while women preferred slots/poker machines, bingo, and card games. Not surprisingly, Western Michigan University (2001) found that men in Michigan have higher rates of participation than women in sports betting, betting on their own performance in games of skill, betting on non-casino dice, cards, video poker, office pools and numbers play.

Research has consistently found that men are more likely than women to become pathological gamblers. Platz and Millar, (2001: p. 384.) observed that “The rate of occurrence for pathological gambling was 2.8% overall, with males displaying significantly higher rates (5.7%) than females (0.6%).” Lightsey and Hulseley (2002) found in a study of 202 men and women that 33% of men and only 3% of women reported problem gambling or pathological gambling. In the 2001 Michigan study, it was found that men were 1.46% more likely to become pathological gamblers than

women. According to the Michigan Department of Community Health (2005), “Women tend to feel more embarrassment about their gambling problems and often receive less sympathy from their families than men do (p.10).”

Gambling issues are not spread evenly across society, however. With regard to income and gambling, there appears to be minimal research done on this topic. Researchers do ask for income information on measuring instruments such as surveys or personal interviews, and often leave it off the findings of the research. In the research that is available, the Michigan Department of Community Health reports that low-income mothers sometimes see gambling as a quick way to make some extra money for the family (2005). According to research conducted by Welte, Barnes, Wieczorek, Tidwell & Parker (2001), minorities and persons of lower socioeconomic status have higher than average incidents of problematic/pathological gambling. On the other hand, rates of pathological or problematic gambling were found to be lower among persons with higher incomes and more education.

As with income, the relationship between gambling and race also appears to be specifically studied. Once again, it appears that researchers are interested in obtaining information on measuring instruments in regard to a participant’s race, however, this variable is often not disclosed in the final outcome of the research. One study did however bring the relationship to light. In a 1999 study conducted by the National Opinion Research Center, blacks were found to have the highest rate of problematic gambling at 4.2%, followed by whites with 1.8%. Hispanics had the lowest percent at 1.7%. However, the percentage was still higher than the national average of 1.6% among

the U.S. adult population. Minorities in Michigan reported 3% occurrence of problematic gambling, a higher rate than the national average (2001). Whites, on the other hand, reported 1.3%, just under the national average. Researchers in the Michigan survey do lament that their research was collected by phone survey, which may disenfranchise the poorest of residents, as that demographic is less likely to have phone service; an obvious weakness in the accuracy of the reported data.

The Michigan 2001 data also shows that there is a distinct difference among ethnicities as to the preference of types of gambling. The study showed that whites were significantly more likely to participate in charitable events, horse and dog racing, games of skill, office pools, 50/50 raffles, and stocks/bond markets. Blacks and other minorities were more likely to engage in casino betting, non-charitable events, and lottery.

When it comes to age and gambling, there is room for confusion. What is considered legal age for gambling in one state is not the legal age in another. As of today, there is no national standard for a legal age for gambling. Some states, such as Connecticut, require players to be at least 21 years old to enter a casino, yet an 18 year old can play the lottery (Rose, 2001). When it comes to internet gambling, there is no way to determine how old the player is on the other side of the screen. The online casino has no way to verify if the player is a 25 year old or a 12 year old.

Only a handful of studies have attempted to document the extent and scope of gambling in young people. The National Gambling Impact Study Commission (NGISC) conducted an extensive study of gambling among 16- and 17-year old Americans in 1999. The results of this study suggested that adolescents gamble appreciably less than

adults. About one-third of adolescents have never gambled, versus less than one-seventh of adults. The most common forms of gambling in which young people engage are private games of skill, particularly card games. The study also concluded that the most prominent games for young people are betting in sports pools and buying lottery tickets. Of all the forms of gambling analyzed, casino gambling is the least popular among adolescents (NGISC, 1999).

Adolescents typically start gambling at home, usually at card games with family and friends. It is estimated that 30% of children who gamble started doing so before their eleventh birthday (Michigan Department of Community Health, 2005). Surprisingly, for every one adolescent casino gambler, there were approximately 12 adolescent lottery players (Harrah, 2000). The NGISC (1999) reported the rate of pathological gambling among adolescents is about the same as it is for adults. In addition, according to Engwall, Hunter, & Steinberg, (2004), problem gambling among minors has been associated with a variety of negative and addictive behaviors including low grades and high rates of using alcohol, tobacco, and other illicit drugs.

Despite very little published research, gambling and related problems are increasingly impacting the lives of older adults. An October 1999 American Association of Retired Persons (AARP) survey found that 10% of respondents “absolutely” considered themselves to be a gambler whereas another 69% reported participating in some form of gambling activity (AARP, 1999). A recent study of social activities among older adults found gambling to be the most frequently identified activity, with 23% playing bingo more than four times a month, and 16% going on day trips to local

gambling casinos on a more than monthly basis (McNeilly & Burke, 2002). Perhaps most strikingly, the National Opinion Research Center (National Opinion Research Council, 1999) reported that as compared with what it was 25 years ago, the number of older adults who had ever gambled increased by 45%; the percentage of women who had ever gambled increased by 20% from 1994 to 1998.

Over 13% of the calls to New Jersey's gambling telephone help and information line come from people over age 60 (Senior Times, 1998). The largest percentage (22%) of visitors to Las Vegas consists of those aged 65 and older (Las Vegas Convention and Visitors Authority, 1996). However, gambling is not just affecting older adults in typical gambling centers like Atlantic City and Las Vegas. The Arizona Council on Compulsive Gambling (1999) reports that 39% of calls to their crisis hotline were from or about older adults. Three years after the introduction of riverboat gambling in nearby Iowa, casino gambling and bingo have become the preferred leisure activities of older adults in the Omaha, Nebraska area (McNeilly and Burke, 2002).

Although bingo does not generate much, if any, revenue, several casinos offer bingo games because they draw players, who otherwise might not be attracted to a casino, in particular elderly women (Smith, 1997). Other "senior friendly" enticements include cheaper, and sometimes free meals and lodging, luxury transportation (comfortable buses with movies and refreshments), gambling clubs, stage shows featuring stars from "back in the day," and even discount prescription offers. Some casinos send buses to nursing homes and senior centers immediately after beneficiaries receive their Social Security checks (Gosker, 1999).

It is not just effective marketing, however, that leads older adults to casinos. Gambling junkets offer older adults an opportunity for socialization with peers. Furthermore, gambling can be exciting, providing older adults with a chance to regain a sense of importance that might have been lost with retirement or other changes in social role. As Pat Fowler, executive director of the Florida Council on Problem Gambling puts it, at the casino, “seniors are made to feel welcome and special, which is not the norm for many” (Berns, 1998). The majority of older adults may derive the social benefits of gambling with minimal costs. However, a significant minority of older adults might be vulnerable to gambling related problems. Indeed, several recent studies have demonstrated significantly elevated suicide and attempted suicide levels associated with legalized gambling (Sullivan, Abbott, McAvoy, & Arroll, 1994). Gambling also has been associated with heightened rates of anxiety, sleep disturbance, and numerous physical health problems, including pain in the lower back, neck, and abdomen, as well as heartburn and hypertension (Stewart & Oslin, 2001).

As more and more older adults spend more and more time gambling, the incidence of financial loss also is bound to increase. Average monthly losses in Atlantic City casinos are approximately \$400 million, 65% of which are incurred by older adults (Stewart & Oslin, 2001). Although the full impact of gambling on the financial health of older adults is not yet known, anecdotal reports of individuals who have gambled away their savings and retirement security are becoming more frequent (Stewart & Oslin, 2001). Many older adults are on fixed incomes, and even relatively small gambling losses can add up to significant financial and legal trouble.

It is no surprise that the elderly spend quite a bit of time at casinos as well. With plenty of free time, casinos often cater to the elderly gambler to keep them coming back. Many casinos also make a point of aiming marketing campaigns specifically at senior citizens and go out of their way to make lonely elders feel at home (Zoellner, 2002). One example would be to give complementary meals and transportation to the elderly. By providing the necessities, casinos keep their target customers coming back. Their need to play horses, lottery card or slot machines comes not from a love of the game or a desire to win money, but from a need to get away from loneliness, boredom, or other emptiness in their lives (Zoellner, 2002).

Gambling and College Students

Although the literature regarding college age students and gambling is limited, much of the available research involving college age students and gambling have similar methodologies and study focuses. It appears that determining the problematic gambling status among college age students is quickly becoming one of the most popular study concentrations. It seems as though the SOGS test and other self reporting behavior surveys are the most utilized tool in determining such status. In a several research studies, this status is compared to other dangerous behaviors such as binge drinking, drug use, and eating disorders. These studies appear to show that there is a direct correlation between gambling behaviors and risk taking. The greater the severity of gambling the more likely a college student would partake in risky behaviors.

Another common area of study regarding college age gamblers is the motivation behind the gambling behavior. Some researchers provide checklists or other

predetermined lists of motives for students to choose from. The checklists and Likert-type measures do not guarantee that the most relevant or important motives have been included. In addition, checklists may influence the gambling motivations of students. For example, an individual when asked whether he/she gambles to support charitable causes may remember buying a raffle ticket or playing bingo at church and choose this option even if he/she does not usually gamble for this reason.

One study that stood out among the rest was conducted by Larimer and Neighbors in 2003. The researchers studied the frequency, expenditure, and negative consequences related to gambling at a large west coast university. They used a self-reporting survey to gather their information from 317 undergraduate psychology students. The survey used a variety of questions to measure gambling frequency by asking the students how often they gamble, on a scale that ranged from 1 to 10, with 1 being never and 10 being everyday. They also asked questions as to the perceived norms of gambling by other students. For example, questions like how often they thought the average college student gambles appeared on the survey. Once again the answers ranged from 1 to 10 with 1 being never and 10 being everyday. The researchers found the following.

College students appear to be at particular risk for experiencing problem or pathological gambling disorders, with rates nearly double that of general population adults. The disproportionate impact of disordered gambling on adolescents and young adults in the college setting is of significant concern because of the health and social consequences of problem gambling behavior. These include high rates of stress-related-physical symptoms; attempted and

completed suicides; significant work, educational, financial disruption; high rates of comorbidity with other addictive and psychiatric disorders; and criminal arrests and convictions (p.235).

According to Platz & Millar (2001) and Lightsey & Hulseley (2002), college age gamblers appear to be the least studied population. Of the 120 gambling related studies analyzed by Shaffer, Hall, and Vander Bilt (1997) in an investigation of the incidence of problem gambling, only 12% directly addressed the college student population. “Many campuses in the United States today are faced with the situation in which the majority of their students cannot legally drink but they can legally participate in high-stakes gambling” (Winters, Bengston, Dorr, & Stinchfield, 1998, p. 128). Some researchers suggest that more money is spent on gambling on campuses than alcohol (LaBrie, Shaffer, LaPlante, & Wechsler, 2003).

A study conducted by Takushi, Neighbors, Larimer, Lostutter, Cronce, & Marlatt (2004) explored the relationship between problematic gambling and alcohol addiction. They recognized that college student gambling has not been extensively studied, however, alcohol use and abuse has been an area of study in this population. Gambling, like alcohol use, is considered a potentially addictive behavior and the two disorders appear to share common underlying similarities and could even reinforce each other. According to Takushi et. al. (2004) these similarities between the two disorders have resulted in the adaptation of the Alcoholics Anonymous program to Gamblers Anonymous program.

The location of the study is unknown, however, the participants were recruited from a university via flyers, an advertisement placed in the campus newspaper, and an introductory psychology course. The study screened over 300 students for gambling problems using the SOGS. Of the 300 students screened, 32 were found to be at risk for problematic gambling and were recruited for a follow-up assessment. During the follow-up assessment, the student was asked a series of questions in an individual intervention session. The questions ranged from questioning the participants perception of their level of drinking compared to other college students, previous and typical gambling behavior, self-reported negative consequences of gambling, and ways to prevent gambling. The participants were monitored over a three month period.

The results suggested that the individual intervention sessions showed promise in reducing gambling behavior. The focus group reported a reduction in frequency of gambling, but an even more impressive finding was that the group reported a decline in episodes of drinking while gambling. Given that combining drinking and gambling are associated with increased persistence when losing and making a larger wager, this finding is encouraging (Takushi et. al., 2004).

In addition, Platz and Millar (2001) found that most pathological gamblers begin gambling during their college years. It is important to study gambling in college age populations because there is evidence that college age gamblers are more likely to have problems related to gambling than adults (Frank, 1987). According to Shaffer et al. (1999), prevalence rates of problem and pathological gambling among college students are among the highest of any segment of the population. By studying this age group

researchers can pinpoint the causes of pathological gambling and help those who are seeking treatment for the addiction.

CHAPTER THREE: METHODOLOGY

The purpose of the present research is to study the gambling behaviors of college students attending a small, rural university. By studying the college population, much needed information regarding this understudied population is added to the current literature. It is hoped that this research answers questions regarding frequency and duration of gambling by NMU students, as well as the amount of money spent and won in each of the five types of gambling in the self-reporting survey. Whether it is bingo, lottery, or casino betting, the data gathered by this research provides data on what type of gambling is preferred by NMU students.

Sample Demographics

The community in which the Northern Michigan University student population resides is a small rural community, without the choices of social activities available in larger, urban cities. Along with the lack of social activities, Northern Michigan University also experiences extremes in weather. During the customary six-month winter, the average temperature is typically a single digit number, and in the summer the humidity and heat is sometimes uncomfortable. In July 2006, a record temperature of 101°F was set at the K.I. Sawyer airport in Marquette County and the coldest temperature reading was in 1982 at -55°F near Fort Brady in Sault Ste. Marie (Next Generation Weather Lab, n.d., para. 19). Escaping into a bingo hall or casino is one way college students would be able to socialize with friends and family while escaping Mother Nature's extremes. Additionally, Keno and table top slot machines have been added to many bars and restaurants. Wahlstrom's Family Restaurant and the Cross Roads Bar and

Grill are just two examples of where table top slot machines and Keno have been introduced in the Marquette area within the past three years (Michigan Lottery, 2007). The availability of gambling is widespread in the Marquette community.

Ease of Gambling Access

If leaving the house to gamble requires too much effort, students at Northern Michigan University have an alternative; every student receives a laptop. This initiative provides all full-time students with a laptop computer so they can complete assignments, enroll in online classes, and connect to teachers and classmates. Northern Michigan University also offers students an opportunity to purchase the IBM ThinkPad and Apple laptops at the end of their lease. Currently, the IBM sells for \$336.63 and the Apple sells for \$436.96 (Northern Michigan University, 2007). Along with the laptop, NMU also has an Internet service available by simply dialing into the server at the university. This Internet service is free of charge, and is provided to students with the rental of the laptop. With the provided laptop and free Internet service, any NMU student can log onto an online casino and place a wager. NMU is one of only a few universities in the country to offer students a laptop computer with free Internet access. The combination of the Internet access and the laptop can be viewed as temptations for students to gamble.

The purpose of this research is to better understand the frequency, duration, and expenditure of gambling by rural college students. The Marquette area is a small community without a variety of social activities of a larger community. The Upper Peninsula also has long winters lasting more than 6 months of the year. With more than 8 casinos within a 5 hour driving distance from the university, casino gambling is a way to

stay warm in the winter while socializing with friends. There are numerous gas stations equipped with Lotto machines and scratch off tickets conveniently placed at the cash register just at eye level. The university also provides internet access and IBM ThinkPad's to all students registered at least half-time at the university. NMU was rated among one of the 50 top wired college campuses in 2005. With the easy access to gambling in the Marquette area, gambling has the potential to become the fastest growing form of entertainment among college students.

Sample

According to researchers Parker, Wood, Bond, and Shaughnessy (2005), the college age population is understudied when it comes to gambling and problems associated with gambling. They state, "Pathological gambling is more prevalent among postsecondary students than among the general adult population" (p.51). By studying the college age population the researcher is adding to the body of literature regarding this topic. In addition, this research provides the university with unique information regarding gambling that not many universities have available.

The population of this study is undergraduate students of Northern Michigan University. The population was selected for a number of reasons. First, the massive amount of advertising of the different forms of gambling including lotto tickets, bingo, internet and casino, allows the population to have exposure to each of the types of gambling being studied. Second, the legal age to gamble in Michigan is 18, so most undergraduates are able to participate in the study, meaning very few students are excluded from the research. Lastly, most research conducted on college age gambling

has occurred in large cities with major gambling venues such as Atlantic City and Las Vegas. The data provided by this study provides a more complete explanation of gambling issues among college students in rural areas.

The study population for this research consists of all bachelor, associate, or certificate degree seeking undergraduate students enrolled in at least one credit during the winter 2006 semester. Before the administration of the survey, the study population was estimated at 8500 students. The sample was randomly selected by computer courtesy of the Office of Institutional Research at NMU. Paul Duby, the Vice President of Institutional Research, recommended a sample size of 5% of the study population, or 425 students. Finally, prior to administering the survey, the response rate was estimated to be about 40-50% of all surveyed students.

Questionnaire Development

The survey is designed to measure the frequency, duration, and amount of money spent on gambling by Northern Michigan University students. The questionnaire is modeled after two similar surveys. The first was developed in research conducted by the Michigan Department of Community Health, in conjunction with the Kercher Center for Social Research at Western Michigan University (2001). This survey was used to establish an estimate of the incidents of problem gambling of Michigan residents 18 years and older. The second survey was designed by Neighbors et al. (2002). Their survey combined a number of instruments such as: the Gambling Problem Index, the Gambling Readiness to Change Scale, the Gambling Quantity and Perceived Norms Scale, the 20 Questions of Gamblers Anonymous, the Gambling Attitudes and Beliefs Scale, as well as

the South Oaks Gambling Screen (SOGS), to evaluate the efficacy of treatment as well as prevention measures for problematic gambling.

The survey in this research has 11 questions, five of which are contingency questions. Depending on the response to the original question, the respondent may be asked to answer five additional questions. The questionnaire measures the frequency, duration, and the amount of money spent on five types of gambling: casino, lottery, sports betting, bingo, and the internet. Each question has a “no answer” response that acts as the default answer if a respondent does not answer the question or does not have an answer for that question.

Frequency is defined in terms of this research as how often a respondent engaged in a specific activity. To measure frequency the respondents are asked to respond using a 10-point scale ranging from everyday to once a year, to indicate how often respondents engaged in the four types of behavior. For example: Approximately how often do you gamble on the lottery including LOTTO, The Big Game, Daily 3 and Daily 4, Cash 5, Keno, or instant tickets? The possible responses include: a.) once a year, b.) 2-4 times per year, c.) every other month, d.) once a month, e.) 2-4 times per month, f.) weekly, g.) more than once per week, h.) every other day, i.) everyday and j.) no answer.

For the purposes of this research, duration is defined as how long, in hours, has the respondent participated in an activity. The researcher is only measuring the duration of casino and internet gambling because of the short amount of time it takes to play the lottery, and the length of sporting events. Duration is measured using an 8-point scale ranging from less than an hour to more than 12 hours. The following is an example of

how duration is measured: When you bet at casinos, do you usually do so for....? The answers to the question are divided by hours. The answers include: a.) less than 1 hour, b.) 1-2 hours, c.) 3-5 hours, d.) 6-8 hours, e.) 8-10 hours, f.) 10-12 hours, g.) more than 12 hours and h.) no answer.

The survey also includes questions regarding the amount of money won and the amount spent on the four types of gambling. Money spent is defined as the amount, in whole dollars, that was spent while gambling. This does not include the difference between money spent and money won. The amount of money won is also measured in whole dollars, but this information is asked separately. The answers are classified by dollar amount in various increments. For example, respondents are asked; Approximately how much money have you spent betting at Internet gambling in the last year? The answers range from: a.) none, b.) less than \$25, c.) \$25-50, d.) \$60-100, e.) \$150-200, d.) \$250-300, e.) \$350-500, f.) \$550-700, h.) \$750-1000, h.) \$1100-2000, i.) more than \$2000, j.) no answer.

Lastly, the questionnaire asks basic demographic questions such as class status, age, income level, and race. These questions will be used to compare differences between men and women in the duration, frequency, and money spent on gambling. Other comparative questions will be determined such as what race spends the most while gambling. These questions make it possible to compare the different demographics to get a better understanding of college age gambling (See Appendix A for the full questionnaire).

Administration

The questionnaire was administered through an anonymous on-line survey e-mailed to the randomly selected students at their NMU e-mail addresses. The survey was e-mailed by the university's Webmaster through the NMU Communications Office. One week prior to mailing the survey, a pre-notification letter was sent to all sampled students informing them of the upcoming e-mail survey. The following week, the sampled students received an e-mail with a direct link to the on-line survey. Directions for completing and submitting were included with the survey. A follow-up letter was sent to all surveyed students one week later, to thank them for completing the survey, and to encourage those who have not completed the survey to please do so.

Analysis of data

The data was provided to the researcher in an Excel spreadsheet by the Web Master in the office of Communication and Marketing, who administered the survey. The spreadsheet has each question listed along with the responses to that question. Included on the spreadsheet is a frequency distribution. A frequency distribution is a listing of all possible responses to the question, the number of respondents who selected each response, and the percentage of respondents who selected that response. From this frequency distribution the researcher will be able to calculate descriptive statistics such as the mean, the mode, the median, and the average for each question.

Time Frame

The researcher administered the survey the week of January 30, 2006. The advance notification e-mail was sent on Monday January 23, 2006. The second e-mail

with the direct link to the survey was sent out on Monday, January 30, 2006. On Monday, February 6, 2006, the reminder e-mail with a direct link to the survey was sent. The cut off date for responses to the survey was Monday, February 13, 2006. Shortly following a fourth e-mail was sent to all students in the sample with educational information regarding gambling support options. Analysis will continue through March 2007. In late March, the completed thesis will be submitted to the theses committee for approval. The results of this survey are explained in the following chapter.

CHAPTER FOUR: DATA ANALYSIS

This chapter consists of data gathered from a self-reporting survey administered to undergraduate students at Northern Michigan University. A random sample of undergraduates was created by the Office of Institutional Research at Northern Michigan University. Those chosen to participate in the survey received an e-mail with a direct link to a web server to participate in the survey and participation in the survey was completely voluntary. The survey was designed to gather general information regarding gambling preferences on five specific types of gambling including lottery, charitable gambling, sports betting, casino gaming, and internet gambling. Of the 400 students chosen by the random sample, 138 students elected to participate in the study resulting in a 34.5% response rate.

This chapter is divided into six separate sections, each section representing one of the five specific types of gambling mentioned in the survey along with the last section that describes the demographics of those who participated in the survey. The first section will discuss lottery gambling, the second charitable gaming, the third will discuss sports betting, the fourth discusses casino gambling, and the fifth section discusses internet gambling. Each section will provide descriptive data specific to the type of gambling discussed in each section.

Section 1: Lottery gaming

Despite the increasing availability of new and diverse forms for gambling, state and local lotteries remain a constant and popular gambling activity. Lotteries are highly advertised, perceived as socially acceptable, are easily accessible and available, and are generally affordable. According to Hardoon et. al., (2001), in a survey of 3500 adults in

the United States and Canada, lottery gambling was reported to be the most popular gaming activity. The undergraduates at Northern Michigan University rated lottery gambling as the second most popular form of gaming. Of the 138 respondents to the survey, 63% of those surveyed responded they had participated in lottery gambling. Of the 63% of those who participated in lottery gaming, 63% of those students reported doing so in the past year, and 28% reported participating within the past two months. See table 4-1 for further details.

Table 4-1

Undergraduate Lottery Gaming

<u>Question</u>	<u>Yes</u>	<u>No</u>	<u>No Answer</u>
Have you ever spent money on the lottery including LOTTO, The Big Game, Daily 3 and Daily 4, Cash 5, Keno, or instant tickets?	63	36	2
Have you done so in the past year?	63	37	0
Have you done so in the past 2 months?	28	71	1

Note. All values are in percents.

The survey also inquired about the frequency, duration, and amount of money spent while gambling on the lottery. According to Northern Students, they tend to gamble on the lottery 2-4 times per year and have spent less than \$25 doing so. Within the last two months, 61% reported spending no money gambling on the lottery while 17% reported spending less than \$5. Please refer to figures 4-1 through 4-3 for a more complete description of the findings.

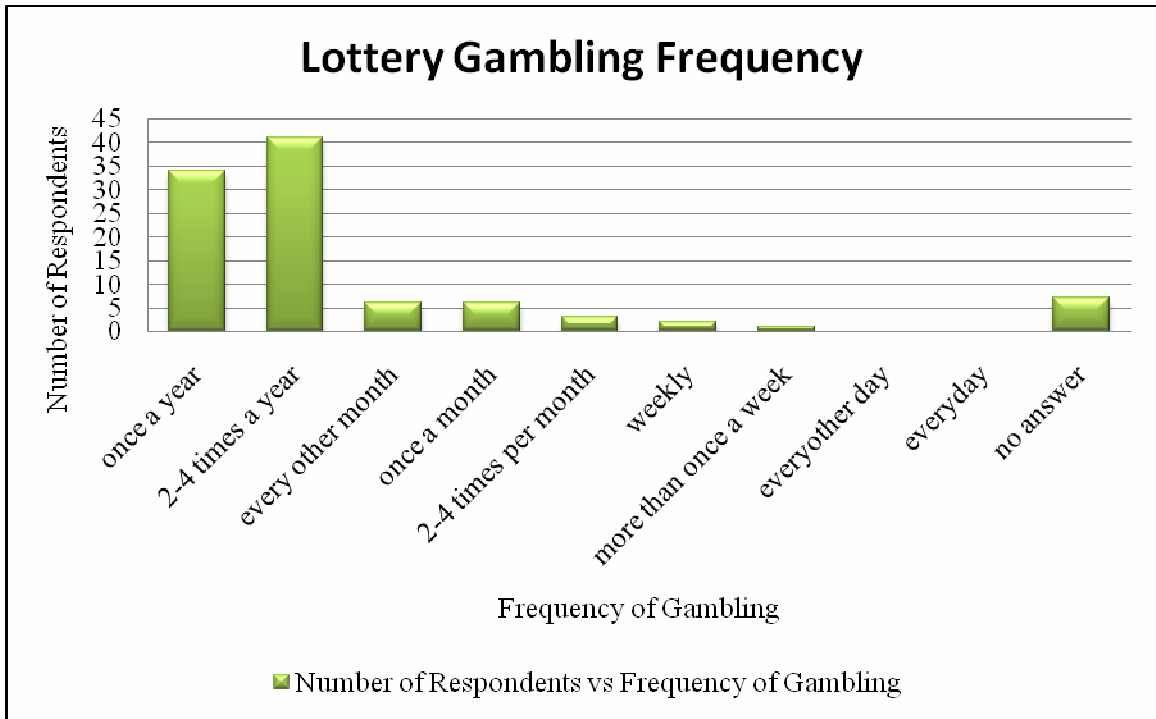


Figure 4-1

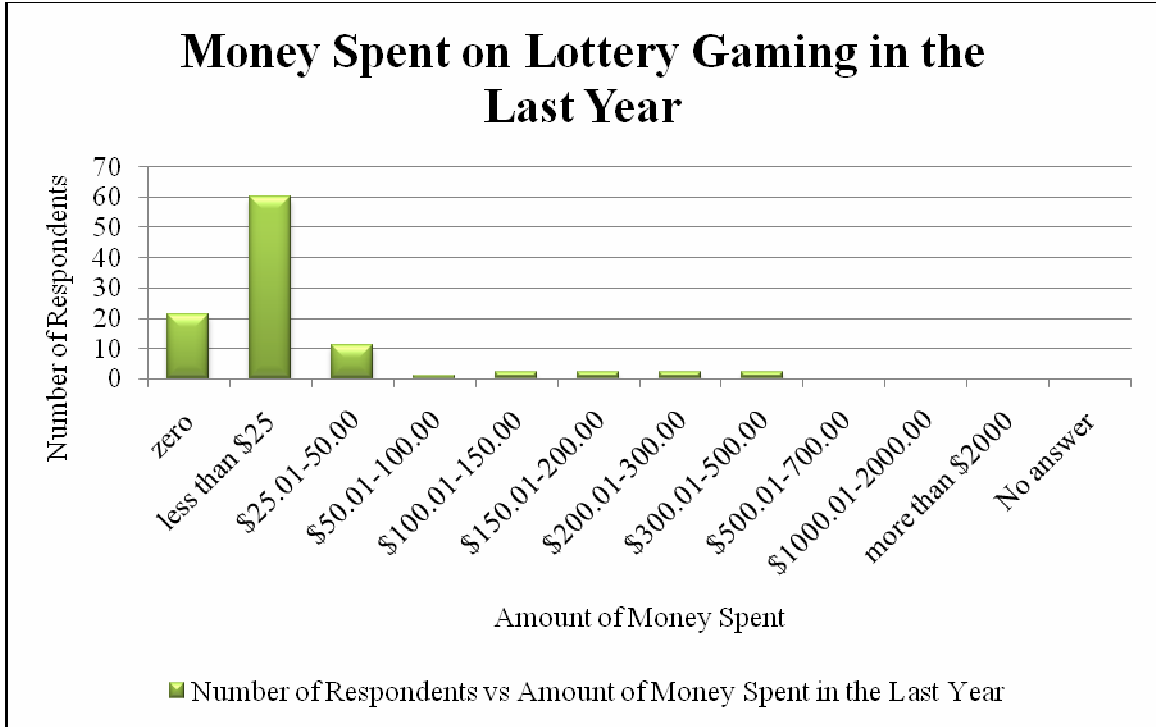


Figure 4-2



Figure 4-3

Section 2: Charitable Gaming

According to a study conducted by the Michigan Department of Community Health in 2001, 41.6% of Michiganders 18 years old and older have participated in some form of charitable gaming (p. 11). The self reporting survey used in this research discovered that nearly 52% of those who responded to the survey have participated in some form of charitable gaming such as bingo, pull-tabs, or raffles. Of the 52% that responded positively to participating in charitable gaming, 54% admit to doing so within the last year, and 25% have participated within the last two months. Please refer to table 4-2 for further details.

Table 4-2

Undergraduate Charitable Gaming

<u>Question</u>	<u>Yes</u>	<u>No</u>	<u>No Answer</u>
Have you ever bet money on a charitable group such as local bingo, pull tab tickets, Las Vegas nights, or raffles?	52	46	2
Have you done so in the past year?	54	46	0
Have you done so in the past 2 months?	25	67	8

Note. All values are in percents.

Along with the general inquiry regarding charitable gaming, the participants in the survey were also asked to report on the frequency and amount of money spent while participating in charitable gambling. Forty-six percent of the undergraduates reported that they tend to participate in charitable gaming such as bingo, Las Vegas Nights, and raffles once a year. Additionally, 31% reported participating at least 2-4 times per year and 7% reported playing every other month. As with lottery gambling, Northern Students report spending between \$25-50 on charitable gaming within the last year, and 72% report spending zero within the last two months. Please refer to figures 4-4 through 4-6 for complete details.

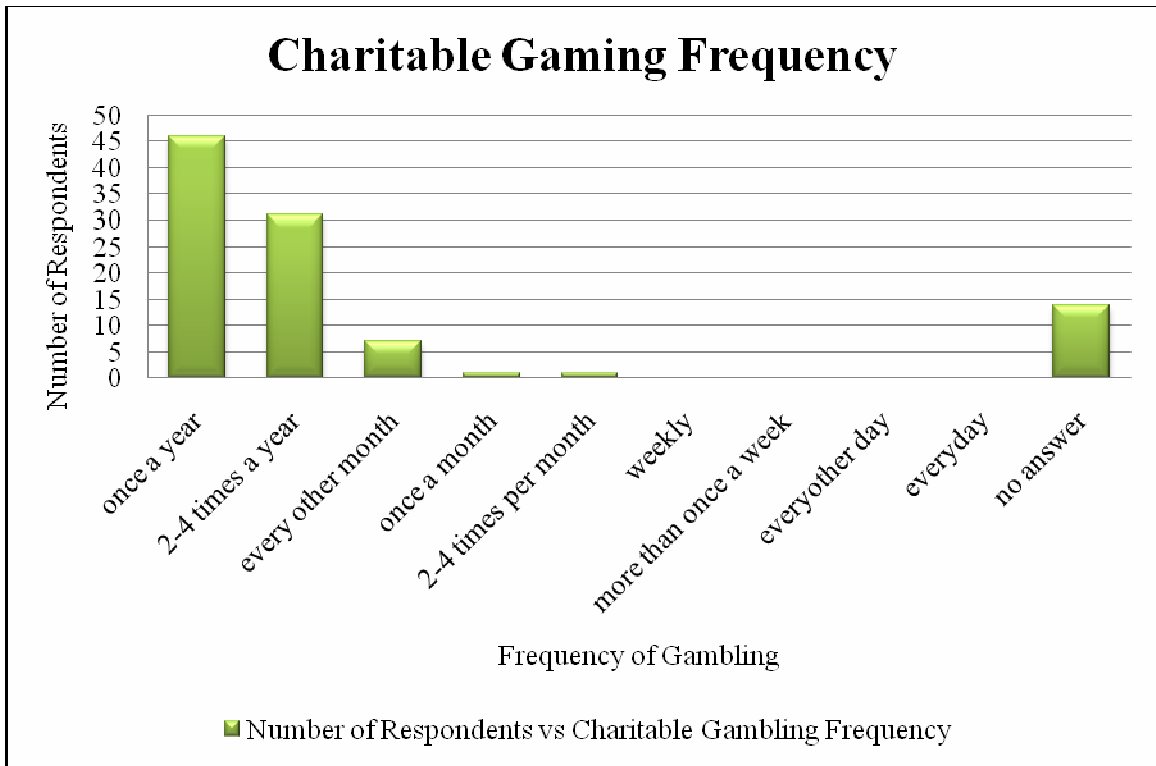


Figure 4-4

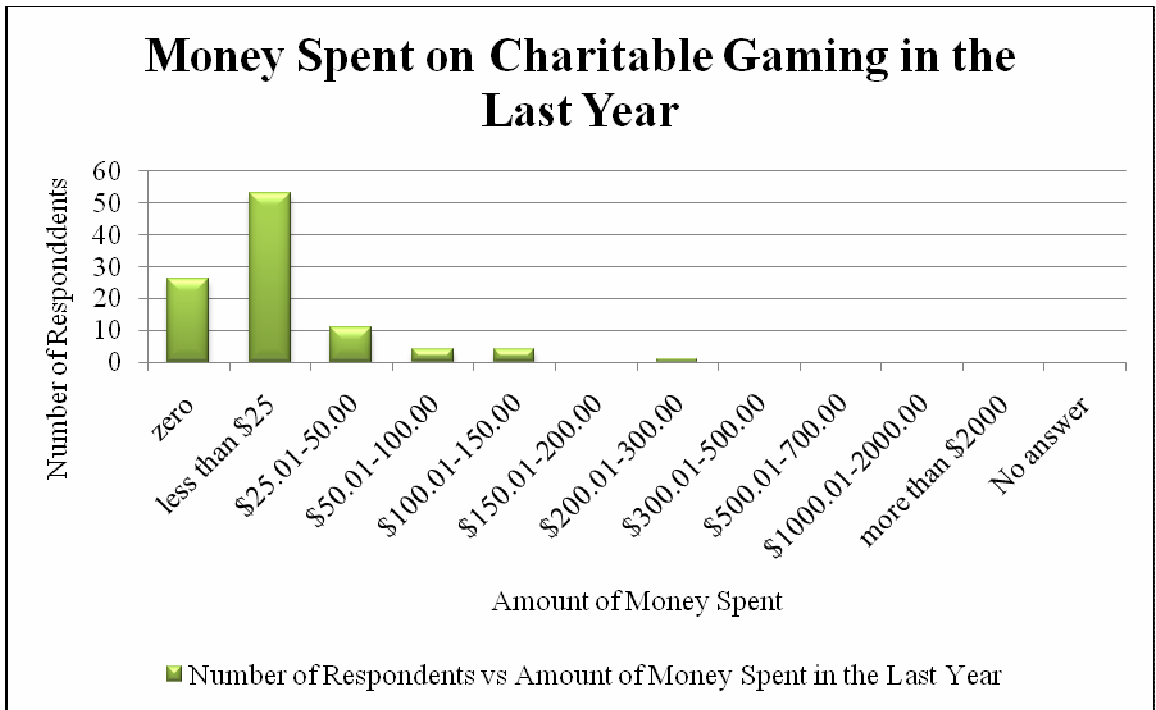


Figure 4-5

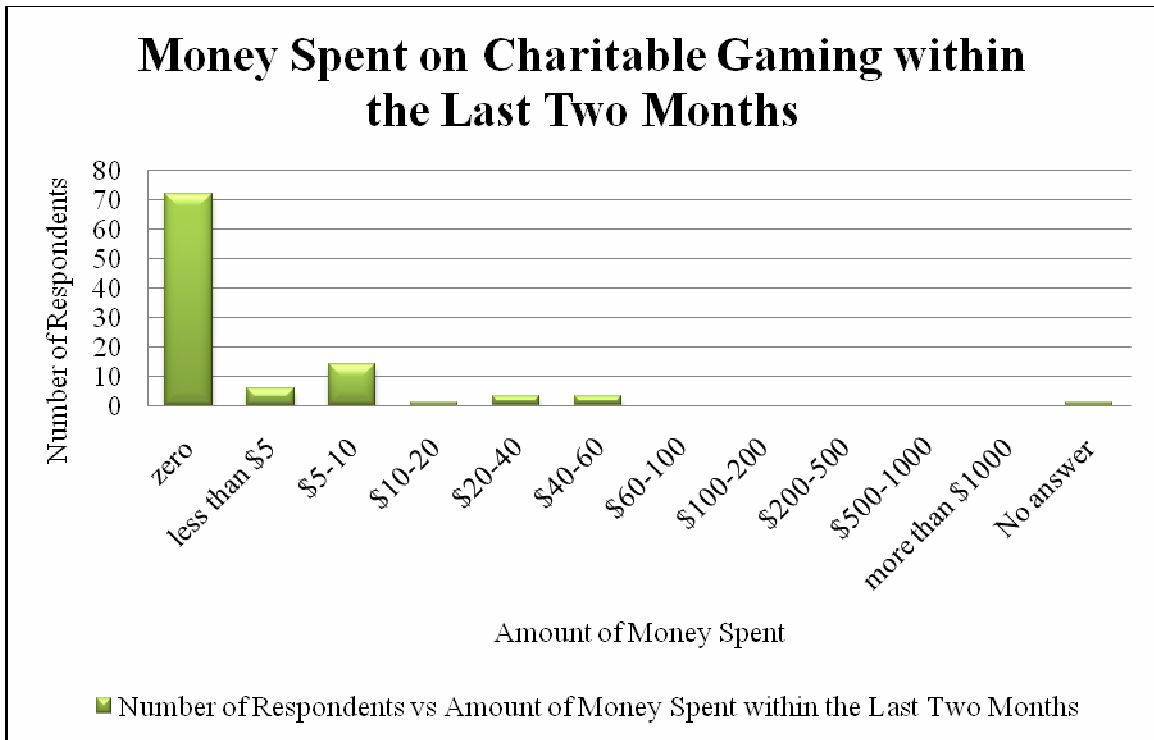


Figure 4-6

Section 3: Sports Betting

Many gambling venues are available to college students, however, in many states the legal age for gambling is 18 years old. Long before students are able to gamble legally in casinos or purchase lottery tickets, many students participate in sports betting. Sometimes it is a friendly wager among best friends, or a Super Bowl pool where the winner may win a large sum of money, whatever the case may be, many college age students and younger have access to this form of gambling. According to LaBrie et. al. (2003) whether it was a professional sport, college sport, or horse/dog racing, approximately 22% of college students have participated in some form of sports betting within the last year. In fact, the issue of college sports betting has gained national recognition when the discovery of student-operated sports-betting networks on campuses

made national news in 1996 (Engwall et. al, 2004). Currently, wagering on college athletic teams is legal in only one state, Nevada (Knapp, Rasmussen, & Niaghi, 2003, p. 60). While wagering on sporting events was not one of the more popular forms of gaming according to Northern students, nearly 25% of the 138 respondents of the survey reported participating in sports betting. Additionally, 63% of those who participated in sports betting reported doing so within the last year, and 51% reported doing so within the last two months. Please refer to table 4-3 for complete details.

Table 4-3

Undergraduate Sports Betting

<u>Question</u>	<u>Yes</u>	<u>No</u>	<u>No Answer</u>
Have you ever bet on the outcomes of sporting events?	25	70	5
Have you done so in the past year?	63	35	2
Have you done so in the past 2 months?	51	46	3

Note. All values are in percents.

The survey measured the frequency and amount of money spent on sports betting as well. Forty-six percent of the students who responded positively to gambling on sporting events reported doing so once a year and 37% reported gambling on sporting events 2-4 times a year. In regards to the amount of money spent on sports betting, 51% of students reported spending less than \$25 in the past year. Although 43% of students report spending zero on sports betting within the last two months, 29% report spending \$5-10. For complete details on frequency and money spent on sports betting please refer to figures 4-7 through 4-9.

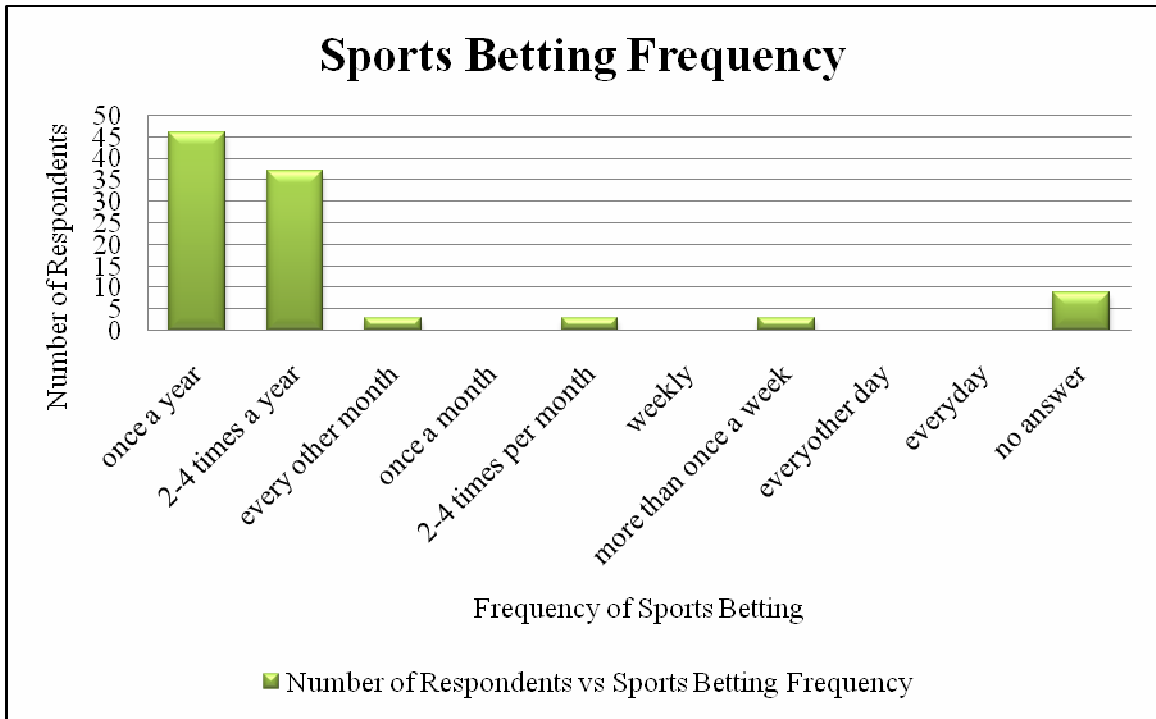


Figure 4-7

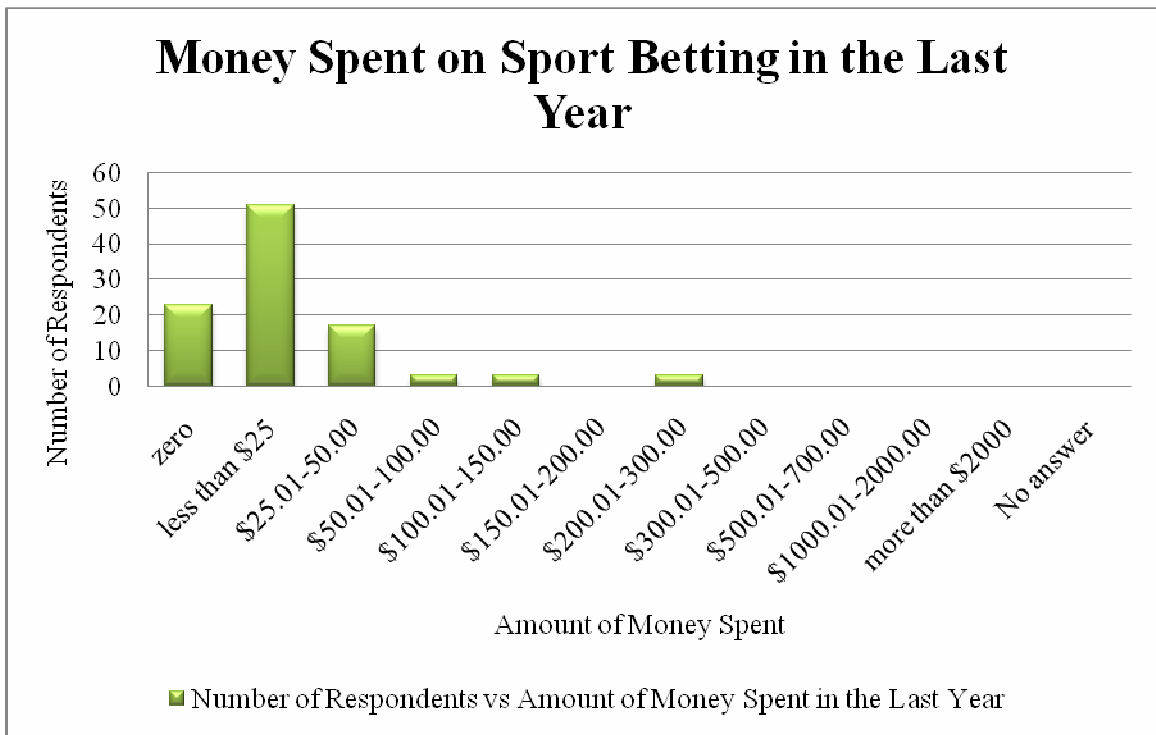


Figure 4-8

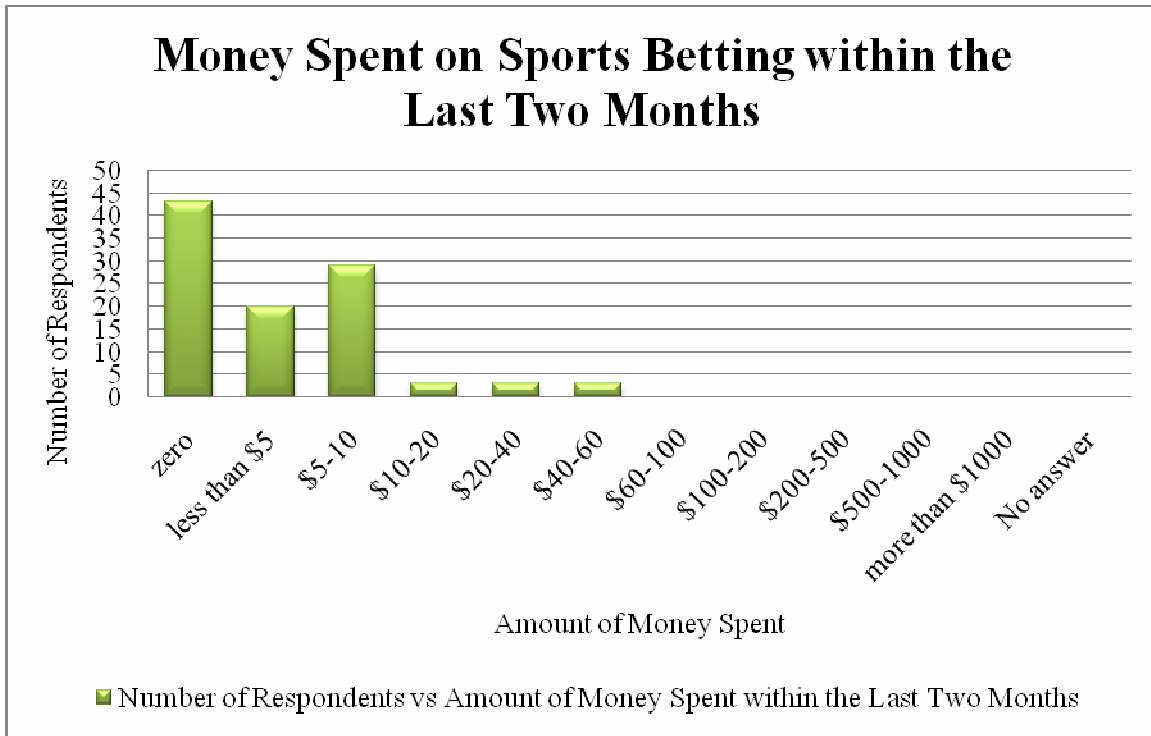


Figure 4-9

Section 4: Casino Gaming

According to Winters et. al. (1998), most Americans live within a 4-hour drive of a casino. In 1975, Nevada was the only state that offered casino gambling. By 1997, all but two states, Hawaii and Utah, had ratified some form of commercial gambling (Platz & Millar, 2001, p. 383). Casino gambling was the most frequent form of gambling activity as reported by undergraduates at Northern Michigan University. Eighty-four percent of students sampled reported participating in casino gaming. Of those who reported participating in casino gaming, 55% of them reported doing so within the last year, and 20% reported participating within the last two months. This is no surprise to the researcher because the closest casino is approximately 10 miles from the university down the Michigan Highway 28 corridor. Please refer to Table 4-4 for complete details.

Table 4-4

Undergraduate Casino Gaming

<u>Question</u>	<u>Yes</u>	<u>No</u>	<u>No Answer</u>
Have you ever bet at casinos (including slots, bingo, video machines, and table games)?	84	12	4
Have you done so in the past year?	55	43	2
Have you done so in the past 2 months?	20	77	3

Note. All values are in percents.

The students also were asked questions regarding frequency and money spent while gambling at casinos. Along with the frequency and money spent, sampled students were also asked to report on the duration of the casino gambling, reported in hours. Of the students who responded positively to casino gaming, 47% reported betting at casinos at least once a year and 37 % having done so 2-4 times a year. When asked to report on duration of gambling, 48% say that they gamble at casinos for 1-2 hours and 30% reporting their stay is less than an hour. Within the last year, 36% of undergraduate students reported spending less than \$25 at the casino while 34% reported spending zero. In the last two months the students 7% of student report spending \$1-20 while 77% reported spending zero. Please refer to figures 4-10 through 4-13 for details.

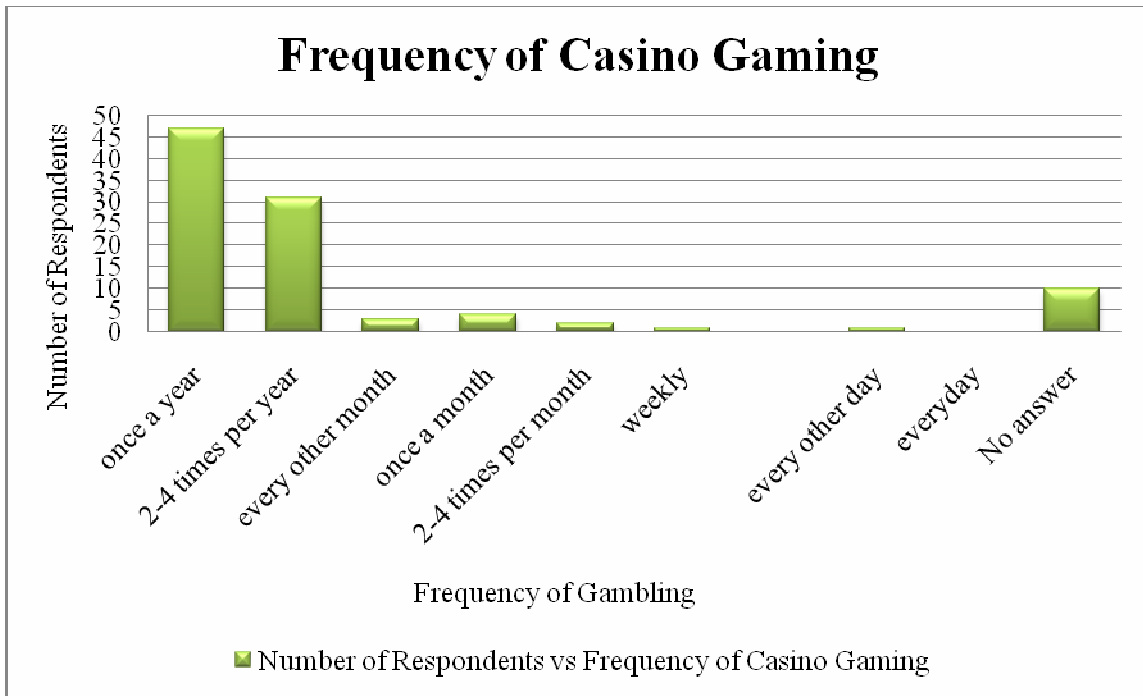


Figure 4-10

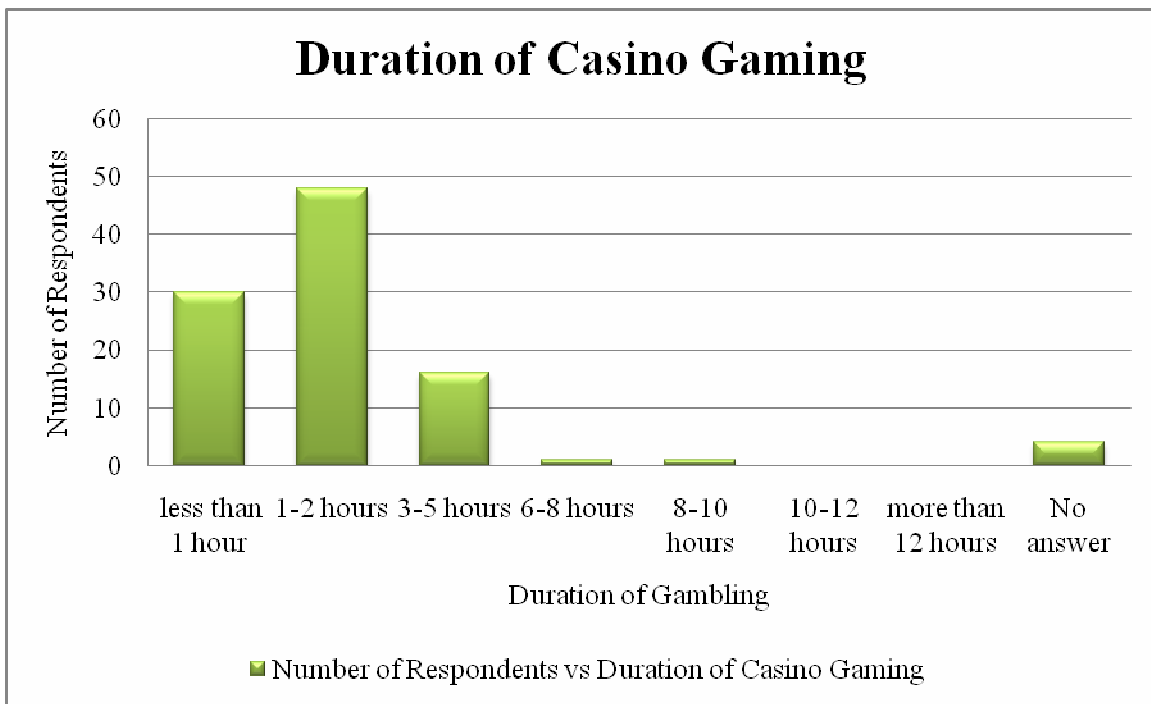


Figure 4-11

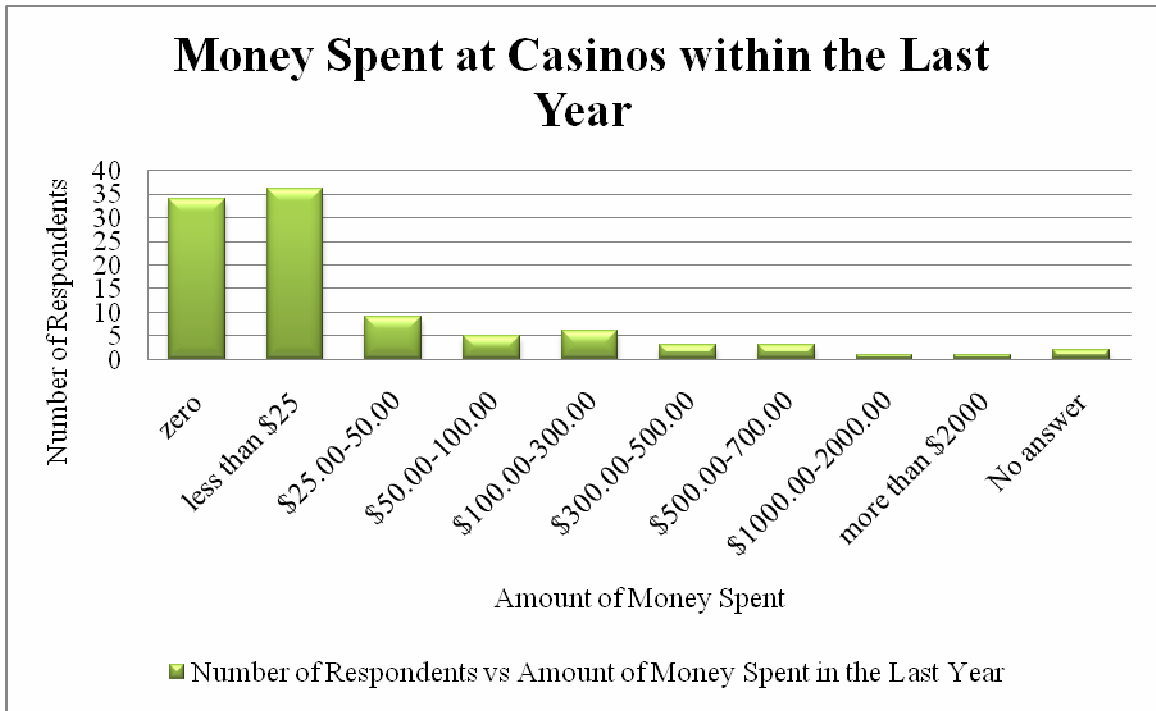


Figure 4-12

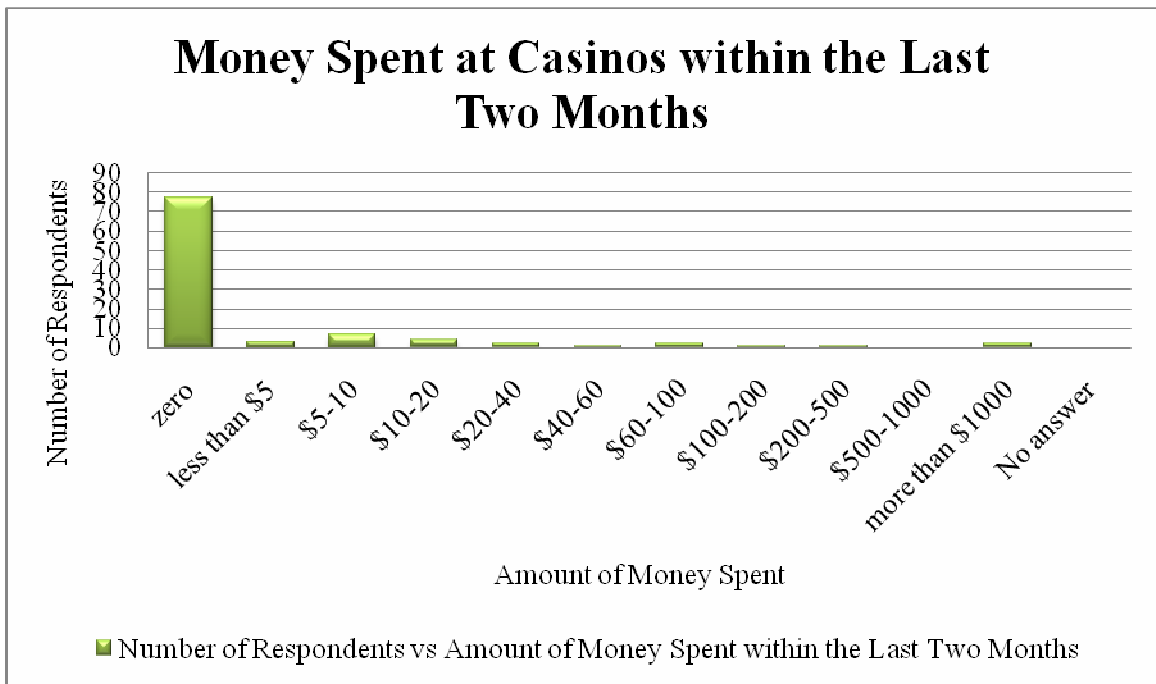


Figure 4-13

Section Five: Internet Gaming

According to Griffiths & Parke (2002, p.312), technology has always played a role in the development of gambling practices. As technology continues to advance it provides a new market of opportunities, with internet gambling leading the way. In the world of technology there are many other developments such as sophisticated software, e-cash systems, multilingual websites, live remote wagering, and the improvement of customer care systems that would help internet gaming to take off (Griffiths & Parke, 2002). Internet gaming has not exactly exploded on Northern Michigan University's campus, however, it is estimated that there are over 1400 gambling sites available worldwide and that the number of internet gamblers grew from approximately 4 million people in 1999 to 15 million in 2004 (Griffiths & Parke, 2002, p. 312). Although only 2% of students surveyed reporting in internet gaming, all of the students who responded positively to gambling on the internet reported doing so within the last year and 66% of them reported doing so within the last two months. Please refer to Table 4-5 for further information.

Table 4-5

Undergraduate Internet Gaming

<u>Question</u>	<u>Yes</u>	<u>No</u>	<u>No Answer</u>
Have you ever bet money at Internet gambling?	2	98	0
Have you done so in the past year?	100	0	0
Have you done so in the past 2 months?	66	33	0

Note. All values are in percents.

As with casino gambling, the survey inquired about frequency, duration and amount of money spent on internet gaming. One-third of students who reported they have participated in internet gambling also report gaming on the internet monthly and 2-4 times per month. When asked about the time spent gaming on the internet the responses were evenly divided. One third of the students reported spending less than one hour, one third reported spending 1-2 hours and one third reported spending 3-5 hours gambling on the internet. As for the amount of money spent over the last year while gambling on the internet, the respondents reported spending more than any other form of gaming. Thirty-three percent of student reported spending \$50-100, 33% reported spending \$100-150, and 33% responded spending \$150-200. Within the last two months, 66% of students reported spending zero while 33% reported spending \$10-20. See figures 4-14 through 4-17 for complete details.

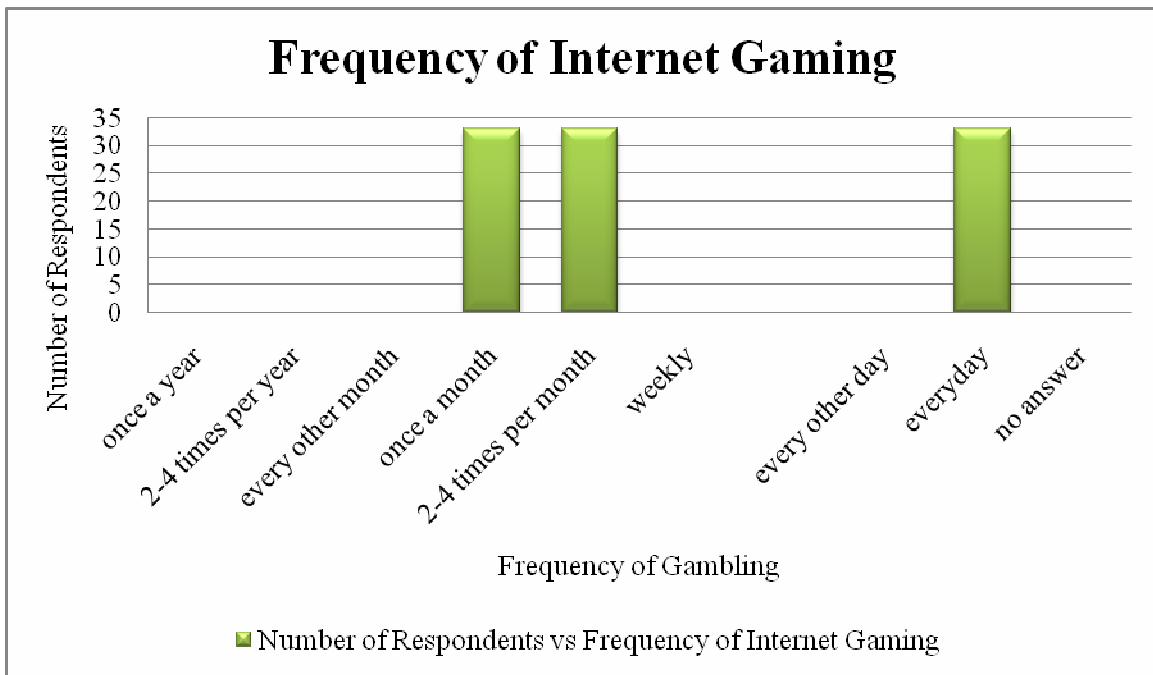


Figure 4-14

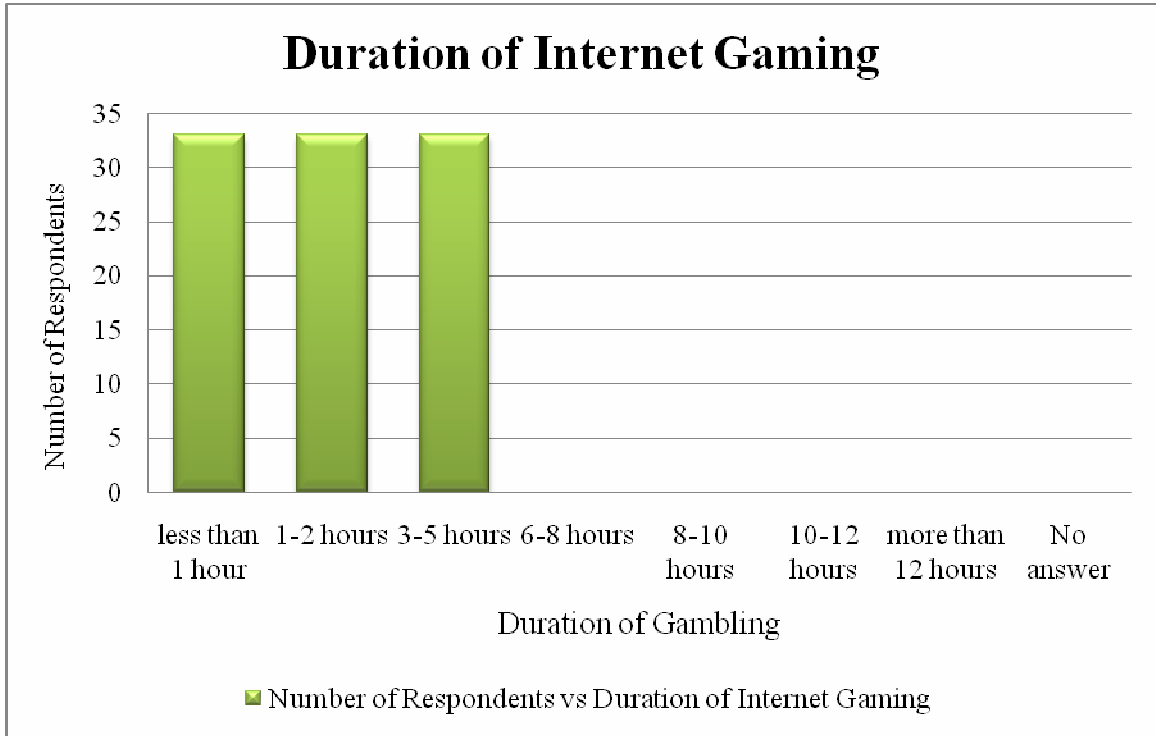


Figure 4-15

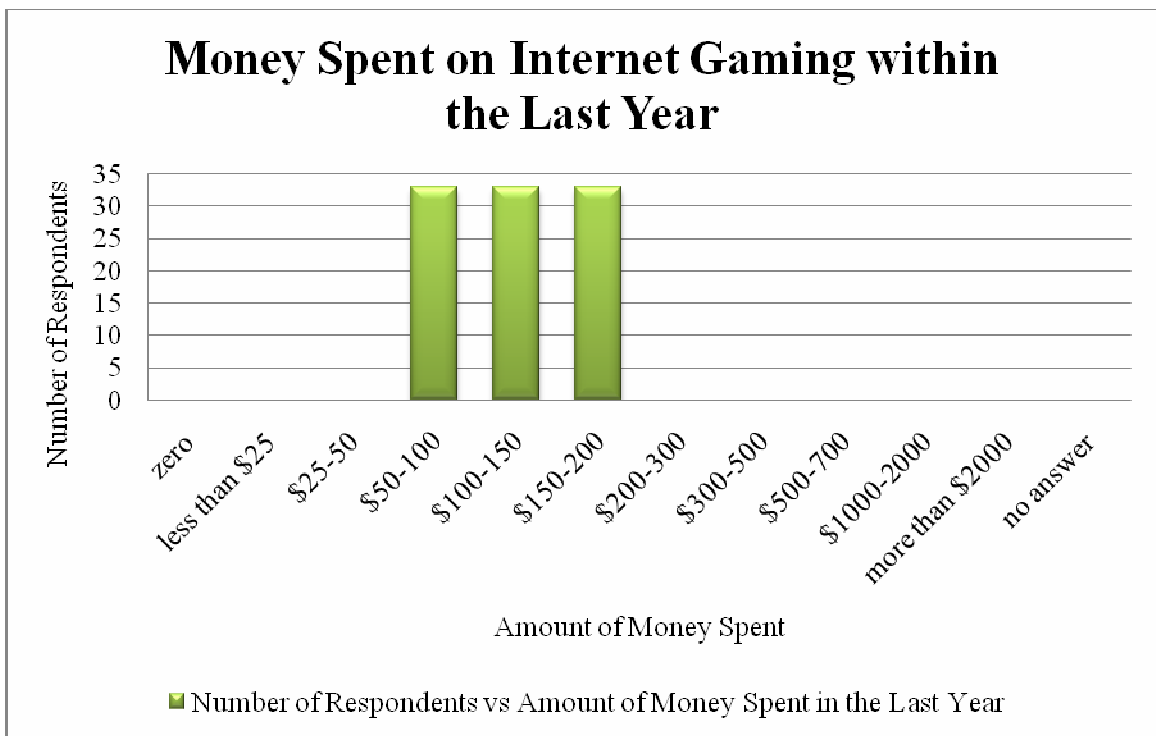


Figure 4-16

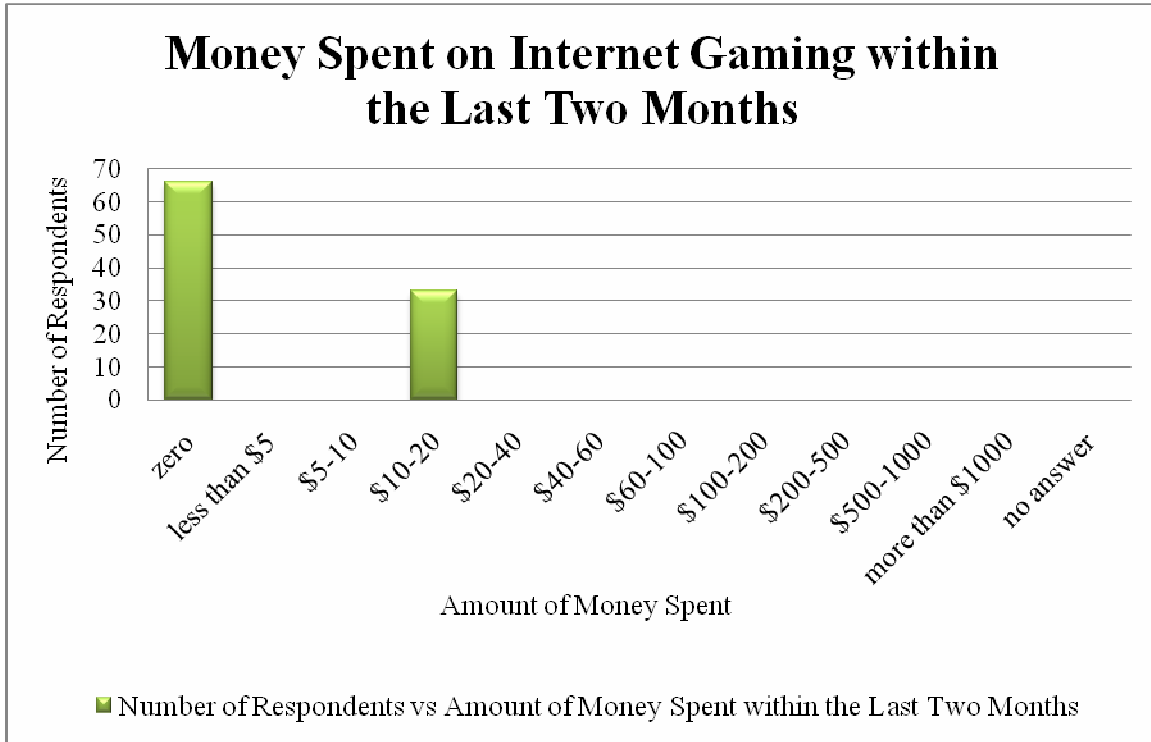


Figure 4-17

Section Six: Participant Demographics

The participants in the survey were sampled randomly by the Office of Institutional Research at Northern Michigan University. A random sample of 400, roughly 4% of the student population was gathered with 138 respondents (approximately a 35% response rate). There were no statistical differences found in terms of demographic characteristics and the five types of gambling the survey inquired about.

As summarized in Table 4-6, participants were predominately White (90%) and 22 years old (31%). The majority of participants were women (61%). The sample was not equally distributed in terms of college year with 78% of the respondents being seniors (having more than 88 credits). Nearly 34% of the participants worked part-time between 11-20 hours per week and had an income between \$5000-8000 (28%), not including their

parent's income, during the past twelve months. Please refer to Table 4-6 through 4-11 for complete demographic details.

Table 4-6

Gender of the College Sample

(N=138)

Gender	n	%
Female	48	35
Male	85	61
No Answer	5	4

Table 4-7

Age of the College Sample

(N=138)

Age	n	%
Under 18	0	0
18	0	0
19	0	0
20	1	1
21	35	25
22	43	31
23	20	15
24	8	6
Over 24	27	20
No Answer	4	2

Table 4-8

Class Standing of the College Sample

(N=138)

Class Standing	n	%
Freshman	3	2
Sophomore	6	4
Junior	15	11
Senior	108	78
No Answer	6	4

Table 4-9

Employment of the College Sample

(N=138)

Employment per Week	n	%
Unemployed	18	14
Less than 10 hours	10	7
10-20 hours	47	34
20-30 hours	32	23
30-40 hours	16	12
More than 41 hours	8	6
No Answer	6	4

Table 4-10

Income of the College Sample

(N=138)

Total Income	n	%
zero	3	2
\$1-5,000	39	28
\$5,000-8,000	38	28
\$8,000-10,000	22	16
\$10,000-15,000	13	10
\$15,000-20,000	6	4
\$20,000-25,000	3	2
More than \$25,000	7	5
No Answer	7	5

Table 4-11

Ethnicity of the College Sample

(N=138)

Ethnicity	n	%
Black/African American	0	0
White/Caucasian	124	90
Native American	2	1
Asian	4	3
Hispanic	0	0
Multiracial	3	2
No Answer	5	4

CHAPTER 5: CONCLUSIONS

The purpose of this research is to explore the gambling behaviors of college students in a small rural community. The research is designed to be a stepping stone for further research regarding gambling and other university related issues such as substance abuse or criminal activity to be explored. Since research of this design has not been conducted at Northern Michigan University or any other university to the researcher's knowledge, the information presented is unique and not comparable to other studies. However, the data presented regarding the individual forms of gambling provides information about what forms of gambling are most prevalent at Northern Michigan University, how much money college students spend while gaming, and how long students spend gambling.

According to the self reporting survey, Northern Michigan University undergraduate students rated casino gambling as the most common form of gaming with 84% of students confirming gambling at a casino. Nearly half of those students spend between 1-2 hours at the casino spending less than \$25 in the last year. Although a large percentage of students reported gambling at a casino, the amount of time spent gambling and the amount of money spent within the last year are relatively low in comparison to other forms of gaming. For example, only two percent of students surveyed reported gambling on the Internet. However, the amount of money spent while doing so has doubled to quadrupled from \$25 to anywhere between \$50-200. Gambling with replicas of money or e-cash as provided by Internet gambling sites creates what researchers call suspension of judgment (Griffiths & Parke, 2002). It is this suspension of judgment that disrupts the gambler's sense of financial value and tends to enable the gambler to

continue to gamble more. With Internet gambling technology improving with each passing year, it would be safe to say that in the future, more money will be spent on Internet gaming than in the casinos.

There are weaknesses and limitations associated with this study that need to be addressed. First, the findings are limited to a self-reporting survey. Whereas the use of the SOGS has been deemed a valid form of measurement regarding gambling issues, there is no way to validate the numerous self-reporting surveys created by researchers. Second, the study's focus on rural college students means that the data obtained should not be considered representative of college students in general.

These results suggest numerous avenues for future research. The present findings serve as the basis for the future construction of gambling studies. Ideas for future studies include gambling motivation and the relationship between gambling and substance abuse. Developing a solid understanding of the factors involved in gambling is important for the development of prevention and treatment interventions for pathological and problem gambling among college students. This research represents an important step towards recognizing that objective.

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Appendix A

Frequency of Gambling Survey

The return of the completed questionnaire or survey serves as permission to use your responses in the reporting of this information. No names or identifying numbers will be used in the report and there is no retribution for deciding not to take part in the research. You may (1) complete the survey and return it; (2) complete part of the questionnaire and return it; or (3) return the survey with no answers (blank). I thank you for your willingness to participate in my research efforts.

11.) Have you ever spent money on the lottery including LOTTO, The Big Game, Daily 3 and Daily 4, Cash 5, Keno, or instant tickets?

- a.) Yes (skip to 1a)
- b.) No (skip to 2)
- c.) No answer

1a.) Have you done so in the past year?

- a.) Yes
- b.) No
- c.) No answer

1b.) Have you done so in the past 2 months?

- a.) Yes
- b.) No
- c.) No answer

1c.) Approximately how often do you gamble on the lottery including LOTTO, The Big Game, Daily 3 and Daily 4, Cash 5, Keno, or instant tickets?

- a.) once a year
- b.) 2-4 times per year
- c.) every other month
- d.) once a month
- e.) 2-4 times per month
- f.) weekly
- g.) more than once per week
- h.) every other day
- i.) everyday
- j.) No answer

1d.) Approximately how much money have you spent gambling on the lottery in the last year?

- a.) zero
- b.) less than \$25
- c.) \$25.01-50.00
- d.) \$50.01-100.00
- e.) \$100.01-150.00
- f.) \$150.01-200.00
- g.) \$200.01-300.00
- h.) \$300.01-500.00
- i.) \$500.01-700.00
- j.) \$1000.01-2000.00
- k.) more than \$2000
- l.) No answer

1e.) Approximately how much money have you spent gambling on the lottery in the last two months?

- a.) zero
- b.) less than \$5
- c.) \$5-10
- d.) \$10-20
- e.) \$20-40
- f.) \$40-60
- g.) \$60-100
- h.) \$100-200
- i.) \$200-500
- j.) \$500-1000
- k.) more than \$1000
- l.) No answer

12.) Have you ever bet on charitable group events such as local bingos, pull-tab tickets, Las Vegas nights, or raffles?

- a.) Yes (skip to 2a)
- b.) No (skip to 3)
- c.) No answer

2a.) Have you done so in the past year?

- a.) Yes

- b.) No
- c.) No answer

2b.) Have you done so in the past 2 months?

- a.) Yes
- b.) No
- c.) No answer

2c.) Approximately how often do you bet on charitable group events such as local bingos, pull-tab tickets, Las Vegas nights, or raffles?

- a.) once a year
- b.) 2-4 times per year
- c.) every other month
- d.) once a month
- e.) 2-4 times per month
- f.) weekly
- g.) more than once per week
- h.) every other day
- i.) everyday
- j.) No answer

2d.) Approximately how much money have you spent betting on charitable group events such as local bingos, pull-tab tickets, Las Vegas nights, or raffles in the last year?

- a.) zero
- b.) less than \$25
- c.) \$25.01-50.00
- d.) \$50.01-100.00
- e.) \$100.01-150.00
- f.) \$150.01-200.00
- g.) \$200.01-300.00
- h.) \$300.01-500.00
- i.) \$500.01-700.00
- j.) \$1000.01-2000.00
- k.) more than \$2000
- l.) No answer

2e.) Approximately how much money have you spent betting on charitable group events such as local bingos, pull-tab tickets, Las Vegas nights, or raffles in the last two months?

- a.) zero

- b.) less than \$5
- c.) \$5-10
- d.) \$10-20
- e.) \$20-40
- f.) \$40-60
- g.) \$60-100
- h.) \$100-200
- i.) \$200-500
- j.) \$500-1000
- k.) more than \$1000
- l.) No answer

13.) Have you ever bet on outcomes of sporting events?

- a.) Yes (skip to 3a)
- b.) No (skip to 4)
- c.) No answer

3a.) Have you done so in the past year?

- a.) Yes
- b.) No
- c.) No answer

3b.) Have you done so in the past 2 months?

- a.) Yes
- b.) No
- c.) No answer

3c.) Approximately how often do you bet on outcomes of sporting events?

- a.) once a year
- b.) 2-4 times per year
- c.) every other month
- d.) once a month
- e.) 2-4 times per month
- f.) weekly
- g.) more than once per week
- h.) every other day
- i.) everyday
- j.) No answer

3d.) Approximately how much money have you spent betting on outcomes of sporting events in the last year?

- a.) zero
- b.) less than \$25
- c.) \$25.01-50.00
- d.) \$50.01-100.00
- e.) \$100.01-150.00
- f.) \$150.01-200.00
- g.) \$200.01-300.00
- h.) \$300.01-500.00
- i.) \$500.01-700.00
- j.) \$1000.01-2000.00
- k.) more than \$2000
- l.) No answer

3e.) Approximately how much money have you spent betting on outcomes of sporting events in the last two months?

- a.) zero
- b.) less than \$5
- c.) \$5-10
- d.) \$10-20
- e.) \$20-40
- f.) \$40-60
- g.) \$60-100
- h.) \$100-200
- i.) \$200-500
- j.) \$500-1000
- k.) more than \$1000
- l.) No answer

14.) Have you ever bet at casinos (including slots, bingo, video machines, and table games)?

- a.) Yes (skip to 4a)
- b.) No (skip to 5)
- c.) No answer

4a.) Have you done so in the past year?

- a.) Yes
- b.) No
- c.) No answer

4b.) Have you done so in the past 2 months?

- a.) Yes
- b.) No

c.) No answer

4c.) Approximately how often do you bet at casinos (including slots, bingo, video machines, and table games)?

- a.) once a year
- b.) 2-4 times per year
- c.) every other month
- d.) once a month
- e.) 2-4 times per month
- f.) weekly
- g.) more than once per week
- h.) every other day
- i.) everyday
- j.) No answer

4d.) When you bet at casinos, do you usually do so for....?

- a.) less than 1 hour
- b.) 1-2 hours
- c.) 3-5 hours
- d.) 6-8 hours
- e.) 8-10 hours
- f.) 10-12 hours
- g.) more than 12 hours
- h.) No answer

4e.) Approximately how much money have you spent betting at casinos in the last year?

- a.) zero
- b.) less than \$25
- c.) \$25.00-50.00
- d.) \$50.00-100.00
- e.) \$100.00-300.00
- f.) \$300.00-500.00
- g.) \$500.00-700.00
- h.) \$1000.00-2000.00
- i.) more than \$2000
- j.) No answer

4f.) Approximately how much money have you spent betting at casinos in the last two months?

- a.) zero
- b.) less than \$5

- c.) \$5-10
- d.) \$10-20
- e.) \$20-40
- f.) \$40-60
- g.) \$60-100
- h.) \$100-200
- i.) \$200-500
- j.) \$500-1000
- k.) more than \$1000
- l.) No answer

5.) Have you ever bet money at Internet gambling?

- a.) Yes (skip to 5a)
- b.) No (skip to 6)
- c.) No answer

5a.) Have you done so in the past year?

- a.) Yes
- b.) No
- c.) No answer

5b.) Have you done so in the past 2 months?

- a.) Yes
- b.) No
- c.) No answer

5c.) Approximately how often do you bet money at Internet gambling?

- a.) once a year
- b.) 2-4 times per year
- c.) every other month
- d.) once a month
- e.) 2-4 times per month
- f.) weekly
- g.) more than once per week
- h.) every other day
- i.) everyday
- j.) No answer

5d.) When you bet money at Internet gambling do you usually do so for....?

- a.) less than 1 hour
- b.) 1-2 hours
- c.) 3-5 hours

- d.) 6-8 hours
- e.) 8-10 hours
- f.) 10-12 hours
- g.) more than 12 hours
- h.) No answer

5e.) Approximately how much money have you spent betting at Internet gambling in the last year?

- a.) zero
- b.) less than \$25
- c.) \$25-50
- d.) \$50-100
- e.) \$100-150
- f.) \$150-200
- g.) \$200-300
- h.) \$300-500
- i.) \$500-700
- j.) \$1000-2000
- k.) more than \$2000
- l.) No answer

5f.) Approximately how much money have you spent betting at Internet gambling in the last two months?

- a.) zero
- b.) less than \$5
- c.) \$5-10
- d.) \$10-20
- e.) \$20-40
- f.) \$40-60
- g.) \$60-100
- h.) \$100-200
- i.) \$200-500
- j.) \$500-1000
- k.) more than \$1000
- l.) No answer

6.) What is your sex?

- a.) Female
- b.) Male
- c.) No answer

7.) What is your age?

- a.) under 18
- b.) 18
- c.) 19
- d.) 20
- e.) 21
- f.) 22
- g.) 23
- h.) 24
- i.) older than 24
- j.) No answer

8.) What is your class standing?

- a.) Freshman (0-28 credits)
- b.) Sophomore (28-55 credits)
- c.) Junior (56-87 credits)
- d.) Senior (more than 88 credits)
- e.) No answer

9.) What was your total income last year (not including your parent's income)?

- a.) zero
- b.) \$1.00-5000.00
- c.) \$5000.01-8000.00
- d.) \$8000.01-10,000.00
- e.) \$10,000.01-15,000.00
- f.) \$15,000.01-20,000.00
- g.) \$20,000.01-25,000.00
- h.) more than \$25,000
- i.) No answer

10.) How many hours a week did you work at a paid job?

- a.) not employed
- b.) employed less than 10 hours per week
- c.) employed 11-20 hours per week
- d.) employed 21-30
- e.) employed 31-40 hours per week
- f.) employed more than 41 hours per week
- g.) No answer

11.) Which of the following best describes your racial or ethnic group?

- a.) Black/African American
- b.) White/ Caucasian
- c.) Native American
- d.) Asian
- e.) Hispanic
- f.) Multi-racial
- g.) No answer

Application for Review of Research
Involving Human Subjects
NMU HSRR Committee



Instructions for this Form: **YOU MUST** save this form to your hard drive (click File>Save As...), then open it from the version saved on your computer. You should be able to fill it out electronically and then print it out. You should then sign it and send it to the Dean of Graduate Studies and Research, Room 401 Cohodas.

I. Name of Investigator Stephanie DePetro
Department Criminal Justice
Mailing Address 322 W. Ridge Street Marquette, MI 49855
Phone 906-226-1937
Email stcampbe@nmu.edu

II. (For student research)
Faculty Advisor Dr. Linda Zupan
Advisor's Phone 227-1616
Advisor's E-mail lzupan@nmu.edu

III. Type
New Renewal Continuation
If renewal or continuation, has procedure changed? Yes No

IV. Project Title: Gambling behavior of NMU Students

V. Funding: Pending funding decision Currently funded Not funded
List source of funding (if applicable):
Federal Agency Industry
Internal Other

VI. Proposed project dates: from 1/16/2006 to 5/6/2006

Note: Do not begin your research (including potential research subjects) until you receive notification that your application has been approved by the HSRR which serves as the NMU IRB. This process will take a minimum of 2 weeks (excluding breaks).

VII. Type of Review

- | | | |
|------------------|--|---|
| Exempted review | Yes ¹ <input type="checkbox"/> | No <input type="checkbox"/> (original + 2 copies enclosed) |
| Expedited review | Yes ² <input checked="" type="checkbox"/> | No <input type="checkbox"/> (original + 4 copies enclosed) |
| Full review | Yes <input type="checkbox"/> | No <input type="checkbox"/> (original + 13 copies enclosed) |

¹ If yes, explain why you feel your project is exempt (please relate your argument to one of the categories listed under Section IV Part A in the HSRRC Manual).

² If yes, explain why your project should be expedited (please relate your argument to one of the categories listed under Section IV Part B in the HSRRC Manual) and complete this application form.
My research project should be expedited because Section IV Part B sub-section 7 states "Research on individual or group behavior or characteristics, such as research on motivation, identity, perception, cognition, language, cultural beliefs or practices, social behavior and communication or research employing focus group, survey, oral history, interview, program evaluation, human factor evaluation or quality assurance methodologies." My project incorporates research on group/individual behavior taken by survey.

III. Project Description (Abstract)

Please limit your response to 200 words

My research will examine the frequency and duration of gambling by NMU undergraduate students.

IX. Subjects in Study (check all that apply)

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> NMU students | <input type="checkbox"/> Pregnant women | <input type="checkbox"/> Minorities |
| <input type="checkbox"/> NMU faculty or staff | <input type="checkbox"/> Cognitively impaired | <input type="checkbox"/> Prisoners |
| <input type="checkbox"/> Adult, non-student | <input type="checkbox"/> Physically disabled | <input type="checkbox"/> Terminally ill |
| <input type="checkbox"/> Minor | <input type="checkbox"/> Low income persons | <input type="checkbox"/> Non-native speakers |

Number of subjects 450

Age range of subjects 18-35

X. Procedures

A. Describe how the subject pool will be identified and recruited. If the subjects receive payment or compensation for participation, state the amount and form of payment.

The student population is NMU undergraduate students enrolled in at least one credit in Winter, 2006 semester. The sample will be randomly selected by computer by the Office of Institutional Research.

B. Discuss where the study will take place and any equipment that will be involved.

The study takes place on NMU campus or wherever the randomly selected students access their e-mail by computer. Since the survey will be administered via e-mail, the only equipment involved are computers which every student should have available.

- C. Describe what the participants will be doing in the research project and how long will they be asked to participate. Attach any interview scripts, questionnaires, surveys, or other instruments that the participants will be asked to complete or respond to.

The randomly selected students will be asked to complete an e-mail survey. The survey should take only 15 minutes to complete. A list of the survey questions is attached.

- D. If there are any costs—laboratory tests, drugs, supplies, etc.—to the subjects for participating, they should be explained.

No costs

- E. If deception is involved or information withheld from the subjects, please justify the withholding and describe the debriefing plan.

No deception involved

XI. Risks

Describe the nature and likelihood of possible risks (physical, psychological, social, etc.) to the subjects and precautions that will be taken to minimize them. Simply stating “none” or “minimal” is unacceptable.

The likelihood of possible risks associated with this survey are minimal. It is possible that in reflecting on their gambling activities while completing the survey, some students might realize that they have a gambling problem. To minimize the psychological risk involved from such a discovery, a follow-up e-mail will be sent to all respondents after they have completed the survey. The same follow-up e-mail will be sent to those who have started the survey, but not completed the survey. The e-mail will identify resources for those with gambling problems. A copy of this e-mail is attached.

XII. Benefits

Describe the benefits to the subject and/or society. The HSRRC must have sufficient information to make a determination that the benefits outweigh whatever risks are involved.

The knowledge gained from this study regarding the gambling behavior of NMU students would offset the minimal psychological risk to the participants. The benefit of conducting this survey is to gain better knowledge of the frequency and duration of gambling by NMU students. The results of this study may be used in the future to direct faculty/peer and peer/peer support groups on NMU's campus.

XIII. Voluntary Participation

Describe how you will ensure subject participation is voluntary. A copy of the consent form to be signed by the subject should be attached to this proposal, (See Section IV Part D in the HSRRC Manual for information about informed consent

forms.) If your research is exempted from obtaining a signed informed consent release, please include a written protocol that indicates how informed consent will be obtained.

The research is exempt from obtaining a signed informed consent release because it is a confidential survey. Informed consent will be obtained by including a paragraph before the survey reassuring participants that the survey is completely confidential and participation is voluntary.

XIV. Confidentiality of Data

Describe how you plan to protect the confidentiality of the data collected. Include a description of where the data will be stored and who has access to it. If the data will be coded to protect subject identity, this should be explained. NOTE: ALL DATA MUST BE RETAINED FOR 7 YEARS

A confidential survey will be used to protect the identity of the respondents. According to Paul Duby from Institutional Research at Northern Michigan University, once the survey responses are submitted, any linkage between the respondent and the survey the are completely and permanently severed. I only have access to the answers to the survey, not the random sample itself. All data will be stored in my home in a locked file cabinet.

Signatures

1. I have read the NMU HSRRC Manual. I will adhere to the policies and procedures explained therein.
2. Should I wish to make changes in the approved human subjects protocol for this project, I will submit them for review prior to initiating the changes.
3. If any unanticipated problems arise involving human subjects, I will stop the research immediately and notify the HSRRC chair and Northern's IRB administrator.

Principal Investigator	E-mail Address	Date
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Co-Principal or Student Investigator	E-mail Address	Date
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Co-Principal or Student Investigator	E-mail Address	Date
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Faculty Advisor (For student research)	E-mail Address	Date
--	----------------	------



Northern
Michigan
University

December 12, 2005

College of Graduate Studies
1401 Presque Isle Avenue
Marquette, MI 49855-5322
906-227-2300
FAX: 906-227-2315
Web site: www.nmu.edu

TO: Stephanie DePetro
Criminal Justice

FROM: Cynthia A. Prosen, Ph.D.
Dean of Graduate Studies & Research

RE: Human Subjects Proposal #HS05-063
Gambling Behavior of NMU Students

CR

The Human Subjects Research Review Committee has reviewed your proposal and has given it final approval. To maintain permission from the Federal government to use human subjects in research, certain reporting processes are required. As the principal investigator, you are required to:

- A. Include the statement "Approved by HSRRC: Project # (listed above) on all research materials you distribute, as well as on any correspondence concerning this project.
- B. Provide the Human Subjects Research Committee letters from the agency(ies) where the research will take place within 14 days of the receipt of this letter. Letters from agencies should be submitted if the research is being done in (a) a hospital, in which case you will need a letter from the hospital administrator; (b) a school district, in which case you will need a letter from the superintendent, as well as the principal of the school where the research will be done; or (c) a facility that has its own Institutional Review Board, in which case you will need a letter from the chair of that board.
- C. Report to the Human Subjects Research Review Committee any deviations from the methods and procedures outlined in your original protocol. If you find that modifications of methods or procedures are necessary, please report these to the Human Subjects Research Review Committee before proceeding with data collection.
- D. Submit progress reports on your project every 12 months. You should report how many subjects have participated in the project and verify that you are following the methods and procedures outlined in your approved protocol.
- E. Report to the Human Subjects Research Review Committee that your project has been completed. You are required to provide a short progress report to the Human Subjects Research Review Committee in which you provide information about your subjects, procedures to ensure confidentiality/anonymity of subjects, and the final disposition of records obtained as part of the research (see Section II.C.7.c).
- F. Submit renewal of your project to the Human Subjects Research Review Committee if the project extends beyond three years from the date of approval.

It is your responsibility to seek renewal if you wish to continue with a three-year permit. At that time, you will complete (D) or (E), depending on the status of your project.

ljh