



BOISE STATE UNIVERSITY

Do Casinos Create Economic Development?

A 15-Year National Analysis of Local
Retail Sales and Employment Growth

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Disclosure of Any Potential Conflicts of Interest

I have received no financial or other compensation from anyone with an interest in the results of my research

My research has led me to volunteer as a national board member of the Stop Predatory Gambling Foundation and with other groups providing education on gambling issues

Do Casinos Create Economic Development?

Outline of Talk

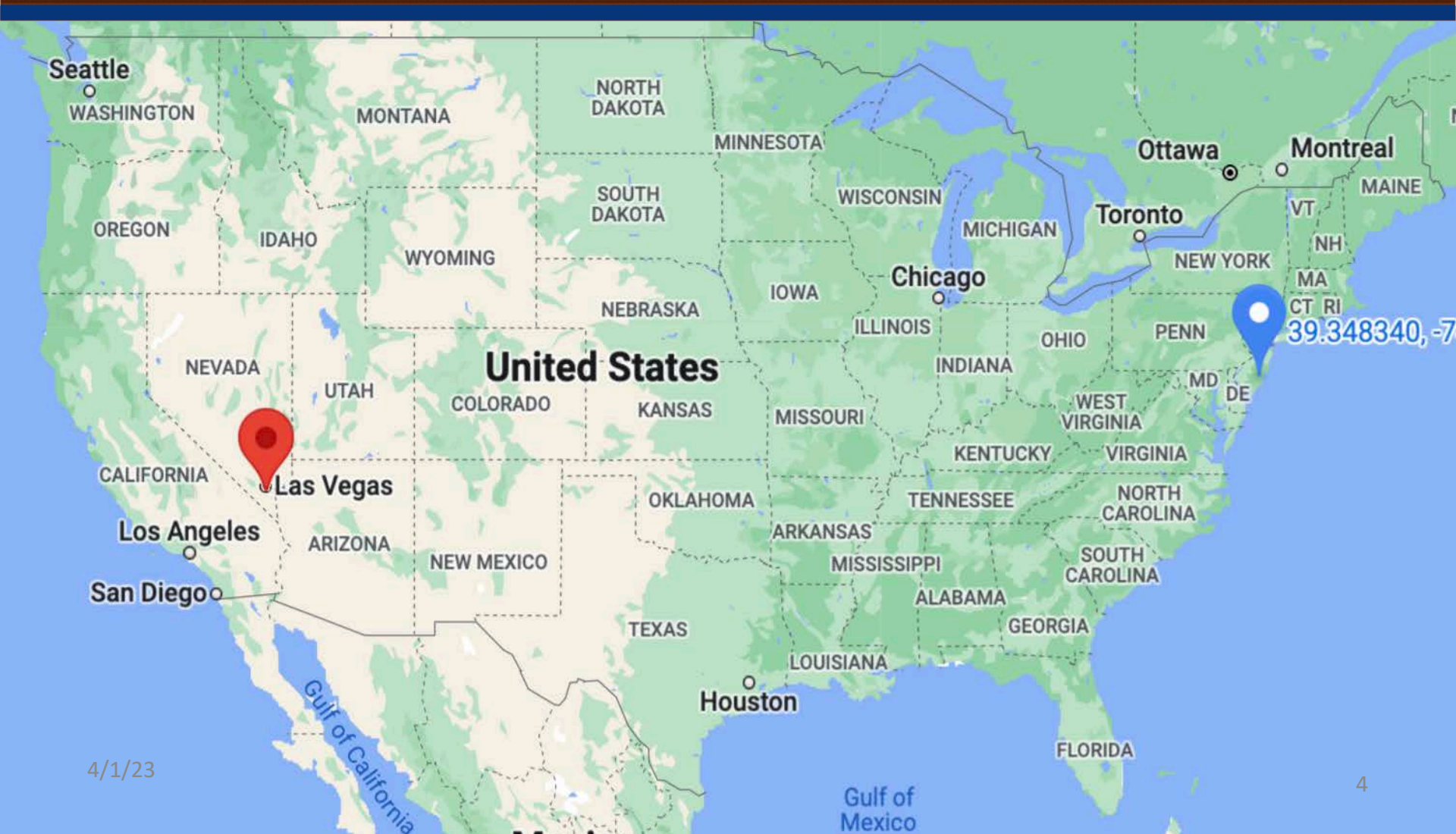
- **Background**
- Literature
- Study
- Results
- Implications



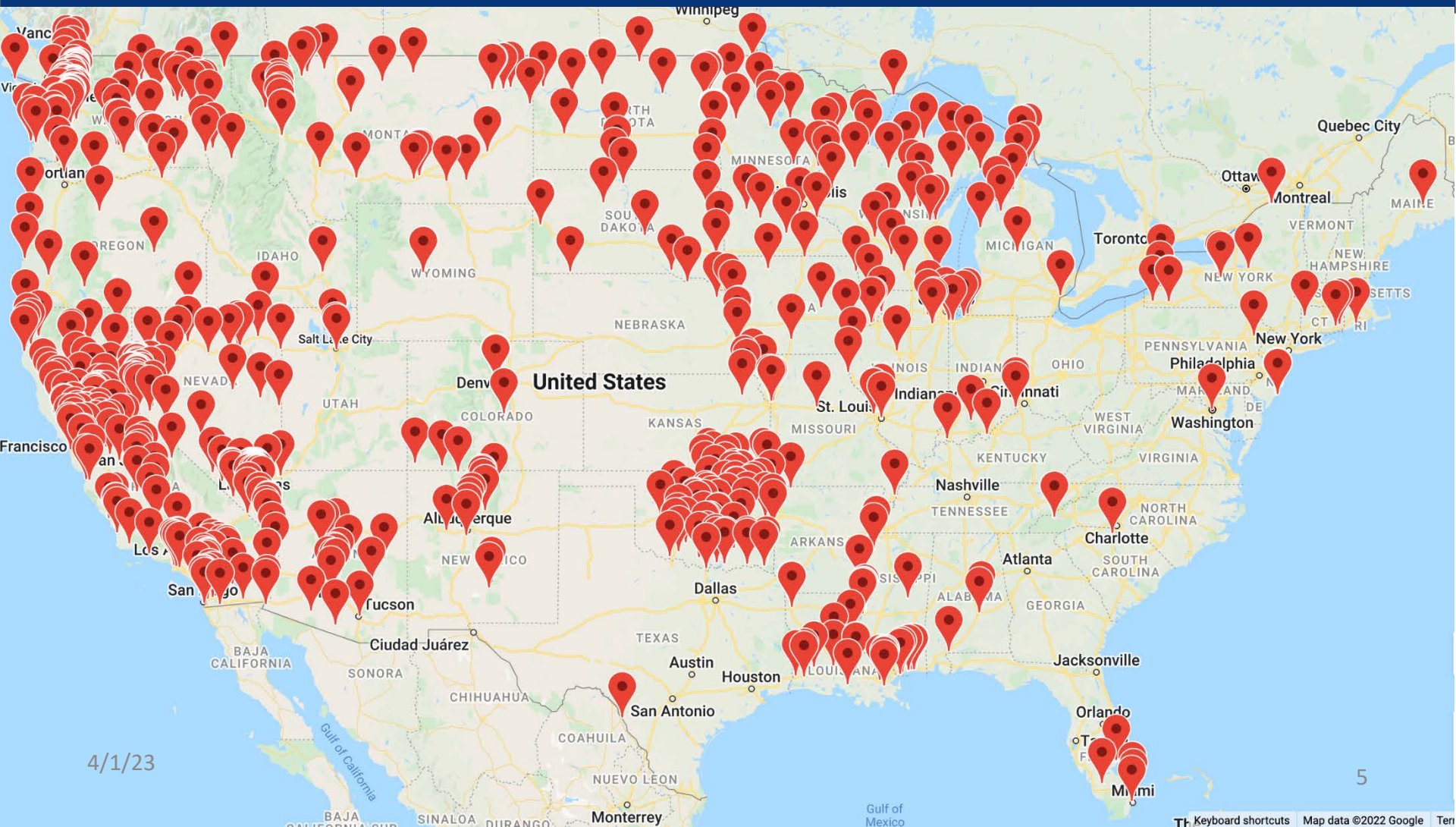
Source: <https://sites.psu.edu/rcelluo/2015/10/22/gambling-dopamine/>

U.S. Casinos before IGRA*: 1988

*Indian Gaming Regulatory Act



U.S. Casinos 2022



Why This Growth?

Economic Development Claims, like this:

“Gaming is an engine of growth that powers economic development and job creation everywhere it operates”

--American Gaming Association, 2014

American Gaming Association (2014, May 27). *American Gaming Association launches its most aggressive coordinated effort* [Press release]. Retrieved from <https://www.americangaming.org/newsroom/press-releases/american-gaming-association-launches-its-most-aggressive-coordinated-effort>

Why This Growth?

Mallach summarizes the academic literature:

“Many, if not most, communities would not entertain the idea of legalizing casino gambling were it not for the anticipated economic benefits....”

“[which] emphasizes the importance of trying to establish whether these benefits exist.”

--Alan Mallach, Philadelphia Federal Reserve, 2010

In 2010!!

Mallach, A. (March, 2010). Economic and social impact of introducing casino gambling: A review and assessment of the literature: Discussion paper [PDF file]. *Federal Reserve Bank of Philadelphia, Community Affairs Department*. https://www.philadelphiafed.org/-/media/frbp/assets/community-development/discussion-papers/discussion-paper_casino-gambling.pdf

Evidence and Concerns about Economic Development Claims

- Casino revenues and jobs
 - Restaurant or factory?
 - Substitution effect
- Consultant economic projections
 - Targets of academic skepticism
 - Lack social costs, substitution effect
 - Biased by funding
- Research in field is politicized



<https://www.facebook.com/CapriBoise/>



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Cost-Benefit Measures

- Through 1990s: Little evidence, big claims
- 1999 National Gambling Impact Study Commission
 - “It is currently impossible to obtain even a rough approximation of a true cost-benefit calculation”
- Grinols, 2004: Costs outweigh benefits by 3+ to 1
 - Walker and others: Social impacts can’t be quantified
- Few subsequent cost-benefit studies; none in US

Grinols, E. L. (2004). *Gambling in America: Costs and benefits*. Cambridge University Press.

<https://doi.org/10.1017/CBO9780511510915>

National Gambling Impact Study Commission (NGISC). (1999, June). *The national gambling impact study commission: Final report*. Washington, D.C. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/national-gambling-impact-study-commission-final-report>

Research Focused on Casino Economic and Business Impacts

- Two surveys of the literature
 - Williams et al (2011); Marionneau & Nikkinen (2020)
 - Total of 19 studies identified as “quality”
 - Missed some studies (including Fairchild et al, 2005)
- Mixed conclusions of the studies, on
 - Retail sales
 - Employment or unemployment
 - Per capita income
 - State revenues
 - Property values

Williams, R. J., Rehm, J., & Stevens, R. M. G. (2011b). *The social and economic impacts of gambling: Final report*. Canadian Consortium for Gambling Research. <https://opus.uleth.ca/handle/10133/1286>

Marionneau, V., & Nikkinen, J. (2020). Does gambling harm or benefit other industries? A systematic review. *Journal of Gambling Issues*, 44. 4-44. <http://dx.doi.org/10.4309/jgi.2020.44.2>

Fairchild, L., Krutz, J., & Stickney, A. (2005). Impact of casinos on retail sales in mid-size Iowa cities. *Papers of the Nebraska Economics and Business Association: 38th Annual Fall Conference*, 17(1), 114-121. 11

Limitations of the 19 “Quality” Studies

- Most old: based on data from the 1990s
- Most small-scale: one state or a few counties
- Most flawed:
 - Many with destination casino areas in the analysis
 - Many with study-specific issues

**None provide a national measure of casino
association with economic development**

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Research Approach

- The hypothesis inherent in the casino economic development claim:
 - Casino economies will experience a statistically significant higher growth rate in retail sales and employment than non-casino economies
- The approach to test the hypothesis:
 - Compare retail sales and employment growth rates between casino (73) and non-casino (494) economies in 39 states across the U.S. from 2002 to 2017

Data Sources

- Retail sales
 - Economic Census for 2002, 2007, 2012, 2017
 - By U.S. micropolitan and metropolitan areas
- Employment and control variables
 - U.S. Census Bureau
- Casino locations and opening dates
 - Created from many sources
 - Available at
 - https://doi.org/10.18122/pubadmin_data.1.boisestate

Data Exclusions and Adjustments

- Excludes
 - Four states with destination casinos
 - Six more states with non-casino EGMs
 - One state with intermittent casino operations
 - Some casino areas that cross state borders
 - Rural areas (under 10,000 core population)
 - Areas with missing data

Table 3.1 Numbers of Economic Census Geographic Areas

Year	39 Study-Included States	11 Study-Excluded States	All States
2002	446 micro + <u>305</u> metro 751	114 micro + <u>57</u> metro 171	560 micro + <u>362</u> metro 922
2007	456 micro + <u>306</u> metro 762	120 micro + <u>57</u> metro 177	939 = 576 micro + <u>363</u> metro 939
2012	434 micro + <u>320</u> metro 754	102 micro + <u>61</u> metro 163	536 micro + <u>381</u> metro 917
2017	444 micro + <u>320</u> metro 764	107 micro + <u>62</u> metro 169	551 micro + <u>382</u> metro 933

Table 3.2 Numbers of Study-Included Areas with and without Casinos

	Never Casino 2002-17	Always Casino 2002-17	Total Never + Always	Added Casino 2002-07	Added Casino 2007-12	Added Casino 2012-17	Total Added Casino 2002-17	Total Casino Areas	Total Areas in Analysis
Micro + Metro	494	73	567	20	16	10	46	119	613
Microp olitan	311	26	337	4	3	3	10	36	347
Metrop olitan	183	47	230	16	13	7	36	83	266

Analysis Approach

- Goal: Compare casino and non-casino economies for differences in their growth rates of retail sales and employment
- Statistical approaches: t-tests, regression, and growth curve model
 - Four periods: 2002-2007, 2007-2012, 2012-2017, 2002-2017
 - Three sets of geographic areas: metropolitan (266), micropolitan (347), and both (613)
 - Regression controls for changes in population, minority, education, poverty, and unemployment
 - Growth Curve Model additionally controls for in-state and between-state variation

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Results: Retail Sales Growth Rates

- **Casinos do not increase retail sales growth**
 - Overall, most analyses show either no statistically significant difference or a negative difference between casino and non-casino economies
- **Casinos are associated with lower retail sales growth rates in recession**
 - Casino economies experienced a statistically significant two to three times lower growth rate during the 2007 to 2012 period (the Great Recession) than non-casino economies

Table 4.1 Retail Sales Growth Rates, T-Test Results

	2002 to 2007				2007 to 2012				2012 to 2017				2002 to 2017			
Micro + Metro, n = 567	n	Mean	SE	SD	n	Mean	SE	SD	n	Mean	SE	SD	n	Mean	SE	SD
NonCasino	494	.283	.008	.181	494	.086	.008	.175	494	.125	.014	.301	494	.568	.026	.567
Casino	73	.287	.018	.150	73	.038	.012	.099	73	.147	.011	.096	73	.526	.026	.225
	p = .569 ; t = -.175				p = .012 ; t = 2.280				p = .731 ; t = -.616				p = .268 ; t = .620			
Micropolitan, n = 337																
NonCasino	311	.278	.011	.196	311	.082	.010	.172	311	.112	.021	.364	311	.593	.036	.631
Casino	26	.267	.025	.130	26	.024	.009	.169	26	.143	.021	.105	26	.470	.037	.188
	p = .396 ; t = .264				p = .048 ; t = 1.667				p = .663 ; t = -.422				p = .307 ; t = .504			
Metropolitan, n = 230																
NonCasino	183	.291	.011	.151	183	.093	.013	.180	183	.148	.010	.135	183	.626	.032	.433
Casino	47	.297	.023	.160	47	.046	.012	.085	47	.150	.013	.091	47	.557	.035	.240
	p = .597 ; t = -.245				P = .041 ; t = 1.752				p = .542 ; t = -.106				p = .145 ; t = 1.062			

Table 4.3 Retail Sales Growth Rate, Regression Results (Metro + Micro)

[illegible]

Results: Employment Growth Rates

- **Casinos do not increase employment growth**
 - T-test analysis shows no association between employment growth in casino vs non-casino economies
 - Regression analysis shows some negative association
- **Casinos reduce employment growth**
 - Growth curve model analysis shows casino economies associated with lower growth in employment

Table 4.5 Employment Growth Rates, T-Test Results

	2002-2007				2007-2012				2012-2017				2002-2017			
Micro + Metro n = 567	n	Mean	SE	SD	n	Mean	SE	SD	n	Mean	SE	SD	n	Mean	SE	SD
Non-Casino	494	.127	.004	.100	494	-.062	.002	.036	494	.000	.002	.035	494	.056	.005	.100
Casino	73	.144	.008	.068	73	-.066	.004	.034	73	-.005	.004	.035	73	.063	.010	.083
	p = .929 ; t = -1.467				p = .157 ; t = 1.007				p = .102 ; t = 1.270				p = .697 ; t = -.516			
Micropolitan, n = 337	n	Mean	SE	SD	n	Mean	SE	SD	n	Mean	SE	SD	n	Mean	SE	SD
Non-Casino	311	.122	.006	.100	311	-.062	.002	.040	311	-.002	.002	.040	311	.050	.006	.102
Casino	26	.146	.011	.057	26	-.079	.008	.043	26	-.016	.009	.044	26	.039	.015	.015
	p = .889 ; t = -1.225				p = .020 ; t = 2.055				p = .044 ; t = 1.709				p = .297 ; t = .534			
Metropolitan, n = 230	n	Mean	SE	SD	n	Mean	SE	SD	n	Mean	SE	SD	n	Mean	SE	SD
Non-Casino	183	.135	.007	.099	183	-.062	.002	.026	183	.004	.002	.024	183	.068	.007	.097
Casino	47	.143	.011	.075	47	-.060	.004	.025	47	.001	.004	.027	47	.076	.012	.085
	p = .712 ; t = -.560				p = .729 ; t = -.609				p = .210 ; t = .808				p = .702 ; t = -.532			

Table 4.7 Employment Growth Rate, Regression Results (Micro + Metro)

	2002 to 2007				2007 to 2012				2012 to 2017				2002 to 2017			
n = 567	b	RSE	p	B	b	RSE	p	B	b	RSE	p	B	b	RSE	p	B
Casino Presence	.012	.009	.180	.041	.002	.004	.491	.023	-.007	.004	.094	-.064	.007	.011	.541	.023
Population	.115	.049	.018	.090	.117	.029	.000	.151	.019	.042	.648	.021	.050	.024	.041	.078
Minority	-.003	.001	.029	-.107	-.001	.001	.035	-.104	.000	.001	.815	.014	-.004	.001	.000	-.197
Poverty	-.013	.002	.000	-.301	-.007	.001	.000	-.452	-.007	.001	.000	-.441	-.011	.002	.000	-.286
Education	-.009	.004	.035	-.147	.002	.001	.019	.093	.001	.001	.374	.045	.002	.002	.355	.044
Constant	.172	.014	.000	.	-.056	.003	.000	.	-.017	.003	.000	.	.067	.013	.000	.
	Prob > F < .000; R-sq = .117				Prob > F < .000; R-sq = .281				Prob > F < .000; R-sq = .206				Prob > F < .000; R-sq = .167			

Table 4.8 Employment Growth Rate, Growth Curve Model Results (2002-2017)

(Prob>chi2 < .000 in all cases)									
	Micro + Metro			Micropolitan			Metropolitan		
	λ	RSE	p	λ	RSE	p	λ	RSE	p
Casino Present	-.009	.003	.001	-.011	.005	.031	-.012	.004	.004
Year	-.000	.000	.079	-.001	.000	.027	-.000	.000	.402
Pop (per mil)	.001	.011	.255	-.100	.060	.093	.002	.002	.165
Minority	-.001	.000	.000	-.005	.000	.000	-.001	.000	.001
Poverty	-.001	.001	.054	-.002	.001	.005	-.000	.001	.589
Education	.004	.000	.000	.005	.000	.000	.004	.000	.000
Constant	1.265	.474	.008	1.625	.536	.002	.959	.633	.130
Rand Eff: State									
SD of Intercept	.023	.003	<.05	.023	.004	<.05	.021	.003	<.05
Rand Eff: Area									
SD of Intercept	.018	.002	<.05	.018	.002	<.05	.014	.004	<.05
SD of Slope	.030	.001	<.05	.030	.002	<.05	.029	.001	<.05

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Conclusion:

- For retail sales and employment
 - Casino economies do not experience a higher growth rate than non-casino economies
 - Just the opposite: Casino economies experience lower growth in retail sales and employment
- **Casinos do not create economic development**

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The Disconnect

- **This study demonstrates:**
 - Economic development claims drive casino policy
 - Casinos do not bring economic development
 - No association with retail sales growth
 - Negative association with retail sales in recession
 - Negative association with employment growth
- **Other studies demonstrate:**
 - Casinos bring harms: addiction, crime, bankruptcy...
 - EGM revenues come 50% or more from addicts

So why do we have casinos?

Challenges to Public Policy

“Sound public policy should match the intended outcomes with the actual results” (Anders, 2002).

Why intended economic outcomes of casino expansion do not match results

1. Policy makers are poorly informed

- “Multiple published studies question the reliability of economic impact studies and note government officials often don’t have the training to detect problems in the way the data has been collected, analyzed, or presented” (Ordway, 2012)
- Research into gambling impacts has been politicized

2. Governments are incentivized to favor casinos

- Gambling is the for-profit arm of state and local governments
- “The need for money outstrips duties of public protection” (Adams, 2004)

3. Those hurt by gambling have little voice or power; casinos have both

- Social Construction Theory

Anders, G. C. (2002). Reconsidering the economic impact of Indian casino gambling. In L. V. Williams (Ed.), *The economics of gambling* (1st ed., pp. 204-223). Routledge. <https://doi.org/10.4324/9780203986936>

Ordway, D. M. (2021, February 17). Webinar: Using Academic Research to Keep Politicians Honest: Training for Journalists. *The Journalist's Resource*, Harvard Shorenstein Center for Media, Politics, and Public Policy. <https://journalistsresource.org/media/using-research-to-keep-politicians-honest-training-video/>

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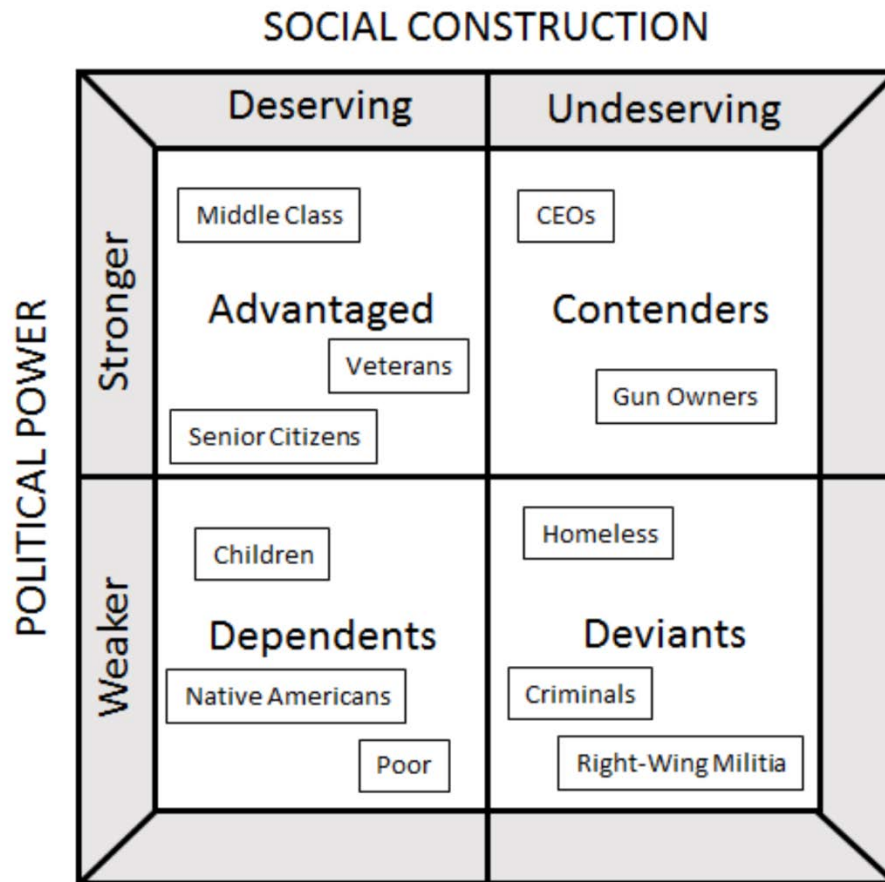
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Social Construction Theory



Schneider, A. L., Ingram, H., & DeLeon, P. (2014). Democratic policy design: Social construction of target populations. In Sabatier, P., & Weible, C., eds. *Theories of the Policy Process*, 3rd Ed., 3, 105-149. Westview Press.
https://www.researchgate.net/publication/265377853_Democratic_Policy_Design_Social_Construction_of_Target_Populations