

# Understanding Local Access Impacts: What Do We Know About Geography, Community Characteristics, And Risk?

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# Acknowledgements

- Collaborators:

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- Nassim Tabri, Carleton U
- Michael Wohl, Carleton U

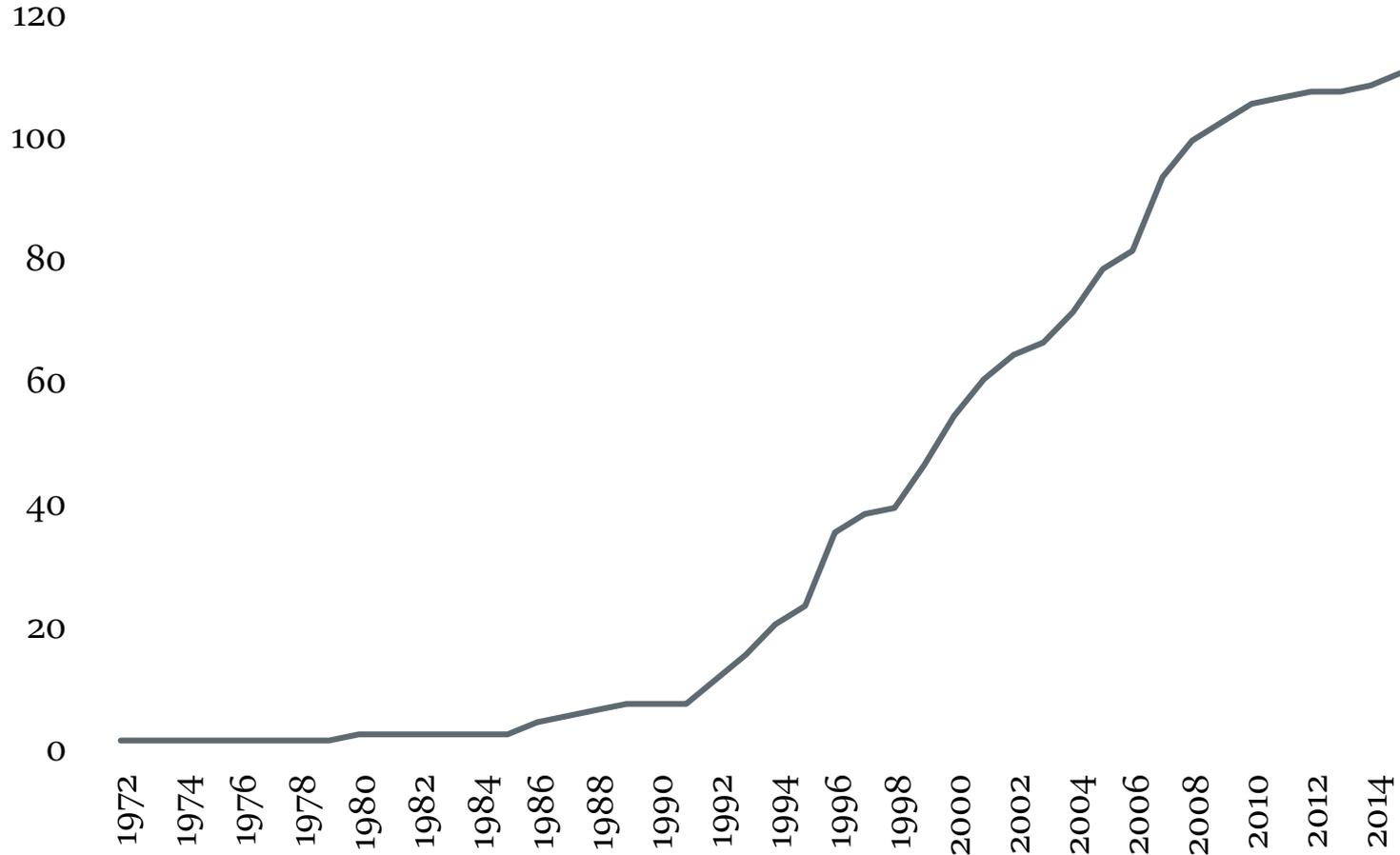
- Data providers:

- Canadian community health survey

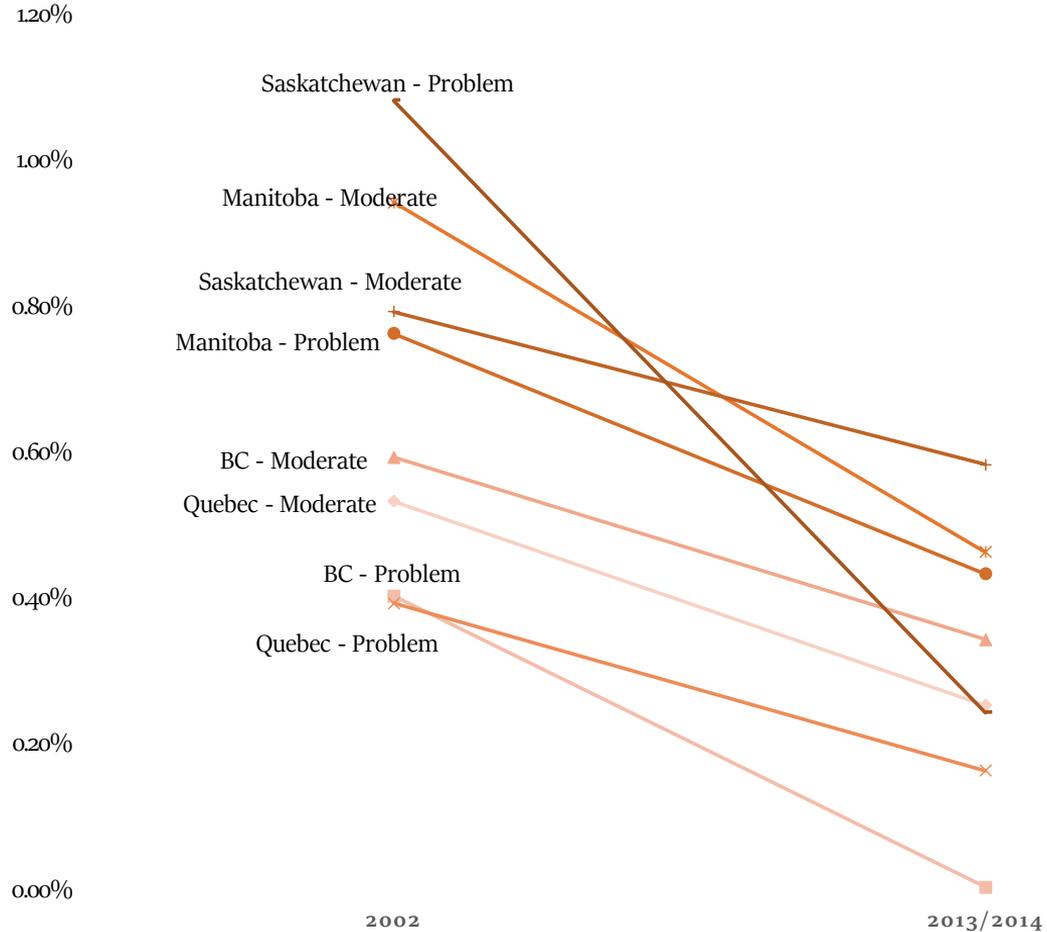
- Disclosures:

- Since 2016: Received funds from the Washington State Gaming Commission, Manitoba Gambling Research Program, UNLV International Centre for Gaming Regulation, U.S.-Japan Business Council, Wynn Resorts, Board of Regents of the Nevada System of Higher Education, British Columbia Lottery Corporation, Responsible Gambling Council of Canada, the Commonwealth of The Bahamas, West Virginia Lottery, Indiana Gaming Commission, and iDevelopment and Economic Association. Reimbursement for travel from the National Council for Problem Gambling, International Association of Gaming Advisors, National Centre for Responsible Gambling, North American State and Provincial Lottery Association, Evergreen Council on Problem Gambling, and Global Gaming Expo Asia.

# Number of Canadian Casinos



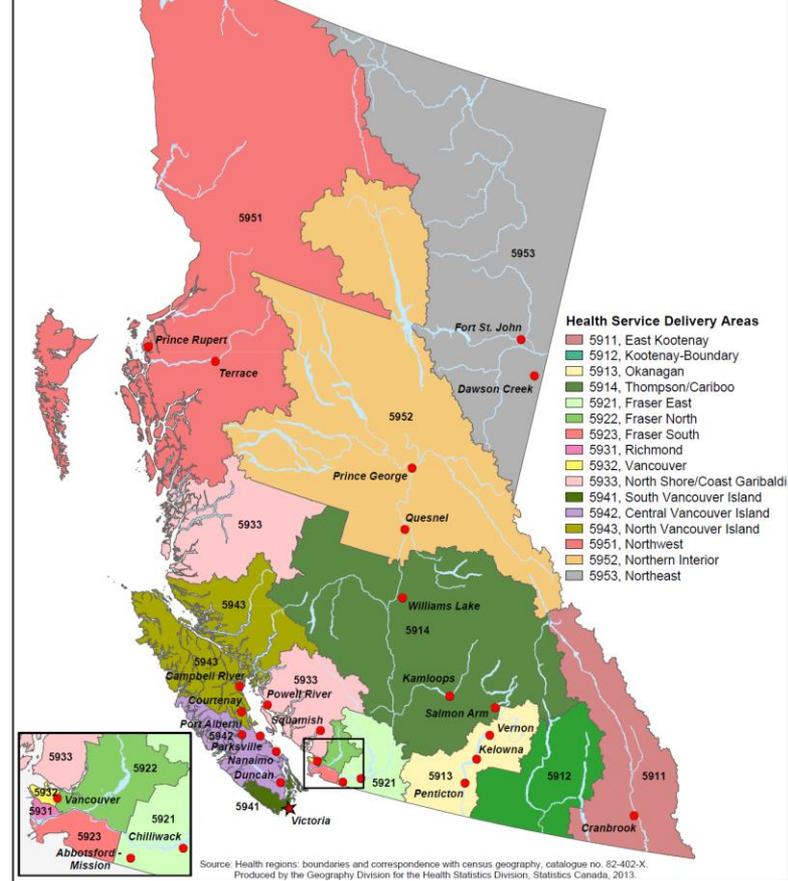
# PGSI by province - 2002 vs 2013/2014



## Two Studies

- 1) Closely controlling for health and wellness with a representative population sample
- 2) Looking at a large group of gamblers, controlling for travel time to the casino

# Study 1: Casino density in a well-controlled sample





**2014 BRITISH COLUMBIA PROBLEM GAMBLING PREVALENCE STUDY**

**Gaming Policy and Enforcement Branch**

**Ministry of Finance**

**FINAL REPORT**

Submitted by:

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**Canadian Community Health Survey (CCHS)  
Annual component  
User guide  
2014 and 2013-2014 Microdata files**

June 2015



 Statistics  
Canada

Statistique  
Canada

**Canada**

## Overall Health

- Self-reported health
- Alcohol use
- Life stress

## Mental Health

- Self-reported mental health
- Mood disorders
- Anxiety disorders

## Demographics

- Age
- Gender
- Income
- Marital status

Casino Density

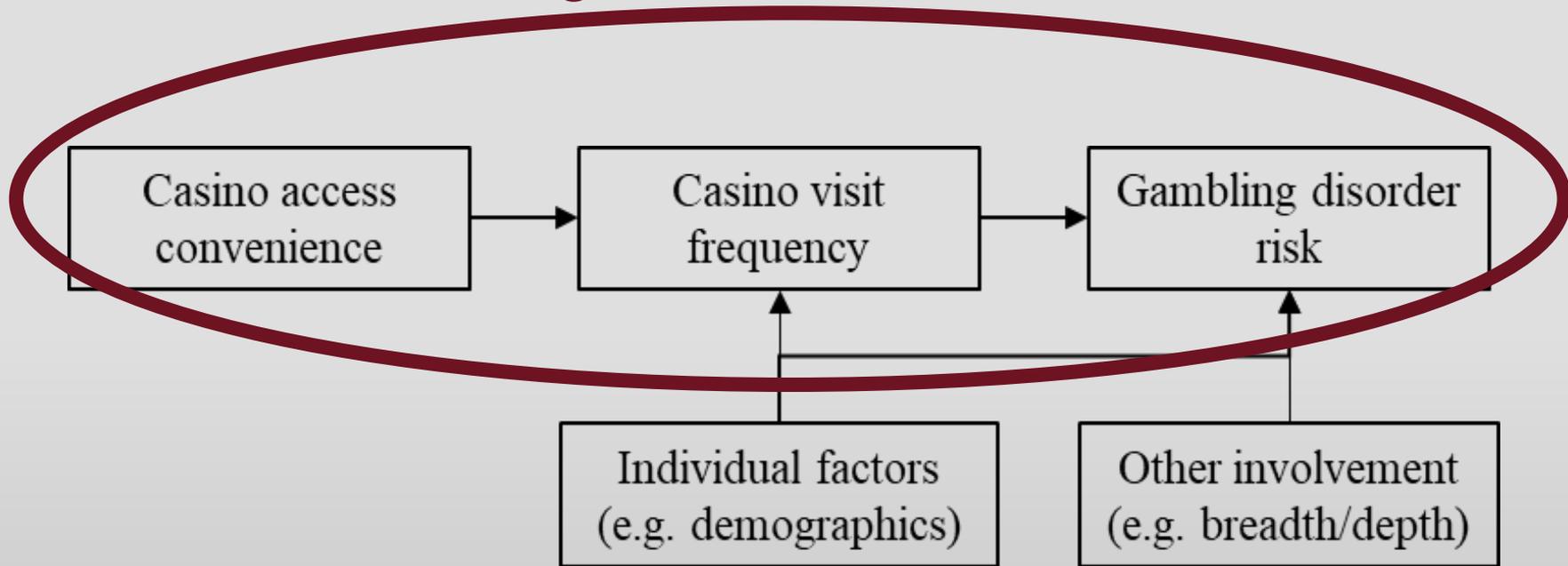
Risk  
Level

```
graph TD; OH[Overall Health] --> RL((Risk Level)); MH[Mental Health] --> RL; D[Demographics] --> RL; CD[Casino Density] --> RL;
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## Follow-up study

- ~6,000 gamblers
- ~61.5% casino gamblers
- Geocoded homes by postal codes
- Geocoded all casinos

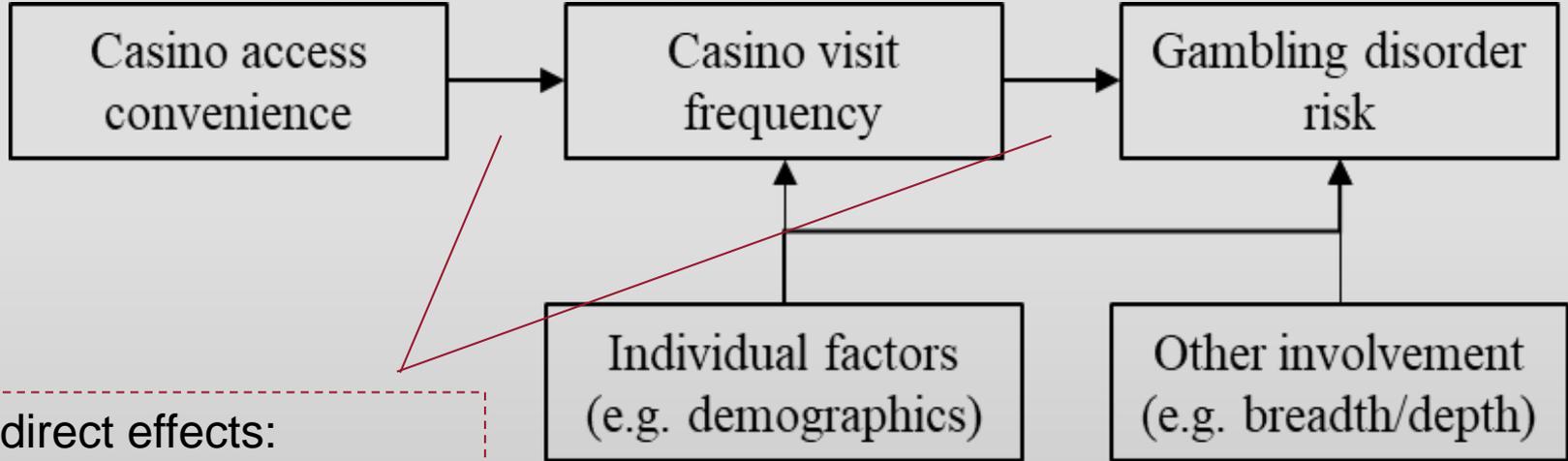
# Retail Patronage Model



# Gambling Access & Impact Model (in hours)

Travel time:  $-0.145^{***}$   
Travel time<sup>2</sup>:  $0.006^{***}$

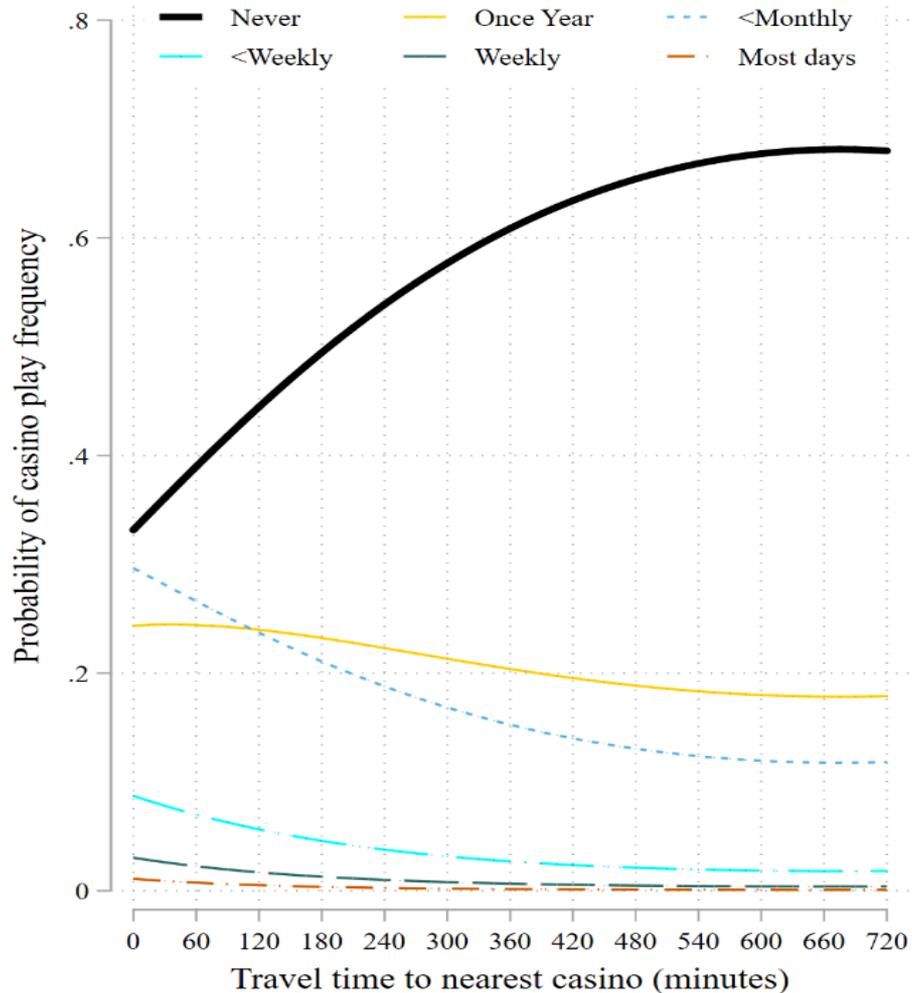
Visit freq.:  $0.764^{***}$



Indirect effects:  
Travel time:  $-0.112^{***}$   
Travel time<sup>2</sup>:  $0.005^{***}$

# Shorter travel time does increase likelihood of casino gambling

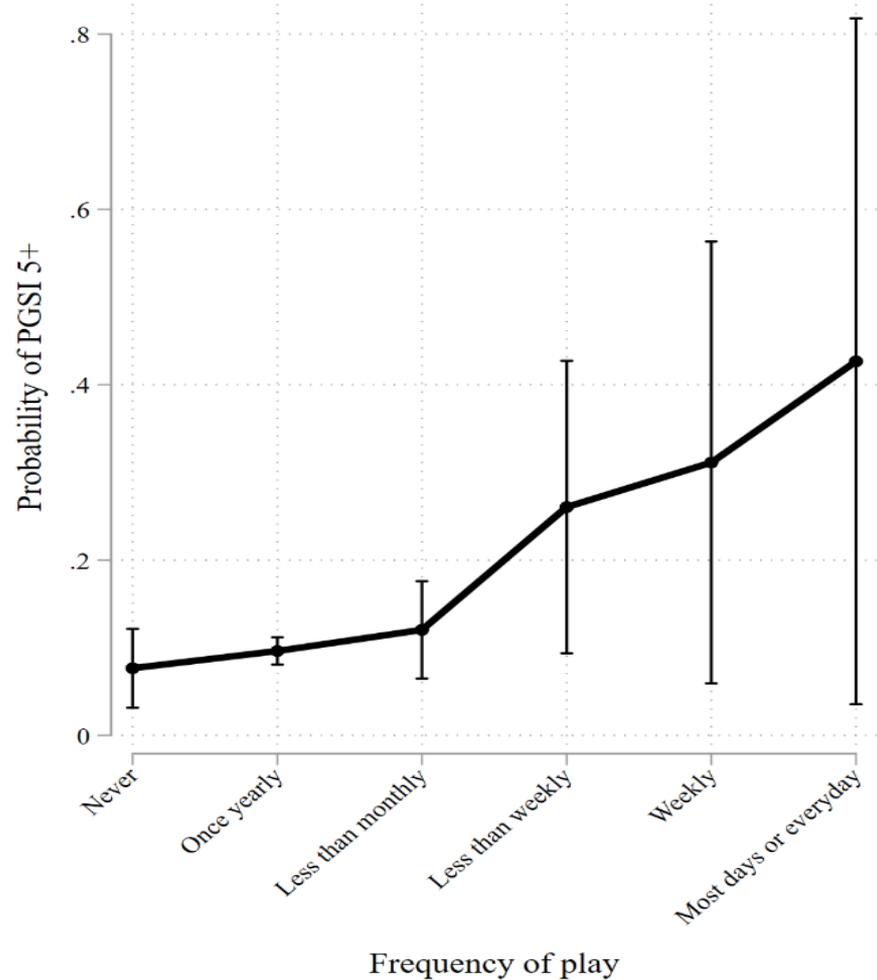
Frequency of gambling, too.



# Higher visit frequency does lead to higher risk

We see jumps in risk at:

- Over once a month
- Over weekly



## What do we know?

- Prevalence rates are generally falling, but this may have more to do with treatment and prevention programs
- Casino access convenience does seem to matter
  - In our model with gamblers, at the two-hour commute mark, players are more likely to be multiple times a year gamblers than 'once a year'
- Risk jumps in moves from 'weekly' to 'most days' and from 'less than once a month' to 'more than once a month'

**How industry approaches new market feasibility**

# Traditional hotel feasibility (Rushmore, 1986)

- Site Review
- Size and topography
- Area and neighborhood
- Access and visibility
- Hotel facilities and features
- Hotel services
- Availability of utilities
- Market Area and Demographic Analysis
- Market area definition
- Population
- *What about gaming?*

# Case study: Casino Corporation Project Proposal in Biloxi, Mississippi (U.S)



Source: Seaport Group Report

# Asset Comparison

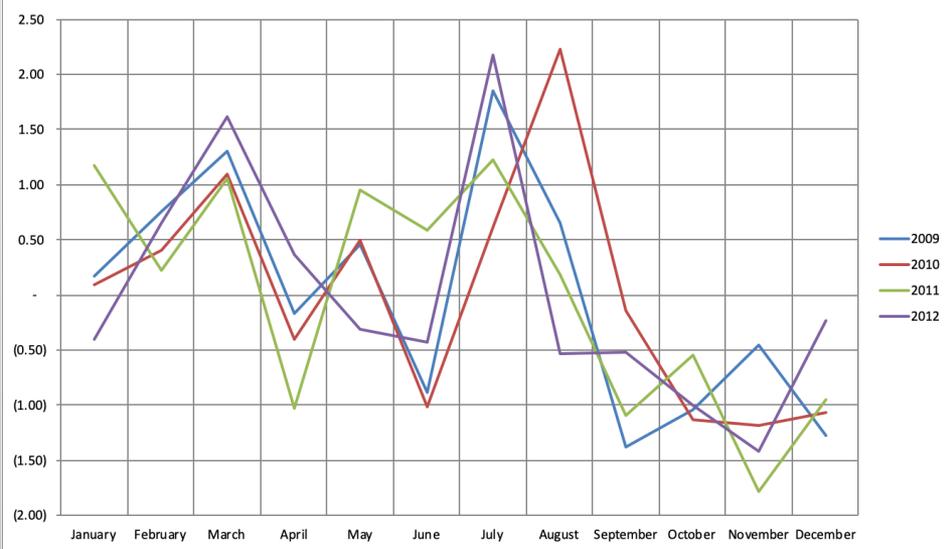
- Current Portfolio
- 3 properties (Local, Regional, and Destination)

		Local Property	Regional Property	Destination Property
% of Customers	Locals Market	68%	10%	9%
	Drive Market	17%	65%	28%
	Destination market	15%	25%	63%
% of Gaming Revenue	Locals Market	93%	29%	17%
	Drive Market	4%	54%	27%
	Destination market	3%	17%	56%

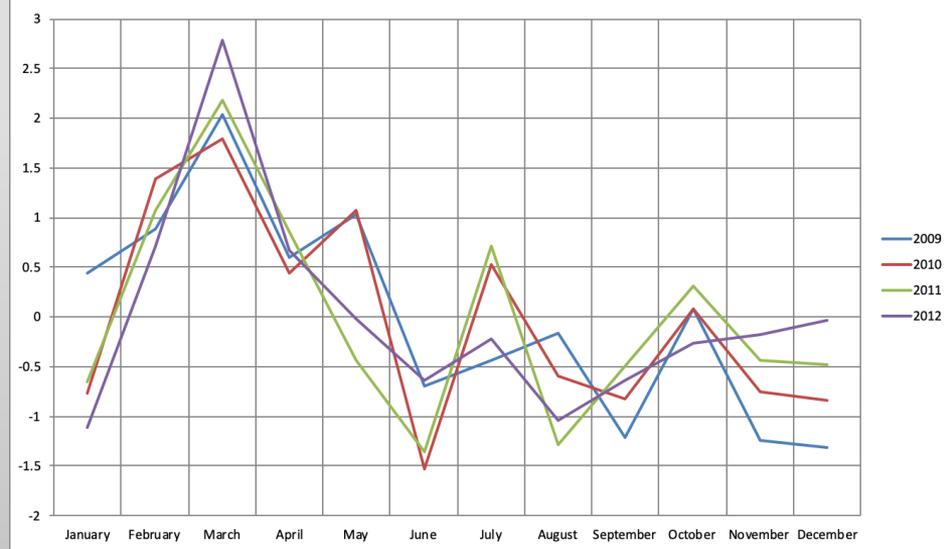
Source: Las Vegas Based Donor Corporation (2016)

# Gaming Revenue Seasonality Comparison

## Biloxi Gaming by Month (Standardized View)



## Regional Property Gaming by Month (Standardized View)



# Financial Projections

- Revenue projection
  - 5, 10, 15, 30 years?
- Basic Fair Share Model; Current supply; Competitive Landscape
  - Gross Gaming Revenue
  - Average Room Rate, Occupancy, and Revenue Analysis.
  - Meeting and Conventions
  - Non-gaming business
- Business and convention/Leisure segments
- Financial Analysis
  - Forecast of Income and Expenses (Pro-Forma)

# Additional analyses

- Gravity Models
  - Local gravity model
  - Tourism gravity model – induced tourism
  - Local income analysis; Gini index
- 3<sup>rd</sup> party approaches
  - Population and economic overview
  - Multi-level competitive analysis
  - Regional development pipeline

# Communities and Risk

- Boomtown Concerns (O'Connor, 2014)
  - Key factors: Remote locations, 'Insiders' vs. 'Outsiders'
  - Implications for long-term sustainability
- Case in overdevelopment and rapid unsustainable growth: Sihanoukville, Cambodia
  - Ong, 2013



# Community and Risk

- Place-based identity
  - Shannon & Mitchell (2012)
  - ‘Place identity’ and impacts of a Racino.  
Grand River
- Gentrification concerns
  - Balzarini & Shlay (2016)
  - Influence of long-time residents versus newcomers
  - Henri LeFebvre’s ‘right to the city’
    - who should rightfully have the power to make a community?



# Other Approaches to Risk

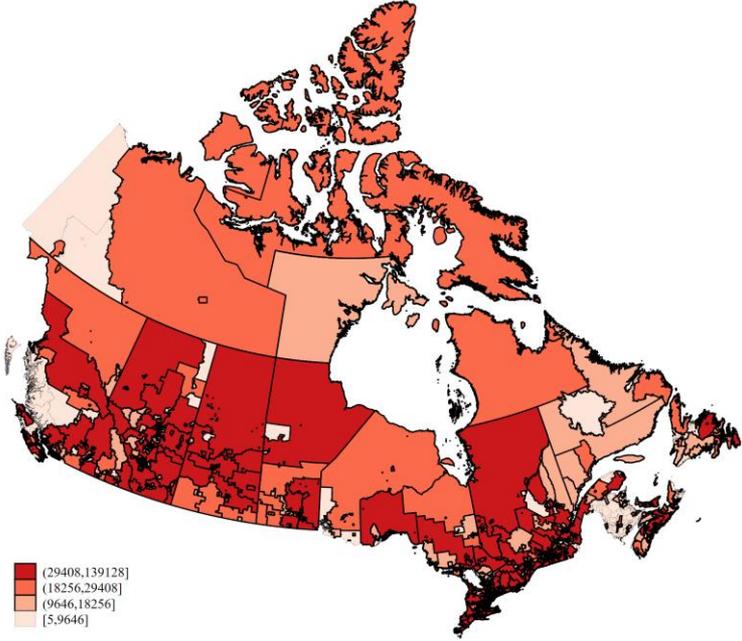
- Social Cost/Benefit Analysis (Eadington, 1999)
  - Difficulties in measurement (Walker, 2007)
- Economic Bundling (Adams & Yellen, 1976; Schmalensee, 1982)
  - Balancing non-gaming entertainment
- What else makes a 'deal' attractive? And to whom?
  - Capital and tax structure
  - Licensing and regulatory factors
- Stakeholder fit
  - E.g. 'Development team and ownership interests'

# Current research questions

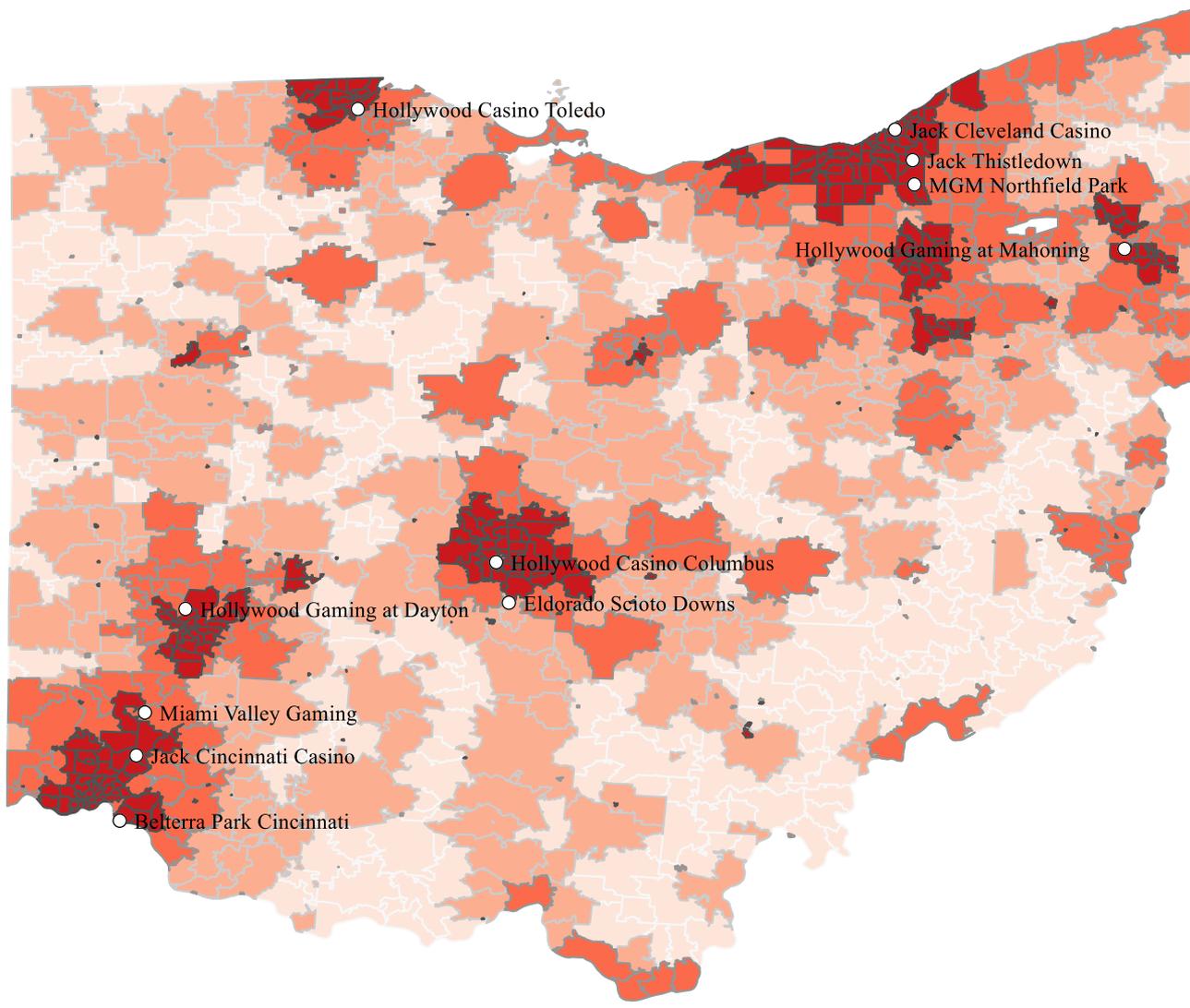
- Tensions between stakeholder perspectives and ecological/systems perspective (Cho & Nower, 2020)
  - Defining stakeholders and non-stakeholders (i.e. vulnerable populations)
  - Question of shared gains?
- What does it mean to be socially responsible?
  - Harm-minimization and utilitarian perspectives (Lindorff, M., Jonson, E. P., & McGuire, L., 2012)
- Towards a new kind of ‘feasibility study’?

**What's next?**

# Approach.



Example of feasibility study map. Plot of population density by zip code, on which casino locations are overlaid.



# Consolidating Geographic Data Sources

- Census Data
  - Young age, low income, single person household
  - Low education
  - Mental health question
- Canadian Community Health Survey
  - ~50,000 respondents to the Canadian Community Health Survey & 1,620 3-digit postal codes in Canada
  - ~30 respondents per sortation area

# Thank You

- Study 1:
  - Philander, K. S. (2019). Regional impacts of casino availability on gambling problems: Evidence from the Canadian Community Health Survey. *Tourism Management*, 71. doi:10.1016/j.tourman.2018.10.017
- Study 2: Please email for working paper
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