## The Addictiveness of Specific Gambling Games

July 10, 2009

John W. Welte, Ph. D.

Principal Investigator, Research Institute on Addictions, State University of New York at Buffalo

With the growth of legalized gambling in the United States in recent decades, concern about addiction to gambling has intensified. In virtually every U.S. state, and in many other countries, there have been acrimonious debates and political controversies over proposed extensions of legal gambling. Video gambling machines have sometimes been at the center of these controversies, as they were placed in racetracks, and also in such venues as bars, restaurants and veteran's organizations. Proponents argued that the machines provide much-needed revenue for government and business; opponents argued that they promote problem gambling.

Video gambling machines have been criticized as one of the most addictive forms of gambling, with critics in some cases referring to them as the "crack cocaine of gambling". These devices provide rapid turnaround of gambling opportunities, and also provide a variable reinforcement schedule, so an argument can be made from learning theory that they are particularly addictive. Some research studies have shown that gambling machine players may develop gambling problems more quickly than gamblers who do not play gambling machines. Furthermore, video gambling machines are designed deceptively, so that (for example) the expected return to the player is lower than would be estimated from the external characteristics of the display.

However, caution is necessary when associating problem gambling with a particular type of gambling. It is not sufficient to show that a high proportion of problem gamblers play a particular game, or that a relatively high proportion of those who play a particular game are problem gamblers, because those gamblers will often engage in other forms of gambling as well. My colleagues and I attempted to take the respondents' total gambling into account when we analyzed data from a national U.S. adult survey and a national youth survey (see The

WAGER, Vol. 14(5)). In both studies we examined the following question: Which forms of gambling predicted problem gambling, when taking all forms of gambling engaged in by an individual into account? In our adult survey, the types of gambling most predictive of problem gambling were casino gambling, bingo, and cards, in that order. In the youth survey, it was cards, casinos, and "other gambling" (which included betting on elections, shooting the biggest deer, and betting on fights in school). In both studies we found that playing gambling machines, other than in a casino, was not predictive of problem gambling. There were other examples of the same phenomenon. It has also been suggested that internet gambling is an especially addictive form of gambling. In our youth survey, internet gamblers had more gambling symptoms than those who engaged in any other form of gambling. However, internet gamblers also engaged in the most forms of gambling in total, and internet gambling was also not predictive of problem gambling when the respondent's entire gambling was taken into account. In addition to these analyses of specific forms of gambling, my colleagues and I also found that the number of different types of gambling in which an individual engaged was highly related to problem gambling, even after taking the frequency of all gambling, and average wins or losses, into account.

These findings contain some relevant messages for those interested in gambling policy and prevention. Problem gambling is probably more related to the gambler's total repertoire than to any particular game. Gambling on cards, usually a non-commercial gambling activity, may play an important role in the development of problem gambling. And the introduction of a casino into a particular region, with its ability to cater to many gambling tastes, is something that should be considered carefully.