

# Association Between Income and Disordered Gambling in Adults

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## INTRODUCTION

- Previous research has found associations between low-income and gambling disorder (GD), noting differences in motivations for gambling and type of gambling between low-income and middle/higher income gamblers. <sup>1,2, 3, 4, 5</sup>

## OBJECTIVES

- To examine the relationship between income and gambling behavior in an adult sample.
- To assess differences in type of gambling activity by income level.

## METHODS

- Participants (n=893) were recruited as part of the PEGASUS (Prevalence and Etiology of Gambling and Substance Use in the US) study, an on going longitudinal cohort study of gambling behavior in Maryland residents.
- Participants completed a battery of self-administered questionnaires that included demographics, health behaviors, and gambling activity.
- Gambling behavior was assessed with two instruments:
  - South-Oaks Gambling Screen (SOGS)
  - Alcohol Use Disorder and Associated Disabilities Interview Schedule (AUDADIS-IV).
- Type of gambling included:
  - Non-strategic (e.g. lottery, bingo, or keno)
  - Strategic (e.g. card games, sports betting, or stocks)
  - Machine gambling (e.g. internet or slots)
  - Casino gambling (e.g. visiting a casino).
- Gambling disorder (lifetime) indicated by 4 or more DSM symptoms reported via the AUDADIS

## RESULTS

**Table 1: Demographics**

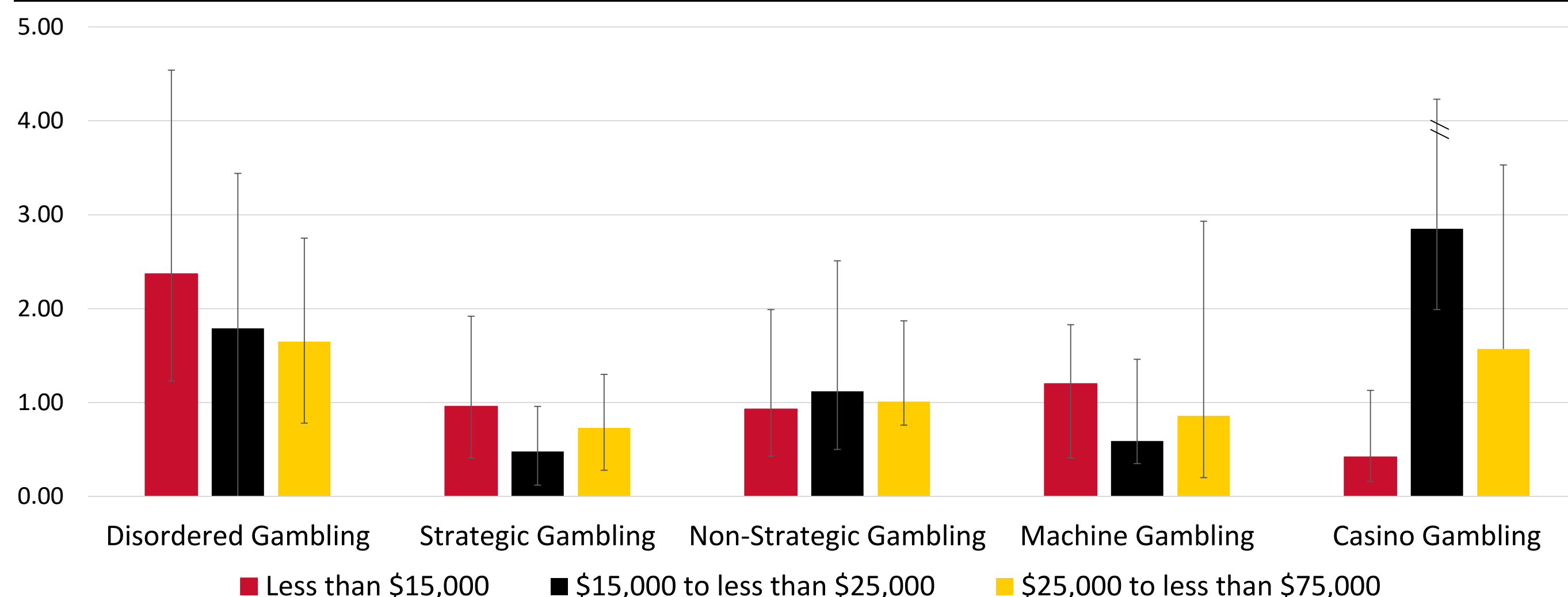
	Range	M	SD
Age (years)	18-73	43.0	13.9
	n	%	
Gender	889		
Male	414	46.6	
Female	475	53.4	
Race	887		
White	352	39.7	
African-American	446	50.3	
Other or Mixed Race	89	10.0	
Household Income (per year)	878		
Less than \$15,000	270	30.8	
\$15,000 to less than \$25,000	128	14.6	
\$25,000 to less than \$75,000	361	41.1	
more than \$75,000	119	13.6	
Disordered Gambling Status	893		
Non-Disordered Gambler	389	43.6	
Disordered Gambler	504	56.4	

**Table 2: Adjusted Association Between Low Income, Disordered Gambling, and Gambling Preference**

	Odds Ratio	95% CI	p value
Disordered Gambling	1.14	[0.78 to 1.66]	0.500
Type of Gambling			
Casino (n=707)	1.34	[0.86 to 2.07]	0.194
Strategic (n=631)	1.44	[0.90 to 2.31]	0.126
Non-strategic (n=715)	1.21	[0.79 to 1.84]	0.383
Machine (n=643)	1.34	[0.84 to 2.13]	0.214

\*Separate models controlling for age, gender, race, education, and employment were conducted for each association presented above

**Adjusted Odds Ratios of Income Predicting Disordered Gambling and Gambling Preference**



\*Separate models controlling for age, gender, race, education, and employment were conducted for each association presented above  
\*\*Reference group for OR was income "more than \$75,000 per year"

## RESULTS

### Bivariate Analyses

- Low income was significantly associated with:
  - Gambling disorder
  - Race (African American)
  - Employment (unemployed)
  - Education (high school or less)
- Gambling disorder was significantly associated with:
  - Age
  - Race (African American)
  - Education (high school or less)
  - Income (less than \$25K per year)
  - Employment (unemployed)
  - Type of gambling (non-strategic, strategic, machine and casino gambling)

### Multivariate regression analysis

- Low income participants were 1.14 times more likely to be disordered gamblers, after controlling for age, education, employment, race and sex.
- Strategic gambling and visiting a casino were also significant indicators of disordered gambling.

## CONCLUSIONS

- After controlling for several factors, including type of gambling, low income was a significant correlate of disordered gambling.

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