2013 California Card Club Impact Study

An Examination of the Economic and Social Impact of Card Clubs in California

BEACON ECONOMICS

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California Card Club Economic Impact Summary

Impact	Employment	Output ($ Mil)	Value Added ($ Mil)	Tax Revenue ($ Mil)
Direct Effect	17,331	873.2	583.9	139.5
Indirect Effect	1,819	316.7	171.1	40.8
Induced Effect	3,613	618.5	350.8	92.8
Total Effect	22,763	1,808.4	1,105.8	273.1

Source: IMPLAN; Calculations by Beacon Economics

- Beacon Economics estimates that California card club operations, which include not only the operations of card clubs themselves but also third-party proposition player services ("TPPPS") firms, in 2011 generated over $1.8 billion in economic output, supported over 22,700 jobs, and produced over $270 million in tax revenue for the U.S. Federal Government, the State of California, and municipalities throughout the state.

- The existing literature on California card clubs shows that many of these clubs generate over one-fourth of the total tax revenue for municipal general funds in their home cities. Indeed, in some cities, card clubs generate over 80% of tax revenue for the general budget.

- 56.9% of card club tables are represented in the sample group used to estimate impacts of all California card clubs.

- Of the $1.8 billion in total economic output generated by California card club operations, $873.2 million came from direct card club expenditures, and more than half ($935.2 million) came from secondary impacts. Spending generates a multiplying effect that significantly increases economic activity in California.

- Card club operations directly supported over 17,300 jobs in California, while the indirect and induced impacts of those operations supported over 5,400 jobs.

- Subtracting the input costs of card club operations, card clubs generated over $1.1 billion in value-added economic activity in California, as well as over $790 million in labor income for California workers.

- Together, the direct tax expenditures of card clubs and TPPPS, as well as the tax expenditures generated as a result of their operations, yielded approximately $100.9 million in tax revenue for state and local government, as well as approximately $172.3 million in tax revenue for the U.S. Federal Government.

- Beyond their economic impacts, card clubs generate a significant social impact in California. Card clubs contribute to a wide assortment of causes throughout the state, as well as sponsor and host events and programs to strengthen their communities, such as festivals, holiday celebrations, and charitable fundraisers.

Introduction

The California Gaming Association ("CGA") has commissioned Beacon Economics, LLC, to assess the economic and social impact of California card clubs on the State of California. The following study presents Beacon Economics' best estimates of the quantity of economic activity generated in the state economy by California card clubs, based upon the spending of card clubs and third-party proposition player services ("TPPPS") firms, as well as the social impact card clubs have in their range of efforts to help improve their communities.

Because of their substantial operational expenditures and taxes, card clubs play a very important role in the state economy. They support the employment of thousands of residents, while the tax revenue these clubs generate often serves as an essential base of city general funds in their home communities. They also recognize the importance of strengthening the communities around them, and give back in the form of donations, sponsorships, and programs to support the people of California.

Expenditures at card clubs are rarely limited to gaming-related operations, such as tables and dealers. Many clubs also operate restaurants, bars, hotels, spas, and concert or banquet halls, all of which must be staffed by local residents and each of which can generate a substantial economic impact all their own. These attractions also help to draw new revenue from out-of-state visitors. As detailed below, altogether, card clubs, their related operations, and TPPPS generated over $1.8 billion in economic output and over $273 million in local, state, and federal tax revenue, as well as supported over 22,700 jobs in the state of California in 2011.

Commerce Casino hosts a banquet for honorees of its scholarship program.

First, this study will review existing literature to provide perspective on the impacts of casino-related operations in various regions, which will serve as a frame for Beacon Economics' own estimates of the impact of card clubs in California. Then, this study will take an expenditure-based approach to examining the impact of card clubs on the state of California, using existing data as well as the results of a survey drafted and administered by Beacon Economics to assess the total economic impact that card clubs generate in the state, the number of state jobs directly and indirectly generated by card club and TPPPS expenditures, and the tax revenues directly and indirectly generated by these expenditures. Finally, this study will examine the social impacts that card clubs throughout the state have had on their local communities, through their leadership and support of California charities and non-profit organizations.

This study will demonstrate that California card clubs provide a very positive impact on the overall quality of life in the state. This impact extends beyond the California economy, the labor market, and the state's public goods and services, and reaches Californians at a personal level through community-based service.

Literature Review

Existing research on the gaming industry shows that casinos and card clubs generate considerable economic impacts at the regional and state level and have positive social impacts in their local communities.

The most recent full-scale card club gaming impact study, a 2011 report from the Recreational Gaming Association of Washington, finds that card clubs offer significant economic benefits to the local communities in which they operate. The report finds that in 2005, the 97 card clubs in Washington State employed 10,940 workers. These workers earned a total of $218 million in wages in 2005 and supported other local businesses and additional jobs in the community with their spending. Because these card clubs support so many jobs, several cities have reduced their gambling tax rates to retain the clubs. In addition to their impacts on employment and wages, Washington State card clubs also generated $55 million in state and local government taxes.[1] Comparing the impacts of Washington State card clubs to the expected impacts of California card clubs, it is important to note that Washington State limits the number of tables per card club to just 15, while California has no such limit, though California has fewer total active, operating card clubs (76). Twenty-five California card clubs have at least 15 tables. Indeed, the largest card club in California, Commerce Casino, has 270 tables. We would expect that, because California card clubs are far bigger than Washington State card clubs, aggregate employment and wages would be far higher. We would also expect that the employment impact on a per-card-club basis is far greater in California than in Washington State.

A 2013 report from the City of San Jose estimates that San Jose card clubs added $16 million to the City of San Jose's taxable receipts in 2012-2013.[2] The benefits the City of San Jose receives from the card clubs are not only economic. For example, these clubs create a positive social impact by providing a safe venue for gamblers.[3] Furthermore, card clubs give back to their communities, hosting and sponsoring events to bring the community together, such as holiday celebrations, food drives, and pageants, as well as contributing to charity, such as funding scholarships for students.

The municipal revenue generated from casino tax expenditures provides an essential source of funding for public projects and services in many cities in California. A 2006 study on gambling by the California Research Bureau finds that several cities are particularly dependent on card club revenues for general revenue funds. For example, in 2002, tax expenditures from the Bicycle Casino constituted 51% of the City of Bell Gardens' general fund revenue. Commerce Casino's tax expenditures represented 35% of the general fund revenue for the City of Commerce, while together Normandie and Hustler Casinos constituted 18% of the general fund revenue for the City of Gardena. Lucky Chances Casino constituted 45% of the general fund revenue for the Town of Colma, and Hawaiian Gardens Casino constituted 33% of the general fund revenue for the City of Hawaiian Gardens. Note that over time, those figures have grown much higher. For example, the City of Hawaiian Gardens now generates over *80%* of its general budget revenue from Hawaiian Gardens Casino. The general fund revenues these card clubs generate show the integral role the clubs play in their local economies.[4]

[1]Monty Harmon, "Washington State's Card Rooms: Sustaining a Valuable Economic Resource," *Recreational Gaming Association of Washington*, April 26, 2011.

[2]San Jose Office of the City Manager. *2014-2018 Five-Year Forecast and Revenue Projections*. February 2013.

[3]Thomas Moore, "Card Clubs and Crime in California," *Hoover Institute at Stanford University*, 1997.

[4]Charlene Simmons, "Gambling in the Golden State 1998 Forward," *California Research Bureau, California State Library*, May 2006.

Economic Impacts of California Card Clubs

Data Collection

For this study, Beacon Economics gathered financial and employment data based on survey responses from card clubs and TPPPS throughout California. Of the 1,772 tables at active, operating card clubs in the state, 1,009 tables (56.9%) are represented in the survey sample. This sample includes multiple card clubs from each of five "Tiers" (size categories) of clubs in the state, from Tier 1 clubs with a handful of tables and fewer amenities to Tier 5 clubs with hotels, retail stores, and banquet/entertainment halls connected to the clubs. From the sample of participating card clubs, Beacon Economics was able to generate an estimate of total expenditures for all card clubs and TPPPS in California.

Expenditure data were separated into gaming and non-gaming categories, such as hotel, retail, and security, where applicable, as different categories of expenditures produce different impacts on the California economy. Labor intensity and employment compensation varies across industries, and thus one dollar of spending in one industry may have a greater secondary and induced economic impact than one dollar of spending in another industry; the total economic impact may vary considerably depending upon the industries in which spending is concentrated. The categories that Beacon Economics used to estimate economic impacts are detailed below.

Of the 1,772 tables at active, operating card clubs in the state, 1,009 tables (56.9%) are represented in the survey sample.

Categories of Economic Impact

To estimate the economic impact of card clubs on the state of California, Beacon Economics used Version 3 of the IMPLAN modeling system. The IMPLAN modeling system is an input-output model that can be used to estimate the short-run impact of changes in the economy through the use of multiplier analysis.

Impact studies operate under the basic assumption that any increase in spending has three effects: First, there is a direct effect on that industry itself, resulting from the additional output of goods or services. In the case of card clubs, this represents the direct spending on goods and services associated with gaming operations, administration, as well as operations of connected attractions, such as restaurants or hotels, and capital improvements.

Second, there is a chain of indirect effects on all of the industries whose outputs are used by the card club gaming industry and the impacts generated by a business's supply chain. For example, in order to maintain gaming operations, card clubs need to buy materials and supplies like cards and chips, as well as items for their connected operations, such as food and drink. Card clubs also need to purchase housekeeping and maintenance services, security, accounting/payroll services, and other inputs to the production process like utilities. These indirect impacts boost output and employment at the companies in the local economy who provide these inputs to the production process.

Third, there are induced effects that arise when employment increases and household spending patterns are expanded. These impacts follow from the additional income that is earned in the course of producing this output, both by employees at California card clubs and in those companies supplying inputs to the card clubs. For example, to supply a restaurant or café at a card club, a food supplier may need to bring on additional workers to service the card club.

These workers will earn wages for this effort, and, to the extent that they reside within the state economy, will spend this income on items like rent, automobiles, clothes, and dining out, amongst other expenses. This creates additional demand and employment opportunities within California as a result of the earnings associated with card clubs.

It is important to note that different categories of expenditures can lead to different multipliers. Why? A sector can have a large multiplier if it induces economic activity in industries whose employees have a high propensity to spend from take-home pay. Also, if the sector does not import many materials and supplies from abroad or out of state, then its multiplier effect on the state economy will be high. In essence, some of the spending in the state economy may "leak out" into other states. If materials and supplies are imported, then a change in a state sector's level of production will result in a commensurate change in economic activity outside the study area.

Our analysis using input-output account is based on three important assumptions. First, there are constant returns to scale. This means that a 10% cut in spending will be ten times as severe—across every sector in the economy—as a 1% cut. Second, there are no supply constraints. This means that any marginal increase in output can be produced without having to worry about bottlenecks in labor markets, commodity markets, or necessary imports. This assumption is quite realistic in a free-market economy like that of California, where there is 10% unemployment. It is even more reasonable in times of high unemployment, such as the present economic environment, because there are many under- and un-utilized resources that can be activated without detracting from other industries or businesses. Third, the flow of commodities between industries is fixed. This means that it is not possible to substitute in the short-run the many different inputs that go into the target industry.

Thus, our analysis covers the main areas of economic impact that accrue on a state level due to the operations of card clubs in California. We estimate the direct output, employment, value-added effects, and tax revenues after accounting for leakage out of the state. Second, we estimate the indirect effects on all of the industries whose outputs are used by those operations, as well as the induced effects arising when employment increases and household spending patterns are expanded.

Economic output is defined as the total increase in statewide productivity and its distribution across broad industry clusters. It includes all direct spending by card clubs, as well as secondary spending by institutions impacted by that initial card club spending. Employment represents the number of full-time equivalent jobs across industries that are supported in connection with card club gaming and non-gaming operations. Value added is defined as the output generated by card club gaming and non-gaming operations less the costs of production. Tax revenues are the fiscal benefits that card club operations provide for local governments, the State of California, and the U.S. Federal Government.

Direct Spending

Altogether, California card clubs and TPPPS spent an estimated $873.2 million on combined gaming and non-gaming operations in 2011. Gaming was by far the largest category of expenditure, representing 47.7% of all card club spending, while fixed, general and administrative was second-largest, at 26.6% of spending. The only other category representing over 5% of total spending was food and beverage (including restaurants and bars), at 12.2%. Total spending by category is detailed in the table below.

While a measurement of per-club or per-table average spending is often useful for gauging industry impacts, the broad diversity of California card clubs makes such a measurement less useful for this study. Although hotel spending constituted 1.2% of all spending in 2011, that spending was concentrated among some of the state's largest clubs, such as Commerce Casino and Crystal Park Casino. While all card clubs had utilities expenses in 2011, very few had retail expenses, as very few clubs had retail stores. Because of the low cost of maintaining card clubs with as little as three or four tables relative to a full-scale casino, many clubs are able to limit their expenditures to primarily gaming-related operations. The difference in expenditures potentially creates wide variations in card club spending by category across cities of California. Yet, because this study examines the impact of card clubs at the state level, the model used to estimate economic impacts does not overestimate or underestimate local spending, as local variations in impacts are moot. Spending in each category has been aggregated for the entire state, and the following is an analysis of the statewide impacts of that spending.

Direct Spending by Category

Category	Total ($ Mil)	% of Total
Gaming	416.2	47.7
General & Admin. Services	232.4	26.6
Food & Beverage	106.6	12.2
Facilities Support	31.1	3.6
Security	26.7	3.1
Advertising	24.8	2.8
Utilities	16.7	1.9
Hotel	10.7	1.2
Charity	4.3	0.5
Entertainment	3.0	0.3
Retail	0.7	0.1
Total of All Spending	873.2	100.0

Source: Beacon Economics Survey

Output

Beacon Economics estimates that the total amount of economic output generated by California card clubs was $1.8 billion in 2011. This total includes $873.2 million in direct spending by card clubs and TPPPS, as well as $935.2 million in secondary spending, of which $316.7 million was indirect effects and $618.5 million was induced effects. Secondary output—51.7% of total output—exceeds direct output. Card clubs are generating economic activity in California well beyond their own spending.

The real estate industry represents the biggest share in secondary output from card club and TPPPS expenditures: over 6.9% of all secondary impacts, or $64.8 million overall, occurred in that sector. This is perhaps unsurprising. Card club and TPPPS spending increases business revenues throughout the state, and many of these businesses use this revenue to invest in new properties. This spending supports thousands of jobs, as well, and some workers invest the income acquired through this spending on housing.

Impact of Card Club Operations on State Output

Impact	Output ($ Mil)
Direct Effect	873.2
Indirect Effect	316.7
Induced Effect	618.5
Total Effect	1,808.4

Source: IMPLAN; Calculations by Beacon Economics

Food and beverage establishments also receive a substantial benefit from card club operations—an estimated $40.6 million, or 4.3% of all secondary economic activity. The telecommunications industry is not far behind, receiving an estimated $36.7 million in output, or 3.9% of all secondary economic activity. Although these are some of the largest beneficiaries of card club operations, the reach of these operations is much wider, which, in light of the fact that statewide card club and TPPPS expenditures extend well beyond gaming, is unsurprising. Card club operations increase economic activity, either directly or indirectly, in most industries in California's economy.

Employment

Card club operations support an estimated 22,763 full-time equivalent jobs in California. Of these jobs, 17,331 jobs are supported by direct card club and TPPPS expenditures, while 5,432 jobs (23.9%) are supported by secondary economic activity—1,819 through indirect effects, hiring by suppliers of goods and services to card clubs, and 3,613 through induced effects, hiring supported by spending as a result of the take home pay earned by employees of card clubs, TPPPS, and the suppliers of card clubs.

Outside of the direct impact on food and beverage employment through staffing at card club bars and restaurants, food and beverage establishments also receive a substantial secondary impact on employment: indirect and induced card club economic activity supports an estimated 560 jobs in the industry, totaling 10.3% of all secondary employment effects.

Impact of Card Club Operations on State Employment

Impact	Jobs Supported
Direct Effect	17,331
Indirect Effect	1,819
Induced Effect	3,613
Total Effect	22,763

Source: IMPLAN; Calculations by Beacon Economics

Perhaps unsurprisingly, the employment services industry also receives a large secondary employment benefit from card club operations, with 418 jobs supported, or 7.7% of all jobs supported through indirect and induced effects. Of all the economic activity that card clubs generate in the state, much of that activity comes in industries such as office administration and food and beverage that may receive help in hiring through management or temporary employment companies.

As with economic output, employment in the real estate industry receives a large secondary benefit from card club operations, with 307 jobs supported, or 5.7% of all secondary employment effects. Industries that gain the most output from those operations also tend to add the most workers, although California's labor-heavy service industries, such as food and beverage, add more workers for a given amount of increased economic activity.

Value Added

Subtracting the cost of operations inputs for card clubs, their suppliers, TPPPS, and other businesses, Beacon Economics estimates that card clubs generated $1.1 billion in value-added economic activity in California in 2011. Of this total, $583.9 million was a direct effect of card club operations, while $521.9 million was generated through secondary effects—$171.1 million through indirect effects and $350.8 million through induced effects. This shows not only the scale of added economic activity that card clubs create for California, but, alternatively, the amount of income that

card clubs and TPPPS generate for California workers, as Beacon Economics estimates that California card clubs and TPPPS generated a total of $791.1 million in labor income.

Tax Revenues

California card club operations generated an estimated $273.1 million in tax revenue in 2011—approximately $100.9 million in state and local tax revenues and approximately $172.3 million in federal tax revenues. These tax revenues are separable into five categories:

- Employee compensation, which represents the total payroll cost of the employee paid by the employer (including wage and salary, benefits, and employer-paid payroll taxes);
- Proprietor income taxes, which are the income taxes paid by self-employed workers;
- Indirect business taxes, which are the combination of excise, sales, and property taxes, as well as fees, fines, licenses, and permits;
- Household expenditures, which are all personal taxes (such as income and estate taxes), taxes on interest, as well as personal fines and fees; and
- Corporate taxes, which include taxes on corporate profits and on dividends.

Impact of Card Club Operations on Tax Revenue ($ Millions)

Impact	Employee Compensation	Proprietor Income	Indirect Business Tax	Households	Corporations
Direct Effect	52.0	2.3	15.4	61.7	8.1
Indirect Effect	10.8	0.8	10.1	13.8	5.2
Induced Effect	19.6	1.3	35.0	24.7	12.2
Total Effect	82.4	4.5	60.5	100.2	25.5

Source: IMPLAN; Calculations by Beacon Economics

Tax Revenue Impacts by Jurisdiction ($ Millions)

Impact	Employee Compensation	Proprietor Income	Indirect Business Tax	Households	Corporations
State & Local Tax Effect	3.5	0.0	52.3	31.8	13.2
Federal Tax Effect	78.9	4.5	8.2	68.4	12.3
Total Effect	82.4	4.5	60.5	100.2	25.5

Source: IMPLAN; Calculations by Beacon Economics

California card clubs and TPPPS generated a total of $82.4 million in employee compensation taxes in 2011, with $78.9 million coming at the federal level and $3.5 million coming at the state and local level. Proprietor income taxes were generated exclusively at the federal level, for a total of $4.5 million. In contrast, the indirect businesses taxes generated

by card club operations were concentrated primarily at the local and state level, for a total of $52.3 million, compared to $8.2 million at the federal level. Card clubs and TPPPS generated $31.8 million in household expenditures at the local and state level and $68.4 million at the federal level. Finally, card clubs and TPPPS generated $13.2 million in state and local corporate taxes, as well as $12.3 million in federal corporate taxes.

"Club One injects millions of dollars into the economy of Fresno each year via taxes alone—not to mention their philanthropic contributions." - Fresno City Councilman Steve Brandau, District #2

As noted above, many California card clubs serve as fundamental assets in their local economies, serving as the largest single source of total tax revenue for city general funds. These tax revenue impacts show that combined with their direct tax expenditures, card clubs provide much more funding to local and state government through secondary business activity, as well. Yet, these clubs' operations generate even more tax revenue for the federal government. In all, these operations not only improve the business climate of cities throughout California, but they also contribute appreciably to municipal and state budgets and generate a substantial amount of federal tax revenue for the comparatively small size of the industry in the state economy.

Social Impacts of California Card Clubs

California card clubs do not only generate an impact on the state economy. They also have a very deep social impact on their communities—an impact that goes well beyond charitable donations. Many card clubs play a central role in community outreach, sponsoring and hosting local charity fundraisers, celebrations, and other local events, as well as supporting city capital projects to improve the quality of life in their communities.

The Fourth of July celebration in Commerce, California, sponsored by Commerce Casino.

Commerce Casino joined with the City of Commerce and the Montebello Unified School District to build a state-of-the-art preschool in 2002. Commerce Casino regularly sponsors the Miss Commerce Pageant, the Commerce Fourth of July Celebration, and the City of Commerce Library Scholarship Program, among a number of other events and programs. Indeed, as the Commerce Industrial Council has noted, Commerce Casino is "the largest philanthropic organization and the largest employer in the area."

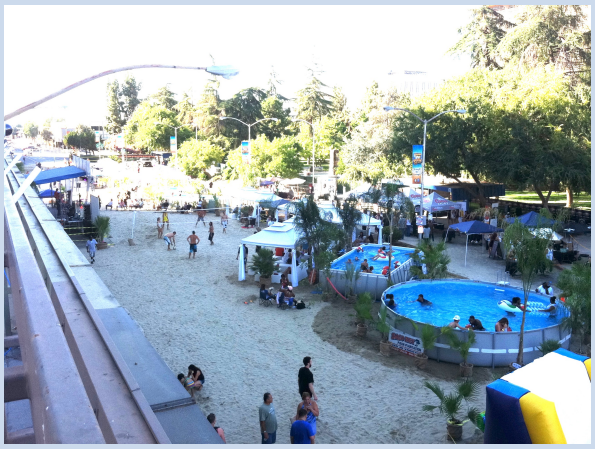
Players Casino has been a regular sponsor for a variety of Ventura events, including Relay for Life and the Ventura Music Festival, as well as institutions such as the Ventura College Foundation, the Boys and Girls Club in Ventura, and Casa Pacifica. The Vice Mayor of the City of Citrus Heights, Mel Turner, has said of Lucky Derby Casino, "They have supported many important city projects and services making Citrus Heights a better place to live." Oaks Card Club

has contributed to the Emeryville Community Action Program, the Emeryville Artists Co-op, and Emery Unified School District, among others.

The Bicycle Casino has contributed thousands of dollars each year to Spirit of Sovereignty, the Oakland School for the Arts, the Persian American Cancer Institute, and Bell Gardens High School, among many other institutions. Club One Casino has contributed over $100,000 over the course of the last five years to organizations such as Ronald McDonald House and Fresno First Steps Home, and the club hosts 60 charity poker events each year—one or more each week.

In all, there is not only a substantial depth of support that California card clubs provide to their communities. There is also a substantial breadth of support, encompassing organizations that provide goods and services to Californians of all age groups. With regard to both the levels of general fund revenue that clubs' tax payments provide to their home cities, as well as the additional support they provide to local residents, it is fair to say that many of these clubs serve as centerpieces of their communities.

Support of non-profit causes serves a very key function in the state economy, beyond its positive impact on the overall quality of life for residents. Non-profit organizations fill a void in the economy by providing goods and services that businesses, for financial reasons, are unable to offer themselves, but are nonetheless important for business activity: a healthier, more educated workforce, a cleaner city, culture and attractions that attract new residents—each of these positive social impacts has a reverberating effect on the business climate in the state. The support that card clubs provide to non-profit causes is thus a benefit to both people and businesses throughout California.



Upper: Club One Casino hosts the Summer Splash Beach Party in Fresno, California.
Lower: Oaks Card Club presents a check for the Giants Community Fund.

Conclusion

Generating over $1.8 billion in economic output in California in 2011, card clubs produce a substantial impact on economic activity in the state. Card club operations support an estimated 22,763 state jobs and generate $791.1 million in labor income for California workers. These operations also produce $273.1 million in combined tax revenue for local, state, and federal budgets. In fact, these estimates are, by necessity, conservative. An expenditure-based analytical approach omits the additional output, employment, tax, and other effects generated by card club and TPPPS profits. The exact economic impacts of California card clubs may be significantly higher. Just as important as their economic impacts, California card clubs continue to generate social impacts in their home cities and elsewhere, whether through contributions to charities, sponsorship of programs, or hosting events that build a stronger community. Card clubs not only serve a key role in state economic activity, but they also seek to improve the quality of life for residents throughout the state. These qualities will continue to help draw new businesses and new residents to California, which will promote a better business and social climate for Californians.

Appendix

Detailed Results

Top Card Club Operations Output Impacts by Industry ($ Millions)

Industry	Direct Effect	Indirect Effect	Induced Effect	Total Effect	% of Total
Gaming	416.2	16.6	4.1	436.8	24.2
Administrative Services	232.4	5.8	1.5	239.7	13.3
Food & Beverage Establishments	106.6	13.7	26.9	147.2	8.1
Real Estate	0.0	23.8	41.0	64.8	3.6
Telecommunications	0.0	20.6	16.1	36.7	2.0
Wholesale Trade	0.0	7.2	27.4	34.7	1.9
Advertising	24.8	4.7	3.1	32.7	1.8
Facilities Support Services	31.1	0.3	0.1	31.5	1.7
Security	26.7	2.5	1.1	30.3	1.7
Health Offices	0.0	0.0	26.0	26.0	1.4

Source: IMPLAN; Calculations by Beacon Economics

Top Card Club Operations Employment Impacts by Sector (# of Jobs)

Industry	Direct Effect	Indirect Effect	Induced Effect	Total Effect	% of Total
Gaming	13,390	335	83	13,808	60.7
Food & Beverage Establishments	1,470	189	371	2,030	8.9
Administrative Services	1,299	32	8	1,339	5.9
Security	490	45	20	555	2.4
Real Estate	0	113	194	307	1.4
Facilities Support Services	294	3	1	298	1.3
Advertising	148	28	18	194	0.9
Health Offices	0	0	180	180	0.8
Wholesale Trade	0	35	133	168	0.7
Services to Buildings and Dwellings	0	79	53	132	0.6

Source: IMPLAN; Calculations by Beacon Economics

Economic Impact Methodology

The IMPLAN modeling system combines the U.S. Bureau of Economic Analysis' Input-Output Benchmarks with other data to construct quantitative models of trade flow relationships between businesses, and between businesses and final consumers. From this data, we can examine the effects of a change in one or several economic activities to predict its effect on a specific state, regional, or local economy (impact analysis). The IMPLAN input-output accounts capture all monetary market transactions for consumption in a given time period. The IMPLAN input-output accounts are based on industry survey data collected periodically by the U.S. Bureau of Economic Analysis and follow a balanced account format recommended by the United Nations.

IMPLAN's Regional Economic Accounts and the Social Accounting Matrices will be used to construct state-level multipliers that describe the response of the relevant regional economy to a change in demand or production as a result of the activities and expenditures related to California card clubs. Each industry that produces goods or services generates demand for other goods and services and this demand is multiplied through a particular economy until it dissipates through "leakage" to economies outside the specified area. IMPLAN models discern and calculate leakage from state economic areas based on workforce configuration, the inputs required by specific types of businesses, and the availability of both inputs in the economic area. Consequently, economic impacts that accrue to other states as a consequence of a change in demand are not counted as impacts within the economic area.

The model accounts for substitution and displacement effects by deflating industry-specific multipliers to levels well below those recommended by the U.S. Bureau of Economic Analysis. In addition, when estimating the impact of household spending, multipliers are applied only to personal disposable income to obtain a more realistic estimate of the multiplier effects generated by increased demand. Importantly, IMPLAN's Regional Economic Accounts exclude imports to an economic area, so the calculation of economic impacts identifies only those impacts specific to the economic impact area, as determined by the purchasing patterns of the industries where changes in output are occurring. IMPLAN calculates this distinction by applying the area's economic characteristics described in terms of actual trade flows within the area. The current version of IMPLAN not only identifies what proportion of inputs are purchased locally, but also determines where inputs are sourced from that are not obtained within the local economic area. This enables a user to estimate the impact of a spending increase in one economy on other nearby economies and how increased economic activity in those areas in turn impact the original study area.

Impact studies operate under the basic assumption that any increase in spending has three effects: First, there is a direct effect on that industry itself, resulting from the additional output of goods or services. Second, there is a chain of indirect effects on all the industries whose outputs are used by the industry under observation. These are the impacts generated by a business' supply chain. Third, there are induced effects that arise when employment increases and household spending patterns are expanded. These impacts follow from the additional income that is earned in the course of producing this output, both by employees in the target industry and in those supplying it.

It is clear that there are several components to the overall economic impact. First, there is an effect on value added—the net increase in the overall value of the state economy. Value added is the total increase in an industry's output less the cost of any intermediate inputs, and it is commonly used to measure an industry's contribution to state gross product. Value added consists primarily of labor income, but also includes indirect business taxes and other property income. The secondary and tertiary effects of the industry on the rest of the local economy are not very large. Second, there is an impact on state employment, with the single-largest share of jobs created in the industry itself, and the others spread throughout the study area's economy. Third, is the increase in output, where the difference between value added and output is that the former concentrates on various earnings, while the latter includes the costs of intermediate inputs. National income accounting avoids double counting by excluding the costs of

intermediate inputs. Fourth, there is an increase in tax revenue, as a result of direct, indirect, and induced effects on employment and household spending.

It is also important to note that operations with different types of expenditures can lead to different multipliers. This is because a sector can have a large multiplier if it induces economic activity in industries whose employees have a high propensity to spend from take-home pay. Also, if the sector does not import many materials from abroad or from out of state, then its multiplier effect on the state economy will be high. In essence, some of the spending in the state economy may "leak out" into other states and countries. If raw materials are imported, then a change in a state sector's level of production will result in a commensurate change in economic activity abroad. The same is true if a California business buys inputs from firms in different states.

Our analysis using input-output accounts is based on three important assumptions. First, there are constant returns to scale. This means that a 10% cut in spending will be ten times as severe—across every sector in the economy—as a 1% cut. Second, there are no supply constraints. This means that any marginal increase in output can be produced without having to worry about bottlenecks in labor markets, commodity markets, or necessary imports. This assumption is quite realistic in a free-market economy like California's where there is some unemployment. It is even more reasonable in times of high unemployment, such as the present economic environment, because there are many under- and un-utilized resources that can be activated without detracting from other industries or businesses. Third, the flow of commodities between industries is fixed. This means that it is not possible to substitute in the short-run the many different inputs that go into the target industry.

About Beacon Economics

Beacon Economics, LLC is a leading provider of economic research, forecasting, industry analysis, and data services. By delivering independent, rigorous analysis we give our clients the knowledge they need to make the right strategic decisions about investment, growth, revenue, and policy. Learn more at www.BeaconEcon.com.

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