

*Clinical Interviews with Frequent  
Slot Machine Players*

Prepared by

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# Introduction

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This chapter summarizes the data obtained from 86 “clinical interviews” administered by telephone (please see Appendix ‘A’ for a copy of the interview materials). The purpose of the interviews was to examine the characteristics of a sample of regular slot machine\* gamblers in and around the state of Delaware. We aimed to investigate: 1) frequency and magnitude of gambling involvement; 2) the degree of gambling related problems, if any; 3) the co-occurrence of other psychiatric disorders; 4) gambling preferences; and 5) the opinions of players on the effects of legalized gambling and the need for services for those suffering from gambling-related problems.

\*For the purposes of this study “slot machines” include video poker and all other forms of video gambling.

## STUDY GROUP POPULATION

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In survey research, the ideal situation is to obtain a *random* sample from some *real* population. In other words, each potential respondent in the population would have an equal probability of being selected. When a random sample is obtained, statistical inference is possible. That is, results from the sample can be generalized to the larger population.

Unfortunately, the sample in this survey is a non-random, self-selected one. Newspaper advertisements asked for people who gambled on slots “at least once per week” to volunteer for a telephone interview. (See Appendix ‘B’ for the advertising copy). All respondents were given a \$20 payment for their participation. Prospective volunteers called a voice mail number and left their first name and telephone number, along with the best time to reach them. Each volunteer was contacted by an interviewer as soon as possible, usually within one week. Up to six call-backs were made in some cases to ensure an interview.

Because the respondents were volunteers, they essentially selected themselves for the study. Furthermore, recruitment through advertising is not random because only those persons who saw the ads in the newspapers were included in the pool of possible respondents. In some cases, respondents may have heard about the study through word of mouth. In several cases, husbands and wives, or a pair of friends were interviewed. In such cases responses are not independent because it is assumed that related pairs of volunteers may answer questions *similarly*. Thus, the generalizability of the results reported here is severely limited.

Eighty-six subjects were eventually interviewed. Of these, eight (9%) reported that they *did not* play slot machines (either in Delaware or Atlantic City) at least *once per month* on average. In order to maximize the limited generalizability of the sample and instill some measure of homogeneity, we decided to eliminate the eight non-slots players from further analyses. Thus, the final sample numbered 78 people who gamble on slots a *minimum* of once per month.

## DEMOGRAPHICS

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The demographic characteristics of the sample are as shown below in Tables 1 and 2:

**TABLE 1: AGE AND ANNUAL HOUSEHOLD**

	Mean	S	Min	Max	Valid N*
<b>Age (yrs)</b>	52.04	13.94	21	75	73
<b>Income (\$)</b>	45,631	29,393	9600	200,000	69

\*throughout this report, totals may not always add up to 78 due to missing data.

**TABLE 2: RACE AND GENDER**

	Race		Gender	
<b>Af.Amer.</b>	15	(20%)	<b>Male</b>	21 (29%)
<b>Caucasian</b>	60	(80%)	<b>Female</b>	52 (71%)

There was a trend, not quite reaching significance, for African American respondents to report lesser household income than Caucasians (see Table 3):

**TABLE 3: RACE BY ANNUAL INCOME**

	Mean Income	F(1,67)	Sig.
<b>Caucasian</b>	\$48,902	3.48	.067
<b>Af. Amer.</b>	\$32,786		

# GAMBLING PROBLEMS

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The respondents answered twenty questions designed to assess the prevalence of pathological gambling disorder, as defined by DSM-IV (APA, 1993). The wording of the questions was adapted from Winters, Specker and Stinchfield (1997). Respondents were asked if they had *ever* engaged in certain behaviors or encountered certain problems based on DSM-IV criteria. If the respondent answered affirmatively to the lifetime items, he/she was asked a follow-up question using an 18-month time-frame. These responses were used to compute “lifetime” and “current” (18-month) rates of pathological gambling among the sample of respondents. We used the same scoring criteria as in Winters, et al. (1997). (See Appendix ‘C’ for DSM-IV criteria and the associated items and scoring key). We used a relatively conservative score of ‘5’ (out of a possible 10) as a threshold criterion for pathological gambling (in other words, no provision was made for “sub-threshold”, or “problem gamblers”). The lifetime and current rates for the sample are shown in Table 4:

**TABLE 4: CURRENT AND LIFETIME PATHOLOGICAL GAMBLING**

	<b>Number</b>	<b>Percent of Sample (N=78)</b>
<b>Current Pathological</b>	30	38.5
<b>Lifetime Pathological</b>	35	45

The extremely high rates of gambling problems in this sample is a further illustration of the effects of self-selection. Based on numerous prior studies, we would only expect to see approximately 3% of respondents in the *general population* evidence pathological gambling problems. On the other hand, if we examined a convenience sample of regular (weekly) casino gamblers (including slots players), we might expect to see a 7% prevalence of current pathological gambling (e.g., Fisher, 1996). The high rate of Pathological gambling problems seen here is an artifact of the non-random selection procedure. It cannot be inferred that 38.5% of frequent (monthly or better) slots players are pathological gamblers. By way of explanation, it could be likely that pathological gamblers are more motivated to volunteer because they value the \$20 payment; or it could be that pathological gamblers have a certain motivation to discuss gambling and gambling problems in an anonymous forum. In any case, the relatively high percentage of pathological gamblers in the sample provides a unique opportunity to examine the responses of pathological gamblers (PG’s) versus non-pathological gamblers (NPG’s). Therefore, for the remainder of this report, results may be reported in terms of total sample, PG’s, and NPG’s. In addition, as a further measure of conservatism, we will refer from here on exclusively to “current” (18-month) PG’s.

There was no statistical difference in the occurrence of gambling problems based on either race or gender (see Table 5). However, PG's were statistically younger than NPG's (see Table 6):

**TABLE 5: GAMBLERS BROKEN DOWN BY RACE AND GENDER**

	PG	NPG
<b>Race</b>		
<b>Af.Amer.</b>	7 (47%)*	8 (53%)
<b>Caucasian</b>	22 (37%)	38 (63%)
<b>Gender</b>		
<b>Female</b>	19 (37%)	33 (64%)
<b>Male</b>	10 (48%)	11 (52%)

\*Percents are for rows

**TABLE 6: GAMBLING PROBLEMS BY AGE**

	Mean Age	F(1,71)	Sig.
<b>PG</b>	46.86	7.21	.009
<b>NPG</b>	55.46		

In addition, each respondent was asked what "type" of gambler he/she was. The remarkable results are depicted in Table 7. PG's tended to accurately portray themselves as "compulsive gamblers" or at least "problem gamblers" with some accuracy. NPG's usually rightly identified themselves as "social gamblers".

**TABLE 7: "WHAT KIND OF GAMBLER ARE YOU**

	NPG	PG
<b>"Social"</b>	42 (89%)*	12 (41%)
<b>"Problem"</b>	2 (4%)	7 (24%)
<b>"Compulsive"</b>	3 (6%)	10 (35%)

\*Percents are for column totals

\*\* $\alpha(2)=20.07$ ,  $p<.0001$

These figures suggest that perhaps gambling problems are harder to deny than other addictive disorders. For example, the continuous loss of money and ensuing financial problems, or illegal activities and corresponding criminal charges are difficult to minimize or explain away. Specifically, which problem behaviors were endorsed by the respondents? It is clearly demonstrated that all the criteria effectively discriminated PG's from NPG's (except criteria #8, due to extremely low base rates) See Table 8:

**TABLE 8: SIGNS AND SYMPTOMS OF PG ENDORSED**

<b>DSM-IV Criterion</b>	<b>NPG's</b>	<b>PG's</b>
<b>1) Preoccupation*</b>	23 (43%)	26 (87%)
<b>2) Tolerance*</b>	8 (15%)	25 (83%)
<b>3) Inability to Control/Stop*</b>	10 (19%)	25 (83%)
<b>4) Withdrawal*</b>	1 (2%)	16 (53%)
<b>5) Escape/Avoidance*</b>	18 (33%)	28 (93%)
<b>6) Chasing*</b>	19 (40%)	27 (90%)
<b>7) Deception*</b>	4 (8%)	24 (80%)
<b>8) Stealing/Crime</b>	0 (0%)	2 ( 7%)
<b>9) Disruption of Family/Professional*</b>	2 (4%)	20 (67%)
<b>10) Bailouts*</b>	2 (4%)	17 (57%)

\*Chi-Square Tests of Significance <.001

## OPINIONS ON LEGALIZED GAMBLING

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The respondents were asked whether they approved of the current trend in legalization of different forms of gambling. There is a difference in opinion between PG's and NPG's which approaches significance. One third of PG's disapprove of the trend, while only 15% of NPG's disapprove (see Table 9). Nonetheless, the overwhelming opinion of the respondents is that they *favor* legalized gambling. Of course, it could be seen as rather unremarkable that people who gamble regularly would approve of legalization. Probably more remarkable is the fact that 22% of these regular gamblers *disapprove* of legalization, indicating an intrinsic appreciation of the social *costs* as well as the perceived benefits in such a trend.

**TABLE 9: OPINIONS BY PG/NPG**

	NPG's	PG's
<b>Trend in Legalization?*</b>		
<b>Approve</b>	39 (84%)*	20 (67%)
<b>Disapprove</b>	7 (15%)	10 (33%)
<b>Legalization Creates PG's?***</b>		
<b>Yes</b>	38 (79%)	29 (100%)
<b>No</b>	10 (21%)	0

\*Percents are for Column Totals

\*\*  $\chi(1)=3.43, p=.06$

\*\*\*  $\chi(1)=6.94, p<.01$

Also, the vast majority of respondents believe that “legalized gambling creates compulsive gamblers”. The PG's *unanimously* agreed on this point, while 21% of NPG's did not agree (see Table 9). This can be viewed as further evidence that the gambling public perceives that there is an association between *availability* and the development and maintenance of gambling problems. Another interesting hypothesis which could be further developed concerns the *unanimity* of the PG's on this point. Could it be that their own gambling problems closely followed on the heels of legalization? (See section on “Initiation to Gambling”).

As for the other opinion questions, the respondents tended to agree that: 1) legalized gambling creates jobs; 2) legalized gambling helps the local economy; 3) legalized gambling increases local tax revenues; and 4) legalized gambling does not increase crime. See Table 10:



**TABLE 10: OTHER OPINIONS**

	<b>Yes</b>	<b>No</b>	<b>DK/No Opinion</b>
<b>Creates Jobs?</b>	71 (91%)*	7 (9%)	---
<b>Helps Local Economy?</b>	60 (77%)	13 (20%)	5 (6%)
<b>Increases Local Tax Revs?</b>	47 (60%)	18 (23%)	13 (17%)
<b>Increases Crime?</b>	28 (36%)	43 (55%)	7 (9%)

\*Percents are for Total Sample

Most respondents (69%) said that they know someone who has, or has had, a gambling problem. Significantly more PG's than NPG's know a compulsive gambler. See Table 11:

**TABLE 11: DO YOU KNOW SOMEONE WHO HAS/HAS HAD A GAMBLING PROBLEM?**

	<b>NPG's</b>	<b>PG's</b>
<b>Do you know a PG?</b>		
<b>Yes</b>	27 (56%)*	27 (90%)
<b>No</b>	21 (44%)	3 (10%)

\*Percents are for column totals

$\chi^2(1)=9.87, p=.001$

## ADDICTION PROBLEMS IN RELATIVES

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The respondents were asked about gambling or substance abuse problems in parents or close relatives (siblings, grandparents, aunts and uncles). PG's reported significantly higher rates of gambling problems in the family of origin than NPG's. No differences in substance abuse problems were found between the two groups. See Table 12:

**TABLE 12: GAMBLING AND SUBSTANCE PROBLEMS IN FAMILY**

	<b>NPG's</b>	<b>PG's</b>
<b>Gamb. Prob. In At Least One Parent**</b>	6 (13%)*	11 (37%)
<b>Gamb. Probs. In Relatives***</b>	16 (33%)	17 (57%)
<b>Subs. Prob. In At Least One Parent</b>	12 (25%)	11 (36%)
<b>Subs. Prob. In Relatives</b>	20 (42%)	16 (53%)

\*Percents are for PG/NPG categories

\*\* $\alpha(1)=6.33$ ,  $p=.01$

\*\*\* $\alpha(1)=4.12$ ,  $p=.04$

These data tend to contradict any hypothesis suggesting that drug and/or alcohol problems in the family of origin are associated with pathological gambling. Rather, they do strongly suggest that, while pathological gambling runs in families, it is qualitatively distinct from substance abuse. Of course, as with any correlational analysis of familial patterns, these data say nothing about the distinct and/or interactive effects of genetics versus environment.

## NEED FOR SERVICES

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The respondents were asked what services should be made available to PG's. They were encouraged to name as many services as they thought were applicable. The most often given answer was "GA" (59%). There were no statistical differences between PG's and NPG's. See Table 13:

**TABLE 13: WHAT SERVICES SHOULD BE AVAILABLE?**

	<b>NPG's</b>	<b>PG'S</b>
<b>GA and other self-help</b>	31 (65%)*	15 (50%)
<b>Pastoral/Clergy</b>	5 (10%)	1 ( 3%)
<b>Professional Mental Health</b>	17 (35%)	11 (37%)
<b>Other</b>	20 (42%)	14 (47%)

\*percents are for column categories

## FUNDING

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The respondents were asked “who should pay” for services provided to PG’s. Again, they were encouraged to name as many as possible. No group differences were demonstrated between PG’s and NPG’s, except on “state funds”. Relatively more NPG’s than PG’s think that state funds should pay for services to PG’s. See Table 14:

**TABLE 14: “WHO SHOULD PAY FOR SERVICES?”**

	<b>NPG’s</b>	<b>PG’s</b>
<b>Gamblers themselves</b>	22 (46%)*	15 (50%)
<b>Lottery/Tracks/Casinos</b>	21 (44%)	17 (57%)
<b>Health Insurance</b>	3 ( 6%)	1 ( 3%)
<b>State Funds**</b>	26 (54%)	9 (30%)
<b>Federal Funds</b>	2 ( 4%)	1 ( 3%)

\*Pecents are for column categories

\*\* $\alpha(1)=4.36, p<.04$

## EXPERIENCE WITH SERVICES

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Only a relatively small number of respondents (n=9) reported that they had sought help for a gambling problem, either for themselves or for someone else. Eight of these sought help for themselves, the other is unknown due to incomplete data. One respondent went to a clergy person; another cited “spiritual self-help”. In both cases it is unclear whether the gambling problems remitted. One person stated that s/he called the Delaware Council on Gambling Problems helpline, after seeing the number advertised on a bus tail. This person “didn’t know” if s/he got help. Another person reported going to the DCGP for help, but no specific information is available about what kind of help. This person reported that s/he felt like s/he had gotten the help needed and stated that, “I go [gambling] less often and spend less”. Three people reported seeking help from GA. One of these stated that GA had helped because of “sharing and hearing the consequences of uncontrolled gambling” and the benefits of having a “support group”. Two persons stated that GA was not helpful for them. One female respondent stated that GA was “oriented towards men” and that there was a “criminal element” which made her uncomfortable. She went on to state that “slot machine players have different issues”. The other respondent who did not like GA stated that he “did not like the disease model” which demanded abstinence, and also that the meetings were inconvenient in time and location.

Little can be said about this relatively small sample of idiosyncratic experiences, but it is remarkable that of 22 respondents who described themselves as either “problem” or “compulsive” gamblers (and 35 “actual” lifetime PG’s), only nine have ever sought help. Whether this is an indictment of the failure of the state to educate or inform the public of the availability of formal services and/or GA, or whether it is a function of the relatively short period of time that formal services have been available, we cannot say. It is interesting to note that none of the persons who sought help for a gambling problem reported receiving professional mental health treatment. We must also consider the fact that slot machines have only existed in Delaware about two years, and there may be a significant “lag time” between the onset of problem gambling and seeking formal services or GA.

## INITIATION TO GAMBLING

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Respondents were asked “How old were you when you started gambling *regularly*?” If the respondent asked for clarification, he/she was instructed, “Whatever is regular for *you*.” Please note the distinction between the present query and an examination of the age of *first* gambling. The average age when respondents reported that they began gambling regularly is 35.63 years. In general, there was a trend for PG’s to have started gambling regularly at an earlier age. See Table 15:

**TABLE 15: AGE WHEN YOU STARTED GAMBLING REGULARLY?**

	Mean Age	F(1,74)	Sig.
NPG’s	38.33	3.38	.07
PG’s	31.5		

Respondents were asked to identify the type of gambling on which they became regular gamblers. The results are shown in Table 16:

**TABLE 16: ON WHICH FORM DID YOU BEGIN GAMBLING REGULARLY?**

	NPG’s (n=42)	PG’s (n=24)
<b>Bingo</b>	1 ( 2%)*	2 ( 8%)
<b>Cards, Dice, Non-Casino</b>	8 (19%)	3 (13%)
<b>Horse Racing</b>	3 ( 7%)	1 ( 4%)
<b>Sports Betting</b>	1 ( 2%)	1 ( 4%)
<b>Casino Games (Not Slots)</b>	7 (17%)	1 ( 4%)
<b>Lottery or Numbers</b>	6 (14%)	4 (17%)
<b>Delaware Slots</b>	8 (19%)	11 (46%)
<b>Casino Slots (e.g., A.C.)</b>	8 (19%)	1 ( 4%)

\*Percents are for column totals

Because slot machines had been legal in Delaware only slightly longer than two years at the time of these interviews, it was interesting to note that a good portion of the respondents (24%) reported that they began gambling regularly on Delaware slots. Relatively more of the PG’s (37%) started on Delaware slots than the NPG’s (17%). (See Table 17):

**TABLE 17: STARTING GAMBLING REGULARLY WITH DELAWARE SLOTS**

	<b>NPG's</b>	<b>PG's**</b>
<b>Other Types of Gambling</b>	40 (83%)*	19 (63%)
<b>Delaware Slots</b>	8 (17%)	11 (37%)

\*Percents are for column totals

\*\* $\alpha(1)=4.01$ ,  $p<.05$

These data do tend to support the hypothesis mentioned earlier that gambling problems do tend to increase with the increased availability and convenience associated with newly established legal gambling venues. However, nothing can be inferred about intervening variables such as some sort of pre-existing diathesis, or vulnerability to compulsive gambling. Clearly, availability might be a contributing, or even *necessary* factor for some people, albeit not a *sufficient* one.

## CURRENT GAMBLING ACTIVITY

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Respondents were asked to estimate how frequently they had participated in various forms of gambling in the previous eighteen-month period. The most frequently mentioned forms are listed in Table 18:

**TABLE 18: HOW FREQUENTLY HAVE YOU PLAYED IN 18 MONTHS?**

	<b>Lottery</b>	<b>DE Slots</b>	<b>Casino</b>
<b>weekly or more</b>	42 (54%)	58 (74%)	4 ( 5%)
<b>2-3 times/month</b>	6 ( 8%)	11 (14%)	8 (10%)
<b>monthly</b>	6 ( 8%)	6 ( 8%)	14 (18%)
<b>less/never</b>	24 (31%)	3 ( 4%)	52 (67%)

\*Percents are for Total Sample

There was a trend for PG's to report more frequent gambling at the Delaware slots. See Table 19:

**TABLE 19: HOW OFTEN HAVE YOU GAMBLED ON SLOTS IN DE LAST 18 MONTHS?**

	<b>NPG's</b>	<b>PG's**</b>
<b>weekly or more</b>	31 (65%)*	27 (90%)
<b>2-3 times/month</b>	9 (19%)	2 ( 7%)
<b>monthly</b>	5 (10%)	1 ( 3%)
<b>less/never</b>	3 ( 6%)	---

\*Percents are for column totals

\*\* $\alpha(1)=6.59$ ,  $p=.086$

For those respondents who reported gambling in a casino (e.g., Atlantic City) *once per month or more often*, we asked them which casino games they played. Most of the 26 respondents who were frequent casino gamblers reported playing slot machines. Table 20 depicts the casino games our respondents played:



**TABLE 20: WHICH CASINO GAMES DO YOU PLAY?**

	Slots	Blackjack	Craps	Roulette
<b>Number who play...</b>	23 (89%)*	5 (20%)	4 (15%)	4 (15%)

\*Percents are for all frequent casino gamblers (n=26)

Gamblers tend to become specialists in one or two forms of gambling. The reasons for concentrating on one form over other choices may have to do with availability or convenience; or it may be governed by personality factors such as introversion versus extroversion. A discussion of the determinants of gambling preferences is well beyond the scope of this report. For the purposes of the interview, respondents were asked which of the many forms of gambling was their “favorite type”. The most frequent responses are depicted in Table 21. There are no statistical differences between PG’s and NPG’s.

**TABLE 21: WHAT IS YOUR MOST FAVORITE TYPE OF GAMBLING?**

	Cards/Dice (Non-Casino)	Horse Racing	Casino	Lottery	DE Slots
<b>How many like...</b>	6 (8%)*	5 (7%)	26 (34%)	3 (4%)	36 (47%)

\*Percents are for total N

For those who reported that casino gambling was their favorite form of gambling, we asked which casino game was their favorite. (Note: We only report those who visit a casino at least once per month on average). See Table 22:

**TABLE 22: WHICH CASINO GAME IS YOUR FAVORITE?**

	Slots	Blackjack	Craps
<b>How many like...</b>	13 (81%)	1 (6%)	2 (13%)

Clearly, slot machines are the favorite form of this sample. Combining Delaware slots with casino slots, **68% of the total sample report that slots is their favorite form of gambling.**

Having established each respondent’s “favorite” form of gambling, we asked them, “What is it that you like about [your favorite form]?” Respondents were encouraged to list as many motivating factors as they could. The most frequent responses were classified as indicated in Table 23. Two PG-NPG differences are notable. A trend exists on the variable, “relaxing”. Relatively more NPG’s (23%) view gambling as relaxing, while few PG’s (7%) said it relaxed them.

The most striking difference in gambling motivation is in the “hope of winning money”. Statistically more PG’s (80%) say the hope of winning motivated them, while fewer NPG’s (52%) mentioned this aspect. See Table 23:

**TABLE 23: WHAT DO YOU LIKE ABOUT YOUR FAVORITE TYPE?**

	<b>NPG's</b>	<b>PG's</b>
<b>Excitement/Action/"Fast"</b>	20 (42%)*	8 (27%)
<b>Challenging/Competition</b>	13 (27%)	5 (17%)
<b>Requires Skill</b>	6 (13%)	1 ( 3%)
<b>Fun/Entertainment</b>	16 (33%)	6 (20%)
<b>Relaxing**</b>	11 (23%)	2 ( 7%)
<b>Winning/Hope of Winning \$***</b>	25 (52%)	24 (80%)
<b>Atmosphere of the Place</b>	8 (17%)	2 ( 7%)
<b>Social Aspects</b>	13 (27%)	5 (17%)
<b>Other Amenities/Shows/Food</b>	7 (15%)	1 ( 3%)
<b>Comps</b>	3 ( 6%)	3 (10%)
<b>Relieves Stress/Takes Mind Off Problems</b>	6 (13%)	5 (17%)

\*Percents are for column categories

\*\* $\alpha(1)=3.51$ ,  $p=.06$

\*\*\* $\alpha(1)=6.16$ ,  $p=.01$

Respondents were asked with whom they spend the time while gambling. PG's were more likely to gamble alone than NPG's. Response categories are listed in Table 24:

**TABLE 24: WITH WHOM DO YOU SPEND THE TIME WHEN GAMBLING?**

	<b>NPG's</b>	<b>PG's</b>
<b>Alone**</b>	23 (48%)*	23 (77%)
<b>With spouse or partner</b>	21 (44%)	9 (30%)
<b>With other family members</b>	5 (10%)	4 (13%)
<b>With friends</b>	18 (38%)	7 (23%)

\*Percents are for column categories

\*\* $\alpha(1)=6.31$ ,  $p=.01$

## EXPENDITURE ON GAMBLING

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Respondents were asked to estimate how much money they spend (lose) gambling in an *average* month in the last eighteen months. If the *last* month was a “typical” month, then they were asked to focus on *that* month. Otherwise, we asked them to identify the last month which *was* typical, and to focus on *that* month. PG’s report spending significantly more money than NPG’s. The subjects also reported the greatest amount of money won and the greatest amount of money lost *in a single day* in the last eighteen months. PG’s reported statistically greater daily losses, but the two groups were not different in terms of the largest daily win. See Table 25:

**TABLE 25: AVERAGE AMOUNT SPENT PER MONTH ON GAMBLING**

	NPG’s	PG’s
<b>Average Amount Lost Per Month</b>	\$294	\$664*
<b>Biggest Win-- 1 Day</b>	\$1108	\$1600**
<b>Biggest Loss-- 1 Day</b>	\$317	\$614***

\*F(1,59)=7.97, p<.01

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\*\*\*F(1,76)=8.14, p<.01

Most of the large one-day wins and losses were on slot machines. No group differences are evident. See Table 26:

**TABLE 26: WHAT GAME LARGEST WIN/LOSS?**

	NPG’s	PG’s
<b>Largest Win</b>		
<b>Slots (Any)</b>	42 (88%)	25 (86%)
<b>Other</b>	6 (12%)	4 (14%)
<b>Largest Loss</b>		
<b>Slots (Any)</b>	43 (90%)	23 (85%)
<b>Other</b>	5 (10%)	4 (15%)

## Co-occurring Psychiatric Problems

In order to assess the prevalence of psychiatric problems in our sample, several short screens were used. The rationale underlying the inclusion of screens for various traits or disorders was based on a knowledge of the literature, particularly the work of Specker et al. (1996). That study was the first to use structured psychiatric interviews to evaluate pathological gamblers seeking treatment. Gamblers were evaluated for both Axis-I (psychiatric) and Axis-II (personality) disorders, and compared to a control group presumed to represent the non-psychiatric population. The investigators discovered significantly greater diagnoses of major depressive disorder and avoidant personality disorder in the gamblers as compared to the control group. In addition, the gamblers received a diagnosis of at least one anxiety disorder (particularly panic disorder) significantly more often than controls. Several caveats are in order. The so-called screens are not valid diagnostic instruments, although they are based on DSM diagnostic methods. For example, the set of questions which comprised the screen for major depressive disorder is based on the structured clinical interview for DSM Axis-I disorders (SCID-I; First, et al. 1997) and is fairly inclusive. However, the same reliability and validity can not be expected when a clinical instrument is used in an anonymous telephone interview. Likewise, many of the screens consisted of a single question, e.g., for Generalized Anxiety Disorder: "In the last 18 months, do you find that you are quite nervous and anxious much of the time and that you worry a lot about little things?" Many of these shorter screens were adapted from the Diagnostic Interview of Gambling Severity (DIGS; Winters, et al., 1997).

Therefore, this data should not be viewed as diagnostic; rather a positive finding on any of these psychiatric screens should be looked on as merely an indication that there *could* be a particular condition or disorder present. We screened for 18-month prevalence of major depressive disorder, bipolar disorder, panic disorder, agoraphobia, social phobia, obsessive compulsive disorder, generalized anxiety disorder, and lifetime prevalence of attention deficit disorder (with or without hyperactivity) and avoidant personality disorder. Please see Appendix 'D' for a short description of the primary features of these disorders. Table 27 details the results of this survey, comparing PG's to NPG's, and also includes the estimated prevalence according to DSM-IV (that is, the prevalence rate one would *expect* to see in a general population sample).

**TABLE 27: POSSIBLE PSYCHIATRIC PROBLEMS IN SLOTS PLAYERS**

	<b>NPG's</b>	<b>PG's</b>	<b>Expected</b>
<b>Major Depression</b>	2 ( 4%)	2 ( 7%)	3.5-6%
<b>Bipolar</b>	2 ( 4%)	3 (10%)	0.4-1.6%
<b>Panic</b>	3 ( 6%)	5 (17%)	1-2%
<b>Agoraphobia</b>	2 ( 4%)	8 (27%)*	1-2%
<b>Social Phobia</b>	2 ( 4%)	5 (17%)**	3-13% (lifetime)
<b>OCD</b>	3 ( 6%)	7 (23%)***	1.5-2.1%
<b>GAD</b>	7 (14%)	12 (40%)+	3%
<b>ADD, ADHD</b>	2 ( 4%)	5 (17%)++	3-5%
<b>Avoidant Personality.</b>	2 ( 4%)	8 (27%)+++	0.5-1%

\* $\alpha(1)=8.36, p<.01$

\*\* $\alpha(1)=3.74, p=.05$

\*\*\* $\alpha(1)=4.82, p<.03$

+  $\alpha(1)=6.47, p=.01$

++ $\alpha(1)=3.53, p=.06$

+++ $\alpha(1)=8.36, p<.01$

We did not find any statistical difference between PG's and NPG's on current (18-month) depression, as expected. However, it must be noted that there was quite a bit of confusion on the part of some of the interviewers regarding the proper administration of the depression screen. Thus, many of the respondents received an incomplete administration on this screen. The number of depressive individuals is probably underreported. No administration problems were detected on the other screens though, and the results are supportive the possibility of a higher prevalence of anxiety disorders and avoidant personality in pathological versus non-pathological slots players.

## SUMMARY AND SUGGESTIONS FOR POLICY

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Slot machine gambling has adversely affected the lives of many Delawareans since legalization. In this modest sample, we identified eleven individuals who: a) are probable pathological gamblers, and b) only became *habitual* gamblers on legal Delaware slot machines. Eighty-seven percent of this sample of frequent slots players agree that legalization contributes to increased numbers of compulsive gamblers. Twenty-nine percent of the sample classify themselves as “problem” or “compulsive” gamblers.

The probable pathological gamblers in this sample endorsed a wide array of gambling-related problems (see Table 8) ranging from psychosocial to financial and family problems. Furthermore, the pathological gamblers in this sample demonstrated a broad spectrum of anxiety-related symptoms and avoidant personality. The data seem to fit a hypothesis which has been proposed by various researchers: that slot machine gambling can become, for those who are predisposed, a solitary form of escape from problems or from unpleasant mood states, or even in a sense, a form of “self-medication”.

According to such a hypothesis, anxious/avoidant individuals may be tonically overaroused (and thus easily overwhelmed). Everyday stress or arousal associated with common problems may be perceived as extremely unpleasant. When gambling on slot machines, a cognitive reinterpretation may take place. Arousal previously experienced as unpleasant anxiety may be reinterpreted as a desirable state of anticipation. Slot machines provide a safe haven from perceived fears and social inadequacies. However, when more money is lost than can be afforded, stress and anxiety is increased when not gambling. Thus a vicious cycle ensues.

In terms of recommendations for policy, it would seem appropriate to continue to train mental health professionals to specialize in treating pathological gamblers, with emphasis on the unique issues surrounding compulsive slot machine gambling. Skills necessary for such a provider would have to include individual counseling skills focused on “gambling-specific” problems (e.g., financial counseling). Also, specific training in the application of cognitive behavioral techniques to the problems of anxiety and avoidance is recommended. Training in family counseling skills would also be an important component of the service.

Only 37% of the respondents mentioned that professional mental health services should be available to pathological gamblers. Whether this opinion is reflective of a lack of understanding of pathological gambling as a treatable mental disorder, we cannot say. It may be that gambling problems are viewed as a personal weakness, in the same sense that alcoholism may have been viewed thirty years ago. It is clearly a major objective for the state to provide adequate funding to continue to educate and enlighten the public on this point. Very few of the pathological gamblers in our sample have sought help of any kind. It is impossible to say whether this is also due to a lack of knowledge or because these gamblers have not “hit bottom” yet.

Also recommended is the widespread use of standard assessment and data collection, and the implementation of quality assurance in standards of practice for services to pathological gamblers.