The Potential Economic Impact of the October 2007 Proposed Class II Gaming Regulations

Submitted to:
National Indian Gaming Commission

Submitted by:
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Executive Summary

In May 2006, the National Indian Gaming Commission (NIGC) proposed regulations of Class II Indian gaming. The proposed regulations, which included game classification standards and a revision to the definition of "electronic or electromechanical facsimile," were intended to more clearly distinguish Class II gaming from Class III gaming.[1] Generally, the proposed regulations were expected to be more restrictive than existing practices and likely to limit the types of gaming machines that would be considered to be Class II devices.[2,3] In February 2007, after careful consideration of the potential economic hardship that would be incurred by tribes and Class II system manufacturers, the NIGC withdrew the proposed regulations.

However, in October 2007, the NIGC proposed revised versions of the withdrawn proposed regulations. While these revised regulations are expected to be less stringent than the withdrawn proposed regulations in some ways, they are still expected to be more restrictive than existing practices.

I was commissioned by the NIGC to conduct a second independent study of the potential economic impact of the proposed Class II regulations on Indian tribes. Specifically, I was asked to identify the potential economic impacts of the October 2007 proposed regulations and, to the extent possible, quantify them on an aggregate nationwide basis. Due to the confidentiality of tribal financial data, analyses cannot be presented on facility-by-facility, tribe-by-tribe, or state-by-state bases. For the purposes of this study, I have assumed that the October 2007 proposed Class II regulations would go into effect in January 2008 and be legally enforceable. I have no opinions in these regards.

Given the information considered, I have arrived at the following conclusions:

1) In general, the NIGC's October 2007 proposed Class II gaming regulations would have a significant negative impact on Indian tribes.

2) The magnitude of the negative impact would vary widely from state to state, tribe to tribe, and facility to facility depending on the legal landscape, political environment, existing market conditions, and the availability of viable alternatives to Class II machines.

3) There would be a variety of negative economic impacts on Indian gaming facilities with Class II machines and tribes that operate them:

[1] In August 2006, the NIGC also proposed technical standards.
[2] It is important to recognize that Class II machine gaming is conducted in the context of a gaming system that includes software, player interfaces, and titles.
[3] It is the NIGC's position that not all of the systems currently operated by tribes meet the statutory definition of Class II games or comport with game classification advisory opinions issued by the NIGC's Office of General Counsel. Thus, the NIGC considers such systems to be "illegal" (i.e., they are Class III games). I have no opinions in these regards.

- A decrease in gaming revenue;
- A decrease in non-gaming revenue;
- A decrease in the variety and quality of Class II gaming machines;
- Gaming facility closures;
- An increase in capital, deployment, compliance, regulatory, training, revenue-sharing, and financing costs;
- A decrease in the number of tribal member jobs; and
- A decrease in innovation in the Class II gaming machine market.

4) There are also other broader economic impacts on Indian gaming:

- A decrease in leverage that tribes would have in the negotiation/renegotiation of Class III gaming compacts with states;
- Restriction of new entry into the Class II machine market; and
- A change in the degree of competition experienced by Class III gaming facilities as Class II machines become less desirable substitutes for Class III games in the eyes of consumers and as more Class III gaming is introduced.

Although all of the aforementioned economic impacts are rooted in economic theory, some are difficult to quantify and/or lack sufficient data for a quantitative analysis. Given these limitations, I have estimated the magnitude of the economic impacts that are readily quantifiable: lost gaming revenue; lost non-gaming revenue; increased revenue-sharing costs; increased capital, deployment, and compliance costs; and lost tribal member jobs.

<u>Lost Gaming Revenue</u>

- Class II machines would generate lower revenue under the October 2007 proposed regulations than existing practices. Tribes with Class II machines in 2006 included: Alabama, Alaska, Arizona, California, Florida, Minnesota, Montana, Nebraska, New York, Oklahoma, South Dakota, Texas, Washington, Wisconsin, and Wyoming.
- Tribes that are able to shift from Class II machines to viable alternatives (e.g., Class III machines) would be able to mitigate their Class II gaming revenue losses with gains in other gaming revenue (e.g., Class III machine revenue). These tribes include all of those in Arizona, Oklahoma, Washington, and Wyoming, and most in California.
- Using MegaMania as a benchmark for the performance of Class II machines under the May 2006 proposed regulations, I previously estimated that the average revenue per compliant Class II machine would be approximately 64 percent lower than the average revenue per existing Class II machine.

- Under the October 2007 proposed regulations, I estimate that the average revenue per compliant Class II machine would be approximately 21 to 64 percent lower than the average revenue per existing Class II machine. The upper end of this range assumes that, relative to the May 2006 proposed regulations, the October 2007 proposed regulations would not improve Class II machine performance. On the other hand, the lower end of this range assumes that game speed was the overriding cause of the estimated decrease in machine performance under the May 2006 proposed regulations, and that its improvement under the October 2007 proposed regulations would lead to a parallel increase in machine performance.

- Based upon an informal survey of industry participants, I estimated that the best point estimate for the average revenue per compliant Class II machine under the October 2007 proposed regulations would be approximately 42 percent of the average revenue per existing Class II machine. This percentage, which is the midpoint of the aforementioned range, reflects a 60 percent increase in Class II machine performance relative to the May 2006 proposed regulations.

- Given a 21 to 64 percent decrease in revenue per day for each Class II machine remaining in operation after the October 2007 proposed regulations go into effect, it is estimated that the annual gaming revenue loss would be approximately $575.9 million to $1.8 billion. Using the point estimate of a 42 percent decrease in revenue per Class II machine per day, it is estimated that the annual gaming revenue loss would be approximately $1.2 billion.[4]

- Note that *if* the October 2007 proposed regulations render Class II machines unlawful or technologically unfeasible, as has been suggested by some industry participants, then lost gaming revenue would be equal to actual Class II machine revenue where there are no viable alternatives to compliant Class II machines. In this situation, lost gaming revenue would be approximately $2.8 billion.

Lost Non-Gaming Revenue

- The 21 to 64 percent decrease in Class II machine performance under the October 2007 proposed regulations would also result in lost non-gaming revenue of approximately $62.0 million to $191.9 million per year. The point estimate of a 42 percent decrease in Class II machine performance would result in lost non-gaming revenue of approximately $126.9 million per year.

[4] It is the NIGC's view that "illegal" Class II machines, as identified by the NIGC (see footnote 3), are not Class II games, and therefore should not be included in the calculation of lost gaming revenue. If "illegal" Class II machines are excluded from the analysis, lost gaming revenue would be approximately $235.3 million to $728.6 million per year given a 21 to 64 percent decrease in revenue per day for each Class II machine remaining in operation after the October 2007 proposed regulations go into effect. Using the point estimate of a 42 percent decrease in revenue per Class II machine per day, it is estimated that the annual gaming revenue loss would be approximately $481.9 million. This scenario was developed solely at the request of the NIGC and does not reflect my opinion regarding the likely economic impacts of the proposed regulations.

- If the October 2007 proposed regulations render Class II machines unlawful or unfeasible and there are no viable alternatives to compliant Class II machines, the $2.8 billion annual loss of gaming revenue would result in lost non-gaming revenue of approximately $300.2 million per year.

Increased Revenue-Sharing Costs

- While tribes in Arizona, California (excluding the Lytton Band), Oklahoma, and Washington would be able to shift from existing Class II machines to Class III machines and thus potentially generate higher revenue per machine if the October 2007 proposed regulations were enacted, the tribes would also incur higher revenue-sharing costs of approximately $213.9 million per year. It is uncertain whether these increased costs would be entirely offset by the increase in Class III machine revenue. This would depend on how much more revenue Class III machines generate relative to Class II machines, as well as other costs (e.g., capital, deployment, compliance, regulatory, training, and financing costs) that may be incurred by tribes to switch from Class II to Class III machines.

Increased Capital, Deployment, and Compliance Costs

- The need to redevelop Class II systems, including software, player interfaces, and titles, as a result of the October 2007 proposed regulations would result in increased capital, deployment, and compliance costs of up to approximately $347.9 million over the five-year grandfathering period. It is likely that a large proportion, if not all, of those increased costs would be borne by tribes.

Lost Tribal Member Jobs

- The 21 to 64 percent decrease in Class II machine performance under the October 2007 proposed regulations would also result in approximately 1,629 to 5,044 lost tribal member jobs per year. The point estimate of a 42 percent decrease in Class II machine performance would result in approximately 3,336 lost tribal member jobs per year.

- If the October 2007 proposed regulations render Class II machines unlawful or unfeasible and there are no viable alternatives to compliant Class II machines, the annual revenue losses and increased costs at Indian gaming facilities operating Class II machines would result in approximately 7,890 lost tribal member jobs per year.

While it is my opinion that the scenarios summarized above represent the most likely outcomes if the proposed Class II regulations are enacted, alternative scenarios and sensitivity analyses are provided within this report to test how the economic impact varies given different assumptions.

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1. Introduction

QUALIFICATIONS

I am a Manager at Analysis Group, Inc., an economic, financial, and strategy consulting firm. I am an economist specializing in the application of economics to complex business issues, commercial litigation, and regulatory matters. I hold a Ph.D., Master of Arts (M.A.), and Bachelor of Arts (B.A.) in Economics from the University of California, Irvine. One of my areas of expertise is Indian gaming. I have consulted tribal and non-tribal governments on a wide array of economic issues related to Indian gaming. My work has included economic impact analyses, industry and market analyses, assessments of regulatory policies, analyses of Tribal-State gaming compacts and revenue sharing, feasibility studies, surveys, and expert testimony in litigation and regulatory matters. I have also conducted years of independent, academic research and authored numerous publications on Indian gaming, most notably my annual economic study of Indian gaming, the *Indian Gaming Industry Report*, which is widely cited and relied upon by governments, the gaming industry, and the investment community.

Further background on myself and Analysis Group is set forth in Appendices A and B, respectively.

ASSIGNMENT

I was commissioned by the National Indian Gaming Commission (NIGC) to conduct an independent study of the potential economic impact of proposed Class II regulations on Indian tribes.[5] Specifically, I was asked to identify the potential economic impacts and, to the extent possible, quantify them on an aggregate nationwide basis. Due to the confidentiality of tribal financial data, I am unable to present analyses on facility-by-facility, tribe-by-tribe, or state-by-state bases.

In 2006, when I was originally commissioned to conduct my independent study, I was asked to review and analyze the facsimile definition and classification standards proposed in May 2006 (hereafter referred to as the "May 2006 proposed regulations").[6] My original study of the May 2006 regulations was completed in November 2006.[7] In February 2007, after careful consideration of the potential economic hardship that would be incurred by tribes and Class II system manufacturers, the NIGC withdrew the proposed regulations.

[5] Unless otherwise noted, the opinions set forth herein are those of the author and do not necessarily represent those of the NIGC. Furthermore, nothing in this report should be construed as a legal opinion or conclusion.
[6] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006. I was not asked to review or analyze the technical standards in my November 2006 report (Proposed Rule, 25 CFR Part 547, Technical Standards for ''Electronic, Computer, or Other Technologic Aids'' Used in the Play of Class II Games, *Federal Register* 71 (155), August 11, 2006).
[7] My original study of the May 2006 proposed regulations was entitled "The Potential Economic Impact of Proposed Changes to Class II Gaming Regulations" and was submitted to the NIGC on November 3, 2006.

In July 2007, I was asked to review and analyze the facsimile definition, classification standards, and technical standards that were ultimately proposed in October 2007 (hereafter referred to as the "October 2007 proposed regulations").[8,9] In addition, I updated my November 2006 report to include new gaming market information and the most current tribal financial data available, both of which were relied upon in this present report. The updated report is set forth in Appendix G.[10]

For the purposes of this study, I have assumed that the October 2007 proposed regulations will go into effect in January 2008 and be legally enforceable. I have no opinions in these regards.

INFORMATION CONSIDERED

In conducting my assignment, I relied upon my knowledge of economics and Indian gaming. I also relied upon industry data confidentially provided to me by the NIGC. These data included gaming revenue, total casino revenue, tribal government revenue from Indian gaming, and Class II gaming machine counts.[11] Gaming machine count data were supplemented by information from state gaming regulatory agencies and my previously-conducted research, including the *Indian Gaming Industry Report*.

In addition, input was provided by representatives of tribes, casinos, Class II system manufacturers, state gaming regulatory officials, and NIGC staff. This input was drawn from comments submitted to the NIGC and was supplemented by conversations during the course of my assignment.[12]

[8] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 72 (205), October 24, 2007; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, Other Games Similar to Bingo, Pull Tabs and Instant Bingo as Class II Gaming When Played Through an Electronic Medium Using "Electronic, Computer, or Other Technologic Aids," *Federal Register* 72 (205), October 24, 2007; Proposed Rule, 25 CFR Part 547, Technical Standards for Electronic, Computer, or Other Technologic Aids Used in the Play of Class II Games, *Federal Register* 72 (205), October 24, 2007.

[9] I was not asked to review and analyze the proposed Minimum Internal Control Standards (MICS) (Proposed Rule, 25 CFR Part 542 and 543, Minimum Internal Control Standards for Class II Gaming, *Federal Register* 72 (205), October 24, 2007).

[10] The updated study is entitled "The Potential Economic Impact of the May 2006 Proposed Class II Gaming Regulations."

[11] It is important to recognize that Class II machine gaming is conducted in the context of a gaming system that includes software, player interfaces, which are referred to in this report as gaming machines, and game titles.

[12] Comments were communicated to the NIGC verbally (at government-to-government consultation meetings) and in writing (letters and statements) (http://www.nigc.gov/ClassIIGameClassificationStandards/tabid/620/Default.aspx). Telephone calls were made between August 14, 2006 and January 9, 2008.

2. Background

INDIAN GAMING

In the United States, gaming is conducted by Indian tribes as an exercise of their inherent sovereign rights as independent nations.[13] And while Indian tribes have operated gaming facilities since the late 1970s/early 1980s, it was not until the passage of the Indian Gaming Regulatory Act (IGRA) by the United States Congress in 1988 that larger-scale Indian gaming began to emerge. Per IGRA, gaming serves as a means of "promoting tribal economic development, self-sufficiency, and strong tribal governments."[14] Toward these ends, tribes may only use gaming profits to:

1) Fund tribal government operations or programs;
2) Provide for the general welfare of their members;
3) Promote tribal economic development;
4) Donate to charitable organizations; and
5) Help fund operations of local government agencies.[15]

In accordance with the first three uses, tribes have used gaming profits to support a variety of tribal programs and services, such as health care, housing development, schools, youth centers, scholarships, elderly care, child care, vocational training, environmental services, police and fire protection, water and sewer services, transportation, and cultural preservation, as well as to fund the development of other tribal enterprises. Also, some tribes (about 34 percent) distribute per capita payments to tribal members.[16] With regards to the fourth and fifth uses, tribes make donations to charities and revenue sharing payments to state and local governments.

Per IGRA, there are three distinct classes of Indian gaming:[17]

- Class I gaming refers to "social games for prizes of minimal value or traditional forms of Indian gaming engaged in by individuals as part of, or in connection with, tribal ceremonies or celebrations."
- Class II gaming refers to "(i) the game of chance commonly known as bingo (whether or not electronic, computer, or other technologic aids are used in

[13] Light, Steven A., Kathryn R.L. Rand, and Alan Meister, 2005, Spreading the Wealth: Indian Gaming and Revenue Sharing Agreements, North Dakota Law Review, 80:4.
[14] Indian Gaming Regulatory Act, 25 U.S.C. § 2702.
[15] Indian Gaming Regulatory Act, 25 U.S.C. § 2710.
[16] In 2002, per capita payments were distributed to tribal members in 73 tribes (Source: National Indian Gaming Association, *Indian Gaming Facts*, accessed November 5, 2007 [http://www.indiangaming.org/library/indian-gaming-facts/index.shtml]). In that same year, there were 216 gaming tribes (Source: Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press). Thus, approximately 34 percent (73/216) of gaming tribes distributed per capita payments in 2002.
[17] Indian Gaming Regulatory Act, 25 U.S.C § 2703.

connection therewith) – (I) which is played for prizes, including monetary prizes, with cards bearing numbers or other designations, (II) in which the holder of the card covers such numbers or designations when objects, similarly numbered or designated, are drawn or electronically determined, and (III) in which the game is won by the first person covering a previously designated arrangement of numbers or designations on such cards, including (if played at the same location) pull-tabs, lotto, punch boards, tip jars, instant bingo, and other games similar to bingo; and (ii) card games that – (I) are explicitly authorized by the laws of the State, or (II) are not explicitly prohibited by the laws of the State and are played at any location in the State …" Class II gaming "does not include (i) any banking card games … or (ii) electronic or electromechanical facsimiles of any game of chance or slot machine of any kind."

- Class III gaming refers to "all forms of gaming that are not Class I or Class II gaming." This includes slot machines, other video and electronic games of chance, craps, roulette, pari-mutuel wagering, and house-banked card games like blackjack.

CLASS II MACHINE GAMING

Although Class II gaming includes traditional paper bingo and pull-tabs, it is largely dominated by electronic bingo and pull-tab machines.[18] As shown in Table 1, 72 tribes operated 50,924 gaming machines as Class II devices in 160 Indian gaming facilities in 2006 (see Appendix C for a list of facilities).[19] These facilities generated total Class II machine revenue of approximately $3.6 billion and associated non-gaming revenue of approximately $154.2 million.[20,21]

Table 1. 2006 Class II Gaming Machine Market

Tribes	72
Facilities	160
Class II Machines	50,924
Gaming Revenue ($ Millions)	$3,550.7
Non-Gaming Revenue ($ Millions)	$154.2

Sources: Indian Gaming Industry Report and NIGC data.

[18] It is the NIGC's view that some gaming machines operated by tribes as Class II machines fail to meet the statutory definition of Class II games and are thus Class III games. I have no opinion in this regard. See the Scenario 3 results in the Lost Gaming Revenue section of Chapter 5 for further discussion.
[19] NIGC; Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[20] Tribal government revenue resulting from Class II machine gaming revenue and associated non-gaming was approximately $733.5 million.
[21] Derived via analysis of tribal financial data provided by the NIGC and data underlying the *Indian Gaming Industry Report*. See the Chapter 4 for background on these data.

As shown in Table 2, there were 15 states with Class II machines in 2006: Alabama, Alaska, Arizona, California, Florida, Minnesota, Montana, Nebraska, New York, Oklahoma, South Dakota, Texas, Washington, Wisconsin, and Wyoming. It is important to note that while Class II machine gaming is operated in various states across the country, it is highly concentrated in two states: Oklahoma and Florida. Combined, these two states account for 76 percent of the total number of Class II machines. Oklahoma alone has 59 percent of the machines. After Oklahoma and Florida, California, Alabama, and Washington have the largest number of Class II devices.

Table 2. 2006 Class II Gaming Machine Market by State

State	Tribes	Facilities	Machines	Machines % of Total
Alabama	1	3	2,101	4.1%
Alaska	1	1	30	0.1%
Arizona	2	2	56	0.1%
California	6	8	4,215	8.3%
Florida	2	8	8,615	16.9%
Minnesota	1	14	113	0.2%
Montana	6	7	535	1.0%
Nebraska	3	4	314	0.6%
New York	2	3	1,287	2.5%
Oklahoma	27	87	30,044	59.0%
South Dakota	2	2	64	0.1%
Texas	1	1	1,325	2.6%
Washington	16	17	1,771	3.5%
Wisconsin	1	1	361	0.7%
Wyoming	1	2	94	0.2%
Total	**72**	**160**	**50,924**	**100.0%**

Sources: Indian Gaming Industry Report and NIGC data.

These statistics in Tables 1 and 2 reflect substantial growth over time. In fact, the Class II gaming machine segment of the Indian gaming industry has been growing at a much faster rate than Class III gaming.[22] This growth of Class II machine gaming can be attributed to two key factors.[23] First, Class II gaming machines have been evolving rapidly. Technological advances have allowed Class II machines to more closely mimic the look and feel of Class III machines. Relative to their predecessors, current Class II machines are generally more advanced, visually appealing, and capable of generating greater revenue.

The second factor leading to the dramatic growth of Class II machine gaming has been the fact that some gaming markets in Class II-only states are in the early stages of development. Many of these states are smaller markets, often with only a few tribes and/or facilities and little or no local competition. Thus, there have been opportunities to expand existing facilities and/or develop additional facilities in these markets.

[22] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[23] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

Despite its impressive growth, Class II machine gaming only represents a small portion of the total Indian gaming industry. In 2006, it represented approximately 14 percent of total gaming revenue generated at Indian gaming facilities.[24] While the contribution of Class II machine gaming to the Indian gaming industry is small relative to that of Class III gaming, it is not insignificant or inconsequential. It plays an important role in the industry. First, Class II gaming machines are extremely important to tribes:

- Where Class III gaming is not permitted, Class II machines have provided tribes viable gaming devices. In 2006, this was the case in the states of Alabama, Alaska, California (only for the Lytton Band of Pomo Indians), Florida, Nebraska, and Texas.[25]

- Where Class III gaming is permitted, Class II machines have been used to supplement Class III machines. This may be desirable for tribes that have restrictions on allowable Class III gaming (e.g., caps on the number of Class III machines that can be operated; a limit on the number of Class III gaming facilities that can be operated by a tribe; revenue sharing associated with Class III machines; and restrictions on the type and/or quality of Class III machines that can be operated). In 2006, Class III machines were supplemented with Class II machines in Arizona, California (for all tribes except the Lytton Band of Pomo Indians), Minnesota, Montana, New York, Oklahoma, South Dakota, Washington, Wisconsin, and Wyoming.

- Whether or not Class III gaming is currently permitted, Class II machines may provide some leverage in future Class III compact negotiations or renegotiations. Current Class II machine gaming represents a potential fallback position for a tribe should a state refuse to negotiate/renegotiate a compact or not negotiate in good faith. The strength of the bargaining position of any particular tribe is affected by the quality of allowable Class II machines.

Class II machine gaming is also important to the casino gaming market. In geographic areas where casino gaming is otherwise non-existent, Class II machines provide casino patrons a local gaming option. In geographic areas where casino gaming is limited or some distance away from patrons, Class II machines may provide some degree of competition. Competition between Class II and Class III machines is likely to be greater when there is less of a difference between the quality and performance of Class II and Class III machines and/or when Class II machine gaming is located closer to patrons than Class III machine gaming.

[24] Class II machine revenue as a percentage of total gaming revenue at all Indian gaming facilities = $3.551 billion / $ 24.886 billion = 14.3 percent. Source: Analysis of NIGC data for fiscal year 2006. Note that total gaming revenue at all Indian gaming facilities is slightly lower than the amount publicly reported by the NIGC in June 2007. This is a result of adjustments made by the NIGC following that date.

[25] For a discussion of the situation in Florida, see the State-By-State Review of Class II Machine Gaming in the Lost Gaming Revenue section of Chapter 5.

EXISTING CLASS II GAMING REGULATORY ENVIRONMENT

IGRA established a framework for the regulation of Indian gaming.[26] By design, regulatory authority differed depending on the Class of gaming being conducted. In particular, Class II gaming was maintained within the jurisdiction of Indian tribes and also subject to the provisions of IGRA, which include the NIGC's power to promulgate regulations and guidelines it deems appropriate to implement the provisions of IGRA.[27]

While the classification of Class II games was broadly defined in IGRA, the NIGC adopted regulations that included specific definitions of terms used in IGRA's game classification framework. Because IGRA recognized the right of tribes to use "electronic, computer, or other technologic aids" but not "electronic or electromechanical facsimiles" to conduct Class II gaming, the definitions of these terms has become critical. In 1992, the NIGC defined these terms as follows:[28]

> **§ 502.7 Electronic, computer or other technologic aid.**
>
> (a) *Electronic, computer or other technologic aid* means any machine or device that:
>
> (1) Assists a player or the playing of a game;
>
> (2) Is not an electronic or electromechanical facsimile; and
>
> (3) Is operated in accordance with applicable Federal communications law.
>
> (b) Electronic, computer or other technologic aids include, but are not limited to, machines or devices that:
>
> (1) Broaden the participation levels in a common game;
>
> (2) Facilitate communication between and among gaming sites; or
>
> (3) Allow a player to play a game with or against other players rather than with or against a machine.
>
> (c) Examples of electronic, computer or other technologic aids include pull tab dispensers and/or readers, telephones, cables, televisions, screens, satellites, bingo blowers, electronic player stations, or electronic cards for participants in bingo games.

[26] Indian Gaming Regulatory Act, 25 U.S.C. § 2710.
[27] Indian Gaming Regulatory Act, 25 U.S.C. § 2710(a)(2).
[28] 25 Code of Federal Regulations (CFR) Parts 502.7 and 502.8; 57 FR 12392, Apr. 9, 1992, as amended at 67 FR 41166, June 17, 2002.

§502.8 Electronic or electromechanical facsimile.

Electronic or electromechanical facsimile means a game played in an electronic or electromechanical format that replicates a game of chance by incorporating all of the characteristics of the game, except when, for bingo, lotto, and other games similar to bingo, the electronic or electromechanical format broadens participation by allowing multiple players to play with or against each other rather than with or against a machine.

2006 PROPOSED CLASS II GAMING REGULATIONS

Over time, the interpretation of the aforementioned terms has been the subject of great debate. Thus, in May 2006, the NIGC "determined that it [was] in the best long term interest of Indian gaming to issue classification standards clarifying the distinction between 'electronic, computer, and other technologic aids' used in the play of Class II games and other technologic devices that are 'electronic or electromechanical facsimiles of a game of chance.'"[29] In doing so, the NIGC also decided that a further revision to the definition of "electronic or electromechanical facsimile" was needed.[30] In addition, in August 2006, the NIGC proposed technical standards "to provide a means for tribal gaming regulatory authorities and tribal operators to ensure that the integrity of Class II games played with the use of electronic, computer, or other technologic aids, is maintained; that the games and aids are secure; and that the games and aids are fully auditable."[31]

Generally, these proposed regulations were expected to be more restrictive than existing practices and likely to limit the types of gaming machines that would be operated as Class II devices. According to the proposed regulations,[32] Class II games using electronic, computer, and other technologic aids would have had to meet the following requirements:[33]

- For bingo or other games similar to bingo:
  - Players must compete against one another.
  - Although the NIGC encourages play with six or more participants, a game can begin with a minimum of two players if six players do not enter a game within two seconds after the first player enters.
  - Bingo cards must be used; however, those cards may be electronic.
  - Bingo cards must be provided to players before numbers are drawn.

[29] Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006.
[30] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006.
[31] Proposed Rule, 25 CFR Part 547, Technical Standards for ''Electronic, Computer, or Other Technologic Aids'' Used in the Play of Class II Games, *Federal Register* 71 (155), August 11, 2006.
[32] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006.
[33] This list is not intended to be a complete list of requirements, but rather a summary of the key classification standards. For a complete list of the standards, see the Proposed Rules. Not included or addressed in this report are technical standards proposed by the NIGC. As noted in the Assignment section of Chapter 1, I was not asked to review or analyze the technical standards in my November 2006 report or the update to it, which is set forth in Appendix G.

- Each card played in a game must have an equal chance of obtaining any winning pattern.
- Technologic aids are permitted but they must prominently display using two inch letters a message that it is a game of bingo or game similar to bingo.
- One-half of the screen must display the bingo game at all times.
- Alternative technologic displays of game results (e.g., game theme graphics, spinning reels, or other imagery) are permitted as long as the game results on the electronic bingo card are always shown.
- Numbers must be randomly drawn (without replacement) in real time or very near real time to the actual play of the game.
- Different entry wagers are permitted.
- An "ante-up" format is permitted.
- An "auto-daub" feature is not permitted; thus, players must take overt action to daub (i.e., cover) numbers at least one time in each round after numbers are drawn.
- The minimum time for players to daub numbers must be two seconds.
- There must be at least two releases of numbers before a game-winning pattern is created.
- The minimum time for each number release must be two seconds.
- A game-winning prize must be awarded in every game.
- A game is won by the first person covering the pre-designated game-winning pattern.
- The prizes in the game may be increased or progressive prizes offered based upon a higher entry wager.
- All prizes must be based upon achieving pre-designated winning patterns common for all players.
- Gaming-winning prizes must be at least 20 percent of the amount wagered and have a minimum value of one cent.
- Prizes may not be based on an event not directly related to the game.
- All prizes must be fixed in amount or established by formula and be disclosed to all players in the game.
- The use of a paytable for determining prizes is permitted.
- Pre-designated interim prizes may be offered but all players in a game must be competing for the same set of prizes.
- "Stand-alone progressives" and "mystery jackpots" are not permitted.
- A "gamble feature" is not permitted.
- "Residual credit removal" is not permitted.
- "Free games" are permitted as a marketing tool as long as all players participating in the game that led to the free games receive the same number of free games.

- For pull-tabs:
  - The game must exist in a tangible format (e.g., paper) and be readily accessible to the player at the player station.

- The tangible pull-tab must contain the information necessary to determine if a player won a prize.
- Technologic aids are permitted but they must prominently display using two inch letters a message stating that it is a game of pull-tabs.
- Alternative displays of game results (e.g., game theme graphics, spinning reels, or other imagery) are permitted as long as the game results are always shown along with important player information.
- The game may not accumulate credits.
- The player station may not pay out winnings, or dispense vouchers or receipts representing such winnings.

In February 2007, after careful consideration of the potential economic hardship to tribes and Class II system manufacturers,[34] the NIGC withdrew these proposed regulations and announced that if they go forward with any new version of the regulations, they would likely vary from these withdrawn versions.[35]

OCTOBER 2007 PROPOSED CLASS II GAMING REGULATIONS

In October 2007, the NIGC proposed revised versions of the facsimile definition, classification standards, and technical standards,[36] and also proposed new minimum internal control standards (MICS).[37] In terms of the facsimile definition, the October 2007 version now defines an electronic or electromechanical facsimile as "a game played in electronic or electromechanical format that replicates a game of chance by incorporating *all* the fundamental characteristics of the game," or bingo, lotto, other games similar to bingo, pull-tabs, and instant bingo games that do not comply with the October 2007 classification standards.[38] This is more stringent than the May 2006 proposal, which did not explicitly require compliance with the classification standards and its many parts.

[34] When the May/August 2006 proposed regulations were first put forward, there was considerable criticism from industry participants, namely tribes and Class II system manufacturers. These criticisms were validated and quantified to a large extent in my independent November 3, 2006 economic impact study that was commissioned by the NIGC and has now been updated (see Appendix G). Source: Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, Other Games Similar to Bingo, Pull Tabs and Instant Bingo as Class II Gaming When Played Through an Electronic Medium Using "Electronic, Computer, or Other Technologic Aids," *Federal Register* 72 (205), October 24, 2007, p. 60486.

[35] The withdrawal and announcement also applied to the technical standards published in August 2006, which I was not asked to review or analyze in my November 2006 report or the update to that report, which is set forth in Appendix G.

[36] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 72 (205), October 24, 2007; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, Other Games Similar to Bingo, Pull Tabs and Instant Bingo as Class II Gaming When Played Through an Electronic Medium Using "Electronic, Computer, or Other Technologic Aids," *Federal Register* 72 (205), October 24, 2007; Proposed Rule, 25 CFR Part 547, Technical Standards for Electronic, Computer, or Other Technologic Aids Used in the Play of Class II Games, *Federal Register* 72 (205), October 24, 2007.

[37] MICS were proposed by the NIGC in October 2007 (Proposed Rule, 25 CFR Part 542 and 543, Minimum Internal Control Standards for Class II Gaming, *Federal Register* 72 (205), October 24, 2007). As noted in the Assignment section of Chapter 1, I was not asked to review or analyze the MICS.

[38] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 72 (205), October 24, 2007, p. 60483.

With regards to the classification standards, the NIGC made several changes to the May 2006 proposed regulations.[39] First, the October 2007 proposed standards eliminated some of the required time delays by:

- Changing the minimum time for players to daub numbers to be the time it takes for all players to daub, with a maximum time of two seconds if all players do not daub;
- Reducing the number of required releases of numbers from two to one (i.e., allowing a two-touch machine); and
- Eliminating the two-second time delay for each release of numbers.

In the aggregate, the revised regulations reduced the total game time by approximately six to eight seconds from the May 2006 proposed standards.[40] It should be noted that there are still delays in the October 2007 proposed standards versus what is actually in operation in most Indian gaming facilities today. These remaining delays include:

- A minimum wait time of two seconds for the start of a game if six players have not joined; and
- Up to two seconds for players to daub and/or claim a prize if all players do not daub sooner.

Second, in addition to the partial increase in speed, the October 2007 proposed classification standards improved the playability of Class II machines to some degree by:

- Allowing for different winning patterns for interim prizes;
- Allowing for different probabilities of interim prize patterns;
- Relaxing the requirement that a technologic aid display a message stating that it plays a game of bingo or game similar to bingo – from a message using two-inch letters to one that is described as prominently displayed; and
- Allowing the electronic bingo card to be less than one-half of a game screen, but no less than two inches by two inches (i.e., four square inches).

Third, the October 2007 proposed classification standards also shifted the responsibility of certifying testing laboratories from the NIGC to tribal gaming regulatory authorities. Fourth, the October 2007 classification standards introduced a grandfathering provision for continued use of existing Class II machines for a period of five years.

[39] Source: Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, Other Games Similar to Bingo, Pull Tabs and Instant Bingo as Class II Gaming When Played Through an Electronic Medium Using "Electronic, Computer, or Other Technologic Aids," Federal Register 72 (205), October 24, 2007, pp. 60486-60487. This list is not intended to be a complete list of changes, but rather a summary of the key changes identified by the NIGC.

[40] There would be two seconds less for the first release of numbers, two seconds less for eliminating the second release of numbers, two seconds less for eliminating the daub after the eliminated second release of numbers, and up to two seconds less for changing the minimum time to daub from two seconds to the actual time it takes players to daub.

As for the technical standards, comments from industry participants indicated that the August 2006 proposed version was inflexible, impractical, and unfeasible.[41] This led the NIGC to allow its Class II gaming advisory committees, which consisted of tribal government representatives and tribal regulators, to work independently to redraft the technical standards. In doing so, the committees solicited the assistance of Class II system manufacturers. As a result of this effort, the NIGC made a few sweeping changes. First, in order to maintain technological flexibility, the technical standards were redesigned to describe regulatory outcomes desired by the NIGC rather than prescribing particular implementations of technology. Second, the technical standards were redeveloped to reflect the unique nature of Class II gaming systems rather than Class III gaming machines. Third, many of the functions withdrawn from the August 2006 proposed technical standards were more appropriately moved into the October 2007 proposed minimum internal control standards (MICS).[42] Fourth, as was done with the October 2007 proposed classification standards, the NIGC introduced a grandfathering provision for continued use of existing Class II machines for a period of five years.

[41] Proposed Rule, 25 CFR Part 547, Technical Standards for Electronic, Computer, or Other Technologic Aids Used in the Play of Class II Games, *Federal Register* 72 (205), October 24, 2007, pp. 60509-60510.
[42] As noted in the Assignment section of Chapter 1, I was not asked to review or analyze the MICS.

3. Qualitative Review of the Potential Economic Impact of the Proposed Class II Gaming Regulations

As noted in my November 2006 study, which was revised in conjunction with the present report and is set forth in Appendix G, the May 2006 proposed regulations were generally expected to have a significant negative economic impact on tribes if they were enacted and legally enforceable.[43] And although the October 2007 proposed regulations are likely to cause less of an economic hardship on tribes than the May 2006 proposed regulations, they are *still* generally expected to result in significant negative economic impacts on Class II machines and tribes that operate them. Also, the October 2007 proposed regulations will still have a broader economic impact on Indian gaming. As discussed below, while the five-year grandfathering provision will reduce the chance of temporary gaming facility closures, it will have little if any effect on any of the other negative economic impacts of the proposed regulations. It will only serve to delay some of them.

This chapter provides a qualitative review of the potential economic impacts of the October 2007 proposed Class II gaming regulations. Each of these potential impacts is independently reviewed below. However, note that the impacts are not necessarily additive (i.e., the actual total impact may be less than or greater than the sum of the individual impacts).[44] In fact, some impacts are likely to be captured in the quantification of other impacts.[45] Overall, it is difficult to determine the cumulative effect a priori. Chapter 5 of this report estimates the magnitude of the quantifiable economic impacts.

THE IMPACT ON CLASS II GAMING MACHINES

Based upon my review of the October 2007 proposed regulations, comments from industry participants, and discussions with NIGC staff,[46] I understand that the October 2007

[43] Based upon my discussions with tribes, casinos, and Class II system manufacturers during the course of my assignment, I understand that it is likely that various tribes and Class II system manufacturers will file lawsuits against the NIGC over the legality of the proposed regulations, if enacted. I have no opinions regarding the legality and enforceability of the proposed Class II regulations.

[44] The total economic impact would be equal to the sum of the lost profits from the non-duplicative portions of each impact set forth in this chapter of the report (see the direct impacts numbered one through seven below and the broader impacts numbered one through three below). However, as noted later in this report, a number of the economic impacts were not quantifiable. Furthermore, sufficient industry-wide cost data other than that set forth in this report were not available for computing lost profit.

[45] For example, at least some of the effects of decreased variety and quality of Class II machines, as well as gaming facility closures, are likely to be captured in lost gaming revenue.

[46] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 72 (205), October 24, 2007; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, Other Games Similar to Bingo, Pull Tabs and Instant Bingo as Class II Gaming When Played Through an Electronic Medium Using "Electronic, Computer, or Other Technologic Aids," *Federal Register* 72 (205), October 24, 2007; Proposed Rule, 25 CFR Part 547, Technical Standards for Electronic, Computer, or Other Technologic Aids Used in the Play of Class II Games, *Federal Register* 72 (205), October 24, 2007; comments by tribes and Class II system manufacturers; telephone conversations with tribes, Class II system manufacturers, and NIGC staff during the course of my assignment.

proposed regulations would still be restrictive in nature. In achieving the NIGC's goal of further differentiating Class II gaming from Class III gaming, the October 2007 proposed regulations would still make newly compliant Class II machines inferior to existing Class II machines. Relative to existing Class II machines, compliant Class II machines would still be:

- Slower – Delays would still be introduced between and during games.
- More cumbersome to play – Additional daubing and wait time would still exist.
- Confusing – Inconsistencies in the speed of a machine would still be created due to varying lengths of time delays. These inconsistencies in game play may still create the perception of unfairness to players.
- Less diverse – The overall decreased viability of Class II machines would likely result in fewer Class II system manufacturers, decreased competition, a reduction in innovation in the Class II gaming machine market.

Given these problems, newly compliant Class II machines would be less appealing to patrons and generate less gaming revenue than existing Class II machines. This decrease would result from two effects. First, fewer total visits would likely be made to Class II gaming facilities. Some patrons may make fewer visits to Class II gaming facilities, while others may stop visiting altogether. The effect is especially dependent upon gaming alternatives that are available to patrons. Second, when patrons do visit, some may decrease their spending. This can result from a decrease in the appeal of the machines and/or a decrease in the amount of time that machines are available for play (e.g., if utilization of machines is 100 percent and the machines are slower, fewer plays of the machines can be made).

OPTIONS FOR TRIBES OPERATING EXISTING CLASS II GAMING MACHINES

Under the October 2007 proposed regulations, there would be three potential options for tribes operating Class II gaming machines:

(1) **Adopt compliant gaming machines** – If a tribe wants to continue operating Class II gaming machines and it has no other viable alternative, then it must adopt gaming machines compliant with the proposed regulations.

(2) **Adopt an alternative** – If a tribe has an alternative that would be more profitable than compliant gaming machines, then it would surely shift to the alternative. Furthermore, if the alternative turned out to be more profitable than existing Class II machines (e.g., Class III machines), then a tribe would be better off than its existing situation. One may argue that if the alternative would make a tribe better off, it would have already been doing that alternative. However, this is not necessarily the case. Alternatives may only become available as a result of the proposed Class II regulation (e.g., a tribe may choose to enter into a compact or renegotiate a compact when it otherwise would not do so; the Department of the Interior may consider granting requests for Secretarial Procedures more often and/or more quickly; a tribe

may discover an existing alternative that it was not previously aware of; tribes and/or Class II system manufacturers may develop new alternatives). If an alternative were more profitable than compliant gaming machines but less profitable than existing Class II machines, then a tribe would still choose the alternative but be worse off.

Note that if a tribe offering Class II machines is able to introduce Class III gaming or add more Class III machines as an alternative to Class II machines, then it could just continue operating the Class II machines, which would then be considered Class III machines under the October 2007 proposed regulations. Of course, traditional Class III machines are likely to be much better revenue generators than Class II machines reclassified as Class III machines.

In theory, an alternative could be something other than gaming. However, in most cases, non-gaming alternatives are not likely to be as viable as gaming alternatives.

(3) **Shut down –** If a facility were no longer able to generate sufficient revenue to cover its variable costs of operation, a tribe may shut down the facility. In the short run, it seems likely that tribes without a viable alternative would try to work with whatever is allowed under the October 2007 proposed regulations. However, in the long run, if gaming revenue losses at some gaming facilities are too large, those facilities may be forced to shut down. Indeed, given the large expected decrease in revenue (see Chapter 5), it is likely that some smaller Indian gaming facilities that are only marginally profitable would have to shut down. Unfortunately, in the aggregate analyses set forth in this report, there is no way to identify these cases.

THE IMPACT OF THE GRANDFATHERING PROVISION

As noted in Chapter 2 of this report, the NIGC has added grandfathering provisions to the October 2007 proposed classification and technical standards. Given that these provisions should provide tribes ample time to comply with the regulations, temporary gaming facilities closures are much less likely to occur (see the Gaming Facility Closures section below for further discussion). However, the five-year grandfathering provision will not eliminate any of the other negative economic impacts of the October 2007 proposed regulations (e.g., decreased revenue and increased costs). It will only serve to delay them.

THE DIRECT ECONOMIC IMPACT ON CLASS II GAMING FACILITIES AND THEIR RESPECTIVE TRIBES

In light of the effects of the October 2007 proposed Class II regulations and the options available to tribes operating Class II gaming machines, there would be several negative economic impacts on Class II gaming facilities and the tribes that operate them:

(1) Lost gaming revenue;

(2) Lost non-gaming revenue;

(3) Decreased variety and quality of Class II machines;

(4) Gaming facility closures;

(5) Increased capital, deployment, compliance, regulatory, training, revenue-sharing, and financing costs;

(6) Lost tribal member jobs; and

(7) Decreased innovation in the Class II gaming machine market.

Lost Gaming Revenue

Because the October 2007 proposed regulations will slow down Class II gaming machines, make them more cumbersome and confusing to play, and cause them to be less appealing to patrons in comparison to existing Class II machines, there would likely be a decrease in gaming revenue from Class II machines. First, a slowdown of machines reduces the amount of time available for play. Thus, fewer dollars can be generated by a machine when it is utilized 100 percent of the time or when patrons are time constrained (i.e., patrons have a limited amount of time to gamble). Second, a less appealing, more cumbersome, and potentially confusing Class II machine could also decrease consumer demand. Patrons may come less often, maybe not at all, or go somewhere else instead (e.g., a Class III Indian gaming facility, a commercial casino, or a racino).

The decrease in gaming revenue may vary widely from state to state, tribe to tribe, and facility to facility depending on the legal landscape, political environment, existing market conditions, and the availability of viable alternatives to Class II machines. In terms of the latter reason, if tribes have an alternative to Class II machines, there may be little or no decrease in gaming revenue. The impact depends on how well the alternative ultimately performs. If the alternative does at least as well as existing Class II machines,[47] then there is no gaming revenue loss. If the alternative does not perform as well as existing Class II machines, then the gaming revenue loss would be equal to the revenue generated by existing Class II machines minus that generated by the alternative.

Also, note that *if* the October 2007 proposed regulations render Class II machines unlawful or technologically unfeasible,[48] as has been suggested by some industry participants, then lost gaming revenue would be equal to the entirety of Class II machine revenue where there are no viable alternatives to compliant Class II machines.

If tribes do not have a viable alternative to Class II machines, they would have to adopt lower revenue-generating Class II machines that comply with the October 2007 proposed regulations. In the extreme, if the gaming revenue loss to an Indian gaming facility were large enough, it could put them out of business. Although such individualized outcomes

[47] If an alternative requires revenue sharing (e.g., Class III machines), it must outperform existing Class II machines by a margin equal to its revenue sharing.
[48] I have no opinion regarding the technological feasibility of the October 2007 proposed regulations.

cannot be predicted by an aggregate economic model, such as that used in Chapter 5, it is a realistic possibility for some tribes given the magnitude of the expected lost gaming revenue (see Chapter 5 for further details). And if lost gaming revenue is significant enough to force a facility to shut down, then lost gaming revenue for that facility would equal actual gaming revenue. For this reason, lost gaming revenue estimated in Chapter 5 is likely to be conservative.

Overall, a decrease in gaming revenue may be reflected by a decrease in revenue per machine and/or a decrease in the number of gaming machines in operation.[49]

Lost Non-Gaming Revenue

If there is a decrease in gaming revenue, there is also likely to be an associated decrease in non-gaming revenue. Many Indian gaming facilities now offer on-site non-gaming amenities such food and beverages, lodging, retail, and entertainment. While historically many Class II facilities have not had much in the way of non-gaming amenities except some food and beverages, this has been changing. In recent years, the general trend in the Indian gaming industry has been towards the addition or expansion of non-gaming amenities. This has occurred for two reasons. First, they often generate a revenue stream of their own. According to aggregate tribal financial data, non-gaming revenue was approximately 13 percent of gaming revenue at all Indian gaming facilities nationwide (including Class II and Class III facilities) in 2006.[50] For facilities with Class II machines, the contribution is much less at approximately four percent of gaming revenue. The second reason for the trend towards more non-gaming amenities is the positive impact they tend to have on gaming revenue. Good quality amenities tend to draw people from farther distances, encourage them to stay longer, and spend more money.

Decreased Variety and Quality of Class II Machines

The enactment of the October 2007 proposed regulations is likely to change the landscape of the Class II system manufacturing market, which in turn will have an impact on tribes that continue to offer Class II machines. As previously noted, the October 2007 proposed regulations are likely to decrease demand for Class II machines. Thus, tribes with Class II machines will either convert to compliant Class II machines, which are likely to be less appealing to patrons and generate less revenue, or shift to available alternatives (e.g., Class III gaming). Given economies of scale inherent in the manufacture of gaming machines (i.e., lower per unit costs as more units are manufactured),[51] a decrease in demand may result in higher costs per Class II machine. On the whole, some Class II system manufacturers may

[49] For further discussion, see the Methodology section under Lost Gaming Revenue in Chapter 5.
[50] Analysis of NIGC data.
[51] For example, product research and development costs are spread over more machines as the number of manufactured machines increases.

no longer find it profitable to stay in the market.[52] And a decrease in competition among Class II system manufacturers would likely lead to a decrease in the variety and/or quality of Class II machines, as well as an increase in prices of Class II gaming equipment (for a further discussion of price increases, see the Increased Costs section).

While the October 2007 proposed regulations would likely have a negative impact on the Class II system manufacturing market, and thus tribes that operate compliant Class II machines, the proposed regulations could benefit the Class III machine manufacturing market as there would be an increase in demand as a result of some gaming operations shifting from Class II to Class III machines.[53]

Gaming Facility Closures

Given that no existing Class II machines meet the October 2007 proposed regulations, tribes would be required to remove, modify, or replace every existing Class II machine in operation. This could take some time as compliant Class II gaming systems must be developed, tested, certified by independent laboratories, and installed/modified in gaming facilities across the country. In mid to late 2007, Class II system manufacturers were estimating that it would take more at least a few years to accomplish these tasks.[54] The actual timeline would depend on how many machines ultimately need to be replaced or modified, how many manufacturers are left in the market, which manufacturers remain, how close a manufacturer's existing machines are to meeting the proposed regulations, a manufacturer's engineering capabilities, possible backlogs at gaming machine laboratories, and how quickly issues can be resolved after machines have been submitted to a lab.[55]

The October 2007 proposed regulations would give tribes five years to become compliant.[56] Thus, assuming that the required changes to Class II gaming systems are technologically feasible, tribes should have sufficient time to replace or modify existing Class II systems with compliant ones. And therefore, tribes will not have to worry about temporary facility shut

[52] Some major manufacturers, such as IGT and Bally Technologies, have entered the Class II system manufacturing market in the past few years as a result of the increasing demand for Class II machines. If this demand is eliminated or reduced by the October 2007 proposed Class II regulations, it is likely that a number of manufacturers will leave the market because of a likely decrease in profitability. As a matter of fact, at least one manufacturer has unequivocally said that it would not continue making Class II machines if the May 2006 proposed regulations were enacted. Other manufacturers have stated they are unsure whether they would remain in the market. Source: Discussions with Class II system manufacturers.

[53] For the manufacturers that make both Class II and Class III machines, the loss in the Class II market may be offset to some degree by a gain in the Class III market if they earn some of the shift in business.

[54] This is a revised estimate provided by several major Class II system manufacturers (revised from that given in mid to late 2006), assuming that the modifications to Class II gaming systems are technologically feasible. However, according to some manufacturers, the technological feasibility of compliant Class II gaming systems remains an open question.

[55] If existing *Class II* system are modified or replaced with compliant systems, then the timing will depend on the number of *Class II* system manufacturers that remain in the market and their manufacturing/modification capacities. However, if some tribes were to switch to *Class III* gaming, then the timing will depend on the number of *Class III* machine manufacturers and their manufacturing capacities.

[56] Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, Other Games Similar to Bingo, Pull Tabs and Instant Bingo as Class II Gaming When Played Through an Electronic Medium Using "Electronic, Computer, or Other Technologic Aids," *Federal Register* 72 (205), October 24, 2007; Proposed Rule, 25 CFR Part 547, Technical Standards for Electronic, Computer, or Other Technologic Aids Used in the Play of Class II Games, *Federal Register* 72 (205), October 24, 2007.

downs due to non-compliance. However, the actual replacement and/or modification of *all* Class II machines in a gaming facility is likely to require temporary and/or partial closures of gaming facilities.

Lastly, as previously noted, there may also be permanent closures of entire Indian gaming facilities or portions thereof. If a Class II-only facility does not have a viable alternative to existing Class II machines and compliant Class II machines do not generate sufficient revenue to cover the variable cost of operations, a tribe may have to shut down a facility. In such cases, lost gaming revenue would equal total gaming revenue. If Class II machines in a Class III facility are no longer profitable and there is no viable alternative, a tribe may have to shut down those machines altogether. Thus, in these situations, lost gaming revenue would equal Class II machine revenue.

Increased Costs

Given that there are no existing Class II gaming machines that would meet the requirements of the proposed regulations,[57] all existing Class II gaming systems operated by tribes must be modified or replaced (either with compliant Class II machines or available alternatives). And in doing so there would be significant incremental costs that otherwise would not have been incurred:

(1) Capital costs – costs of modifying or replacing Class II gaming systems,[58] including software, player interfaces, titles, and other related components; these costs are likely to be passed through to tribes in the form of higher purchase prices if Class II systems are purchased by tribes or higher participation fees (i.e., a higher percentage of gaming revenue charged by Class II system manufacturers to tribes) if Class II systems are leased.[59,60]

It is my understanding that these capital costs are purely incremental in nature and would not be incurred but for the proposed regulations. Due to the smaller size of this still-developing Class II machine market and the fundamental nature of Class II

[57] Based upon comments from tribes, casinos, Class II system manufacturers, and NIGC staff.

[58] Throughout the course of conducting this study and my previous study of the May 2006 proposed regulations, Class II system manufacturers have referred to Class II gaming systems as "all components, whether or not technologic aids in electronic, computer, mechanical, or other technologic form, that function together to aid the play of one or more Class II games …" The key components of Class II gaming systems are: software, player interfaces, and titles. Software, which may reside on centralized servers and/or player interfaces, are the "operational program or programs that govern the play, display of results, and/or awarding of prizes or credits of Class II games." A player interface, also commonly referred to as an electronic player station (EPS), bingo player interface (BPI), or the box, is "any component or components … including an electronic or technologic aid … that directly enables player interaction in a Class II game." A title, also commonly referred to as a game, refers to the game theme or graphical display at the player interface, including both the bingo card and alternative displays. Sources: Class II system manufacturers and the October 2007 proposed regulations (Proposed Rule, 25 CFR Part 547, Technical Standards for Electronic, Computer, or Other Technologic Aids Used in the Play of Class II Games, *Federal Register* 72 (205), October 24, 2007).

[59] If machines are sold rather than leased, which is currently the norm, the risk associated with owning lower-revenue generating compliant machines would be shifted from manufacturers to tribes.

[60] There will also be capital costs for tribes that shift from Class II to Class III machines. However, if Class III machines do in fact perform better than compliant Class II machines, then the gaming revenue gains (and non-gaming revenue gains associated with the gaming revenue gains) may offset increased capital costs.

gaming, the software, player interfaces, and titles are not replaced based on a typical Class III machine lifecycle (e.g., five years). Software and player interfaces are typically only replaced or modified if they are damaged or switched out with a new system, which is not all that often. Also, relative to the number of total player interfaces (50,000 plus), there are not a lot of available titles. Thus, titles are not often retired or discarded by Class II system manufacturers. In fact, many titles (e.g., Rocket Classic from Rocket Gaming Systems, Red Hot Ruby and Mr. Money Bags from VGT, and Red White & Blue from IGT) have been around for quite a long time.[61]

(2) Deployment costs – delivery and installation of newly compliant Class II gaming systems, including software, player interfaces, titles, and other related components if necessary.

(3) Compliance Costs – test lab fees for ensuring the software, player interfaces, and titles are compliant with the proposed regulations.

(4) Regulatory costs – increased costs of regulating new and/or modified Class II systems following the proposed regulations.

(5) Training costs – increased costs to Indian gaming facilities to acclimate casino employees and customers with compliant Class II machines.

(6) Revenue-sharing costs – increased payments to state and local governments if tribes shift from Class II machines to Class III machines as a result of the enactment of the proposed regulations; only relevant in states where tribes have revenue sharing agreements in their gaming compacts.

It should be noted that it is uncertain whether these increased costs would be entirely offset by the increase in Class III machine revenue. This would depend on how much more revenue Class III machines generate relative to Class II machines, as well as other costs (e.g., capital, deployment, compliance, regulatory, training, and financing costs) that may be incurred by tribes to switch from Class II to Class III machines.

(7) Financing costs – for existing financing, such as for the construction or renovation of gaming facilities, a decrease in Class II machine revenue and gaming facility closures may trigger additional costs, such as increased interest rates, penalties, and possibly even defaults; for future financing, the result may be higher financing costs, inferior financing terms, and possibly the inability to obtain financing at all.

Lost Tribal Member Jobs

If Indian gaming facilities, and subsequently tribal governments, experience a decrease in revenue as a result of the proposed regulations, tribes may find it necessary to reduce the size of their workforces, which typically include tribal members.

[61] Discussions with Class II system manufacturers.

Decreased Innovation in the Class II Gaming Machine Market

Lastly, the proposed regulations are likely to stifle innovation in the Class II machine gaming market. First, the proposed regulations would certainly take the industry backwards in terms of technological development. I believe there is universal agreement on this. However, this seems to be in line with the main goal of the proposed regulations – to draw a clearer distinction between Class II and Class III machines.

Second, there is less incentive to conduct further research and development for Class II systems as a result of: tighter regulations; decreased revenue generation capabilities; fewer Class II system manufacturers and decreased competition; and increased costs, including difficulties in obtaining financing (for both manufacturers to develop Class II systems and tribes to purchase/lease Class II systems) and huge investments in non-growth activities such as making Class II systems compliant with the proposed regulations.

THE GENERAL ECONOMIC IMPACT ON INDIAN GAMING

The proposed regulations would also have other broader economic impacts on Indian gaming, including:

(1) Decreased leverage in Class III compact negotiations/renegotiations;

(2) Restriction of new entry into the Class II machine market; and

(3) Changes in competition for Class III gaming.

Decreased Leverage in Class III Compact Negotiations/Renegotiations

In accordance with IGRA, Class III gaming compacts govern the operation of Class III gaming. The negotiation/renegotiation of compacts is often a very difficult process. Thus, as in most types of negotiations, relative bargaining positions are very important. The party that has the stronger bargaining position is more likely to get a favorable outcome on issues within the negotiation/renegotiation. In terms of gaming compacts, important issues include tribal sovereignty, the degree of state regulatory authority, the types and number of games, the number of gaming facilities, revenue sharing, economic benefits conferred upon tribes in exchange for revenue sharing (e.g., exclusivity), and voluntary compliance with various non-tribal regulations (e.g., environmental and labor).

In the negotiation/renegotiation of compacts, Class II machine gaming has played an important role by serving as leverage for tribes. If states refuse to negotiate/renegotiate gaming compacts or do not do so in good faith, tribes can turn to Class II machines, over which the state has no say. In essence, Class II machines can serve as a fallback position for tribes.

However, if the viability of Class II machines is diminished (i.e., a decrease in revenue and/or an increase in costs), as is expected to be the case with the October 2007 proposed

regulations, at least some of a tribe's leverage in negotiating/renegotiating gaming compacts would be lost. The degree of the lost leverage ultimately depends on other circumstances, such as competition, the types and quantity of gaming contemplated, whether the compact is for new gaming or the expansion of existing gaming, and the well-being of both state and tribal economies. But if sufficient leverage is lost, the result could be refusals by states to negotiate/renegotiate gaming compacts or tribes having to negotiate unfavorable compacts (e.g., curtailing of tribal sovereignty or an increase in revenue sharing).

Restriction of New Entry into the Class II Machine Market

New entry into the Class II machine market, in the form of new and expanded Class II gaming facilities, would likely be restricted under the proposed regulations. The expected decrease in revenue and expected increase in costs of operating compliant Class II machines (as noted in previous sections of this chapter) would substantially reduce the potential profitability of Class II machines. This, in turn, could make it uneconomical to construct new facilities or renovate existing ones. While this result is likely to limit the extent of future competition in Class II machine gaming markets, the benefits of reduced competition would accrue to tribes operating compliant Class II machines. However, this impact may not be significant if the market potential for compliant Class II machines is small to begin with.

Changes in Competition for Class III Gaming

While the proposed Class II regulations may provide greater clarity regarding the distinction between Class II and Class III machines,[62] they will do so in a way that will likely affect the degree of competition in the Indian gaming industry. First, consumers are likely to view compliant Class II machines as less desirable substitutes for Class III machines than existing Class II machines. This would decrease the ability of Class II machines to compete against Class III gaming. Gaming patrons may just participate at alternative locations, including Class III gaming facilities. While this would result in a negative impact on Class II machine operators, it could have a positive impact on Class III gaming facilities if they garner the additional business.

Second, if the proposed regulations force some tribes to shift from Class II machines to Class III machines, this could increase the degree of competition within the Class III machine gaming market.

[62] If the proposed regulations amend game definitions and classification standards to more clearly define Class II gaming, they may help create some sense of stability in the marketplace. In the past, there has been some sense of uncertainty as to what is allowed. In fact, the NIGC has had a number of disputes with tribes and Class II system manufacturers over what is and what is not a Class II machine. As a result, there has been and continues to be a potential threat by the NIGC to fine or close down facilities that it deems not to be in compliance.

4. Data

As identified below, I have compiled information from what I believe to be reliable sources. While third-party data were not independently audited, they were cross-checked with other sources wherever possible.

Data on the number of gaming machines in calendar year 2006 were obtained from a few sources. Total machine counts per Indian gaming facility were gathered at the end of 2006 as part of my annual Indian gaming study, the *Indian Gaming Industry Report*.[63] For Class II-only facilities, the Class II machine counts were equal to the total machine counts given that there were no other types of machines available. For Class III facilities with Class II machines, the total machine counts were equal to the sum of Class II and III machine counts. Furthermore, with the exception of Oklahoma, Class II machine counts were not separable from the total machine counts. Thus, it was necessary to use Class II machine counts provided by the NIGC in October/November 2006. Unfortunately, there were no facility counts for Oklahoma. Thus, I calculated the statewide Oklahoma Class II count as the statewide total machine count, which was available in the *Indian Gaming Industry Report*, minus the statewide Class III machine count, which was available from the State of Oklahoma.[64] Note that the use of a statewide Oklahoma Class II machine count required all Oklahoma revenue and ratio calculations (e.g., gaming revenue and non-gaming revenue) to be done at the statewide level, not on a facility by facility basis, as done for all other states. Also, note that for facilities only open a portion of 2006 (i.e., they opened or closed during 2006), their machine counts were prorated for the portion of the year they were operated.

Tribal financial information, including gaming revenue and non-gaming revenue, were provided confidentially by the NIGC.[65] I understand that these data come directly from audited financial statements submitted by tribes to the NIGC.[66] The most recent year of available data is 2006. For a small number of gaming facilities, financial information was incomplete in the NIGC data.[67] It is my understanding that these data gaps may be the result of information not being submitted by tribes on time. While the facilities with missing values could not be included in the calculation of market statistics defined below (e.g., revenue per machine per day and ratio of non-gaming to gaming revenue), they were still included in the quantifiable impacts.[68]

Generally, gaming revenue is defined as all amounts wagered minus prizes and payouts. Class II machine revenue, which is of primary interest in this report, was not explicitly

[63] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[64] State of Oklahoma, Office of State Finance.
[65] As noted in footnote 168, transfers of profits from gaming facilities to tribal governments were also reviewed.
[66] Data were provided in electronic databases.
[67] Gaming revenue was not available for five facilities, including a small subset of gaming facilities with Class II machines (three of 158 facilities in 2006).
[68] In terms of lost gaming revenue, these facilities were accounted for in the number of machines to which revenue per machine per day was applied. For further discussion of the methodology for calculating lost gaming revenue, see the Lost Gaming Revenue section of Chapter 5.

provided in the tribal financial information provided by the NIGC. Therefore, for all facilities with Class II machines, Class II machine revenue was calculated as a proportion of total gaming revenue.[69] Based upon the nationwide Indian gaming data, total machine revenue is approximately 90 percent of total gaming revenue.[70] For Class II gaming facilities, total machine revenue is equal to Class II machine revenue because all machines are Class II. For Class III facilities with Class II machines, total machine revenue includes revenue from both Class II and Class III machines. Therefore, in order to separate out Class II machine revenue, it was assumed to be proportional to the share of Class II machines relative to total machines in operation. In other words, total machine revenue was multiplied by the ratio of the number of Class II machines to the total number of gaming machines. In order to account for the fact that Class III machines have a higher revenue generation capability than Class II machines, Class III machines were more heavily weighted than Class II machines in this computation. Based upon an analysis of NIGC data and discussions with Class II system manufacturers, I have assumed that the nationwide average revenue per Class III machine is approximately one and a half times that of the nationwide average revenue per Class II machine. Thus, Class III machines were given a weight of one and a half times that of Class II machines in the aforementioned ratio.

Non-gaming revenue is defined as any gaming facility revenue that is not directly generated by gaming activities. Non-gaming revenue includes revenue from food and beverages, lodging, retail, entertainment, and any other non-gaming operations. In order to estimate non-gaming revenue attributable to Class II machines at each facility, it was calculated as a proportion of total non-gaming revenue.[71] Specifically, total non-gaming revenue was multiplied by the ratio of Class II machine revenue to total gaming revenue.

Market statistics (e.g., revenue per machine per day, and the ratio of non-gaming revenue to gaming revenue) were calculated using all facilities for which relevant data were available in each particular analysis (i.e., Scenarios 1, 2A, 2B, and 3). Revenue per machine per day was computed as Class II machine revenue divided by the number of Class II machines in operation divided by the number of days in the year. The ratio of non-gaming revenue to gaming revenue was computed in relation to Class II machines only. Thus, the ratio of non-gaming revenue to gaming revenue was calculated as the sum of non-gaming revenue from all relevant facilities, divided by the sum of gaming revenue from all relevant facilities, multiplied by the ratio of Class II machine revenue to total gaming revenue.

[69] For Oklahoma, given that the Class II machine count was only available on a statewide basis, Class II machine revenue was calculated on a statewide basis. Also, given that Class III gaming revenue could be reliably estimated from revenue sharing payments, Class II machine revenue was estimated as total gaming revenue minus Class III gaming revenue. Source for revenue sharing payment data: State of Oklahoma, Office of State Finance.
[70] Analysis of data from Joseph Eve, *The 2007 Indian Gaming Cost of Doing Business Report*, 2007.
[71] For Oklahoma, given that the Class II machine count was only available on a statewide basis, Class II-related non-gaming revenue was calculated on a statewide basis.

Data on output per worker (i.e., gaming revenue per worker) were derived from information underlying the *Indian Gaming Industry Report*.[72]

The percentage of gaming facility employees that are tribal members comes from the National Indian Gaming Association (NIGA).[73]

Total industry estimates of capital, deployment, and compliance costs for making Class II systems compliant with the October 2007 proposed regulations were provided by Class II Class II system manufacturers. Upon request, several manufacturers also provided individual company cost estimates.

[72] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[73] NIGA website (http://www.indiangaming.org/library/indian-gaming-facts/index.shtml), accessed November 5, 2007.

5. Quantitative Analysis of the Potential Economic Impact of the Proposed Class II Gaming Regulations

Although all of the potential economic impacts noted in Chapter 3 are rooted in economic theory, some are difficult to quantify and/or lack sufficient data for a quantitative analysis. Furthermore, when quantifiable, the impacts must be measured on an aggregate nationwide in order to protect the confidentiality of individual tribes' financial data. However, it is important to note that the impacts may vary significantly from state to state, tribe to tribe, and facility to facility depending on the particular circumstances of each situation.

Given these limitations, I have estimated the magnitude of the economic impacts that are readily quantifiable: lost gaming revenue; lost non-gaming revenue; increased revenue-sharing costs; increased capital, deployment, and compliance costs; and lost tribal member jobs. While the other potential economic impacts from Chapter 3 were not quantifiable at this time, they should be considered qualitatively in conjunction with the quantified impacts.

LOST GAMING REVENUE

As noted in Chapter 3, the proposed Class II regulations will lead to Class II gaming machines that are inferior to existing Class II machines. This would lead to a decrease in gaming revenue for tribes that continue operating Class II machines.

State-By-State Review of Class II Machine Gaming

In 2006, there were 15 states where Class II gaming machines were operated by tribes: Alabama; Alaska; Arizona; California; Florida; Minnesota; Montana; Nebraska; New York; Oklahoma; South Dakota; Texas; Washington; Wisconsin; and Wyoming. Each state is briefly reviewed below to provide some context for the lost gaming revenue analysis.[74] Appendix C provides a list of the Indian gaming facilities that operated Class II gaming machines in 2006.

Alabama

In Alabama, the Poarch Band of Creek Indians operates Class II gaming machines. In 2006, it operated three gaming facilities with a total of 2,101 Class II machines.[75] As reflected by the growth of its facilities, the Tribe has experienced success with Class II machines.

However, the Tribe's gaming facilities have seen increased competition in the last couple of years. First, beginning at the end of 2003, greyhound racetracks in Alabama began operating electronic bingo machines that are somewhat faster than existing Class II machines operated

[74] Background on each state is based upon input gathered from tribes, casinos, Class II system manufacturers, NIGC staff, and state gaming regulatory agencies, as well as my research conducted outside the scope of this assignment.
[75] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

by the Tribe[76] Second, in early 2006, new competition came in the form of "sweepstakes machines," which look and sound much like slot machines.[77] While the intricacies of these sweepstakes machines are beyond the scope of this study, it is my understanding that they identify whether or not a patron won a pre-determined sweepstakes.[78] Although legally challenged at first, a court decision has deemed these devices to be legal under existing law and they have subsequently spread throughout the state.[79]

The increased competition, which would be considered Class III gaming under existing game classification advisory opinions issued by the NIGC's Office of General Counsel, has already had a negative impact on the Tribe's gaming facilities.[80] Meanwhile, the Tribe believes that is entitled to operate Class III gaming given the type of gaming already operated in the state. However, the State of Alabama is unwilling to enter into a gaming compact with the Tribe. Therefore, the Tribe has requested Secretarial Procedures in order to operate Class III gaming.[81] At this time, no significant progress has been made in this regard.

Given the current situation, if the NIGC's proposed Class II regulations are enacted, the Tribe would be forced to replace all of its existing Class II machines with compliant devices. In light of the scope of the proposed Class II regulations, any new compliant Class II gaming machine would be inferior to the Tribe's existing devices, as well as competitor's devices (i.e., electronic bingo machines at greyhound racetracks and sweepstakes machines).

Alaska

In 2006, there was only one tribe, the Metlakatla Indian Community, operating Class II gaming machines in Alaska.[82] It operated 30 Class II machines in its single facility,[83] which is in a remote part of the state. Competition is very limited in the area. There is only charitable gaming, which allows bingo and pull-tabs, but only in paper form.

If the proposed Class II regulations are enacted, the Tribe would have no choice but to replace its existing Class II machines with compliant ones. Although, the compliant

[76] Based upon discussions with tribal representatives, Class II system manufacturers, and NIGC staff.
[77] Rose, Nelson, "Court Approves Racino's Non-Slot Machines," Casino City Times, June 18, 2006 (http://rose.casinocitytimes.com/articles/27582.html).
[78] I understand that patrons purchase Internet access cards, and that in doing so, they also receive sweepstakes entries. In order to determine whether an entry was a winner or not, patrons have to either access an Internet website, call an 800 number, or use the sweepstakes machine as an electronic reader.
[79] Rose, Nelson, "Court Approves Racino's Non-Slot Machines," Casino City Times, June 18, 2006 (http://rose.casinocitytimes.com/articles/27582.html).
[80] Based upon discussion with a tribal representative and a cursory review of NIGC data.
[81] When a tribe has been unable to negotiate a compact with a state, the Secretary of the Department of the Interior can intercede and prescribe procedures under which Class III gaming may be conducted. Secretarial procedures are authorized by IGRA (25 U.S.C § 2710(d)(7)(vii)).
[82] While a number of other tribes, Native Villages, and tribal organizations operate bingo and pull-tabs, they are not regulated as Class II gaming. They are in fact licensed by the State of Alaska as municipalities and non-profit organizations qualified to conduct charitable gaming activities. None of these charitable gaming activities are allowed to utilize electronic gaming devices. Source: Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[83] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

machines would be inferior to existing gaming machines operated by the Tribe, they would still be superior to current charitable gaming.

Arizona

In Arizona, tribes primarily offer Class III gaming. In 2006, 15 tribes operated a total of 12,713 gaming machines in 26 facilities (three of which were only traditional bingo halls).[84] Of these machines, only 56 (less than one percent) were Class II.[85] These machines were offered at two facilities. One of them had 16 Class II machines alongside 950 Class III machines. The other facility was a small Class II-only facility with 40 Class II machines.

As reflected by the foregoing counts, Class II machines currently play a minor role in Arizona. This is a result of how the tribes' gaming compacts are structured.[86] While, revenue from Class II machines is not subject to revenue sharing with the State of Arizona like revenue from Class III gaming, Class II machines count towards a tribe's machine cap just like Class III machines.

Therefore, if the proposed Class II regulations were enacted, tribes operating Class II machines could shift to Class III machines, which generally generate higher revenue per machine, but which would require revenue sharing, which is done on a tiered, sliding scale basis of one to eight percent of net win.[87]

California

Like tribes in Arizona, California tribes primarily offer Class III gaming. In 2006, 54 tribes operated a total of 62,732 gaming machines in 57 facilities.[88] Of these machines, 4,215 (seven percent) were Class II.[89] These machines were offered at eight facilities across the state.

In seven of those eight facilities, Class II machines were used to supplement Class III machines, which were restricted to a machine cap per 1999 gaming compacts.[90] These seven facilities, which are operated by five tribes (Morongo Band of Mission Indians, Pechanga

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[84] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press. Machine counts at Arizona Indian gaming facilities that were open only part of 2006 were prorated.
[85] Arizona Department of Gaming, *Status of Tribal Gaming in Arizona as of 1/1/07*, January 2007.
[86] Each tribe has an initial gaming machine allocation, which increases every five years in accordance with the growth of the state population. On top of this initial allocation, each tribe has an additional gaming machine allocation. This additional allocation represents the number of devices that can be acquired from other tribes not operating their full initial allocation or from the State if a tribe is unable to acquire devices from another tribe. A tribe may operate up to 40 Class II machines per gaming facility, but they count against the tribe's additional allocation. Any Class II machines over 40 would count against the tribe's initial allocation. Source: Model Tribal-State Gaming Compact, Arizona, 2003.
[87] One percent of the first $25 million dollars of Class III net win; three percent of the next $50 million dollars; six percent of the next $25 million dollars; and eight percent of Class III net win in excess of $100 million dollars. Source: Model Tribal-State Gaming Compact, Arizona, 2003.
[88] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[89] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.
[90] Some tribes, including one of the six with Class II machines, have even been held below their Class III machine cap as a result of the statewide machine cap, which according to the California Gambling Control Commission, has already been reached. Tribes have disagreed with this conclusion.

Band of Luiseño Indians, Rincon Band of Luiseño Mission Indians, San Manuel Band of Mission Indians, and Sycuan Band of the Kumeyaay Nation), had 3,195 Class II machines in 2006.[91]

The other facility with Class II machines was operated by the Lytton Band of Pomo Indians ("Lytton Band"). This facility had 1,020 Class II machines in 2006.[92] The Lytton Band operates Class II machines by necessity because it does not have a gaming compact with the State of California. Although a compact was entered into by the Tribe and Governor Schwarzenegger in 2004, it did not ultimately receive the required approval from the State Legislature. Furthermore, given the current political environment and strong opposition facing the Tribe, it seems very unlikely that the Tribe will be able to get a compact approved for its urban location.

If the proposed Class II regulations were enacted, the Lytton Band would be forced to switch to compliant Class II machines because it has no other viable gaming option. And there would be an identical effect on any other uncompacted tribes that may wish to operate Class II machines in the future.

As for existing gaming tribes that already have compacts, including those tribes operating Class II machines within their Class III facilities, they have the ability to increase the number of Class III machines they can operate by renegotiating their compacts.[93] The ability to do so is evidenced by the recent flurry of renegotiated compacts. In 2004, five tribes successfully renegotiated their compacts to allow for an increase in the number of Class III machines they can operate.[94] Also, four of the five tribes operating Class II machines (all but the Rincon Band) renegotiated compacts with the Governor in August 2006 and obtained ratification from the State Legislature in 2007.[95]

California tribes not only have the ability to increase their number of Class III machines by renegotiating their compacts, they are likely to be better off in terms of gaming revenue too. If this were not the case, then the aforementioned tribes with Class II machines would not have recently agreed to the renegotiated compacts.

It is important to note that there are potential drawbacks to adding more Class III machines through compact renegotiations (for more details, see Chapter 3 under Decreased Leverage

[91] NIGC.

[92] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

[93] Per the most-favored tribe clause in the 1999 compacts, California gaming tribes that have not amended their compacts have the right to the same terms and conditions as those tribes that have amended their compacts.

[94] In fact, the restriction on the number of machines was eliminated in the 2004 amended compacts. And although the tribes can operate as many machines as they want, the revenue-sharing rate increases as the number of machines increases.

[95] The gaming compact amendment for the Agua Caliente Band of Mission Indians was also ratified by the California State Legislature. However, this Tribe does not have any Class II machines. It is duly noted that four renegotiated compacts, namely those for the Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, the Pechanga Band of Luiseño Indians, and Sycuan Band of the Kumeyaay Nation, are being challenged by voter referenda. Racetracks, hotel unions, and a couple other Indian tribes are attempting to invalidate these renegotiated compacts via voter referenda.

in Class III Compact Negotiations/Renegotiations). The Tribes with recently renegotiated compacts had to make some concessions, including increased revenue sharing of 15 to 25 percent of Class III machine net win, depending on the number of additional Class III machines added per tribe. Also, in the long run, substantial increases in the supply of Class III machines in the market could reduce profit margins.

Florida

There are two tribes with Class II gaming machines in Florida. In 2006, they operated a combined total of 8,615 Class II machines in eight facilities.[96] While the tribes have wanted to operate Class III gaming for some time, they had been unable to get the State of Florida to negotiate gaming compacts. Thus, Secretarial Procedures were requested in order to operate Class III gaming.[97] This process, which began back in 1994, made little progress until recently.

Over the past year or so, the Department of the Interior has been threatening to issue Secretarial Procedures for the Tribe's operation of Class III gaming if a gaming compact is not soon negotiated between the State of Florida and the Seminole Tribe of Florida.[98] This has been encouraging news for the Seminole Tribe. However, in August 2007, the Fifth Circuit Court of Appeals ruled that Secretarial Procedures were "invalid and constitute[d] an unreasonable interpretation of IGRA."[99] While the decision only directly affects the geographic area covered by the Fifth Circuit, it may very well lead to legal challenges in other Circuits, including that which has jurisdiction over Florida.[100] In fact, I understand that the State of Florida has planned to take legal action to impede Secretarial Procedures from being enacted if they are issued. As of the writing of this report, I understand that the Department of the Interior is petitioning the Fifth Circuit Court of Appeals for a reconsideration of its recent decision. If the petition fails, the case could go to the U.S. Supreme Court.

Nonetheless, with a new governor stepping in and Secretarial Procedures looming, the State began negotiating with the Seminole Tribe in 2007. And finally on November 14, 2007 the Seminole Tribe of Florida and the Governor of Florida signed a Class III gaming compact that would allow the Tribe to operate Class III gaming machines and some house-banked table games (e.g., blackjack and baccarat,).[101] While this gaming compact received the

[96] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[97] Statement of the Honorable James E. Billie, Chairman, Seminole Tribe of Florida, before the Senate Committee on Indian Affairs, July 21, 1999.
[98] Letter from Dirk Kempthorne, Secretary of the United States Department of the Interior, to Charlie Crist, Governor of Florida, June 22, 2007.
[99] *State of Texas v. United States of America, et al.*, United States Court of Appeals, Fifth Circuit, "Appeal from the United States District Court for the Western District of Texas," filed August 17, 2007 and revised September 13, 2007 (see p. 41).
[100] Discussion with George Skibine, Acting Principal Deputy Assistant Secretary for Indian Affairs at the Department of the Interior, September 26, 2007.
[101] Compact Between the Seminole Tribe of Florida and the State of Florida, November 14, 2007 (published in the *Federal Register* on January 7, 2008).

required federal approval in early January 2008,[102] the Florida State Legislature has filed a petition asking the Florida Supreme Court to declare the Seminole Tribe's compact invalid unless and until it is approved by the State Legislature.[103] Currently, no decision has been rendered by the Court. And it is my understanding that the Seminole Tribe does not plan to add any Class III machines until the matter is decided. If the gaming compact is found to be valid, then the Tribe can offer Class III machines in place of its Class II machines, and according to the compact, all Class II machines would need to be converted to Class III machines within five years of the effective date of the compact. However, if the gaming compact is found to be invalid, then the Tribe would be forced to continue operating Class II machines unless and until its gaming compact is ratified by the State Legislature or Secretarial Procedures are enacted by the Department of the Interior. And given the current demeanor sentiment of the Legislature, it is uncertain whether a compact would be ratified. In any case, aside from the Seminole Tribe, there is uncertainty regarding the operation of Class II machines by the Miccosukee Tribe of Indians of Florida. "Due to various on-going [sic] legal developments," the Tribe's requests for Secretarial Procedures and a tribal-state gaming compact have been deferred indefinitely.[104]

Given all of the uncertainty regarding if and when Class III gaming may be available in Florida, it has been assumed that the proposed regulations would force the tribes to switch to inferior Class II gaming.

Minnesota

Akin to Arizona and California, Minnesota is a Class III gaming state with a relatively small amount of Class II gaming. In 2006, 12 tribes operated a total of 20,931 gaming machines in 35 facilities.[105] Of these machines, 113 (less than one percent) were Class II.[106] They were offered at 14 small Class II-only facilities. All of these facilities are operated on fee lands within the reservation of the White Earth Band of Chippewa Indians ("White Earth Band") and some are actually owned by non-tribal members.[107]

Per its gaming compact, the White Earth Band is not limited in terms of the number of Class III gaming machines that can be operated at its Class III gaming facility.[108] However, I understand that the small gaming operations on fee lands are not covered by the Tribe's compact and, therefore, they are restricted to Class II gaming.[109] Therefore, if the proposed

[102] Notice of Deemed Approved Tribal-State Class III Gaming Compact, between the Seminole Tribe of Florida and the State of Florida, *Federal Register*, January 7, 2008, Volume 73, No. 4, p. 1229.
[103] *Florida House of Representatives, et al. v. Charlie Crist, in his capacity as Governor of Florida*, Supreme Court of Florida, Petition for Writ of Quo Warranto, November 19, 2007.
[104] Letter from Counsel for the Miccosukee Tribe of Indians of Florida to the Office of Indian Gaming within the Department of the Interior, the U.S. Department of Justice, and the Office of the Governor of Florida, January 9, 2008.
[105] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[106] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.
[107] Based upon a discussion with NIGC staff.
[108] Tribal-State Compact, For the Control of Class III Video Games of Chance on the White Earth Band of Chippewa Reservation in Minnesota, effective October 3, 1991.
[109] Based upon a discussion with NIGC staff.

regulations went into effect, the White Earth Band would have no choice but to replace existing Class II machines with compliant Class II machines.

Montana

In 2006, six Montana tribes operated a total of 1,098 gaming machines in 25 facilities.[110] Of these machines, 535 (49 percent) were Class II.[111] They were operated in a total of seven facilities, including at least one facility for each gaming tribe in the state.

The gaming compacts in Montana are very restrictive relative to those in other states in terms of gaming machines. The compacts not only cap the number of Class III machines that can be operated per facility,[112] but they also restrict the type of allowable machines (i.e., only video bingo, video keno, and video poker) and their operation (e.g., payouts and hours of operations).[113] In fact, I understand that Class III machines in Montana may be on par with or possibly even inferior to existing Class II machines in terms of performance.[114] In addition, non-tribal businesses (e.g., taverns and gas stations) located on tribal reservations are able to license Class III machine equivalents from the State just like similar businesses not located on the reservations.[115] Thus, Montana tribes face this unusual source of competition on their own land.

Given the quality of Class III gaming in Montana, tribes have been using Class II machines to supplement Class III machines. In fact, two tribes, the Blackfeet Tribe and Confederated Tribes of Salish and Kootenai, no longer have Class III gaming compacts with the State. Upon their expiration, the tribes chose not to renew their compacts. Thus, they currently only operate Class II machines. If the proposed Class II regulations went into effect, existing Class II machines for these two tribes would have to switch to compliant Class II machines. Also, given that most of the Montana tribes are at or near their machine caps, they would have to make their Class II machines compliant with the proposed regulations.

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[110] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[111] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.
[112] Montana Department of Justice, Gambling Control Division website, accessed September 25, 2006 (http://doj.mt.gov/gaming/tribalgamingcompacts.asp).
[113] Agreement Between the Assiniboine and Sioux Tribes of the Fort Peck Reservation and the State of Montana, July 1, 1992; Interim Agreement Between the Blackfeet Indian Tribe of the Blackfeet Reservation and the State of Montana, October 26, 1996; Amendment to the Interim Compact Between the Chippewa Cree Tribe of the Rocky Boy Reservation and the State of Montana, November 21, 2005; Agreement Between the Confederated Salish and Kootenai Tribes of the Flathead Nation and the State of Montana, October 12, 2001; Agreement Between the Crow Indian Tribe and the State of Montana, June 12, 1998; and Agreement Between the Northern Cheyenne Tribe and the State of Montana, July 19, 2002.
[114] Based upon a discussion with NIGC staff.
[115] Based upon discussions with tribal casino representatives.

Nebraska

In 2006, three tribes operated a combined total of 314 Class II machines in four facilities.[116] Approximately 61 percent of these machines were located within one of the four facilities. The remainder of the Class II devices were operated in three relatively small facilities.

The tribes in Nebraska serve relatively small markets with competition in adjacent states, namely Iowa and South Dakota, which both offer Class III gaming. While the tribes have wanted to operate Class III gaming for some time, they have been unable to get the State of Nebraska to negotiate gaming compacts. Thus, Secretarial Procedures were requested approximately 10 years ago in order to operate Class III gaming.[117] However, the State has not been open to this request.

Therefore, if the NIGC's proposed Class II regulations were enacted, Nebraska tribes would have no choice but to adopt compliant Class II machines.

New York

In 2006, three tribes operated a total of 10,907 gaming machines in seven facilities in New York.[118] Of this total, 1,287 (12 percent) were Class II.[119] These Class II machines were operated at three gaming facilities.

All three of the facilities are restricted to Class II gaming as they are not covered by gaming compacts. And if the NIGC's proposed Class II regulations went into effect, these facilities would have no choice but to replace existing machines with compliant machines.

Oklahoma

Prior to 2005, Oklahoma tribes *only* offered Class II gaming, including bingo and pull-tab machines. However, pursuant to gaming compacts entered into in 2005, tribes began offering Class III gaming machines and non-house banked card games.[120] In 2006, 31 tribes operated a total of 37,760 gaming machines in 94 gaming facilities.[121] As of the end of calendar year 2006, the majority of gaming machines were still Class II. Twenty-seven tribes

[116] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[117] Discussion with tribal representative.
[118] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[119] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.
[120] These Class III machines, which are referred to as "compacted machines," include electronic bonanza-style bingo, amusement/skill games (e.g., video poker), and instant bingo. Source: Model Tribal Gaming Compact, Oklahoma, 2005; Multimedia Games, Inc., Form 10-K, For the Fiscal Year Ended September 30, 2005.
[121] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

operated 30,044 machines (about 80 percent of the total number of machines) in 87 facilities.[122] Thus, only 7,716 machines were Class III.

However, the shift to Class III machines has steadily continued. As of the end of September 2007, the number of Class III devices jumped to 22,566.[123] In fact, some facilities are all Class III now.[124] In addition, the success of Class III devices has improved significantly. When first introduced, Class III machines were not performing as well as Class II machines. However, more recently, Class III machines have been outperforming Class II machines.[125] For calendar year 2006, revenue per Class II machine per day was approximately $125.[126] Revenue per Class III machine per day has grown from approximately $128 in September 2006 to $140 in December 2006, $152 in March 2007, $142 in June 2007, and $145 in September 2007.[127]

Given the above, if the proposed Class II regulations are enacted, tribes would be forced to shift to all Class III machines. However, as discussed in the Increased Costs section of Chapter 3, the tribes would have to incur additional revenue-sharing costs in order to operate more Class III machines. Per their gaming compacts, tribes must pay four to six percent of Class III machine net win to the State.[128]

South Dakota

In 2006, the nine South Dakota tribes operated a total of 2,209 gaming machines in 12 facilities.[129] These facilities primarily offered Class III gaming. However, Class III machines are subject to a cap. As a result, two of the facilities also offered Class II machines to supplement their Class III machines. Of the total number of gaming devices, only 64 (three percent) were Class II.[130]

I understand that the tribes have been interested in renegotiating their compacts in order to increase their Class III machine caps. However, the State has refused to renegotiate with them. Some claim that the State will not renegotiate because it does not want to potentially

[122] Sources: Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press; State of Oklahoma, Office of State Finance. The *Indian Gaming Industry Report* counted 94 Indian gaming facilities in Oklahoma, while there are only 87 included in this report. One gaming facility, the Keetoowah Cherokee Casino, was excluded from this report because it was not considered to be Indian gaming by the NIGC (the facility is not considered to be on "Indian lands"). In addition, there were six other gaming facilities excluded from this report because they did not have Class II machines (i.e., they were traditional bingo halls or Class III gaming facilities).
[123] State of Oklahoma, Office of State Finance.
[124] Based upon discussions with industry participants and NIGC staff.
[125] This finding was confirmed in discussions with industry participants.
[126] Analysis Group estimates based upon data from the State of Oklahoma, Office of State Finance.
[127] Analysis Group estimates based upon data from the State of Oklahoma, Office of State Finance. Revenue per Class III machine was calculated on a quarterly basis because Class III machine counts were only available on a quarterly basis.
[128] For Class III machines, revenue sharing payments are four percent of the first $10 million of Class III machine revenue, five percent of the next $10 million, and six percent of Class III machine revenue in excess of $20 million. Source: Model Tribal Gaming Compacts, Oklahoma, 2005.
[129] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[130] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.

hurt its own video lottery revenue.[131] Therefore, given the current situation, if the proposed Class II regulations went into effect, the tribes would have to switch to compliant Class II machines to supplement their Class III gaming.

Texas

There is only one tribe, the Kickapoo Traditional Tribe of Texas, operating an Indian gaming facility in Texas.[132] In 2006, it operated two Class II-only facilities. However, only one of them had Class II machines. The other only operated traditional bingo. The total number of Class II machines operated by the Tribe in 2006 was 1,325.[133] Despite its very rural location along the border of Mexico, it has done well and continued to increase its capacity. However, over time there has been an increase in competition from commercial facilities with gaming machines that pay out low-stakes, non-cash prizes.[134] The Tribe has noted that it would be at a severe competitive disadvantage if the proposed Class II regulations went into effect and forced them to shift to inferior machines.[135]

Thus, as has been the case for some time, the Tribe would like to operate Class III gaming. However, the State of Texas refuses to enter into a gaming compact with the Tribe. Therefore, the Tribe has requested Secretarial Procedures. In May 2007, the Tribe received some positive news from the Department of the Interior in the form of a preliminary decision regarding the scope of gaming that should be allowed by the Tribe.[136] According to the Department, the next step was to try and bring the State and the Tribe back to the negotiating table. However, this positive news was trumped by a recent decision by the Fifth Circuit Court of Appeals in which Secretarial Procedures were deemed to be invalid.[137] As of the writing of this report, I understand that the Department of the Interior is petitioning the Court for a reconsideration of its decision. However, until and unless there is a change in this recent decision, the Department cannot issue Secretarial Procedures in the geographic area covered by the Fifth Circuit, including Texas.

Given the current situation, if the NIGC's proposed Class II regulations are enacted, the Tribe would have no choice but to replace existing Class II machines with inferior compliant devices.

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[131] Discussions with industry participants.
[132] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[133] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[134] NIGC staff and a tribal representative.
[135] These gaming devices at commercial facilities currently remain under legal challenge. Source: Tribal representative.
[136] *State of Texas v. United States of America, et al.*, United States Court of Appeals, Fifth Circuit, "Appeal from the United States District Court for the Western District of Texas," filed August 17, 2007 and revised September 13, 2007 (see footnote 2 on p. 11 of the Court's decision).
[137] *State of Texas v. United States of America, et al.*, United States Court of Appeals, Fifth Circuit, "Appeal from the United States District Court for the Western District of Texas," filed August 17, 2007 and revised September 13, 2007 (see p. 41 of the Court's decision).

Washington

In 2006, there were 22 tribes primarily operating Class III gaming in 29 gaming facilities in Washington.[138] The total statewide machine count at these facilities was 20,006,[139] with 1,771 being Class II machines (nine percent).[140] As is the case with other Class III states, tribes have been supplementing their Class III gaming with Class II machines.[141] This was due to the fact that gaming compacts limit the maximum number of Class III devices and gaming facilities tribes can have.[142] Tribes also have to pay a small amount of revenue sharing (0.5 percent) on Class III devices, commonly referred to as Tribal Lottery Systems.

In early 2007, Washington tribes renegotiated their gaming compacts to allow for an increase in the number of Class III gaming machines, as well as fewer restrictions on gaming (e.g., allowance of cash-operated machines; allowance of one-touch machines; no-limit betting on table games, and no restrictions on gaming facility hours of operations). Thus, if the proposed Class II regulations were enacted, tribes could swap out existing Class II machines for improved Class III machines. However, as in Arizona, California, and Oklahoma, this would result in an increase in revenue-sharing costs. Not only would the tribes have to pay up to 0.5 percent of Class III machine revenue per their original gaming compacts, they would also have to pay an additional 0.26 percent of Class III machine revenue to the State per the compact amendments.[143]

It should be noted that Washington tribes may not be able to swap Class II machines for Class III machines at some point in the future if they reach their new increased Class III machine caps. And while the total number of Class II machines being operated in Washington in 2007 is still less than the total number of additional Class III machines allowed per the new gaming compact amendments, tribes have been continuing to add new Class II machines.[144]

Wisconsin

In 2006, 11 Wisconsin tribes operated a total of 15,682 gaming machines in 26 facilities.[145] Of this total, 361 (two percent) were Class II.[146] All of these Class II machines were operated in one gaming facility, Dejope Bingo and Entertainment, which was operated by the Ho-Chunk Nation. Per an amendment to its compact, the Tribe can only operate Class III gaming at this

[138] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[139] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[140] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.
[141] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the percentage of Class II machines relative to total machines in October/November 2006 was applicable to the end of 2006.
[142] Based upon discussions with industry participants, the vast majority of Class II machines are being used to supplement Class III machines.
[143] Appendix X2 to the Tribal-State of Washington Class III Gaming Compacts, 2007.
[144] It should be noted that the full features of the new Class III machines allowed under the compact amendments have not been fully available as of yet given that they are still awaiting approval from the State. It is expected that new Class III machines will far outperform existing Class II and Class III machines. Source: Discussions with industry participants.
[145] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[146] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

facility if the Governor of Wisconsin is given authorization by voter referendum or passage of a local city council resolution.[147]

Given that the Dejope facility has not received the required approval, it remains a Class II-only facility. Therefore, if the NIGC's proposed Class II regulations are enacted, the Tribe would have no choice but to replace existing Class II machines with compliant devices.

Wyoming

The Northern Arapaho Tribe was the only gaming tribe in Wyoming in 2006.[148,149] Up until September 2005, when Secretarial Procedures were approved by the Department of the Interior, the Tribe was only able to offer Class II gaming. However, Secretarial Procedures allowed the Tribe to operate Class III gaming without directly entering into a gaming compact with the State of Wyoming, which had refused to negotiate with the Tribe. While the Tribe introduced Class III machines into its two facilities in 2006, there were still 94 Class II devices in operation (21 percent of all machines).[150]

If the NIGC's proposed Class II regulations are enacted, the Tribe would be able to replace all of its Class II machines with Class III devices.

Aggregate Methodology for Estimating Lost Gaming Revenue

In order to estimate aggregate lost gaming revenue as a result of the October 2007 proposed regulations, I calculate the difference between actual gaming revenue generated by existing Class II gaming machines and estimated gaming revenue generated by Class II gaming machines under the proposed regulations.

Actual Gaming Revenue

The first step in calculating lost gaming revenue is computing actual Class II machine revenue under existing practices. Actual Class II machine revenue is simply a summation of all Class II machine revenue at Indian gaming facilities in 2006, the last year for which tribal financial information and machine counts were available. To compute revenue per machine per day, a commonly-used industry metric, I divide the actual Class II machine revenue by the actual number of Class II machines, and then divide again by 365 days.

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[147] Second Amendment to the Wisconsin Winnebago Tribe, Now Known as the Ho-Chunk Nation, and the State of Wisconsin Gaming Compact of 1992.
[148] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[149] The Eastern Shoshone Tribe, which shares a reservation with the Northern Arapaho Tribe, will be able to offer Class III gaming in the near future now that it has a gaming compact. Following the approval of Secretarial Procedures for the Northern Arapaho Tribe, the State of Wyoming entered into a gaming compact with the Eastern Shoshone Tribe.
[150] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.

Estimated Gaming Revenue Under the October 2007 Proposed Regulations

The second step in calculating lost gaming revenue is the estimation of expected Class II machine revenue under the October 2007 proposed regulations. Expected Class II machine revenue is calculated by multiplying the expected revenue per Class II machine by the expected number of Class II machines. Because the proposed regulations reflect a hypothetical situation that is very different than the actual world, both expected revenue per Class II machine and expected number of Class II machines must be estimated.

For expected revenue per Class II machine in my study of the May 2006 proposed regulations (see Appendix G), I undertook a comparables analysis. Based upon my review of various gaming systems and independent discussions with various industry participants, I concluded that MegaMania was the Class II system that most closely resembled the requirements of those proposed regulations. In light of the similarities, I assumed that Class II machines under the proposed regulations would perform similar to MegaMania. Specifically, revenue per machine per day for compliant Class II machines was assumed to be equal to that of MegaMania, after adjusting for inflation. MegaMania's average revenue per machine per day from 1997 through 2001 was approximately $58.[151] After adjusting for inflation, the average revenue per machine per day for MegaMania equated to $69.[152] This was approximately 64 percent lower than the actual 2006 nationwide revenue per Class II machine, which was $191.[153] This estimated decrease in Class II machine revenue was corroborated by an independent simulation analysis conducted for the NIGC by BMM North America, Inc. (BMM), a global gaming industry test lab.[154] The results of BMM's simulations related to the May 2006 proposed regulation are reproduced in Appendix D.

Under the October 2007 proposed regulations, it is likely that Class II machines would perform somewhat better than under the May 2006 proposed regulations. As previously noted, Class II machines would not be as slow and cumbersome to play given a reduction in time delays and required daubing. However, Class II machines will still be slower, more cumbersome, and less appealing than what is being operated in Class II gaming facilities

[151] MegaMania generated revenue of $20.5 million from 950 machines in fiscal year 1997, $49.5 million from 2,140 machines in fiscal year 1998, $73.1 million from 3,600 machines in fiscal year 1999, $79.2 million from 3,870 machines in fiscal year 2000, and $73.6 million from 3,432 machines in fiscal year 2001. Thus, MegaMania's weighted average revenue per machine per day = Σ (MegaMania revenue) / Σ (Number of MegaMania machines) / Number of Days in the Year = ($20.5 million+$49.5 million+$73.1 million+$79.2 million+$73.6 million) / (950+2,140+3,600+3,870+3,432) / 365 = $57.94. Although MegaMania machines were in the market in fiscal year 1996, that year was excluded from the analysis because it was a startup year. Years following 2001 were also excluded because 2001 was the last year before Multimedia's next generation of Class II machines, MegaNanza, began to replace MegaMania. In addition, 2001 was the first year that significant competition entered into the Class II gaming machine market against Multimedia. Sources: Multimedia Games, Inc., Form 10-KSBs/10Ks, For the Fiscal Years Ended September 30, 1997, 1998, 1999, 2000, and 2001; discussions with industry participants.

[152] Actual revenue per machine per day values (i.e., the year in which they occurred) were converted to constant 2006 values using the Consumer Price Index (CPI-U). Source: U.S. Department of Labor Statistics, Bureau of Labor Statistics. Thus, MegaMania's weighted average revenue per machine per day = ($25.8 million+$61.2 million+$88.5 million+$92.7 million+$83.8 million) / (950+2,140+3,600+3,870+3,432) / 365 = $68.91.

[153] Decrease in revenue per Class II machine = (MegaMania's revenue per machine – actual 2006 revenue per Class II machine)/actual 2006 revenue per Class II machine = ($69-$191)/$191 = – 63.9%. Actual 2006 revenue per Class II machine is based upon an analysis of tribal financial data provided by the NIGC.

[154] BMM North America, Inc., Comparison of Various Class II Configuration Options – Analysis II, October 15, 2007.

today. In addition, remaining inconsistencies in the performance of compliant games under the October 2007 proposed regulations will still likely lead to confusion among players. In fact, MegaMania still seems to be the most comparable Class II system for which useable performance data are available.[155] As shown in Table 3, MegaMania machines had nearly all of the key features required by the newly proposed classification standards.[156]

Given that there are no other comparables available for the analysis of the October 2007 proposed regulations, it is not possible to do a comparables analysis like I conducted in my study of the May 2006 proposed regulations.[157] However, given that the October 2007 proposed classification standards are a less restrictive version of the May 2006 proposed regulations,[158] the decrease in machine performance under the May 2006 proposed regulations served as the upper bound for the potential gaming revenue loss (or the percentage decrease in revenue per machine per day). And as previously noted above, the average revenue per machine per day for the May 2006 comparables analysis (i.e., MegaMania) was $69 after adjusting for inflation. This reflected a 64 percent decrease from the actual 2006 nationwide revenue per Class II machine.

From this starting point, I considered the incremental impact of the changes made from the May 2006 proposed regulations to the October 2007 proposed regulations. As noted before, the most dramatic of these incremental changes was the increase in the allowable speed of Class II games. While the speed of games is important to players, as well as casino operators, it is not the only important feature of Class II machines. In fact, it may not even be the most important feature. According to discussions with industry participants, various game features contribute to the success of Class II gaming machines, including the perceived chance of winning (i.e., the math), visual appeal (i.e., graphics and game titles), entertainment value, and speed of the game. However, unlike other game features, game speed does not necessarily attract players. In fact, game speed can be more of potential detractor (if too slow) than an attractor (if fast). No matter how fast a gaming machine is, if casino patrons do not view it as entertaining and/or perceive there to be a decent chance of winning, then they will not play it. On the other hand, a slower machine may still be successful as long as casino patrons view it as entertaining and/or perceive there to be a decent chance of winning.

In any case, it is difficult, if not impossible, to quantifiably measure what part of Class II machine performance is attributable to each particular feature of the machines. However, using simulation analysis, it is possible to measure and compare the isolated effect of game speed on machine performance under the May 2006 and October 2007 proposed regulations.

[155] Based upon discussions with industry participants and the NIGC.
[156] Multimedia Games, Inc., Form 10-KSB/10Ks, For the Fiscal Years Ended September 30, 1996, 1999, and 2005; discussions with industry participants.
[157] Using MegaMania as the comparable for the analysis of the October 2007 proposed regulations would merely yield the same results as the analysis of the May 2006 proposed regulations.
[158] In terms of the changes to the classification standards, which are the driving force behind the gaming revenue losses, the NIGC started with the May 2006 version and made modifications to arrive at the October 2007 version. The facsimile definition may also contribute to gaming revenue losses, but only if the proposed regulations renders Class II systems unlawful or technologically unfeasible.

Table 3. Comparison of MegaMania Features to the October 2007 Proposed Classification Standards

Bingo Game Features[1]	MegaMania
Players must compete against one another.	✓
A game can begin with a minimum of two players if six players do not enter a game within two seconds after the first player enters.[2]	✓
Bingo cards must be used; however, those cards may be electronic.	✓
Bingo cards must be provided to players before numbers are drawn.	✓
Each card played in a game must have an equal chance of obtaining any game-winning pattern.	✓
The game must prominently display a message that it is a game of bingo or game similar to bingo.	
A two inch by two inch bingo card must be displayed at all times.[3]	✓
Game results may be presented in alternative technologic displays (e.g., game theme graphics, spinning reels, or other imagery) as long as the game results on the electronic bingo card are always shown.[4]	✓
Numbers must be randomly drawn (without replacement) in real time or very near real time to the actual play of the game.	✓
Different entry wagers are permitted.	✓
An "ante-up" format is permitted.	✓
An "auto-daub" feature is not permitted; thus, players must take overt action to daub numbers at least one time in each round after numbers are drawn.	✓
The minimum time for players to daub numbers is two seconds, unless all players have daubbed.[5]	✓
There must be one or more release of numbers before a game-winning pattern is created.	✓
A game-winning prize must be awarded in every game.	✓
A game is won by the first person covering the pre-designated game-winning pattern.	✓
The prizes in the game may be increased or progressive prizes offered based upon a different entry wager.	✓
Game-winning prizes must be based upon achieving pre-designated winning patterns common for all players.	✓
Gaming-winning prizes may be less than the amount wagered, provided they are no less than one cent.[6]	✓
Prizes must be based on events directly related to the game.	✓
All prizes, except for progressive prizes, must be fixed in amount or established by formula and be disclosed to all players in the game.	✓
The use of a paytable for determining prizes is permitted.	✓
Pre-designated interim prizes may be offered but all players in a game must be competing for the same set of prizes.	✓
"Stand-alone progressives" and "mystery jackpots" are not permitted.	✓
A "gamble feature" is not permitted.	✓
"Residual credit removal" is not permitted.	✓
"Free games" are permitted as a marketing tool as long as all players participating in the game that led to the free games receive the same number of free games.	✓

Notes:
1. Game features are set forth in the proposed Class II regulations.
2. MegaMania could not begin with less than 12 players.
3. In MegaMania, the bingo card took up 1/3 to 1/4 of the screen; the rest showed other game information.
4. MegaMania had no alternative technological displays; the bingo card and other game information took up the entire screen.
5. MegaMania had a 15-second time delay between ball drops.
6. MegaMania's game-winning prizes were approximately 85% of the amount wagered.

Sources:
Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, Federal Register 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., Federal Register 71 (101), May 25, 2006; Multimedia Games, Inc., Form 10-KSB, For the Fiscal Year Ended September 30, 1996; Multimedia Games, Inc., Form 10-K, For the Fiscal Year Ended September 30, 1999; Multimedia Games, Inc., Form 10-K, For the Fiscal Year Ended September 30, 2005; discussions with industry participants.

The result of this comparison would assume that game speed is the only factor that matters in determining machine performance. However, as previously discussed, the October 2007 proposed regulations still pose restrictions on other important machine features, such as the perceived chance of winning, visual appeal, and entertainment value. Thus, the isolated

effect of game speed would serve as the lower bound for the potential gaming revenue loss under the October 2007 proposed regulations.

In light of the foregoing, I asked BMM to run simulations reflecting the estimated game speeds under the May 2006 and October 2007 proposed regulations.[159] The results of these simulations are shown in Table 4.

Table 4. Potential Increase in the Performance of the October 2007 Proposed Regulations
BMM Simulation Results

	Machine Performance (Rate Per Minute)[1]							
	1st Simulation[2]		2nd Simulation[3]		3rd Simulation[4]		Average	
Version of Regulations	Games	Coin In	Games	Coin In	Games	Coin In	Games	Coin In
May 2006	4.44	4,863.86	4.80	15,778.65	4.67	18,001.83	4.64	12,881.45
October 2007	9.22	10,146.63	10.87	35,849.00	10.18	39,018.16	10.09	28,337.93
Percentage Increase in Performance	**107.7%**	**108.6%**	**126.5%**	**127.2%**	**118.0%**	**116.7%**	**117.6%**	**120.0%**

Notes:
1. The duration of each simulation was 12 hours.
2. Simulation 1 is based upon the assumption that there are only 2 active players.
3. Simulation 2 is based upon the assumption that there are always 6 active players.
4. Simulation 3 is based upon the assumption that a random number of players between 2 and 12 will participate in each game.

Source: BMM North America, Inc., Comparison of Various Class II Configuration Options - Analysis II, October 15, 2007.

As was expected, due to reductions in required time delays, the Class II machine operating under the October 2007 proposed regulations clearly outperformed the machine operating under the May 2006 proposed regulations. In fact, in terms of coin in, it yielded a 120 percent increase over the May 2006 proposed regulations. Thus, *if* speed were the only thing that mattered in terms of the performance of a Class II machine, then it could be inferred that Class II machines operating under the October 2007 proposed regulations would yield an average revenue per machine per day that is 120 percent greater than that for the comparable relied upon in my analysis of the May 2006 proposed regulations. Given that MegaMania generated an average of $69 per machine per day, the October 2007 proposed regulations would be estimated to yield approximately $152 per machine per day,[160] which is about 21 percent less than the actual 2006 nationwide revenue per Class II machine of $191.

Thus, using the results of the comparables analysis for the May 2006 proposed regulations and the incremental speed analysis for the October 2007 proposed regulations, we have a very reliable range for the likely impact of the October 2007 proposed regulations (21 to 64 percent decrease in revenue per Class II machine per day). However, the endpoints of this range are unlikely to be realistic given that a number of factors, including game speed, determine machine performance. Furthermore, this range is somewhat large. This was

[159] According to BMM (BMM North America, Inc., Comparison of Various Class II Configurations Options – Analysis II, October 15, 2007), the October 2007 proposed regulations were a 60 to 75 percent improvement in speed over the May 2006 proposed regulations. Existing one-touch and two-touch Class II machines were estimated to play in approximately three seconds and five seconds, respectively. Machines compliant with the May 2006 and October 2007 proposed regulations were estimated to play in approximately 13 seconds and seven seconds, respectively.

[160] Potential revenue per machine per day for the October 2006 proposed regulations = (revenue per machine per day for the May 2006 proposed regulations) x [1+(percent increase from May 2006 to October 2007 proposed regulations)] = ($69) x [1+1.2] ≈ $152.

confirmed by an informal survey of industry participants, including Class II system manufacturers and design consultants, where game speed was deemed to contribute between 25 and 75 percent of the success of Class II gaming machines. Despite this somewhat large range, the median response was 50 percent and the mean response was 45 percent.[161]

If in fact the slower game speed caused 50 percent of the total negative impact of the May 2006 proposed regulations, then the expected decrease in revenue per Class II machine per day under the October 2007 proposed regulations would be the midpoint of the aforementioned 21 to 64 percent range, or 42 percent. And this would represent revenue per machine per day of approximately $110,[162] which is a 60 percent increase in machine performance over the May 2006 proposed regulations.[163]

However, if the slower game speed caused less than 50 percent of the total negative impact of the May 2006 proposed regulations, then the expected decrease in machine performance under the October 2007 proposed regulations would be even greater than 42 percent, in fact, somewhere between 42 and 64 percent. This range would reflect revenue per machine per day of $69 to $110, or alternatively 0 to 60 percent increase over the May 2006 proposed regulations.

Given the incremental changes made to the May 2006 proposed regulations, including an increase in speed, and the restrictions that still remain in the October 2007 proposed regulations, I have concluded that best point estimate for the expected decrease in Class II gaming machine performance under the October 2007 proposed regulations is 42 percent.

For the expected number of Class II machines in 2006 under the October 2007 proposed regulations, it is likely that Indian gaming facilities would initially modify or replace all existing Class II machines in order to be compliant with the proposed regulations.[164] Thus, the expected number of machines would remain at the actual 2006 level. For reference, Table 2 sets forth the number of Class II machines by state in 2006. Given the availability of floor space in the absence of existing Class II machines and the uncertainty regarding the viability of compliant Class II machines, this would be a reasonable starting point for a gaming facility. However, if the compliant Class II machines are sufficiently less appealing to patrons such that there is not sufficient demand for the existing number of machines, then a

[161] These survey results should not necessarily be considered to have any statistical significance due to the informal nature of the survey and a small sample size. However, the results do corroborate the choice of 50 percent as a reasonable estimate for the portion of the decrease in Class II machine performance under the May 2006 proposed regulations that is due to reduced game speed.

[162] Revenue per machine per day under the October 2007 proposed regulations = (revenue per machine per day under the existing practices) X (percentage decrease in revenue per machine going from existing Class II machines to those compliant with the October 2007 proposed regulations) = $191 x (1-0.42) ≈ $110.

[163] Percentage increase from May 2006 proposed regulations = (revenue per machine per day under the October 2007 proposed regulations – revenue per machine per day under the May 2006 proposed regulations)/revenue per machine per day under the May 2006 proposed regulations = ($110-$69)/$69 ≈ 60%.

[164] Based upon discussions with various casino operations personnel.

decrease in the machine count might be in order. From an economic perspective, gaming facilities would only remove a machine when the marginal cost exceeds the marginal benefit.

Lost Gaming Revenue

The third step in calculating lost gaming revenue is taking the difference between actual gaming revenue and estimated gaming revenue generated by Class II gaming machines under the proposed regulations. This computation needs to be made for the first year in which gaming revenue would be lost. Assuming that the October 2007 proposed regulations would be effective January 2008 and given the five-year grandfathering period (i.e., January 2008 through December 2012), the first full year of lost gaming revenue would be calendar year 2013. Given that actual and estimated gaming revenue, and thus lost gaming revenue, are in 2006 dollars, I calculate lost gaming revenue in 2013 by growing the 2006 value at the 10-year (1997-2006) compound annual growth rate for gaming revenue at Indian gaming facilities, which is 14.6 percent.[165] In order to convert this 2013 value to current dollars (2008),[166] I discount it using a discount rate of 9.38 percent, which is the estimated cost of capital for the gaming industry.[167]

Results of the Aggregate Methodology for Estimating Lost Gaming Revenue

As in my updated report regarding the May 2006 proposed regulation (see Appendix G), lost gaming revenue is calculated for four scenarios:

Scenario 1: All Class II machines are replaced or modified to make them compliant with the proposed regulations.

Scenario 2A: All Class II machines *without viable alternatives* are replaced or modified to make them compliant with the proposed regulations.

[165] Source for compound annual growth rate: Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press. Note that the general growth rate for *all of Indian gaming* may underestimate the potential growth of *Class II machine gaming* because Class II gaming has tended to grow faster than Class III gaming or Indian gaming in general. However, growth rates for Class II machine gaming were not available. Also, the 10-year average rate, which includes historical rates that are generally higher than more current rates, may overestimate future growth rates. However, the 10-year rate is likely to be a more stable representation of potential growth than the rate for a single recent year. Also, any overestimation caused by using a 10-year rate would be offset to some degree by the underestimation caused by using a general Indian gaming growth rate.

[166] Technically, if the midpoint discounting convention is used, there is a little over six months difference between the date of this report and the midpoint of the first year of lost gaming revenue. This partial year difference would have the effect of reducing the 2013 values slightly more in order to bring them back to current dollars. However, it should be noted that 2006 tribal financial data, which are the basis for the lost gaming revenue analysis, were for tribal fiscal year 2006. This means that the 2006 tribal financial data actually represent a one-year period that starts before calendar year 2006 starts and ends before calendar year 2006 ends. Based upon my review of the 2006 tribal financial data, the large majority of tribes have fiscal years ending September. Thus, if the 2006 data were to actually represent the period of October 2005 through September 2006, the 2006 lost gaming revenue estimates in this report technically should be grown an additional three months (more if the average fiscal year end date is earlier than September). In order to avoid all of these partial year calculations, both in terms of growth and discounting, I used full calendar year periods for my analysis.

[167] The discount rate is the median Weighted Average Cost of Capital (CAPM) for U.S. SIC Code 7999, which includes the gaming industry. Source: Ibbotson Associates, *Cost of Capital 2006 Yearbook*, 2006.

Scenario 2B: All Class II machines *without viable alternatives* are shut down because the proposed regulations render them unfeasible.

Scenario 3: All Class II machines *without viable alternatives and* which are not considered by the NIGC to be "illegal" are replaced or modified to make them compliant with the proposed regulations.

For each scenario except Scenario 2B, I calculate lost gaming revenue using 64 percent, 42 percent, and 21 percent decreases in revenue per Class II machine per day. Scenario 2B assumes a 100 percent decrease in revenue per Class II machine per day. Note that all actual 2006 market statistics (e.g., Class II machine revenue, number of Class II machines, and revenue per Class II machine per day) were recalculated for each scenario based upon the set of gaming facilities included in that scenario.

Scenario 1

Scenario 1 assumes that *all* gaming facilities operating Class II machines would suffer a decrease in gaming revenue as a result of the enactment of the proposed Class II regulations. See Appendix C for a list of all gaming facilities with Class II machines in 2006. In my expert opinion, this scenario is likely to overstate lost gaming revenue under the proposed regulations because some tribes have viable alternatives to compliant Class II machines. Thus, I present Scenario 1 merely as a starting point for Scenarios 2A, 2B, and 3.

As shown in Table 5, revenue per Class II machine per day was $191 for the base model in Scenario 1. Given that there were 50,924 Class II machines, this equates to actual 2006 Class II machine revenue of approximately $3.551 billion. If actual revenue per Class II machine decreases 42 percent under the October 2007 proposed regulations, it would yield average revenue per Class II machine per day of approximately $110. Applying this figure to the 50,924 Class II machines over 365 days yields expected 2006 Class II machine revenue of approximately $2.049 billion.

Therefore, lost 2006 gaming revenue would be the difference between actual 2006 Class II machine revenue ($3.551 billion) and expected 2006 Class II machine revenue ($2.049 billion), which is approximately $1.501 billion. For 2013, the first year in which losses would be incurred, the present value (2008) of lost gaming revenue is estimated to be approximately $2.494 billion.

Table 5. Lost Gaming Revenue
Scenario 1

Percentage Decrease Under New Regulations	21%	42%	64%
Actual[1]			
Revenue/Class II Machine/Day	$191	$191	$191
Number of Class II Machines	50,924	50,924	50,924
Days Per Year	365	365	365
Class II Machine Revenue (2006 $ Millions)	$3,550.7	$3,550.7	$3,550.7
Percentage Decrease Under New Regulations[2]			
Revenue/Class II Machine/Day	21%	42%	64%
Under Class II Regulations[3]			
Revenue/Class II Machine/Day under Old Regulations	$69	$69	$69
Percent Increase in Performance	120%	60%	0%
Revenue/Class II Machine/Day under New Regulations	$152	$110	$69
Number of Class II Machines	50,924	50,924	50,924
Days per Year	365	365	365
Class II Machine Revenue (2006 $ Millions)	$2,817.8	$2,049.4	$1,280.9
Lost Gaming Revenue (2006 $ Millions)	**$732.9**	**$1,501.3**	**$2,269.8**
Lost Gaming Revenue (Current $ Millions)[4]	**$1,217.6**	**$2,494.3**	**$3,771.0**

Notes:

1. Actual values are for 2006, the last year for which data are available.
2. The 64% decrease assumes that the October 2007 regulations would not materially alter the performance of Class II machines compliant with the May 2006 regulations. The 21% decrease assumes that the speed increases in the October 2007 regulations would directly increase on a 1-percent-to-1-percent basis the performance of Class II machines compliant with the May 2006 regulations. The 42% decrease is the midpoint between the 64% and 21% decreases.
3. For comparison to Actual, values for Under Class II Regulations are also for 2006.
4. Current dollars (2008) are estimated by growing 2006 values to 2013, the first year following the grandfathering period assuming the proposed regulations are enacted January 2008, and then discounting the 2013 values back to 2008. The 2006 values are grown at the 10-year compound annual growth rate for Indian gaming, which is 14.6%. The 2013 values are discounted using a discount rate of 9.38%, which is the median Weighted Average Cost of Capital (CAPM) for U.S. SIC Code 7999, which includes the gaming industry.

Sources:

NIGC data; Indian Gaming Industry Report; Analysis Group estimates; Ibbotson Cost of Capital 2006 Yearbook.

Scenario 2

Scenario 2 deviates from Scenario 1 in that it excludes Class II machines for which there are viable alternatives, such as Class III machines. Thus, Scenario 2 yields the gaming revenue loss *after* excluding the Class II machine revenue losses that are expected to be fully mitigated by Class III machine revenue gains. As a result, it is my opinion that the base model in Scenario 2 is the best estimate of the aggregate gaming revenue loss as a result of the proposed Class II regulations.

Per the state-by-state review set forth earlier in this report, the states excluded from this scenario but not Scenario 1 are: Arizona; California (except for the Lytton Band's gaming facility); Oklahoma; Washington; and Wyoming. Therefore, the states that remain in Scenario 2 are: Alabama; Alaska; California (only the Lytton Band's gaming facility); Florida; Minnesota; Montana; Nebraska; New York; South Dakota; Texas; and Wisconsin. See Appendix E for a list of all gaming facilities included in Scenario 2.

There are two variations of Scenario 2. Scenario 2A assumes that compliant Class II machines will be feasible gaming devices. Scenario 2B assumes that compliant Class II machines will not be feasible gaming devices. The latter scenario reflects some industry participants' beliefs that the proposed regulations will render Class II machines unlawful or technologically unfeasible. If this is the case, then lost gaming revenue would be equal to all Class II machine revenue where there are no viable alternatives to compliant Class II machines.

As shown in Table 6, assuming a 42 percent decrease in machine performance under the October 2007 proposed regulations, the present value of lost gaming revenue in 2013 is estimated to be approximately $1.180 billion in Scenario 2A.[168]

[168] Note that lost tribal government revenue that results from lost gaming revenue (set forth in Table 5) and associated lost non-gaming revenue (set forth in Table 9) would equate to $556.5 million. Note that lost tribal government revenue is not additive with lost gaming and non-gaming revenues given that lost tribal government revenue is derived from lost gaming and non-gaming revenues. In order to measure the decrease in tribal government revenue, I took the ratio of Class II machine-related tribal government revenue to Class II machine-related casino revenue (i.e., the amount of tribal government revenue generated for each dollar of Class II machine-related casino revenue generated, including both gaming and non-gaming revenue) and applied it to the loss in gaming and non-gaming revenue. The proportion of tribal government revenue that was attributable to Class II machines was assumed to be equal to the ratio of Class II machine revenue to total gaming revenue. According to aggregate tribal financial data, tribal government revenue was approximately 34 percent of total casino revenue (i.e., gaming revenue plus non-gaming revenue) in 2006. For Indian gaming facilities with Class II machines, the contribution was much less at 20 percent of total casino revenue. Assuming that the October 2007 proposed regulations would be effective January 2008 and given the five-year grandfathering period (i.e., January 2008 through December 2012), the first full year of lost tribal government revenue would be calendar year 2013. Given that lost Class II machine-related casino revenue and the ratio of tribal government revenue to Class II machines-related casino revenue, and thus lost tribal government revenue, are in 2006 dollars, I calculate lost tribal government revenue in 2013 by growing the 2006 value at the 5-year (2002-2006) compound annual growth rate for tribal government revenue for all of Indian gaming, which is approximately 16.7 percent. In order to convert this 2013 value to current dollars (2008), I discount it using a discount rate of 9.38 percent, which is the estimated cost of capital for the gaming industry. The discount rate is the median Weighted Average Cost of Capital (CAPM) for U.S. SIC Code 7999 (Source: Ibbotson Associates, Cost of Capital 2006 Yearbook), which includes the gaming industry.

Table 6. Lost Gaming Revenue
Scenario 2A

Percentage Decrease Under New Regulations	21%	42%	64%
Actual[1]			
Revenue/Class II Machine/Day	$292	$292	$292
Number of Class II Machines	15,765	15,765	15,765
Days Per Year	365	365	365
Class II Machine Revenue (2006 $ Millions)	$1,679.5	$1,679.5	$1,679.5
Percentage Decrease Under New Regulations[2]			
Revenue/Class II Machine/Day	21%	42%	64%
Under Class II Regulations[3]			
Revenue/Class II Machine/Day under Old Regulations	$105	$105	$105
Percent Increase in Performance	120%	60%	0%
Revenue/Class II Machine/Day under New Regulations	$232	$168	$105
Number of Class II Machines	15,765	15,765	15,765
Days per Year	365	365	365
Class II Machine Revenue ($ Millions)	$1,332.9	$969.4	$605.9
Lost Gaming Revenue (2006 $ Millions)	**$346.7**	**$710.2**	**$1,073.6**
Lost Gaming Revenue (Current $ Millions)[4]	**$575.9**	**$1,179.8**	**$1,783.7**

Notes:

1. Actual values are for 2006, the last year for which data are available.
2. The 64% decrease assumes that the October 2007 regulations would not materially alter the performance of Class II machines compliant with the May 2006 regulations. The 21% decrease assumes that the speed increases in the October 2007 regulations would directly increase on a 1-percent-to-1-percent basis the performance of Class II machines compliant with the May 2006 regulations. The 42% decrease is the midpoint between the 64% and 21% decreases.
3. For comparison to Actual, values for Under Class II Regulations are also for 2006.
4. Current dollars (2008) are estimated by growing 2006 values to 2013, the first year following the grandfathering period assuming the proposed regulations are enacted January 2008, and then discounting the 2013 values back to 2008. The 2006 values are grown at the 10-year compound annual growth rate for Indian gaming, which is 14.6%. The 2013 values are discounted using a discount rate of 9.38%, which is the median Weighted Average Cost of Capital (CAPM) for U.S. SIC Code 7999, which includes the gaming industry.

Sources:

NIGC data; Indian Gaming Industry Report; Analysis Group estimates; Ibbotson Cost of Capital 2006 Yearbook.

As shown in Table 7, assuming a 100 percent decrease in machine performance under the October 2007 proposed regulations, the present value of lost gaming revenue in 2013 is estimated to be approximately $2.790 billion in Scenario 2B.[169]

[169] Note that lost tribal government revenue associated with this amount of lost gaming revenue (set forth in Table 6) and associated lost non-gaming revenue (set forth in Table 9) would equate to $1.3 billion. Again, note that lost tribal government revenue is not additive with lost gaming and non-gaming revenues given that lost tribal government revenue is derived from lost gaming and non-gaming revenues.

Table 7. Lost Gaming Revenue
Scenario 2B

Percentage Decrease Under New Regulations	**100%**
Actual[1]	
Revenue/Class II Machine/Day	$292
Number of Class II Machines	15,765
Days per Year	365
Class II Machine Revenue (2006 $ Millions)	$1,679.5
Percentage Decrease Under New Regulations[2]	
Revenue/Class II Machine/Day	100%
Under Class II Regulations[3]	
Revenue/Class II Machine/Day	$0
Number of Class II Machines	15,765
Days per Year	365
Class II Machine Revenue (2006 $ Millions)	$0.0
Lost Gaming Revenue (2006 $ Millions)	**$1,679.5**
Lost Gaming Revenue (Current $ Millions)[4]	**$2,790.3**

Notes:

1. Actual values are for 2006, the last year for which data are available.
2. The 100% decrease assumes that the October 2007 regulations would render Class II machines unlawful or technologically. In this situation, all Class II machine gaming revenue would be lost.
3. For comparison to Actual, values for Under Class II Regulations are also for 2006.
4. Current dollars (2008) are estimated by growing 2006 values to 2013, the first year following the grandfathering period assuming the proposed regulations are enacted January 2008, and then discounting the 2013 values back to 2008. The 2006 values are grown at the 10-year compound annual growth rate for Indian gaming, which is 14.6%. The 2013 values are discounted using a discount rate of 9.38%, which is the median Weighted Average Cost of Capital (CAPM) for U.S. SIC Code 7999, which includes the gaming industry.

Sources:

NIGC data; Indian Gaming Industry Report; Analysis Group estimates; Ibbotson Cost of Capital 2006 Yearbook.

Scenario 3

Scenario 3, which was solely developed at the request of the NIGC, reflects the NIGC's view that some Class II gaming machines are "illegal" and therefore should not be included in the calculation of lost gaming revenue.[170] The NIGC considers gaming machines to be "illegal" if they do not comport with game classification or advisory opinions issued by the Office of the General Counsel at the NIGC. For the purposes of this report, the NIGC considered all one-touch Class II machines to be illegal.[171]

In total, 52 percent of all Class II machines in operation nationwide in 2006 were considered "illegal" by the NIGC. According to the NIGC, "illegal" Class II machines were being operated in the following states and are thus excluded from Scenario 3: Arizona; Florida (in part); Montana; New York (in part); Oklahoma (in part); South Dakota; Texas (in part); and Washington (in part). Some of the aforementioned states with illegal Class II machines, namely Arizona, Oklahoma, and Washington, are already excluded from Scenario 2.[172] Thus, using Scenario 2 as a starting point, the following states were then excluded: Florida (in part); Montana; New York (in part); South Dakota; and Texas (in part). This left the following states in Scenario 3: Alabama; Alaska; California (only the Lytton Band's gaming facility); Florida (in part); Minnesota; Nebraska; New York (in part); Texas (in part); and Wisconsin. See Appendix F for a list of all gaming facilities included in Scenario 3.

As shown in Table 8, assuming a 42 percent decrease in machine performance under the October 2007 proposed regulations, the present value of lost gaming revenue in 2013 is estimated to be approximately $481.9 million in Scenario 3.

Other Important Considerations

It should be reiterated that if the revenue loss to any gaming facility were large enough, it could put them out of business. Although such individualized outcomes cannot be predicted by the aggregate analysis required in this report, it is a realistic possibility for some tribes given the magnitude of the expected revenue loss. And if lost revenue is significant enough to force a gaming facility to shut down, then lost gaming revenue would equal all Class II machine revenue.

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[170] Scenario 3 does not reflect my opinion on the likely economic impact of the proposed Class II regulations. Moreover, it is my opinion that any decrease in Class II machine revenue, whether illegal or not, fundamentally has a negative economic impact on a gaming facility and its respective tribe because that revenue is used to pay employees, purchase goods and services, fund tribal government operations and programs, provide for the general welfare of tribal members, and promote tribal economic development. Aside from this theoretical issue, rather than excluding all illegal machines in their entirety, it may be more appropriate to only exclude the incremental benefits gained by using illegal machines as opposed to legal machines. Also, I have no opinion on the legality of existing Class II machines.

[171] The NIGC was only aware of the number of touches for Class II machines as of October/November 2006. However, the Scenario 3 analysis was based upon machine counts for the end of 2006. Therefore, it was assumed that the 2006 year-end proportion of one-touch machines to total Class II machines for each facility or tribe was the same as the October/November 2006 proportion.

[172] Although Wyoming did not have illegal Class II machines in 2006, it was excluded from Scenario 3 given that it was already excluded from Scenario 2.

Table 8. Lost Gaming Revenue
Scenario 3

Percentage Decrease Under New Regulations	21%	42%	64%
Actual[1]			
Revenue/Class II Machine/Day[2]	$301	$301	$301
Number of Class II Machines[3]	6,246	6,246	6,246
Days Per Year	365	365	365
Class II Machine Revenue (2006 $ Millions)	$686.1	$686.1	$686.1
Percentage Decrease Under New Regulations[4]			
Revenue/Class II Machine/Day	21%	42%	64%
Under Class II Regulations[5]			
Revenue/Class II Machine/Day under Old Regulations	$109	$109	$109
Percent Increase in Performance	120%	60%	0%
Revenue/Class II Machine/Day under New Regulations	$239	$174	$109
Number of Class II Machines	6,246	6,246	6,246
Days per Year	365	365	365
Class II Machine Revenue (2006 $ Millions)	$544.5	$396.0	$247.5
Lost Gaming Revenue (2006 $ Millions)	**$141.6**	**$290.1**	**$438.6**
Lost Gaming Revenue (Current $ Millions)[6]	**$235.3**	**$481.9**	**$728.6**

Notes:

1. Actual values are for 2006, the last year for which data are available.
2. Revenue/Class II Machine/Day is based upon all facilities with legal Class II Machines. For details on NIGC's determination of legal machines, see the text on Scenario 3.
3. Number of Class II Machines is equal to the total number of legal machines. For details on NIGC's determination of legal machines, see the text on Scenario 3.
4. The 64% decrease assumes that the October 2007 regulations would not materially alter the performance of Class II machines compliant with the May 2006 regulations. The 21% decrease assumes that the speed increases in the October 2007 regulations would directly increase on a 1-percent-to-1-percent basis the performance of Class II machines compliant with the May 2006 regulations. The 42% decrease is the midpoint between the 64% and 21% decreases.
5. For comparison to Actual, values for Under Class II Regulations are also for 2006.
6. Current dollars (2008) are estimated by growing 2006 values to 2013, the first year following the grandfathering period assuming the proposed regulations are enacted January 2008, and then discounting the 2013 values back to 2008. The 2006 values are grown at the 10-year compound annual growth rate for Indian gaming, which is 14.6%. The 2013 values are discounted using a discount rate of 9.38%, which is the median Weighted Average Cost of Capital (CAPM) for U.S. SIC Code 7999, which includes the gaming industry.

Sources:

NIGC data; Indian Gaming Industry Report; Analysis Group estimates; Ibbotson Cost of Capital 2006 Yearbook.

LOST NON-GAMING REVENUE

If the enactment of the October 2007 proposed regulations results in a reduction in gaming revenue, there would likely be a reduction in non-gaming revenue as well.

Methodology

In order to measure the decrease in non-gaming revenue, I took the ratio of Class II machine-related non-gaming revenue to Class II machine revenue (i.e., the amount of non-gaming revenue generated for each dollar of Class II machine revenue generated) and applied it to the previously estimated gaming revenue loss. As noted in Chapter 4, the proportion of non-gaming revenue that was attributable to Class II machines was assumed to be equal to the ratio of Class II machine revenue to total gaming revenue.

Assuming that the October 2007 proposed regulations would be effective January 2008 and given the five-year grandfathering period (i.e., January 2008 through December 2012), the first full year of lost non-gaming revenue would be calendar year 2013. Given that lost gaming revenue and the ratio of non-gaming revenue to gaming revenue, and thus lost non-gaming revenue, are in 2006 dollars, I calculate lost non-gaming revenue in 2013 by growing the 2006 value at the 5-year (2002-2006) compound annual growth rate for non-gaming revenue for all of Indian gaming, which is approximately 17.8 percent.[173] In order to convert this 2013 value to current dollars (2008), I discount it using a discount rate of 9.38 percent, which is the estimated cost of capital for the gaming industry.[174]

Results

Using the methodology set forth above, lost non-gaming revenue is calculated for the four scenarios defined in the Lost Gaming Revenue analysis. For Scenarios 1, 2A, and 3, I calculate lost non-gaming revenue based upon 64 percent, 42 percent, and 21 percent decreases in revenue per Class II machine per day. Scenario 2B assumes a 100 percent decrease in revenue per Class II machine per day. Note that all market statistics (e.g., the ratio of non-gaming revenue to gaming revenue) were recalculated for each scenario based upon the set of gaming facilities included.

As shown in Table 9, assuming a 42 percent decrease in machine performance under the October 2007 proposed regulations, the present value of lost non-gaming revenue in 2013 is estimated to be approximately $126.9 million in Scenario 2A and $300.2 million in Scenario 2B. For Scenarios 1 and 3, the present value of lost non-gaming revenue in 2013 is estimated to be approximately $131.6 million and $52.5 million, respectively.

[173] Analysis of NIGC data. Note that only five years of data were readily available for non-gaming revenue.
[174] The discount rate is the median Weighted Average Cost of Capital (CAPM) for U.S. SIC Code 7999, which includes the gaming industry. Source: Ibbotson Associates, *Cost of Capital 2006 Yearbook*, 2006.

Table 9. Lost Non-Gaming Revenue

Percentage Decrease Under New Regulations[1]	21%	42%	64%
Scenario 1			
Lost Gaming Revenue (2006 $ Millions)	$732.9	$1,501.3	$2,269.8
Ratio of Non-Gaming to Gaming Revenue[2]	4.3%	4.3%	4.3%
Lost Non-Gaming Revenue (2006 $ Millions)	**$31.8**	**$65.2**	**$98.6**
Lost Non-Gaming Revenue (Current $ Millions)[3]	**$64.2**	**$131.6**	**$198.9**
Scenario 2A			
Lost Gaming Revenue (2006 $ Millions)	$346.7	$710.2	$1,073.6
Ratio of Non-Gaming to Gaming Revenue[2]	8.9%	8.9%	8.9%
Lost Non-Gaming Revenue (2006 $ Millions)	**$30.7**	**$62.9**	**$95.1**
Lost Non-Gaming Revenue (Current $ Millions)[3]	**$62.0**	**$126.9**	**$191.9**
Scenario 2B[4]			
Lost Gaming Revenue (2006 $ Millions)	n/a	n/a	$1,679.5
Ratio of Non-Gaming to Gaming Revenue[2]	n/a	n/a	8.9%
Lost Non-Gaming Revenue (2006 $ Millions)	**n/a**	**n/a**	**$148.8**
Lost Non-Gaming Revenue (Current $ Millions)[3]	**n/a**	**n/a**	**$300.2**
Scenario 3			
Lost Gaming Revenue (2006 $ Millions)	$141.6	$290.1	$438.6
Ratio of Non-Gaming to Gaming Revenue[2]	9.0%	9.0%	9.0%
Lost Non-Gaming Revenue (2006 $ Millions)	**$12.7**	**$26.0**	**$39.4**
Lost Non-Gaming Revenue (Current $ Millions)[3]	**$25.6**	**$52.5**	**$79.4**

Notes:

1. The 64% decrease assumes that the October 2007 regulations would not materially alter the performance of Class II machines compliant with the May 2006 regulations. The 21% decrease assumes that the speed increases in the October 2007 regulations would directly increase on a 1-percent-to-1-percent basis the performance of Class II machines compliant with the May 2006 regulations. The 42% decrease is the midpoint between the 64% and 21% decreases.
2. See Chapter 4 for further discussion on calculation of Ratio of Non-Gaming to Gaming Revenue. The Ratio varies by Scenario due to the set of gaming facilities included.
3. Current dollars (2008) are estimated by growing 2006 values to 2013, the first year following the grandfathering period assuming the proposed regulations are enacted January 2008, and then discounting the 2013 values back to 2008. The 2006 values are grown at the 5-year (2002-2006) compound annual growth rate for Non-Gaming Revenue, which is 17.8%. The 2013 values are discounted using a discount rate of 9.38%, which is the median Weighted Average Cost of Capital (CAPM) for U.S. SIC Code 7999, which includes the gaming industry.
4. The Percentage Decrease for Scenario 2B is assumed to be 100%.

Sources:

NIGC data; Indian Gaming Industry Report; Analysis Group estimates; Ibbotson Cost of Capital 2006 Yearbook.

INCREASED REVENUE-SHARING COSTS

If in response to the proposed regulations, some tribes replace existing Class II machines with Class III machines (where possible), significant revenue-sharing costs may be incurred for the operation of the additional Class III machines.

Methodology

For the most part, it is difficult to anticipate revenue-sharing costs, especially when expected Class III revenue is uncertain and if there is no existing revenue sharing. Expected revenue is based on a variety of factors, including the state of gaming prior to revenue sharing, the types of machines to be operated, facility locations, and competition. Furthermore, expected revenue sharing rates are derived through unique negotiations and would be based on factors that could vary widely depending on the circumstances of each situation. However, in Arizona, California, Oklahoma, and Washington, increased revenue-sharing costs can be generally estimated because revenue sharing for Class III machines has already been agreed upon in existing gaming compacts or gaming compact amendments recently renegotiated.

As noted in the state-by-state analysis earlier in this chapter, tribes operating Class II machines in these states are likely to shift to Class III machines if the proposed regulations are enacted. However, there are increased revenue-sharing costs associated with the operation of additional Class III machines. Thus, the total increase in revenue-sharing costs in each state can be estimated by multiplying the expected increase in Class III machine revenue by the appropriate revenue sharing rate.

The relevant inputs to the revenue sharing analysis for each state are as follows:[175]

- Arizona: Revenue sharing with the state is one to eight percent of Class III machine net win.[176] Given available data,[177] I estimate the 2006 statewide average revenue sharing rate to be approximately 5.3 percent and the 2006 statewide average revenue per Class III machine to be approximately $366.
- California: Based upon the most recent compacts, incremental revenue sharing with the state is 15 percent of gaming machine net win for the first 3,000 machines and 25

[175] Note that the revenue sharing calculations are based upon statewide average figures. It is uncertain whether these averages will hold true for the specific tribes with Class II machines converting to Class III machines. However, these are the best data available at this time.

[176] Model Tribal-State Gaming Compact, Arizona, 2003.

[177] The 2006 Arizona statewide average revenue per Class III machine was calculated as statewide gaming revenue multiplied by the ratio of total machine revenue to total gaming revenue, multiplied by the ratio of Class III machine revenue to total machine revenue, divided by the statewide number of Class III machines, divided by 365 days in the year [($1.892 billion x 89.7% x 99.7%) / (12,713 – 56) / 365 = $366]. Sources: NIGC for statewide gaming revenue; State of Arizona, Department of Gaming for revenue sharing figures and Class II machine counts; Joseph Eve, *The 2007 Indian Gaming Cost of Doing Business Report*, for the ratio of total machine revenue to total gaming revenue; analysis of NIGC data and discussions with Class II system manufacturers for the nationwide ratio of Class III machine revenue to total machine revenue; Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition for total machine counts.

percent of gaming machine net win for an additional 2,500 machines.[178] Because each California tribe with Class II machines had less than 3,000 of them in 2006, I use the revenue sharing rate of 15 percent. Given available data,[179] I estimate the 2006 statewide average revenue per Class III machine to be approximately $308.

- Oklahoma: Revenue sharing with the state is four to six percent of Class III machine net win.[180] Given available data,[181] I estimate the 2006 statewide average revenue sharing rate to be approximately 5.3 percent and the 2006 statewide average revenue per Class III machine to be approximately $145.
- Washington: Tribes pay: up to 0.5 percent of Class III machine revenue to local governments; 0.13 percent of Class III machine revenue for problem gambling education, awareness, and treatment; and 0.13 percent of Class III machine revenue for smoking cessation, prevention, education, awareness, and treatment.[182] Thus, total revenue sharing is 0.76 percent. Based upon available data,[183] I estimate the 2006 statewide average revenue per Class III machine to be approximately $181.

Assuming that the October 2007 proposed regulations would be effective January 2008 and given the five-year grandfathering period (i.e., January 2008 through December 2012), the first full year of lost gaming revenue would be calendar year 2013. Given that revenue-sharing costs are in actual dollars,[184] I calculate revenue-sharing costs in 2013 by growing the 2006 value at Indian gaming's 10-year (1997-2006) compound annual growth rate for gaming revenue, which is approximately 14.6 percent.[185] In order to convert this 2013 value

[178] Amendments to the Tribal-State Compacts Between the State of California and the Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, the Pechanga Band of Luiseño Indians, Sycuan Band of the Kumeyaay Nation, and San Manuel Band of Mission Indians (all of these compact amendments were executed in 2006 and ratified by the State Legislature in 2007). Incremental revenue sharing as measured in this report does not include: fixed annual payments to the State; fixed annual payments to the Revenue Sharing Trust Fund, which is redistributed to non-gaming tribes in the state; or any local revenue sharing.

[179] The 2006 California statewide average revenue per Class III machine was calculated as statewide gaming revenue multiplied by the ratio of total machine revenue to total gaming revenue, multiplied by the ratio of Class III machine revenue to total machine revenue, divided by the statewide number of Class III machines, divided by 365 days in the year [($7.675 billion x 89.7% x 95.4%) / (62,732 – 4,215) / 365 = $308]. Sources: NIGC for statewide gaming revenue and Class II machine counts; Joseph Eve, *The 2007 Indian Gaming Cost of Doing Business Report*, for the ratio of total machine revenue to total gaming revenue; analysis of NIGC data and discussions with Class II system manufacturers for the nationwide ratio of Class III machine revenue to total machine revenue; Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition for total machine counts.

[180] Model Tribal Gaming Compact, Oklahoma, 2005.

[181] Analysis based upon data gathered by the State of Oklahoma, Office of State Finance.

[182] Appendix X2 to the Tribal-State of Washington Class III Gaming Compacts, 2007. Note that payments to charitable organizations and tribal government programs are not included in the revenue sharing calculations.

[183] The 2006 Washington statewide average revenue per Class III machine was calculated as statewide gaming revenue multiplied by the ratio of total machine revenue to total gaming revenue, multiplied by the ratio of Class III machine revenue to total machine revenue, divided by the statewide number of Class III machines, divided by 365 days in the year [($1.433 billion x 89.7% x 93.9%) / (20,006 – 1,771) / 365 = $181]. Sources: NIGC for statewide gaming revenue and Class II machine counts; Joseph Eve, *The 2007 Indian Gaming Cost of Doing Business Report*, for the ratio of total machine revenue to total gaming revenue; analysis of NIGC data and discussions with Class II system manufacturers for the nationwide ratio of Class III machine revenue to total machine revenue; Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition for total machine counts.

[184] Arizona, California, and Washington revenue-sharing costs are in 2006 dollars, while Oklahoma revenue-sharing costs are in 2007 dollars.

[185] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

to current dollars (2008), I discount it using a discount rate of 9.38 percent, which is the estimated cost of capital for the gaming industry.[186]

Results

As shown in Table 10, the present value of increased revenue sharing in Arizona, California, Oklahoma, and Washington in 2013, the first year these incremental costs would be incurred, is estimated to be approximately $213.9 million if tribes with Class II machines in these states switch to Class III machines.[187]

INCREASED CAPITAL, DEPLOYMENT, AND COMPLIANCE COSTS

As a result of the need to replace or modify *all* Class II gaming systems to bring them into compliance with the October 2007 proposed regulations, there will be significant capital, deployment, and compliance costs.

Methodology

Given their technological expertise and experience with developing Class II gaming systems, Class II system manufacturers are in the best position to estimate the capital, deployment, and compliance costs. Thus, I surveyed manufacturers regarding these costs. Specifically, I requested information on only the *incremental* costs that would be incurred as a result of the October 2007 proposed regulations. Based upon input from most of the major manufacturers of Class II gaming systems, the manufacturers as a group provided industry-wide cost estimates.[188]

For capital and compliance costs, data were provided for the three general components of Class II gaming systems: software, player interfaces, and titles. Capital costs were also estimated for card minders, which are handheld electronic aids used in session bingo games. For deployment costs, data were only provided for Class II systems on the whole.

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[186] The discount rate is the median Weighted Average Cost of Capital (CAPM) for U.S. SIC Code 7999, which includes the gaming industry. Source: Ibbotson Associates, *Cost of Capital 2006 Yearbook*.

[187] As noted in Chapter 3, it is uncertain whether these increased costs would be entirely offset by the increase in Class III machine revenue. This would depend on how much more revenue Class III machines generate relative to Class II machines, as well as other costs (e.g., capital, deployment, compliance, regulatory, training, and financing costs) that may be incurred by tribes to switch from Class II to Class III machines.

[188] In addition to increased capital costs, Class II system manufacturers included in their estimates lost capital investment (i.e., the value of existing equipment) for player interfaces and card minders that will need to be wholly replaced. However, lost capital investment is not included in this report. First, some of the capital investment would not really be lost given that some removed Class II gaming equipment could be re-sold/re-leased in other markets (e.g., charitable gaming or international markets). (Source: Discussions with various Class II system manufacturers) Second, capital investment is a sunk cost (i.e., a fixed cost already incurred and which cannot be avoided). Third, it would be double-counting to include both the lost investment cost (the cost of existing equipment) and the expected capital cost (the cost of new equipment, which is included in the above analysis) to tribes. Lastly, given that most Class II systems are leased by tribes, any lost investment cost would be incurred by Class II system manufacturers. And my assignment was to measure the economic impact of the proposed regulations on tribes, not manufacturers.

Table 10. Revenue-Sharing Costs

Arizona	
Estimated Revenue/Class III Machine/Day	$366
Class II Machines to be Converted to Class III Machines	56
Days Per Year	365
Class III Machine Revenue (2006 $ Millions)[1]	$7
Average Revenue-Sharing Rate	5.3%
Arizona Revenue-Sharing Costs (2006 $ Millions)	**$0.4**
Arizona Revenue-Sharing Costs (Current $ Millions)[2]	**$0.7**
California	
Estimated Revenue/Class III Machine/Day	$308
Class II Machines to be Converted to Class III Machines	3,195
Days Per Year	365
Class III Machine Revenue (2006 $ Millions)[1]	$359
Expected Revenue-Sharing Rate	15.0%
California Revenue-Sharing Costs (2006 $ Millions)	**$53.8**
California Revenue-Sharing Costs (Current $ Millions)[2]	**$89.4**
Oklahoma	
Estimated Revenue/Class III Machine/Day	$145
Class II Machines to be Converted to Class III Machines	30,044
Days Per Year	365
Class III Machine Revenue (2007 $ Millions)[1]	$1,586
Average Revenue-Sharing Rate	5.3%
Oklahoma Revenue-Sharing Costs (2007 $ Millions)	**$84.4**
Oklahoma Revenue-Sharing Costs (Current $ Millions)[3]	**$122.3**
Washington	
Estimated Revenue/Class III Machine/Day	$181
Class II Machines to be Converted to Class III Machines	1,771
Days Per Year	365
Class III Machine Revenue (2006 $ Millions)[1]	$117
Actual Revenue-Sharing Rate	0.76%
Washington Revenue-Sharing Costs (2006 $ Millions)	**$0.9**
Washington Revenue-Sharing Costs (Current $ Millions)[2]	**$1.5**
Total Revenue-Sharing Costs (Current $ Millions)	**$213.9**

Notes:

1. Class III Machine Revenue only reflects revenue from Class III machines. It does not reflect the net gain in total gaming revenue (i.e., it does not net out the loss of Class II machine revenue or the increase in other costs).
2. Current dollars (2008) are estimated by growing 2006 values to 2013, the first year following the grandfathering period assuming the proposed regulations are enacted January 2008, and then discounting the 2013 values back to 2008. The 2006 values are grown at the 10-year compound annual growth rate for Indian gaming, which is 14.6%. The 2013 values are discounted using a discount rate of 9.38%, which is the median Weighted Average Cost of Capital (CAPM) for U.S. SIC Code 7999, which includes the gaming industry.
3. Current dollars (2008) are estimated by growing 2007 values to 2013, the first year following the grandfathering period assuming the proposed regulations are enacted January 2008, and then discounting the 2013 values back to 2008. The 2007 values are grown at the 10-year compound annual growth rate for Indian gaming, which is 14.6%. The 2013 values are discounted using a discount rate of 9.38%, which is the median Weighted Average Cost of Capital (CAPM) for U.S. SIC Code 7999, which includes the gaming industry.

Sources:

Indian Gaming Industry Report, 2007-2008 Edition; NIGC data; Tribal-State Compacts between Arizona tribes and the State of Arizona, California tribes and the State of California, Oklahoma tribes and the State of Oklahoma, and Washington tribes and the State of Washington; State of Arizona, Department of Gaming; State of Oklahoma, Office of State Finance; Washington State Gaming Commission; Analysis Group estimates; Ibbotson Cost of Capital 2006 Yearbook.

Given that some costs, particularly those for the development of software and titles, are passed through by manufacturers to tribes in the form of participation fees, they were only estimated as the total development costs incurred by manufacturers. These are good estimates of the increased costs to tribes assuming that such costs are passed through to tribes. Based upon discussions with many of the manufacturers, I understand that most, if not all, of these costs will need to be passed through to tribes in order to stay in the Class II gaming machine market.

Results

As shown in Table 11, capital, deployment, and compliance costs would total approximately $347.9 million for Scenario 2, where tribes switch from Class II machines to viable alternatives where possible. This assumes that all capital, deployment, and compliance costs can be passed through to tribes. Assuming that manufacturers use all five years of the grandfathering period to replace and/or modify all Class II systems, then the cost estimate is a five-year total. Thus, average annual capital, deployment, and compliance costs would be approximately $70 million.

For Scenarios 1 and 3, capital, deployment, and compliance costs are estimated to total approximately $654.3 million and $267.2 million, respectively. Assuming these are five-year totals, average annual capital, deployment, and compliance costs are estimated to be approximately $130.9 million and $53.4 million, respectively.

Table 11. Capital, Deployment, and Compliance Costs

	Scenario 1	Scenario 2	Scenario 3
Capital Costs			
Class II Software Development Costs			
Cost Per Development Hour	$65	$65	$65
Number of Employees per Manufacturer	40	40	40
Hours Per Month	170	170	170
Number of Months for Development	18	18	18
Software Cost Per Manufacturer	$7,956,000	$7,956,000	$7,956,000
Number of Class II Manufacturers to Make Compliant Class II Systems	11	11	11
Total Class II Software Development Costs	$87,516,000	$87,516,000	$87,516,000
Class II Player Interface Replacement Costs			
Total Number of Class II Player Interfaces[1]	56,017	17,341	6,870
Percentage of Player Interfaces to be Replaced	50%	50%	50%
Number of Player Interfaces to be Replaced	28,008	8,671	3,435
Cost Per New Player Interface[2]	$10,000	$10,000	$10,000
Total Class II Player Interface Replacement Costs	$280,083,891	$86,705,208	$34,351,217
Class II Player Interface Upgrade Costs			
Total Number of Class II Player Interfaces[1]	56,017	17,341	6,870
Percentage of Player Interfaces to be Upgraded	50.0%	50.0%	50.0%
Number of Player Interfaces to be Upgraded	28,008	8,671	3,435
Cost Per Player Interface Upgrade[2]	$5,000	$5,000	$5,000
Total Class II Player Interface Upgrade Costs	$140,041,946	$43,352,604	$17,175,609
Card Minder Replacement Costs			
Number of Card Minders to be Replaced	25,000	25,000	25,000
Cost Per Card Minder[2]	$2,000	$2,000	$2,000
Total Card Minder Replacement Costs	$50,000,000	$50,000,000	$50,000,000
Class II Title Conversion Costs			
Cost Per Development Hour	$65	$65	$65
Number of Employees Per Title	6	6	6
Hours Per Day	8	8	8
Number of Days for Development/Testing/Certification	45	45	45
Cost Per Title Conversion	$140,400	$140,400	$140,400
Number of Titles to be Converted	500	500	500
Total Class II Title Conversion Costs	$70,200,000	$70,200,000	$70,200,000
Total Capital Costs	**$627,841,837**	**$337,773,813**	**$259,242,826**
Deployment Costs			
Average Deployment Cost Per Class II System[3]	$20,000	$20,000	$20,000
Average Number of Class II Systems Per Facility	5	5	5
Number of Facilities with Class II Machine Gaming	160	45	36
Total Deployment Costs	**$16,000,000**	**$4,500,000**	**$3,600,000**
Compliance Costs[4]			
Compliance Cost Per System	$250,000	$250,000	$250,000
Number of Manufacturers	11	11	11
Total Software Compliance Costs	$2,750,000	$2,750,000	$2,750,000
Compliance Cost Per Player Interface	$125	$125	$125
Number of Player Interfaces	56,017	17,341	6,870
Total Player Interface Compliance Costs	$7,002,097	$2,167,630	$858,780
Compliance Cost Per Title	$1,500	$1,500	$1,500
Number of Titles	500	500	500
Total Title Compliance Costs	$750,000	$750,000	$750,000
Total Compliance Costs	**$26,502,097**	**$10,167,630**	**$7,958,780**
Total Capital, Deployment, and Compliance Costs	**$654,343,934**	**$347,941,443**	**$267,201,606**

Notes:

1. Includes Player Interface inventory, which is estimated to be approximately 10% of the total number of player interfaces (i.e., Class II gaming machines) in operation under each scenario.
2. Includes peripheral equipment.
3. Deployment costs include travel, per diem, transportation, and installation/removal/upgrade costs.
4. Includes test lab fees for ensuring the software, player interfaces, and titles are compliant with the October 2007 proposed regulations.

Sources:

Data from Class II gaming machine manufacturers.

LOST TRIBAL MEMBER JOBS

Depending on the magnitude of decreases in gaming and non-gaming revenues, tribes may find it necessary to scale back their gaming facilities and reduce the size of their gaming-related workforces (e.g., gaming and non-gaming employees at Indian gaming facilities), which typically include tribal members. In addition, a decrease in tribal government revenue that results from gaming and non-gaming revenue losses may lead to reductions in the number of non-gaming jobs, such as those supporting tribal government operations, programs, and other business enterprises.

Methodology

Previous research has shown that there is a strong correlation between gaming revenue and the number of gaming-related employees.[189] In fact, output per worker, a commonly-used measure of labor productivity, makes use of this relationship. In order to measure the total number of gaming-related jobs that are lost as a result of the decreases in gaming and non-gaming revenue, I also use this relationship. Specifically, total lost gaming-related jobs were calculated as the sum of lost gaming and non-gaming revenue as calculated in the corresponding sections above, divided by the average gaming revenue per worker for the U.S. commercial casino industry.

Assuming that the October 2007 proposed regulations would be effective January 2008 and given the five-year grandfathering period (i.e., January 2008 through December 2012), the first full year of lost tribal member jobs would be calendar year 2013. Given that lost gaming revenue and lost non-gaming revenue in current dollars (2008), the 2006 average revenue per worker ($87,627) was also calculated in current dollars (2008) by growing the 2006 value ($87,627) by the 5-year (2002-2006) compound annual growth rate for the average revenue per worker, which is approximately 5.7 percent.[190] With lost gaming revenue, lost non-gaming revenue, and revenue per worker now all in current dollars, total lost gaming-related jobs are measured as current values.

In order to calculate the proportion of the total lost gaming-related jobs that are held by tribal members, I multiply the total number of lost gaming-related jobs by the nationwide percentage of Indian gaming facility employees who are tribal members, which is 25 percent.[191] It should be noted that if tribes give preferential employment status to tribal members over non-tribal members and thus terminate non-tribal member jobs before tribal member jobs, then the proportion of lost tribal jobs could be less than 25 percent.

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[189] For example, see Analysis Group, *The Economic and Fiscal Benefits of Indian Gaming in California*, July 6, 1998.
[190] Data underlying the various editions of the *Indian Gaming Industry Report* (2003-2004; 2004-2005; 2005-2006; 2006-2007; 2007-2008).
[191] In some areas of the country with high unemployment, the percentage of tribal employees is up to 80 percent at gaming facilities. Source: National Indian Gaming Association, website (www.indiangaming.org/library/indian-gaming-facts/index.shtml), accessed November 5, 2007.

Unfortunately, there are no available data on the correlation between gaming revenue and non-gaming tribal jobs. Thus, non-gaming job losses are excluded from this analysis. However, such losses are likely to occur where Class II gaming revenue derives a large proportion of tribal government revenue.

Results

Using the methodology set forth above, lost tribal member jobs is calculated for the four scenarios defined in the Lost Gaming Revenue analysis. For Scenarios 1, 2A, and 3, I calculate lost tribal member jobs based upon 64 percent, 42 percent, and 21 percent decreases in revenue per Class II machine per day. Scenario 2B assumes a 100 percent decrease in revenue per Class II machine per day.

As shown in Table 12, assuming a 42 percent decrease in machine performance under the October 2007 proposed regulations, lost tribal member jobs in 2013, the first year losses would be incurred, is estimated to be approximately 3,336 in Scenario 2A and 7,890 in Scenario 2B. For Scenarios 1 and 3, the number of lost tribal member jobs in 2013 would be approximately 6,704 and 1,365, respectively.

Table 12. Lost Tribal Member Jobs

Percentage Decrease Under New Regulations[1]	21%	42%	64%
Scenario 1			
Lost Gaming Revenue (Current $ Millions)	$1,217.6	$2,494.3	$3,771.0
Lost Non-Gaming Revenue (Current $ Millions)	$64.2	$131.6	$198.9
Total Lost Casino Revenue (Current $ Millions)	$1,281.8	$2,625.8	$3,969.9
Revenue Per Worker (Current $)[2]	$97,919	$97,919	$97,919
Lost Gaming Facility Jobs	13,090	26,816	40,542
Percent of Gaming Facility Workers Who Are Tribal Members[3]	25%	25%	25%
Lost Tribal Member Jobs	**3,273**	**6,704**	**10,136**
Scenario 2A			
Lost Gaming Revenue (Current $ Millions)	$575.9	$1,179.8	$1,783.7
Lost Non-Gaming Revenue (Current $ Millions)	$62.0	$126.9	$191.9
Total Lost Casino Revenue (Current $ Millions)	$637.9	$1,306.7	$1,975.6
Revenue Per Worker (Current $)[2]	$97,919	$97,919	$97,919
Lost Gaming Facility Jobs	6,514	13,345	20,176
Percent of Gaming Facility Workers Who Are Tribal Members[3]	25%	25%	25%
Lost Tribal Member Jobs	**1,629**	**3,336**	**5,044**
Scenario 2B[4]			
Lost Gaming Revenue (Current $ Millions)	n/a	n/a	$2,790.3
Lost Non-Gaming Revenue (Current $ Millions)	n/a	n/a	$300.2
Total Lost Casino Revenue (Current $ Millions)	n/a	n/a	$3,090.5
Revenue Per Worker (Current $)[2]	n/a	n/a	$97,919
Lost Gaming Facility Jobs	n/a	n/a	31,562
Percent of Gaming Facility Workers Who Are Tribal Members[3]	n/a	n/a	25%
Lost Tribal Member Jobs	**n/a**	**n/a**	**7,890**
Scenario 3			
Lost Gaming Revenue (Current $ Millions)	$235.3	$481.9	$728.6
Lost Non-Gaming Revenue (Current $ Millions)	$25.6	$52.5	$79.4
Total Lost Casino Revenue (Current $ Millions)	$260.9	$534.5	$808.1
Revenue Per Worker (Current $)[2]	$97,919	$97,919	$97,919
Lost Gaming Facility Jobs	2,664	5,458	8,252
Percent of Gaming Facility Workers Who Are Tribal Members[3]	25%	25%	25%
Lost Tribal Member Jobs	**666**	**1,365**	**2,063**

Notes:

1. The 64% decrease assumes that the October 2007 regulations would not materially alter the performance of Class II machines compliant with the May 2006 regulations. The 21% decrease assumes that the speed increases in the October 2007 regulations would directly increase on a 1-percent-to-1-percent base the performance of Class II machines compliant with the May 2006 regulations. The 42% decrease is the midpoint between the 64% and 21% decreases.
2. Revenue Per Worker (Current $) was estimated by growing 2006 values at the 5-year (2002-2006) compound annual growth rate for the U.S. commercial casino industry, which is 5.7%. The 2006 value for Revenue Per Worker was $87,627.
3. Per the National Indian Gaming Association website, accessed November 5, 2007.
4. The Percentage Decrease for Scenario 2B is assumed to be 100%.

Sources:

NIGC data; Indian Gaming Industry Report; Analysis Group estimates.

6. Conclusions

While, the NIGC's October 2007 proposed Class II gaming regulations would have a significant negative impact on Class II gaming and the tribes that operate Class II facilities, the magnitude of the impact would vary widely from state to state and tribe to tribe depending on the legal landscape, political environment, existing market conditions, and the availability of viable alternatives to Class II devices. And although the impact may be significant in some cases, it may be small or non-existent in others. However, given the confidentiality of the data upon which this report is based, when the economic impact was quantifiable, it was computed on an aggregate basis.

There are a number of different types of negative economic impacts on Indian gaming facilities with Class II machines and tribes that operate them. Assuming that Class II machines compliant with the October 2007 proposed regulations are feasible and the regulations are legally enforceable (Scenario 2A), I concluded that the October 2007 proposed regulations would be expected to yield the following economic impacts:

- Decreased gaming revenue: $1.2 billion;
- Decreased non-gaming revenue: $126.9 million;
- Decreased variety and quality of Class II gaming machines;
- Gaming facility closures;
- Increased regulatory, training, and financing costs;
- Increased revenue-sharing costs: $213.9 million;
- Increased capital, deployment, and compliance costs: up to $347.9 million;
- Decreased tribal member jobs: 3,336 jobs; and
- Decreased innovation in the Class II gaming machine market.

If the October 2007 proposed regulations render compliant Class II machines unlawful or unfeasible (Scenario 2B), I concluded that the *aforementioned quantifiable impacts* would be expected as follows:

- Decreased gaming revenue: $2.8 billion;
- Decreased non-gaming revenue: $300.2 million;
- Increased revenue-sharing costs: $213.9 million; and
- Increased capital, deployment, and compliance costs: up to $347.9 million;
- Decreased tribal member jobs: 7,890 jobs.

There are also other broader economic impacts on the Indian gaming industry, including:

- A decrease in leverage that tribes would have in the negotiation/renegotiation of Class III gaming compacts with states;
- Restriction of new entry into the Class II machine market; and
- A change in the degree of competition experienced by Class III gaming facilities as Class II machines become less desirable substitutes for Class III games in the eyes of consumers and as more Class III gaming is introduced.

While a number of the aforementioned economic impacts were not quantifiable at this time, they should still be considered qualitatively alongside the quantified impacts.

Appendix A: About the Author

Dr. Meister is an economist specializing in the application of economic analysis to complex business issues, commercial litigation, and regulatory matters. His areas of expertise include economic issues related to Indian gaming, public policy analysis, strategic planning, statistics, antitrust, regulation, and the calculation of economic damages.

Dr. Meister has extensive experience analyzing economic issues related to Indian gaming. His work has included economic and fiscal impact analyses, industry and market analyses, assessments of regulatory policies, analyses of Tribal-State gaming compacts and revenue sharing, feasibility studies, surveys, and expert testimony in litigation and regulatory matters. He has also conducted years of independent, academic research on Indian gaming and authored a number of publications, most notably his annual study, the *Indian Gaming Industry Report*, which has received national recognition. His Indian gaming work is regularly cited by the press and relied upon by the gaming industry, governments, and the investment community. Dr. Meister's research and analyses have also been relied upon before the United States Supreme Court and a panel of the World Trade Organization. He has also presented his work at various academic, professional, and industry conferences, and testified before the California State Senate.

In his public policy and strategic planning work, Dr. Meister has used economic and fiscal impact studies, industry and market analyses, feasibility studies, and surveys to identify and measure the effects of introductions, expansions, and closures of businesses and industries; the infusion of capital into a region; events; and changes in regulations and laws. His projects have involved casinos, hotels, resorts, sporting and entertainment events, retail establishments, medical research, publicly funded projects, low-income mixed use developments, and ballot initiatives.

With regards to his statistics work, Dr. Meister has developed and implemented statistical analyses in a wide range of contexts. He has served as an expert regarding the use of statistics in the study of racial profiling, forensic analysis, and skill versus chance game assessments. Dr. Meister also has designed and implemented surveys. Prior to joining Analysis Group, Dr. Meister worked for a market research firm that implemented surveys for the motion picture industry. In addition, he was a teaching assistant for five years at the University of California, Irvine, where he taught courses on statistics, probability, econometrics, and survey design.

Dr. Meister has broad experience providing litigation consulting services. He has provided assistance to attorneys on all phases of pretrial and trial practice, including assistance with discovery, development of economic, financial, and statistical models, expert testimony, and critique of analyses by opposing experts. Dr. Meister has conducted damages assessments in a wide variety of cases, including anticompetitive conduct, patent, trademark, and trade dress infringement, misappropriation of trade secrets, breach of contract, labor disputes, fraud, and business interruption.

Appendix B: About Analysis Group, Inc.

Analysis Group provides economic, financial, and business strategy consulting to corporations, law firms, and government entities. We advise corporate and government clients on a range of business issues that require expert interpretation of economic and financial data. We help organizations create strategies for growth by analyzing market dynamics and organizational capabilities, enhancing innovation in current products and services, and identifying new market opportunities. We also assist law firms with all aspects of litigation.

Analysis Group, which was founded in 1981, has over 350 professional staff members, most with degrees in economics, finance, statistics, accounting, and business. We also work closely with an extensive network of experts at leading universities who help us develop state-of-the-art analyses and compelling insights for our clients. The academic rigor imposed by these relationships, coupled with our commitment to teamwork, ensures that our clients receive the highest caliber work product and service. Furthermore, Analysis Group is committed to the long-term satisfaction and success of our clients. We focus on developing long-term relationships based on mutual trust and dynamic collaboration.

Analysis Group's practice areas include accounting litigation services, antitrust, commercial litigation and damages, economic impact studies, energy, entertainment and media, environmental economics, financial institutions, growth and innovation, health care economics, intellectual property, labor and employment economics, mergers and acquisitions, real estate, securities & financial instruments, telecommunications, transfer pricing, and valuation.

Analysis Group has offices in Boston, Chicago, Dallas, Denver, Los Angeles, Menlo Park, Montreal, New York, San Francisco, and Washington, DC.

Appendix C: Indian Gaming Facilities Operating Class II Machines in 2006

Appendix C. Indian Gaming Facilities that Operated Class II Machines in 2006

State	Tribe	Gaming Facility
Alabama	Poarch Band of Creek Indians	Creek Entertainment Center
Alabama	Poarch Band of Creek Indians	Riverside Entertainment Center
Alabama	Poarch Band of Creek Indians	Tallapoosa Entertainment Center
Alaska	Metlakatla Indian Community	Metlakatla Indian Community Bingo
Arizona	Ak Chin Indian Community	Harrah's Phoenix Ak-Chin Casino Resort
Arizona	Tohono O'odham Nation	Golden Ha:sañ Casino
California	Lytton Rancheria of California	San Pablo Lytton Casino
California	Morongo Band of Mission Indains	Casino Morongo
California	Morongo Band of Mission Indains	Morongo Casino Resort & Spa
California	Morongo Band of Mission Indains	Morongo Travel Center
California	Pechanga Band of Luiseno Mission Indians	Pechanga Resort & Casino
California	Rincon Band of Luiseno Mission Indians	Harrah's Rincon Casino and Resort
California	San Manuel Band of Serrano Mission Indians	San Manuel Indian Bingo & Casino
California	Sycuan Band of the Kumeyaay Nation	Sycuan Casino & Resort
Florida	Miccosukee Tribe of Indians of Florida	Miccosukee Resort & Gaming Center
Florida	Seminole Tribe of Florida	Big Cypress Casino
Florida	Seminole Tribe of Florida	Seminole Casino Brighton
Florida	Seminole Tribe of Florida	Seminole Casino Coconut Creek
Florida	Seminole Tribe of Florida	Seminole Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Casino Immokalee
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Tampa
Minnesota	White Earth Band of Chippewa Indians	Berry's Bar
Minnesota	White Earth Band of Chippewa Indians	Callaway Municipal Liquor Store
Minnesota	White Earth Band of Chippewa Indians	Cedar Crest Resort
Minnesota	White Earth Band of Chippewa Indians	D & G Lounge
Minnesota	White Earth Band of Chippewa Indians	Doc's Den
Minnesota	White Earth Band of Chippewa Indians	Elbow Lake Store
Minnesota	White Earth Band of Chippewa Indians	M & W Service Center
Minnesota	White Earth Band of Chippewa Indians	Mahnomen American Legion Bingo
Minnesota	White Earth Band of Chippewa Indians	Naytahwaush Village Store
Minnesota	White Earth Band of Chippewa Indians	Ogema Fire House
Minnesota	White Earth Band of Chippewa Indians	Pinehurst Resort
Minnesota	White Earth Band of Chippewa Indians	Shooting Star Casino and Hotel
Minnesota	White Earth Band of Chippewa Indians	Tulably Lake Inn
Minnesota	White Earth Band of Chippewa Indians	Wild Rice Lounge
Montana	Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation	Silver Wolf Casino
Montana	Blackfeet Tribe	Discovery Lodge Casino
Montana	Blackfeet Tribe	Glacier Peaks Casino
Montana	Chippewa-Cree Indians of the Rocky Boy's Reservation	Bear Paw Casino and Four C's Cafe
Montana	Confederated Salish & Kootenai Tribes	Best Western KwaTaqNuk Resort
Montana	Crow Tribe	Little Bighorn Casino
Montana	Northern Cheyenne Tribe	Charging Horse Casino & Bingo
Nebraska	Omaha Tribe of Nebraska	Lucky 77 Casino
Nebraska	Winnebago Tribe of Nebraska	Native Star Casino
Nebraska	Santee Sioux Tribe of Nebraska	Ohiya Casino & Bingo
Nebraska	Winnebago Tribe of Nebraska	Iron Horse Bar & Casino
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment 1
New York	St. Regis Mohawk Tribe	Mohawk Bingo Palace
Oklahoma	Absentee Shawnee Tribe of Oklahoma	Thunderbird Wild Wild West Casino
Oklahoma	Apache Tribe of Oklahoma	Silver Buffalo Casino
Oklahoma	Cherokee Nation	Cherokee Casino - Fort Gibson
Oklahoma	Cherokee Nation	Cherokee Casino - Roland
Oklahoma	Cherokee Nation	Cherokee Casino - Sallisaw
Oklahoma	Cherokee Nation	Cherokee Casino - West Siloam Springs
Oklahoma	Cherokee Nation	Cherokee Casino Resort
Oklahoma	Cherokee Nation	Cherokee Casino Tahlequah

Appendix C. Indian Gaming Facilities that Operated Class II Machines in 2006

State	Tribe	Gaming Facility
Oklahoma	Cherokee Nation	Cherokee Nation Outpost Tobacco Shop
Oklahoma	Cherokee Nation	West Siloam Springs Smoke Shop
Oklahoma	Cheyenne-Arapaho Tribes of Oklahoma	Feather Warrior Casino
Oklahoma	Cheyenne-Arapaho Tribes of Oklahoma	Lucky Star Casino - Clinton
Oklahoma	Cheyenne-Arapaho Tribes of Oklahoma	Lucky Star Casino - Concho
Oklahoma	Chickasaw Nation	Ada Gaming Center
Oklahoma	Chickasaw Nation	Ada Travel Stop
Oklahoma	Chickasaw Nation	Black Gold Casino
Oklahoma	Chickasaw Nation	Cash Springs Gaming Center
Oklahoma	Chickasaw Nation	Chisholm Trail Casino
Oklahoma	Chickasaw Nation	Davis Trading Post
Oklahoma	Chickasaw Nation	Gold Mountain Casino
Oklahoma	Chickasaw Nation	Goldsby Gaming Center
Oklahoma	Chickasaw Nation	Madill Gaming Center
Oklahoma	Chickasaw Nation	Newcastle Gaming Center I
Oklahoma	Chickasaw Nation	Riverwind Casino
Oklahoma	Chickasaw Nation	Texoma Gaming Center
Oklahoma	Chickasaw Nation	Thackerville Travel Plaza
Oklahoma	Chickasaw Nation	Treasure Valley Casino
Oklahoma	Chickasaw Nation	Washita Gaming Center
Oklahoma	Chickasaw Nation	WinStar Casino
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - Broken Bow
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - Grant
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - Idabel
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - McAlester
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - Pocola
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - Stringtown
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino Bingo
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Inn - Durant
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino Too
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Coliseum
Oklahoma	Choctaw Nation of Oklahoma	Durant Travel Plaza East
Oklahoma	Choctaw Nation of Oklahoma	Durant Travel Plaza West
Oklahoma	Choctaw Nation of Oklahoma	Idabel Travel and Smoke Shop
Oklahoma	Choctaw Nation of Oklahoma	Pocola Travel and Smoke Shop
Oklahoma	Citizen Potawatomi Nation	Baby Grand Casino
Oklahoma	Citizen Potawatomi Nation	FireLake Casino
Oklahoma	Citizen Potawatomi Nation	FireLake Grand Casino
Oklahoma	Comanche Nation	Comanche Nation Casino
Oklahoma	Comanche Nation	Comanche Red River Casino
Oklahoma	Comanche Nation	Comanche Spur Smoke Shop and Casino
Oklahoma	Comanche Nation	Comanche Star Casino and Smoke Shop
Oklahoma	Delaware Nation	Gold River Casino
Oklahoma	Eastern Shawnee Tribe of Oklahoma	Border Town Casino
Oklahoma	Eastern Shawnee Tribe of Oklahoma	Eastern Shawnee Travel Plaza
Oklahoma	Fort Sill Apache Tribe of Oklahoma	Fort Sill Apache Casino
Oklahoma	Kaw Nation	Kaw Southwind Casino
Oklahoma	Kickapoo Tribe of Oklahoma	Kickapoo Casino
Oklahoma	Kickapoo Tribe of Oklahoma	Kickapoo Conoco Station
Oklahoma	Miami Tribe of Oklahoma	Miami Tribe Entertainment
Oklahoma	Modoc Tribe of Oklahoma/Miami Tribe of Oklahoma	The Stables Casino
Oklahoma	Muscogee (Creek) Nation	Bristow Indian Casino
Oklahoma	Muscogee (Creek) Nation	Checotah Indian Community Bingo
Oklahoma	Muscogee (Creek) Nation	Creek Nation Casino Eufaula
Oklahoma	Muscogee (Creek) Nation	Creek Nation Casino Okemah
Oklahoma	Muscogee (Creek) Nation	Creek Nation Casino Okmulgee
Oklahoma	Muscogee (Creek) Nation	Creek Nation Casino Tulsa
Oklahoma	Muscogee (Creek) Nation	Creek Nation Casino Muscogee

Appendix C. Indian Gaming Facilities that Operated Class II Machines in 2006

State	Tribe	Gaming Facility
Oklahoma	Muscogee (Creek) Nation	Creek Nation Travel Plaza
Oklahoma	Muscogee (Creek) Nation	Duck Creek Casino
Oklahoma	Muscogee (Creek) Nation	Muscogee Travel Plaza
Oklahoma	Osage Nation	Osage Million Dollar Elm Casino - Hominy
Oklahoma	Osage Nation	Osage Million Dollar Elm Casino - Sand Springs
Oklahoma	Osage Nation	Osage Million Dollar Elm Casino - Pawhuska
Oklahoma	Osage Nation	Osage Million Dollar Elm Casino - Tulsa
Oklahoma	Otoe-Missouria Tribe of Indians	7 Clans Paradise Casino
Oklahoma	Otoe-Missouria Tribe of Indians	Lil Bit of Paradise Casino
Oklahoma	Ottawa Tribe of Oklahoma	High Winds Casino
Oklahoma	Peoria Tribe of Indians of Oklahoma	Buffalo Run Casino
Oklahoma	Peoria Tribe of Indians of Oklahoma	Peoria Gaming Center
Oklahoma	Ponca Tribe of Oklahoma	Blue Star Gaming and Casino
Oklahoma	Quapaw Tribe of Oklahoma	Quapaw Casino
Oklahoma	Sac & Fox Nation of Oklahoma	Sac and Fox Casino
Oklahoma	Sac & Fox Nation of Oklahoma	Sac and Fox Casino - Stroud
Oklahoma	Seminole Nation of Oklahoma	Mystic Winds Casino
Oklahoma	Seminole Nation of Oklahoma	Seminole Nation Trading Post
Oklahoma	Seneca-Cayuga Tribe of Oklahoma	Grand Lake Casino
Oklahoma	Thlopthlocco Tribal Town	Golden Pony Casino
Oklahoma	Wyandotte Nation	Lucky Turtle Casino
South Dakota	Crow Creek Sioux Tribe	Lode Star Casino and Hotel
South Dakota	Flandreau Santee Sioux Tribe	Royal River Casino & Hotel
Texas	Kickapoo Traditional Tribe of Texas	Kickapoo Lucky Eagle Casino
Washington	Confederated Tribes and Bands of the Yakama Nation	Yakama Nation Legends Casino
Washington	Confederated Tribes of the Chehalis Reservation	Lucky Eagle Casino
Washington	Confederated Tribes of Colville Reservation	Coulee Dam Casino
Washington	Confederated Tribes of Colville Reservation	Mill Bay Casino
Washington	Jamestown S'Klallam Tribe	7 Cedars Casino
Washington	Muckleshoot Indian Tribe	Muckleshoot Casino
Washington	Nooksack Indian Tribe	Nooksack River Casino
Washington	Puyallup Tribe of Indians	BJ's Bingo
Washington	Quinault Indian Nation	Quinault Beach Resort and Casino
Washington	Shoalwater Bay Indian Tribe	Shoalwater Bay Casino
Washington	Skokomish Indian Tribe	The Lucky Dog Casino
Washington	Squaxin Island Tribe	Little Creek Casino Resort
Washington	Stillaquamish Tribe	Angel of the Winds Casino
Washington	Suquamish Tribe	Clearwater Casino
Washington	Swinomish Indian Tribal Community	Swinomish Northern Lights Casino
Washington	Tulalip Tribes	Tulalip Bingo
Washington	Upper Skagit Indian Tribe	Skagit Valley Casino Resort
Wisconsin	Ho-Chunk Nation	Dejope Bingo and Entertainment
Wyoming	Northern Arapaho Tribe	Little Wind Casino
Wyoming	Northern Arapaho Tribe	Wind River Casino

Appendix D: Table 4 of Report on May 2006 Proposed Regulations

Appendix D
Expected Decrease in Performance of Compliant Class II Machines
BMM Simulation Results
(Table 4 of Report on the May 2006 Proposed Regulations)

	Machine Performance (Rate Per Minute)[1]					
	1st Simulation[2]		2nd Simulation[3]		3rd Simulation[4]	
	Games	Coin In	Games	Coin In	Games	Coin In
Three-Touch Class II Machines	7.04	7,735.31	7.04	23,276.76	7.04	27,184.23
Class II Machines Compliant with Proposed Regulations	4.44	4,863.86	4.80	15,778.65	4.67	18,001.83
Percentage Decrease	36.93%	37.12%	31.82%	32.21%	33.66%	33.78%
Two-Touch Class II Machines	10.87	11,957.71	10.86	35,789.65	10.87	41,591.30
Class II Machines Compliant with Proposed Regulations	4.44	4,863.86	4.80	15,778.65	4.67	18,001.83
Percentage Decrease	59.15%	59.32%	55.80%	55.91%	57.04%	56.72%
One-Touch Class II Machines	17.05	18,804.68	17.04	56,273.26	17.04	64,957.05
Class II Machines Compliant with Proposed Regulations	4.44	4,863.86	4.80	15,778.65	4.67	18,001.83
Percentage Decrease	73.96%	74.13%	71.83%	71.96%	72.59%	72.29%
Weighted Average Percentage Decrease[5]	**63.27%**	**63.45%**	**60.27%**	**60.44%**	**61.36%**	**61.12%**

Notes:

1. The duration of each simulation was 12 hours.
2. Simulation 1 is based upon the assumption that there are only 2 active players.
3. Simulation 2 is based upon the assumption that there are always 6 active players.
4. Simulation 3 is based upon the assumption that a random number of players between 2 and 12 will participate in each game.
5. The Weighted Average Percentage Decrease represents the actual mix of machines in operation in 2006. Thus, because approximately 16.3% (8,278/50,924) of all machines are Three-Touch Class II Machines, 31.5% (16,064/50,924) are Two-Touch Class II Machines, and 52.2% (26,582/50,924) are One-Touch Class II Machines, the Weighted Average Percentage Decrease is calculated as [(.163)x(Percentage Decrease for Three-Touch Class II Machines)]+[(0.315)x(Percentage Decrease for Two-Touch Class II Machines)]+[(.522)x(Percentage Decrease for One-Touch Class II Machines)]. The number of touches per machine were provided by NIGC regional staff (see Scenario 3 in the Results section of this report).

Source: BMM North America, Inc., Comparison of Various Class II Configuration Options - Analysis II, October 15, 2007; NIGC.

Appendix E: Indian Gaming Facilities Operating Class II Machines in Scenarios 2A and 2B

Appendix E. Indian Gaming Facilities that Operated Class II Machines in 2006: Scenarios 2A and 2B

State	Tribe	Gaming Facility
Alabama	Poarch Band of Creek Indians	Creek Entertainment Center
Alabama	Poarch Band of Creek Indians	Riverside Entertainment Center
Alabama	Poarch Band of Creek Indians	Tallapoosa Entertainment Center
Alaska	Metlakatla Indian Community	Metlakatla Indian Community Bingo
California	Lytton Rancheria of California	San Pablo Lytton Casino
Florida	Miccosukee Tribe of Indians of Florida	Miccosukee Resort & Gaming Center
Florida	Seminole Tribe of Florida	Big Cypress Casino
Florida	Seminole Tribe of Florida	Seminole Casino Brighton
Florida	Seminole Tribe of Florida	Seminole Casino Coconut Creek
Florida	Seminole Tribe of Florida	Seminole Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Casino Immokalee
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Tampa
Minnesota	White Earth Band of Chippewa Indians	Berry's Bar
Minnesota	White Earth Band of Chippewa Indians	Callaway Municipal Liquor Store
Minnesota	White Earth Band of Chippewa Indians	Cedar Crest Resort
Minnesota	White Earth Band of Chippewa Indians	D & G Lounge
Minnesota	White Earth Band of Chippewa Indians	Doc's Den
Minnesota	White Earth Band of Chippewa Indians	Elbow Lake Store
Minnesota	White Earth Band of Chippewa Indians	M & W Service Center
Minnesota	White Earth Band of Chippewa Indians	Mahnomen American Legion Bingo
Minnesota	White Earth Band of Chippewa Indians	Naytahwaush Village Store
Minnesota	White Earth Band of Chippewa Indians	Ogema Fire House
Minnesota	White Earth Band of Chippewa Indians	Pinehurst Resort
Minnesota	White Earth Band of Chippewa Indians	Shooting Star Casino and Hotel
Minnesota	White Earth Band of Chippewa Indians	Tulably Lake Inn
Minnesota	White Earth Band of Chippewa Indians	Wild Rice Lounge
Montana	Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation	Silver Wolf Casino
Montana	Blackfeet Tribe	Discovery Lodge Casino
Montana	Blackfeet Tribe	Glacier Peaks Casino
Montana	Chippewa-Cree Indians of the Rocky Boy's Reservation	Bear Paw Casino and Four C's Cafe
Montana	Confederated Salish & Kootenai Tribes	Best Western KwaTaqNuk Resort
Montana	Crow Tribe	Little Bighorn Casino
Montana	Northern Cheyenne Tribe	Charging Horse Casino & Bingo
Nebraska	Omaha Tribe of Nebraska	Lucky 77 Casino
Nebraska	Winnebago Tribe of Nebraska	Native Star Casino
Nebraska	Santee Sioux Tribe of Nebraska	Ohiya Casino & Bingo
Nebraska	Winnebago Tribe of Nebraska	Iron Horse Bar & Casino
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment 1
New York	St. Regis Mohawk Tribe	Mohawk Bingo Palace
South Dakota	Crow Creek Sioux Tribe	Lode Star Casino and Hotel
South Dakota	Flandreau Santee Sioux Tribe	Royal River Casino & Hotel
Texas	Kickapoo Traditional Tribe of Texas	Kickapoo Lucky Eagle Casino
Wisconsin	Ho-Chunk Nation	Dejope Bingo and Entertainment

Appendix F: Indian Gaming Facilities Operating Class II Machines in Scenario 3

Appendix F. Indian Gaming Facilities that Operated Class II Machines in 2006: Scenario 3		
State	**Tribe**	**Gaming Facility**
Alabama	Poarch Band of Creek Indians	Creek Entertainment Center
Alabama	Poarch Band of Creek Indians	Riverside Entertainment Center
Alabama	Poarch Band of Creek Indians	Tallapoosa Entertainment Center
Alaska	Metlakatla Indian Community	Metlakatla Indian Community Bingo
California	Lytton Rancheria of California	San Pablo Lytton Casino
Florida	Miccosukee Tribe of Indians of Florida	Miccosukee Resort & Gaming Center
Florida	Seminole Tribe of Florida	Big Cypress Casino
Florida	Seminole Tribe of Florida	Seminole Casino Brighton
Florida	Seminole Tribe of Florida	Seminole Casino Coconut Creek
Florida	Seminole Tribe of Florida	Seminole Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Casino Immokalee
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Tampa
Minnesota	White Earth Band of Chippewa Indians	Berry's Bar
Minnesota	White Earth Band of Chippewa Indians	Callaway Municipal Liquor Store
Minnesota	White Earth Band of Chippewa Indians	Cedar Crest Resort
Minnesota	White Earth Band of Chippewa Indians	D & G Lounge
Minnesota	White Earth Band of Chippewa Indians	Doc's Den
Minnesota	White Earth Band of Chippewa Indians	Elbow Lake Store
Minnesota	White Earth Band of Chippewa Indians	M & W Service Center
Minnesota	White Earth Band of Chippewa Indians	Mahnomen American Legion Bingo
Minnesota	White Earth Band of Chippewa Indians	Naytahwaush Village Store
Minnesota	White Earth Band of Chippewa Indians	Ogema Fire House
Minnesota	White Earth Band of Chippewa Indians	Pinehurst Resort
Minnesota	White Earth Band of Chippewa Indians	Shooting Star Casino and Hotel
Minnesota	White Earth Band of Chippewa Indians	Tulably Lake Inn
Minnesota	White Earth Band of Chippewa Indians	Wild Rice Lounge
Nebraska	Omaha Tribe of Nebraska	Lucky 77 Casino
Nebraska	Winnebago Tribe of Nebraska	Native Star Casino
Nebraska	Santee Sioux Tribe of Nebraska	Ohiya Casino & Bingo
Nebraska	Winnebago Tribe of Nebraska	Iron Horse Bar & Casino
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment 1
New York	St. Regis Mohawk Tribe	Mohawk Bingo Palace
Texas	Kickapoo Traditional Tribe of Texas	Kickapoo Lucky Eagle Casino
Wisconsin	Ho-Chunk Nation	Dejope Bingo and Entertainment

Appendix G: Update to November 2006 Study

Set forth in this Appendix is the update to the November 3, 2006 study entitled "The Potential Economic Impact of Proposed Changes to Class II Gaming Regulations," which analyzed the May 2006 proposed classification regulations. The updated report contained herein is entitled "The Potential Economic Impact of the May 2006 Proposed Class II Gaming Regulation." It was updated to include new gaming market information and the most current tribal financial data available, both of which were relied upon in the main report to which this is an appendix.

The Potential Economic Impact of the May 2006 Proposed Class II Gaming Regulations

Submitted to:
National Indian Gaming Commission

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Revised:
February 1, 2008

Executive Summary

In May 2006, the National Indian Gaming Commission (NIGC) proposed regulations of Class II Indian gaming.[1] The proposed regulations, which include game classification standards and a revision to the definition of "electronic or electromechanical facsimile," are intended to more clearly distinguish Class II gaming from Class III gaming.[2] Generally, the proposed regulations are expected to be more restrictive than existing practices and likely to limit the types of gaming machines that would be considered to be Class II devices.[3,4]

I was commissioned by the NIGC to conduct an independent study of the potential economic impact of the May 2006 proposed Class II regulations on Indian tribes. Specifically, I was asked to identify the potential economic impacts and, to the extent possible, quantify them on an aggregate nationwide basis. Due to the confidentiality of tribal financial data, analyses cannot be presented on facility-by-facility, tribe-by-tribe, or state-by-state bases. For the purposes of this study, I have assumed that the proposed Class II regulations would go into effect in January 2008 and be legally enforceable. I have no opinions in these regards.

Given the information considered, I have arrived at the following conclusions:

1) In general, the NIGC's proposed Class II gaming regulations would have a significant negative impact on Indian tribes.

2) The magnitude of the negative impact would vary widely from state to state, tribe to tribe, and facility to facility depending on the legal landscape, political environment, existing market conditions, and the availability of viable alternatives to Class II machines.

3) There would be a variety of negative economic impacts on Indian gaming facilities with Class II machines and tribes that operate them:

   - A decrease in gaming revenue;

   - A decrease in non-gaming revenue;

[1] In February 2007, after careful considerable criticism from industry participants regarding the potential economic hardship that would be incurred by tribes and Class II system manufacturers, the NIGC withdrew these proposed regulations. Furthermore, on October 24, 2007, the NIGC published new proposed regulations. This revised study updates my November 2006 study to include new gaming market information and the most current tribal financial data available. It also serves as a comparison for my analysis of the October 2007 proposed regulations, to which this report is an appendix.

[2] In August 2006, the NIGC also proposed technical standards, which did not previously exist. These proposed regulations were also withdrawn by the NIGC in February 2007.

[3] It is important to recognize that Class II machine gaming is conducted in the context of a gaming system that includes software, player interfaces, and titles.

[4] It is the NIGC's position that not all of the systems currently operated by tribes meet the statutory definition of Class II games or comport with game classification advisory opinions issued by the NIGC's Office of General Counsel. Thus, the NIGC considers such systems to be "illegal" (i.e., they are Class III games). I have no opinions in these regards.

- A decrease in the variety and quality of Class II gaming machines;
- Gaming facility closures;
- An increase in capital, deployment, compliance, regulatory, training, revenue-sharing, and financing costs;
- A decrease in the number of tribal member jobs; and
- A decrease in innovation in the Class II gaming machine market.

4) There are also other broader economic impacts on Indian gaming:

- A decrease in leverage that tribes would have in the negotiation/renegotiation of Class III gaming compacts with states;
- Restriction of new entry into the Class II machine market; and
- A change in the degree of competition experienced by Class III gaming facilities as Class II machines become less desirable substitutes for Class III games in the eyes of consumers and as more Class III gaming is introduced.

Although all of the aforementioned economic impacts are rooted in economic theory, some are difficult to quantify and/or lack sufficient data for a quantitative analysis. Given these limitations, I have estimated the magnitude of the economic impacts that are readily quantifiable: lost gaming revenue; lost non-gaming revenue; increased revenue-sharing costs; and lost tribal member jobs.

<u>Lost Gaming Revenue</u>

- Class II machines would generate lower revenue under the proposed regulations than existing practices. Tribes with Class II machines in 2006 included: Alabama, Alaska, Arizona, California, Florida, Minnesota, Montana, Nebraska, New York, Oklahoma, South Dakota, Texas, Washington, Wisconsin, and Wyoming.
- Tribes that are able to shift from Class II machines to viable alternatives (e.g., Class III machines) would be able to mitigate their Class II gaming revenue losses with gains in other gaming revenue (e.g., Class III machine revenue). These tribes include all of those in Arizona, Oklahoma, Washington, and Wyoming, and most in California.
- Using MegaMania as a benchmark for the performance of Class II machines under the proposed regulations, it is estimated that the average revenue per compliant Class II machine would be approximately 64 percent lower than the actual average revenue per existing Class II machine.

- Given a 64 percent decrease in revenue per day for each Class II machine remaining in operation after the regulations go into effect, it is estimated that the annual gaming revenue loss would be approximately $1.4 billion.[5]

- Note that *if* the proposed regulations render Class II machines unlawful or technologically unfeasible, as has been suggested by some industry participants, then lost gaming revenue would be equal to actual Class II machine revenue where there are no viable alternatives to compliant Class II machines. In this situation, lost gaming revenue would be approximately $2.2 billion.

Lost Non-Gaming Revenue

- The $1.4 billion annual loss of gaming revenue would result in lost non-gaming revenue of approximately $132.1 million per year.

- If the proposed regulations render Class II machines unlawful or unfeasible and there are no viable alternatives to compliant Class II machines, the $2.2 billion annual loss of gaming revenue would result in lost non-gaming revenue of approximately $206.7 million per year.

Increased Revenue-Sharing Costs

- While tribes in Arizona, California (excluding the Lytton Band), Oklahoma, and Washington would be able to shift from existing Class II machines to Class III machines and thus potentially generate higher revenue per machine if the proposed regulations were enacted, the tribes would also incur higher revenue-sharing costs of approximately $169.1 million per year. It is uncertain whether these increased costs would be entirely offset by the increase in Class III machine revenue. This would depend on how much more revenue Class III machines generate relative to Class II machines, as well as other costs (e.g., capital, deployment, compliance, regulatory, training, and financing costs) that may be incurred by tribes to switch from Class II to Class III machines.

Lost Tribal Member Jobs

- The annual revenue losses and increased costs at Indian gaming facilities operating Class II machines would result in approximately 3,939 lost tribal member jobs.

- If the proposed regulations render Class II machines unlawful or unfeasible and there are no viable alternatives to compliant Class II machines, the annual revenue

[5] It is the NIGC's view "illegal" Class II machines, as identified by the NIGC (see footnote 4), are not Class II games, and therefore should not be included in the calculation of lost gaming revenue. If "illegal" Class II machines are excluded from the analysis, lost gaming revenue would be approximately $576.3 million per year. This scenario was developed solely at the request of the NIGC and does not reflect my opinion regarding the likely economic impacts of the proposed regulations.

losses and increased costs at Indian gaming facilities operating Class II machines would result in approximately 6,163 lost tribal member jobs per year.

While it is my opinion that the scenarios summarized above represent the most likely outcomes if the proposed Class II regulations are enacted, alternative scenarios and sensitivity analyses are provided within this report to test how the economic impact varies given different assumptions.

Table of Contents

1. Introduction

QUALIFICATIONS

I am a Manager at Analysis Group, Inc., an economic, financial, and strategy consulting firm. I am an economist specializing in the application of economics to complex business issues, commercial litigation, and regulatory matters. I hold a Ph.D., Master of Arts (M.A.), and Bachelor of Arts (B.A.) in Economics from the University of California, Irvine. One of my areas of expertise is Indian gaming. I have consulted tribal and non-tribal governments on a wide array of economic issues related to Indian gaming. My work has included economic impact analyses, industry and market analyses, assessments of regulatory policies, analyses of Tribal-State gaming compacts and revenue sharing, feasibility studies, surveys, and expert testimony in litigation and regulatory matters. I have also conducted years of independent, academic research and authored numerous publications on Indian gaming, most notably my annual economic study of Indian gaming, the *Indian Gaming Industry Report*, which is widely cited and relied upon by governments, the gaming industry, and the investment community.

Further background on myself and Analysis Group is set forth in Appendices A and B, respectively.

ASSIGNMENT

I was commissioned by the National Indian Gaming Commission (NIGC) to conduct an independent study of the potential economic impact of the May 2006 proposed Class II regulations on Indian tribes.[6] Specifically, I was asked to identify the potential economic impacts and, to the extent possible, quantify them on an aggregate nationwide basis. Due to the confidentiality of tribal financial data, I am unable to present analyses on facility-by-facility, tribe-by-tribe, or state-by-state bases.

In 2006, when I was originally commissioned to conduct my independent study, I was asked to review and analyze the facsimile definition and classification standards proposed in May 2006 (hereafter referred to as the "May 2006 proposed regulations").[7] My original study of the May 2006 regulations was completed in November 2006.[8]

The present study updates my November 2006 report to include new gaming market information and the most current tribal financial data available.[9] For the purposes of this

[6] Unless otherwise noted, the opinions set forth herein are those of the author and do not necessarily represent those of the NIGC. Furthermore, nothing in this report should be construed as a legal opinion or conclusion.
[7] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006. I was not asked to review or analyze the technical standards in my November 2006 report (Proposed Rule, 25 CFR Part 547, Technical Standards for ''Electronic, Computer, or Other Technologic Aids'' Used in the Play of Class II Games, *Federal Register* 71 (155), August 11, 2006).
[8] My original study of the May 2006 proposed regulations was entitled "The Potential Economic Impact of Proposed Changes to Class II Gaming Regulations" and was submitted to the NIGC on November 3, 2006.
[9] As in my original report, I was not asked to review or analyze the August 2006 technical standards in the present report.

study, I have assumed that the May 2006 proposed Class II regulations would go into effect in January 2008 and be legally enforceable.[10] I have no opinions in these regards.

INFORMATION CONSIDERED

In conducting my assignment, I relied upon my knowledge of economics and Indian gaming. I also relied upon industry data confidentially provided to me by the NIGC. These data included gaming revenue, total casino revenue, tribal government revenue from Indian gaming, and Class II gaming machine counts.[11] Gaming machine count data were supplemented by information from state gaming regulatory agencies and my previously-conducted research, including the *Indian Gaming Industry Report*.

In addition, input was provided by representatives of tribes, casinos, Class II system manufacturers, state gaming regulatory officials, and NIGC staff. This input was drawn from comments submitted to the NIGC and was supplemented by conversations during the course of my assignment.[12]

[10] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006. I was not asked to review or analyze the technical standards in my November 2006 report (Proposed Rule, 25 CFR Part 547, Technical Standards for ''Electronic, Computer, or Other Technologic Aids'' Used in the Play of Class II Games, *Federal Register* 71 (155), August 11, 2006).

[11] It is important to recognize that Class II machine gaming is conducted in the context of a gaming system that includes software, player interfaces, which are referred to in this report as gaming machines, and game titles.

[12] Comments were communicated to the NIGC verbally (at government-to-government consultation meetings) and in writing (letters and statements) (http://www.nigc.gov/ClassIIGameClassificationStandards/tabid/620/Default.aspx). Telephone calls were made between August 14, 2006 and January 9, 2008.

2. Background

INDIAN GAMING

In the United States, gaming is conducted by Indian tribes as an exercise of their inherent sovereign rights as independent nations.[13] And while Indian tribes have operated gaming facilities since the late 1970s/early 1980s, it was not until the passage of the Indian Gaming Regulatory Act (IGRA) by the United States Congress in 1988 that larger-scale Indian gaming began to emerge. Per IGRA, gaming serves as a means of "promoting tribal economic development, self-sufficiency, and strong tribal governments."[14] Toward these ends, tribes may only use gaming profits to:

1) Fund tribal government operations or programs;
2) Provide for the general welfare of their members;
3) Promote tribal economic development;
4) Donate to charitable organizations; and
5) Help fund operations of local government agencies.[15]

In accordance with the first three uses, tribes have used gaming profits to support a variety of tribal programs and services, such as health care, housing development, schools, youth centers, scholarships, elderly care, child care, vocational training, environmental services, police and fire protection, water and sewer services, transportation, and cultural preservation, as well as to fund the development of other tribal enterprises. Also, some tribes (about 34 percent) distribute per capita payments to tribal members.[16] With regards to the fourth and fifth uses, tribes make donations to charities and revenue sharing payments to state and local governments.

Per IGRA, there are three distinct classes of Indian gaming:[17]

- Class I gaming refers to "social games for prizes of minimal value or traditional forms of Indian gaming engaged in by individuals as part of, or in connection with, tribal ceremonies or celebrations."
- Class II gaming refers to "(i) the game of chance commonly known as bingo (whether or not electronic, computer, or other technologic aids are used in

[13] Light, Steven A., Kathryn R.L. Rand, and Alan Meister, 2005, Spreading the Wealth: Indian Gaming and Revenue Sharing Agreements, North Dakota Law Review, 80:4.
[14] Indian Gaming Regulatory Act, 25 U.S.C. § 2702.
[15] Indian Gaming Regulatory Act, 25 U.S.C. § 2710.
[16] In 2002, per capita payments were distributed to tribal members in 73 tribes (Source: National Indian Gaming Association, *Indian Gaming Facts*, accessed November 5, 2007 [http://www.indiangaming.org/library/indian-gaming-facts/index.shtml]). In that same year, there were 216 gaming tribes (Source: Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press). Thus, approximately 34 percent (73/216) of gaming tribes distributed per capita payments in 2002.
[17] Indian Gaming Regulatory Act, 25 U.S.C § 2703.

connection therewith) – (I) which is played for prizes, including monetary prizes, with cards bearing numbers or other designations, (II) in which the holder of the card covers such numbers or designations when objects, similarly numbered or designated, are drawn or electronically determined, and (III) in which the game is won by the first person covering a previously designated arrangement of numbers or designations on such cards, including (if played at the same location) pull-tabs, lotto, punch boards, tip jars, instant bingo, and other games similar to bingo; and (ii) card games that – (I) are explicitly authorized by the laws of the State, or (II) are not explicitly prohibited by the laws of the State and are played at any location in the State …" Class II gaming "does not include (i) any banking card games … or (ii) electronic or electromechanical facsimiles of any game of chance or slot machine of any kind."

- Class III gaming refers to "all forms of gaming that are not Class I or Class II gaming." This includes slot machines, other video and electronic games of chance, craps, roulette, pari-mutuel wagering, and house-banked card games like blackjack.

CLASS II MACHINE GAMING

Although Class II gaming includes traditional paper bingo and pull-tabs, it is largely dominated by electronic bingo and pull-tab machines.[18] As shown in Table 1, 72 tribes operated 50,924 gaming machines as Class II devices in 160 Indian gaming facilities in 2006 (see Appendix C for a list of facilities).[19] These facilities generated total Class II machine revenue of approximately $3.6 billion and associated non-gaming revenue of approximately $154.2 million.[20,21]

Table 1. 2006 Class II Gaming Machine Market

Tribes	72
Facilities	160
Class II Machines	50,924
Gaming Revenue ($ Millions)	$3,550.7
Non-Gaming Revenue ($ Millions)	$154.2

Sources: Indian Gaming Industry Report and NIGC data.

[18] It is the NIGC's view that some gaming machines operated by tribes as Class II machines fail to meet the existing Class II classification standards and are thus Class III games. See the Scenario 3 results in the Lost Gaming Revenue section of Chapter 5 for further discussion.

[19] NIGC; Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

[20] Tribal government revenue resulting from Class II machine gaming revenue and associated non-gaming revenue was approximately $733.5 million.

[21] Derived via analysis of tribal financial data provided by the NIGC and data underlying the *Indian Gaming Industry Report*. See Chapter 4 for background on these data.

As shown in Table 2, there were 15 states with Class II machines in 2006: Alabama, Alaska, Arizona, California, Florida, Minnesota, Montana, Nebraska, New York, Oklahoma, South Dakota, Texas, Washington, Wisconsin, and Wyoming. It is important to note that while Class II machine gaming is operated in various states across the country, it is highly concentrated in two states: Oklahoma and Florida. Combined, these two states account for 76 percent of the total number of Class II machines. Oklahoma alone has 59 percent of the machines. After Oklahoma and Florida, California, Alabama, and Washington have the largest number of Class II devices.

Table 2. 2006 Class II Gaming Machine Market by State

State	Tribes	Facilities	Machines	Machines % of Total
Alabama	1	3	2,101	4.1%
Alaska	1	1	30	0.1%
Arizona	2	2	56	0.1%
California	6	8	4,215	8.3%
Florida	2	8	8,615	16.9%
Minnesota	1	14	113	0.2%
Montana	6	7	535	1.0%
Nebraska	3	4	314	0.6%
New York	2	3	1,287	2.5%
Oklahoma	27	87	30,044	59.0%
South Dakota	2	2	64	0.1%
Texas	1	1	1,325	2.6%
Washington	16	17	1,771	3.5%
Wisconsin	1	1	361	0.7%
Wyoming	1	2	94	0.2%
Total	**72**	**160**	**50,924**	**100.0%**

Sources: Indian Gaming Industry Report and NIGC data.

These statistics in Tables 1 and 2 reflect substantial growth over time. In fact, the Class II gaming machine segment of the Indian gaming industry has been growing at a much faster rate than Class III gaming.[22] This growth of Class II machine gaming can be attributed to two key factors.[23] First, Class II gaming machines have been evolving rapidly. Technological advances have allowed Class II machines to more closely mimic the look and feel of Class III machines. Relative to their predecessors, current Class II machines are generally more advanced, visually appealing, and capable of generating greater revenue.

The second factor leading to the dramatic growth of Class II machine gaming has been the fact that some gaming markets in Class II-only states are in the early stages of development. Many of these states are smaller markets, often with only a few tribes and/or facilities and little or no local competition. Thus, there have been opportunities to expand existing facilities and/or develop additional facilities in these markets.

[22] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[23] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

Despite its impressive growth, Class II machine gaming only represents a small portion of the total Indian gaming industry. In 2006, it represented approximately 14 percent of total gaming revenue generated at Indian gaming facilities.[24] While the contribution of Class II machine gaming to the Indian gaming industry is small relative to that of Class III gaming, it is not insignificant or inconsequential. It plays an important role in the industry. First, Class II gaming machines are extremely important to tribes:

- Where Class III gaming is not permitted, Class II machines have provided tribes viable gaming devices. In 2006, this was the case in the states of Alabama, Alaska, California (only for the Lytton Band of Pomo Indians), Florida, Nebraska, and Texas.[25]

- Where Class III gaming is permitted, Class II machines have been used to supplement Class III machines. This may be desirable for tribes that have restrictions on allowable Class III gaming (e.g., caps on the number of Class III machines that can be operated; a limit on the number of Class III gaming facilities that can be operated by a tribe; revenue sharing associated with Class III machines; and restrictions on the type and/or quality of Class III machines that can be operated). In 2006, Class III machines were supplemented with Class II machines in Arizona, California (for all tribes except the Lytton Band of Pomo Indians), Minnesota, Montana, New York, Oklahoma, South Dakota, Washington, Wisconsin, and Wyoming.

- Whether or not Class III gaming is currently permitted, Class II machines may provide some leverage in future Class III compact negotiations or renegotiations. Current Class II machine gaming represents a potential fallback position for a tribe should a state refuse to negotiate/renegotiate a compact or not negotiate in good faith. The strength of the bargaining position of any particular tribe is affected by the quality of allowable Class II machines.

Class II machine gaming is also important to the casino gaming market. In geographic areas where casino gaming is otherwise non-existent, Class II machines provide casino patrons a local gaming option. In geographic areas where casino gaming is limited or some distance away from patrons, Class II machines may provide some degree of competition. Competition between Class II and Class III machines is likely to be greater when there is less of a difference between the quality and performance of Class II and Class III machines and/or when Class II machine gaming is located closer to patrons than Class III machine gaming.

[24] Class II machine revenue as a percentage of total gaming revenue at all Indian gaming facilities = $3.551 billion / $ 24.886 billion = 14.3 percent. Source: Analysis of NIGC data for fiscal year 2006. Note that total gaming revenue at all Indian gaming facilities is slightly lower than the amount publicly reported by the NIGC in June 2007. This is a result of adjustments made by the NIGC following that date.

[25] For a discussion of the situation in Florida, see the State-By-State Review of Class II Machine Gaming in the Lost Gaming Revenue section of Chapter 5.

EXISTING CLASS II REGULATORY ENVIRONMENT

IGRA established a framework for the regulation of Indian gaming.[26] By design, regulatory authority differed depending on the Class of gaming being conducted. In particular, Class II gaming was maintained within the jurisdiction of Indian tribes and also subject to the provisions of IGRA, which include the NIGC's power to promulgate regulations and guidelines it deems appropriate to implement the provisions of IGRA.[27]

While the classification of Class II games was broadly defined in IGRA, the NIGC adopted regulations that included specific definitions of terms used in IGRA's game classification framework. Because IGRA recognized the right of tribes to use "electronic, computer, or other technologic aids" but not "electronic or electromechanical facsimiles" to conduct Class II gaming, the definitions of these terms has become critical. In 1992, the NIGC defined these terms as follows:[28]

> **§ 502.7 Electronic, computer or other technologic aid.**
>
> (a) *Electronic, computer or other technologic aid* means any machine or device that:
>
> (1) Assists a player or the playing of a game;
>
> (2) Is not an electronic or electromechanical facsimile; and
>
> (3) Is operated in accordance with applicable Federal communications law.
>
> (b) Electronic, computer or other technologic aids include, but are not limited to, machines or devices that:
>
> (1) Broaden the participation levels in a common game;
>
> (2) Facilitate communication between and among gaming sites; or
>
> (3) Allow a player to play a game with or against other players rather than with or against a machine.
>
> (c) Examples of electronic, computer or other technologic aids include pull tab dispensers and/or readers, telephones, cables, televisions, screens, satellites, bingo blowers, electronic player stations, or electronic cards for participants in bingo games.

[26] Indian Gaming Regulatory Act, 25 U.S.C. § 2710.
[27] Indian Gaming Regulatory Act, 25 U.S.C. § 2710(a)(2).
[28] 25 Code of Federal Regulations (CFR) Parts 502.7 and 502.8; 57 FR 12392, Apr. 9, 1992, as amended at 67 FR 41166, June 17, 2002.

§502.8 Electronic or electromechanical facsimile.

Electronic or electromechanical facsimile means a game played in an electronic or electromechanical format that replicates a game of chance by incorporating all of the characteristics of the game, except when, for bingo, lotto, and other games similar to bingo, the electronic or electromechanical format broadens participation by allowing multiple players to play with or against each other rather than with or against a machine.

2006 PROPOSED CLASS II GAMING REGULATIONS

Over time, the interpretation of the aforementioned terms has been the subject of much debate. Thus, in May 2006, the NIGC "determined that it [was] in the best long term interest of Indian gaming to issue classification standards clarifying the distinction between 'electronic, computer, and other technologic aids' used in the play of Class II games and other technologic devices that are 'electronic or electromechanical facsimiles of a game of chance.'"[29] In doing so, the NIGC also decided that a further revision to the definition of "electronic or electromechanical facsimile" was needed.[30] In addition, in August 2006, the NIGC proposed technical standards "to provide a means for tribal gaming regulatory authorities and tribal operators to ensure that the integrity of Class II games played with the use of electronic, computer, or other technologic aids, is maintained; that the games and aids are secure; and that the games and aids are fully auditable."[31]

Generally, these proposed regulations were expected to be more restrictive than existing practices and likely to limit the types of gaming machines that would operate as Class II devices.[32] According to the proposed regulations,[33] Class II games using electronic, computer, and other technologic aids would have had to meet the following requirements:[34]

- For bingo or other games similar to bingo:
  - Players must compete against one another.
  - Although the NIGC encourages play with six or more participants, a game can begin with a minimum of two players if six players do not enter a game within two seconds after the first player enters.

[29] Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006.
[30] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006.
[31] Proposed Rule, 25 CFR Part 547, Technical Standards for ''Electronic, Computer, or Other Technologic Aids'' Used in the Play of Class II Games, *Federal Register* 71 (155), August 11, 2006. As noted in the Assignment section, I was not asked to review or analyze the technical standards in my report on the May 2006 proposed regulations.
[32] In February 2007, after careful considerable criticism from industry participants regarding the potential economic hardship that would be incurred by tribes and Class II system manufacturers, the NIGC withdrew the May and August 2006 proposed regulations. Furthermore, on October 24, 2007, the NIGC published new proposed regulations.
[33] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006.
[34] This list is not intended to be a complete list of requirements, but rather a summary of the key classification standards. For a complete list of the standards, see the Proposed Rules. Not included or addressed in this report are technical standards proposed by the NIGC. As noted in the Assignment section of Chapter 1, I was not asked to review or analyze the technical standards in this report or my November 2006 report to which the present report is an update.

- Bingo cards must be used; however, those cards may be electronic.
- Bingo cards must be provided to players before numbers are drawn.
- Each card played in a game must have an equal chance of obtaining any winning pattern.
- Technologic aids are permitted but they must prominently display using two inch letters a message that it is a game of bingo or game similar to bingo.
- One-half of the screen must display the bingo game at all times.
- Alternative technologic displays of game results (e.g., game theme graphics, spinning reels, or other imagery) are permitted as long as the game results on the electronic bingo card are always shown.
- Numbers must be randomly drawn (without replacement) in real time or very near real time to the actual play of the game.
- Different entry wagers are permitted.
- An "ante-up" format is permitted.
- An "auto-daub" feature is not permitted; thus, players must take overt action to daub (i.e., cover) numbers at least one time in each round after numbers are drawn.
- The minimum time for players to daub numbers must be two seconds.
- There must be at least two releases of numbers before a game-winning pattern is created.
- The minimum time for each number release must be two seconds.
- A game-winning prize must be awarded in every game.
- A game is won by the first person covering the pre-designated game-winning pattern.
- The prizes in the game may be increased or progressive prizes offered based upon a higher entry wager.
- All prizes must be based upon achieving pre-designated winning patterns common for all players.
- Gaming-winning prizes must be at least 20 percent of the amount wagered and have a minimum value of one cent.
- Prizes may not be based on an event not directly related to the game.
- All prizes must be fixed in amount or established by formula and be disclosed to all players in the game.
- The use of a paytable for determining prizes is permitted.
- Pre-designated interim prizes may be offered but all players in a game must be competing for the same set of prizes.
- "Stand-alone progressives" and "mystery jackpots" are not permitted.
- A "gamble feature" is not permitted.
- "Residual credit removal" is not permitted.
- "Free games" are permitted as a marketing tool as long as all players participating in the game that led to the free games receive the same number of free games.

- For pull-tabs:

- The game must exist in a tangible format (e.g., paper) and be readily accessible to the player at the player station.
- The tangible pull-tab must contain the information necessary to determine if a player won a prize.
- Technologic aids are permitted but they must prominently display using two inch letters a message stating that it is a game of pull-tabs.
- Alternative displays of game results (e.g., game theme graphics, spinning reels, or other imagery) are permitted as long as the game results are always shown along with important player information.
- The game may not accumulate credits.
- The player station may not pay out winnings, or dispense vouchers or receipts representing such winnings.

3. Qualitative Review of the Potential Economic Impact of the Proposed Class II Gaming Regulations

If the proposed Class II regulations are enacted and legally enforceable,[35] they are generally expected to have a significant negative economic impact on Class II machines and tribes that operate them. The proposed regulations will also have a broader economic impact on Indian gaming.

This chapter provides a qualitative review of the potential economic impacts of the proposed Class II gaming regulations. Each of these potential impacts is independently reviewed below. However, note that the impacts are not necessarily additive (i.e., the actual total impact may be less than or greater than the sum of the individual impacts).[36] In fact, some impacts are likely to be captured in the quantification of other impacts.[37] Overall, it is difficult to determine the cumulative effect a priori. Chapter 5 of this report estimates the magnitude of the quantifiable economic impacts.

THE IMPACT ON CLASS II GAMING MACHINES

Based upon my review of the May 2006 proposed regulations, comments from industry participants, and discussions with NIGC staff,[38] I understand that the proposed Class II regulations are restrictive in nature. In achieving the NIGC's goal of further differentiating Class II gaming from Class III gaming, the proposed regulations would also make newly compliant Class II machines inferior to existing Class II machines. Specifically, Class II machines would become:

- Slower – Additional delays would be required between and during games.
- More cumbersome to play – Additional daubing and wait time would be introduced into the games.
- Confusing – Inconsistencies in the speed of a machine would be created due to varying lengths of time delays. Additional daubing within a game would at least

[35] Based upon my discussions with tribes, casinos, and Class II system manufacturers during the course of my assignment, I understand that it is likely that various tribes and Class II system manufacturers will file lawsuits against the NIGC over the legality of the proposed Class II regulations, if enacted. I have no opinions regarding the legality and enforceability of the proposed regulations.

[36] The total economic impact would be equal to the sum of the lost profits from the non-duplicative portions of each impact set forth in this chapter of the report (see the direct impacts numbered one through seven below and the broader impacts numbered one through three below). However, as noted later in this report, a number of the economic impacts were not quantifiable. Furthermore, sufficient industry-wide cost data other than that set forth in this report were not available for computing lost profit.

[37] For example, at least some of the effects of decreased variety and quality of Class II machines, as well as gaming facility closures, are likely to be captured in lost gaming revenue.

[38] Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, *Federal Register* 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006; comments by tribes and Class II system manufacturers; telephone conversations with tribes, Class II system manufacturers, and NIGC staff during the course of my assignment.

initially introduce some confusion. The confusion and inconsistency in game operation may also create the appearance of unfairness to players.

- Less diverse – Requirements of common winning patterns, payback percentages, and probabilities of winning would limit the variety of machines that could be made available to patrons on a gaming floor.

Given these problems, newly compliant Class II machines would be less appealing to patrons and generate less gaming revenue than existing Class II machines. This decrease would result from two effects. First, fewer total visits would likely be made to Class II gaming facilities. Some patrons may make fewer visits to Class II gaming facilities, while others may stop visiting altogether. The effect is especially dependent upon gaming alternatives that are available to patrons. Second, when patrons do visit, some may decrease their spending. This can result from a decrease in the appeal of the machines and/or a decrease in the amount of time that machines are available for play (e.g., if utilization of machines is 100 percent and the machines are slower, fewer plays of the machines can be made).

OPTIONS FOR TRIBES OPERATING EXISTING CLASS II GAMING MACHINES

Under the proposed regulations, there would be three potential options for tribes operating Class II gaming machines:

(1) **Adopt compliant gaming machines** – If a tribe wants to continue operating Class II gaming machines and it has no other viable alternative, then it must adopt gaming machines compliant with the proposed regulations.

(2) **Adopt an alternative** – If a tribe has an alternative that would be more profitable than compliant gaming machines, then it would surely shift to the alternative. Furthermore, if the alternative turned out to be more profitable than existing Class II machines (e.g., Class III machines), then a tribe would be better off than its existing situation. One may argue that if the alternative would make a tribe better off, it would have already been doing that alternative. However, this is not necessarily the case. Alternatives may only become available as a result of the proposed Class II regulations (e.g., a tribe may choose to enter into a compact or renegotiate a compact when it otherwise would not do so; the Department of the Interior may consider granting requests for Secretarial Procedures more often and/or more quickly; a tribe may discover an existing alternative that it was not previously aware of; tribes and/or Class II system manufacturers may develop new alternatives). If an alternative were more profitable than compliant gaming machines but less profitable than existing Class II machines, then a tribe would still choose the alternative but be worse off.

Note that if a tribe offering Class II machines is able to introduce Class III gaming or add more Class III machines as an alternative to Class II machines, then it could just continue operating the Class II machines, which would then be considered Class III

machines under the proposed regulations. Of course, traditional Class III machines are likely to be much better revenue generators than Class II machines reclassified as Class III machines.

In theory, an alternative could be something other than gaming. However, in most cases, non-gaming alternatives are not likely to be as viable as gaming alternatives.

(3) **Shut down –** If a facility were no longer able to generate sufficient revenue to cover its variable costs of operation, a tribe may shut down the facility. In the short run, it seems likely that tribes without a viable alternative would try to work with whatever is allowed under the proposed regulations. However, in the long run, if gaming revenue losses at some gaming facilities are too large, those facilities may be forced to shut down. Indeed, given the large expected decrease in revenue (see Chapter 5), it is likely that some smaller Indian gaming facilities that are only marginally profitable would have to shut down. Unfortunately, in the aggregate analyses set forth in this report, there is no way to identify these cases.

THE DIRECT ECONOMIC IMPACT ON CLASS II GAMING FACILITIES AND THEIR RESPECTIVE TRIBES

In light of the effects of the proposed Class II regulations and the options available to tribes operating Class II gaming machines, there would be several negative economic impacts on Class II gaming facilities and the tribes that operate them:

(1) Lost gaming revenue;

(2) Lost non-gaming revenue;

(3) Decreased variety and quality of Class II machines;

(4) Gaming facility closures;

(5) Increased capital, deployment, compliance, regulatory, training, revenue-sharing, and financing costs;

(6) Lost tribal member jobs; and

(7) Decreased innovation in the Class II gaming machine market.

Lost Gaming Revenue

Because the proposed regulations will slow down Class II gaming machines, make them more cumbersome and confusing to play, and cause them to be less appealing to patrons in comparison to existing Class II machines, there would likely be a decrease in gaming revenue from Class II machines. First, a slowdown of machines reduces the amount of time available for play. Thus, fewer dollars can be generated by a machine when it is utilized 100 percent of the time or when patrons are time constrained (i.e., patrons have a limited amount of time to gamble). Second, a less appealing, more cumbersome, and potentially confusing Class II machine could also decrease consumer demand. Patrons may come less often,

maybe not at all, or go somewhere else instead (e.g., a Class III Indian gaming facility, a commercial casino, or a racino).

The decrease in gaming revenue may vary widely from state to state, tribe to tribe, and facility to facility depending on the legal landscape, political environment, existing market conditions, and the availability of viable alternatives to Class II machines. In terms of the latter reason, if tribes have an alternative to Class II machines, there may be little or no decrease in gaming revenue. The impact depends on how well the alternative ultimately performs. If the alternative does at least as well as existing Class II machines,[39] then there is no gaming revenue loss. If the alternative does not perform as well as existing Class II machines, then the gaming revenue loss would be equal to the revenue generated by existing Class II machines minus that generated by the alternative.

Also, note that *if* the proposed regulations render Class II machines unlawful or technologically unfeasible,[40] as has been suggested by some industry participants, then lost gaming revenue would be equal to the entirety of Class II machine revenue where there are no viable alternatives to compliant Class II machines.

If tribes do not have a viable alternative to Class II machines, they would have to adopt lower revenue-generating Class II machines that comply with the proposed regulations. In the extreme, if the gaming revenue loss to an Indian gaming facility were large enough, it could put them out of business. Although such individualized outcomes cannot be predicted by an aggregate economic model, such as that used in Chapter 5, it is a realistic possibility for some tribes given the magnitude of the expected lost gaming revenue (see Chapter 5 for further details). And if lost gaming revenue is significant enough to force a facility to shut down, then lost gaming revenue for that facility would equal actual gaming revenue. For this reason, lost gaming revenue estimated in Chapter 5 is likely to be conservative.

Overall, a decrease in gaming revenue may be reflected by a decrease in revenue per machine and/or a decrease in the number of gaming machines in operation.[41]

Lost Non-Gaming Revenue

If there is a decrease in gaming revenue, there is also likely to be an associated decrease in non-gaming revenue. Many Indian gaming facilities now offer on-site non-gaming amenities such food and beverages, lodging, retail, and entertainment. While historically many Class II facilities have not had much in the way of non-gaming amenities except some food and beverages, this has been changing. In recent years, the general trend in the Indian gaming industry has been towards the addition or expansion of non-gaming amenities. This

[39] If an alternative requires revenue sharing (e.g., Class III machines), it must outperform existing Class II machines by a margin equal to its revenue sharing.
[40] I have no opinion regarding the technological feasibility of the proposed regulations.
[41] For further discussion, see the Methodology section under Lost Gaming Revenue in Chapter 5.

has occurred for two reasons. First, they often generate a revenue stream of their own. According to aggregate tribal financial data, non-gaming revenue was approximately 13 percent of gaming revenue at all Indian gaming facilities nationwide (including Class II and Class III facilities) in 2006.[42] For facilities with Class II machines, the contribution is much less at approximately four percent of gaming revenue. The second reason for the trend towards more non-gaming amenities is the positive impact they tend to have on gaming revenue. Good quality amenities tend to draw people from farther distances, encourage them to stay longer, and spend more money.

Decreased Variety and Quality of Class II Machines

The enactment of the proposed regulations is likely to change the landscape of the Class II system manufacturing market, which in turn will have an impact on tribes that continue to offer Class II machines. As previously noted, the proposed regulations are likely to decrease demand for Class II machines. Thus, tribes with Class II machines will either convert to compliant Class II machines, which are likely to be less appealing to patrons and generate less revenue, or shift to available alternatives (e.g., Class III gaming). Given economies of scale inherent in the manufacture of gaming machines (i.e., lower per unit costs as more units are manufactured),[43] a decrease in demand may result in higher costs per Class II machine. On the whole, some Class II system manufacturers may no longer find it profitable to stay in the market.[44] And a decrease in competition among manufacturers would likely lead to a decrease in the variety and/or quality of Class II machines, as well as an increase in prices of Class II gaming equipment (for a further discussion of price increases, see the Increased Costs section).

While the proposed regulations would likely have a negative impact on the Class II system manufacturing market, and thus tribes that operate compliant Class II machines, the proposed regulations could benefit the Class III machine manufacturing market as there would be an increase in demand as a result of some gaming operations shifting from Class II to Class III machines.[45]

Gaming Facility Closures

Given that no existing Class II machines meet the proposed regulations, tribes would be required to remove, modify, or replace every existing Class II machine in operation. This

[42] Analysis of NIGC data.
[43] For example, product research and development costs are spread over more machines as the number of manufactured machines increases.
[44] Some major manufacturers, such as IGT and Bally Technologies, have entered the Class II system manufacturing market in the past few years as a result of the increasing demand for Class II machines. If this demand is eliminated or reduced by the proposed Class II regulations, it is likely that a number of manufacturers will leave the market because of a likely decrease in profitability. As a matter of fact, at least one manufacturer has unequivocally said that it would not continue making Class II machines if the May 2006 proposed regulations were enacted. Other manufacturers have stated they are unsure whether they would remain in the market. Source: Discussions with Class II system manufacturers.
[45] For the manufacturers that make both Class II and Class III machines, the loss in the Class II market may be offset to some degree by a gain in the Class III market if they earn some of the shift in business.

could take some time as compliant Class II gaming systems must be developed, tested, certified by independent laboratories, and installed/modified in gaming facilities across the country. In mid to late 2006, Class II system manufacturers were estimating that it could take more than a year, even up to 24 months, to accomplish these tasks.[46] The actual timeline would depend on how many machines ultimately need to be replaced or modified, how many manufacturers are left in the market, which manufacturers remain, how close a manufacturer's existing machines are to meeting the proposed regulations, a manufacturer's engineering capabilities, possible backlogs at gaming machine laboratories, and how quickly issues can be resolved after machines have been submitted to a lab and/or the NIGC.[47]

Initially, the proposed regulations would give tribes six months to become compliant.[48] If this is not sufficient time and good cause is shown, then tribes may request one or more six-month extension periods. Based upon discussions with the NIGC staff, they have acknowledged that up to two or three such extension periods may be warranted in order for some tribes to become fully compliant. If compliant gaming devices are not ultimately ready within whatever time tribes are allowed by the NIGC, tribes will have to temporarily shut down non-compliant Class II machines until they are compliant. Temporary shut downs would likely cause major business disruptions, particularly if Class II machines comprise a large proportion of a gaming facility's revenue generation capabilities (e.g., in a Class II-only facility).

The physical replacement and/or modification of *all* Class II machines in a gaming facility may also result in some temporary and/or partial closures. This is particularly relevant where there is a large number of existing Class II machines. If there is not enough time to replace and/or modify all machines on a gradual basis, gaming facilities may find themselves rushing to complete the process at the last minute and be forced to replace and/or modify everything simultaneously. And this could result in complete facility closures.

Lastly, as previously noted, there may also be permanent closures of entire Indian gaming facilities or portions thereof. If a Class II-only facility does not have a viable alternative to existing Class II machines and compliant Class II machines do not generate sufficient revenue to cover the variable cost of operations, a tribe may have to shut down a facility. In such cases, lost gaming revenue would equal total gaming revenue. If Class II machines in a Class III facility are no longer profitable and there is no viable alternative, a tribe may have to shut down those machines altogether. Thus, in these situations, lost gaming revenue would equal Class II machine revenue.

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[46] Based upon phone discussions with several major Class II gaming machine manufacturers and comments from industry participants.

[47] If existing *Class II* systems are modified or replaced with compliant systems, then the timing will depend on the number of *Class II* system manufacturers that remain in the market and their manufacturing/modification capacities. However, if some tribes were to switch to *Class III* gaming, then the timing will depend on the number of *Class III* machine manufacturers and their manufacturing capacities.

[48] Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., *Federal Register* 71 (101), May 25, 2006.

Increased Costs

Given that there are no existing Class II gaming machines that would meet the requirements of the proposed regulations,[49] all existing Class II gaming systems operated by tribes must be modified or replaced (either with compliant Class II machines or available alternatives). And in doing so there would be significant incremental costs that otherwise would not have been incurred:

(1) Capital costs – costs of modifying or replacing Class II gaming systems,[50] including software, player interfaces, titles, and other related components if necessary; these costs are likely to be passed through to tribes in the form of higher purchase prices if Class II systems are purchased by tribes or higher participation fees (i.e., a higher percentage of gaming revenue charged by Class II system manufacturers to tribes) if Class II systems are leased.[51,52]

It is my understanding that these capital costs are purely incremental in nature and would not be incurred but for the proposed regulations. Due to the smaller size of this still-developing Class II machine market and the fundamental nature of Class II gaming, the software, player interfaces, and titles are not replaced based on a typical Class III machine lifecycle (e.g., five years). Software and player interfaces are typically only replaced or modified if they are damaged or switched out with a new system, which is not all that often. Also, relative to the number of total player interfaces (50,000 plus), there are not a lot of available titles. Thus, titles are not often retired or discarded by Class II system manufacturers. In fact, many titles (e.g., Rocket Classic from Rocket Gaming Systems, Red Hot Ruby and Mr. Money Bags from VGT, and Red White & Blue from IGT) have been around for quite a long time.[53]

(2) Deployment costs – delivery and installation of newly compliant Class II gaming systems, including software, player interfaces, titles, and other related components if necessary.

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[49] Based upon comments from tribes, casinos, Class II system manufacturers, and NIGC staff.

[50] Throughout the course of conducting this study and my previous study of the May 2006 proposed regulations, Class II system manufacturers have referred to Class II gaming systems as "all components, whether or not technologic aids in electronic, computer, mechanical, or other technologic form, that function together to aid the play of one or more Class II games …" The key components of Class II gaming systems are: software, player interfaces, and titles. Software, which may reside on centralized servers and/or player interfaces, are the "operational program or programs that govern the play, display of results, and/or awarding of prizes or credits of Class II games." A player interface, also commonly referred to as an electronic player station (EPS), bingo player interface (BPI), or "box", is "any component or components … including an electronic or technologic aid … that directly enables player interaction in a Class II game." A title, also commonly referred to as a game, refers to the game theme or graphical display at the player interface, including both the bingo card and alternative displays. Sources: Class II system manufacturers and the October 2007 proposed regulations (Proposed Rule, 25 CFR Part 547, Technical Standards for Electronic, Computer, or Other Technologic Aids Used in the Play of Class II Games, *Federal Register* 72 (205), October 24, 2007).

[51] If machines are sold rather than leased, which is currently the norm, the risk associated with owning lower-revenue generating compliant machines would be shifted from manufacturers to tribes.

[52] There will also be capital costs for tribes that shift from Class II to Class III machines. However, if Class III machines do in fact perform better than compliant Class II machines, then the gaming revenue gains (and non-gaming revenue gains associated with the gaming revenue gains) may offset increased capital costs.

[53] Discussions with Class II system manufacturers.

(3) Compliance Costs – test lab fees for ensuring the software, player interfaces, and titles are compliant with the proposed regulations.

(4) Regulatory costs – increased costs of regulating new and/or modified Class II systems following the proposed regulations.

(5) Training costs – increased costs to Indian gaming facilities to acclimate casino employees and customers with compliant Class II machines.

(6) Revenue-sharing costs – increased payments to state and local governments if tribes shift from Class II machines to Class III machines as a result of the enactment of the proposed regulations; only relevant in states where tribes have revenue sharing agreements in their gaming compacts.

    It should be noted that it is uncertain whether these increased costs would be entirely offset by the increase in Class III machine revenue. This would depend on how much more revenue Class III machines generate relative to Class II machines, as well as other costs (e.g., capital, deployment, compliance, regulatory, training, and financing costs) that may be incurred by tribes to switch from Class II to Class III machines.

(7) Financing costs – for existing financing, such as for the construction or renovation of gaming facilities, a decrease in Class II machine revenue and gaming facility closures may trigger additional costs, such as increased interest rates, penalties, and possibly even defaults; for future financing, the result may be higher financing costs, inferior financing terms, and possibly the inability to obtain financing at all.

Lost Tribal Member Jobs

If Indian gaming facilities, and subsequently tribal governments, experience a decrease in revenue as a result of the proposed regulations, tribes may find it necessary to reduce the size of their workforces, which typically include tribal members.

Decreased Innovation in the Class II Gaming Machine Market

Lastly, the proposed regulations are likely to stifle innovation in the Class II machine gaming market. First, the proposed regulations would certainly take the industry backwards in terms of technological development. I believe there is universal agreement on this. However, this seems to be in line with the main goal of the proposed regulations – to draw a clearer distinction between Class II and Class III machines.

Second, there is less incentive to conduct further research and development for Class II systems as a result of: tighter regulations; decreased revenue generation capabilities; fewer Class II system manufacturers and decreased competition; and increased costs, including difficulties in obtaining financing (for both manufacturers to develop Class II systems and tribes to purchase/lease Class II systems) and huge investments in non-growth activities such as making Class II systems compliant with the proposed regulations.

THE GENERAL ECONOMIC IMPACT ON INDIAN GAMING

The proposed regulations would also have other broader economic impacts on Indian gaming, including:

(1) Decreased leverage in Class III compact negotiations/renegotiations;

(2) Restriction of new entry into the Class II machine market; and

(3) Changes in competition for Class III gaming.

Decreased Leverage in Class III Compact Negotiations/Renegotiations

In accordance with IGRA, Class III gaming compacts govern the operation of Class III gaming. The negotiation/renegotiation of compacts is often a very difficult process. Thus, as in most types of negotiations, relative bargaining positions are very important. The party that has the stronger bargaining position is more likely to get a favorable outcome on issues within the negotiation/renegotiation. In terms of gaming compacts, important issues include tribal sovereignty, the degree of state regulatory authority, the types and number of games, the number of gaming facilities, revenue sharing, economic benefits conferred upon tribes in exchange for revenue sharing (e.g., exclusivity), and voluntary compliance with various non-tribal regulations (e.g., environmental and labor).

In the negotiation/renegotiation of compacts, Class II machine gaming has played an important role by serving as leverage for tribes. If states refuse to negotiate/renegotiate gaming compacts or do not do so in good faith, tribes can turn to Class II machines, over which the state has no say. In essence, Class II machines can serve as a fallback position for tribes.

However, if the viability of Class II machines is diminished (i.e., a decrease in revenue and/or an increase in costs), as is expected to be the case with the May 2006 proposed regulations, at least some of a tribe's leverage in negotiating/renegotiating gaming compacts would be lost. The degree of the lost leverage ultimately depends on other circumstances, such as competition, the types and quantity of gaming contemplated, whether the compact is for new gaming or the expansion of existing gaming, and the well-being of both state and tribal economies. But if sufficient leverage is lost, the result could be refusals by states to negotiate/renegotiate gaming compacts or tribes having to negotiate unfavorable compacts (e.g., curtailing of tribal sovereignty or an increase in revenue sharing).

Restriction of New Entry into the Class II Machine Market

New entry into the Class II machine market, in the form of new and expanded Class II gaming facilities, would likely be restricted under the proposed regulations. The expected decrease in revenue and expected increase in costs of operating compliant Class II machines (as noted in previous sections of this chapter) would substantially reduce the potential profitability of Class II machines. This, in turn, could make it uneconomical to construct

new facilities or renovate existing ones. While this result is likely to limit the extent of future competition in Class II machine gaming markets, the benefits of reduced competition would accrue to tribes operating compliant Class II machines. However, this impact may not be significant if the market potential for compliant Class II machines is small to begin with.

Changes in Competition for Class III Gaming

While the proposed Class II regulations may provide greater clarity regarding the distinction between Class II and Class III machines,[54] they will do so in a way that will likely affect the degree of competition in the Indian gaming industry. First, consumers are likely to view compliant Class II machines as less desirable substitutes for Class III machines than existing Class II machines. This would decrease the ability of Class II machines to compete against Class III gaming. Gaming patrons may just participate at alternative locations, including Class III gaming facilities. While this would result in a negative impact on Class II machine operators, it could have a positive impact on Class III gaming facilities if they garner the additional business.

Second, if the proposed regulations force some tribes to shift from Class II machines to Class III machines, this could increase the degree of competition within the Class III machine gaming market.

[54] If the proposed regulations amend game definitions and classification standards to more clearly define Class II gaming, they may help create some sense of stability in the marketplace. In the past, there has been some sense of uncertainty as to what is allowed. In fact, the NIGC has had a number of disputes with tribes and Class II system manufacturers over what is and what is not a Class II machine. As a result, there has been and continues to be a potential threat by the NIGC to fine or close down facilities that it deems not to be in compliance.

4. Data

As identified below, I have compiled information from what I believe to be reliable sources. While third-party data were not independently audited, they were cross-checked with other sources wherever possible.

Data on the number of gaming machines in calendar year 2006 were obtained from a few sources. Total machine counts per Indian gaming facility were gathered at the end of 2006 as part of my annual Indian gaming study, the *Indian Gaming Industry Report*.[55] For Class II-only facilities, the Class II machine counts were equal to the total machine counts given that there were no other types of machines available. For Class III facilities with Class II machines, the total machine counts were equal to the sum of Class II and III machine counts. Furthermore, with the exception of Oklahoma, Class II machine counts were not separable from the total machine counts. Thus, it was necessary to use Class II machine counts provided by the NIGC in October/November 2006. Unfortunately, there were no facility counts for Oklahoma. Thus, I calculated the statewide Oklahoma Class II count as the statewide total machine count, which was available in the *Indian Gaming Industry Report*, minus the statewide Class III machine count, which was available from the State of Oklahoma.[56] Note that the use of a statewide Oklahoma Class II machine count required all Oklahoma revenue and ratio calculations (e.g., gaming revenue and non-gaming revenue) to be done at the statewide level, not on a facility by facility basis, as done for all other states. Also, note that for facilities only open a portion of 2006 (i.e., they opened or closed during 2006), their machine counts were prorated for the portion of the year they were operated.

Tribal financial information, including gaming revenue and non-gaming revenue, were provided confidentially by the NIGC.[57] I understand that these data come directly from audited financial statements submitted by tribes to the NIGC.[58] The most recent year of available data is 2006. For a small number of gaming facilities, financial information was incomplete in the NIGC data.[59] It is my understanding that these data gaps may be the result of information not being submitted by tribes on time. While the facilities with missing values could not be included in the calculation of market statistics defined below (e.g., revenue per machine per day and the ratio of non-gaming to gaming revenue), they were still included in the quantifiable impacts.[60]

Generally, gaming revenue is defined as all amounts wagered minus prizes and payouts. Class II machine revenue, which is of primary interest in this report, was not explicitly

[55] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[56] State of Oklahoma, Office of State Finance.
[57] As noted in footnote 158, transfers of profits from gaming facilities to tribal governments were also reviewed.
[58] Data were provided in electronic databases.
[59] Gaming revenue was not available for five facilities, including a small subset of gaming facilities with Class II machines (three of 158 facilities in 2006).
[60] In terms of lost gaming revenue, these facilities were accounted for in the number of machines to which revenue per machine per day was applied. For further discussion of the methodology for calculating lost gaming revenue, see the Lost Gaming Revenue section of Chapter 5.

provided in the tribal financial information provided by the NIGC. Therefore, for all facilities with Class II machines, Class II machine revenue was calculated as a proportion of total gaming revenue.[61] Based upon the nationwide Indian gaming data, total machine revenue is approximately 90 percent of total gaming revenue.[62] For Class II gaming facilities, total machine revenue is equal to Class II machine revenue because all machines are Class II. For Class III facilities with Class II machines, total machine revenue includes revenue from both Class II and Class III machines. Therefore, in order to separate out Class II machine revenue, it was assumed to be proportional to the share of Class II machines relative to total machines in operation. In other words, total machine revenue was multiplied by the ratio of the number of Class II machines to the total number of gaming machines. In order to account for the fact that Class III machines have a higher revenue generation capability than Class II machines, Class III machines were more heavily weighted than Class II machines in this computation. Based upon an analysis of NIGC data and discussions with Class II system manufacturers, I have assumed that the nationwide average revenue per Class III machine is approximately one and a half times that of the nationwide average revenue per Class II machine. Thus, Class III machines were given a weight of one and a half times that of Class II machines in the aforementioned ratio.

Non-gaming revenue is defined as any gaming facility revenue that is not directly generated by gaming activities. Non-gaming revenue includes revenue from food and beverages, lodging, retail, entertainment, and any other non-gaming operations. In order to estimate non-gaming revenue attributable to Class II machines at each facility, it was calculated as a proportion of total non-gaming revenue.[63] Specifically, total non-gaming revenue was multiplied by the ratio of Class II machine revenue to total gaming revenue.

Market statistics (e.g., revenue per machine per day and the ratio of non-gaming revenue to gaming revenue) were calculated using all facilities for which relevant data were available in each particular analysis (i.e., Scenarios 1, 2A, 2B, and 3). Revenue per machine per day was computed as Class II machine revenue divided by the number of Class II machines in operation divided by the number of days in the year. The ratio of non-gaming revenue to gaming revenue was computed in relation to Class II machines only. Thus, the ratio of non-gaming revenue to gaming revenue was calculated as the sum of non-gaming revenue from all relevant facilities, divided by the sum of gaming revenue from all relevant facilities, multiplied by the ratio of Class II machine revenue to total gaming revenue.

[61] For Oklahoma, given that the Class II machine count was only available on a statewide basis, Class II machine revenue was calculated on a statewide basis. Also, given that Class III gaming revenue could be reliably estimated from revenue sharing payments, Class II machine revenue was estimated as total gaming revenue minus Class III gaming revenue. Source for revenue sharing payment data: State of Oklahoma, Office of State Finance.
[62] Analysis of data from Joseph Eve, *The 2007 Indian Gaming Cost of Doing Business Report*, 2007.
[63] For Oklahoma, given that the Class II machine count was only available on a statewide basis, Class II-related non-gaming revenue was calculated on a statewide basis.

Data on output per worker (i.e., gaming revenue per worker) were derived from information underlying the *Indian Gaming Industry Report*.[64]

The percentage of gaming facility employees that are tribal members comes from the National Indian Gaming Association (NIGA).[65]

[64] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[65] NIGA website (http://www.indiangaming.org/library/indian-gaming-facts/index.shtml), accessed November 5, 2007.

5. Quantitative Analysis of the Potential Economic Impact of the Proposed Class II Gaming Regulations

Although all of the potential economic impacts noted in Chapter 3 are rooted in economic theory, some are difficult to quantify and/or lack sufficient data for a quantitative analysis. Furthermore, when quantifiable, the impacts must be measured on an aggregate nationwide in order to protect the confidentiality of individual tribes' financial data. However, it is important to note that the impacts may vary significantly from state to state, tribe to tribe, and facility to facility depending on the particular circumstances of each situation.

Given these limitations, I have estimated the magnitude of the economic impacts that are readily quantifiable: lost gaming revenue; lost non-gaming revenue; increased revenue-sharing costs; and lost tribal member jobs. While the other potential economic impacts from Chapter 3 were not quantifiable at this time, they should be considered qualitatively in conjunction with the quantified impacts.

LOST GAMING REVENUE

As noted in Chapter 3, the proposed Class II regulations will lead to Class II gaming machines that are inferior to existing Class II machines. This would lead to a decrease in gaming revenue for tribes that continue operating Class II machines.

State-By-State Review of Class II Machine Gaming

In 2006, there were 15 states where Class II gaming machines were operated by tribes: Alabama; Alaska; Arizona; California; Florida; Minnesota; Montana; Nebraska; New York; Oklahoma; South Dakota; Texas; Washington; Wisconsin; and Wyoming. Each state is briefly reviewed below to provide some context for the lost gaming revenue analysis.[66] Appendix C provides a list of the Indian gaming facilities that operated Class II gaming machines in 2006.

Alabama

In Alabama, the Poarch Band of Creek Indians operates Class II gaming machines. In 2006, it operated three gaming facilities with a total of 2,101 Class II machines.[67] As reflected by the growth of its facilities, the Tribe has experienced success with Class II machines.

However, the Tribe's gaming facilities have seen increased competition in the last couple of years. First, beginning at the end of 2003, greyhound racetracks in Alabama began operating electronic bingo machines that are somewhat faster than existing Class II machines operated

[66] Background on each state is based upon input gathered from tribes, casinos, Class II system manufacturers, NIGC staff, and state gaming regulatory agencies, as well as my research conducted outside the scope of this assignment.
[67] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

by the Tribe[68] Second, in early 2006, new competition came in the form of "sweepstakes machines," which look and sound much like slot machines.[69] While the intricacies of these sweepstakes machines are beyond the scope of this study, it is my understanding that they identify whether or not a patron won a pre-determined sweepstakes.[70] Although legally challenged at first, a court decision has deemed these devices to be legal under existing law and they have subsequently spread throughout the state.[71]

The increased competition, which would be considered Class III gaming under existing game classification advisory opinions issued by the NIGC's Office of General Counsel, has already had a negative impact on the Tribe's gaming facilities.[72] Meanwhile, the Tribe believes that is entitled to operate Class III gaming given the type of gaming already operated in the state. However, the State of Alabama is unwilling to enter into a gaming compact with the Tribe. Therefore, the Tribe has requested Secretarial Procedures in order to operate Class III gaming.[73] At this time, no significant progress has been made in this regard.

Given the current situation, if the NIGC's proposed Class II regulations are enacted, the Tribe would be forced to replace all of its existing Class II machines with compliant devices. In light of the scope of the proposed regulations, any new compliant Class II gaming machine would be inferior to the Tribe's existing devices, as well as competitor's devices (i.e., electronic bingo machines at greyhound racetracks and sweepstakes machines).

Alaska

In 2006, there was only one tribe, the Metlakatla Indian Community, operating Class II gaming machines in Alaska.[74] It operated 30 Class II machines in its single facility,[75] which is in a remote part of the state. Competition is very limited in the area. There is only charitable gaming, which allows bingo and pull-tabs, but only in paper form.

If the proposed Class II regulations are enacted, the Tribe would have no choice but to replace its existing Class II machines with compliant ones. Although, the compliant

[68] Based upon discussions with tribal representatives, Class II system manufacturers, and NIGC staff.
[69] Rose, Nelson, "Court Approves Racino's Non-Slot Machines," Casino City Times, June 18, 2006 (http://rose.casinocitytimes.com/articles/27582.html).
[70] I understand that patrons purchase Internet access cards, and that in doing so, they also receive sweepstakes entries. In order to determine whether an entry was a winner or not, patrons have to either access an Internet website, call an 800 number, or use the sweepstakes machine as an electronic reader.
[71] Rose, Nelson, "Court Approves Racino's Non-Slot Machines," Casino City Times, June 18, 2006 (http://rose.casinocitytimes.com/articles/27582.html).
[72] Based upon discussion with a tribal representative and a cursory review of NIGC data.
[73] When a tribe has been unable to negotiate a compact with a state, the Secretary of the Department of the Interior can intercede and prescribe procedures under which Class III gaming may be conducted. Secretarial procedures are authorized by IGRA (25 U.S.C § 2710(d)(7)(vii)).
[74] While a number of other tribes, Native Villages, and tribal organizations operate bingo and pull-tabs, they are not regulated as Class II gaming. They are in fact licensed by the State of Alaska as municipalities and non-profit organizations qualified to conduct charitable gaming activities. None of these charitable gaming activities are allowed to utilize electronic gaming devices. Source: Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[75] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

machines would be inferior to existing gaming machines operated by the Tribe, they would still be superior to current charitable gaming.

Arizona

In Arizona, tribes primarily offer Class III gaming. In 2006, 15 tribes operated a total of 12,713 gaming machines in 26 facilities (three of which were only traditional bingo halls).[76] Of these machines, only 56 (less than one percent) were Class II.[77] These machines were offered at two facilities. One of them had 16 Class II machines alongside 950 Class III machines. The other facility was a small Class II-only facility with 40 Class II machines.

As reflected by the foregoing counts, Class II machines currently play a minor role in Arizona. This is a result of how the tribes' gaming compacts are structured.[78] While, revenue from Class II machines is not subject to revenue sharing with the State of Arizona like revenue from Class III gaming, Class II machines count towards a tribe's machine cap just like Class III machines.

Therefore, if the proposed Class II regulations were enacted, tribes operating Class II machines could shift to Class III machines, which generally generate higher revenue per machine, but which would require revenue sharing, which is done on a tiered, sliding scale basis of one to eight percent of net win.[79]

California

Like tribes in Arizona, California tribes primarily offer Class III gaming. In 2006, 54 tribes operated a total of 62,732 gaming machines in 57 facilities.[80] Of these machines, 4,215 (seven percent) were Class II.[81] These machines were offered at eight facilities across the state.

In seven of those eight facilities, Class II machines were used to supplement Class III machines, which were restricted to a machine cap per 1999 gaming compacts.[82] These seven facilities, which are operated by five tribes (Morongo Band of Mission Indians, Pechanga

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[76] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press. Machine counts at Arizona Indian gaming facilities that were open only part of 2006 were prorated.
[77] Arizona Department of Gaming, *Status of Tribal Gaming in Arizona as of 1/1/07*, January 2007.
[78] Each tribe has an initial gaming machine allocation, which increases every five years in accordance with the growth of the state population. On top of this initial allocation, each tribe has an additional gaming machine allocation. This additional allocation represents the number of devices that can be acquired from other tribes not operating their full initial allocation or from the State if a tribe is unable to acquire devices from another tribe. A tribe may operate up to 40 Class II machines per gaming facility, but they count against the tribe's additional allocation. Any Class II machines over 40 would count against the tribe's initial allocation. Source: Model Tribal-State Gaming Compact, Arizona, 2003.
[79] One percent of the first $25 million dollars of Class III net win; three percent of the next $50 million dollars; six percent of the next $25 million dollars; and eight percent of Class III net win in excess of $100 million dollars. Source: Model Tribal-State Gaming Compact, Arizona, 2003.
[80] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[81] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.
[82] Some tribes, including one of the six with Class II machines, have even been held below their Class III machine cap as a result of the statewide machine cap, which according to the California Gambling Control Commission, has already been reached. Tribes have disagreed with this conclusion.

Band of Luiseño Indians, Rincon Band of Luiseño Mission Indians, San Manuel Band of Mission Indians, and Sycuan Band of the Kumeyaay Nation), had 3,195 Class II machines in 2006.[83]

The other facility with Class II machines was operated by the Lytton Band of Pomo Indians ("Lytton Band"). This facility had 1,020 Class II machines in 2006.[84] The Lytton Band operates Class II machines by necessity because it does not have a gaming compact with the State of California. Although a compact was entered into by the Tribe and Governor Schwarzenegger in 2004, it did not ultimately receive the required approval from the State Legislature. Furthermore, given the current political environment and strong opposition facing the Tribe, it seems very unlikely that the Tribe will be able to get a compact approved for its urban location.

If the proposed Class II regulations were enacted, the Lytton Band would be forced to switch to compliant Class II machines because it has no other viable gaming option. And there would be an identical effect on any other uncompacted tribes that may wish to operate Class II machines in the future.

As for existing gaming tribes that already have compacts, including those tribes operating Class II machines within their Class III facilities, they have the ability to increase the number of Class III machines they can operate by renegotiating their compacts.[85] The ability to do so is evidenced by the recent flurry of renegotiated compacts. In 2004, five tribes successfully renegotiated their compacts to allow for an increase in the number of Class III machines they can operate.[86] Also, four of the five tribes operating Class II machines (all but the Rincon Band) renegotiated compacts with the Governor in August 2006 and obtained ratification from the State Legislature in 2007.[87]

California tribes not only have the ability to increase their number of Class III machines by renegotiating their compacts, they are likely to be better off in terms of gaming revenue too. If this were not the case, then the aforementioned tribes with Class II machines would not have recently agreed to the renegotiated compacts.

It is important to note that there are potential drawbacks to adding more Class III machines through compact renegotiations (for more details, see Chapter 3 under Decreased Leverage

[83] NIGC.

[84] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

[85] Per the most-favored tribe clause in the 1999 compacts, California gaming tribes that have not amended their compacts have the right to the same terms and conditions as those tribes that have amended their compacts.

[86] In fact, the restriction on the number of machines was eliminated in the 2004 amended compacts. And although the tribes can operate as many machines as they want, the revenue-sharing rate increases as the number of machines increases.

[87] The gaming compact amendment for the Agua Caliente Band of Mission Indians was also ratified by the California State Legislature. However, this Tribe does not have any Class II machines. It is duly noted that four renegotiated compacts, namely those for the Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, the Pechanga Band of Luiseño Indians, and Sycuan Band of the Kumeyaay Nation, are being challenged by voter referenda. Racetracks, hotel unions, and a couple other Indian tribes are attempting to invalidate these renegotiated compacts via voter referenda.

in Class III Compact Negotiations/Renegotiations). The Tribes with recently renegotiated compacts had to make some concessions, including increased revenue sharing of 15 to 25 percent of Class III machine net win, depending on the number of additional Class III machines added per tribe. Also, in the long run, substantial increases in the supply of Class III machines in the market could reduce profit margins.

Florida

There are two tribes with Class II gaming machines in Florida. In 2006, they operated a combined total of 8,615 Class II machines in eight facilities.[88] While the tribes have wanted to operate Class III gaming for some time, they had been unable to get the State of Florida to negotiate gaming compacts. Thus, Secretarial Procedures were requested in order to operate Class III gaming.[89] This process, which began back in 1994, made little progress until recently.

Over the past year or so, the Department of the Interior has been threatening to issue Secretarial Procedures for the Tribe's operation of Class III gaming if a gaming compact is not soon negotiated between the State of Florida and the Seminole Tribe of Florida.[90] This has been encouraging news for the Seminole Tribe. However, in August 2007, the Fifth Circuit Court of Appeals ruled that Secretarial Procedures were "invalid and constitute[d] an unreasonable interpretation of IGRA."[91] While the decision only directly affects the geographic area covered by the Fifth Circuit, it may very well lead to legal challenges in other Circuits, including that which has jurisdiction over Florida.[92] In fact, I understand that the State of Florida has planned to take legal action to impede Secretarial Procedures from being enacted if they are issued.[93] As of the writing of this report, I understand that the Department of the Interior is petitioning the Fifth Circuit Court of Appeals for a reconsideration of its recent decision. If the petition fails, the case could go to the U.S. Supreme Court.

Nonetheless, with a new governor stepping in and Secretarial Procedures looming, the State began negotiating with the Seminole Tribe in 2007. And finally on November 14, 2007 the Seminole Tribe of Florida and the Governor of Florida signed a Class III gaming compact that would allow the Tribe to operate Class III gaming machines and some house-banked table games (e.g., blackjack and baccarat,).[94] While this gaming compact received the

[88] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[89] Statement of the Honorable James E. Billie, Chairman, Seminole Tribe of Florida, before the Senate Committee on Indian Affairs, July 21, 1999.
[90] Letter from Dirk Kempthorne, Secretary of the United States Department of the Interior, to Charlie Crist, Governor of Florida, June 22, 2007.
[91] *State of Texas v. United States of America, et al.*, United States Court of Appeals, Fifth Circuit, "Appeal from the United States District Court for the Western District of Texas," filed August 17, 2007 and revised September 13, 2007 (see p. 41).
[92] Discussion with George Skibine, Acting Principal Deputy Assistant Secretary for Indian Affairs at the Department of the Interior, September 26, 2007.
[93] News reports and discussions with industry participants.
[94] Compact Between the Seminole Tribe of Florida and the State of Florida, November 14, 2007 (published in the *Federal Register* on January 7, 2008).

required federal approval in early January 2008,[95] the Florida State Legislature has filed a petition asking the Florida Supreme Court to declare the Seminole Tribe's compact invalid unless and until it is approved by the State Legislature.[96] Currently, no decision has been rendered by the Court. And it is my understanding that the Seminole Tribe does not plan to add any Class III machines until the matter is decided.[97] If the gaming compact is found to be valid, then the Tribe can offer Class III machines in place of its Class II machines, and according to the compact, all Class II machines would need to be converted to Class III machines within five years of the effective date of the compact. However, if the gaming compact is found to be invalid, then the Tribe would be forced to continue operating Class II machines unless and until its gaming compact is ratified by the State Legislature or Secretarial Procedures are enacted by the Department of the Interior and found to be legally enforceable. And given the current demeanor sentiment of the Legislature, it is uncertain whether a compact would be ratified. In any case, aside from the Seminole Tribe, there is uncertainty regarding the operation of Class II machines by the Miccosukee Tribe of Indians of Florida. "Due to various on-going [sic] legal developments," the Tribe's requests for Secretarial Procedures and a tribal-state gaming compact have been deferred indefinitely.[98]

Given all of the uncertainty regarding if and when Class III gaming may be available in Florida, it has been assumed that the proposed regulations would force the tribes to switch to inferior Class II gaming.

Minnesota

Akin to Arizona and California, Minnesota is a Class III gaming state with a relatively small amount of Class II gaming. In 2006, 12 tribes operated a total of 20,931 gaming machines in 35 facilities.[99] Of these machines, 113 (less than one percent) were Class II.[100] They were offered at 14 small Class II-only facilities. All of these facilities are operated on fee lands within the reservation of the White Earth Band of Chippewa Indians ("White Earth Band") and some are actually owned by non-tribal members.[101]

Per its gaming compact, the White Earth Band is not limited in terms of the number of Class III gaming machines that can be operated at its Class III gaming facility.[102] However, I understand that the small gaming operations on fee lands are not covered by the Tribe's

[95] Notice of Deemed Approved Tribal-State Class III Gaming Compact, between the Seminole Tribe of Florida and the State of Florida, *Federal Register*, January 7, 2008, Volume 73, No. 4, p. 1229.
[96] *Florida House of Representatives, et al. v. Charlie Crist, in his capacity as Governor of Florida*, Supreme Court of Florida, Petition for Writ of Quo Warranto, November 19, 2007.
[97] Discussions with tribal representatives.
[98] Letter from Counsel for the Miccosukee Tribe of Indians of Florida to the Office of Indian Gaming within the Department of the Interior, the U.S. Department of Justice, and the Office of the Governor of Florida, January 9, 2008.
[99] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[100] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.
[101] Based upon a discussion with NIGC staff.
[102] Tribal-State Compact, For the Control of Class III Video Games of Chance on the White Earth Band of Chippewa Reservation in Minnesota, effective October 3, 1991.

compact and, therefore, they are restricted to Class II gaming.[103] Therefore, if the proposed regulations went into effect, the White Earth Band would have no choice but to replace existing Class II machines with compliant Class II machines.

Montana

In 2006, six Montana tribes operated a total of 1,098 gaming machines in 25 facilities.[104] Of these machines, 535 (49 percent) were Class II.[105] They were operated in a total of seven facilities, including at least one facility for each gaming tribe in the state.

The gaming compacts in Montana are very restrictive relative to those in other states in terms of gaming machines. The compacts not only cap the number of Class III machines that can be operated per facility,[106] but they also restrict the type of allowable machines (i.e., only video bingo, video keno, and video poker) and their operation (e.g., payouts and hours of operations).[107] In fact, I understand that Class III machines in Montana may be on par with or possibly even inferior to existing Class II machines in terms of performance.[108] In addition, non-tribal businesses (e.g., taverns and gas stations) located on tribal reservations are able to license Class III machine equivalents from the State just like similar businesses not located on the reservations.[109] Thus, Montana tribes face this unusual source of competition on their own land.

Given the quality of Class III gaming in Montana, tribes have been using Class II machines to supplement Class III machines. In fact, two tribes, the Blackfeet Tribe and Confederated Tribes of Salish and Kootenai, no longer have Class III gaming compacts with the State. Upon their expiration, the tribes chose not to renew their compacts. Thus, they currently only operate Class II machines. If the proposed Class II regulations went into effect, existing Class II machines for these two tribes would have to switch to compliant Class II machines. Also, given that most of the Montana tribes are at or near their machine caps, they would have to make their Class II machines compliant with the proposed regulations.

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[103] Based upon a discussion with NIGC staff.
[104] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[105] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.
[106] Montana Department of Justice, Gambling Control Division website, accessed September 25, 2006 (http://doj.mt.gov/gaming/tribalgamingcompacts.asp).
[107] Agreement Between the Assiniboine and Sioux Tribes of the Fort Peck Reservation and the State of Montana, July 1, 1992; Interim Agreement Between the Blackfeet Indian Tribe of the Blackfeet Reservation and the State of Montana, October 26, 1996; Amendment to the Interim Compact Between the Chippewa Cree Tribe of the Rocky Boy Reservation and the State of Montana, November 21, 2005; Agreement Between the Confederated Salish and Kootenai Tribes of the Flathead Nation and the State of Montana, October 12, 2001; Agreement Between the Crow Indian Tribe and the State of Montana, June 12, 1998; and Agreement Between the Northern Cheyenne Tribe and the State of Montana, July 19, 2002.
[108] Based upon a discussion with NIGC staff.
[109] Based upon discussions with tribal casino representatives.

Nebraska

In 2006, three tribes operated a combined total of 314 Class II machines in four facilities.[110] Approximately 61 percent of these machines were located within one of the four facilities. The remainder of the Class II devices were operated in three relatively small facilities.

The tribes in Nebraska serve relatively small markets with competition in adjacent states, namely Iowa and South Dakota, which both offer Class III gaming. While the tribes have wanted to operate Class III gaming for some time, they have been unable to get the State of Nebraska to negotiate gaming compacts. Thus, Secretarial Procedures were requested approximately 10 years ago in order to operate Class III gaming.[111] However, the State has not been open to this request.

Therefore, if the NIGC's proposed Class II regulations were enacted, Nebraska tribes would have no choice but to adopt compliant Class II machines.

New York

In 2006, three tribes operated a total of 10,907 gaming machines in seven facilities in New York.[112] Of this total, 1,287 (12 percent) were Class II.[113] These Class II machines were operated at three gaming facilities.

All three of the facilities are restricted to Class II gaming as they are not covered by gaming compacts. And if the NIGC's proposed Class II regulations went into effect, these facilities would have no choice but to replace existing machines with compliant machines.

Oklahoma

Prior to 2005, Oklahoma tribes *only* offered Class II gaming, including bingo and pull-tab machines. However, pursuant to gaming compacts entered into in 2005, tribes began offering Class III gaming machines and non-house banked card games.[114] In 2006, 31 tribes operated a total of 37,760 gaming machines in 94 gaming facilities.[115] As of the end of calendar year 2006, the majority of gaming machines were still Class II. Twenty-seven tribes

[110] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[111] Discussion with tribal representative.
[112] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[113] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.
[114] These Class III machines, which are referred to as "compacted machines," include electronic bonanza-style bingo, amusement/skill games (e.g., video poker), and instant bingo. Source: Model Tribal Gaming Compact, Oklahoma, 2005; Multimedia Games, Inc., Form 10-K, For the Fiscal Year Ended September 30, 2005.
[115] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

operated 30,044 machines (about 80 percent of the total number of machines) in 87 facilities.[116] Thus, only 7,716 machines were Class III.

However, the shift to Class III machines has steadily continued. As of the end of September 2007, the number of Class III devices jumped to 22,566.[117] In fact, some facilities are all Class III now.[118] In addition, the success of Class III devices has improved significantly. When first introduced, Class III machines were not performing as well as Class II machines. However, more recently, Class III machines have been outperforming Class II machines.[119] For calendar year 2006, revenue per Class II machine per day was approximately $125.[120] Revenue per Class III machine per day has grown from approximately $128 in September 2006 to $140 in December 2006, $152 in March 2007, $142 in June 2007, and $145 in September 2007.[121]

Given the above, if the proposed Class II regulations are enacted, tribes would be forced to shift to all Class III machines. However, as discussed in the Increased Costs section of Chapter 3, the tribes would have to incur additional revenue-sharing costs in order to operate more Class III machines. Per their gaming compacts, tribes must pay four to six percent of Class III machine net win to the State.[122]

South Dakota

In 2006, the nine South Dakota tribes operated a total of 2,209 gaming machines in 12 facilities.[123] These facilities primarily offered Class III gaming. However, Class III machines are subject to a cap. As a result, two of the facilities also offered Class II machines to supplement their Class III machines. Of the total number of gaming devices, only 64 (three percent) were Class II.[124]

I understand that the tribes have been interested in renegotiating their compacts in order to increase their Class III machine caps. However, the State has refused to renegotiate with them. Some claim that the State will not renegotiate because it does not want to potentially

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[116] Sources: Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press; State of Oklahoma, Office of State Finance. The *Indian Gaming Industry Report* counted 94 Indian gaming facilities in Oklahoma, while there are only 87 included in this report. One gaming facility, the Keetoowah Cherokee Casino, was excluded from this report because it was not considered to be Indian gaming by the NIGC (the facility is not considered to be on "Indian lands"). In addition, there were six other gaming facilities excluded from this report because they did not have Class II machines (i.e., they were traditional bingo halls or Class III gaming facilities).

[117] State of Oklahoma, Office of State Finance.

[118] Based upon discussions with industry participants and NIGC staff.

[119] This finding was confirmed in discussions with industry participants.

[120] Analysis Group estimates based upon data from the State of Oklahoma, Office of State Finance.

[121] Analysis Group estimates based upon data from the State of Oklahoma, Office of State Finance. Revenue per Class III machine was calculated on a quarterly basis because Class III machine counts were only available on a quarterly basis.

[122] For Class III machines, revenue sharing payments are four percent of the first $10 million of Class III machine revenue, five percent of the next $10 million, and six percent of Class III machine revenue in excess of $20 million. Source: Model Tribal Gaming Compacts, Oklahoma, 2005.

[123] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

[124] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.

hurt its own video lottery revenue.[125] Therefore, given the current situation, if the proposed Class II regulations went into effect, the tribes would have to switch to compliant Class II machines to supplement their Class III gaming.

Texas

There is only one tribe, the Kickapoo Traditional Tribe of Texas, operating an Indian gaming facility in Texas.[126] In 2006, it operated two Class II-only facilities. However, only one of them had Class II machines. The other only operated traditional bingo. The total number of Class II machines operated by the Tribe in 2006 was 1,325.[127] Despite its very rural location along the border of Mexico, it has done well and continued to increase its capacity. However, over time there has been an increase in competition from commercial facilities with gaming machines that pay out low-stakes, non-cash prizes.[128] The Tribe has noted that it would be at a severe competitive disadvantage if the proposed Class II regulations went into effect and forced them to shift to inferior machines.[129]

Thus, as has been the case for some time, the Tribe would like to operate Class III gaming. However, the State of Texas refuses to enter into a gaming compact with the Tribe. Therefore, the Tribe has requested Secretarial Procedures. In May 2007, the Tribe received some positive news from the Department of the Interior in the form of a preliminary decision regarding the scope of gaming that should be allowed by the Tribe.[130] According to the Department, the next step was to try and bring the State and the Tribe back to the negotiating table. However, this positive news was trumped by a recent decision by the Fifth Circuit Court of Appeals in which Secretarial Procedures were deemed to be invalid.[131] As of the writing of this report, I understand that the Department of the Interior is petitioning the Court for a reconsideration of its decision. However, until and unless there is a change in this recent decision, the Department cannot issue Secretarial Procedures in the geographic area covered by the Fifth Circuit, including Texas.

Given the current situation, if the NIGC's proposed regulations are enacted, the Tribe would have no choice but to replace existing Class II machines with inferior compliant devices.

[125] Discussions with industry participants.
[126] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[127] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[128] NIGC staff and a tribal representative.
[129] These gaming devices at commercial facilities currently remain under legal challenge. Source: Tribal representative.
[130] *State of Texas v. United States of America, et al.*, United States Court of Appeals, Fifth Circuit, "Appeal from the United States District Court for the Western District of Texas," filed August 17, 2007 and revised September 13, 2007 (see footnote 2 on p. 11 of the Court's decision).
[131] *State of Texas v. United States of America, et al.*, United States Court of Appeals, Fifth Circuit, "Appeal from the United States District Court for the Western District of Texas," filed August 17, 2007 and revised September 13, 2007 (see p. 41 of the Court's decision).

Washington

In 2006, there were 22 tribes primarily operating Class III gaming in 29 gaming facilities in Washington.[132] The total statewide machine count at these facilities was 20,006,[133] with 1,771 being Class II machines (nine percent).[134] As is the case with other Class III states, tribes have been supplementing their Class III gaming with Class II machines.[135] This was due to the fact that gaming compacts limit the maximum number of Class III devices and gaming facilities tribes can have.[136] Tribes also have to pay a small amount of revenue sharing (0.5 percent) on Class III devices, commonly referred to as Tribal Lottery Systems.

In early 2007, Washington tribes renegotiated their gaming compacts to allow for an increase in the number of Class III gaming machines, as well as fewer restrictions on gaming (e.g., allowance of cash-operated machines; allowance of one-touch machines; no-limit betting on table games, and no restrictions on gaming facility hours of operations). Thus, if the proposed Class II regulations were enacted, tribes could swap out existing Class II machines for improved Class III machines. However, as in Arizona, California, and Oklahoma, this would result in an increase in revenue-sharing costs. Not only would the tribes have to pay up to 0.5 percent of Class III machine revenue per their original gaming compacts, they would also have to pay an additional 0.26 percent of Class III machine revenue to the State per the compact amendments.[137]

It should be noted that Washington tribes may not be able to swap Class II machines for Class III machines at some point in the future if they reach their new increased Class III machine caps. And while the total number of Class II machines being operated in Washington in 2007 is still less than the total number of additional Class III machines allowed per the new gaming compact amendments, tribes have been continuing to add new Class II machines.[138]

Wisconsin

In 2006, 11 Wisconsin tribes operated a total of 15,682 gaming machines in 26 facilities.[139] Of this total, 361 (two percent) were Class II.[140] All of these Class II machines were operated in one gaming facility, Dejope Bingo and Entertainment, which was operated by the Ho-Chunk Nation. Per an amendment to its compact, the Tribe can only operate Class III gaming at this

[132] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[133] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[134] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.
[135] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the percentage of Class II machines relative to total machines in October/November 2006 was applicable to the end of 2006.
[136] Based upon discussions with industry participants, the vast majority of Class II machines are being used to supplement Class III machines.
[137] Appendix X2 to the Tribal-State of Washington Class III Gaming Compacts, 2007.
[138] It should be noted that the full features of the new Class III machines allowed under the compact amendments have not been fully available as of yet given that they are still awaiting approval from the State. It is expected that new Class III machines will far outperform existing Class II and Class III machines. Source: Discussions with industry participants.
[139] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[140] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

facility if the Governor of Wisconsin is given authorization by voter referendum or passage of a local city council resolution.[141]

Given that the Dejope facility has not received the required approval, it remains a Class II-only facility. Therefore, if the NIGC's proposed Class II regulations are enacted, the Tribe would have no choice but to replace existing Class II machines with compliant devices.

Wyoming

The Northern Arapaho Tribe was the only gaming tribe in Wyoming in 2006.[142,143] Up until September 2005, when Secretarial Procedures were approved by the Department of the Interior, the Tribe was only able to offer Class II gaming. However, Secretarial Procedures allowed the Tribe to operate Class III gaming without directly entering into a gaming compact with the State of Wyoming, which had refused to negotiate with the Tribe. While the Tribe introduced Class III machines into its two facilities in 2006, there were still 94 Class II devices in operation (21 percent of all machines).[144]

If the NIGC's proposed Class II regulations are enacted, the Tribe would be able to replace all of its Class II machines with Class III devices.

Aggregate Methodology for Estimating Lost Gaming Revenue

In order to estimate aggregate lost gaming revenue as a result of the proposed regulations, I calculate the difference between actual gaming revenue generated by existing Class II gaming machines and estimated gaming revenue generated by Class II gaming machines under the proposed regulations.

Actual Gaming Revenue

The first step in calculating lost gaming revenue is the computation of actual Class II machine revenue under existing practices. Actual Class II machine revenue is simply a summation of all Class II machine revenue at Indian gaming facilities in 2006, the last year for which tribal financial information and machine counts were available. To compute revenue per machine per day, a commonly-used industry metric, I divide the actual Class II machine revenue by the actual number of Class II machines, and then divide again by 365 days.

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[141] Second Amendment to the Wisconsin Winnebago Tribe, Now Known as the Ho-Chunk Nation, and the State of Wisconsin Gaming Compact of 1992.
[142] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.
[143] The Eastern Shoshone Tribe, which shares a reservation with the Northern Arapaho Tribe, will be able to offer Class III gaming in the near future now that it has a gaming compact. Following the approval of Secretarial Procedures for the Northern Arapaho Tribe, the State of Wyoming entered into a gaming compact with the Eastern Shoshone Tribe.
[144] Source: NIGC, October/November 2006. Due to data limitations, it was assumed that the number of Class II machines at the end of 2006 was equal to that in October/November 2006.

Estimated Gaming Revenue Under the May 2006 Proposed Regulations

The second step in calculating lost gaming revenue is the estimation of expected Class II machine revenue under the proposed regulations. Expected Class II machine revenue is calculated by multiplying the expected revenue per Class II machine by the expected number of Class II machines. Because the proposed regulations reflect a hypothetical situation that is very different than the actual world, both expected revenue per Class II machine and expected number of Class II machines must be estimated.

For expected revenue per Class II machine, I undertook a comparables analysis. In this effort, I sought out a type of machine and/or time period that would be *most* similar to the hypothetical situation contemplated by the proposed regulations. I considered various types of Class II machines that have been operated since the emergence of the industry following the passage of IGRA in 1988. It is my understanding that no past or current Class II device would qualify as Class II under the proposed regulations.[145] However, based upon independent discussions with various industry participants, I concluded that the one type of machine that most closely resembled the requirements of the proposed regulations was MegaMania. When MegaMania was introduced in 1995 by Multimedia Games, it was the first interactive bingo game played on gaming terminals within a single gaming facility, and later across multiple gaming facilities via a nationwide, broadband telecommunications network.[146] As shown in Table 3, MegaMania machines had nearly all of the key features required by the proposed regulations.[147]

[145] Most Class II machines would fail to meet more than one requirement. However, *all* machines would at least fail to meet the requirement that technologic aids prominently display using two inch letters a message that it is a game of bingo or game similar to bingo.
[146] Multimedia Games, Inc., Form 10-KSB/10K, For the Fiscal Years Ended September 30, 1996 and 2005.
[147] Multimedia Games, Inc., Form 10-KSB/10Ks, For the Fiscal Years Ended September 30, 1996, 1999, and 2005; discussions with industry participants.

Table 3. Comparison of MegaMania Features to the Proposed Class II Regulations

Bingo Game Features per the Proposed Class II Regulations[1]	MegaMania
Players must compete against one another.	✓
A game can begin with a minimum of two players if six players do not enter a game within two seconds after the first player enters.[2]	✓
Bingo cards must be used; however, those cards may be electronic.	✓
Bingo cards must be provided to players before numbers are drawn.	✓
Each card played in a game must have an equal chance of obtaining any winning pattern.	✓
The game must prominently display using two inch letters a message that it is a game of bingo or game similar to bingo.	
One-half of the screen must display the bingo game at all times.[3]	✓
Game results may be presented in alternative technologic displays (e.g., game theme graphics, spinning reels, or other imagery) as long as the game results on the electronic bingo card are always shown.[4]	✓
Numbers must be randomly drawn (without replacement) in real time or very near real time to the actual play of the game.	✓
Different entry wagers are permitted.	✓
An "ante-up" format is permitted.	✓
An "auto-daub" feature is not permitted; thus, players must take overt action to daub numbers at least one time in each round after numbers are drawn.	✓
The minimum time for players to daub numbers must be two seconds.[5]	✓
There must be at least two releases of numbers before a game-winning pattern is created.	✓
The minimum time for each release of numbers must be two seconds.	✓
A game-winning prize must be awarded in every game.	✓
A game is won by the first person covering the pre-designated game-winning pattern.	✓
The prizes in the game may be increased or progressive prizes offered based upon a higher entry wager.	✓
All prizes must be based upon achieving pre-designated winning patterns common for all players.	✓
Gaming-winning prizes must be at least 20 percent of the amount wagered and have a minimum value of one cent.[6]	✓
Prizes must be based on events directly related to the game.	✓
All prizes must be fixed in amount or established by formula and be disclosed to all players in the game.	✓
The use of a paytable for determining prizes is permitted.	✓
Pre-designated interim prizes may be offered but all players in a game must be competing for the same set of prizes.	✓
"Stand-alone progressives" and "mystery jackpots" are not permitted.	✓
A "gamble feature" is not permitted.	✓
"Residual credit removal" is not permitted.	✓
"Free games" are permitted as a marketing tool as long as all players participating in the game that led to the free games receive the same number of free games.	✓

Notes:

1. Game features are set forth in the proposed Class II regulations.
2. MegaMania could not begin with less than 12 players.
3. In MegaMania, the bingo card took up 1/3 to 1/4 of the screen; the rest showed other game information.
4. MegaMania had no alternative technological displays; the bingo card and other game information took up the entire screen.
5. MegaMania had a 15-second time delay between ball drops.
6. MegaMania's game-winning prizes were approximately 85% of the amount wagered.

Sources:

Proposed Rule, 25 CFR Part 502, Definition for Electronic or Electromechanical Facsimile, Federal Register 71 (101), May 25, 2006; Proposed Rule, 25 CFR Part 502 and 546, Classification Standards, Class II Gaming, Bingo, Lotto, et al., Federal Register 71 (101), May 25, 2006; Multimedia Games, Inc., Form 10-KSB, For the Fiscal Year Ended September 30, 1996; Multimedia Games, Inc., Form 10-K, For the Fiscal Year Ended September 30, 1999; Multimedia Games, Inc., Form 10-K, For the Fiscal Year Ended September 30, 2005; discussions with industry participants.

In light of the above similarities, I assumed that Class II machines under the proposed regulations would perform similar to MegaMania. Specifically, revenue per machine per day for compliant Class II machines was assumed to be equal to that of MegaMania, after adjusting for inflation. MegaMania's average revenue per machine per day from 1997 through 2001 was approximately $58.[148] After adjusting for inflation, the average revenue per machine per day for MegaMania equates to $69.[149] This is approximately 64 percent lower than the actual 2006 nationwide revenue per Class II machine, which was $191.[150]

This estimated decrease in Class II machine revenue is corroborated by an independent simulation analysis conducted for the NIGC by BMM North America, Inc. (BMM), a global gaming industry test lab.[151] In the analysis, a bingo simulator was developed to mimic Class II machines. Using that simulator, BMM measured the performance of a Class II machine that would be compliant with the proposed regulations and compared it to the performance of three types of existing Class II machines: 1) a three-touch Class II machine that is considered by the NIGC to be compliant with game classification advisory opinions issued by the NIGC's Office of General Counsel; 2) a two-touch machine that is considered by the NIGC to be compliant with game classification advisory opinions issued by the NIGC's Office of General Counsel; and 3) a one-touch Class II machine that is not considered by the NIGC to be compliant with game classification advisory opinions issued by the NIGC's Office of General Counsel.[152]

The results of BMM's simulations are presented in Table 4.

[148] MegaMania generated revenue of $20.5 million from 950 machines in fiscal year 1997, $49.5 million from 2,140 machines in fiscal year 1998, $73.1 million from 3,600 machines in fiscal year 1999, $79.2 million from 3,870 machines in fiscal year 2000, and $73.6 million from 3,432 machines in fiscal year 2001. Thus, MegaMania's weighted average revenue per machine per day = Σ (MegaMania revenue) / Σ (Number of MegaMania machines) / Number of Days in the Year = ($20.5 million+$49.5 million+$73.1 million+$79.2 million+$73.6 million) / (950+2,140+3,600+3,870+3,432) / 365 = $57.94. Although MegaMania machines were in the market in fiscal year 1996, that year was excluded from the analysis because it was a startup year. Years following 2001 were also excluded because 2001 was the last year before Multimedia's next generation of Class II machines, MegaNanza, began to replace MegaMania. In addition, 2001 was the first year that significant competition entered into the Class II gaming machine market against Multimedia. Sources: Multimedia Games, Inc., Form 10-KSBs/10Ks, For the Fiscal Years Ended September 30, 1997, 1998, 1999, 2000, and 2001; discussions with industry participants.

[149] Actual revenue per machine per day values (i.e., the year in which they occurred) were converted to constant 2006 values using the Consumer Price Index (CPI-U). Source: U.S. Department of Labor Statistics, Bureau of Labor Statistics. Thus, MegaMania's weighted average revenue per machine per day = ($25.8 million+$61.2 million+$88.5 million+$92.7 million+$83.8 million) / (950+2,140+3,600+3,870+3,432) / 365 = $68.91.

[150] Decrease in revenue per Class II machine = (MegaMania's revenue per machine – actual 2006 revenue per Class II machine)/actual 2006 revenue per Class II machine = ($69-$191)/$191 = – 63.9%. Actual 2006 revenue per Class II machine is based upon an analysis of tribal financial data provided by the NIGC.

[151] BMM North America, Inc., Comparison of Various Class II Configuration Options – Analysis II, October 15, 2007.

[152] For the purposes of this report, the NIGC considered all two-touch and three-touch Class II machines to be compliant with existing game classification advisory opinions issued by the NIGC's Office of General Counsel.

Table 4. Expected Decrease in Performance of Compliant Class II Machines
BMM Simulation Results

	Machine Performance (Rate Per Minute)[1]					
	1st Simulation[2]		2nd Simulation[3]		3rd Simulation[4]	
	Games	Coin In	Games	Coin In	Games	Coin In
Three-Touch Class II Machines	7.04	7,735.31	7.04	23,276.76	7.04	27,184.23
Class II Machines Compliant with Proposed Regulations	4.44	4,863.86	4.80	15,778.65	4.67	18,001.83
Percentage Decrease	36.93%	37.12%	31.82%	32.21%	33.66%	33.78%
Two-Touch Class II Machines	10.87	11,957.71	10.86	35,789.65	10.87	41,591.30
Class II Machines Compliant with Proposed Regulations	4.44	4,863.86	4.80	15,778.65	4.67	18,001.83
Percentage Decrease	59.15%	59.32%	55.80%	55.91%	57.04%	56.72%
One-Touch Class II Machines	17.05	18,804.68	17.04	56,273.26	17.04	64,957.05
Class II Machines Compliant with Proposed Regulations	4.44	4,863.86	4.80	15,778.65	4.67	18,001.83
Percentage Decrease	73.96%	74.13%	71.83%	71.96%	72.59%	72.29%
Weighted Average Percentage Decrease[5]	**63.27%**	**63.45%**	**60.27%**	**60.44%**	**61.36%**	**61.12%**

Notes:
1. The duration of each simulation was 12 hours.
2. Simulation 1 is based upon the assumption that there are only 2 active players.
3. Simulation 2 is based upon the assumption that there are always 6 active players.
4. Simulation 3 is based upon the assumption that a random number of players between 2 and 12 will participate in each game.
5. The Weighted Average Percentage Decrease represents the actual mix of machines in operation in 2006. Thus, because approximately 16.3% (8,278/50,924) of all machines are Three-Touch Class II Machines, 31.5% (16,064/50,924) are Two-Touch Class II Machines, and 52.2% (26,582/50,924) are One-Touch Class II Machines, the Weighted Average Percentage Decrease is calculated as [(.163)x(Percentage Decrease for Three-Touch Class II Machines)]+[(0.315)x(Percentage Decrease for Two-Touch Class II Machines)]+[(.522)x(Percentage Decrease for One-Touch Class II Machines)]. The number of touches per machine were provided by NIGC regional staff (see Scenario 3 in the Results section of this report).

Source: BMM North America, Inc., Comparison of Various Class II Configuration Options - Analysis II, October 15, 2007; NIGC.

In the comparison to three-touch Class II machines, the simulations found that the number of games played and coin in for a Class II machine compliant with the proposed regulations would be approximately 32 to 37 percent lower.[153] In the comparison to two-touch Class II machines, the simulations found that the number of games played and coin in for a Class II machine compliant with the proposed regulations would be about 56 to 59 percent lower. In the comparison to one-touch Class II machines, the simulations found that the number of games played and coin in for a Class II machine compliant with the proposed regulations would be approximately 72 to 74 percent lower.

In order to reflect the actual mix of these three types of Class II machines across the country, I used a weighted average of the aforementioned results, whereby the weights for each type were based upon their percentage of the total number of Class II machines in operation in 2006. As shown in Table 4, the number of games played and coin in for a compliant Class II machine would be approximately 60 to 63 percent lower than the weighted average of existing Class II machines.[154]

For the expected number of Class II machines in 2006 under the proposed regulations, it is likely that Indian gaming facilities would initially modify or replace all existing Class II

[153] All simulation results were derived by varying different parameters and features of the games. Coin in was defined as the number of coins played.

[154] The determination of which Class II machines were and were not compliant with game classification advisory opinions issued by the NIGC's Office of General Counsel was made by the NIGC as noted in Scenario 3 of the Results section below.

machines in order to be compliant with the proposed regulations.[155] Thus, the expected number of machines would remain at the actual 2006 level. For reference, Table 2 sets forth the number of Class II machines by state in 2006. Given the availability of floor space in the absence of existing Class II machines and the uncertainty regarding the viability of compliant Class II machines, this would be a reasonable starting point for a gaming facility. However, if the compliant Class II machines are sufficiently less appealing to patrons such that there is not sufficient demand for the existing number of machines, then a decrease in the machine count might be in order. From an economic perspective, gaming facilities would only remove a machine when the marginal cost exceeds the marginal benefit.

Lost Gaming Revenue

The third step in calculating lost gaming revenue is taking the difference between actual gaming revenue and estimated gaming revenue generated by Class II gaming machines under the proposed regulations. This computation needs to be made for the first year in which gaming revenue would be lost. Assuming that the May 2006 proposed regulations would be effective January 2008, the first full year of lost gaming revenue would be calendar year 2008. Given that actual and estimated gaming revenue, and thus lost gaming revenue, are in 2006 dollars, I calculate lost gaming revenue in 2008 dollars by growing the 2006 value at the 10-year (1997-2006) compound annual growth rate for gaming revenue at Indian gaming facilities, which is 14.6 percent.[156] For simplicity, the 2008 values are considered to be current dollars.[157]

Results of the Aggregate Methodology for Estimating Lost Gaming Revenue

Using the methodology set forth above, lost gaming revenue is calculated for four scenarios:

Scenario 1: All Class II machines are replaced or modified to make them compliant with the proposed regulations.

Scenario 2A: All Class II machines *without viable alternatives* are replaced or modified to make them compliant with the proposed regulations.

Scenario 2B: All Class II machines *without viable alternatives* are shut down because the proposed regulations render them unfeasible.

[155] Based upon discussions with various casino operations personnel.

[156] Source for compound annual growth rate: Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press. Note that the general growth rate for *all of Indian gaming* may underestimate the potential growth of *Class II machine gaming* because Class II gaming has tended to grow faster than Class III gaming or Indian gaming in general. However, growth rates for Class II machine gaming were not available. Also, the 10-year average rate, which includes historical rates that are generally higher than more current rates, may overestimate future growth rates. However, the 10-year rate is likely to be a more stable representation of potential growth than the rate for a single recent year. Also, any overestimation caused by using a 10-year rate would be offset to some degree by the underestimation caused by using a general Indian gaming growth rate.

[157] Current dollars are 2008 values given that this report is being completed at the end of 2007, and in light of the assumption that the proposed regulations would go into effect in January 2008.

Scenario 3: All Class II machines *without viable alternatives and* which are not considered by the NIGC to be "illegal" are replaced or modified to make them compliant with the proposed regulations.

For each scenario except Scenario 2B, I calculate lost gaming revenue using the expected 64 percent decrease in revenue per Class II machine per day. Scenario 2B assumes a 100 percent decrease in revenue per Class II machine per day. In addition, a sensitivity analysis was also conducted in order to test how lost gaming revenue varies given different percentage decreases in revenue per machine per day. For exposition purposes, I utilized percentage decreases of 25 percent, 50 percent, and 75 percent. Note that all actual 2006 market statistics (e.g., Class II machine revenue, number of Class II machines, and revenue per Class II machine per day) were recalculated for each scenario based upon the set of gaming facilities included in that scenario.

Scenario 1

Scenario 1 assumes that *all* gaming facilities operating Class II machines would suffer a decrease in gaming revenue as a result of the enactment of the proposed Class II regulations. See Appendix C for a list of all gaming facilities with Class II machines in 2006. In my expert opinion, this scenario is likely to overstate lost gaming revenue under the proposed regulation because some tribes have viable alternatives to compliant Class II machines. Thus, I present Scenario 1 merely as a starting point for Scenarios 2A, 2B, and 3.

As shown in Table 5, revenue per Class II machine per day was $191 for the base model in Scenario 1. Given that there were 50,924 Class II machines, this equates to actual 2006 Class II machine revenue of approximately $3.551 billion. As discussed above, it is expected that revenue per Class II machine would decrease 64 percent under the proposed regulations. This decrease would yield average revenue per Class II machine per day of $69. Applying this figure to the 50,924 Class II machines over 365 days yields expected 2006 Class II machine revenue of approximately $1.281 billion.

Therefore, lost gaming revenue would be the difference between actual 2006 Class II machine revenue ($3.551 billion) and expected 2006 Class II machine revenue ($1.281 billion), which is approximately $2.270 billion. In current dollars (2008), lost gaming revenue is estimated to be approximately $2.983 billion.

Table 5. Lost Gaming Revenue
Scenario 1

	Base Model	Sensitivity Analysis[1]		
Percentage Decrease	**64%**	**25%**	**50%**	**75%**
Actual[2]				
Revenue/Class II Machine/Day	$191	$191	$191	$191
Number of Class II Machines	50,924	50,924	50,924	50,924
Days Per Year	365	365	365	365
Class II Machine Revenue (2006 $ Millions)	$3,550.7	$3,550.7	$3,550.7	$3,550.7
Percentage Decrease[3]				
Revenue/Class II Machine/Day	64%	25%	50%	75%
Under Class II Regulations[4]				
Revenue/Class II Machine/Day	$69	$143	$96	$48
Number of Class II Machines	50,924	50,924	50,924	50,924
Days Per Year	365	365	365	365
Class II Machine Revenue (2006 $ Millions)	$1,280.9	$2,663.0	$1,775.4	$887.7
Lost Gaming Revenue (2006 $ Millions)	**$2,269.8**	**$887.7**	**$1,775.4**	**$2,663.0**
Lost Gaming Revenue (Current $ Millions)[5]	**$2,982.7**	**$1,166.5**	**$2,332.9**	**$3,499.4**

Notes:

1. For exposition purposes, the Percentage Decrease in Revenue/Class II Machine/Day is set at 25%, 50%, and 75%.
2. Actual values are for 2006, the last year for which data are available.
3. In the Base Model, Revenue/Class II Machine/Day under the proposed Class II regulations is expected to decrease 64%, which is the percentage decrease from the Actual 2006 Revenue/Class II Machine/Day to the inflation-adjusted average revenue per machine per day for MegaMania from 1997 to 2001. It is also assumed that the number of Class II machines would remain at the Actual 2006 level.
4. For comparison to Actual, values for Under Class II Regulations are also for 2006.
5. Current dollars (2008) are estimated by growing 2006 values at the 10-year (1997-2006) compound annual growth rate for Indian gaming, which is 14.6%.

Sources:

NIGC data; Indian Gaming Industry Report; Analysis Group estimates.

Scenario 2

Scenario 2 deviates from Scenario 1 in that it excludes Class II machines for which there are viable alternatives, such as Class III machines. Thus, Scenario 2 yields the gaming revenue loss *after* excluding the Class II machine revenue losses that are expected to be fully mitigated by Class III machine revenue gains. As a result, it is my opinion that the base model in Scenario 2 is the best estimate of the aggregate gaming revenue loss as a result of the proposed Class II regulations.

Per the state-by-state review set forth earlier in this report, the states excluded from this scenario but not Scenario 1 are: Arizona; California (except for the Lytton Band's gaming facility); Oklahoma; Washington; and Wyoming. Therefore, the states that remain in Scenario 2 are: Alabama; Alaska; California (only the Lytton Band's gaming facility); Florida; Minnesota; Montana; Nebraska; New York; South Dakota; Texas; and Wisconsin. See Appendix D for a list of all gaming facilities included in Scenario 2.

There are two variations of Scenario 2. Scenario 2A assumes that compliant Class II machines will be feasible gaming devices. Scenario 2B assumes that compliant Class II machines will not be feasible gaming devices. The latter scenario reflects some industry participants' beliefs that the proposed regulations will render Class II machines unlawful or technologically unfeasible. If this is the case, then lost gaming revenue would be equal to all Class II machine revenue where there are no viable alternatives to compliant Class II machines.

As shown in Table 6, Scenario 2A yields lost gaming revenue of approximately $1.074 billion, with a sensitivity analysis range of $419.9 million with a 25 percent decrease in revenue per Class II machine per day to $1.260 billion with a 75 percent decrease in revenue per Class II machine per day. In current dollars (2008), lost gaming revenue is estimated to be approximately $1.411 billion, with a sensitivity analysis range of $551.7 million to $1.655 billion.[158]

[158] Note that lost tribal government revenue that results from lost gaming revenue (set forth in Table 5) and associated lost non-gaming revenue (set forth in Table 9) would equate to $609.8 million. Note that lost tribal government revenue is not additive with lost gaming and non-gaming revenues given that lost tribal government revenue is derived from lost gaming and non-gaming revenues. In order to measure the decrease in tribal government revenue, I took the ratio of Class II machine-related tribal government revenue to Class II machine-related casino revenue (i.e., the amount of tribal government revenue generated for each dollar of Class II machine-related casino revenue generated, including both gaming and non-gaming revenue) and applied it to the loss in gaming and non-gaming revenue. The proportion of tribal government revenue that was attributable to Class II machines was assumed to be equal to the ratio of Class II machine revenue to total gaming revenue. According to aggregate tribal financial data, tribal government revenue was approximately 34 percent of total casino revenue (i.e., gaming revenue plus non-gaming revenue) in 2006. For Indian gaming facilities with Class II machines, the contribution was much less at 20 percent of total casino revenue. Assuming that the proposed regulations would be effective January 2008, the first full year of lost tribal government revenue was assumed to be calendar year 2008. Given that lost Class II machine-related casino revenue and the ratio of tribal government revenue to Class II machines-related casino revenue, and thus lost tribal government revenue, are in 2006 dollars, I calculate lost tribal government revenue in 2008 by growing the 2006 value at the 5-year (2002-2006) compound annual growth rate for tribal government revenue for all of Indian gaming, which is approximately 16.7 percent.

Table 6. Lost Gaming Revenue
Scenario 2A

	Base Model	Sensitivity Analysis[1]		
Percentage Decrease	**64%**	**25%**	**50%**	**75%**
Actual[2]				
Revenue/Class II Machine/Day	$292	$292	$292	$292
Number of Class II Machines	15,765	15,765	15,765	15,765
Days Per Year	365	365	365	365
Class II Machine Revenue (2006 $ Millions)	$1,679.5	$1,679.5	$1,679.5	$1,679.5
Percentage Decrease[3]				
Revenue/Class II Machine/Day	64%	25%	50%	75%
Under Class II Regulations[4]				
Revenue/Class II Machine/Day	$105	$219	$146	$73
Number of Class II Machines	15,765	15,765	15,765	15,765
Days Per Year	365	365	365	365
Class II Machine Revenue (2006 $ Millions)	$605.9	$1,259.6	$839.8	$419.9
Lost Gaming Revenue (2006 $ Millions)	**$1,073.6**	**$419.9**	**$839.8**	**$1,259.6**
Lost Gaming Revenue (Current $ Millions)[5]	**$1,410.8**	**$551.7**	**$1,103.5**	**$1,655.2**

Notes:

1. For exposition purposes, the Percentage Decrease in Revenue/Class II Machine/Day is set at 25%, 50%, and 75%.
2. Actual values are for 2006, the last year for which data are available.
3. In the Base Model, Revenue/Class II Machine/Day under the proposed Class II regulations is expected to decrease 64%, which is the percentage decrease from the Actual 2006 Revenue/Class II Machine/Day to the inflation-adjusted average revenue per machine per day for MegaMania from 1997 to 2001. It is also assumed that the number of Class II machines would remain at the Actual 2006 level.
4. For comparison to Actual, values for Under Class II Regulations are also for 2006.
5. Current dollars (2008) are estimated by growing 2006 values at the 10-year (1997-2006) compound annual growth rate for Indian gaming, which is 14.6%.

Sources:

NIGC data; Indian Gaming Industry Report; Analysis Group estimates.

As shown in Table 7, assuming a 100 percent decrease in machine performance under the October 2007 proposed regulations, Scenario 2B yields lost gaming revenue of approximately $1.680 billion. In current dollars (2008), lost gaming revenue is estimated to be about $2.207 billion.[159]

Table 7. Lost Gaming Revenue
Scenario 2B

	Base Model
Percentage Decrease	**100%**
Actual[1]	
Revenue/Class II Machine/Day	$292
Number of Class II Machines	15,765
Days per Year	365
Class II Machine Revenue (2006 $ Millions)	$1,679.5
Percentage Decrease[2]	
Revenue/Class II Machine/Day	100%
Under Class II Regulations[3]	
Revenue/Class II Machine/Day	$0
Number of Class II Machines	15,765
Days per Year	365
Class II Machine Revenue (2006 $ Millions)	$0.0
Lost Gaming Revenue (2006 $ Millions)	**$1,679.5**
Lost Gaming Revenue (Current $ Millions)[4]	**$2,207.0**

Notes:

1. Actual values are for 2006, the last year for which data are available.
2. In the Base Model, Revenue/Class II Machine/Day under the proposed Class II regulations is assumed to be $0 and thus the Percentage Decrease is 100%.
3. For comparison to Actual, values for Under Class II Regulations are also for 2006.
4. Current dollars (2008) are estimated by growing 2006 values at the 10-year (1997-2006) compound annual growth rate for Indian gaming, which is 14.6%.

Sources:

NIGC data; Indian Gaming Industry Report; Analysis Group estimates.

[159] Note that lost tribal government revenue associated with this amount of lost gaming revenue (set forth in Table 6) and associated lost non-gaming revenue (set forth in Table 9) would equate to $953.9 million.

Scenario 3

Scenario 3, which was solely developed at the request of the NIGC, reflects the NIGC's view that some Class II gaming machines are "illegal" and therefore should not be included in the calculation of lost gaming revenue.[160] The NIGC considers gaming machines to be "illegal" if they do not comport with game classification or advisory opinions issued by the Office of the General Counsel at the NIGC. For the purposes of this report, the NIGC considered all one-touch Class II machines to be illegal.[161]

In total, 52 percent of all Class II machines in operation nationwide in 2006 were considered "illegal" by the NIGC. According to the NIGC, "illegal" Class II machines were being operated in the following states and are thus excluded from Scenario 3: Arizona; Florida (in part); Montana; New York (in part); Oklahoma (in part); South Dakota; Texas (in part); and Washington (in part). Some of the aforementioned states with illegal Class II machines, namely Arizona, Oklahoma, and Washington, are already excluded from Scenario 2.[162] Thus, using Scenario 2 as a starting point, the following states were then excluded: Florida (in part); Montana; New York (in part); South Dakota; and Texas (in part). This left the following states in Scenario 3: Alabama; Alaska; California (only the Lytton Band's gaming facility); Florida (in part); Minnesota; Nebraska; New York (in part); Texas (in part); and Wisconsin. See Appendix E for a list of all gaming facilities included in Scenario 3.

As shown in Table 8, Scenario 3 yields lost Class II machine revenue of approximately $438.6 million, with a sensitivity analysis range of $171.5 million to $514.6 million. In current dollars (2008), lost gaming revenue is estimated to be approximately $576.3 million, with a sensitivity analysis range of $225.4 million to $676.2 million.

Other Important Considerations

It should be reiterated that if the revenue loss to any gaming facility were large enough, it could put them out of business. Although such individualized outcomes cannot be predicted by the aggregate analysis required in this report, it is a realistic possibility for some tribes given the magnitude of the expected revenue loss. And if lost revenue is significant enough to force a gaming facility to shut down, then lost gaming revenue would equal all Class II machine revenue.

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[160] Scenario 3 does not reflect my opinion on the likely economic impact of the proposed Class II regulations. Moreover, it is my opinion that any decrease in Class II machine revenue, whether illegal or not, fundamentally has a negative economic impact on a gaming facility and its respective tribe because that revenue is used to pay employees, purchase goods and services, fund tribal government operations and programs, provide for the general welfare of tribal members, and promote tribal economic development. Aside from this theoretical issue, rather than excluding all illegal machines in their entirety, it may be more appropriate to only exclude the incremental benefits gained by using illegal machines as opposed to legal machines. Also, I have no opinion on the legality of existing Class II machines.

[161] The NIGC was only aware of the number of touches for Class II machines as of October/November 2006. However, the Scenario 3 analysis was based upon machine counts for the end of 2006. Therefore, it was assumed that the 2006 year-end proportion of one-touch machines to total Class II machines for each facility or tribe was the same as the October/November 2006 proportion.

[162] Although Wyoming did not have illegal Class II machines in 2006, it was excluded from Scenario 3 given that it was already excluded from Scenario 2.

Table 8. Lost Gaming Revenue
Scenario 3

	Base Model	Sensitivity Analysis[1]		
Percentage Decrease	**64%**	**25%**	**50%**	**75%**
Actual[2]				
Revenue/Class II Machine/Day[3]	$301	$301	$301	$301
Number of Class II Machines[4]	6,246	6,246	6,246	6,246
Days Per Year	365	365	365	365
Class II Machine Revenue (2006 $ Millions)	$686.1	$686.1	$686.1	$686.1
Percentage Decrease[5]				
Revenue/Class II Machine/Day	64%	25%	50%	75%
Under Class II Regulations[6]				
Revenue/Class II Machine/Day	$109	$226	$150	$75
Number of Class II Machines	6,246	6,246	6,246	6,246
Days Per Year	365	365	365	365
Class II Machine Revenue (2006 $ Millions)	$247.5	$514.6	$343.0	$171.5
Lost Gaming Revenue (2006 $ Millions)	**$438.6**	**$171.5**	**$343.0**	**$514.6**
Lost Gaming Revenue (Current $ Millions)[7]	**$576.3**	**$225.4**	**$450.8**	**$676.2**

Notes:

1. For exposition purposes, the Percentage Decrease in Revenue/Class II Machine/Day is set at 25%, 50%, and 75%.
2. Actual values are for 2006, the last year for which data are available.
3. Revenue/Class II Machine/Day is based upon all facilities with legal Class II Machines. For details on NIGC's determination of legal machines, see the text on Scenario 3.
4. Number of Class II Machines is equal to the total number of legal machines. For details on NIGC's determination of legal machines, see the text on Scenario 3.
5. In the Base Model, Revenue/Class II Machine/Day under the proposed Class II regulations is expected to decrease 64%, which is the percentage decrease from the Actual 2006 Revenue/Class II Machine/Day to the inflation-adjusted average revenue per machine per day for MegaMania from 1997 to 2001. It is also assumed that the number of Class II machines would remain at the Actual 2006 level.
6. For comparison to Actual, values for Under Class II Regulations are also for 2006.
7. Current dollars (2008) are estimated by growing 2006 values at the 10-year (1997-2006) compound annual growth rate for Indian gaming, which is 14.6%.

Sources:

NIGC data; Indian Gaming Industry Report; Analysis Group estimates.

LOST NON-GAMING REVENUE

If the enactment of the proposed Class II regulations results in a reduction in gaming revenue, there would likely be a reduction in non-gaming revenue where non-gaming amenities exist.

Methodology

In order to measure the decrease in non-gaming revenue, I took the ratio of Class II machine-related non-gaming revenue to Class II machine revenue (i.e., the amount of non-gaming revenue generated for each dollar of Class II machine revenue generated) and applied it to the previously estimated gaming revenue loss. As noted in Chapter 4, the proportion of non-gaming revenue that was attributable to Class II machines was assumed to be equal to the ratio of Class II machine revenue to total gaming revenue.

Given that lost gaming revenue and the ratio of non-gaming revenue to gaming revenue are based on 2006 data, lost non-gaming revenue is calculated in 2006 dollars. Thus, in order to measure lost non-gaming revenue in current dollars (2008),[163] I grew the 2006 value at the 5-year (2002-2006) compound annual growth rate for non-gaming revenue for all of Indian gaming, which is approximately 17.8 percent.[164]

Results

Using the methodology set forth above, lost non-gaming revenue is calculated for the four scenarios defined in the Lost Gaming Revenue analysis. For Scenarios 1, 2A, and 3, I calculate lost non-gaming revenue based upon the expected 64 percent decrease in revenue per Class II machine per day. Scenario 2B assumes a 100 percent decrease in revenue per Class II machine per day. In addition, a sensitivity analysis was also conducted in order to test how lost non-gaming revenue varies given different percentage decreases in revenue per Class II machine per day. For exposition purposes, I utilized percentage decreases of 25 percent, 50 percent, and 75 percent. Note that all market statistics (e.g., the ratio of non-gaming revenue to gaming revenue) were recalculated for each scenario based upon the set of gaming facilities included.

As shown in Table 9, Scenario 2A yields lost non-gaming revenue of approximately $95.1 million, with a sensitivity analysis range of $37.2 million to $111.6 million, and Scenario 2B yields lost non-gaming revenue of approximately $148.8 million. In current dollars (2008), Scenario 2A yields lost non-gaming revenue of approximately $132.1 million, with a sensitivity analysis range of $51.7 million to $155.0 million, and Scenario 2B yields lost non-gaming revenue of about $206.7 million. For Scenarios 1 and 3, lost non-gaming revenue in current dollars was about $136.9 million and $54.7 million, respectively.

[163] Current dollars are 2008 values given that this report is being completed at the end of 2007, and in light of the assumption that the proposed regulations would go into effect in January 2008.
[164] Analysis of NIGC data. Note that only five years of data were readily available for non-gaming revenue.

Table 9. Lost Non-Gaming Revenue

	Base Model[1]	Sensitivity Analysis[2]		
Percentage Decrease	**64%**	**25%**	**50%**	**75%**
Scenario 1				
Lost Gaming Revenue (2006 $ Millions)	$2,269.8	$887.7	$1,775.4	$2,663.0
Ratio of Non-Gaming to Gaming Revenue[3]	4.3%	4.3%	4.3%	4.3%
Lost Non-Gaming Revenue (2006 $ Millions)	**$98.6**	**$38.6**	**$77.1**	**$115.7**
Lost Non-Gaming Revenue (Current $ Millions)[4]	**$136.9**	**$53.6**	**$107.1**	**$160.7**
Scenario 2A				
Lost Gaming Revenue (2006 $ Millions)	$1,073.6	$419.9	$839.8	$1,259.6
Ratio of Non-Gaming to Gaming Revenue[3]	8.9%	8.9%	8.9%	8.9%
Lost Non-Gaming Revenue (2006 $ Millions)	**$95.1**	**$37.2**	**$74.4**	**$111.6**
Lost Non-Gaming Revenue (Current $ Millions)[4]	**$132.1**	**$51.7**	**$103.4**	**$155.0**
Scenario 2B				
Lost Gaming Revenue (2006 $ Millions)	$1,679.5	n/a	n/a	n/a
Ratio of Non-Gaming to Gaming Revenue[3]	8.9%	n/a	n/a	n/a
Lost Non-Gaming Revenue (2006 $ Millions)	**$148.8**	**n/a**	**n/a**	**n/a**
Lost Non-Gaming Revenue (Current $ Millions)[4]	**$206.7**	**n/a**	**n/a**	**n/a**
Scenario 3				
Lost Gaming Revenue (2006 $ Millions)	$438.6	$171.5	$343.0	$514.6
Ratio of Non-Gaming to Gaming Revenue[3]	9.0%	9.0%	9.0%	9.0%
Lost Non-Gaming Revenue (2006 $ Millions)	**$39.4**	**$15.4**	**$30.8**	**$46.2**
Lost Non-Gaming Revenue (Current $ Millions)[4]	**$54.7**	**$21.4**	**$42.8**	**$64.2**

Notes:
1. The Percentage Decrease for the Base Model in Scenario 2B is assumed to be 100%.
2. For exposition purposes, the Percentage Decrease in Revenue/Class II Machine/Day in Scenarios 1, 2A, and 3 is set at 25%, 50%, and 75%.
3. See Chapter 4 for further discussion on calculation of Ratio of Non-Gaming to Gaming Revenue. The Ratio varies by Scenario due to the set of gaming facilities included.
4. Current dollars (2008) are estimated by growing 2006 values at the 5-year (2002-2006) compound annual growth rate for Indian gaming, which is 17.8%.

Sources:
NIGC data; Indian Gaming Industry Report; Analysis Group estimates.

INCREASED REVENUE-SHARING COSTS

If in response to the proposed regulations, some tribes replace existing Class II machines with Class III machines (where possible), significant revenue-sharing costs may be incurred for the operation of the additional Class III machines.

Methodology

For the most part, it is difficult to anticipate revenue-sharing costs, especially when expected Class III revenue is uncertain and if there is no existing revenue sharing. Expected revenue is based on a variety of factors, including the state of gaming prior to revenue sharing, the

types of machines to be operated, facility locations, and competition. Furthermore, expected revenue sharing rates are derived through unique negotiations and would be based on factors that could vary widely depending on the circumstances of each situation. However, in Arizona, California, Oklahoma, and Washington, increased revenue-sharing costs can be generally estimated because revenue sharing for Class III machines has already been agreed upon in existing gaming compacts or gaming compact amendments recently renegotiated.

As noted in the state-by-state analysis earlier in this chapter, tribes operating Class II machines in these states are likely to shift to Class III machines if the proposed regulations are enacted. However, there are increased revenue-sharing costs associated with the operation of additional Class III machines. Thus, the total increase in revenue-sharing costs in each state can be estimated by multiplying the expected increase in Class III machine revenue by the appropriate revenue sharing rate. The relevant inputs to this analysis for each state are as follows:[165]

- Arizona: Revenue sharing with the state is one to eight percent of Class III machine net win.[166] Given available data,[167] I estimate the 2006 statewide average revenue sharing rate to be approximately 5.3 percent and the 2006 statewide average revenue per Class III machine to be approximately $366.
- California: Based upon the most recent compacts, incremental revenue sharing with the state is 15 percent of gaming machine net win for the first 3,000 machines and 25 percent of gaming machine net win for an additional 2,500 machines.[168] Because each California tribe with Class II machines had less than 3,000 of them in 2006, I use

[165] Note that the revenue sharing calculations are based upon statewide average figures. It is uncertain whether these averages will hold true for the specific tribes with Class II machines converting to Class III machines. However, these are the best data available at this time.

[166] Model Tribal-State Gaming Compact, Arizona, 2003.

[167] The 2006 Arizona statewide average revenue per Class III machine was calculated as statewide gaming revenue multiplied by the ratio of total machine revenue to total gaming revenue, multiplied by the ratio of Class III machine revenue to total machine revenue, divided by the statewide number of Class III machines, divided by 365 days in the year [($1.892 billion x 89.7% x 99.7%) / (12,713 – 56) / 365 = $366]. Sources: NIGC for statewide gaming revenue; State of Arizona, Department of Gaming for revenue sharing figures and Class II machine counts; Joseph Eve, *The 2007 Indian Gaming Cost of Doing Business Report*, for the ratio of total machine revenue to total gaming revenue; analysis of NIGC data and discussions with Class II system manufacturers for the nationwide ratio of Class III machine revenue to total machine revenue; Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition for total machine counts.

[168] Amendments to the Tribal-State Compacts Between the State of California and the Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, the Pechanga Band of Luiseño Indians, Sycuan Band of the Kumeyaay Nation, and San Manuel Band of Mission Indians (all of these compact amendments were executed in 2006 and ratified by the State Legislature in 2007). Incremental revenue sharing as measured in this report does not include fixed annual payments to the State; fixed annual payments to the Revenue Sharing Trust Fund, which is redistributed to non-gaming tribes in the state; or any local revenue sharing.

the revenue sharing rate of 15 percent. Given available data,[169] I estimate the 2006 statewide average revenue per Class III machine to be approximately $308.

- Oklahoma: Revenue sharing with the state is four to six percent of Class III machine net win.[170] Given available data,[171] I estimate the 2006 statewide average revenue sharing rate to be approximately 5.3 percent and the 2006 statewide average revenue per Class III machine to be approximately $145.
- Washington: Tribes pay: up to 0.5 percent of Class III machine revenue to local governments; 0.13 percent of Class III machine revenue for problem gambling education, awareness, and treatment; and 0.13 percent of Class III machine revenue for smoking cessation, prevention, education, awareness, and treatment.[172] Thus, total revenue sharing is 0.76 percent. Based upon available data,[173] I estimate the 2006 statewide average revenue per Class III machine to be approximately $181.

Given that increased Class III machine revenue is calculated in actual dollars (2006 for Arizona, California, and Washington; 2007 for Oklahoma), increased revenue-sharing costs are in actual dollars. In order to measure increased revenue-sharing costs in current dollars (2008),[174] I grew the actual values at Indian gaming's 10-year (1997-2006) compound annual growth rate for gaming revenue, which is approximately 14.6 percent.[175]

[169] The 2006 California statewide average revenue per Class III machine was calculated as statewide gaming revenue multiplied by the ratio of total machine revenue to total gaming revenue, multiplied by the ratio of Class III machine revenue to total machine revenue, divided by the statewide number of Class III machines, divided by 365 days in the year [($7.675 billion x 89.7% x 95.4%) / (62,732 – 4,215) / 365 = $308]. Sources: NIGC for statewide gaming revenue and Class II machine counts; Joseph Eve, *The 2007 Indian Gaming Cost of Doing Business Report*, for the ratio of total machine revenue to total gaming revenue; analysis of NIGC data and discussions with Class II system manufacturers for the nationwide ratio of Class III machine revenue to total machine revenue; Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition for total machine counts.

[170] Model Tribal Gaming Compact, Oklahoma, 2005.

[171] Analysis based upon data gathered by the State of Oklahoma, Office of State Finance.

[172] Appendix X2 to the Tribal-State of Washington Class III Gaming Compacts, 2007. Note that payments to charitable organizations and tribal government programs are not included in the revenue sharing calculations.

[173] The 2006 Washington statewide average revenue per Class III machine was calculated as statewide gaming revenue multiplied by the ratio of total machine revenue to total gaming revenue, multiplied by the ratio of Class III machine revenue to total machine revenue, divided by the statewide number of Class III machines, divided by 365 days in the year [($1.433 billion x 89.7% x 93.9%) / (20,006 – 1,771) / 365 = $181]. Sources: NIGC for statewide gaming revenue and Class II machine counts; Joseph Eve, *The 2007 Indian Gaming Cost of Doing Business Report*, for the ratio of total machine revenue to total gaming revenue; analysis of NIGC data and discussions with Class II system manufacturers for the nationwide ratio of Class III machine revenue to total machine revenue; Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition for total machine counts.

[174] Current dollars are 2008 values given that this report is being completed at the end of 2007, and in light of the assumption that the proposed regulations would go into effect in January 2008. This means that the amounts for Arizona, California, and Washington were grown two years from 2006 to 2008, while Oklahoma was grown only one year from 2007 to 2008.

[175] Meister, Alan, *Indian Gaming Industry Report*, 2007-2008 Edition, Newton: Casino City Press.

Results

As shown in Table 10, the present value of increased revenue sharing in Arizona, California, Oklahoma, and Washington would total approximately $169.1 million if tribes with Class II machines in these states switch to Class III machines.[176]

LOST TRIBAL MEMBER JOBS

Depending on the magnitude of decreases in gaming and non-gaming revenues, tribes may find it necessary to scale back their gaming facilities and reduce the size of their gaming-related workforces (e.g., gaming and non-gaming employees at Indian gaming facilities), which typically include tribal members. In addition, a decrease in tribal government revenue that results from gaming and non-gaming revenue losses may lead to reductions in the number of non-gaming jobs, such as those supporting tribal government operations, programs, and other business enterprises.

Methodology

Previous research has shown that there is a strong correlation between gaming revenue and the number of gaming-related employees.[177] In fact, output per worker, a commonly-used measure of labor productivity, makes use of this relationship. In order to measure the total number of gaming-related jobs that are lost as a result of the decreases in gaming and non-gaming revenue, I also use this relationship. Specifically, total lost gaming-related jobs were calculated as the sum of lost gaming and non-gaming revenue as calculated in the corresponding sections above, divided by the average gaming revenue per worker for the U.S. commercial casino industry.

Given that lost gaming revenue and lost non-gaming revenue were already calculated in current dollars (2008),[178] the 2006 average revenue per worker ($87,627) was also calculated in current dollars by growing the 2006 value ($87,627) by the 5-year (2002-2006) compound annual growth rate for the average revenue per worker, which is approximately 5.7 percent.[179] And with lost gaming revenue, lost non-gaming revenue, and revenue per worker all in current dollars, total lost gaming-related jobs are measured as current values.

[176] As noted in Chapter 3, it is uncertain whether these increased costs would be entirely offset by the increase in Class III machine revenue. This would depend on how much more revenue Class III machines generate relative to Class II machines, as well as other costs (e.g., capital, deployment, compliance, regulatory, training, and financing costs) that may be incurred by tribes to switch from Class II to Class III machines.
[177] For example, see Analysis Group, *The Economic and Fiscal Benefits of Indian Gaming in California*, July 6, 1998.
[178] Current dollars are 2008 values given that this report is being completed at the end of 2007, and in light of the assumption that the proposed regulations would go into effect in January 2008.
[179] Data underlying the various editions of the *Indian Gaming Industry Report* (2003-2004; 2004-2005; 2005-2006; 2006-2007; 2007-2008).

Table 10. Incremental Revenue-Sharing Costs

Arizona	
Estimated Revenue/Class III Machine/Day	$366
Class II Machines to be Converted to Class III Machines	56
Days Per Year	365
Increased Class III Machine Revenue (2006 $ Millions)	$7
Average Revenue-Sharing Rate	5.3%
Arizona Revenue-Sharing Costs (2006 $ Millions)	**$0.4**
Arizona Revenue-Sharing Costs (Current $ Millions)[1]	**$0.5**
California	
Estimated Revenue/Class III Machine/Day	$308
Class II Machines to be Converted to Class III Machines	3,195
Days Per Year	365
Increased Class III Machine Revenue (2006 $ Millions)	$359
Expected Revenue-Sharing Rate	15.0%
California Revenue-Sharing Costs (2006 $ Millions)	**$53.8**
California Revenue-Sharing Costs (Current $ Millions)[1]	**$70.7**
Oklahoma	
Estimated Revenue/Class III Machine/Day	$145
Class II Machines to be Converted to Class III Machines	30,044
Days Per Year	365
Increased Class III Machine Revenue (2007 $ Millions)	$1,586
Average Revenue-Sharing Rate	5.3%
Oklahoma Revenue-Sharing Costs (2007 $ Millions)	**$84.4**
Oklahoma Revenue-Sharing Costs (Current $ Millions)[2]	**$96.8**
Washington	
Estimated Revenue/Class III Machine/Day	$181
Class II Machines to be Converted to Class III Machines	1,771
Days Per Year	365
Increased Class III Machine Revenue (2006 $ Millions)	$117
Actual Revenue-Sharing Rate	0.76%
Washington Revenue-Sharing Costs (2006 $ Millions)	**$0.9**
Washington Revenue-Sharing Costs (Current $ Millions)[1]	**$1.2**
Total Revenue-Sharing Costs (Current $ Millions)[1]	**$169.1**

Notes:

1. Current dollars (2008) are estimated by growing 2006 values at Indian gaming's 10-year (1997-2006) compound annual growth rate for gaming revenue, which is 14.6%.
2. Current dollars (2008) are estimated by growing 2007 values at Indian gaming's 10-year (1997-2006) compound annual growth rate for gaming revenue, which is 14.6%.

Sources:

Indian Gaming Industry Report, 2007-2008 Edition; NIGC data; Tribal-State Compacts between Arizona tribes and the State of Arizona, California tribes and the State of California, Oklahoma tribes and the State of Oklahoma, and Washington tribes and the State of Washington; State of Arizona, Department of Gaming; State of Oklahoma, Office of State Finance; Washington State Gaming Commission; Analysis Group estimates.

In order to calculate the proportion of the total lost gaming-related jobs that are held by tribal members, I multiply the total number of lost gaming-related jobs by the nationwide percentage of Indian gaming facility employees who are tribal members, which is 25 percent.[180] It should be noted that if tribes give preferential employment status to tribal members over non-tribal members and thus terminate non-tribal member jobs before tribal member jobs, then the proportion of lost tribal jobs could be less than 25 percent.

Unfortunately, there are no available data on the correlation between gaming revenue and non-gaming tribal jobs. Thus, non-gaming job losses are excluded from this analysis. However, such losses are likely to occur where Class II gaming revenue derives a large proportion of tribal government revenue.

Results

Using the methodology set forth above, lost tribal member jobs is calculated for the four scenarios defined in the Lost Gaming Revenue analysis. For Scenarios 1, 2A, and 3, I calculate lost tribal member jobs based upon the expected 64 percent decrease in revenue per Class II machine per day. Scenario 2B assumes a 100 percent decrease in revenue per Class II machine per day. In addition, a sensitivity analysis was also conducted in order to test how lost tribal member jobs varies given different percentage decreases in revenue per Class II machine per day. For exposition purposes, I utilized percentage decreases of 25 percent, 50 percent, and 75 percent.

Table 11 sets forth the calculation of lost tribal member jobs. For Scenario 2A, about 3,939 tribal member jobs would be lost. This compares with approximately 6,163 in Scenario 2B. For Scenarios 1 and 3, the number of lost tribal member jobs would be approximately 7,965 and 1,611, respectively.

[180] In some areas of the country with high unemployment, the percentage of tribal employees is up to 80 percent at gaming facilities. Source: National Indian Gaming Association, website (www.indiangaming.org/library/indian-gaming-facts/index.shtml), accessed November 5, 2007.

Table 11. Lost Tribal Member Jobs

	Base Model[1]	Sensitivity Analysis[2]		
Percentage Decrease	**64%**	**25%**	**50%**	**75%**
Scenario 1				
Lost Gaming Revenue (Current $ Millions)	$2,982.7	$1,166.5	$2,332.9	$3,499.4
Lost Non-Gaming Revenue (Current $ Millions)	$136.9	$53.6	$107.1	$160.7
Total Lost Casino Revenue (Current $ Millions)	$3,119.6	$1,220.0	$2,440.0	$3,660.1
Revenue Per Worker (Current $)[3]	$97,919	$97,919	$97,919	$97,919
Lost Gaming Facility Jobs	31,859	12,459	24,919	37,378
Percent of Gaming Facility Workers Who Are Tribal Members[4]	25%	25%	25%	25%
Lost Tribal Member Jobs	**7,965**	**3,115**	**6,230**	**9,345**
Scenario 2A				
Lost Gaming Revenue (Current $ Millions)	$1,410.8	$551.7	$1,103.5	$1,655.2
Lost Non-Gaming Revenue (Current $ Millions)	$132.1	$51.7	$103.4	$155.0
Total Lost Casino Revenue (Current $ Millions)	$1,543.0	$603.4	$1,206.9	$1,810.3
Revenue Per Worker (Current $)[3]	$97,919	$97,919	$97,919	$97,919
Lost Gaming Facility Jobs	15,758	6,163	12,325	18,488
Percent of Gaming Facility Workers Who Are Tribal Members[4]	25%	25%	25%	25%
Lost Tribal Member Jobs	**3,939**	**1,541**	**3,081**	**4,622**
Scenario 2B				
Lost Gaming Revenue (Current $ Millions)	$2,207.0	n/a	n/a	n/a
Lost Non-Gaming Revenue (Current $ Millions)	$206.7	n/a	n/a	n/a
Total Lost Casino Revenue (Current $ Millions)	$2,413.7	n/a	n/a	n/a
Revenue Per Worker (Current $)[3]	$97,919	n/a	n/a	n/a
Lost Gaming Facility Jobs	24,650	n/a	n/a	n/a
Percent of Gaming Facility Workers Who Are Tribal Members[4]	25%	n/a	n/a	n/a
Lost Tribal Member Jobs	**6,163**	**n/a**	**n/a**	**n/a**
Scenario 3				
Lost Gaming Revenue (Current $ Millions)	$576.3	$225.4	$450.8	$676.2
Lost Non-Gaming Revenue (Current $ Millions)	$54.7	$21.4	$42.8	$64.2
Total Lost Casino Revenue (Current $ Millions)	$631.0	$246.8	$493.5	$740.3
Revenue Per Worker (Current $)[3]	$97,919	$97,919	$97,919	$97,919
Lost Gaming Facility Jobs	6,444	2,520	5,040	7,561
Percent of Gaming Facility Workers Who Are Tribal Members[4]	25%	25%	25%	25%
Lost Tribal Member Jobs	**1,611**	**630**	**1,260**	**1,890**

Notes:

1. The Percentage Decrease for the Base Model in Scenario 2B is assumed to be 100%.
2. For exposition purposes, the Percentage Decrease in Revenue/Class II Machine/Day in Scenarios 1, 2A, and 3 is set at 25%, 50%, and 75%.
3. Revenue Per Worker (Current $) was estimated by growing 2006 values at the 5-year (2002-2006) compound annual growth rate for the U.S. commercial casino industry, which is 5.7%. The 2006 value for Revenue Per Worker was $87,627.
4. Per the National Indian Gaming Association website, accessed November 5, 2007.

Sources:

NIGC data; Indian Gaming Industry Report; Analysis Group estimates.

6. Conclusions

While, the NIGC's proposed Class II gaming regulations would have a significant negative impact on Class II gaming and the tribes that operate Class II facilities, the magnitude of the impact would vary widely from state to state and tribe to tribe depending on the legal landscape, political environment, existing market conditions, and the availability of viable alternatives to Class II devices. And although the impact may be significant in some cases, it may be small or non-existent in others. However, given the confidentiality of the data upon which this report is based, when the economic impact was quantifiable, it was computed on an aggregate basis.

There are a number of different types of negative economic impacts on Indian gaming facilities with Class II machines and tribes that operate them. Assuming that Class II machines compliant with the proposed regulations are feasible and the proposed regulations are legally enforceable (Scenario 2A), I concluded that the proposed regulations would yield the following economic impacts:

- Decreased gaming revenue: $1.4 billion;
- Decreased non-gaming revenue: $132.1 million;
- Decreased variety and quality of Class II gaming machines;
- Gaming facility closures;
- Increased capital, deployment, compliance, regulatory, training, and financing costs;
- Increased revenue-sharing costs: $169.1 million;
- Decreased tribal member jobs: 3,939 jobs; and
- Decreased innovation in the Class II gaming machine market.

If compliant Class II machines are not feasible (Scenario 2B), I concluded that the *aforementioned quantifiable impacts* would be as follows:

- Decreased gaming revenue: $2.2 billion;
- Decreased non-gaming revenue: $206.7 million;
- Increased revenue-sharing costs: $169.1 million; and
- Decreased tribal member jobs: 6,163 jobs.

There are also other broader economic impacts on the Indian gaming industry, including:

- A decrease in leverage that tribes would have in the negotiation/renegotiation of Class III gaming compacts with states;
- Restriction of new entry into the Class II machine market; and

- A change in the degree of competition experienced by Class III gaming facilities as Class II machines become less desirable substitutes for Class III games in the eyes of consumers and as more Class III gaming is introduced.

While a number of the aforementioned economic impacts were not quantifiable at this time, they should still be considered qualitatively alongside the quantified impacts.

Appendix A: About the Author

Dr. Meister is an economist specializing in the application of economic analysis to complex business issues, commercial litigation, and regulatory matters. His areas of expertise include economic issues related to Indian gaming, public policy analysis, strategic planning, statistics, antitrust, regulation, and the calculation of economic damages.

Dr. Meister has extensive experience analyzing economic issues related to Indian gaming. His work has included economic and fiscal impact analyses, industry and market analyses, assessments of regulatory policies, analyses of Tribal-State gaming compacts and revenue sharing, feasibility studies, surveys, and expert testimony in litigation and regulatory matters. He has also conducted years of independent, academic research on Indian gaming and authored a number of publications, most notably his annual study, the *Indian Gaming Industry Report*, which has received national recognition. His Indian gaming work is regularly cited by the press and relied upon by the gaming industry, governments, and the investment community. Dr. Meister's research and analyses have also been relied upon before the United States Supreme Court and a panel of the World Trade Organization. He has also presented his work at various academic, professional, and industry conferences, and testified before the California State Senate.

In his public policy and strategic planning work, Dr. Meister has used economic and fiscal impact studies, industry and market analyses, feasibility studies, and surveys to identify and measure the effects of introductions, expansions, and closures of businesses and industries; the infusion of capital into a region; events; and changes in regulations and laws. His projects have involved casinos, hotels, resorts, sporting and entertainment events, retail establishments, medical research, publicly funded projects, low-income mixed use developments, and ballot initiatives.

With regards to his statistics work, Dr. Meister has developed and implemented statistical analyses in a wide range of contexts. He has served as an expert regarding the use of statistics in the study of racial profiling, forensic analysis, and skill versus chance game assessments. Dr. Meister also has designed and implemented surveys. Prior to joining Analysis Group, Dr. Meister worked for a market research firm that implemented surveys for the motion picture industry. In addition, he was a teaching assistant for five years at the University of California, Irvine, where he taught courses on statistics, probability, econometrics, and survey design.

Dr. Meister has broad experience providing litigation consulting services. He has provided assistance to attorneys on all phases of pretrial and trial practice, including assistance with discovery, development of economic, financial, and statistical models, expert testimony, and critique of analyses by opposing experts. Dr. Meister has conducted damages assessments in a wide variety of cases, including anticompetitive conduct, patent, trademark, and trade dress infringement, misappropriation of trade secrets, breach of contract, labor disputes, fraud, and business interruption.

Appendix B: About Analysis Group, Inc.

Analysis Group provides economic, financial, and business strategy consulting to corporations, law firms, and government entities. We advise corporate and government clients on a range of business issues that require expert interpretation of economic and financial data. We help organizations create strategies for growth by analyzing market dynamics and organizational capabilities, enhancing innovation in current products and services, and identifying new market opportunities. We also assist law firms with all aspects of litigation.

Analysis Group, which was founded in 1981, has over 350 professional staff members, most with degrees in economics, finance, statistics, accounting, and business. We also work closely with an extensive network of experts at leading universities who help us develop state-of-the-art analyses and compelling insights for our clients. The academic rigor imposed by these relationships, coupled with our commitment to teamwork, ensures that our clients receive the highest caliber work product and service. Furthermore, Analysis Group is committed to the long-term satisfaction and success of our clients. We focus on developing long-term relationships based on mutual trust and dynamic collaboration.

Analysis Group's practice areas include accounting litigation services, antitrust, commercial litigation and damages, economic impact studies, energy, entertainment and media, environmental economics, financial institutions, growth and innovation, health care economics, intellectual property, labor and employment economics, mergers and acquisitions, real estate, securities & financial instruments, telecommunications, transfer pricing, and valuation.

Analysis Group has offices in Boston, Chicago, Dallas, Denver, Los Angeles, Menlo Park, Montreal, New York, San Francisco, and Washington, DC.

Appendix C: Indian Gaming Facilities Operating Class II Machines in 2006

Appendix C. Indian Gaming Facilities that Operated Class II Machines in 2006

State	Tribe	Gaming Facility
Alabama	Poarch Band of Creek Indians	Creek Entertainment Center
Alabama	Poarch Band of Creek Indians	Riverside Entertainment Center
Alabama	Poarch Band of Creek Indians	Tallapoosa Entertainment Center
Alaska	Metlakatla Indian Community	Metlakatla Indian Community Bingo
Arizona	Ak Chin Indian Community	Harrah's Phoenix Ak-Chin Casino Resort
Arizona	Tohono O'odham Nation	Golden Ha:sañ Casino
California	Lytton Rancheria of California	San Pablo Lytton Casino
California	Morongo Band of Mission Indains	Casino Morongo
California	Morongo Band of Mission Indains	Morongo Casino Resort & Spa
California	Morongo Band of Mission Indains	Morongo Travel Center
California	Pechanga Band of Luiseno Mission Indians	Pechanga Resort & Casino
California	Rincon Band of Luiseno Mission Indians	Harrah's Rincon Casino and Resort
California	San Manuel Band of Serrano Mission Indians	San Manuel Indian Bingo & Casino
California	Sycuan Band of the Kumeyaay Nation	Sycuan Casino & Resort
Florida	Miccosukee Tribe of Indians of Florida	Miccosukee Resort & Gaming Center
Florida	Seminole Tribe of Florida	Big Cypress Casino
Florida	Seminole Tribe of Florida	Seminole Casino Brighton
Florida	Seminole Tribe of Florida	Seminole Casino Coconut Creek
Florida	Seminole Tribe of Florida	Seminole Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Casino Immokalee
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Tampa
Minnesota	White Earth Band of Chippewa Indians	Berry's Bar
Minnesota	White Earth Band of Chippewa Indians	Callaway Municipal Liquor Store
Minnesota	White Earth Band of Chippewa Indians	Cedar Crest Resort
Minnesota	White Earth Band of Chippewa Indians	D & G Lounge
Minnesota	White Earth Band of Chippewa Indians	Doc's Den
Minnesota	White Earth Band of Chippewa Indians	Elbow Lake Store
Minnesota	White Earth Band of Chippewa Indians	M & W Service Center
Minnesota	White Earth Band of Chippewa Indians	Mahnomen American Legion Bingo
Minnesota	White Earth Band of Chippewa Indians	Naytahwaush Village Store
Minnesota	White Earth Band of Chippewa Indians	Ogema Fire House
Minnesota	White Earth Band of Chippewa Indians	Pinehurst Resort
Minnesota	White Earth Band of Chippewa Indians	Shooting Star Casino and Hotel
Minnesota	White Earth Band of Chippewa Indians	Tulably Lake Inn
Minnesota	White Earth Band of Chippewa Indians	Wild Rice Lounge
Montana	Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation	Silver Wolf Casino
Montana	Blackfeet Tribe	Discovery Lodge Casino
Montana	Blackfeet Tribe	Glacier Peaks Casino
Montana	Chippewa-Cree Indians of the Rocky Boy's Reservation	Bear Paw Casino and Four C's Cafe
Montana	Confederated Salish & Kootenai Tribes	Best Western KwaTaqNuk Resort
Montana	Crow Tribe	Little Bighorn Casino
Montana	Northern Cheyenne Tribe	Charging Horse Casino & Bingo
Nebraska	Omaha Tribe of Nebraska	Lucky 77 Casino
Nebraska	Winnebago Tribe of Nebraska	Native Star Casino
Nebraska	Santee Sioux Tribe of Nebraska	Ohiya Casino & Bingo
Nebraska	Winnebago Tribe of Nebraska	Iron Horse Bar & Casino
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment 1
New York	St. Regis Mohawk Tribe	Mohawk Bingo Palace
Oklahoma	Absentee Shawnee Tribe of Oklahoma	Thunderbird Wild Wild West Casino
Oklahoma	Apache Tribe of Oklahoma	Silver Buffalo Casino
Oklahoma	Cherokee Nation	Cherokee Casino - Fort Gibson
Oklahoma	Cherokee Nation	Cherokee Casino - Roland
Oklahoma	Cherokee Nation	Cherokee Casino - Sallisaw
Oklahoma	Cherokee Nation	Cherokee Casino - West Siloam Springs
Oklahoma	Cherokee Nation	Cherokee Casino Resort
Oklahoma	Cherokee Nation	Cherokee Casino Tahlequah

Appendix C. Indian Gaming Facilities that Operated Class II Machines in 2006

State	Tribe	Gaming Facility
Oklahoma	Cherokee Nation	Cherokee Nation Outpost Tobacco Shop
Oklahoma	Cherokee Nation	West Siloam Springs Smoke Shop
Oklahoma	Cheyenne-Arapaho Tribes of Oklahoma	Feather Warrior Casino
Oklahoma	Cheyenne-Arapaho Tribes of Oklahoma	Lucky Star Casino - Clinton
Oklahoma	Cheyenne-Arapaho Tribes of Oklahoma	Lucky Star Casino - Concho
Oklahoma	Chickasaw Nation	Ada Gaming Center
Oklahoma	Chickasaw Nation	Ada Travel Stop
Oklahoma	Chickasaw Nation	Black Gold Casino
Oklahoma	Chickasaw Nation	Cash Springs Gaming Center
Oklahoma	Chickasaw Nation	Chisholm Trail Casino
Oklahoma	Chickasaw Nation	Davis Trading Post
Oklahoma	Chickasaw Nation	Gold Mountain Casino
Oklahoma	Chickasaw Nation	Goldsby Gaming Center
Oklahoma	Chickasaw Nation	Madill Gaming Center
Oklahoma	Chickasaw Nation	Newcastle Gaming Center I
Oklahoma	Chickasaw Nation	Riverwind Casino
Oklahoma	Chickasaw Nation	Texoma Gaming Center
Oklahoma	Chickasaw Nation	Thackerville Travel Plaza
Oklahoma	Chickasaw Nation	Treasure Valley Casino
Oklahoma	Chickasaw Nation	Washita Gaming Center
Oklahoma	Chickasaw Nation	WinStar Casino
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - Broken Bow
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - Grant
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - Idabel
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - McAlester
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - Pocola
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino - Stringtown
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino Bingo
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Inn - Durant
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Casino Too
Oklahoma	Choctaw Nation of Oklahoma	Choctaw Coliseum
Oklahoma	Choctaw Nation of Oklahoma	Durant Travel Plaza East
Oklahoma	Choctaw Nation of Oklahoma	Durant Travel Plaza West
Oklahoma	Choctaw Nation of Oklahoma	Idabel Travel and Smoke Shop
Oklahoma	Choctaw Nation of Oklahoma	Pocola Travel and Smoke Shop
Oklahoma	Citizen Potawatomi Nation	Baby Grand Casino
Oklahoma	Citizen Potawatomi Nation	FireLake Casino
Oklahoma	Citizen Potawatomi Nation	FireLake Grand Casino
Oklahoma	Comanche Nation	Comanche Nation Casino
Oklahoma	Comanche Nation	Comanche Red River Casino
Oklahoma	Comanche Nation	Comanche Spur Smoke Shop and Casino
Oklahoma	Comanche Nation	Comanche Star Casino and Smoke Shop
Oklahoma	Delaware Nation	Gold River Casino
Oklahoma	Eastern Shawnee Tribe of Oklahoma	Border Town Casino
Oklahoma	Eastern Shawnee Tribe of Oklahoma	Eastern Shawnee Travel Plaza
Oklahoma	Fort Sill Apache Tribe of Oklahoma	Fort Sill Apache Casino
Oklahoma	Kaw Nation	Kaw Southwind Casino
Oklahoma	Kickapoo Tribe of Oklahoma	Kickapoo Casino
Oklahoma	Kickapoo Tribe of Oklahoma	Kickapoo Conoco Station
Oklahoma	Miami Tribe of Oklahoma	Miami Tribe Entertainment
Oklahoma	Modoc Tribe of Oklahoma/Miami Tribe of Oklahoma	The Stables Casino
Oklahoma	Muscogee (Creek) Nation	Bristow Indian Casino
Oklahoma	Muscogee (Creek) Nation	Checotah Indian Community Bingo
Oklahoma	Muscogee (Creek) Nation	Creek Nation Casino Eufaula
Oklahoma	Muscogee (Creek) Nation	Creek Nation Casino Okemah
Oklahoma	Muscogee (Creek) Nation	Creek Nation Casino Okmulgee
Oklahoma	Muscogee (Creek) Nation	Creek Nation Casino Tulsa
Oklahoma	Muscogee (Creek) Nation	Creek Nation Casino Muscogee

Appendix C. Indian Gaming Facilities that Operated Class II Machines in 2006

State	Tribe	Gaming Facility
Oklahoma	Muscogee (Creek) Nation	Creek Nation Travel Plaza
Oklahoma	Muscogee (Creek) Nation	Duck Creek Casino
Oklahoma	Muscogee (Creek) Nation	Muscogee Travel Plaza
Oklahoma	Osage Nation	Osage Million Dollar Elm Casino - Hominy
Oklahoma	Osage Nation	Osage Million Dollar Elm Casino - Sand Springs
Oklahoma	Osage Nation	Osage Million Dollar Elm Casino - Pawhuska
Oklahoma	Osage Nation	Osage Million Dollar Elm Casino - Tulsa
Oklahoma	Otoe-Missouria Tribe of Indians	7 Clans Paradise Casino
Oklahoma	Otoe-Missouria Tribe of Indians	Lil Bit of Paradise Casino
Oklahoma	Ottawa Tribe of Oklahoma	High Winds Casino
Oklahoma	Peoria Tribe of Indians of Oklahoma	Buffalo Run Casino
Oklahoma	Peoria Tribe of Indians of Oklahoma	Peoria Gaming Center
Oklahoma	Ponca Tribe of Oklahoma	Blue Star Gaming and Casino
Oklahoma	Quapaw Tribe of Oklahoma	Quapaw Casino
Oklahoma	Sac & Fox Nation of Oklahoma	Sac and Fox Casino
Oklahoma	Sac & Fox Nation of Oklahoma	Sac and Fox Casino - Stroud
Oklahoma	Seminole Nation of Oklahoma	Mystic Winds Casino
Oklahoma	Seminole Nation of Oklahoma	Seminole Nation Trading Post
Oklahoma	Seneca-Cayuga Tribe of Oklahoma	Grand Lake Casino
Oklahoma	Thlopthlocco Tribal Town	Golden Pony Casino
Oklahoma	Wyandotte Nation	Lucky Turtle Casino
South Dakota	Crow Creek Sioux Tribe	Lode Star Casino and Hotel
South Dakota	Flandreau Santee Sioux Tribe	Royal River Casino & Hotel
Texas	Kickapoo Traditional Tribe of Texas	Kickapoo Lucky Eagle Casino
Washington	Confederated Tribes and Bands of the Yakama Nation	Yakama Nation Legends Casino
Washington	Confederated Tribes of the Chehalis Reservation	Lucky Eagle Casino
Washington	Confederated Tribes of Colville Reservation	Coulee Dam Casino
Washington	Confederated Tribes of Colville Reservation	Mill Bay Casino
Washington	Jamestown S'Klallam Tribe	7 Cedars Casino
Washington	Muckleshoot Indian Tribe	Muckleshoot Casino
Washington	Nooksack Indian Tribe	Nooksack River Casino
Washington	Puyallup Tribe of Indians	BJ's Bingo
Washington	Quinault Indian Nation	Quinault Beach Resort and Casino
Washington	Shoalwater Bay Indian Tribe	Shoalwater Bay Casino
Washington	Skokomish Indian Tribe	The Lucky Dog Casino
Washington	Squaxin Island Tribe	Little Creek Casino Resort
Washington	Stillaquamish Tribe	Angel of the Winds Casino
Washington	Suquamish Tribe	Clearwater Casino
Washington	Swinomish Indian Tribal Community	Swinomish Northern Lights Casino
Washington	Tulalip Tribes	Tulalip Bingo
Washington	Upper Skagit Indian Tribe	Skagit Valley Casino Resort
Wisconsin	Ho-Chunk Nation	Dejope Bingo and Entertainment
Wyoming	Northern Arapaho Tribe	Little Wind Casino
Wyoming	Northern Arapaho Tribe	Wind River Casino

Appendix D: Indian Gaming Facilities Operating Class II Machines in Scenarios 2A and 2B

Appendix D. Indian Gaming Facilities that Operated Class II Machines in 2006: Scenarios 2A and 2B

State	Tribe	Gaming Facility
Alabama	Poarch Band of Creek Indians	Creek Entertainment Center
Alabama	Poarch Band of Creek Indians	Riverside Entertainment Center
Alabama	Poarch Band of Creek Indians	Tallapoosa Entertainment Center
Alaska	Metlakatla Indian Community	Metlakatla Indian Community Bingo
California	Lytton Rancheria of California	San Pablo Lytton Casino
Florida	Miccosukee Tribe of Indians of Florida	Miccosukee Resort & Gaming Center
Florida	Seminole Tribe of Florida	Big Cypress Casino
Florida	Seminole Tribe of Florida	Seminole Casino Brighton
Florida	Seminole Tribe of Florida	Seminole Casino Coconut Creek
Florida	Seminole Tribe of Florida	Seminole Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Casino Immokalee
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Tampa
Minnesota	White Earth Band of Chippewa Indians	Berry's Bar
Minnesota	White Earth Band of Chippewa Indians	Callaway Municipal Liquor Store
Minnesota	White Earth Band of Chippewa Indians	Cedar Crest Resort
Minnesota	White Earth Band of Chippewa Indians	D & G Lounge
Minnesota	White Earth Band of Chippewa Indians	Doc's Den
Minnesota	White Earth Band of Chippewa Indians	Elbow Lake Store
Minnesota	White Earth Band of Chippewa Indians	M & W Service Center
Minnesota	White Earth Band of Chippewa Indians	Mahnomen American Legion Bingo
Minnesota	White Earth Band of Chippewa Indians	Naytahwaush Village Store
Minnesota	White Earth Band of Chippewa Indians	Ogema Fire House
Minnesota	White Earth Band of Chippewa Indians	Pinehurst Resort
Minnesota	White Earth Band of Chippewa Indians	Shooting Star Casino and Hotel
Minnesota	White Earth Band of Chippewa Indians	Tulably Lake Inn
Minnesota	White Earth Band of Chippewa Indians	Wild Rice Lounge
Montana	Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation	Silver Wolf Casino
Montana	Blackfeet Tribe	Discovery Lodge Casino
Montana	Blackfeet Tribe	Glacier Peaks Casino
Montana	Chippewa-Cree Indians of the Rocky Boy's Reservation	Bear Paw Casino and Four C's Cafe
Montana	Confederated Salish & Kootenai Tribes	Best Western KwaTaqNuk Resort
Montana	Crow Tribe	Little Bighorn Casino
Montana	Northern Cheyenne Tribe	Charging Horse Casino & Bingo
Nebraska	Omaha Tribe of Nebraska	Lucky 77 Casino
Nebraska	Winnebago Tribe of Nebraska	Native Star Casino
Nebraska	Santee Sioux Tribe of Nebraska	Ohiya Casino & Bingo
Nebraska	Winnebago Tribe of Nebraska	Iron Horse Bar & Casino
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment 1
New York	St. Regis Mohawk Tribe	Mohawk Bingo Palace
South Dakota	Crow Creek Sioux Tribe	Lode Star Casino and Hotel
South Dakota	Flandreau Santee Sioux Tribe	Royal River Casino & Hotel
Texas	Kickapoo Traditional Tribe of Texas	Kickapoo Lucky Eagle Casino
Wisconsin	Ho-Chunk Nation	Dejope Bingo and Entertainment

Appendix E: Indian Gaming Facilities Operating Class II Machines in Scenario 3

Appendix E. Indian Gaming Facilities that Operated Class II Machines in 2006: Scenario 3		
State	**Tribe**	**Gaming Facility**
Alabama	Poarch Band of Creek Indians	Creek Entertainment Center
Alabama	Poarch Band of Creek Indians	Riverside Entertainment Center
Alabama	Poarch Band of Creek Indians	Tallapoosa Entertainment Center
Alaska	Metlakatla Indian Community	Metlakatla Indian Community Bingo
California	Lytton Rancheria of California	San Pablo Lytton Casino
Florida	Miccosukee Tribe of Indians of Florida	Miccosukee Resort & Gaming Center
Florida	Seminole Tribe of Florida	Big Cypress Casino
Florida	Seminole Tribe of Florida	Seminole Casino Brighton
Florida	Seminole Tribe of Florida	Seminole Casino Coconut Creek
Florida	Seminole Tribe of Florida	Seminole Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Casino Immokalee
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Hollywood
Florida	Seminole Tribe of Florida	Seminole Hard Rock Hotel & Casino Tampa
Minnesota	White Earth Band of Chippewa Indians	Berry's Bar
Minnesota	White Earth Band of Chippewa Indians	Callaway Municipal Liquor Store
Minnesota	White Earth Band of Chippewa Indians	Cedar Crest Resort
Minnesota	White Earth Band of Chippewa Indians	D & G Lounge
Minnesota	White Earth Band of Chippewa Indians	Doc's Den
Minnesota	White Earth Band of Chippewa Indians	Elbow Lake Store
Minnesota	White Earth Band of Chippewa Indians	M & W Service Center
Minnesota	White Earth Band of Chippewa Indians	Mahnomen American Legion Bingo
Minnesota	White Earth Band of Chippewa Indians	Naytahwaush Village Store
Minnesota	White Earth Band of Chippewa Indians	Ogema Fire House
Minnesota	White Earth Band of Chippewa Indians	Pinehurst Resort
Minnesota	White Earth Band of Chippewa Indians	Shooting Star Casino and Hotel
Minnesota	White Earth Band of Chippewa Indians	Tulably Lake Inn
Minnesota	White Earth Band of Chippewa Indians	Wild Rice Lounge
Nebraska	Omaha Tribe of Nebraska	Lucky 77 Casino
Nebraska	Winnebago Tribe of Nebraska	Native Star Casino
Nebraska	Santee Sioux Tribe of Nebraska	Ohiya Casino & Bingo
Nebraska	Winnebago Tribe of Nebraska	Iron Horse Bar & Casino
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment
New York	Seneca Nation of Indians	Seneca Gaming and Entertainment 1
New York	St. Regis Mohawk Tribe	Mohawk Bingo Palace
Texas	Kickapoo Traditional Tribe of Texas	Kickapoo Lucky Eagle Casino
Wisconsin	Ho-Chunk Nation	Dejope Bingo and Entertainment