



Board of Directors

Todd I. Selig, Chair

Michael Buckley

John D. Crosier, Sr.

William H. Dunlap

Sheila T. Francoeur

Chuck Morse

Stephen Reno

Stuart V. Smith, Jr.

Donna Sytek

Brian F. Walsh

Kimon S. Zachos

Martin L. Gross, *Chair
Emeritus*

Staff

Steve Norton, Executive
Director

Ryan Tappin

Cathy Arredondo

Simulating Expanded Gambling in New Hampshire

Preliminary Estimates 4-20-2010

"...to raise new ideas and improve policy debates through quality information and analysis on issues shaping New Hampshire's future."



Center's Goals

- Center to develop quantitative estimate of potential benefits and costs that are internally consistent and allows the Commission to talk about the **relative levels of costs and benefits** of expanded gambling in New Hampshire.
- Synthesize and tie together various impacts so that a broader perspective is possible.
- Transparency
 - Base the analysis on the best data and research available.
 - Ensure all assumptions are clear and transparent.
- Test the model
 - Adjust forecast models against benchmarks (the Middle Atlantic markets if possible).
 - Triangulate (test assumptions against multiple options).
 - Show the impact of varying assumptions.

Fundamental Model Assumptions

- The placement of a casino in New Hampshire (or closer to New Hampshire) will increase the number of people that gamble.
- The farther individuals have to travel, the less likely they are to go to a casino in New Hampshire. And ... the closer you are to a casino, the more likely you are to go to a casino.
- Gravity of a facility – attractiveness, size, amenities – and the competition in the market affects gambling behavior.
- For a small share of the population, exposure to gambling results in pathological behavior.
 - This creates a set of social issues which – if they can be quantified -- are offsets to the potential benefits.

The Commission: What Constitutes a “Prudent Calculation” of Net Benefit?

- Positive Impacts →

- + Revenue to State: License Fees
- + Revenue to State: Tax on Gambling
- + Revenue to State: BPT and BET
- + Revenue to State: Increase in Meals and Rooms
- + Revenue to Local: Property Tax
- + Economic Development Local: Construction Jobs
- + Economic Development: New Jobs/ Wealth

- Negative Impacts →

- Revenue to State: Decrease in Meals and Rooms (cannibalization)
- Revenue to State: Gambling/ Lottery Substitution
- State Expenditures: New Regulatory structures
- State Expenditures: Competition for funds
- Economic Development: Displacement
- Gov Expenditures: Policing
- Social Costs: New Crime
- Social Costs: Pathological/ Problem Gaming

We didn't model

- Concerns regarding political influence
- Impact of gambling on NH's Brand (good or bad)
- Impact of gambling on social capital
- Timing

Center's Model of Expanded Gambling

- Take as Inputs
 - Location
 - Size
 - Type
 - Massachusetts Action
- Produce as Outputs
 - Economic (jobs, product)
 - Net Revenue
 - Crime
 - Social Costs to NH and local communities

5 Sites

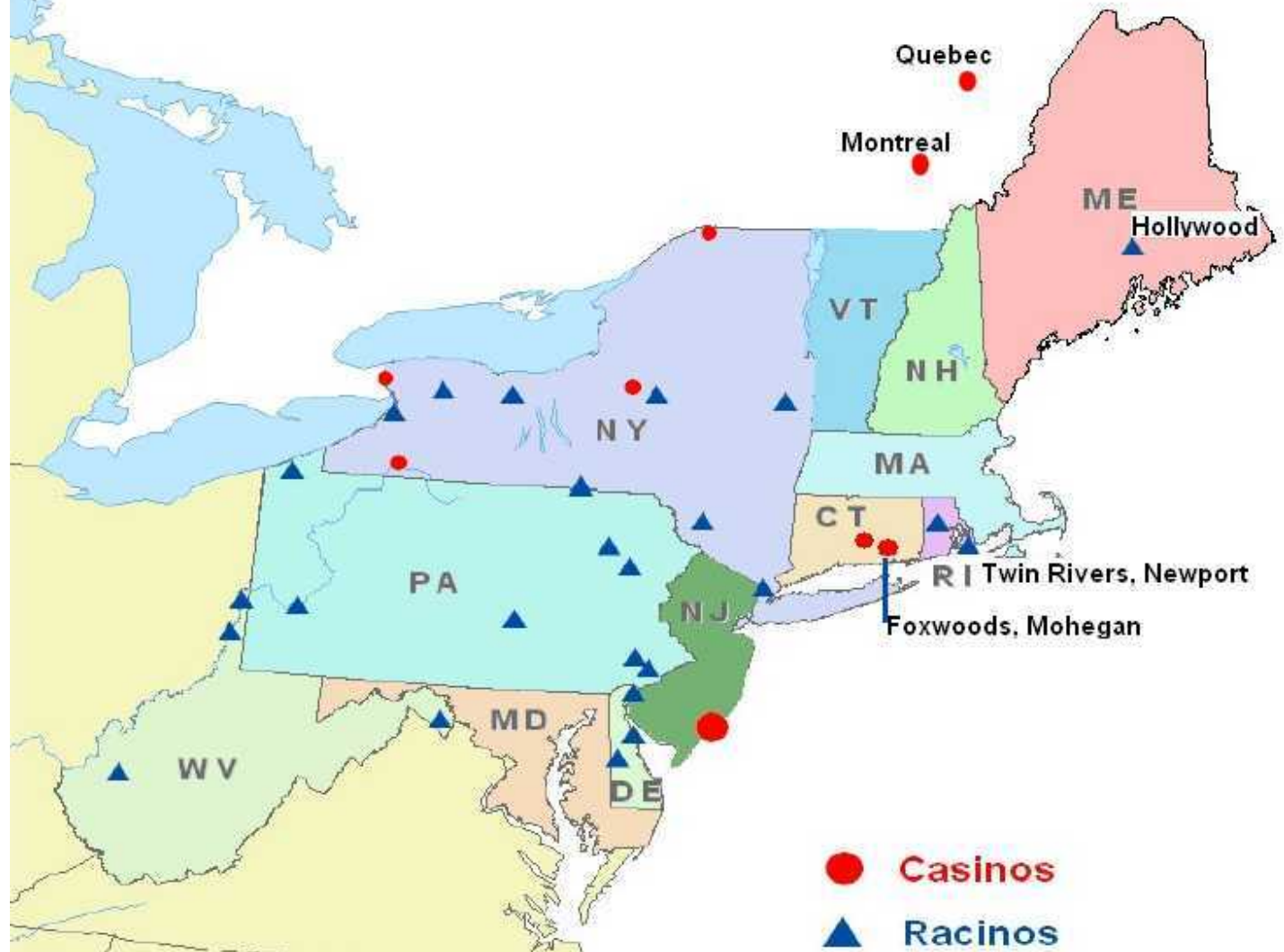
- North Woods
- Southern NH
- Ski Country
- Southwestern NH
- Lakes Region

↑
Sites IDed by
Commission to give a
sense of the impact of
location.
Model can be used to
simulate other sites.



Estimating the Gambling
Market in NH
Initially Presented on
December 12, 2009

Geographic Distribution of Casinos & Racinos In the Northeast



Drive time analysis used as the foundation of a gravity model which assumes the more amenities, the greater the attraction.

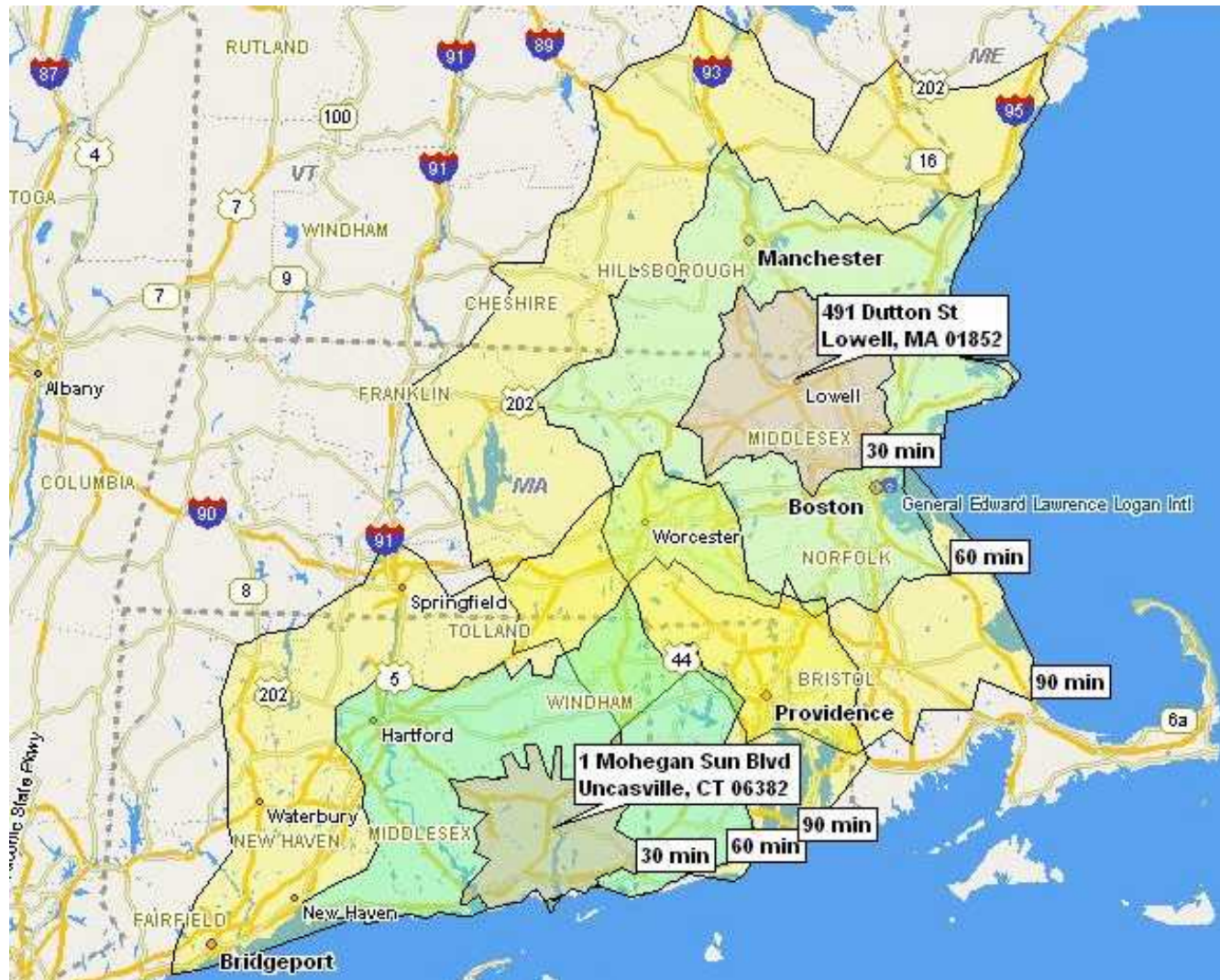
Adjusts for NH specifics:
Tourist multiplier

Allows us to simulate
Massachusetts impact

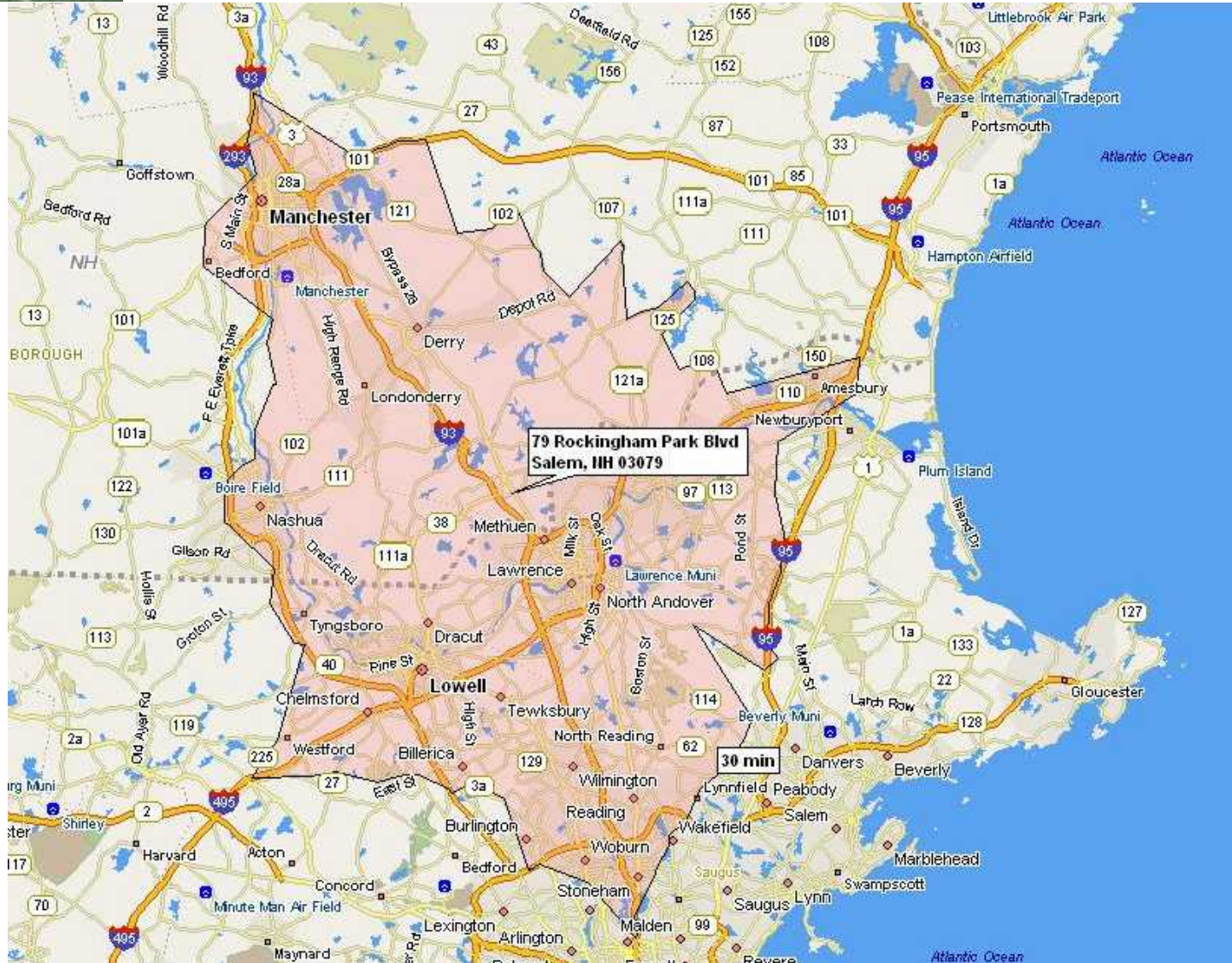
Tested models against
existing markets



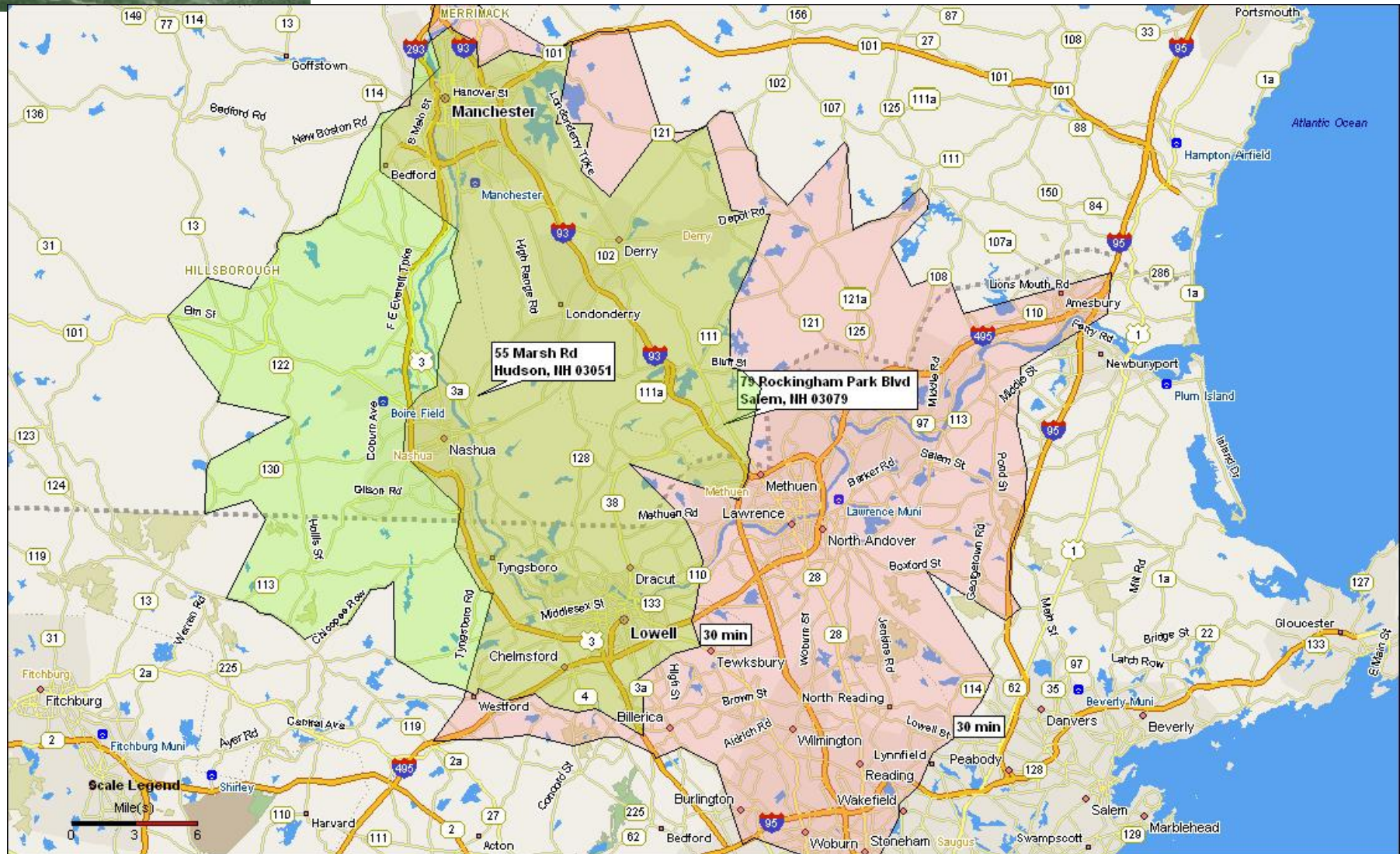
Lowell, Massachusetts: How Would this Compete with Connecticut?



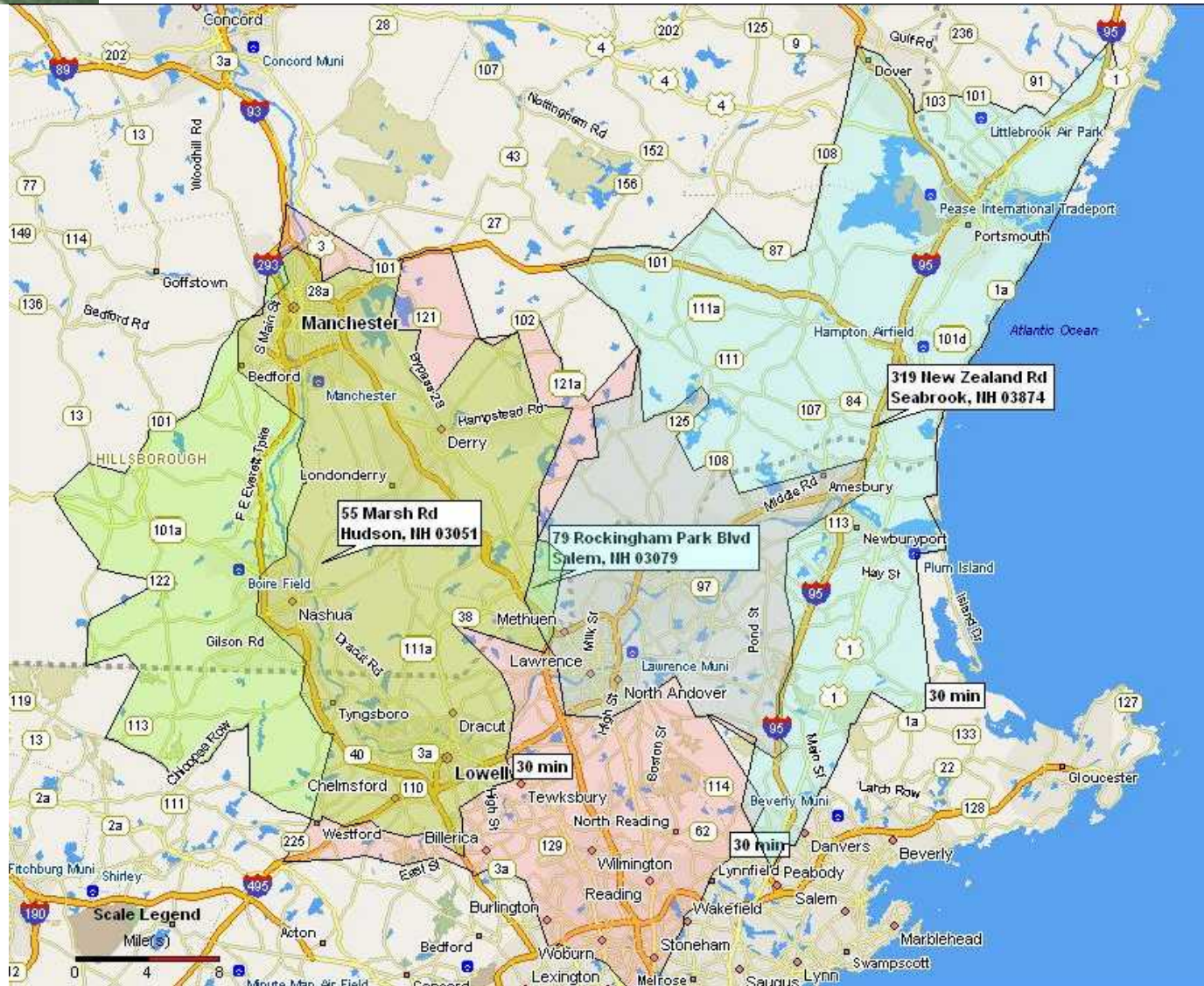
NH: Overlapping Markets of Existing Proposals (30 Min.)



NH: Overlapping Markets of Existing Proposals (30 Min.)



NH: Overlapping Markets of Existing Proposals (30 Min.)

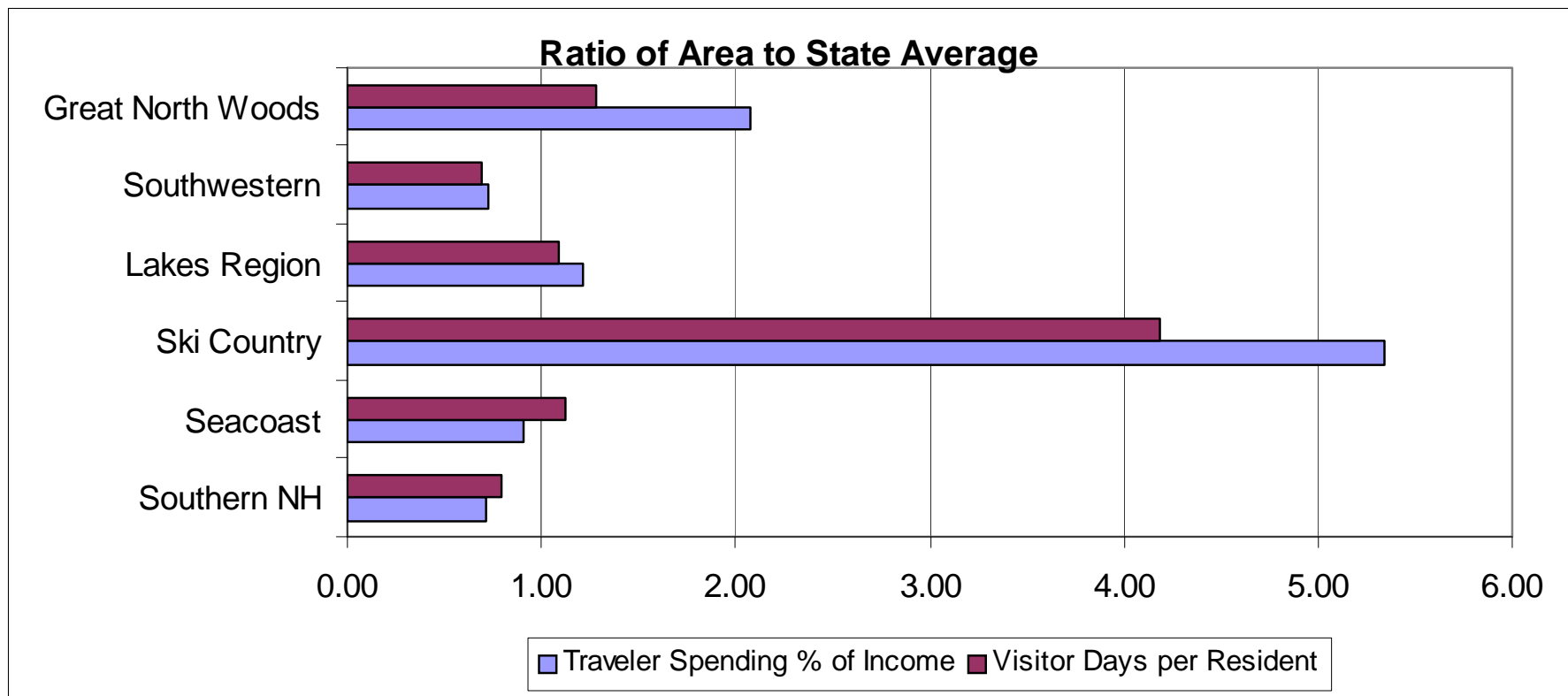


Markets, Borders and Drive Time: Berlin, NH

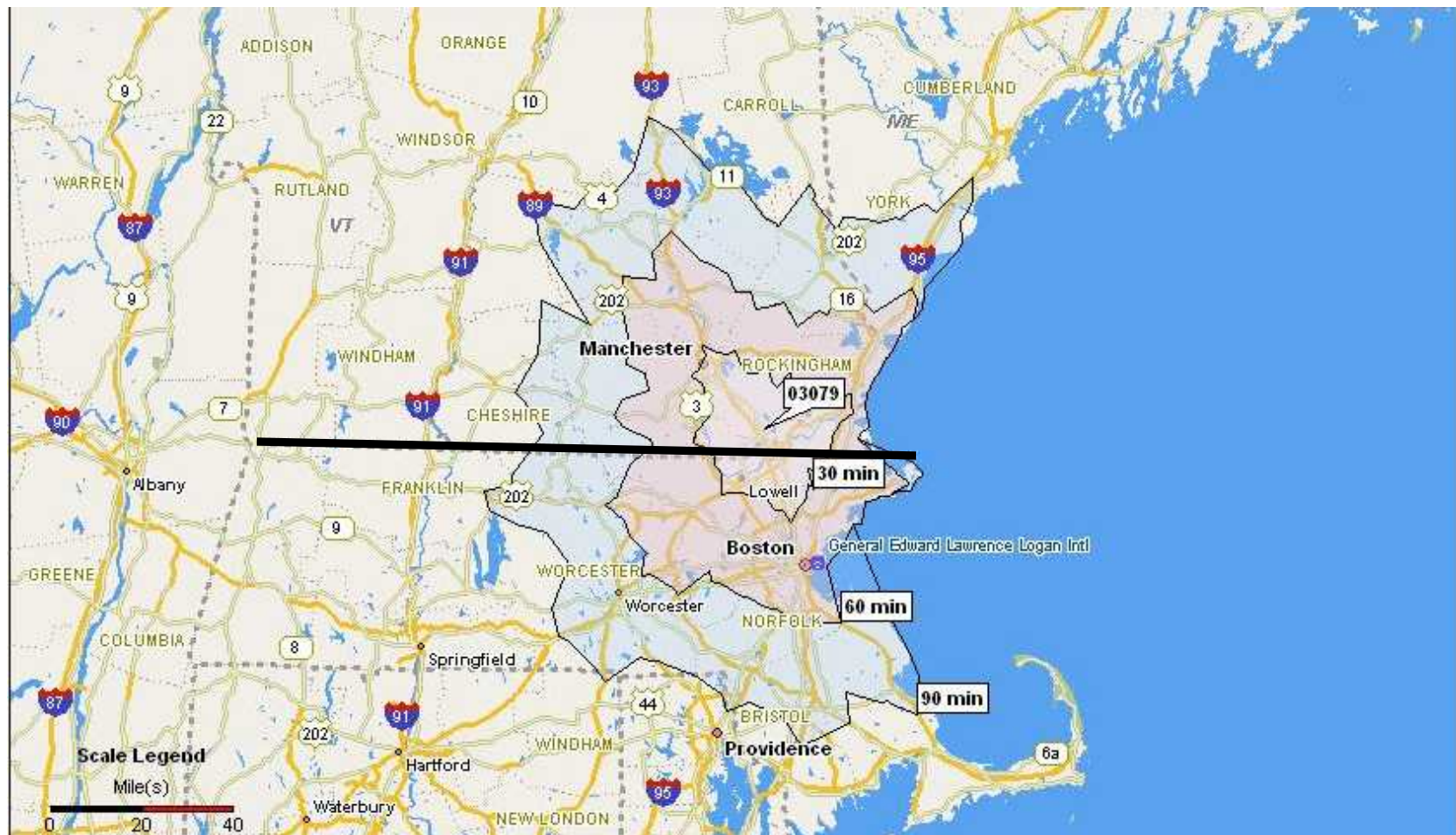


Revenue Estimates Tourism Adjustment

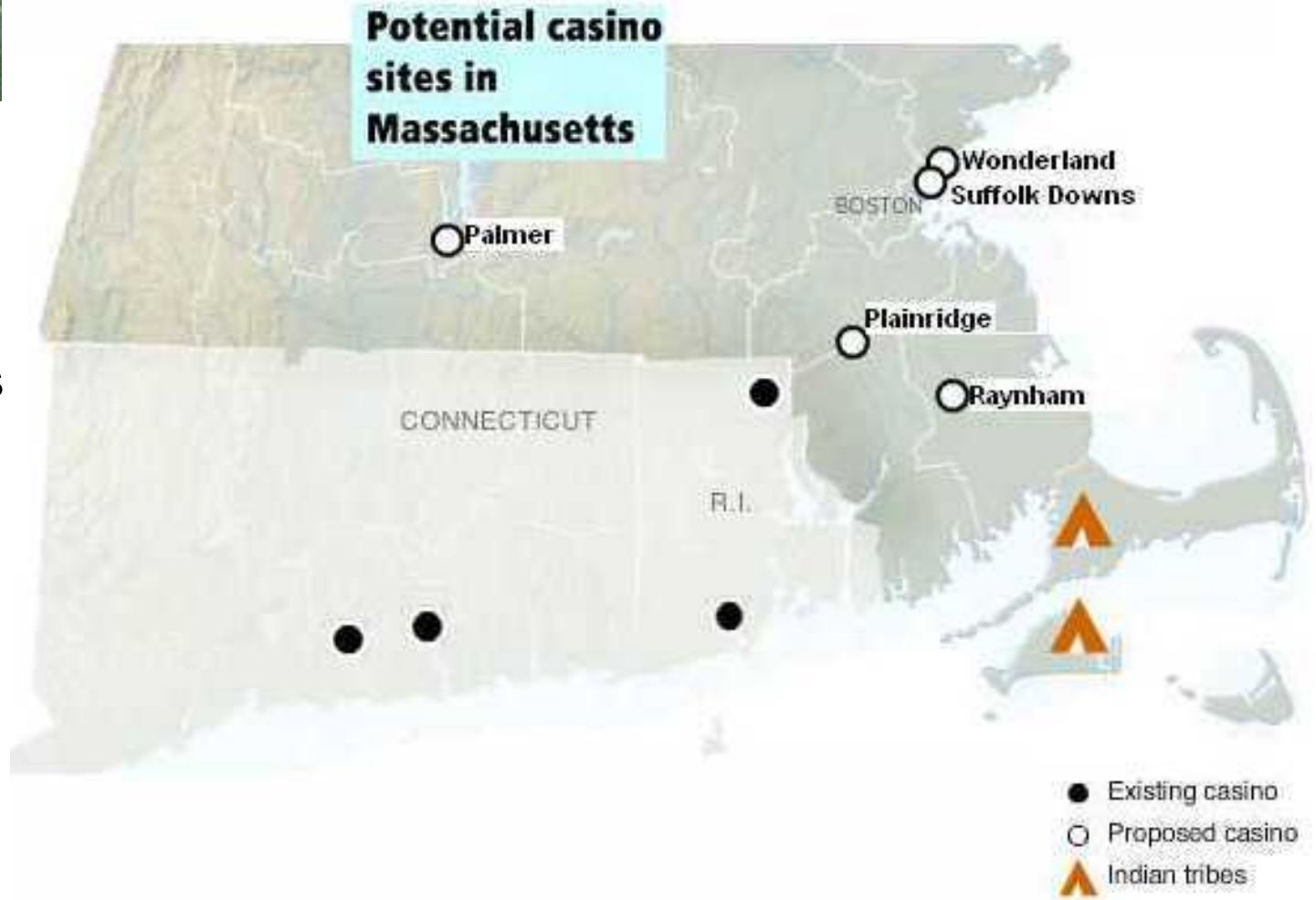
- Gambling estimates are increased for areas where tourism activity highest.



Markets, Borders and Drive Time: Salem, NH



What
Will
Massachusetts
Do?



Revenue Estimates Massachusetts

- Loss depends upon gambling location proximity to Massachusetts

Area	<u>Market Loss if Massachusetts Adopts Expanded Gambling</u>
Southern NH	31%
Southwestern NH	20%
Lakes Region	10%
Ski Country	0%
Great North Woods	0%

Estimating Revenue

- Drive time models, gravity factors, tourism multipliers used to estimate to models of 'winnings.'
 - If anything, we are over-estimating winnings.
- Tax rate at 39% (not 50%) on winnings based on market analysis
- Estimate Lottery-> Gambling Substitution
- Estimate Meals and Rooms →
 - Based on drive time analysis (resident origin)
- No current estimate of BPT/BET impacts (though we could)
- Assumes charitable gaming maintains existing market share and revenues remain consistent with what we see today for charities and the state.



Economic Development
Initially Presented on
January 19, 2010

Economic Development Modeling

- Short term (construction) and Long term (operating)
- Direct and Secondary Effects
- Critical assumptions in understanding impact of expanded gambling on economy
 - How much capital investment? This is the primary driver of construction job creation (short term).
 - What type of facility? Large/small, table games/no table games, new/old → these are the primary factors impacting the operating phase economic implications (long term).
 - How much of current economic activity is displaced? Displacement or substitution– the degree to which someone is simply spending money that would have already been spent on other entertainment.



Economic Development Implications: Simulation Approach

- Two well-respected economic development models used in analysis
 - The Regional Input-Output Modeling System (RIMS) model to estimate short and long term, direct and indirect.
 - Weakness → assumes all job creation occurs in local community, likely over-estimating the impact of economic development.
 - Weakness → non-wage earnings not included, resulting in a lower estimate of wages.
 - Testing the results against the more robust Regional Economic Modeling, Inc. (REMI) model
- If anything, we are overestimating the economic development benefits.

Social Costs

Social Costs: Estimating Problem/Pathological Gambling

- Uses the same number of potential gamblers as used in estimating revenue.
- Placement of a casino increases the number of new gamblers and the number of problem/pathological behaviors.
- Uses existing surveys regarding gambling prevalence and Hall and Schaeffer (2001) - published in peer reviewed Canadian Journal of Public Health - to estimate the number of new problem/pathological gamblers.
- Problem or pathological gamblers outside of New Hampshire not included in calculations.

What are Potential Social Consequences of Gambling?

1. **Crime**: violent crime (robbery, assault) and property/monetary crimes (theft, fraud, embezzlement).
2. **Business/Employment Costs**: loss of productivity, lost time, unemployment.
3. **Bankruptcy**: leading to legal costs, unpaid debts.
4. **Suicide**: problem gamblers report higher suicidal thoughts and attempts.
5. **Illness**: depression, anxiety, substance use.
6. **Social Services Costs**: treatment, welfare, unemployment benefits.
7. **Direct Regulatory Costs**: costs to run state agencies to regulate gambling.
8. **Family Costs**: divorce, abuse and neglect.
9. **“Abused Dollars”**: “lost gambling money acquired from family, employers, or friends under false pretenses.” i.e. unreported theft or loaned money to support losses, which in turn is a loss to other goods and services.

Estimating Marginal Costs of Pathological/Problem Gambling

- We are using study from the National Gambling Impact Study Commission (1999). This was the most comprehensive well-vetted model for estimating social costs and we inflate estimates to reflect time.
- Differentiate between social costs that would be borne by government (welfare, court costs, unemployment) or by broader society.
- Treatment costs are added and are based on NH DHHS estimates.
- Regulatory costs are added and are based on the fiscal note of the most recent bill passed by the NH Senate.
- We calculated seven different models based on national literature. The National Gambling Impact Study Commission was approximately at the median.

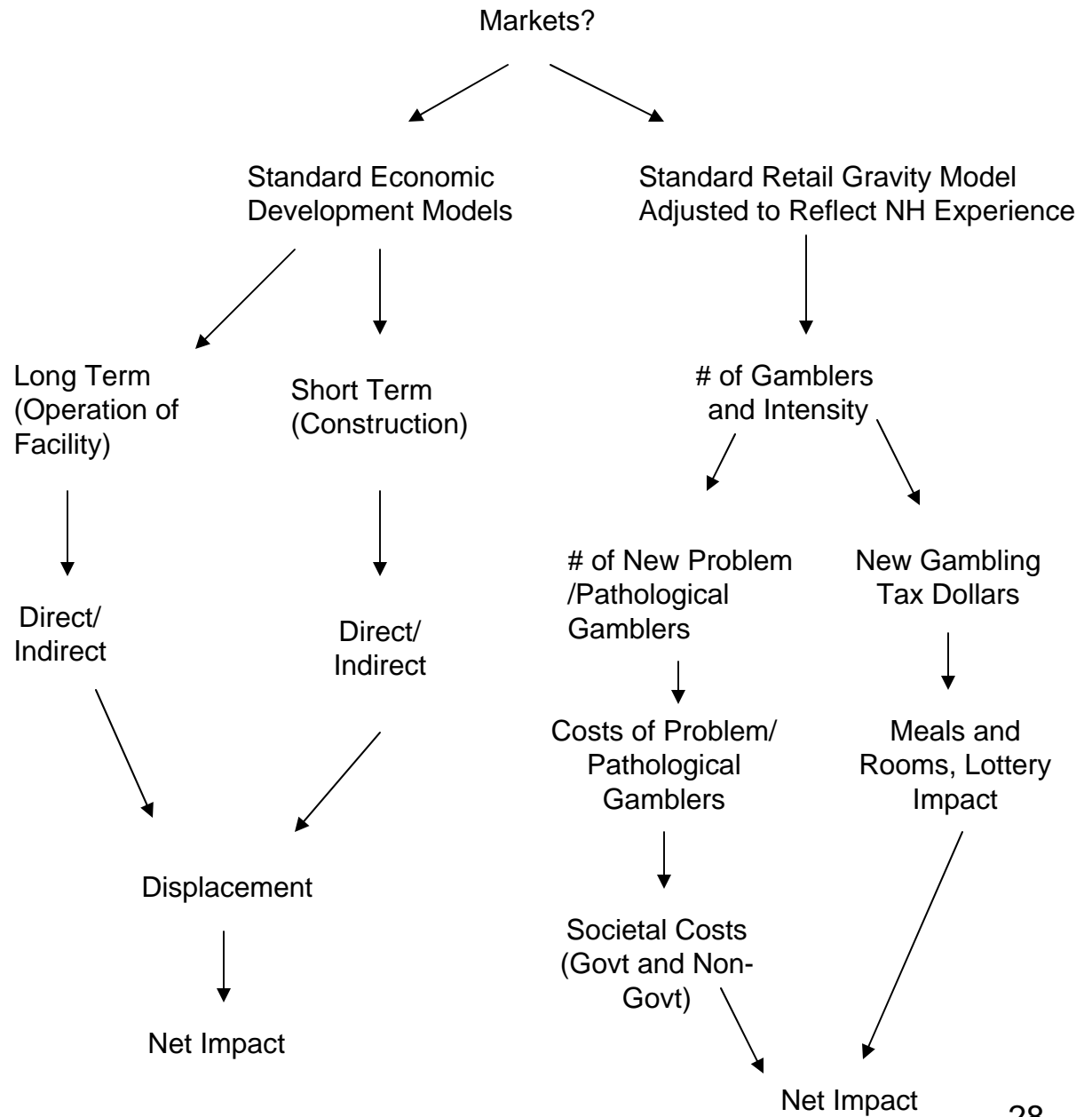


Factors included in Social Cost Estimation

National Opinion Research Center at the University of Chicago (1999)
Annual estimates of social costs (in 2007 dollars)

Type of Cost	Primary Payer	Total Costs	
		Problem	Pathological
Unemployment benefits	Government	\$ 81	\$ 106
Welfare	Government	\$ 112	\$ 75
Arrests	Government	\$ 299	\$ 389
Corrections	Government	\$ 208	\$ 529
Job loss	Employer	\$ 249	\$ 398
Divorce	Family	\$ 607	\$ 1,338
Poor Health	Family/Insurer/Provider	\$ -	\$ 871
Poor Mental Health	Family/Insurer/Provider	\$ 448	\$ 411
Filed Bankruptcy	Creditors	\$ 482	\$ 1,027
TOTAL		\$ 2,486	\$ 5,143
TOTAL GOV'T ONLY		\$ 700	\$ 1,098

Putting It All Together



Testing Our Approach

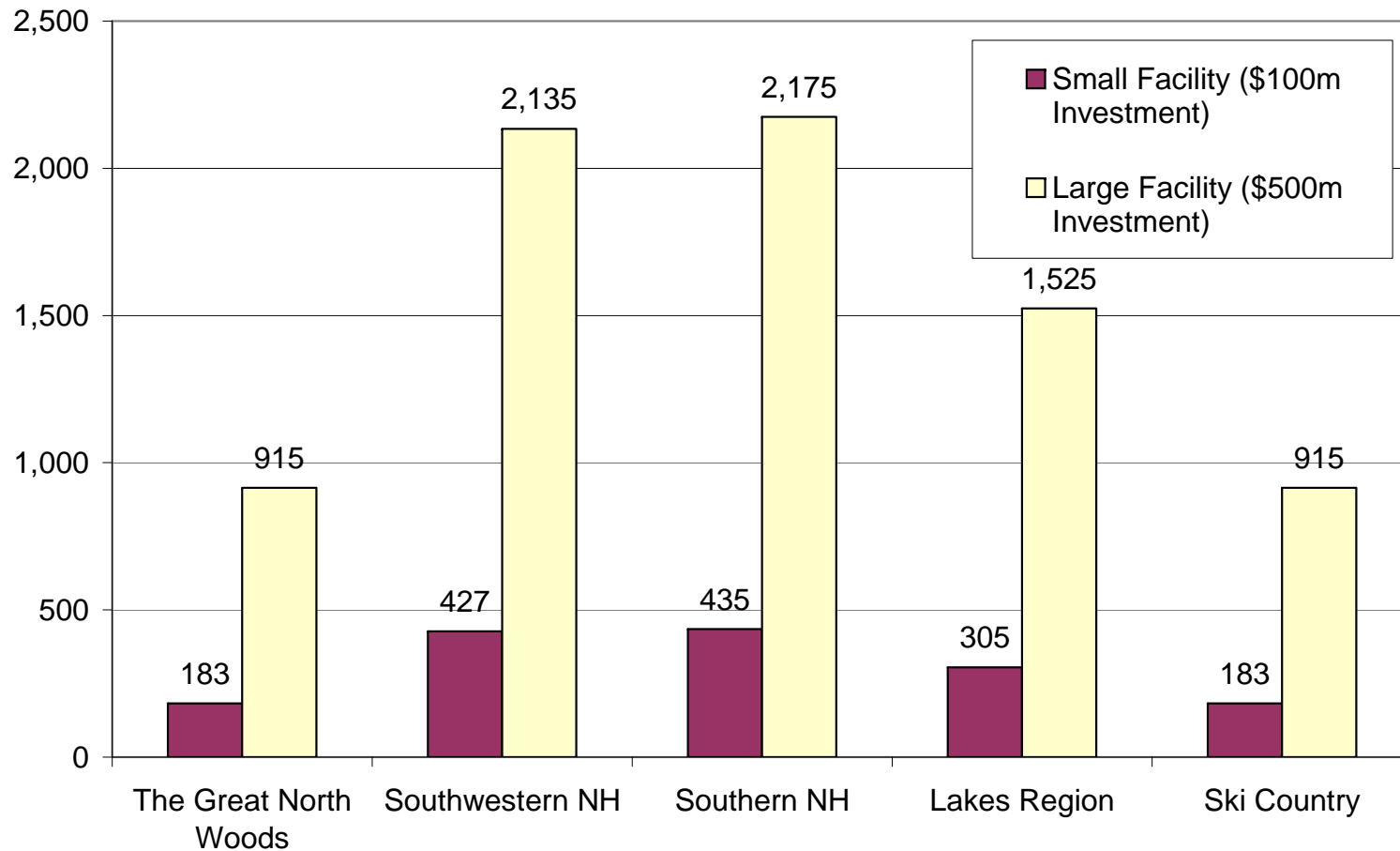
- Market Development → Tested and adjusted model against existing markets in Middle Atlantic.
- Economic Development → Tested RIMS models against REMI model results.
- Social Costs → Evaluate against multiple options.
- Peer review of our report.



Preliminary Findings

Potential job creation depends on facility size and investment

New Jobs: Operations, Direct and Indirect
 VLTs and Table Games





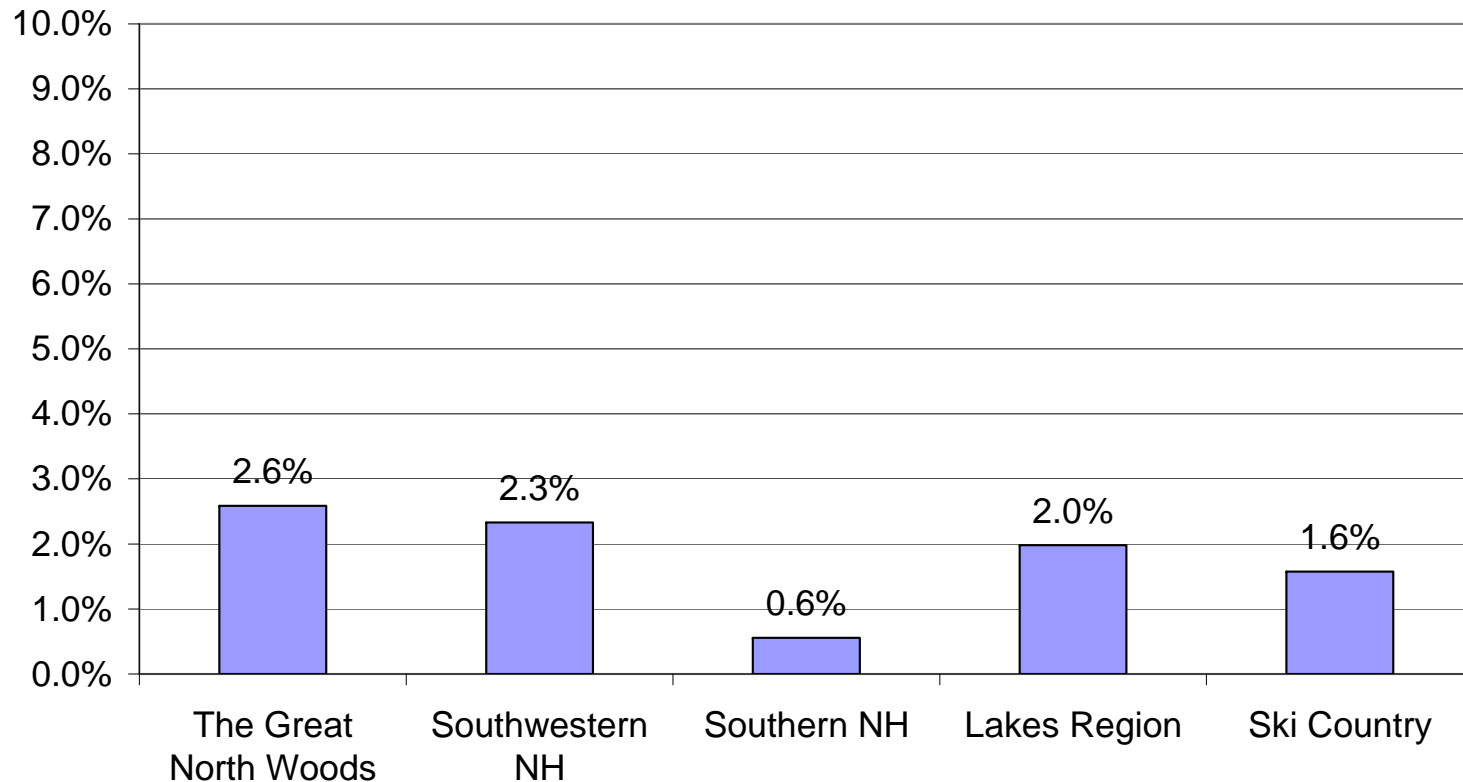
What types of jobs for a casino/restaurant?

National Staffing patterns for Establishment in NAICS 7132 Gambling industries			Hourly Median Wage 2008	
SOC code	Occupational Title	staff ratio	NH	US
39-3011	Gaming Dealers	17.5%	n/a	\$7.84
41-2012	Gaming Change Persons and Booth Cashiers	6.4%	n/a	\$10.57
35-3031	Waiters and Waitresses	6.3%	\$7.67	
33-9032	Security Guards	5.2%	\$13.55	
43-3041	Gaming Cage Workers	4.2%	n/a	\$11.97
39-1011	Gaming Supervisors	3.9%	n/a	\$21.87
39-3012	Gaming and Sports Book Writers and Runners	3.2%	n/a	\$9.46
35-3011	Bartenders	3.1%	\$8.53	
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	3.1%	\$11.60	
41-2011	Cashiers	2.8%	\$9.11	
35-2014	Cooks, Restaurant	2.6%	\$11.81	
37-2012	Maids and Housekeeping Cleaners	2.6%	\$10.35	
39-1012	Slot Key Persons	2.1%	n/a	\$12.24
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	2.0%	\$7.70	
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	1.9%	\$16.43	
33-9031	Gaming Surveillance Officers and Gaming Investigators	1.7%	n/a	\$13.87
43-3031	Bookkeeping, Accounting, and Auditing Clerks	1.7%	\$16.04	
39-3019	Gaming Service Workers, All Other	1.6%	n/a	\$11.58
35-9021	Dishwashers	1.2%	\$9.21	
39-3099	Entertainment Attendants and Related Workers, All Other	1.1%	n/a	\$9.39
11-9071	Gaming Managers	0.9%	n/a	\$32.83
	Above Occupations share of Total Industry	75.0%		

US median wage provided where NH comparable wage not available.

Economic Development: Larger % Impact Further North

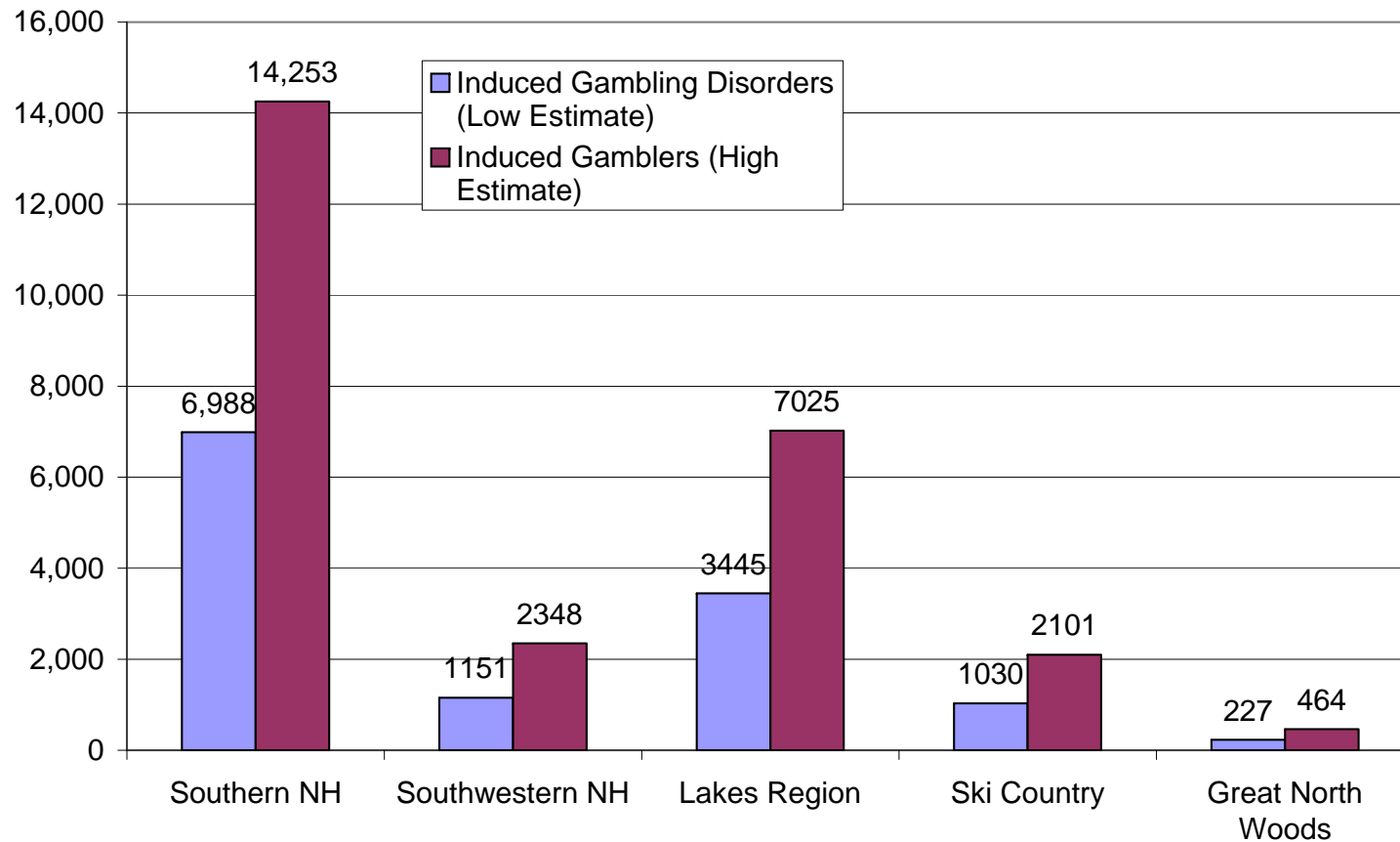
Expanded Gambling's Impact on Local Economies:
Development of large facility with tables games -
Impact on gross domestic product in the county.



Preliminary Results

Estimating the Marginal Increase in Problem Gambling

Low and High Estimates of Gambling Disorders Among Induced Gamblers Associated with a \$500 Million facility with VLTs and Table Games





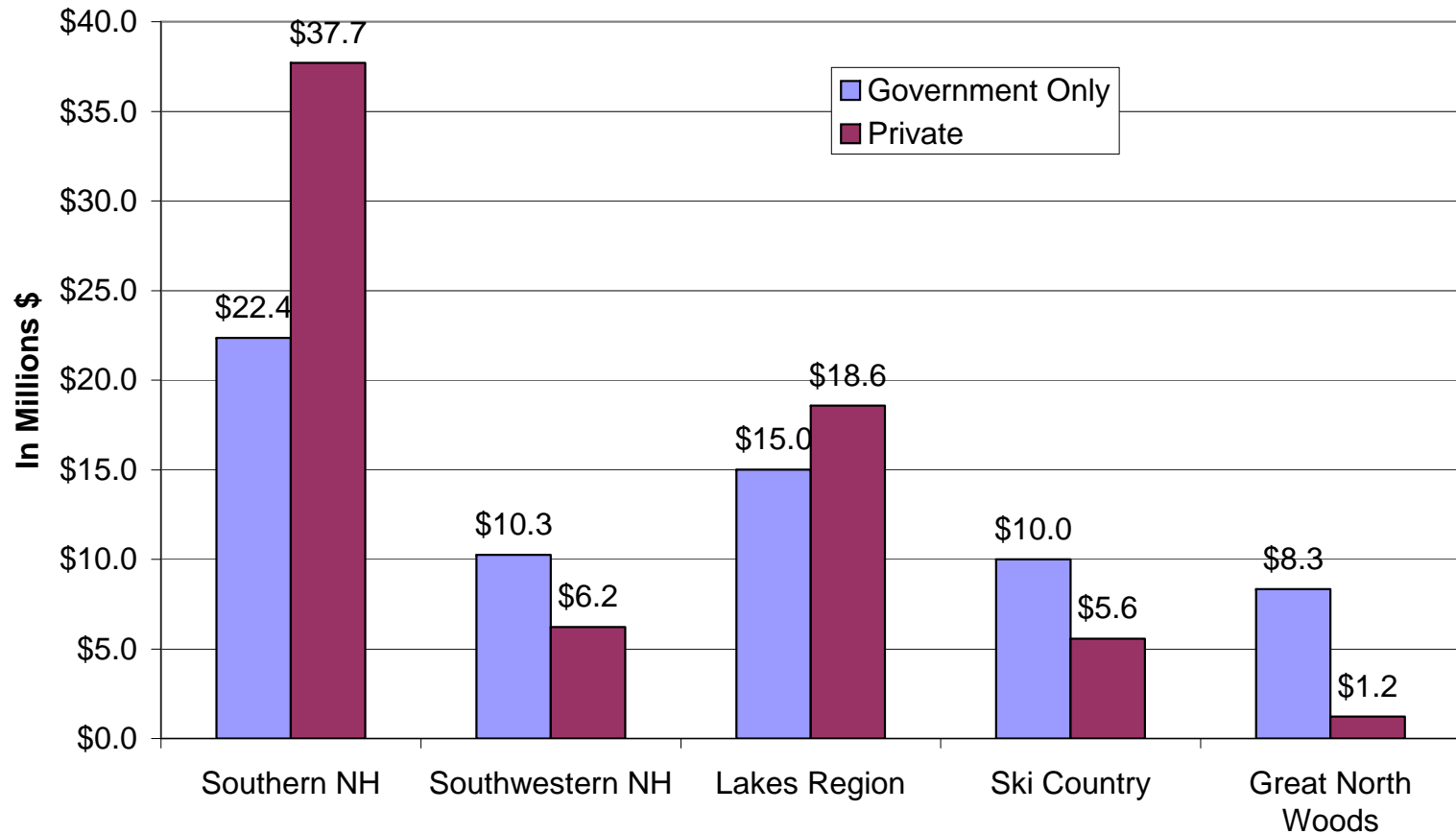
Economic Benefit Is
Local, but Social
Implications Are Not

Market Area, Large Casino with Table Games	Gambling Disorders among Induced Gamblers	
	Low	High
Southern NH		
0-30 minutes	1,946	3,969
30-60 minutes	4,532	9,243
60-90 minutes	510	1,041
Southwestern NH		
0-30 minutes	142	290
30-60 minutes	700	1,429
60-90 minutes	309	629
Lakes Region		
0-30 minutes	633	1,291
30-60 minutes	2,793	5,696
60-90 minutes	19	38
Ski Country		
0-30 minutes	111	226
30-60 minutes	319	651
60-90 minutes	600	1,224
Great North Woods		
0-30 minutes	78	160
30-60 minutes	37	76
60-90 minutes	112	228

Preliminary Results

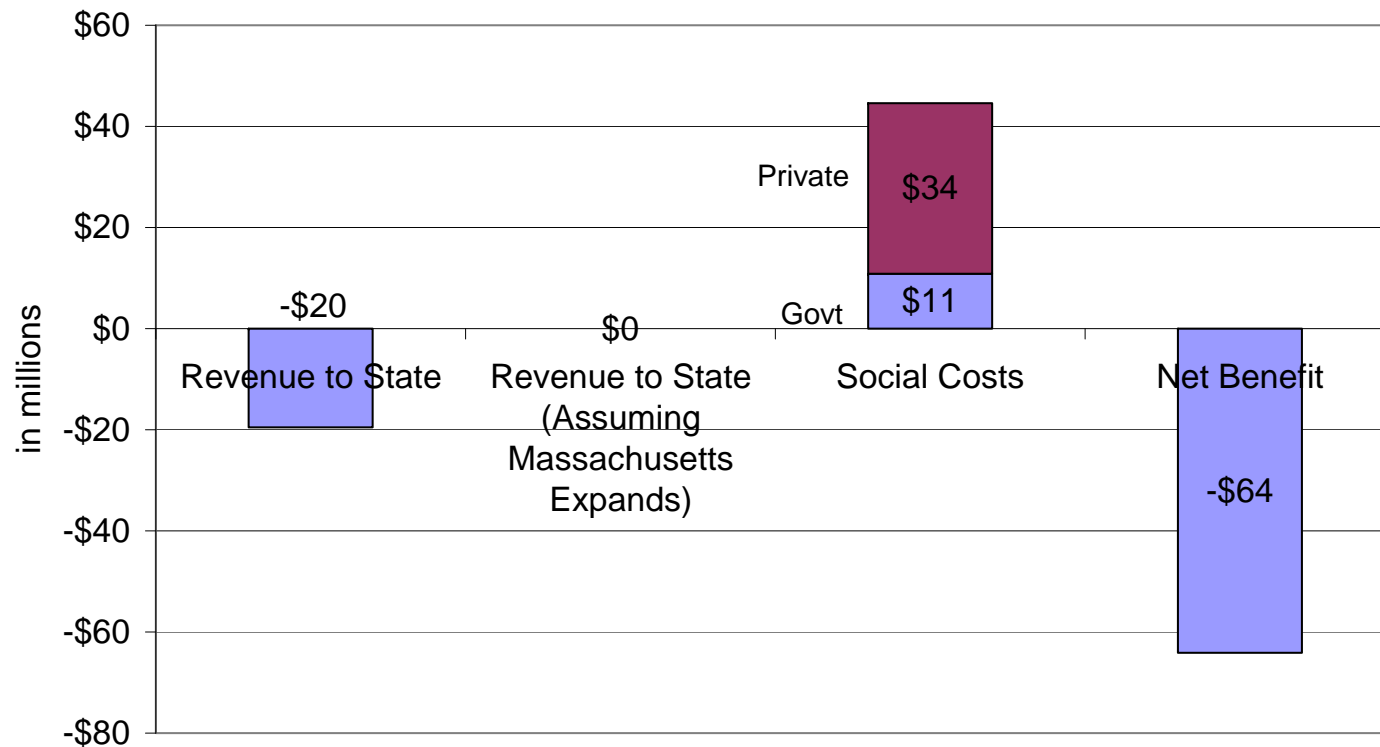
Estimates of Social Costs

Conservative Estimate of Social Costs (\$ millions) Government and Private
 Large Facility (\$500m, Table Games and VLTs)



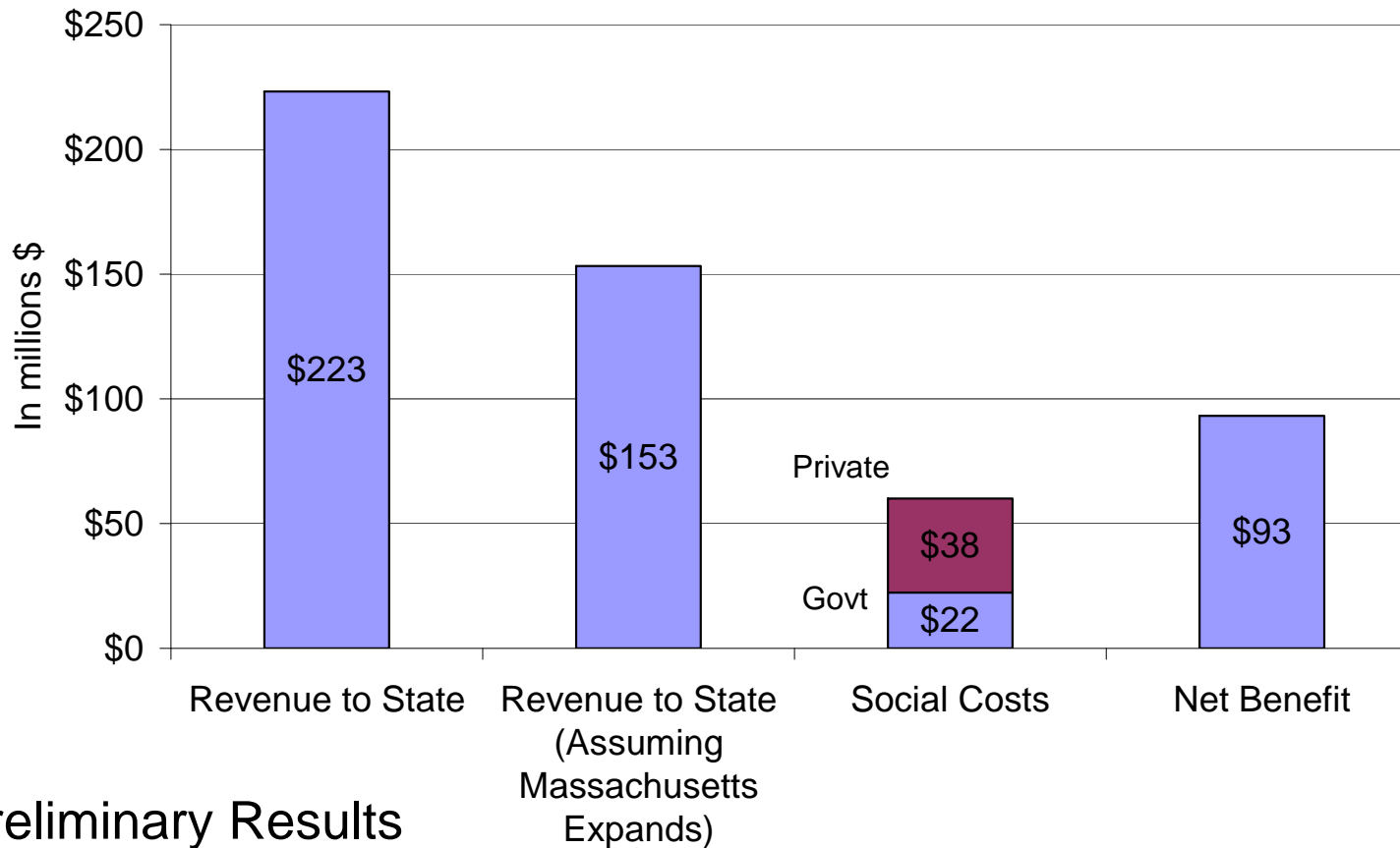
Impact of Massachusetts – Assume Massachusetts Acts and NH Doesn't ...

Calculating Net Benefit to New Hampshire of Expanded Gambling in
 Massachusetts, Large Facility (\$500m Investment) Including Only Revenue
 and Social Costs



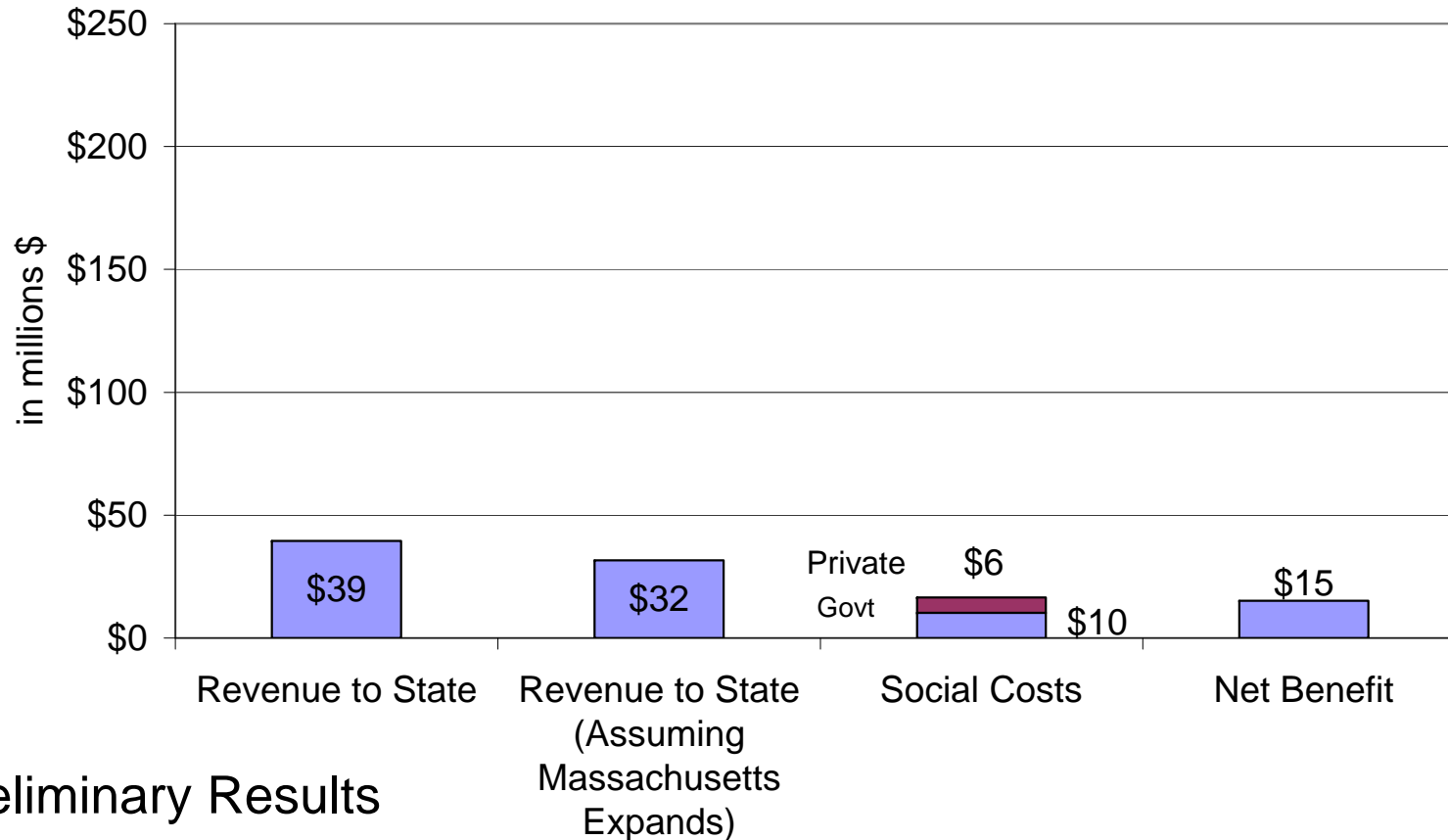
Net Benefit: Southern NH

Calculating Net Benefit of Expanding Gambling, Large Facility (\$500m Investment) in Southern NH Including Only Revenue and Social Costs



Net Benefit: Southwestern NH

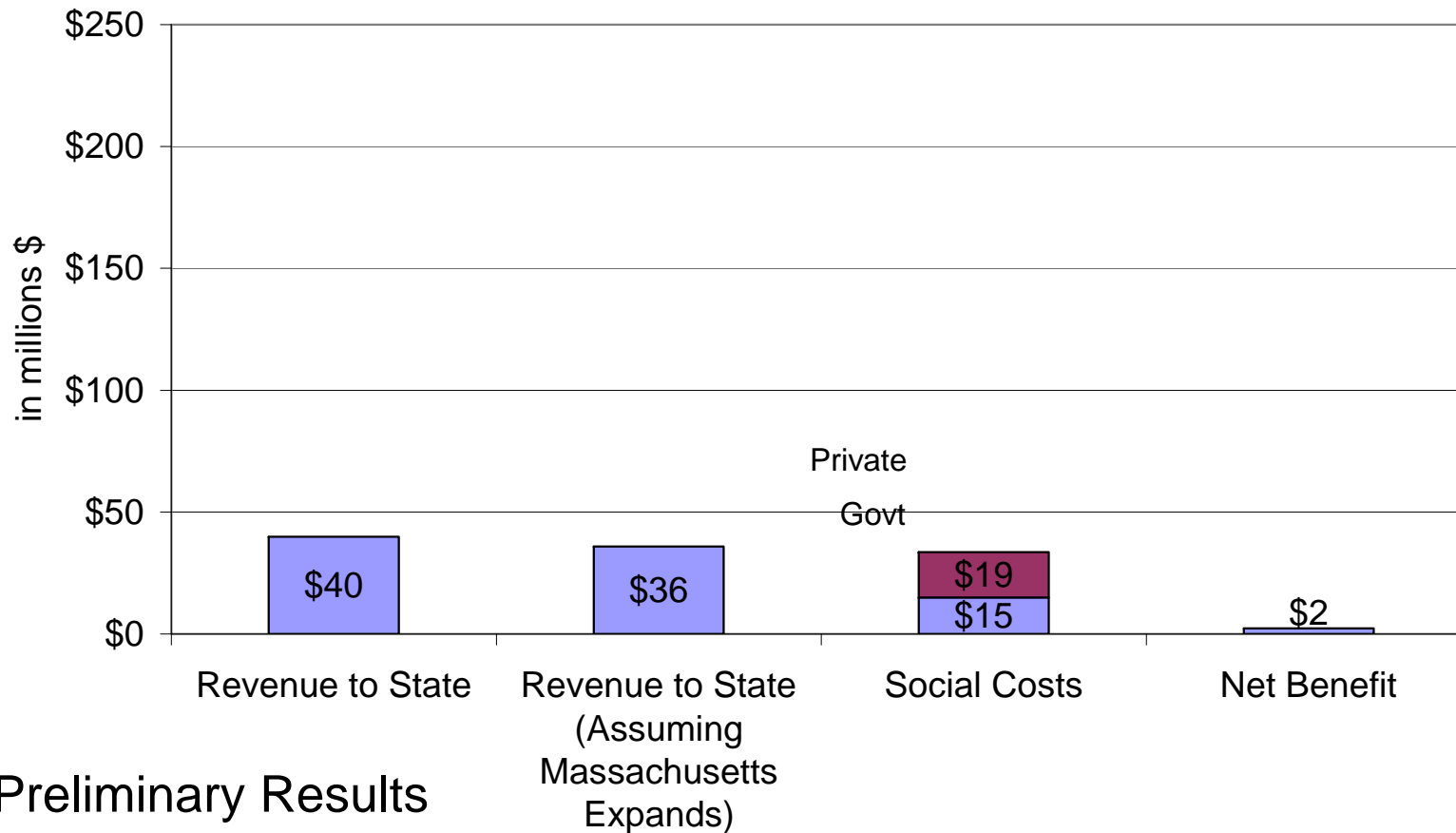
Calculating Net Benefit of Expanding Gambling, Large Facility (\$500m Investment) in Southwestern NH Including Only Revenue and Social Costs



Preliminary Results

Net Benefit: Lakes Region

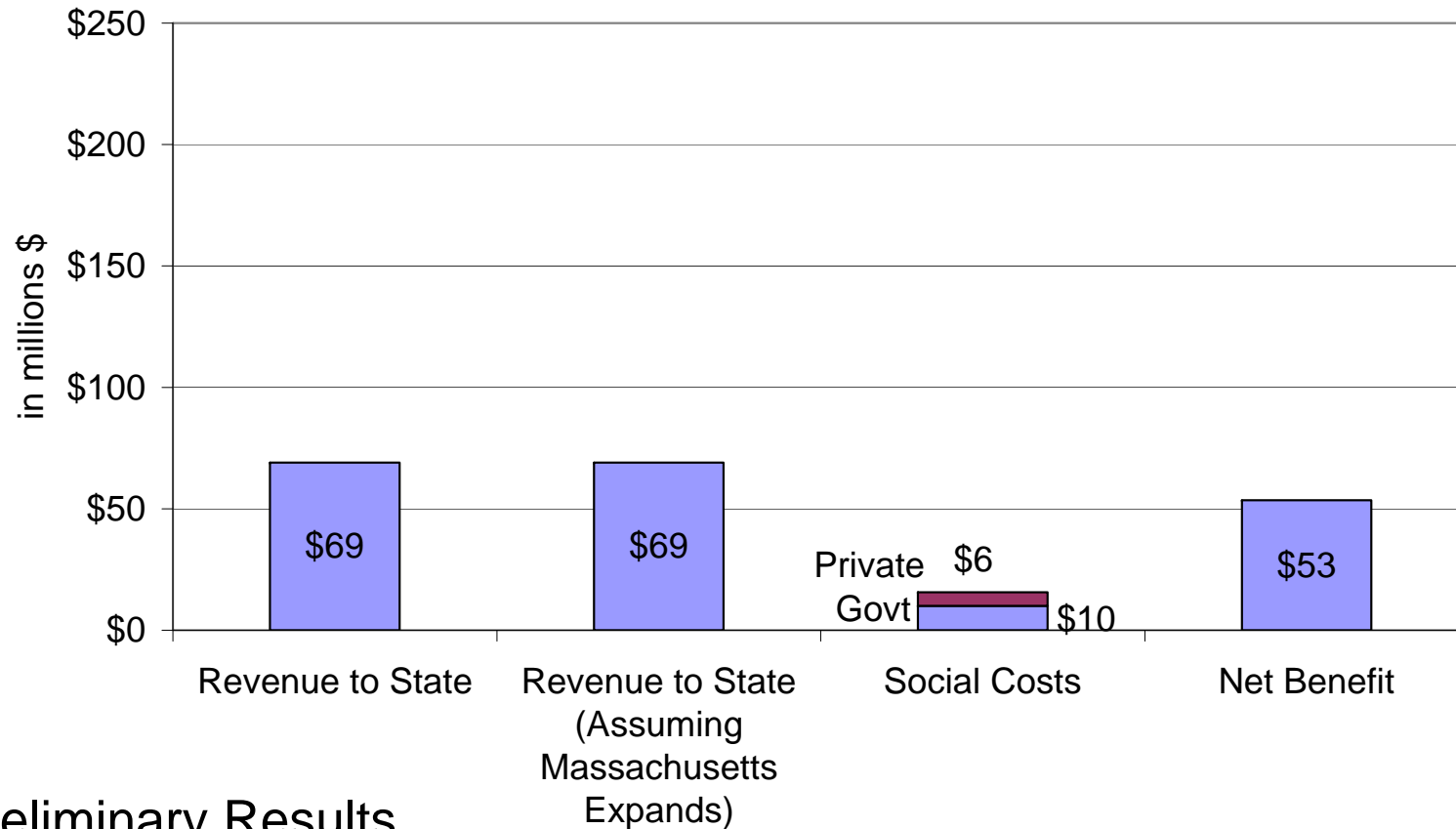
Calculating Net Benefit of Expanding Gambling, Large Facility (\$500m Investment) in Lakes Region Including Only Revenue and Social Costs



Preliminary Results

Net Benefit: Ski Country

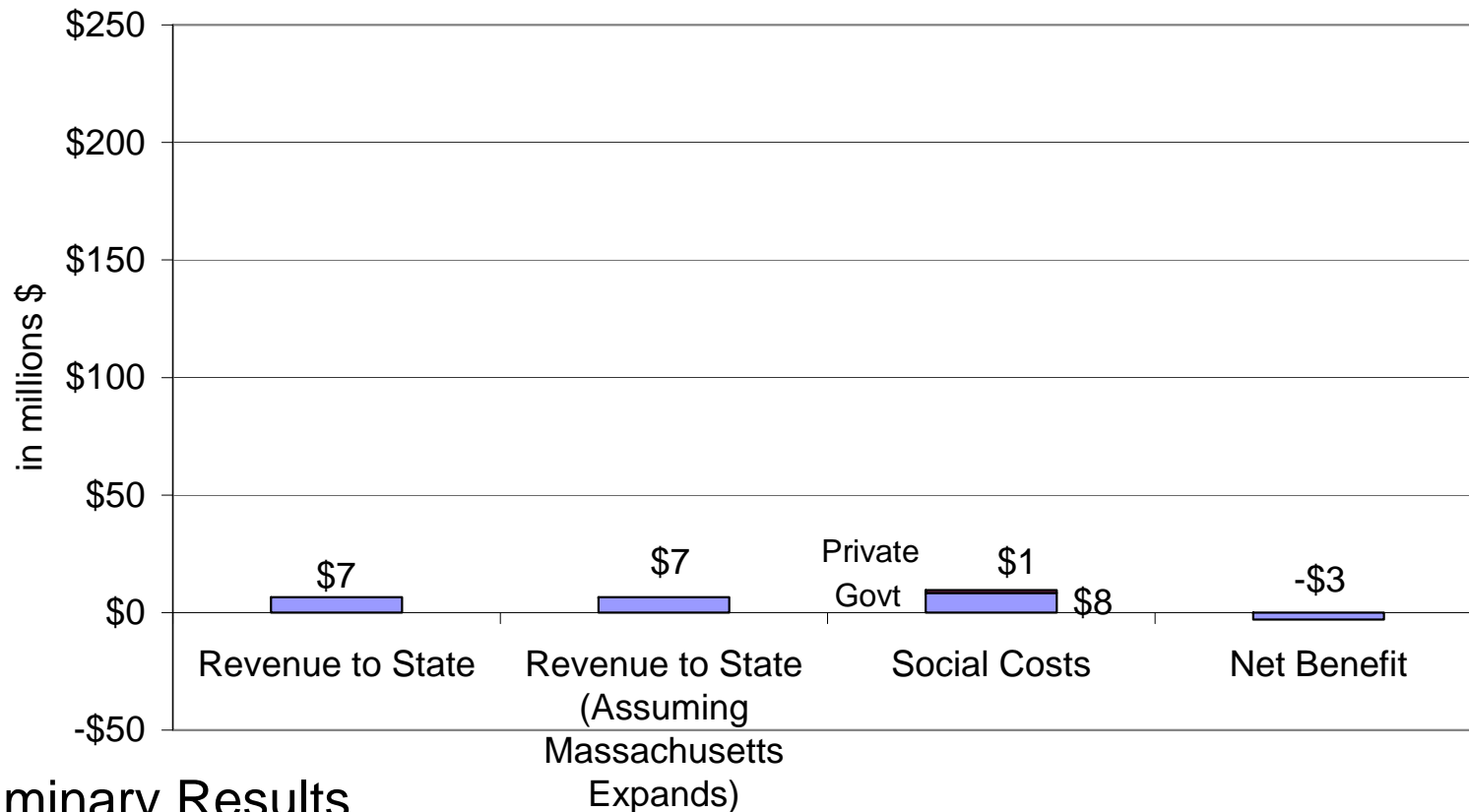
Calculating Net Benefit of Expanding Gambling, Large Facility (\$500m Investment) in Ski Country Including Only Revenue and Social Costs



Preliminary Results

Net Benefit: Great North Woods

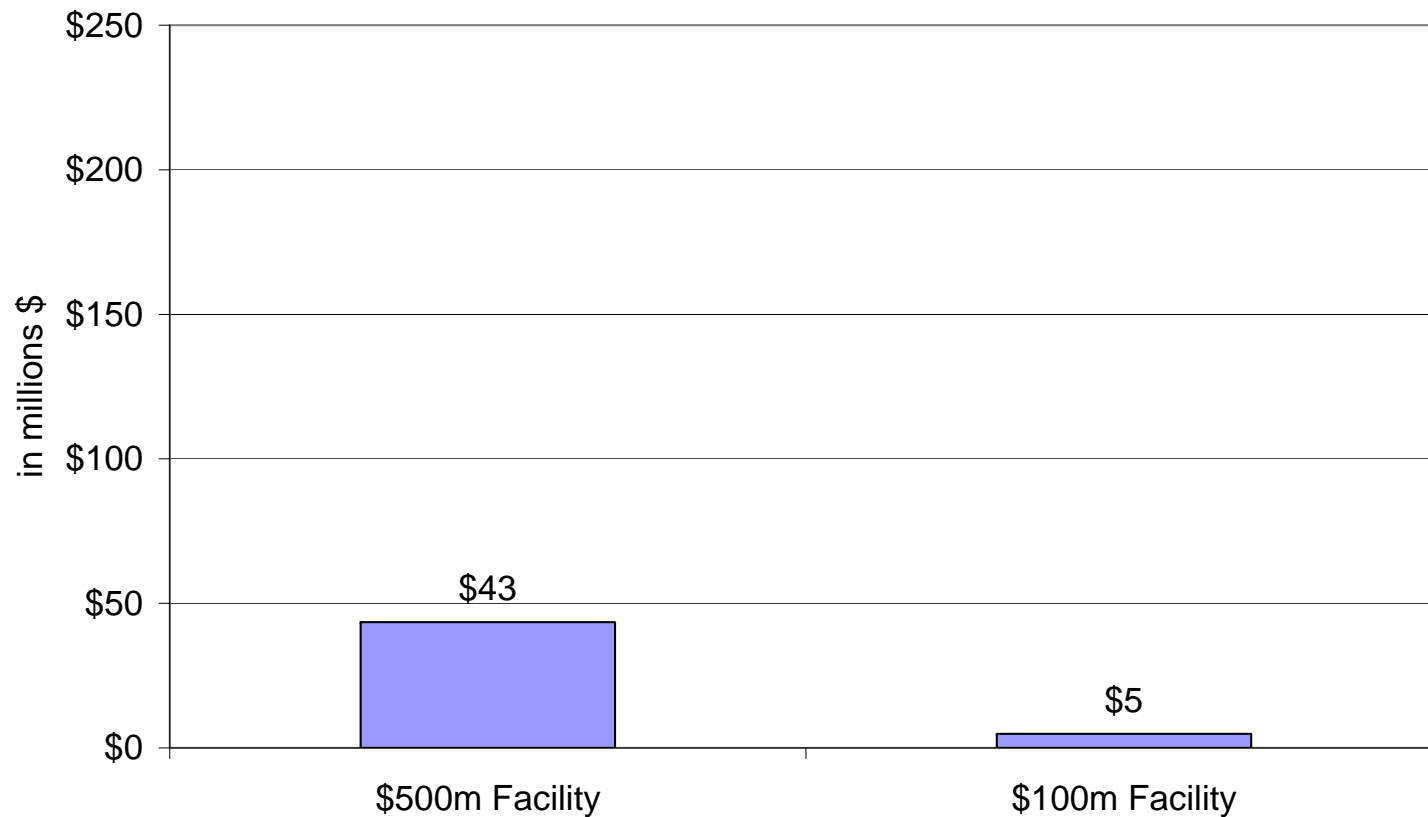
Calculating Net Benefit of Expanding Gambling, Large Facility (\$500m Investment) in Great North Woods Including Only Revenue and Social Costs



Preliminary Results

Facility Size Has Large Impact on Net Benefit

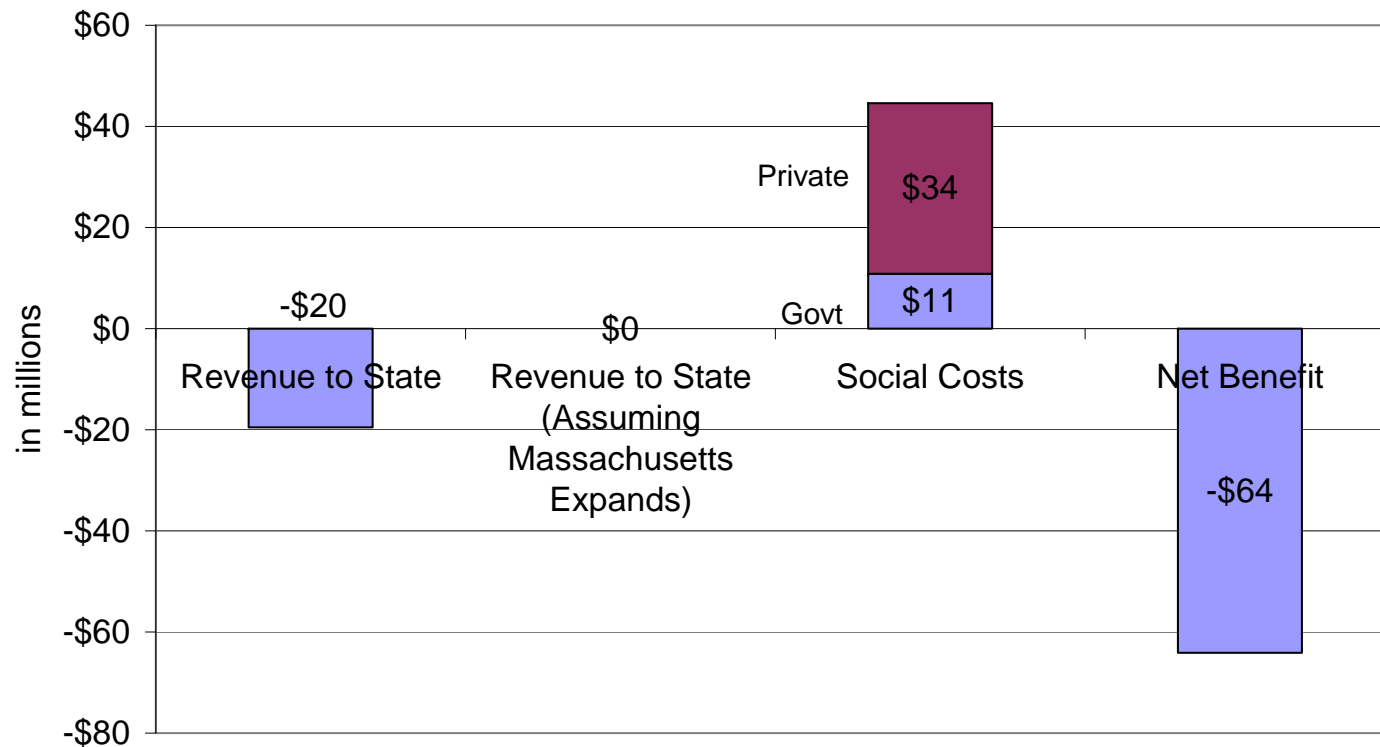
Net Benefit Calculation \$500m vs \$100m Facility
Ski Country Model



Preliminary Results

Impact of Massachusetts – Assume Massachusetts Acts and NH Doesn't ...

Calculating Net Benefit to New Hampshire of Expanded Gambling in
 Massachusetts, Large Facility (\$500m Investment) Including Only Revenue
 and Social Costs



We Did Not Model Timing

Hypothetical Description of Time's Role in Understanding Impact of Gambling										
		FY 2011: July 1, 2010	FY 2012: July 1, 2011	FY 2013: July 1, 2012	FY 2013			FY 2014		
Economic Development										
	Construction (18 Months)									
	Operations									
Revenues										
	License Fees									
	Net State (Gambling, M&R, Lottery)									
Social Costs										
	Net Benefit to Lowered Unemployment									
	Pathological Gambling Behavior									
	Impact of Pathological Gambling									

The Costs and Benefits of expanded gambling do not all accrue at the same time and an economic analysis could use a net present value approach

Summary

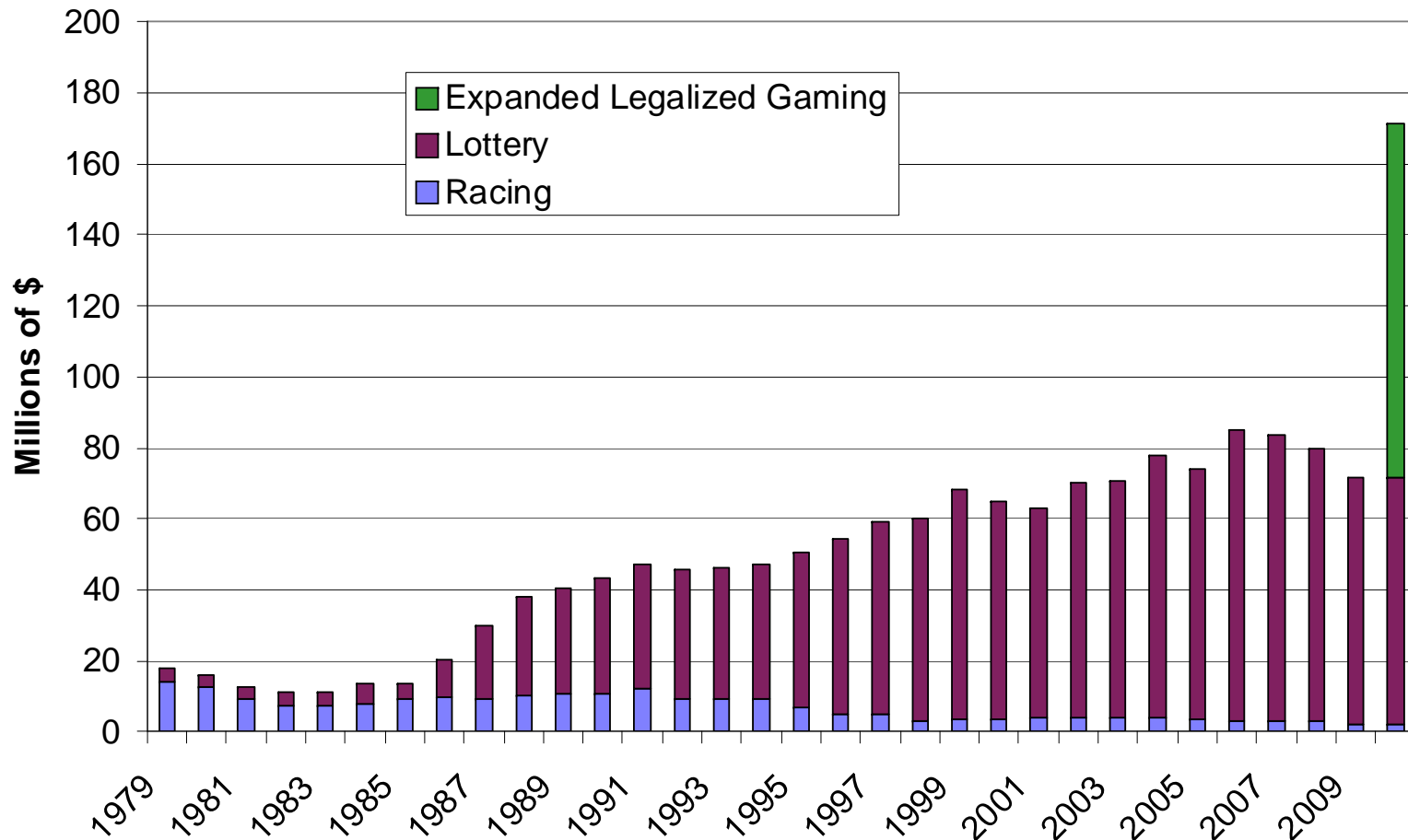
- Simulating the impact of gambling is difficult. Commissioners should be conscious of the fact that this model provides information on the relationship of various factors and is not designed to provide precise estimates (unless otherwise noted).
- There is a significant difference between the 'business' case for expanded gambling and a calculation which includes some measure of the degree of social and regulatory costs.
- Expanded gambling will bring additional economic wealth, though it remains small relative to overall economic activity and declines over time.
- Economic impact would be larger for the northern part of the state than the southern part of the state.
- Smaller facilities less likely to bring net benefit to state (including only revenues and social costs).
- The farther away from high population centers, the less likely the facility will have net benefit.
- Southern NH models are significantly more likely to have net benefit as a result of the fact that social costs associated with non-NH residents are NOT included in the analysis.

We did not model ...

- Phasing of Development
- Internet Gambling
- Impact of Branding
- Impact on Social Capital

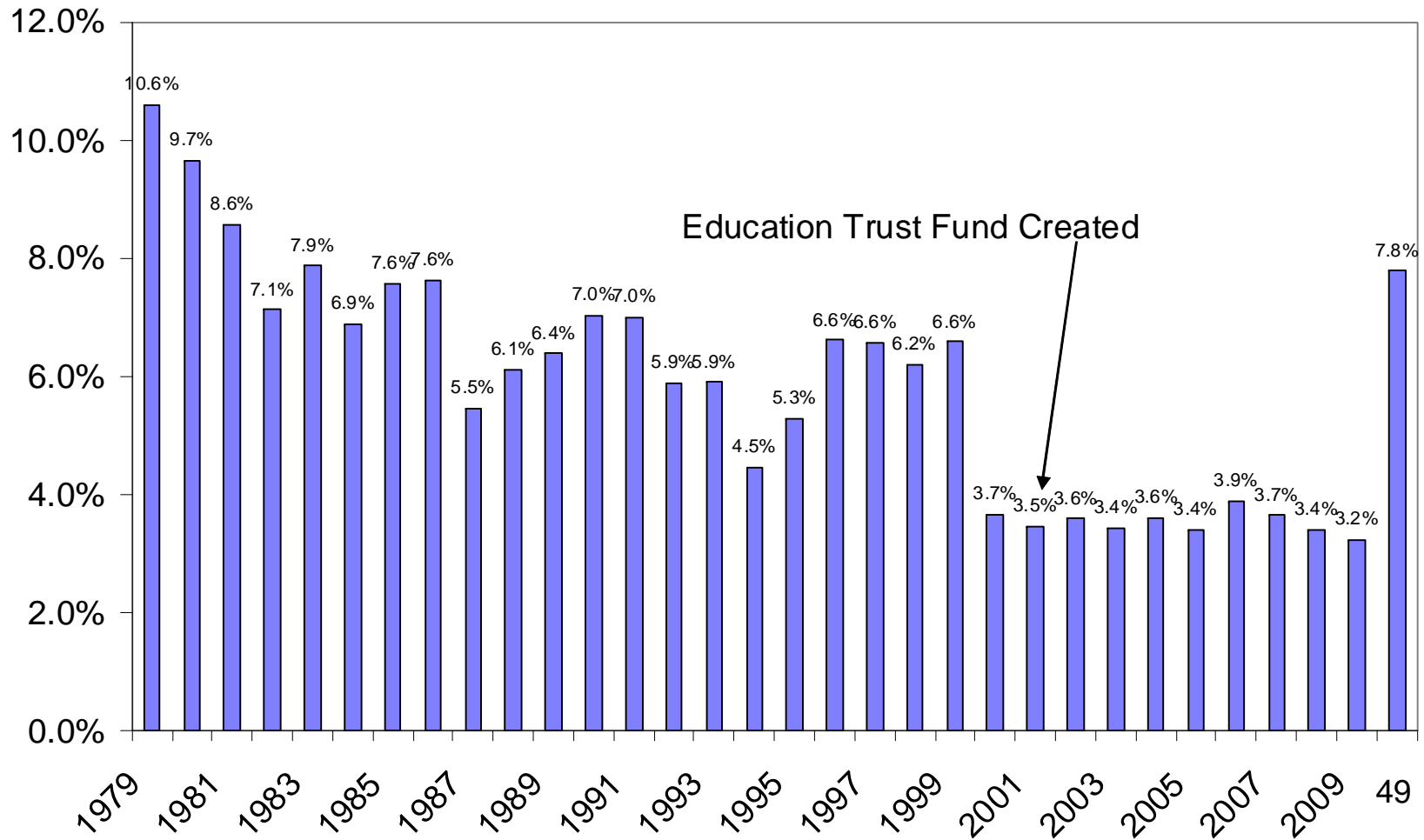
Growth in Gambling Revenues as Source of Funds

NH State Revenue from Gambling, plus \$100m from ELG



Revenues as Percentage of Unrestricted Funds

New Hampshire Lottery, Racing Revenue plus ELG (\$100 million) as Percent of Total Revenue



Future Gambling Revenues?

- In the past 10 years, personal income has grown more slowly than unrestricted fund expenditures in NH.
- Estimating future revenues is impossible.
 - Future tax rates
 - Growth in personal income and share of discretionary income devoted to gambling
 - Characteristics of facilities (e.g. types of machines, hours of operation, alcohol)
 - Number of machines/sites in NH