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Socioeconomic Indicators and Economic Impact Analysis of Firekeepers Casino and Hotel

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Socioeconomic Indicators and Economic Impact Analysis of Firekeepers Casino and Hotel

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This report includes the economic and social indicators for Calhoun County and the study area, as well an economic impact analysis of Firekeepers Casino and Hotel.

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Social and Economic Characteristics

This section of the report updates the economic and social indicators identified in the 2008 Upjohn study as possibly being impacted by the development of Firekeepers Casino. These indicators are reported for Calhoun County as well as the comparison areas of Jackson and Muskegon counties and Emmett Township (these areas were also previously used for comparison in the 2008 study). The economic situation in the area and entire country was dramatically affected by the Great Recession, which began in December 2007 and persisted through May 2009. The Great Recession began with instability in housing markets, which led to massive job losses that lasted years into the recovery. The economic data are particularly difficult to interpret due to the recession and its effect on markets, businesses, and workers.

This study applies the same socioeconomic indicators used in the 2008 Upjohn study that were identified by the Casino Baseline Study Committee. These indicators focus on four areas of concern where potential casino impacts were thought by the committee to be most significant – economy opportunity, crime offenses, financial impact, and family and children. The indicators for each area of concern are shown in Table 1.

Table 1: Socioeconomic Indicators.

| Area of Concern | Indicators |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Economic opportunity | Unemployment rates, employment growth rates, real property values |
| Crime offenses | Crime activity such as larceny, fraud, embezzlement, alcohol and narcotic DUI offenses, disorderly conduct, motor vehicle thefts |
| Financial impact | Bankruptcy filings, senior assistance requests |
| Family and children | Divorce rates, domestic violence reports to law enforcement, reported calls for child and adult protective services interventions, free and reduced-price lunches |

Economic Opportunity

Economic opportunity indicators chosen for the report include property value, employment change, and the unemployment rate. These data were greatly impacted by the deep 2007 to 2009 Great Recession. In addition to the Great Recession, Michigan was undergoing some unique economic challenges, persisting from the 2001 recession and the re-alignment of the auto industry. This era in Michigan is sometimes called the “one-state recession.”

Figures 1 and 2 show employment and unemployment in the counties from 2004 to 2018. While employment change in the early post-recession period varied significantly across the comparison group, farther into the recovery and from 2011 onward the trends in employment change are relatively consistent and show a similar pattern.

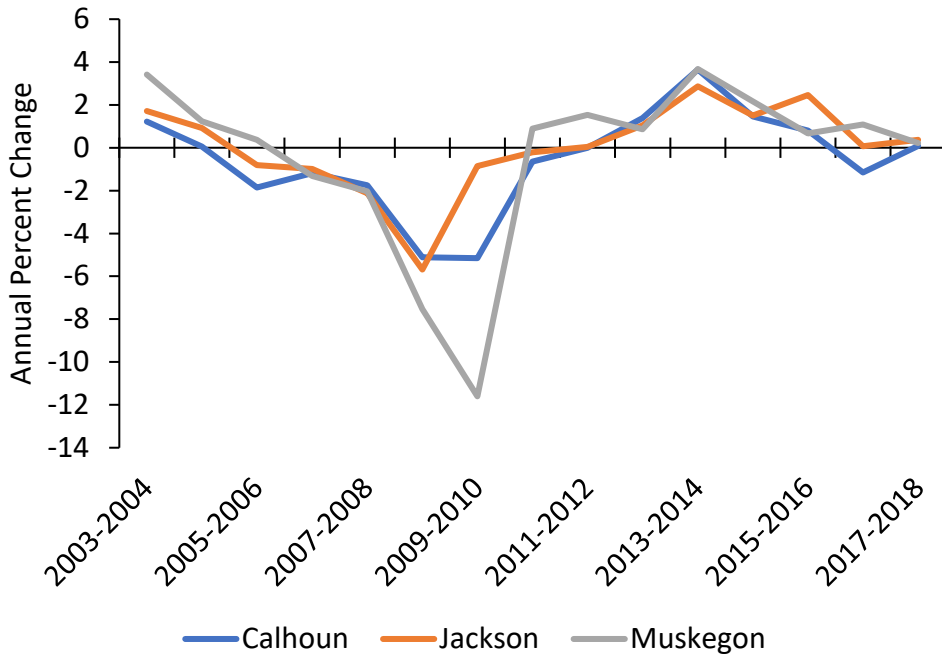


Figure 1: Employment Change, Calhoun, Jackson, and Muskegon counties: 2003-2018.

Figure 1 displays percent change in annual employment by place of work, meaning these numbers reflect jobs in the county, regardless of the residence of the employee. While the trend for the comparison group is generally similar, the impact of the recession on the three county economies was significantly different. Shown in Figure 2, Muskegon County peaked with the highest unemployment rate at around 15 percent, Jackson County at just under 14 percent, and Calhoun County at just under 12 percent. In the recovery period, the unemployment rate for Muskegon continues to be slightly higher than for Jackson and Calhoun, which are comparable, but the trend for all three areas has been toward full employment.

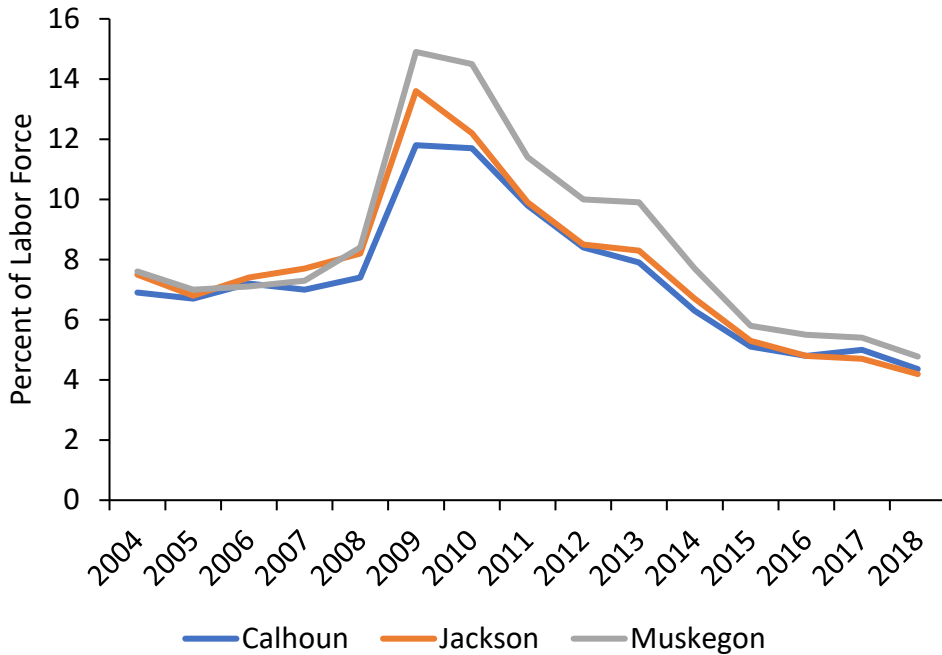


Figure 2: Unemployment Rate, Study Area and Comparison Areas: 2004-2018.

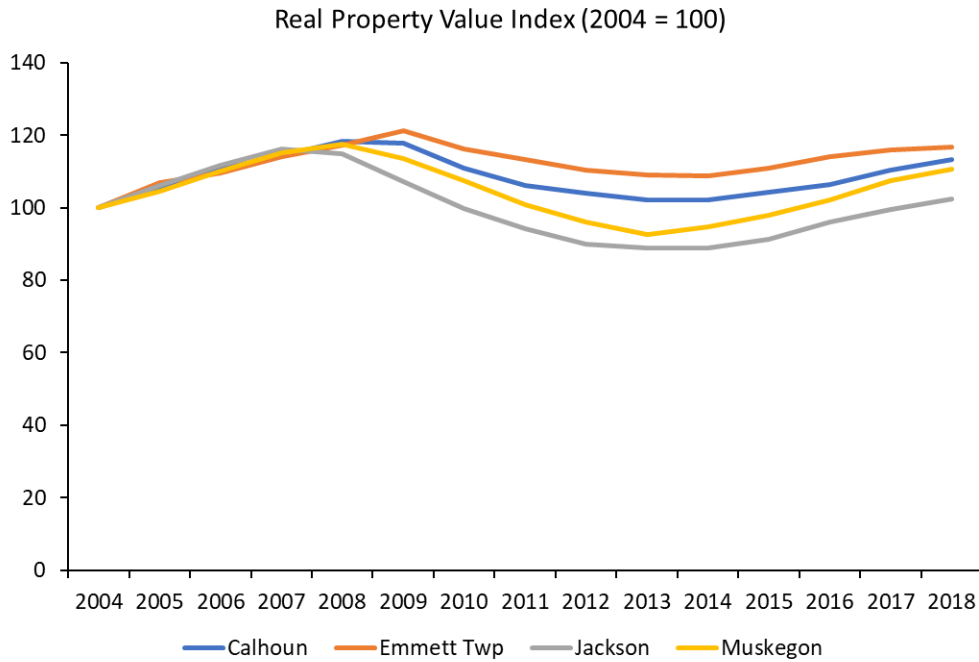


Figure 3: Real Property Value Index (2004 = 100).

Figure 3 shows the trend for real property for the comparison places, including Emmett Township. The data are indexed to 2004. This view of the data allows a look into the relative change in values to a point prior to the recession and prior to the creation of Firekeepers. As

shown Figure 3, the relative values of all real property in Emmett Township over time has fared better than the comparison counties, with less decline during the recession and higher relative values in the recovery. A caution here: These trends do not establish a causal link between Firekeepers and the relative strength of the real property values, but at the same time, when compared to the county trends, it doesn't appear that Firekeepers has harmed real property values.

Table 2 shows the equalized property values for the comparison group as well as detailed information for Emmett Township. Between 2008 and 2018 the equalized property value in Emmett Township for agricultural land has increased 66 percent, for commercial use 10.5 percent, and for industrial use 59 percent, while residential property value has declined just under 7 percent. Another note of caution on any correlation between negative (or positive) changes in value as it could relate to Firekeepers: Residential property values declined through the recession and start to become positive in 2013 with year-over-year (Y/Y) growth of .57 percent in total value. The Y/Y growth was negative in 2014 (-2.13 percent), and then positive in 2015 (1.62 percent), 2016 (2.47 percent), 2017 (2.24 percent), and 2018 (1.36 percent). One of the limiting factors to residential value growth in Calhoun County is the lack of new residential construction. New construction tends to be at the higher end of the market and thus adds value as units are added.

Table 2: Equalized Property Value (\$000,000s), Study Area and Comparison Areas: 2004-2018.

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Calhoun | | | | | | | | | | | | | | | |
| Real Property | 3,417 | 3,603 | 3,780 | 3,907 | 4,046 | 4,027 | 3,795 | 3,626 | 3,556 | 3,488 | 3,494 | 3,564 | 3,640 | 3,771 | 3,868 |
| Percent Change | | 5.47 | 4.90 | 3.37 | 3.54 | -0.47 | -5.76 | -4.44 | -1.95 | -1.90 | 0.17 | 2.02 | 2.12 | 3.60 | 2.56 |
| Emmett Twp | | | | | | | | | | | | | | | |
| Agricultural | 7 | 10 | 10 | 9 | 10 | 10 | 11 | 11 | 11 | 11 | 15 | 15 | 16 | 16 | 16 |
| Commercial | 68 | 75 | 77 | 78 | 84 | 90 | 92 | 93 | 94 | 89 | 89 | 93 | 97 | 97 | 93 |
| Developmental | 4 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Industrial | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 8 |
| Residential | 232 | 244 | 249 | 264 | 267 | 273 | 255 | 244 | 234 | 236 | 231 | 234 | 240 | 246 | 249 |
| Real Property | 313 | 335 | 344 | 358 | 367 | 380 | 364 | 355 | 346 | 342 | 341 | 347 | 358 | 364 | 366 |
| Percent Change | | 6.86 | 2.60 | 4.07 | 2.75 | 3.38 | -4.04 | -2.62 | -2.58 | -1.20 | -0.21 | 1.93 | 2.94 | 1.66 | 0.56 |
| Jackson | | | | | | | | | | | | | | | |
| Real Property | 4,874 | 5,178 | 5,444 | 5,665 | 5,596 | 5,232 | 4,859 | 4,595 | 4,386 | 4,339 | 4,338 | 4,451 | 4,682 | 4,846 | 4,989 |
| Percent Change | | 6.24 | 5.13 | 4.06 | -1.22 | -6.49 | -7.14 | -5.44 | -4.55 | -1.06 | -0.02 | 2.60 | 5.19 | 3.50 | 2.95 |
| Muskegon | | | | | | | | | | | | | | | |
| Real Property | 4,469 | 4,674 | 4,918 | 5,149 | 5,254 | 5,072 | 4,799 | 4,509 | 4,289 | 4,145 | 4,240 | 4,382 | 4,561 | 4,800 | 4,945 |
| Percent Change | | 4.58 | 5.21 | 4.70 | 2.05 | -3.48 | -5.38 | -6.05 | -4.87 | -3.36 | 2.29 | 3.35 | 4.09 | 5.23 | 3.02 |

Source: Michigan Department of Treasury

Crime Offenses

The data show virtually no visible differences in the selected crime statistics for the areas of Calhoun County and Emmett Township compared to Jackson and Muskegon counties. The 2008 study looked at larceny, fraud, embezzlement, driving under the influence of alcohol or

narcotics, disorderly conduct, and motor vehicle theft. The motor vehicle theft data in the report are for Emmett Charter Township only.

Note that these data have not been tested statistically and that crime data are not available for 2007 due to changes in the data collection system by the Michigan State Police.

Figure 4 shows a dramatic upswing in driving under the influence (DUI) offenses in Emmett Charter Township. These were potentially due to increased enforcement around the Firekeepers site. Criminal offenses have decreased since the peak in 2010 but remain above the rate of Calhoun County and the comparison areas. The decline from the initial peak could be partially related to the opening of the adjoining hotel, which occurred in 2012, 3 years after the casino opened. The rate of DUI offenses had already begun to decline in 2011.

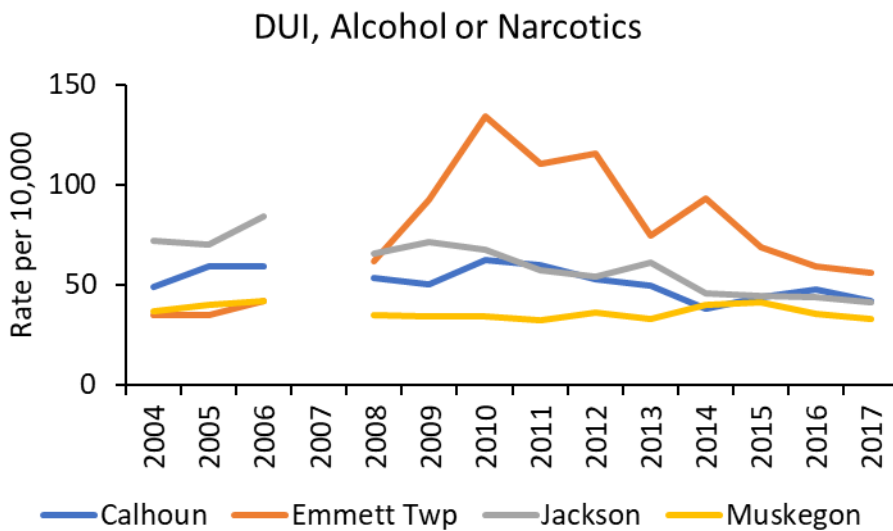


Figure 4: DUI Offenses, Study Area and Comparison Areas: 2004-2017.

Table 3 contains data on crimes in the study area and comparison areas. The most recent data on crime are for 2017 and are reported as the number of occurrences per 10,000 residents. While there were 258 (per 10,000 people) cases of Larceny in Emmett Township in 2017 compared to 166 in all of Calhoun County, in 2008 and prior to the opening of Firekeepers, there were 292 reported offenses. The number of cases reported in Emmett Township varied for that period, from a high in 2011 of 340 to a low of 163 in 2014.

Reported cases of fraud were up between 2017 and 2018 for both the township and the county, from 35 to 64 and 38 to 51, respectively. For Jackson County the cases were up, but they decreased for Muskegon County. Embezzlement levels in Table 3 appear higher for Emmett Township, but the rates are similarly high before the construction of the casino at 10 per 10,000

in 2008 and have declined to 7 in 2017. In the intervening period rates are between 5 and 10 per 10,000.

Finally, disorderly conduct cases per 10,000 in the township have stayed relatively the same at 27 in 2008 and 25 in 2017. The comparison groups, including all of Calhoun County, have shown declines of one third to one half for the same period.

Table 3: Crime Data, Rate per 10,000 Residents: 2004-2017.

| | 2004 | 2005 | 2006 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Larceny | | | | | | | | | | | | | |
| Calhoun | 319 | 301 | 291 | 252 | 217 | 205 | 207 | 160 | 168 | 132 | 150 | 159 | 166 |
| Emmett Twp | 429 | 416 | 380 | 292 | 312 | 247 | 340 | 217 | 188 | 163 | 211 | 207 | 258 |
| Jackson | 196 | 202 | 227 | 162 | 152 | 143 | 121 | 114 | 130 | 123 | 121 | 123 | 120 |
| Muskegon | 361 | 365 | 381 | 273 | 266 | 250 | 256 | 245 | 205 | 209 | 195 | 177 | 204 |
| Motor Vehicle Theft | | | | | | | | | | | | | |
| Emmett Twp | 20 | 18 | 19 | 12 | 11 | 8 | 15 | 10 | 16 | 14 | 8 | 16 | 17 |
| Fraud | | | | | | | | | | | | | |
| Calhoun | 49 | 47 | 35 | 38 | 38 | 38 | 37 | 38 | 35 | 31 | 34 | 47 | 51 |
| Emmett Twp | 55 | 95 | 39 | 35 | 42 | 33 | 49 | 55 | 40 | 46 | 59 | 62 | 64 |
| Jackson | 33 | 40 | 35 | 34 | 35 | 32 | 30 | 30 | 32 | 45 | 56 | 68 | 45 |
| Muskegon | 57 | 62 | 64 | 43 | 39 | 39 | 37 | 39 | 42 | 44 | 42 | 39 | 36 |
| Embezzlement | | | | | | | | | | | | | |
| Calhoun | 5 | 6 | 5 | 5 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 4 |
| Emmett Twp | 10 | 8 | 11 | 10 | 7 | 5 | 9 | 7 | 7 | 10 | 8 | 9 | 7 |
| Jackson | 5 | 4 | 5 | 4 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 |
| Muskegon | 4 | 5 | 4 | 4 | 4 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 4 |
| DUI Alcohol or Narcotics | | | | | | | | | | | | | |
| Calhoun | 49 | 59 | 59 | 53 | 50 | 63 | 60 | 53 | 49 | 38 | 44 | 47 | 42 |
| Emmett Twp | 35 | 35 | 42 | 61 | 92 | 134 | 110 | 116 | 75 | 93 | 69 | 59 | 56 |
| Jackson | 72 | 70 | 84 | 66 | 71 | 68 | 57 | 54 | 61 | 45 | 44 | 44 | 41 |
| Muskegon | 37 | 40 | 42 | 35 | 34 | 34 | 32 | 36 | 33 | 40 | 41 | 35 | 33 |
| Disorderly Conduct | | | | | | | | | | | | | |
| Calhoun | 51 | 48 | 49 | 32 | 31 | 27 | 24 | 23 | 22 | 19 | 22 | 19 | 22 |
| Emmett Twp | 64 | 61 | 71 | 27 | 48 | 42 | 41 | 39 | 21 | 28 | 30 | 28 | 25 |
| Jackson | 58 | 56 | 54 | 38 | 41 | 42 | 27 | 26 | 25 | 23 | 25 | 21 | 19 |
| Muskegon | 261 | 285 | 288 | 71 | 63 | 70 | 73 | 71 | 58 | 51 | 45 | 40 | 42 |

Source: Michigan Incident Crime Reporting

Financial Indicators

The following data examine potential financial impacts on individuals. Data are missing on 2-1-1 calls for financial assistance.

Bankruptcy has been decreasing in Calhoun County since 2013. (Bankruptcy filings data are not available 2008 through 2012.) In the 2008 study, there was concern about increased bankruptcy in the area due to the operations of the casino. Bankruptcies were trending upward for all areas from 2006 to 2007, likely due to increased economic pressure and the movement into recession. Calhoun County’s bankruptcy filing rate was 2.6 per 1,000 residents, about midpoint between Jackson and Muskegon counties (see Table 4).

Table 4: Non-Business Bankruptcy Filings by Calendar Year: 2006-2018.

| | 2006 | 2007 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|-------------------------|------|------|------|------|------|------|------|------|
| Calhoun filings | 442 | 497 | 494 | 458 | 359 | 331 | 331 | 300 |
| Calhoun rate per 1,000 | 3.2 | 3.6 | 3.7 | 3.4 | 2.7 | 2.5 | 2.5 | 2.2 |
| Jackson rate per 1,000 | 3.7 | 5.2 | 3.8 | 3.4 | 3.4 | 2.9 | 3.1 | 2.6 |
| Muskegon rate per 1,000 | 2.4 | 3.6 | 3.0 | 2.4 | 2.2 | 1.9 | 1.8 | 1.8 |

Source: PACER

Table 5 shows assistance for seniors in Calhoun County. Data shown are for the number of seniors served. Home heating assistance was lowest during the years following the Great Recession and highest in 2018. It is possible that heating assistance requests are more due to weather and temperature conditions than economic conditions. Money management assistance provided is relatively flat, although down from 2006 and 2007.

Table 5: Senior Assistance Calls in Calhoun County: 2005-2018.

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Money Management | 42 | 53 | 46 | 32 | 32 | 34 | 33 | 36 | 23 | 31 | 23 | 34 | 43 | 34 |
| Home Heating Assistance | | 226 | 384 | 283 | 246 | 231 | 197 | 197 | 239 | 345 | 317 | 295 | 336 | 501 |

Source: Calhoun County Senior Services Annual Report

Family and Children Impact

These variables measure potential impacts on families. Some data are missing from this update due to unavailability, specifically adult and child protective services referrals.

Divorce rates per 1,000 persons, shown in Table 6, have declined across all areas. The data are rather “noisy” and no one county posts the highest or lowest rates consistently. Domestic violence rates (see Table 7) are higher in Calhoun County than either of the comparison counties;

however, these rates appear relatively consistent. Free and reduced-price lunch rates in the schools have risen in all areas (see Table 8). Unlike the economic data, the rates of school children receiving food assistance has not declined since the end of the Great Recession. The rate of free and reduced-price lunch in Calhoun County has been above 50 percent since the 2009-10 school year, which was after the Great Recession ended. The rates of school children receiving food assistance are consistently below those of Muskegon County and at or above those of Jackson County. School attendance rates appear stable, as shown in Table 9. Data are unavailable from 2008 through 2010.

Table 6: Divorce Rates, Calhoun, Jackson, and Muskegon counties: 2005-2017.

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Calhoun | 8.9 | 9.2 | 8.9 | 8.2 | 7.9 | 8.3 | 9.3 | 8.6 | 7.9 | 7.9 | 8.2 | 7.4 | 7.5 |
| Jackson | 9.2 | 8.3 | 8.3 | 9.0 | 8.5 | 9.0 | 8.6 | 8.3 | 8.6 | 7.6 | 7.8 | 7.7 | 7.2 |
| Muskegon | 8.4 | 9.1 | 8.5 | 7.7 | 8.2 | 9.0 | 8.5 | 8.6 | 8.8 | 8.1 | 7.5 | 6.0 | 6.4 |

<https://www.mdch.state.mi.us/pha/osr/Marriage/DivorceTrendRates.asp>

Table 7: Domestic Violence Rates for Calhoun, Jackson, and Muskegon counties (rate per 10,000): 2004-2017.

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Calhoun | 94 | 149 | 147 | 158 | 135 | 143 | 149 | 161 | 132 | 139 | 133 | 144 | 142 | 134 |
| Jackson | 86 | 148 | 148 | 132 | 123 | 114 | 113 | 103 | 108 | 98 | 91 | 117 | 115 | 108 |
| Muskegon | 68 | 109 | 99 | 102 | 100 | 97 | 110 | 107 | 111 | 81 | 100 | 88 | 82 | 81 |

Source: Michigan State Police

Table 8: Free and Reduced-Price Lunch Rates for Calhoun, Jackson, and Muskegon counties (percent of all students): 2005-2017.

| | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Calhoun | 39.3 | 44.2 | 45.4 | 49.0 | 52.3 | 51.7 | 54.9 | 54.8 | 56.1 | 50.9 | 52.4 | 54.1 |
| Jackson | 39.0 | 37.5 | 38.1 | 47.4 | 49.5 | 50.9 | 54.5 | 53.4 | 53.0 | 50.9 | 47.9 | 49.0 |
| Muskegon | 50.0 | 49.1 | 48.9 | 54.0 | 58.5 | 58.2 | 59.0 | 55.5 | 59.4 | 59.5 | 60.3 | 57.6 |

Source: MI School Data

Table 9: School Attendance Rates for Calhoun, Jackson, and Muskegon counties: 2004-2018.

| | 2004-05 | 2005-06 | 2006-07 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Calhoun | 93.8 | 95.5 | 94.6 | 95.1 | 94.7 | 93.8 | 93.6 | 94.5 | 94.0 | 92.6 |
| Jackson | 95.2 | 95.0 | 95.1 | 94.4 | 93.8 | 94.6 | 93.8 | 94.6 | 94.9 | 93.7 |
| Muskegon | 95.3 | 95.7 | 95.8 | 93.4 | 89.9 | 91.9 | 92.5 | 94.1 | 92.7 | 90.4 |

Source: MI School Data

Summary of Social and Economic Characteristics

This section of the report is an update to the social and economic indicators outlined in the 2008 Upjohn study, *Calhoun County Casino Baseline Study Committee: Recommended Indicators and Baseline Data Report*.

In the intervening period since 2008, the national, state, and local economies all were subject to the impacts of the Great Recession, which occurred from December 2007 to June 2009. Given the timing of the recession relative to developing the casino complex, it is difficult to isolate trends due to the recession from those that are in effect of the presence of the casino.

To that end, the trends from comparison places, including Muskegon and Jackson counties, were compared to Calhoun County, and when data are available, to Emmett Township. While statistical techniques were not employed as part of this analysis, a simple comparison of the trends, as well as comparing data points from 2008 and the most current data, suggest that with one exception the casino has had very little impact on the economic and social conditions of Calhoun County.

First, it is important to separate the outcomes from economic and social indicators from that of economic impacts. The issue of economic impacts, including changes to employment, impacts to suppliers, and changes to income for households, is discussed in another section of the report.

Next, the one indicator that did change significantly is the measure of driving while intoxicated (DUI) offenses in Emmett Township. However, even that must be viewed carefully. This could be a matter of stricter enforcement, better reporting, and/or actual increases in the number of drunk drivers.

In summary and on most measures, the township and the county are doing as well as in 2008, and in many cases, better than their comparison counties.

2008 Study Findings on Economic Impact Estimates

The 2008 study looked at two development (construction) scenarios and two operations scenarios as part of creating the economic impact estimates. The report summarized the findings for the “preferred” or most optimistic development scenario (see Table 10). As this appears to be most consistent with actual outcomes, any comparisons with current estimates are based on this scenario.

From the 2008 report:

Once fully operational, the casino is expected to generate 1,470 jobs and annual personal income of \$25 million in Calhoun County. Most of these jobs, 1,227, will be in the form of positions directly employed at the casino, such as gaming operators, managers, and maintenance. An additional 243 jobs will be supported elsewhere in the community through local casino suppliers and the expenditures of casino employees in the local community. In total, the casino is expected to boost Calhoun County’s gross regional product² by \$92.2 million each year, which represents a 2.0 percent increase over the 2009 total.

Table 10: 2008 Estimates of Casino Economic Impact.

| | |
|---------------------------------------------------|--------|
| <i>Annual Employment in Calhoun County</i> | |
| Total | 1,470 |
| Direct | 1,227 |
| Indirect and Induced | 243 |
| Employment Multiplier | 1.2 |
| <i>Financial Impact in Millions 2009\$</i> | |
| Personal Income | \$25.0 |
| Gross Regional Product | \$92.2 |

In Table 11, the financial impacts are updated from 2009 dollars to current (2018) dollars. While jobs are easily comparable, it is useful to update the value of dollars from the earlier study so that current estimates are comparable. This process uses the reported values from the Consumer Price Index for all Urban Consumers¹ (CPI-U), the source most commonly used to report inflation.

Table 11: Estimates of 2008 Results, Reported in 2018 Dollars.

| | |
|---------------------------------------------------|---------|
| <i>Financial Impact in Millions 2018\$</i> | |
| Personal Income | \$29.3 |
| Gross Regional Product | \$107.9 |

¹ <https://www.bls.gov/cpi/>

Current Estimates of the Economic Impact of Firekeepers Casino Hotel

The estimates of current economic impacts are based on data supplied by leadership at the Firekeepers Casino Hotel (Firekeepers). The data utilized to create the estimates are based on both employment and revenues from gaming, hotel services, food and beverage services, and administration and operations. The team at Upjohn utilized a model custom tailored to analysis, from Regional Economic Models, Inc.² (REMI). This model allows for estimates to be created that are specific to Calhoun County and the service delivery area of the FLRSB.

Economic impacts are driven by exogenous (or external) shocks. The need for an economic shock to be external is driven by the concept that new money flowing into a region or place generates a change in the wealth of that place. New money creates additional rounds of spending from suppliers and households and are tracked by “multipliers.” In this case, the economic impacts of Firekeepers are based in the flow of dollars from outside of Calhoun County through the purchases of goods and services at Firekeepers by patrons who live outside the county. It is generally accepted in this type of analysis that the spending of local residents is not included in the impact estimates due to the “substitution” effect. In this case, it is assumed that residents of Calhoun County have options regarding entertainment and if not spent on food and entertainment (such as gaming) at Firekeepers, they would exercise their choice for other options in the county or possibly outside of the county.

Part of the data provided by Firekeepers are gaming revenues that include total values by category and by locational source, including Calhoun County and the states of Michigan, Indiana, Illinois, and Ohio. Using revenue data by place of residence allows the analysis to exclude spending from local residents and thus control for the substitution effect. Revenues from outside Calhoun County account for about 85 percent of all revenues.

The second part of the data supplied by Firekeepers are employment numbers by category of services and activities. The value of 15 percent taken from the revenues became the factor to discount employment driven by Calhoun County residents. While 85 percent of all and categorical employment was used within the estimates, these may somewhat underestimate the true economic impact because of a lack of data on actual patron spending by residence. It may be that visitors from outside the county are more likely to consume hotel services as well as food and beverage services at higher rates than those who are residents of the county. Also, the presence of Firekeepers may reduce the “leakage” of dollars out of the county by Calhoun County residents who are seeking additional entertainment options to other places outside the county. While this is speculative, it does offer the possibility that these estimates may be at lower bounds or are more conservative by some share of the true or actual impacts. In the end, all

² www.remi.com

employment at Firekeepers, regardless of category, is not included in creating the impact estimates.

The following sections, using only inputs based on non-resident shares of patrons, provide estimates of impacts for gaming, other Firekeepers functions,³ and combined gaming and other functions into a single set of estimates.

Impact Estimates

Table 12 contains the employment and financial impacts of gaming operations on Calhoun County. While employment estimates total 922 jobs, 842 jobs are in the private sector with most of the difference between the two accounted for by government and education employment. On the financial side of the estimates, gaming adds almost \$250 million in additional sales (output) in the county, along with gross regional product (GRP) of nearly \$150 million and \$21 million in additional income.

Table 12: Employment and Financial Impacts of Gaming on Calhoun County (2018\$ in Millions).

| | |
|-----------------------------|-------|
| <i>Employment Impacts</i> | |
| Total Employment | 922 |
| Private Non-Farm Employment | 842 |
| | |
| <i>Financial Impacts</i> | |
| Output | \$245 |
| Gross Regional Product | \$147 |
| Personal Income | \$21 |

Table 13 contains the impact estimates based in non-gaming employment that provides both services to patrons and to operating functions at the Firekeepers Casino Hotel. This set of activities generates 1,506 total jobs of which 1,451 are in the private sector. Additionally, employment in these functions generates just under \$200 million in sales (output), \$114 million in GRP, and \$44 million in personal income in the county.

³ Includes hotel, food and beverage, security, surveillance and valet, and administration and other.

Table 13: Employment and Financial Impacts of Non-Gaming Functions of Firekeepers Casino Hotel on Calhoun County (2018\$ in Millions).

| | |
|----------------------------------|-------|
| <i>Employment Impacts</i> | |
| Total Employment | 1,506 |
| Private Non-Farm Employment | 1,451 |
| <i>Financial Impacts</i> | |
| Output | \$192 |
| Gross Regional Product | \$114 |
| Personal Income | \$44 |

Table 14 contains the impact estimates of gaming and non-gaming activities associated with Firekeepers Casino Hotel. In 2018, a total of 2,426 jobs were added to Calhoun County due to people from outside of the county patronizing and spending money on services provided at the site. Of these, most (2,292) were in the private sector. In the study year, sales in the county were \$443 million higher due to activities of patrons and the facility. Similarly, the GRP added to the Firekeepers activities is \$262 million and personal income rose in the county by \$65 million.

Table 14: Employment and Financial Impacts of All Activities at the Firekeepers Casino Hotel (2018\$ in Millions).

| | |
|----------------------------------|-------|
| <i>Employment Impacts</i> | |
| Total Employment | 2,426 |
| Private Non-Farm Employment | 2,292 |
| <i>Financial Impacts</i> | |
| Output | \$437 |
| Gross Regional Product | \$262 |
| Personal Income | \$65 |

Differences between 2008 and 2018 Estimates

Table 15 contains the estimates from the 2008 report as well as the estimates for calendar year 2018. Between the planning period in 2008 and 2019, many things have changed. This is true for both Firekeepers as well as the economy—including the national, state, and local economies. Firekeepers has expanded its portfolio of services. Similarly, the economy has expanded from a recession in 2008 to 125 months of expansion in the national economy and a 3.5 percent unemployment rate in October 2019.

When comparing the estimates in Table 15, the impacts estimated for calendar 2018 far exceed the impacts forecast in 2008.

Table 15: Differences in Estimates 2008 and 2018 (2018\$ in Millions).

| | 2008 | 2018 | Difference |
|----------------------------------|-------------|-------------|-------------------|
| <i>Employment Impacts</i> | | | |
| <i>Total Employment</i> | 1,470 | 2,426 | 165% |
| | | | |
| <i>Financial Impacts</i> | | | |
| <i>Gross Regional Product</i> | \$108 | \$262 | 243% |
| <i>Personal Income</i> | \$29 | \$65 | 222% |

Summary of Economic Impact Estimates

The W.E. Upjohn Institute for Employment Research estimates that, for 2018 (using data supplied by Firekeepers), 2,426 jobs were added to the labor market for Calhoun County. The Michigan Department of Technology, Management, and Budget (DTMB) reported a labor force of 62,865 for Calhoun County, with 60,219 people working in 2018. Using DTMB estimates of employment for the period, Firekeepers accounts for slightly more than 4 percent of all county employment. These jobs are both in the public and private sectors. These jobs include direct employment by Firekeepers, employment at suppliers of goods and services (indirect effect), and employment from households supplying goods and services to workers at Firekeepers and suppliers (induced effect). Along with the jobs created, an additional \$65,000,000 in income was added to the county in 2018.

One final thing to note is that these estimates are for 2018 and thus only for a single year. While there are likely long-run returns to Calhoun County from continued operations of Firekeepers, it is beyond the scope of this study to provide forecast estimates of any returns.

Appendix: Economic Outcome Definitions

As with most economic impact studies, this study focuses on four main economic outcome variables, which are generated by the REMI model based on inputs and described below:

- Jobs created or retained
- Change in gross domestic product (GDP)
- Change in income
- Change in output

Jobs Created or Retained

Caveats to the estimated number of jobs created or retained by Firekeepers' activities are:

- These jobs are simply "jobs" as counted by the U.S. Bureau of Economic Analysis (BEA) and can be either full- or part-time positions.
- These jobs are likely distributed across several industries.
- In any given industry, a "job" may represent a summation of positions across several industries in which each industry has less than one complete position:
 - The impact study may report one "job" but the spending patterns in the study may generate positions in three industries; however, each industry may require only one third of a person.
 - In this case, the three industries that employ one third of a person each to meet demand would sum to one "job" in the REMI model.

Employment is comprised of three elements:

- Direct: The employment created by actual investment, growth, or change
- Indirect: Employment created by the need of the new firm to purchase goods and services, essentially the local supply chain
- Induced: The household that supplies goods and services to the workers in the prior two elements. Examples include education, dry cleaners, accountants, gas stations, lawyers, and grocers.

Gross Domestic Product

Gross domestic product (GDP) is an economic measure of the value of goods and services produced within the study region. It is the broadest measure of economic activity within a region or country. GDP consists of compensation of employees, taxes on production and imports, less subsidies, and gross operating surplus. It does not include intermediate inputs; thus, it is a measure of the value labor and capital contribute to production.

Output

Gross output includes both GDP and expenditures on intermediate inputs. In that way, it is considered double counting but is an essential statistical tool to understand the interrelationships between industries. Gross output is principally a measure of an industry's sales or receipts. For the purposes of the model, the sales and receipts are aggregated at the national level.

Income

Income is the goods and services produced by residents (i.e., gross national product) minus the consumption of fixed capital (i.e., depreciation). This is essentially what people earn for their labor.