

# The Socioeconomic Impacts of Legalized Casino Gambling

Big Idea Conference on Gambling Expansion

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# Outline

## SOCIOECONOMIC IMPACTS OF LEGALIZED CASINO GAMBLING

- 1 Economic perspective on gambling
- 2 Economic benefits
- 3 Economic costs
- 4 Social costs
- 5 Problems in social cost estimation
- 6 Casinos and crime

# 1 Economic perspective on gambling

- Economics focuses on *voluntary, mutually beneficial transactions*
  - Consumers are sovereign and rational
- ‘Gambling’ is putting something of value at risk on the outcome of an uncertain event
  - Enjoyable and entertaining to some people, not to others
- Since the expected value of all casino bets is negative (for players), gambling must provide entertainment value

# Disordered gambling

- Research suggests that 0.4 – 2.0% of the adult population has a gambling disorder
  - Not 'rational'
  - Inability to control gambling behavior, resulting in financial stress, problems with family, friends, career
  - Gambling problems are more likely with certain types of gambling
    - Slot machines have quick feedback
    - Powerball has a 3-day wait for results
  - 'Social costs' are attributed to pathological gamblers
  - 'Vice' goods with potential for addiction should maybe be regulated
    - Govt role to protect vulnerable populations
    - Gambling is viewed differently from ice cream, shoes, etc.

# 2 Economic benefits

- Measurable benefits include:
  - Tax revenues
  - Employment & wages
  - Economic development
- Less-measurable benefits:
  - Consumer surplus
    - Lower prices with more competition
  - Higher quality 'entertainment' options
  - Increased variety
  - These may be greater in magnitude than the 'measurable' benefits

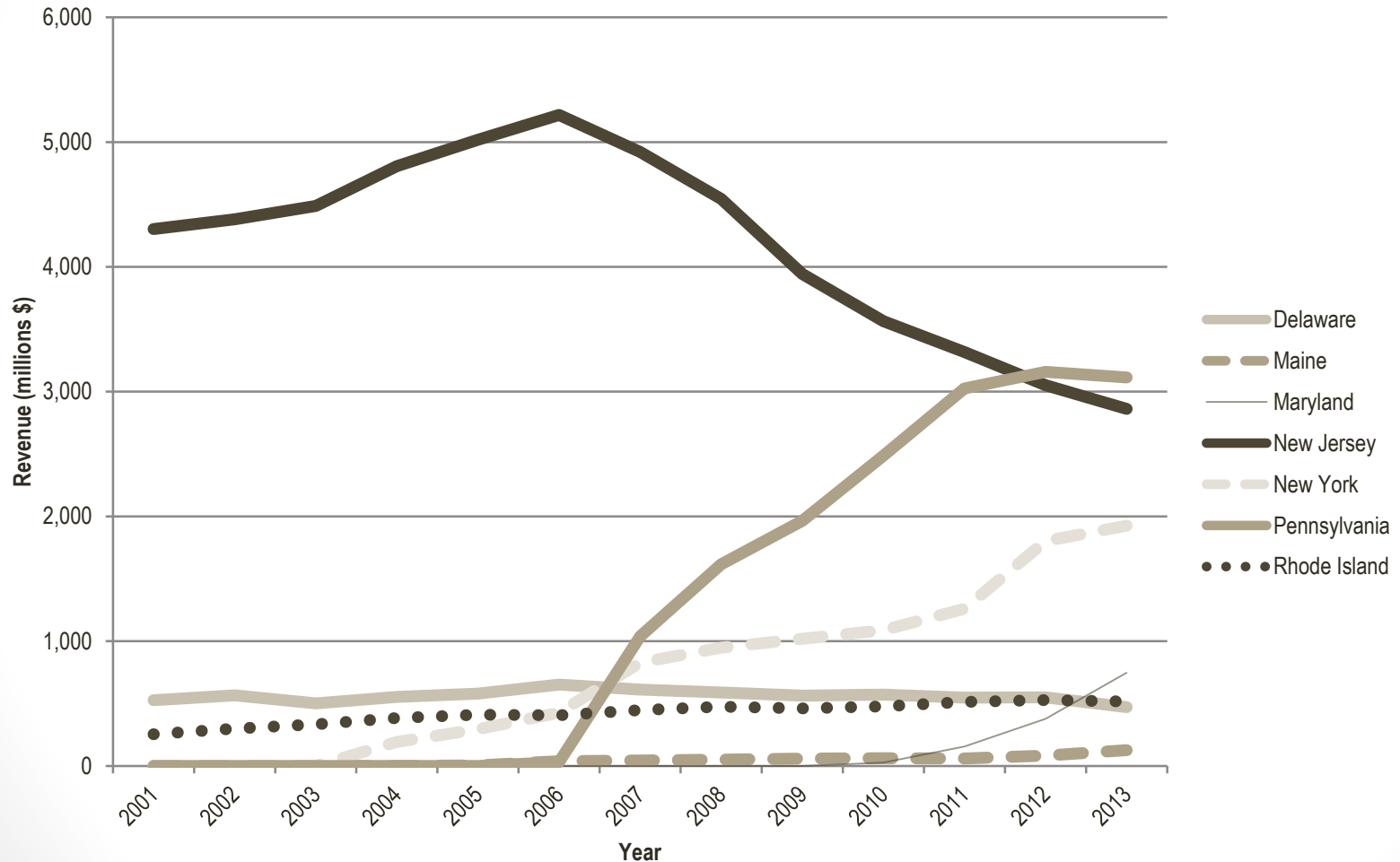
# Tax revenues

- Taxes are transfers of wealth
  - Benefit to government is offset by loss to taxpayers
- Tax revenues are the primary reason for legalization in the U.S.
  - Taxes on GGR range from 6% to over 60%
    - CT tribal casinos pay 25% slot revenues to state
    - DE tax on VLT revenue 62%
    - ME taxes 16% table games, 39-46% on slots
    - MD slots taxed at 67%; 20% on table games
    - PA slots taxed at 55%
  - Then casinos pay income taxes...
- Lower tax rates are likely to encourage larger capital investment

# Tax revenues, cont.

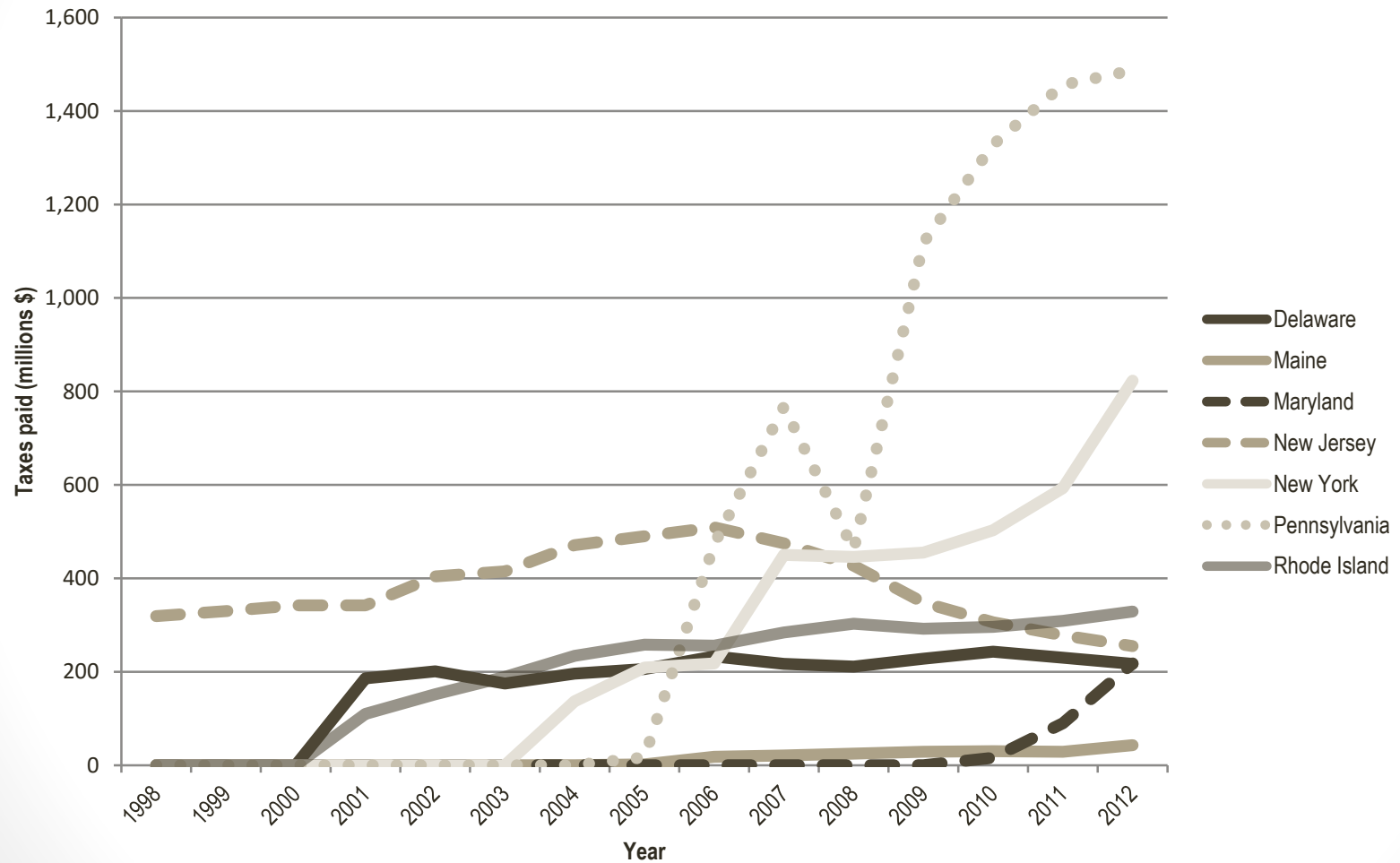
- 2011 study showed slightly *negative* effect of casino revenues on state tax revenues
  - But effect is positive when tourism and economic growth effects are considered – indirect tax revenues attributable to casinos
  - Study was a panel of U.S. states
- States tax GGR at much higher rates (25-30% avg) than sales taxes (6% avg)
  - 1-to-1 substitution in spending => casinos increase tax revenues
  - Lottery 'tax' is about 30%

# Casino revenues in NE states



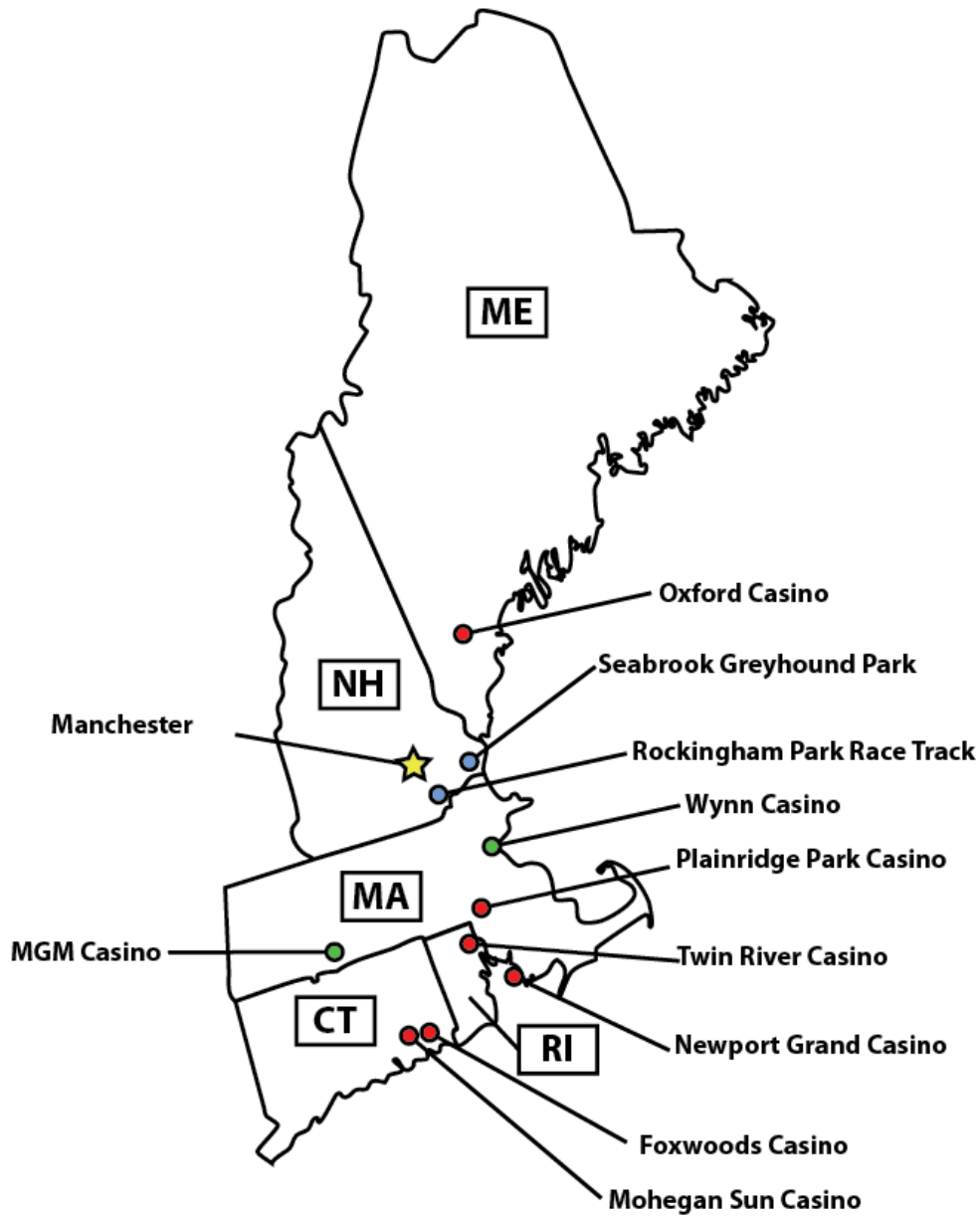


# Casino taxes paid in NE states



# Market saturation?

- Is the NE market ‘saturated’?
  - Closure of 4 of 12 Atlantic City casinos in 2014 raises questions
  - Hasn’t been studied much
- What does ‘saturation’ mean?
  - New supply does not increase regional casino revenues (or taxes)?
  - Should NH be concerned with ‘regional saturation’?
- Are casino owners willing to build more?
  - A good market test of a saturated market
- Implication may be that state policy needs to be more ‘competitive’
  - Discussion of lower tax rates in DE, IN
  - Other regulatory changes to help stabilize industry



# Casino taxes & politics

- Taxes from gambling (casinos + lotteries) represent < 5% of revenue in most states
- Govt allows industry to exist, enforces monopoly
- ‘Defensive legalization’
  - Why not keep \$ at home?
- Gambling taxes are ‘voluntary’
  - ‘regressivity’ question is interesting
- Fiscal stress relief
  - Avoid cutting spending or raising other taxes

# Employment & wages

- Do casinos create new jobs or ‘cannibalize’ jobs in other industries?
- 2008 county-level analysis showed a positive employment effect and minor wage effect from casinos
  - 8.2% employment effect (all industries)
  - 0.8% wage effect (all industries)
- Entertainment & hospitality industry effects:
  - 7.5% employment effect
  - 6.2% wage effect
- Effect size depends on county size (population)
  - Greater effect (%) in smaller counties
  - Minimal effect in large counties

# Casinos and economic growth

- Some local economies clearly see significant growth because of the casino industry
  - Las Vegas
  - Macao
  - Mississippi Gulf Coast
- Studies show that casino revenues have a positive effect on state-level per capita income
  - 3 studies by Walker & Jackson of different time periods
- Intuition: increased economic activity is the source of economic growth
  - Casinos are not unique in this respect

# Consumer benefits

- Rarely discussed in political debate over casinos
- Entertainment isn't tangible, but it benefits consumers
  - Baseball game tickets
  - Critics: gambling is a 'sterile transfer of money'
- Exchange, including casino bets are voluntary transactions
  - 'Consumer surplus' refers to value in excess of what is paid for a good or service
  - Analogous to 'profit' for businesses
- Variety benefits
- Tourism: new option for potential tourists
- Increased competition in entertainment industry
  - higher quality products for consumers

# 3 Economic costs

- Inter-industry relationships (gambling industries)
  - *Intra-state* gambling

Model / Variable	Casino	Dog racing	Horse racing	Lottery
Casino		-	+	-
Dog racing	(-)		-	+
Horse racing	+	-		+
Lottery	-	+	+	
Indian casino square footage	+	(+)	+	-

- *Inter-state* gambling

Model / Variable	Casino	Dog racing	Horse racing	Lottery
Adjacent Casinos	-	(+)	+	-
Adjacent Dog racing	(-)	+	+	-
Adjacent Horse racing	+	-	+	+
Adjacent Lottery	(-)	-	+	-



# Economic costs, cont.

- Inter-industry relationships (non-gambling industries)
  - ‘Substitution effect’ or ‘industry cannibalization’
    - Market competition
    - Govt controls existence/size of casino industry
- 2013 Florida Gaming Study finds ‘number of establishments’ in the county increases with the addition of a casino
- 2011 study of Detroit, MI found that casinos had a positive impact on retail property sales prices
- Casinos are competitors to some types of industries, but complementary to others
  - Results vary
  - Overall effects are likely market-specific

# Economic costs, cont.

- Infrastructure costs can be significant
  - Traffic/roads
  - Water, sewer, etc.
  - Police, fire protection
- Casino taxes should be levied to cover these expenses
  - Legalization usually includes

# Net economic impact

- Considering just the economic benefits
  - Tax revenues
  - Employment & wage effects
  - Consumer benefits
- And economic costs
  - Inter-industry competition
    - Gambling industries
    - Non-gambling industries
  - Infrastructure
- Economic benefits > costs

# 4 Social costs of gambling

- Social costs are mostly attributed to pathological gamblers
- Most 'social costs' defy monetary measurement
  - Income lost from missed work
  - Increased suicide attempts
  - Crime
  - Corruption of public officials
  - Strain on public services
  - Industry cannibalization
  - Divorce caused by gambling
  - Bankruptcy

# Social costs, cont.

- Monetary measurement was a focus in 1990s research
- Policymakers like to have data to support position
- Most social cost estimates use a simple formula:

Est. cost per pathological gambler	X prevalence est. (%)	X population est.	= est. annual social cost of gambling (\$)
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- Cost estimates ranged from \$9,000 – \$30,000 annual cost per pathological gambler
  - Estimates are arbitrary
- Despite problems, casino opponents continue to repeat
  - Monday in Savannah, GA
    - cost:benefit ratio of casinos is 3:1
    - ‘Economists are unanimous’

# Other social issues

- NIMBY – ‘not in my back yard’
- Change in culture
- Does increased availability increase prevalence of problem gambling?
  - Modestly, in short-term
  - But support exists for ‘adaptation theory’
    - Consider increased availability over past 20 years

# 5 Problems in social cost estimation

- Fundamental flaw: no definition of 'social cost' prior to measurement (Walker & Barnett 1999)
  - Researchers include whatever they want
- Measurement issues
  - Counterfactuals
  - Surveys & fungible budgets
  - Govt spending as a 'social cost'
  - Comorbidity (co-existing disorders)

# Comorbidity

- Most pathological gamblers have other disorders
- Petry, Stinson, and Grant (2005, p. 569) find:
  - 74.2% have alcohol use disorders
  - 38.1% have drug use disorders
  - 41.3% have anxiety disorders
  - 28.5% have obsessive-compulsive personality disorder
- How best to allocate 'social costs' to gambling when most pathological gamblers have multiple disorders?
- Most studies ignore this...completely
  - Result is an exaggeration of the social costs attributable to gambling problems.



# 6 Casinos and crime

- Casinos are often criticized as a source of crime
- Pathological gamblers are more likely to commit crimes
- Casinos attract potential victims with cash and potential criminals
- Crime rate =  $\frac{\# \text{ crimes committed}}{\text{population at risk}}$ 
  - Crime rates should measure the *risk of being victimized*
- Studies finding a casino-crime link include only the 'resident population' in the denominator
  - Crime rate should be  $(C_R + C_V) / (P_R + P_V)$
  - But many studies use:  $(C_R + C_V) / P_R$
  - Tourism count data are difficult to obtain

# Summary of research

- Economic benefits & costs are relatively easy to measure
- Social costs are very difficult (impossible?) to measure in monetary terms
  - Research should focus on *types of harms*, how many people are afflicted, and qualitative impacts
  - Be very wary of \$ estimates of social costs
- Neglected aspects of debate
  - Role of govt
  - Moral issues/individual liberty
  - Consumer benefits

# Concluding thoughts

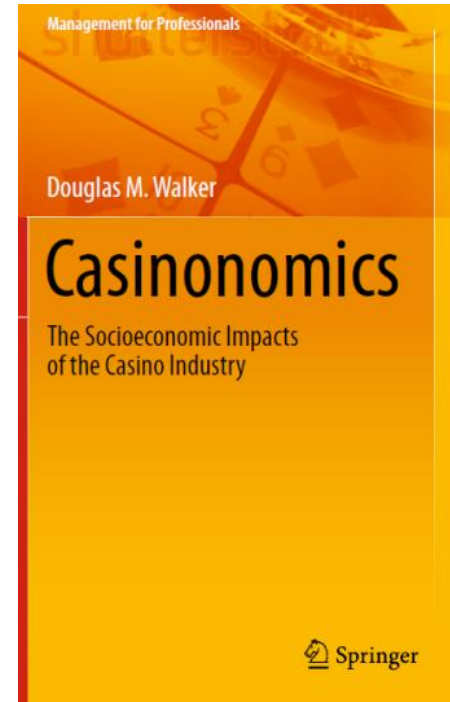
- Casino proponents and opponents probably overstate the case
  - Both costs and benefits are probably less than many argue
- 'Economics of casinos' has changed
  - 1990 – attract tourists, generate jobs and revenue
  - 2015 – keep residents/tax revenues in-state

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*Casinonomics* (2013)

# Counterfactuals

- ‘Counterfactual’ is critical to consider for understanding benefits and costs of an industry expanding
  - What industry *would have otherwise* expanded?
  - Practical testing uses ‘peer’ jurisdictions
- Knowing the counterfactual is difficult
  - In small cities, maybe no other industry would have expanded
- Benefits
  - Tax revenues
  - Employment & wage effects
  - Consumer benefits
- Costs
  - Pathological gamblers would otherwise do...what?
    - Illegal gambling? More drugs? Online gambling? Not gamble?

# Surveys and fungible budgets

- Diagnostic instruments and cost estimate surveys ask about gamblers' spending behavior
  - Blaszczynski et al. (2006) find that without explicit instructions, respondents use different strategies in estimating their gambling losses
- Some people can't estimate losses even if given calculation instructions
  - Serious biases in reported gambling losses are likely (p. 128)
- Budgets are fungible, so one cannot attribute specific expenditures to a particular revenue source

# Government expenditures as social costs

- Are treatment costs a 'social cost' or a cost of choosing a particular govt policy?
  - Suppose Canada govt covers 100% of treatment, while U.S. covers only 25%
    - Then social costs of gambling are higher in Canada for a given number of pathological gamblers
  - If government expenditures are social costs, then they can be reduced by simply reducing spending
  - Education spending as a social cost?
- => Conceptual definition of social cost is important