

# Four Woodbury County Casino and Hotel Proposals, Economic Impact

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March 2013

## Executive Summary

The Hollywood Siouxland Casino and Hotel and Hollywood Sioux City Casino top the list of proposals based on the greatest positive impact on the Woodbury County, Iowa economy. That distinction applies both during the construction stage and after the casinos would be in full operation.

## Background

An economic impact study is an analytical tool used to project the changes that will occur in a region when you add an increment of new spending. The economic region can be a nation, a state, a county or a group of counties. When a new business moves into an area it brings new jobs, new payrolls and new vendor purchases. Of course, the new workers will spend a portion of their new payroll check at local stores. The same thing happens with the vendors. And before you know it, that new money turns over many more times in the local economy (we call that the "multiplier effect").

We call the infusion of new money the "direct effect". The portion spent outside of the region is called the "leakage". The leakage is smallest in areas that are virtually self-sufficient and able to produce what it consumes within its borders. The smaller the leakage, the larger the multiplier effect and the more times the new money will continue to be spent and re-spent.

The purpose of an economic impact study is to map the relationship of businesses in a region to one another to determine the total effect of each dollar of new spending as it is spent and re-spent potentially an infinite number of times.

IMPLAN is a commercial input-output modeling tool that can be calibrated to analyze a region as large as a nation or as small as a county or a cluster of counties. Using the IMPLAN model, the Strategic Economics Group research team examined the total dollar impact on the economy of the four casino proposals. To do this we created a three-county region that includes Sioux City in order to capture as much of the local activity as possible.

## The Mechanics

Our analysis is divided into two phases, the construction phase and the operations phase. We assumed the construction would occur shortly after the Iowa Racing and Gaming Commission issues the gaming license and would take about a year to complete. The operations phase would begin after that and we calculated the effect on the Sioux City economy over the first full year of operation. These effects would be annual and ongoing.

For each of the two phases, our analysis identified three economic measures: jobs, income and output. We did this for each of the four alternative casino proposals. The IMPLAN model defines a “job” as a full-time-equivalent position that lasts for one year. Thus, if the work assignment only lasts for six months, it would be counted as half a job. Construction jobs often last for less than a year. If the work is completed in three months (one-fourth of a year) and our analysis identifies it as creating five full-time-equivalent jobs it would provide part-time work for 20 individuals ( $5 \times 4 = 20$ ).

In our modeling, “Income” is what the U.S. Commerce Department refers to as total personal income. It includes employee compensation, self-employed proprietor’s income, property-based income (rents, royalties and dividends) less indirect business taxes that are deducted.

The IMPLAN folks define “Output” as “the value of industry production. In IMPLAN these are annual production estimates for the year of the data set and are in producer prices. For manufacturers this would be sales plus/minus change in inventory. For service sectors production = sales.”<sup>1</sup>

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<sup>1</sup> From the MIG, Inc. website [implan.com](http://implan.com).

In our models, “jobs” are the numbers that the developers reported to the Racing and Gaming Commission for their projected construction jobs and first-year operations jobs. For the “income” input numbers we used what the developers indicated in their projected budget for “wages”. In order to identify the direct input numbers for “output”, we used what the developer’s projected for their first year adjusted gross revenue (AGR) number and deducted the state’s 22% wagering tax.

The IMPLAN model for the three-county region that we created contained the industry-to-industry purchasing relationships (called the “coefficients”) that enable us to enter the direct inputs (described above) in one end of the model and retrieve the outputs at the other end.

For instance, the direct input for wages in the operations phase for the Hollywood Casino was reported as \$12.1 million. The model showed that the payroll being spent in local stores by the future Hollywood Casino workers generated a business-related impact of an additional \$8.4 million. The re-spending resulted in a consumer-related impact of another \$4.7 million. The total effect of all of that spending and re-spending adds up to \$25.3 million. So, the initial wage payments of \$12.1 million resulted in a total impact of \$25.3 million. Thus, it created a multiplier of 2.08 ( $\$25.3/\$12.1$ ).

The tables in Appendix A show this same information for jobs, income and output for each proposed casino for the construction phase, using the developer’s own numbers for the direct inputs and the IMPLAN model to generate the total economic impact for each. Appendix B contains the same detailed tables for the operations phase.

## **The Conclusions**

The economic impact of the construction-phase spending shows clearly that on the basis of jobs created, income and sales or production generated, the Hollywood Siouxland proposal tops the list, followed only slightly behind by the Hollywood Sioux City proposal. Table 1 summarizes the total numbers in the 12 tables in Appendix A. It shows that the Hollywood Siouxland Casino and Hotel would add 758 jobs to the local economy during the construction stage, adding nearly \$34 million to the economy and upping the sales or production in the local economy by \$169.3 million.

Table 1. Economic Impact of the Construction Phase for Four Casino Proposals

Site	Jobs	Income (\$Millions)	Output (\$Millions)
Hollywood Siouxland Casino and Hotel	758	\$33.9	\$169.3
Hollywood Casino	697	\$30.5	\$162.9
Warrior Casino and Hotel	626	\$27.8	\$139.1
Hard Rock Casino	563	\$23.0	\$151.0

The comparative analysis of the four proposed casino once they are in operation is a little bit more problematic. That is because the developers of the Hard Rock Casino proposal projected their level of adjusted gross revenue unrealistically high. We uncovered that issue on p. 23 of our report “Sioux City Casino Proposals, Analysis of Property Tax Impacts”:

“The Hard Rock developers have assumed in their lowest level revenue estimate that their table games that would bring in more revenue per table than all but three of the State’s other casinos (31% above the average from table games). In addition, their 800 slot machines are projected to generate greater revenue per slot than any other casino in the State (46% above the average of the other casinos).”

For this reason, we provided an alternative projection for Hard Rock’s projected adjusted gross revenue based upon the statewide casino average revenues per table game and average revenues per slot machine and applied those to the proposed number of table games and slot machines included in the developer’s application to the Iowa Racing and Gaming Commission. We included the developer’s numbers in Table 2 and Alternative 1 and our replacement numbers as Alternative 2.

Using the more realistic Alternative 2 scenario, Table 2 shows that again Hollywood Siouxland tops the list, followed slightly behind by Hollywood Sioux City. Once opened, the Hollywood Siouxland Casino and Hotel would annually provide 472 full-time jobs and also result in the addition of another 402 jobs as a result the initial \$13.1 million payroll circulating throughout the local economy. Table 2 summarizes the totals found in the 15 tables in Appendix B (one extra set for the Hard Rock Alternative numbers).

Table 2. Economic Impact of the Operations Stage for Four Casino Proposals

Site	Jobs	Income (\$Millions)	Output (\$Millions)
Hard Rock – Developer’s	959	\$28.3	\$102.6
Hollywood Siouxland	874	\$26.5	\$112.0
Hollywood	828	\$25.3	\$108.6
Hard Rock - Alternative	699	\$20.7	\$76.9
Warrior	647	\$18.8	\$82.3

## Appendix A – Construction Phase Economic Impacts

Table A1 Jobs Impact of Hollywood Construction Phase

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	0	1	0	1
Construction	303	2	0	305
Manufacturing	0	11	1	13
Transport./Utilities	0	16	2	19
Retail/Whole. Trade	0	74	37	112
Services	12	141	92	245
Other	0	2	2	4
Total	314	248	135	697

Table A2. Labor income Impact of Hollywood Construction Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$31.4	\$16.5	\$47.9
Construction	\$15,054.6	\$75.0	\$15.4	\$15,145.0
Manufacturing	\$0.0	\$783.7	\$67.3	\$851.0
Transport./Utilities	\$0.0	\$947.4	\$132.9	\$1,080.3
Retail/Whole. Trade	\$0.0	\$2,688.3	\$1,130.7	\$3,819.0
Services	\$107.0	\$5,740.1	\$3,372.6	\$9,219.7
Other	\$0.0	\$189.2	\$114.2	\$303.4
Total	\$15,161.6	\$10,455.0	\$4,849.7	\$30,466.3

Table A3. Output Impact of Hollywood Construction Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$190.8	\$50.6	\$241.4
Construction	\$102,873.9	\$325.2	\$52.4	\$103,251.5
Manufacturing	\$0.0	\$4,840.7	\$618.8	\$5,459.4
Transport./Utilities	\$0.0	\$3,020.1	\$438.2	\$3,458.3
Retail/Whole. Trade	\$0.0	\$5,335.6	\$2,179.6	\$7,515.2
Services	\$15,219.3	\$16,229.9	\$10,646.7	\$42,095.9
Other	\$0.0	\$535.7	\$328.8	\$864.5
Total	\$118,093.2	\$30,477.9	\$14,315.0	\$162,886.1

Table A4. Jobs Impact of Hollywood Siouxland Construction Phase

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	0	1	0	1
Construction	356	1	0	357
Manufacturing	0	13	1	15
Transport./Utilities	0	18	3	20
Retail/Whole. Trade	0	85	42	127
Services	1	131	102	234
Other	0	2	2	4
Total	357	250	150	758

Table A5. Labor income Impact of Hollywood Siouxland Construction Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$36.0	\$18.3	\$54.3
Construction	\$17,699.1	\$23.8	\$17.1	\$17,740.1
Manufacturing	\$0.0	\$923.8	\$74.8	\$998.6
Transport./Utilities	\$0.0	\$957.9	\$147.8	\$1,105.7
Retail/Whole. Trade	\$0.0	\$3,088.9	\$1,256.7	\$4,345.6
Services	\$12.7	\$5,572.4	\$3,748.5	\$9,333.6
Other	\$0.0	\$160.2	\$127.0	\$287.2
Total	\$17,711.8	\$10,763.1	\$5,390.1	\$33,865.0

Table A6. Output Impact of Hollywood Siouxland Construction Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$212.1	\$56.2	\$268.3
Construction	\$121,592.1	\$124.5	\$58.3	\$121,774.8
Manufacturing	\$0.0	\$5,686.0	\$687.8	\$6,373.8
Transport./Utilities	\$0.0	\$2,897.5	\$487.0	\$3,384.5
Retail/Whole. Trade	\$0.0	\$6,137.9	\$2,422.4	\$8,560.3
Services	\$1,800.0	\$14,565.1	\$11,833.0	\$28,198.2
Other	\$0.0	\$392.9	\$365.5	\$758.4
Total	\$123,392.1	\$30,016.1	\$15,910.2	\$169,318.3

Table A7. Jobs Impact of Warrior Construction Phase

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	0	1	0	1
Construction	290	1	0	291
Manufacturing	0	10	1	11
Transport./Utilities	0	15	2	17
Retail/Whole. Trade	0	73	34	107
Services	3	108	84	195
Other	0	2	1	3
Total	293	209	123	626

Table A8. Labor income Impact of Warrior Construction Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$28.3	\$15.0	\$43.3
Construction	\$14,467.0	\$27.3	\$14.0	\$14,508.3
Manufacturing	\$0.0	\$723.3	\$61.4	\$784.7
Transport./Utilities	\$0.0	\$799.4	\$121.3	\$920.7
Retail/Whole. Trade	\$0.0	\$2,613.2	\$1,031.7	\$3,644.9
Services	\$24.6	\$4,569.1	\$3,077.9	\$7,671.6
Other	\$0.0	\$136.3	\$104.2	\$240.5
Total	\$14,491.6	\$8,896.7	\$4,425.7	\$27,814.0

Table A9. Output Impact of Warrior Construction Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$169.2	\$46.1	\$215.4
Construction	\$97,622.0	\$132.5	\$47.8	\$97,802.3
Manufacturing	\$0.0	\$4,492.6	\$564.9	\$5,057.5
Transport./Utilities	\$0.0	\$2,440.3	\$399.9	\$2,840.2
Retail/Whole. Trade	\$0.0	\$5,165.0	\$1,988.8	\$7,153.9
Services	\$3,500.0	\$12,156.7	\$9,715.6	\$25,372.2
Other	\$0.0	\$341.4	\$300.1	\$641.5
Total	\$101,122.0	\$24,897.8	\$13,063.2	\$139,083.0



Table A10. Jobs Impact of Hard Rock Construction Phase

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	0	1	0	1
Construction	186	4	0	191
Manufacturing	0	8	1	9
Transport./Utilities	0	14	2	16
Retail/Whole. Trade	0	44	28	72
Services	33	167	70	270
Other	0	3	1	4
Total	220	241	102	563

Table A11. Labor income Impact of Hard Rock Construction Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$23.8	\$12.5	\$36.3
Construction	\$9,238.9	\$182.6	\$11.7	\$9,433.2
Manufacturing	\$0.0	\$537.6	\$50.9	\$588.5
Transport./Utilities	\$0.0	\$917.3	\$100.7	\$1,018.0
Retail/Whole. Trade	\$0.0	\$1,645.6	\$856.6	\$2,502.2
Services	\$304.9	\$6,271.4	\$2,553.7	\$9,130.0
Other	\$0.0	\$252.5	\$86.5	\$339.0
Total	\$9,543.8	\$9,830.8	\$3,672.5	\$23,047.1

Table A12. Output Impact of Hard Rock Construction Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$154.1	\$38.3	\$192.3
Construction	\$65,064.5	\$748.1	\$39.7	\$65,852.3
Manufacturing	\$0.0	\$3,286.2	\$468.2	\$3,754.4
Transport./Utilities	\$0.0	\$3,254.6	\$331.7	\$3,586.3
Retail/Whole. Trade	\$0.0	\$3,302.8	\$1,651.1	\$4,953.9
Services	\$43,363.2	\$20,130.3	\$8,063.3	\$71,556.7
Other	\$0.0	\$848.3	\$248.9	\$1,097.3
Total	\$108,427.7	\$31,724.4	\$10,841.2	\$150,993.3

## Appendix B – Operations Phase Economic Impacts

Table B1. Jobs Impact of Hollywood Operations Phase

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	0	0	0	1
Construction	0	2	1	3
Manufacturing	0	4	1	5
Transport./Utilities	0	12	3	15
Retail/Whole. Trade	0	6	36	42
Services	434	217	101	752
Government	0	10	2	12
Total	434	251	144	828

Table B2. Labor income Impact of Hollywood Operations Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$8.6	\$14.7	\$23.2
Construction	\$0.0	\$102.9	\$47.4	\$150.2
Manufacturing	\$0.0	\$187.6	\$62.0	\$249.6
Transport./Utilities	\$0.0	\$713.8	\$150.0	\$863.8
Retail/Whole. Trade	\$0.0	\$274.8	\$1,000.6	\$1,275.4
Services	\$12,145.2	\$6,394.5	\$3,271.2	\$21,810.9
Government	\$0.0	\$767.5	\$124.9	\$892.5
Total	\$12,145.2	\$8,449.6	\$4,670.8	\$25,265.6

Table B3. Output Impact of Hollywood Operations Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$75.2	\$51.7	\$126.9
Construction	\$0.0	\$264.9	\$132.1	\$397.0
Manufacturing	\$0.0	\$1,399.5	\$605.0	\$2,004.5
Transport./Utilities	\$0.0	\$2,798.9	\$567.8	\$3,366.8
Retail/Whole. Trade	\$0.0	\$652.2	\$2,089.6	\$2,741.7
Services	\$66,690.0	\$19,902.7	\$11,407.6	\$98,000.3
Government	\$0.0	\$1,523.9	\$416.7	\$1,940.7
Total	\$66,690.0	\$26,617.4	\$15,270.4	\$108,577.8

Table B4. Jobs Impact of Hollywood Siouxland Operations Phase

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	0	0	0	1
Construction	0	2	1	3
Manufacturing	0	4	1	5
Transport./Utilities	0	12	3	15
Retail/Whole. Trade	0	6	38	43
Services	472	217	106	795
Government	0	10	2	12
Total	472	251	151	874

Table B5. Labor income Impact of Hollywood Siouxland Operations Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$8.6	\$15.4	\$24.0
Construction	\$0.0	\$102.8	\$49.8	\$152.5
Manufacturing	\$0.0	\$187.6	\$65.2	\$252.8
Transport./Utilities	\$0.0	\$713.2	\$157.7	\$870.9
Retail/Whole. Trade	\$0.0	\$274.4	\$1,051.1	\$1,325.5
Services	\$13,163.8	\$6,397.0	\$3,438.9	\$22,999.8
Government	\$0.0	\$768.2	\$131.5	\$899.7
Total	\$13,163.8	\$8,451.7	\$4,909.5	\$26,525.1

Table B6. Output Impact of Hollywood Siouxland Operations Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$75.1	\$54.3	\$129.4
Construction	\$0.0	\$264.6	\$138.8	\$403.4
Manufacturing	\$0.0	\$1,398.6	\$635.9	\$2,034.5
Transport./Utilities	\$0.0	\$2,796.7	\$597.0	\$3,393.7
Retail/Whole. Trade	\$0.0	\$651.1	\$2,195.1	\$2,846.2
Services	\$69,342.0	\$19,908.8	\$11,987.9	\$101,238.7
Government	\$0.0	\$1,524.4	\$438.4	\$1,962.8
Total	\$69,342.0	\$26,619.3	\$16,047.4	\$112,008.6

Table B7. Jobs Impact of Warrior Operations Phase

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	0	0	0	0
Construction	0	0	0	1
Manufacturing	0	3	1	4
Transport./Utilities	0	8	2	10
Retail/Whole. Trade	0	5	26	30
Services	400	131	63	594
Government	0	8	1	9
Total	400	154	92	647

Table B8. Labor income Impact of Warrior Operations Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$6.3	\$10.5	\$16.8
Construction	\$0.0	\$18.8	\$9.7	\$28.5
Manufacturing	\$0.0	\$143.4	\$42.7	\$186.1
Transport./Utilities	\$0.0	\$423.5	\$84.3	\$507.7
Retail/Whole. Trade	\$0.0	\$211.3	\$715.2	\$926.4
Services	\$10,449.7	\$3,927.1	\$2,130.0	\$16,506.7
Government	\$0.0	\$584.7	\$71.8	\$656.5
Total	\$10,449.7	\$5,315.1	\$3,064.1	\$18,828.9

Table B9. Output Impact of Warrior Operations Phase (\$1,000s)

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$43.1	\$35.2	\$78.3
Construction	\$0.0	\$99.9	\$30.4	\$130.2
Manufacturing	\$0.0	\$1,069.9	\$427.2	\$1,497.1
Transport./Utilities	\$0.0	\$1,438.5	\$279.6	\$1,718.1
Retail/Whole. Trade	\$0.0	\$527.7	\$1,480.3	\$2,008.0
Services	\$58,578.0	\$10,357.2	\$6,737.3	\$75,672.5
Government	\$0.0	\$951.7	\$200.4	\$1,152.1
Total	\$58,578.0	\$14,488.0	\$9,190.3	\$82,256.3

Table B10. Jobs Impact of Hard Rock Operations Phase - Alternative 1

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	0	0	0	1
Construction	0	2	1	3
Manufacturing	0	3	1	4
Transport./Utilities	0	9	3	12
Retail/Whole. Trade	0	5	40	44
Services	600	173	112	885
Government	0	8	2	10
Total	600	200	160	959

Table B11. Labor income Impact of Hard Rock Operations Phase (\$1,000s) - Alternative 1

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$6.7	\$16.1	\$22.8
Construction	\$0.0	\$80.3	\$52.0	\$132.3
Manufacturing	\$0.0	\$147.4	\$68.3	\$215.7
Transport./Utilities	\$0.0	\$558.4	\$165.1	\$723.4
Retail/Whole. Trade	\$0.0	\$214.2	\$1,097.3	\$1,311.4
Services	\$16,526.1	\$5,035.7	\$3,601.3	\$25,163.2
Government	\$0.0	\$606.0	\$138.2	\$744.2
Total	\$16,526.1	\$6,648.7	\$5,138.2	\$28,313.0

Table B12. Output Impact of Hard Rock Operations Phase (\$1,000s) - Alternative 1

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$50.8	\$57.3	\$108.1
Construction	\$0.0	\$169.2	\$118.5	\$287.7
Manufacturing	\$0.0	\$1,076.3	\$672.5	\$1,748.7
Transport./Utilities	\$0.0	\$2,068.3	\$584.9	\$2,653.2
Retail/Whole. Trade	\$0.0	\$545.8	\$2,286.9	\$2,832.7
Services	\$68,717.9	\$13,415.8	\$11,395.5	\$93,529.2
Government	\$0.0	\$1,085.6	\$403.4	\$1,489.0
Total	\$68,717.9	\$18,412.0	\$15,518.9	\$102,648.7

Table B13. Jobs Impact of Hard Rock Operations Phase - Alternative 2

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	0	0	0	0
Construction	0	1	1	2
Manufacturing	0	2	1	3
Transport./Utilities	0	7	2	9
Retail/Whole. Trade	0	3	29	32
Services	437	126	82	645
Government	0	6	1	7
Total	437	146	116	699

Table B14. Labor income Impact of Hard Rock Operations Phase (\$1,000s) - Alternative 2

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$4.9	\$11.8	\$16.8
Construction	\$0.0	\$59.0	\$38.2	\$97.2
Manufacturing	\$0.0	\$108.3	\$50.2	\$158.5
Transport./Utilities	\$0.0	\$410.4	\$121.3	\$531.7
Retail/Whole. Trade	\$0.0	\$157.4	\$806.4	\$963.8
Services	\$12,036.3	\$3,700.9	\$2,646.7	\$18,383.8
Government	\$0.0	\$445.4	\$101.6	\$546.9
Total	\$12,036.3	\$4,886.3	\$3,776.1	\$20,698.7

Table B15. Output Impact of Hard Rock Operations Phase (\$1,000s) - Alternative 2

Sectors	Direct Impact	Business-Related Impact	Consumer-Related Impact	Total Impact
Agric. & Mining	\$0.0	\$38.0	\$41.6	\$79.6
Construction	\$0.0	\$128.5	\$90.0	\$218.6
Manufacturing	\$0.0	\$787.6	\$489.2	\$1,276.8
Transport./Utilities	\$0.0	\$1,525.6	\$432.2	\$1,957.7
Retail/Whole. Trade	\$0.0	\$392.5	\$1,668.8	\$2,061.3
Services	\$51,654.4	\$10,090.3	\$8,465.6	\$70,210.4
Government	\$0.0	\$807.9	\$302.2	\$1,110.2
Total	\$51,654.4	\$13,770.5	\$11,489.6	\$76,914.6

## Appendix C - About the Research Team

**Strategic Economics Group (SEG)** is the region's only locally- owned economic research consulting firm. It has served businesses and government clients in Iowa and the Midwest since 2001. The SEG team develops economic impact studies, fiscal impact estimates, cost-benefit models, management information systems and forensic projections. SEG's clients include:

U.S. Department of Agriculture, U.S. Small Business Administration, Iowa Department of Agriculture and Land Stewardship, Iowa Department of Economic Development, Iowa Workforce Development, Treasurer of Iowa, Iowa Farm Bureau Federation, Iowa Area Development Group, Iowa Association of Business and Industry, Iowa Association of Realtors, Iowa District Export Council, Service Corps of Retired Executives, Urban Caucus, Chamber Alliance, Greater Des Moines Partnership, Iowa Association of Electric Cooperatives, Iowa Utility Association, Alliant Energy, Mid-American Energy, Principal Financial, Iowa Credit Union League, Catholic Health Initiative, Iowa Gaming Association, Mediacom, StrategicAmerica, Flynn Wright Advertising, West Metro Regional Airport Authority, Drake University, Des Moines Area Community College, Grand View University, St. Ambrose University, Iowa Association of Community College Presidents, and the Iowa Student Loan Liquidity Corporation.

**Harvey Siegelman** is the President of Strategic Economics Group. In 2001, Mr. Siegelman retired as Iowa's longest-serving State Economist (1982-2001). He was also Adjunct Professor of Economics at Drake University. Siegelman earned his Master of Arts in Economics degree from Wichita State University. Prior to his appointment as State Economist, he was a professor of economics at University of Wisconsin-Whitewater Campus, Findlay University (Ohio) and visiting professor at Wichita State University.

**Daniel Otto** is a Senior Economic Analyst with Strategic Economics Group. Otto is also Retired Professor of Economics at Iowa State University in Ames, Iowa. He received his doctorate in economics from Virginia Polytechnic Institute in 1981 and joined Iowa State University that same year as an Associate

Professor and Extension Economist. His research areas include Community and Regional Economic Modeling and Policy Analysis, Economic and Fiscal Impact Analysis and Project Evaluation.

**Michael Lipsman** is a Senior Economic Analyst with Strategic Economics Group. Lipsman has earned a Masters in Community and Regional Planning and a Doctorate in Economics from Iowa State University. Over the course of a 31 year professional career in Iowa State government he has worked as a transportation planner, senior legislative analyst, and tax research analyst. From 2000 to 2011 he managed the Tax Research and Program Analysis Section of the Iowa Department of Revenue.