

Optimal Methodology for Socioeconomic Impact Studies of Gambling



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- Socioeconomic analysis of gambling impact is a very important issue with major policy implications.
- However, it is beset by many methodological issues and problems.
- Consequently, most prior research on this issue is either inconsistent, inadequate, biased, or all three.
- This presentation discusses the main methodological issues and outlines approaches to their resolution.

Strong Vested Interests Corrupting the Research

- Funders for this type of research often have a vested interest in a certain outcome.
- Very reminiscent of the tainted research on the:
 - benefits of pharmaceuticals
 - economic benefits of professional sports teams
- ➔ *Socioeconomic research funding needs to come from independent agencies without a vested interest in the outcome.*



Very complex methodological issues

- Probably more complexities involved in this area than any other area of gambling.
- ➔ *Exhaustive elucidation and exploration of the main methodological issues is required so as to provide the groundwork for the actual approach.*

What to Measure

- New economic activity has pervasive socioeconomic ripple effects. Despite this, many studies only measure and report the most apparent economic impacts that are easily quantifiable in monetary terms (e.g., employment, government revenues, etc.).
 - e.g., Anderson's (1997) study of casino gambling; Littlepage et al. (2004) study of riverboat gambling; Rabeau's (2004) study of casino gambling in Quebec; Canadian Gaming Association's (2008) study of gambling in Canada.
 - Creates an unbalanced analysis in that economic gains/losses are not measured against social costs/benefits.
- *A wide net must be cast to capture and report all potential economic and social variables that may be impacted.*



How to Measure the Impacts

- Traditional approach is to use money as the way of measuring and quantifying all impacts
- While this is appropriate for capturing most economic changes, it is inappropriate and inadequate for capturing many social impacts (somewhat crass to measure suicides in monetary terms; many social impacts have no obvious monetary consequences, e.g., psychic trauma of being a problem gambler, etc.).

- *Need to use a metric that best captures the impact. Money is most appropriate for most economic changes, as well as social changes with clear monetary costs (e.g., police time, treatment cost)*
- *However, other social impacts will be best captured and described in more straightforward ways (e.g., % change in divorces, suicides, crime, etc.).*

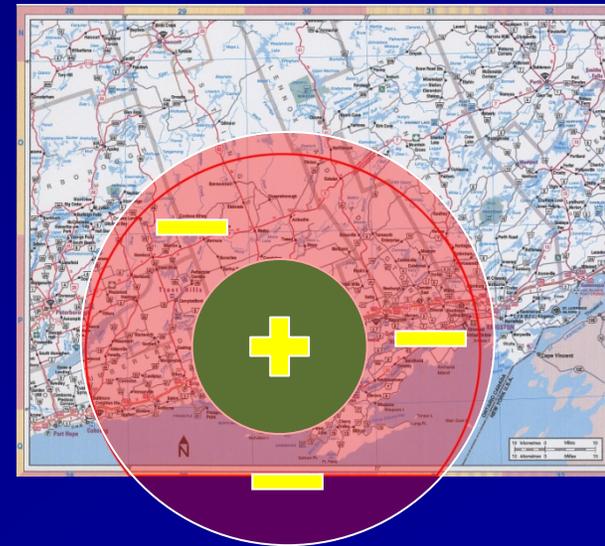


Aggregating the Impacts

- Advantage of common metric (e.g. \$) is that allows you to combine all impacts into overall aggregate value ('Cost-Benefit Analysis (CBA)').
 - However, CBA problematic because of difficulties applying \$\$\$ to social changes, and because it requires everything to either be a COST or a BENEFIT (some things are just 'changes' or 'impacts').
 - 'Genuine progress indicators' (e.g., SEIG Framework) assessing 'aggregate well-being' of society more theoretically satisfying, but somewhat subjective and arbitrary due to lack of agreement about relative value/weighting of economic impacts relative to social impacts
- *Monetary changes with clear 'costs' and 'gains' can be combined into an aggregate measure (classical CBA). Other changes (e.g., % increase in crime; % increase in suicides) are best reported as they are and NOT combined.*
- **End result is a PROFILE OF IMPACTS with several different indices**

How Large a Geographic Area to Assess

- Most studies have examined gambling impacts in the area where the venues have been introduced, without consideration of larger regional impacts.
- However, in many cases, increased financial inflow in one region comes at the expense of financial outflow in adjoining regions.
- ➔ *Socioeconomic analyses should examine the geographic 'magnitude' of the impact and to estimate both community-specific costs/benefits, and macro, regional impacts. Patronage origin provides some guidance about how large a geographic range to study.*



How Long a Time Span to Assess *(both after and before)*

- The length of time it takes for all economic and social impacts of gambling to manifest themselves is unknown.
 - Many economic impacts fairly immediate, others take a few years, others reverse with time.
 - Negative social impacts often take longer, and may decline with time.
 - New gambling venues are always added to existing gambling opportunities (even if illegal). Lag effects of these pre-existing opportunities can be mistaken for immediate impacts of new facilities.
- *Need to document prior gambling opportunities and socioeconomic effects for several years before the opening of the new gambling venue as well as for several years after.*



Difficulties in Isolating the Effects of Gambling

- Pre-Post studies ignore the fact there are a multitude of economic and social forces at work that account for social/economic changes in a community in any given time period.
 - A much stronger methodology is a matched control comparison where changes in the community receiving the gambling venue(s) are compared against changes in an economically, socially, and demographically similar community that did not receive new gambling venue(s).
- *Use both pre-post and control community comparisons.*



Limitations of Cross-Sectional Designs

- Most socioeconomic impact studies collect annual socioeconomic community indicators and then try to attribute changes to the introduction of the new gambling activity
- e.g., A problem gambling increase after 1 year being responsible for a corresponding bankruptcy rate increase after 1 year.

However, increases in Problem Gambling coincident with an increase in bankruptcies has different explanations

	Y1	Y2
1	B	B
2	B	B
3		B
4		B
5		
6		

	Y1	Y2
1		
2	B	
3	B	B
4		B
5		B
6		B

■ = Problem gambling
B = Bankruptcies

➔ *A longitudinal cohort design establishes whether these are related (left) or unrelated problems (right)*

Also, a stable prevalence rate (e.g., 2 out of 6 people) could mean various things

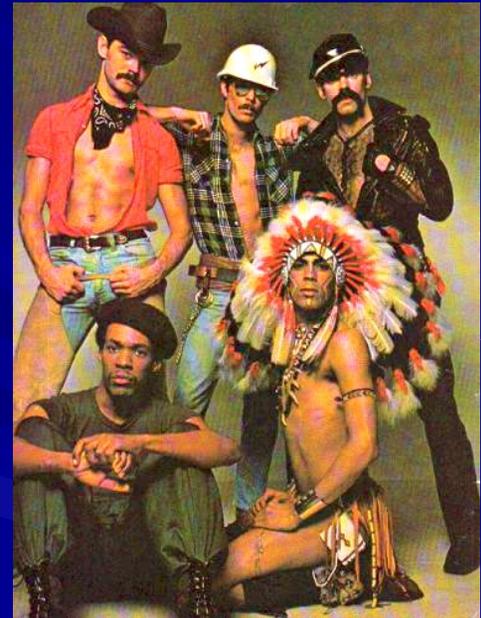
	Y1	Y2	Y3	Y4	Y5
1	Red	Red	Red	Red	Red
2	Red	Red	Red	Red	Red
3	Blue	Blue	Blue	Blue	Blue
4	Blue	Blue	Blue	Blue	Blue
5	Blue	Blue	Blue	Blue	Blue
6	Blue	Blue	Blue	Blue	Blue

	Y1	Y2	Y3	Y4	Y5
1	Red	Blue	Red	Blue	Red
2	Red	Red	Blue	Red	Blue
3	Blue	Red	Red	Blue	Blue
4	Blue	Blue	Blue	Red	Red
5	Blue	Blue	Blue	Blue	Blue
6	Blue	Blue	Blue	Blue	Blue

→ *A longitudinal cohort design establishes whether these impacts are experienced by a narrow (left) or wide (right) segment of society*

Impacts are Somewhat Specific to Different Segments of Society

- The lack of significant community-wide changes does not address subpopulation impacts
 - If 5% of a population (e.g., problem gamblers) experiences a 100% increase in bankruptcy rates (e.g., 2% to 4%), this change will not be statistically significant at a community level if there is no change in the other 95% (e.g., nonproblem gamblers).
 - General population surveys and statistical data often do not contain a large enough sample of these subpopulations to address these impacts.
- *The best impact studies are ones that over sample subpopulations most at risk for being impacted so that these subpopulation impacts can also be examined.*



Impacts are Somewhat Specific to the Type of Gambling

- Different forms of gambling (e.g., lotteries, slot machines, bingos, casinos, etc.) are associated with different:
 - rates of problem gambling
 - Economic spin-offs
 - Venue location (tourist areas versus nontourist area) influences:
 - degree of new versus cannibalized job creation and revenues
 - Problem gambling rates in local populace
 - Etc.
- *Need to qualify results as being specific to the type of gambling*



Impacts are Somewhat Specific to the Jurisdiction Studied

■ Jurisdictions differ in:

- Their availability of different types of gambling.
- Strength of their policy and educational initiatives to prevent problem gambling.
- Vulnerability of the populace

➔ *Results need to be qualified as being specific to the jurisdiction studied.*

Impacts are Somewhat Specific to the Time Period Studied

- Gambling availability and gambling policy can change rapidly within a jurisdiction.
 - Populations with extended exposure to gambling may have different rates of problems compared to places that have more recently introduced it.
- *Results need to be qualified as being specific to the time period studied.*

Comparison Points

- Most studies examine economic and social changes from before the introduction of gambling to after
 - However, an even more relevant comparison is not 'baseline', but rather, what the likely economic and social situation would be currently, if gambling had not been introduced.
- *Results need to be speak both to changes from baseline and changes relative to what the current situation would be without gambling.*

Studies Using this Methodology

British Columbia Socioeconomic Impact Study

- Blue Thorn, et al. (2004 - 2007)
- <http://www.pssg.gov.bc.ca/gaming/reports/docs/rpt-rg-impact-study-final.pdf>

Quinte Exhibition and Raceway Impact Study (QERI)

- Williams et al. (2006 - 2011)
- www.qeri.ca

Social & Economic Impacts of Gambling in Alberta (SEIGA)

- Williams et al., (2008 - 2010)

For more Information

- Stevens, R.M.G., & Williams, R.J. (2004). *Socio-Economic Impacts associated with the Introduction of Casino Gambling: A Literature Review and Synthesis*. Alberta Gaming Research Institute. July 31, 2004. <http://hdl.handle.net/10133/407>