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# 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS: NEVADA

PREPARED FOR:

 **NEVADA**  
DISPENSARY ASSOCIATION

MARCH 2020

Prepared By:

 **RCG**economics

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March 10, 2020

Ms. Riana Durrett, Esq.  
Executive Director  
Nevada Dispensary Association  
521 S. 7th St.  
Las Vegas, NV 89101

**Re: 2020 Marijuana Economic & Fiscal Benefits Analysis: Nevada ("the Study")**

Dear Ms. Durrett:

RCG Economics LLC ("RCG") is pleased to submit the referenced Study to the Nevada Dispensary Association ("NDA" or "the Client") relative to updating RCG's *Marijuana Economic & Fiscal Benefits Analysis: Nevada*, October 2018 report. The purpose of the Study is to analyze the potential economic and fiscal benefits of the marijuana industry ("the Industry") on the Nevada, Clark County and Washoe County economies.

The Study represents an analysis of the estimated and hypothetical economic benefits, and a portion of the potential public fiscal benefits, associated with the Industry. These benefits include, but are not limited to, increases in output (gross sales/spending), employment and wages/labor income, as well as sales and use taxes resulting from industry activities in the market.

Our analysis of the Industry's direct benefits on the state's and county's economies is based upon survey results provided by Nevada firms that participate in the state's Industry as well as data provided by various state and local government agencies pertaining to the potential benefits noted above. Estimates of indirect and induced benefits were prepared by RCG employing the widely used and widely accepted IMPLAN (Impact Analysis for PLANing) economic benefits model. Our general fiscal analysis is also based on the above survey results in addition to Nevada Revised Statutes and municipal tax information and formulas.

The Study is intended for the sole use of the NDA and it may be distributed to the press, to various interest groups and to governmental representatives. Publication of the Study or any information contained therein, in any manner, must explicitly indicate that it was prepared by RCG.

#### ***Standard Assumptions***

This work scope was performed according to the "*Standard Assumptions & Limiting Conditions*" detailed in an attachment to this letter.

#### ***Independence***

We do not warrant the results or outcomes of our research on engagements, and our fees are not contingent on the findings. As such, RCG is an independent advisory firm.

### ***Use & Nature of Report & Methodologies***

The distribution of the Study is limited to the NDA. If the NDA intends to reproduce and distribute the Study, it must be reproduced in its entirety. If it intends to include the Study in a document used for the offering of securities, the NDA agrees: (1) to provide RCG with a representation letter; (2) that legal counsel will have advised it before the offering is made; (3) that the offering document complies with all applicable local jurisdictions and regional agencies, State of Nevada and federal legal requirements; and (4) that no reference will be made to our name in any promotional or offering materials without first furnishing us a draft of the materials and then obtaining our written consent.

The results of RCG's services under this engagement are the property of RCG. Copies of all documents including writings and computer or machine-readable data, which describe or relate to the services performed pursuant to this consulting assignment, or the results thereof, are the property of RCG and will be provided upon request. However, the NDA will not provide RCG's Inventions and Works to any third party or use the same for the benefit of any third party, except with the prior written consent of RCG.

The Study is in the form of a narrative-report, along with any appropriate tables, graphs and maps. RCG is not responsible for statements or interpretations made by the NDA relating to the Study.

All ideas, developments, computer models, methodologies, innovations, inventions and copyrightable work (hereinafter "Inventions and Works"), which RCG conceived and were used during the period of the Study, and which either (a) are within the scope of RCG's businesses or investigations, or (b) are supported by the use of materials, facilities or information paid for or provided by RCG are the exclusive property of RCG. In this regard, the NDA agrees to credit RCG for its work.

### ***Scope of Work***

#### **A. Survey**

In cooperation with the Client, RCG designed and NDA management distributed a high-level survey to the members of the NDA electronically. RCG analyzed the survey results regarding employment and wages. We understand that the NDA represents 90 percent of dispensaries in Southern Nevada and 80 percent of dispensaries statewide. Thus, it potentially has a broad enough sample size to apply to the universe of dispensaries in the state.

#### **B. Economic Benefits Analysis ("EBA")**

RCG estimated and updated three levels of economic benefits: direct, indirect and induced, comparing those estimates with all available actual data. Whereas the concept of a direct benefit is relatively straightforward, the concepts of indirect and induced benefits are powerful but often misunderstood tools in economic analysis. Fundamentally, they are based on an extension of the direct expenditures by a business' operations and employment. Each type of benefit is briefly described below:

1. **Direct benefits** include the revenue benefits generated by the Industry's ongoing operations (annual benefit), including output, employment and compensation (including fringe benefits and tip income) paid to those employed as a direct result of the existence of the Industry.
2. **Indirect benefits** are the wholesale purchases of goods and services resulting from the initial direct spending generated by the Industry. For example, spending by the Industry (a direct benefit) will cause Nevada businesses serving it to purchase products and services from their suppliers. The portion of these purchases made within Nevada is counted as an "indirect" economic benefit. Accordingly, inter-industry purchases associated with the facility are calculated as annual indirect benefits in this analysis.
3. **Induced benefits** are the output, employment and labor compensation growth generated by the Industry's employees as they consume goods and services within the regions' economies. For example, their Nevada spending will cycle through the state's economy and will be exchanged for goods and services provided by Nevada businesses, thus "inducing" additional new spending (retail, groceries, gas, etc.) and employment in Nevada.

**C. Fiscal Benefits Analysis (“FBA”)**

As part of this proposal, RCG, as noted above, prepared an updated FBA. In addition to the Study’s actual state-level excise taxes, some of the other taxes that were considered as part of our FBA, if measurable, included retail sales and use tax and jurisdictional license fees. The required data came from the Nevada Department of Taxation.

Like RCG’s EBA, our FBA does NOT estimate whether the Study potentially generates a “net” fiscal impact to state and local governments associated with the Industry. Specifically, we did not estimate the public service or other costs associated with the Industry (e.g., public safety, health and human services, schools, parks, transportation).

If you have any questions, please do not hesitate to contact us at your convenience by phone at 702-967-3188 ext. 101 or by email at [jrestrepo@rcg1.com](mailto:jrestrepo@rcg1.com).

Regards,



RCG Economics LLC

Attachment

### **Attachment: Standard Assumptions & Limiting Conditions**

1. RCG prepared, from third-party information collected by RCG, as well as our internal economic and fiscal models, databases and sources, the Study.
2. The Client is responsible for representations about their plans and expectations and for disclosure of significant information that might affect the ultimate realization of the analyses results.
3. The results of RCG's analyses apply only to the effective date of our Study. The success of the Client's plans will be affected by many related and unrelated economic conditions within a local, regional, national and/or world context. We assume no liability for an unforeseen change in the local, regional or national economies. Accordingly, we have no responsibility to update our report for events and circumstances occurring after the date of our Study.
4. Our Study is based on historical economic, dispensary operations and fiscal benchmark information. Thus, variations in the future could be material and have an impact on our Study conclusions. Even if our Study's hypothetical assumptions were to occur, there will usually be differences between the estimated and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material. These could include major changes in economic and market conditions; and/or terms or availability of financing altogether; and/or major revisions in current state and/or federal tax or regulatory laws.
5. If our Study is reproduced by the Client, it must be reproduced in its entirety.
6. RCG makes no representation or warranty as to the accuracy or completeness of the third-party information contained in our Study, and shall have no liability for any representations (expressed or implied) contained in, or for any omissions from, our materials.
7. The working papers for this consulting assignment will be retained in RCG's files and will be made available for your reference. We are available to support the analyses, as required.
8. Unless otherwise stated in our report, no effort was made to determine the possible effect, if any, of future Federal, State or local legislation, including any environmental or ecological matters or interpretations thereof.
9. We did not perform an audit, review or examination or any other attest function (as defined by the AICPA) regarding any of the third-party historical market, Industry and economic benchmarks or demographic information used or included in the report; therefore, RCG does not express any opinion or any other form of assurance with regard to the same, in the context of our Study.

# 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

## TABLE OF CONTENTS

	Page
<b>I. EXECUTIVE SUMMARY .....</b>	<b>I-1</b>
A. Economic Benefits Summary .....	I-4
B. Fiscal Benefits Summary .....	I-11
<b>II. MARIJUANA INDUSTRY SURVEY .....</b>	<b>II-1</b>
A. Industry Survey .....	II-1
<b>III. ECONOMIC BENEFITS ANALYSIS (“EBA”).....</b>	<b>III-1</b>
A. Overview.....	III-1
B. Statement of Methodology .....	III-1
C. Detailed EBA Results.....	III-3
<b>IV. FISCAL BENEFITS ANALYSIS (“FBA”).....</b>	<b>IV-1</b>
A. Overview.....	IV-1
B. Retail Sales & Use Tax Estimate .....	IV-2
C. Wholesale & Retail Excise Tax Estimate.....	IV-2
D. Business Licensing Fees .....	IV-3
<b>APPENDIX: ECONOMIC BENEFITS ANALYSIS TABLES .....</b>	<b>A-1</b>

# 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

## LIST OF TABLES

	Page
Table I-1: Annual Nevada Marijuana Industry EBA & FBA-Summary of Results: 2018 – 2024 .....	I-2
Table I-2: Annual Clark County Marijuana Industry EBA Summary of Results: 2018 – 2024.....	I-3
Table I-3: Annual Washoe County Marijuana Industry EBA Summary of Results: 2018 – 2024 .....	I-3
Table I-4: Total Nevada Marijuana Industry Economic Benefits: 2018 – 2024.....	I-5
Table I-5: Total Nevada Marijuana Industry Economic Benefits: 2024.....	I-6
Table I-6: Total Nevada Marijuana Industry Economic Benefits: 2018.....	I-6
Table I-7: Total Clark County Marijuana Industry Economic Benefits: 2018 – 2024.....	I-7
Table I-8: Total Clark County Marijuana Industry Economic Benefits: 2024.....	I-8
Table I-9: Total Clark County Marijuana Industry Economic Benefits: 2018.....	I-8
Table I-10: Total Washoe County Marijuana Industry Economic Benefits: 2018 – 2024.....	I-9
Table I-11: Total Washoe County Marijuana Industry Economic Benefits: 2024.....	I-10
Table I-12: Total Washoe County Marijuana Industry Economic Benefits: 2018.....	I-10
Table I-13: Nevada Total Marijuana Industry Fiscal Benefits, by Tax: 2018 – 2024.....	I-11
Table I-14: Nevada Total Marijuana Industry Fiscal Benefits, by Year: 2018 – 2024.....	I-12
Table II-1: Survey Respondents, by License Type: 2020.....	II-3
Table II-2: Survey Responses: 2020.....	II-3
Table III-1: Total Nevada Marijuana Industry Economic Benefits: 2018 – 2024 .....	III-15
Table III-2: Total Nevada Marijuana Industry Economic Benefits: 2024 .....	III-15
Table III-3: Total Nevada Marijuana Industry Economic Benefits: 2018 .....	III-15
Table III-4: Regional Marijuana Industry Economic Multipliers: 2018 – 2024.....	III-15
Table III-5: Total Clark County Marijuana Industry Economic Benefits: 2018 – 2024 .....	III-16
Table III-6: Total Clark County Marijuana Industry Economic Benefits: 2024 .....	III-16
Table III-7: Total Clark County Marijuana Industry Economic Benefits: 2018 .....	III-16
Table III-8: Total Washoe County Marijuana Industry Economic Benefits: 2018 – 2024.....	III-17
Table III-9: Total Washoe County Marijuana Industry Economic Benefits: 2024.....	III-17

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

	Page
Table III-10: Total Washoe County Marijuana Industry Economic Benefits: 2018 .....	III-17
Table IV-1: Nevada Total Marijuana Industry Fiscal Benefits, by Tax: 2018 – 2024 .....	IV-4
Table IV-2: Nevada Total Marijuana Industry Fiscal Benefits, by Year: 2018 – 2024 .....	IV-4
Table IV-3: Nevada 2018 vs. 2020 Studies Tax Revenue Comparison, by Tax: 2018 – 2024 .....	IV-4
Table IV-4: Applicable Sales & Use Tax Rates: 2020.....	IV-5
Table IV-5: Nevada Sales & Use Tax Revenue, by Tax: 2018 – 2024 .....	IV-5
Table IV-6: Nevada Sales & Use Tax Revenue, by Year: 2018 – 2024.....	IV-5
Table IV-7: Nevada Wholesale & Retail Excise Tax Revenue, by Year: 2018 – 2024.....	IV-6
Table IV-8: Nevada Licensing Fee Revenues, by Year: 2018 – 2024 .....	IV-6
Table IV-9: Sub-State Licensing Fee Revenues, by Year: 2018 – 2024 .....	IV-6
Table A-1: Total Nevada Marijuana Industry Economic Benefits: 2018 – 2024.....	A-2
Table A-2: Total Nevada Marijuana Industry Economic Benefits: 2018 .....	A-2
Table A-3: Total Nevada Marijuana Industry Economic Benefits: 2019 .....	A-2
Table A-4: Total Nevada Marijuana Industry Economic Benefits: 2020 .....	A-2
Table A-5: Total Nevada Marijuana Industry Economic Benefits: 2021 .....	A-3
Table A-6: Total Nevada Marijuana Industry Economic Benefits: 2022 .....	A-3
Table A-7: Total Nevada Marijuana Industry Economic Benefits: 2023 .....	A-3
Table A-8: Total Nevada Marijuana Industry Economic Benefits: 2024 .....	A-3
Table A-9: Total Clark County Marijuana Industry Economic Benefits: 2018 – 2024.....	A-4
Table A-10: Total Clark County Marijuana Industry Economic Benefits: 2018.....	A-4
Table A-11: Total Clark County Marijuana Industry Economic Benefits: 2019.....	A-4
Table A-12: Total Clark County Marijuana Industry Economic Benefits: 2020.....	A-4
Table A-13: Total Clark County Marijuana Industry Economic Benefits: 2021.....	A-5
Table A-14: Total Clark County Marijuana Industry Economic Benefits: 2022.....	A-5
Table A-15: Total Clark County Marijuana Industry Economic Benefits: 2023.....	A-5

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

	Page
Table A-16: Total Clark County Marijuana Industry Economic Benefits: 2024.....	A-5
Table A-17: Total Washoe County Marijuana Industry Economic Benefits: 2018 – 2024.....	A-6
Table A-18: Total Washoe County Marijuana Industry Economic Benefits: 2018 .....	A-6
Table A-19: Total Washoe County Marijuana Industry Economic Benefits: 2019 .....	A-6
Table A-20: Total Washoe County Marijuana Industry Economic Benefits: 2020 .....	A-6
Table A-21: Total Washoe County Marijuana Industry Economic Benefits: 2021 .....	A-7
Table A-22: Total Washoe County Marijuana Industry Economic Benefits: 2022 .....	A-7
Table A-23: Total Washoe County Marijuana Industry Economic Benefits: 2023 .....	A-7
Table A-24: Total Washoe County Marijuana Industry Economic Benefits: 2024 .....	A-7

# 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

## LIST OF FIGURES

	Page
Figure III-1: Total Nevada Marijuana Industry Economic Benefits: 2018 – 2024.....	III-18
Figure III-2: Total Nevada Marijuana Industry Economic Benefits: 2024.....	III-18
Figure III-3: Total Nevada Marijuana Industry Economic Benefits: 2018.....	III-19
Figure III-4: Total Clark County Marijuana Industry Economic Benefits: 2018 – 2024.....	III-19
Figure III-5: Total Clark County Marijuana Industry Economic Benefits: 2024.....	III-20
Figure III-6: Total Clark County Marijuana Industry Economic Benefits: 2018.....	III-20
Figure III-7: Total Washoe County Marijuana Industry Economic Benefits: 2018 – 2024.....	III-21
Figure III-8: Total Washoe County Marijuana Industry Economic Benefits: 2024.....	III-21
Figure III-9: Total Washoe County Marijuana Industry Economic Benefits: 2018.....	III-22
Figure IV-1: Nevada 2018 vs. 2020 Studies Tax Revenue Comparison, by Tax: 2018 – 2024.....	IV-7

### I. EXECUTIVE SUMMARY

RCG Economics LLC (“RCG”) was retained by the Nevada Dispensary Association (“NDA”) to prepare an economic & fiscal benefits study (“the Study”). The purpose of the Study is to analyze the potential economic and fiscal benefits on the Nevada, Clark County and Washoe County economies from the legalized marijuana industry (“the Industry”), especially in relation to adult-use, or recreational, sales. At times, we relate these findings to those found in *Nevada Adult-Use Marijuana Economic & Fiscal Benefits Analysis* (“the 2016 Study”) and *Marijuana Economic & Fiscal Benefits Analysis: Nevada* (“the 2018 Study”, or together as “the Previous Studies”). The seven-year “study period” is Fiscal Year (“FY”) 2018 – 2024 to facilitate comparisons between the studies. We refer to fiscal years and calendar years interchangeably.

The Study is comprised of two complementary analyses:

- Economic Benefit Analysis (“EBA”)
- Fiscal Benefit Analysis (“FBA”)

The EBA estimates direct, indirect and induced economic benefits associated with the Industry. These benefits include, but are not limited to, increases in output (gross sales/spending), employment and wages/labor income resulting from Nevada, Clark County and Washoe County marijuana sales. The county-level sales are a subset of the state and, therefore, state sales include both counties’ sales.

Our analysis of the Industry’s direct benefits on the Nevada economy is largely based on data published by various state and local government agencies, particularly the Nevada Department of Taxation. RCG prepared estimates of indirect and induced benefits by employing the widely used and widely accepted IMPLAN (Impact Analysis for PLANning) economic benefits model. Our general fiscal analysis is based on Nevada Revised Statutes and municipal tax information and formulas.

Our FBA is based on the following sources of tax revenue related to the Industry for the seven-year period (“study period”) from 2018 – 2024:

- Retail sales and use tax revenue from the sale of marijuana.
- Excise tax revenues from the wholesale of marijuana.
- Excise tax revenues from the retail sale of marijuana.
- Business license fees paid by retailers (not including cultivators or manufacturers). We also did not include one-time application fees.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

✦ We did not estimate the benefits from the Modified Business Tax or the Commerce Tax.

Table I-1 summarizes the results of both the EBA and FBA. It shows \$10.0 billion in cumulative benefits (in 2020 inflation-adjusted dollars), including \$5.7 billion in industry sales during the period (not inflation-adjusted). This spending is expected to create about 92,400 jobs, measured in person-years, and \$3.2 billion in associated wages. Based on these output and wages, the industry is projected to produce approximately \$1.4 billion in tax revenues for the state and local governments between 2018 and 2024. The FY2018 and FY2019 numbers are based on data released by the Nevada Department of Taxation. Estimates beyond 2019 are projections developed by RCG. Total sales in the table include Sales & Use tax.

*Note: A person-year is a measure of jobs over time. For example, one full-time, or full-time equivalent (“FTE”)<sup>1</sup>, job that is held over a one-year period is equal to one person-year of employment, whereas one job held over a seven-year period would make up seven person-years in employment. The sum of annual jobs in this report represents jobs in person-years, while individual years are in FTE. Therefore, to get average annual full-time jobs over the study period, one could divide the total number of jobs in person-years over seven years by seven.*

**Table I-1: Annual Nevada Marijuana Industry EBA & FBA-Summary of Results: 2018 – 2024**

Fiscal Year	Total Sales	Total Output	Total Jobs	Total Wages	Tax Revenue
2018	573,938,000	1,046,127,000	9,700	333,163,000	113,846,000
2019	692,207,000	1,248,183,000	11,600	396,142,000	171,527,000
2020	809,882,000	1,440,261,000	13,300	456,947,000	200,686,000
2021	866,574,000	1,519,887,000	14,000	482,041,000	214,735,000
2022	901,237,000	1,558,977,000	14,400	494,262,000	223,324,000
2023	928,274,000	1,583,731,000	14,600	501,926,000	230,023,000
2024	956,122,000	1,608,911,000	14,800	509,715,000	236,924,000
<b>Total</b>	<b>5,728,232,000</b>	<b>10,006,076,000</b>	<b>92,400</b>	<b>3,174,196,000</b>	<b>1,391,065,000</b>

*Note: Output and wages are in 2020 dollars. Total sales and tax revenues are in nominal (not inflation-adjusted). Total Sales include Sales & Use Tax. Sum of Total Jobs are measured in person-years while each year's jobs are measured in FTE.*

*Sources: RCG Economics, IMPLAN, Department of Taxation. Numbers may not sum exactly due to rounding.*

<sup>1</sup> A full-time equivalent job is the number of total full- and part-time jobs measured as full-time jobs. For example, one full-time job and one part-time 20-hour-per-week job make up 1.5 full-time equivalent jobs.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

Table I-2 summarizes the results of the EBA for Clark County. County-level results for the FBA are presented in the *Fiscal Benefits Analysis* section for license fees only, because only license fees directly benefit sub-state-level governments. The table shows \$8.4 billion in cumulative benefits (in 2020 inflation-adjusted dollars), including \$4.6 billion in industry sales during the period (not inflation-adjusted). This spending is expected to create about 76,500 jobs, measured in person-years, and \$2.6 billion in associated wages.

**Table I-2: Annual Clark County Marijuana Industry EBA Summary of Results: 2018 – 2024**

Fiscal Year	Total Sales	Total Output	Total Jobs	Total Wages
2018	461,507,000	875,446,000	8,100	273,406,000
2019	556,608,000	1,044,300,000	9,600	325,079,000
2020	651,231,000	1,204,871,000	11,000	374,964,000
2021	696,817,000	1,271,342,000	11,600	395,543,000
2022	724,690,000	1,303,895,000	11,900	405,558,000
2023	746,431,000	1,324,450,000	12,100	411,833,000
2024	768,824,000	1,345,357,000	12,300	418,211,000
<b>Total</b>	<b>4,606,108,000</b>	<b>8,369,661,000</b>	<b>76,500</b>	<b>2,604,594,000</b>

*Note: Output and wages are in 2020 dollars. Total sales and tax revenues are in nominal (not inflation-adjusted). Total Sales include Sales & Use Tax. Sum of Total Jobs are measured in person-years while each year's jobs are measured in FTE. Numbers may not sum exactly due to rounding.*

*Sources: RCG Economics, IMPLAN, Department of Taxation*

Table I-3 summarizes the results of the EBA for Washoe County. The table shows \$1.6 billion in cumulative benefits (in 2020 inflation-adjusted dollars), including \$922.8 million in industry sales during the period (not inflation-adjusted). This spending is expected to create about 15,200 jobs, measured in person-years, and \$516.5 million in associated wages.

**Table I-3: Annual Washoe County Marijuana Industry EBA Summary of Results: 2018 – 2024**

Fiscal Year	Total Sales	Total Output	Total Jobs	Total Wages
2018	84,245,000	157,496,000	1,500	49,475,000
2019	101,605,000	187,869,000	1,700	58,826,000
2020	127,514,000	231,821,000	2,200	72,782,000
2021	140,903,000	252,272,000	2,300	79,288,000
2022	149,357,000	263,488,000	2,400	82,859,000
2023	156,078,000	271,361,000	2,500	85,366,000
2024	163,102,000	279,472,000	2,600	87,951,000
<b>Total</b>	<b>922,803,000</b>	<b>1,643,779,000</b>	<b>15,200</b>	<b>516,547,000</b>

*Note: Output and wages are in 2020 dollars. Total sales and tax revenues are in nominal (not inflation-adjusted). Total Sales include Sales & Use Tax. Sum of Total Jobs are measured in person-years while each year's jobs are measured in FTE. Numbers may not sum exactly due to rounding.*

*Sources: RCG Economics, IMPLAN, Department of Taxation*

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

### A. ECONOMIC BENEFITS SUMMARY

#### *i. Nevada*

##### ***Summary of Total Marijuana Industry Economic Benefits: 2018 – 2024***

RCG found that the forecasted spending of \$5.7 billion has potentially sizable effects on the Nevada economy. The benefits are broken into three parts: total seven-year study period, 2024 and 2018. “Total economic benefits” are the sum of direct, indirect and induced benefits.

These total results apply to only the first seven years of the existence of the regulated market. The 2024 results are meant to show what the Industry potentially looks like after reaching maturity, while the 2018 results provide historical base.

The results of our EBA are as follows. The EBA is detailed in Section III. Annual tables can be found in the Appendix.

In summary:

- ✦ An estimated \$10 billion of total output activity is projected to be generated in the Nevada economy during the first seven years of adult-use marijuana regulation.
- ✦ The Industry is forecasted to support approximately 92,400 person-years of jobs in Nevada during the study period.
- ✦ Marijuana regulation is expected to generate approximately \$3.2 billion in direct, indirect and induced labor income during the study period.

Table I-4 illustrates the cumulative economic benefits of marijuana regulation in Nevada from the associated direct, indirect and induced spending.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table I-4: Total Nevada Marijuana Industry Economic Benefits: 2018 - 2024**

Impact Type	Spending/Output	Employment* (Person-Years)	Labor Income
Direct Benefit	\$5,735,659,000	65,800	\$1,899,855,000
Indirect Benefit	\$2,318,537,000	15,900	\$703,036,000
Induced Benefit	\$1,951,880,000	10,700	\$571,305,000
<b>Total Benefits</b>	<b>\$10,006,076,000</b>	<b>92,400</b>	<b>\$3,174,196,000</b>
<b>Multipliers</b>	<b>1.74</b>	<b>1.40</b>	<b>1.67</b>

\*Note: Employment is measured in person-years.

Note: Numbers may not sum exactly due to rounding

Sources: RCG Economics, IMPLAN

Direct spending also helps create additional spending. The total benefits are described using “multipliers”. For example, “direct spending/output” would potentially result in a multiplier of 1.74 in the state economy during the seven-year study period. This means that for every dollar spent on retail marijuana, an additional \$0.74 would ripple through the Nevada economy. These multipliers measure the total increase in output/economic activity, total employment and labor income in the wider regional economy per dollar in output/spending, per new job created and per dollar increase in earnings.

### **Summary of Total Marijuana Industry Economic Benefits: 2024**

The total annual economic benefits, based on 2024 estimates, are the sum of the annual averages of direct, indirect and induced benefits (see Table I-5).

- ✦ By 2024, an estimated \$1.6 billion of total output activity is projected to be generated for the Nevada economy each year because of marijuana regulation.
- ✦ By 2024, the Industry is forecasted to support about 14,800 FTE jobs in Nevada per year.
- ✦ By 2024, the Industry is expected to generate approximately \$509.7 million in direct, indirect and induced labor income each year.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table I-5: Total Nevada Marijuana Industry Economic Benefits: 2024**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$923,544,000	10,500	\$305,173,000
Indirect Benefit	\$371,917,000	2,500	\$112,797,000
Induced Benefit	\$313,450,000	1,700	\$91,745,000
<b>Total Benefits</b>	<b>\$1,608,911,000</b>	<b>14,800</b>	<b>\$509,715,000</b>
<b>Multipliers</b>	<b>1.74</b>	<b>1.41</b>	<b>1.67</b>

Note: Numbers may not sum exactly due to rounding  
Sources: RCG Economics, IMPLAN

### Summary of Total Marijuana Industry Economic Benefits: 2018

The total annual economic benefits, based on 2018 benefits, are the sum of the annual averages of direct, indirect and induced benefits (see Table I-6).

- ✦ In 2018, an estimated \$1.0 billion of total output activity was generated in the Nevada economy due to marijuana regulation.
- ✦ In 2018, the Industry supported about 9,700 FTE jobs in Nevada.
- ✦ In 2018, the Industry generated approximately \$333.2 million in direct, indirect and induced labor income.

**Table I-6: Total Nevada Marijuana Industry Economic Benefits: 2018**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$597,613,000	6,900	\$199,338,000
Indirect Benefit	\$243,657,000	1,700	\$73,865,000
Induced Benefit	\$204,857,000	1,100	\$59,961,000
<b>Total Benefits</b>	<b>\$1,046,127,000</b>	<b>9,700</b>	<b>\$333,163,000</b>
<b>Multipliers</b>	<b>1.75</b>	<b>1.41</b>	<b>1.67</b>

Note: Numbers may not sum exactly due to rounding  
Sources: RCG Economics, IMPLAN

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

### ii. Clark County

#### Summary of Total Marijuana Industry Economic Benefits: 2018 – 2024

In summary:

- ✦ An estimated \$8.4 billion of total output activity is projected to be generated in the Clark County economy during the first seven years of adult-use marijuana regulation.
- ✦ The Industry is forecasted to support approximately 76,500 person-years of jobs in Clark County during the study period.
- ✦ Marijuana regulation is expected to generate approximately \$2.6 billion in direct, indirect and induced labor income during the study period.

Table I-7 illustrates the cumulative economic benefits of marijuana regulation in Clark County from the associated direct, indirect and induced spending.

**Table I-7: Total Clark County Marijuana Industry Economic Benefits: 2018 – 2024**

Impact Type	Spending/Output	Employment* (Person-Years)	Labor Income
Direct Benefit	\$4,876,266,000	56,900	\$1,602,134,000
Indirect Benefit	\$1,850,623,000	10,600	\$519,459,000
Induced Benefit	\$1,642,772,000	9,000	\$483,001,000
<b>Total Benefits</b>	<b>\$8,369,661,000</b>	<b>76,500</b>	<b>\$2,604,594,000</b>
<b>Multipliers</b>	<b>1.72</b>	<b>1.34</b>	<b>1.63</b>

*\*Note: Employment is measured in person-years. Numbers may not sum exactly due to rounding.  
Sources: RCG Economics, IMPLAN*

#### Summary of Total Marijuana Industry Economic Benefits: 2024

The total annual economic benefits, based on 2024 benefits, are the sum of the annual averages of direct, indirect and induced benefits (see Table I-8).

- ✦ By 2024, an estimated \$1.3 billion of total output activity is projected to be generated for the Clark County economy each year because of marijuana regulation.
- ✦ By 2024, the Industry is forecasted to support about 12,300 FTE jobs in Clark County per year.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

- By 2024, the Industry is expected to generate approximately \$418.2 million in direct, indirect and induced labor income each year.

**Table I-8: Total Clark County Marijuana Industry Economic Benefits: 2024**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$784,686,000	9,100	\$257,250,000
Indirect Benefit	\$296,882,000	1,700	\$83,402,000
Induced Benefit	\$263,789,000	1,500	\$77,558,000
<b>Total Benefits</b>	<b>\$1,345,357,000</b>	<b>12,300</b>	<b>\$418,211,000</b>
<b>Multipliers</b>	<b>1.71</b>	<b>1.35</b>	<b>1.63</b>

Note: Numbers may not sum exactly due to rounding  
Sources: RCG Economics, IMPLAN

### Summary of Total Marijuana Industry Economic Benefits: 2018

The total annual economic benefits, based on 2018 benefits, are the sum of the annual averages of direct, indirect and induced benefits (see Table I-9).

- In 2018, an estimated \$875.4 million of total output activity was generated in the Clark County economy due to marijuana regulation.
- In 2018, the Industry supported about 8,100 FTE jobs in Clark County.
- In 2018, the Industry generated approximately \$273.4 million in direct, indirect and induced labor income.

**Table I-9: Total Clark County Marijuana Industry Economic Benefits: 2018**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$508,549,000	6,000	\$168,176,000
Indirect Benefit	\$194,466,000	1,100	\$54,532,000
Induced Benefit	\$172,431,000	900	\$50,698,000
<b>Total Benefits</b>	<b>\$875,446,000</b>	<b>8,100</b>	<b>\$273,406,000</b>
<b>Multipliers</b>	<b>1.72</b>	<b>1.35</b>	<b>1.63</b>

Note: Numbers may not sum exactly due to rounding  
Sources: RCG Economics, IMPLAN

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

### iii. Washoe County

#### Summary of Total Marijuana Industry Economic Benefits: 2018 – 2024

In summary:

- An estimated \$1.6 billion of total output activity is projected to be generated in the Washoe County economy during the first seven years of adult-use marijuana regulation.
- The Industry is forecasted to support approximately 15,200 person-years of jobs in Washoe County during the study period.
- Marijuana regulation is expected to generate approximately \$516.5 million in direct, indirect and induced labor income during the study period.

Table I-10 illustrates the cumulative economic benefits of marijuana regulation in Washoe County from the associated direct, indirect and induced spending.

**Table I-10: Total Washoe County Marijuana Industry Economic Benefits: 2018 – 2024**

Impact Type	Spending/Output	Employment* (Person-Years)	Labor Income
Direct Benefit	\$967,630,000	11,400	\$325,866,000
Indirect Benefit	\$380,164,000	2,200	\$102,640,000
Induced Benefit	\$295,985,000	1,600	\$88,041,000
<b>Total Benefits</b>	<b>\$1,643,779,000</b>	<b>15,200</b>	<b>\$516,547,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.33</b>	<b>1.59</b>

\*Note: Employment is measured in person-years. Numbers may not sum exactly due to rounding.  
Sources: RCG Economics, IMPLAN

#### Summary of Total Marijuana Industry Economic Benefits: 2024

The total annual economic benefits, based on 2024 benefits, are the sum of the annual averages of direct, indirect and induced benefits (see Table I-11).

- By 2024, an estimated \$279.5 million of total output activity is projected to be generated for the Washoe County economy each year because of marijuana regulation.
- By 2024, the Industry is forecasted to support about 2,600 FTE jobs in Washoe County per year.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

- By 2024, the Industry is expected to generate approximately \$88.0 million in direct, indirect and induced labor income each year.

**Table I-11: Total Washoe County Marijuana Industry Economic Benefits: 2024**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$164,402,000	1,900	\$55,478,000
Indirect Benefit	\$64,671,000	400	\$17,481,000
Induced Benefit	\$50,399,000	300	\$14,991,000
<b>Total Benefits</b>	<b>\$279,472,000</b>	<b>2,600</b>	<b>\$87,951,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.37</b>	<b>1.59</b>

*Note: Numbers may not sum exactly due to rounding  
Sources: RCG Economics, IMPLAN*

### **Summary of Total Marijuana Industry Economic Benefits: 2018**

The total annual economic benefits, based on 2018 benefits, are the sum of the annual averages of direct, indirect and induced benefits (see Table I-12).

- In 2018, an estimated \$157.5 million of total output activity was generated for the Washoe County economy due to marijuana regulation.
- In 2018, the Industry supported about 1,500 FTE jobs in Washoe County.
- In 2018, the Industry generated approximately \$49.5 million in direct, indirect and induced labor income.

**Table I-12: Total Washoe County Marijuana Industry Economic Benefits: 2018**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$92,694,000	1,100	\$31,216,000
Indirect Benefit	\$36,454,000	200	\$9,827,000
Induced Benefit	\$28,348,000	200	\$8,432,000
<b>Total Benefits</b>	<b>\$157,496,000</b>	<b>1,500</b>	<b>\$49,475,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.36</b>	<b>1.58</b>

*Note: Numbers may not sum exactly due to rounding. Sources: RCG Economics, IMPLAN*

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

### B. FISCAL BENEFITS SUMMARY

The following sources of tax revenue related to the Industry for the study period from 2018 – 2024 were analyzed:

1. Retail sales and use tax revenue from the sale of marijuana.
2. Excise tax revenues from the wholesale of marijuana.
3. Excise tax revenues from the retail sale of marijuana.
4. Business license fees paid by retailers (not including cultivators or manufacturers). We did not include one-time application fees.

The results of our FBA are as follows. The FBA is detailed in Section IV.

RCG found that the Industry could potentially produce \$1.4 billion in fiscal benefits to the State and its local jurisdictions over the study period (see Table I-13). The sales and use tax accounts for \$440.0 million. The retail excise tax is projected to contribute another \$453.4 million with the wholesale excise tax adding \$354.9 million. County and municipal license fees could add another \$142.8 million.

**Table I-13: Nevada Total Marijuana Industry Fiscal Benefits, by Tax: 2018 – 2024**

Tax	Revenue
Sales and Use Tax	\$440,009,000
Wholesale Excise Tax	\$354,904,000
Retail Excise Tax	\$453,403,000
License Fees	\$142,750,000
<b>Total Fiscal Benefits</b>	<b>\$1,391,065,000</b>

Sources: RCG Economics, Department of Taxation

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

The \$1.4 billion in tax revenues during the seven-year period is also broken up by year (see Table I-14). In 2018, that revenue estimate totals \$113.8 million. By 2024, tax revenue generated by the marijuana industry is estimated to increase to \$236.9 million dollars per year.

**Table I-14: Nevada Total Marijuana Industry Fiscal Benefits, by Year: 2018 – 2024**

Fiscal Year	Tax Revenue
2018	\$113,846,000
2019	\$171,527,000
2020	\$200,686,000
2021	\$214,735,000
2022	\$223,324,000
2023	\$230,023,000
2024	\$236,924,000
<b>Total Fiscal Benefits</b>	<b>\$1,391,065,000</b>

*Note: Numbers may not sum exactly due to rounding  
Sources: RCG Economics, Department of Taxation*

### II. MARIJUANA INDUSTRY SURVEY

RCG collected and conducted a survey of Industry firms (“the Survey”) for the Nevada Dispensary Association (“NDA”). The NDA is the marijuana industry’s state-wide trade association. The Survey was limited in scope and asked only two questions. Firms that are both members and non-members of the NDA participated in the Survey.

#### A. INDUSTRY SURVEY

RCG conducted the Survey to better understand firm-level employment in the Industry. The Survey was distributed online using Google Forms and was conducted between February and March 2020. The terms of our contract with the NDA limit our ability to share the firm-level data gathered. This was done to protect the identities of the firms that participated. However, below, we do discuss summary statistics regarding the Survey.

The two following questions were asked:

1. In 2019, how many full-time (FT, 40 hours) and part-time (PT, under 40 hours) workers did your firm employ at any one time, either directly (paid by your firm) or indirectly (paid by a third-party firm)? Please include the average weekly hours worked by PT workers (out of 40).
2. At the end of 2019, what was your entry-level hourly wage for a new employee (by dispensary, cultivation and production employee)?

Forty firms participated in the Survey. They accounted for 210 marijuana licenses (see Table II-1). These firms were made up of all five license types: cultivation, laboratories, manufacturing/production, distribution and retail facilities (dispensaries). By license type, 24 percent of licenses were for marijuana cultivation, three percent for labs, 22 percent for production, 11 percent for distribution and 40 percent for dispensaries.

These firms reported 3,821 total workers at the end of 2019. Of this total, 3,382 were full-time workers and 439 were part-time. The average part-time worker worked 25.1 hours per week, according to the Survey. On average, these firms supported 95.5 total jobs. This average includes all licenses held by a vertically-integrated firm, meaning that if the firm holds a cultivation license and a retail license, then their total employment figure includes both types of workers. The responding firms range in size from nine to 380 workers.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

Concerning starting wages, respondents reported an average starting hourly wage of \$13.12 over all license types, with an average range of \$10 to \$18.50. Among cultivation workers, respondents reported an average starting hourly wage of \$13.07, with a range of \$10 to \$17. For production workers, respondents reported an average starting hourly wage of \$13.45, with a range of \$11.50 to \$20. For dispensary workers, respondents reported an average starting hourly wage of \$13.14, with a range of \$10 to \$16 (see Table II-2).

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table II-1: Survey Respondents, by License Type: 2020**

License Type	Licenses	Firms
Cultivation	50	33
Laboratory	6	4
Production	46	30
Distribution	24	23
Dispensary	84	25
<b>Total</b>	<b>210</b>	<b>40</b>

Sources: RCG Economics, NDA

**Table II-2: Survey Responses: 2020**

Response Metric	Average	Low	High	n
Full-Time Workers	84.6	5	380	40
Part-Time Workers	11.0	0	68	40
Part-Time Hours	25.1	10	75	40
Average Starting Wage	\$13.12	\$10.00	\$18.50	37
Starting Cultivation Wage	\$13.07	\$10.00	\$17.00	32
Starting Production Wage	\$13.45	\$11.50	\$20.00	30
Starting Dispensary Wage	\$13.14	\$10.00	\$16.00	26

Note: "n" refers to the sample size.

Sources: RCG Economics, NDA

### III. ECONOMIC BENEFITS ANALYSIS (“EBA”)

#### A. OVERVIEW

The following pages presents RCG’s findings and conclusions regarding the potential economic benefits associated with the Industry to the State of Nevada, Clark County and Washoe County, between 2018 and 2024. Adult-use marijuana sales began July 2017 at the start of FY2018. The Study estimates these economic benefits to the state and its two most populous counties, based on the creation of jobs, along with the associated wages and economic activity (output/spending) benefits.

#### B. STATEMENT OF METHODOLOGY

RCG calculated three types of economic benefits: direct, indirect and induced. The concept of a direct benefit is relatively straightforward. However, the concepts of indirect and induced benefits, while critically important in assessing the totality of benefits associated with new economic activities, are often misunderstood in economic analysis. Fundamentally, these secondary and tertiary benefits are based on an extension of the direct expenditures/spending associated with adult-use marijuana purchases. Each type of benefit is briefly summarized below.

- ✦ **Direct benefits** are due to the retail purchases of marijuana; the jobs created to support the retail stores; and the labor income (employee compensation, proprietor income and benefits paid) – essentially the direct benefits associated with marijuana regulation.
- ✦ **Indirect benefits** are the local purchases of goods and services resulting from the initial direct spending caused by marijuana retail spending. For example, the retail dispensaries’ spending on marijuana cultivation, office supplies, rent, utilities, food manufacturing and the like will cause suppliers to replenish inventories, etc. These sales are counted as an indirect economic benefit.
- ✦ **Induced benefits** are the output, employment and labor income growth generated by the employees of marijuana retailers and their local suppliers as they consume goods and services in the Nevada economy. Put another way, induced benefits are benefits from labor income spent by direct and indirect employees. For example, a new employee to the area works as a salesperson at one of the marijuana retailers. The portion of his or her personal income will be spent locally, will cycle through the region, and will be exchanged among local merchants; thus, inducing additional new spending (retail, food, gas, etc.) and employment in the region.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

Estimates of the direct, indirect and induced benefits to output and employment benefits as well as direct labor income benefits, are based on results from the widely accepted IMPLAN (IMpact Analysis for PLANning) economic input-output model. The IMPLAN model has been in use since 1979. The model accounts closely follow the accounting conventions used in the “Input-Output Study of the U.S. Economy” by the U.S. Bureau of Economic Analysis. The results show the benefit of the Industry on overall economic activity and employment. This EBA was prepared under various limiting assumptions acknowledged and presented below:

- ✦ **Substitution Effects:** This analysis does not factor in any changes to purchases of other goods and services on which marijuana expenditures might alternatively have been spent. Without factoring in consumers’ substitutions between goods and services, the EBA measures economic benefits of the Industry to the regional economy.
  
- ✦ **Supply/Demand Pooling:** For all direct retail sales, Nevada requires that Industry demands be accommodated in-state. However, for indirect demand, such as for cultivators, we have assumed that demands will be accommodated in-state to the greatest extent possible. Thus, all needs that can possibly be met by in-state producers/suppliers will be met by these producers/suppliers. If demand is greater than supply, local producers/suppliers will meet as much of that demand as possible and the remaining demand will be met from outside the region. Since this minimizes imports, it would maximize local economic activity and the resulting multipliers.
  
- ✦ **Economic Leakage:** RCG’s analysis also recognizes as important, “leakage” from the study regions (Nevada/Clark County/Washoe County) due to spending on purchases outside of the region. Economic leakage refers to revenues that flow out of a local or regional economy to finance the purchase of goods and services from outside sources (imports) instead of being purchased locally. In a highly developed and urbanized economy, like Los Angeles, for example, a large share of the goods and services consumed are purchased from local producers and suppliers.

In this Study, all economic benefits estimates (except employment) are in inflation-adjusted 2020 dollars.

Three categories are estimated for each type of benefit. They include:

- ✦ Changes to output/spending (equivalent to Gross Product)
  
- ✦ Changes to employment (measured in terms of annual full-time equivalents, or “FTEs” for annual jobs or person-years for the full 2018-2024 study period totals, which are equal to average FTEs multiplied by the seven years in the analysis)

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

- ▣ Changes to labor income (employee compensation, proprietor income and benefits paid)

### C. DETAILED EBA RESULTS

The most straightforward way to understand the Industry in Nevada and its counties is by referencing taxable sales. This last point of sale at a dispensary includes costs that have accumulated all the way through the supply chain, from the initial cultivation of the plant to testing of the product, to production and manufacturing of marijuana-derived products, to their distribution and finally to the sale to consumers.

RCG used this process as the basis for its methodology. The marijuana cultivation industry as it pertains to Nevada is described as “Marijuana, in open” by the North American Industry Classification System (“NAICS”). Both IMPLAN and the State of Nevada use NAICS codes to classify industries as well, which makes it relatively straightforward to analyze an industry. RCG followed the method IMPLAN prescribes for this type of vertically-structured analysis, which it calls “marginizing.” This method breaks an industry up into each part of its supply chain, as described above, and examines the economic benefits associated with each step.

Additionally, because the marijuana “industry” is more accurately a collection of industries (i.e. cultivation, production, retail) and since we know the main commodity sold, IMPLAN recommends analyzing this situation as a commodity effect.<sup>1</sup>

RCG set the local purchasing percentage to 100 percent for all industries within the chain, as required of the industry by state law. Additionally, regarding Clark and Washoe County, RCG adjusted the model to match the county-level employment multipliers with the state multipliers specifically for the marijuana cultivation sector. The reason for this is that the legal marijuana industry is still relatively new and growing. Its effects in the underlying data from the Bureau of Economic Analysis did not appear to be as accurate at the sub-state levels as at the state level. Based on our initial analysis, we found this to be an issue and decided it would be more accurate to base the county results on the state-level employment multipliers. This was done only within the cultivation industry.

Results of this EBA are based on data from the Nevada Department of Taxation. The Department reports statewide taxable marijuana sales at the retail level that effectively include all sales at dispensaries on a monthly basis. There were more than two fiscal years (“FY”) of data available at the time of this writing. RCG used FYs as the basis for this analysis to better align with the fiscal benefits reporting.

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<sup>1</sup> <https://implanhelp.zendesk.com/hc/en-us/articles/115009506007-Margins-Deflators>

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

RCG produced estimates for seven years in order to match the seven-year study period in the two previous studies identified in this report. This helped make the current results more comparable to those analyses. Additionally, this approach also provided RCG with historical insights we could not be garnered from the Previous Studies. In this study, we based our growth assumptions for FY2020 on the five months of available data. Year-over-year growth after five months was 21 percent. We chose to use a 15 percent growth estimate to be conservative. For the remaining years of 2021 – 2024, we applied conservative growth estimates of five percent, two percent, one percent and one percent, respectively. Additionally, we added two percent to each of these growth rates to account for inflation.<sup>2</sup> We settled on this method for projecting future marijuana taxable sales because there is still uncertainty over what share of sales the legal market is actually capturing.<sup>3</sup> Between that uncertainty and the amount of historical data now available, we felt that this was the best course of action.

After the market reaches saturation, it is expected to grow with the rate of population growth, plus tourist growth plus any shift in preferences. However, we assumed no shift in preferences for the term of this study.

Due to the fact that the three regions' (Nevada, Clark County and Washoe County) results were developed using separate models and, in part, due to rounding error, the combined output of Clark County and Washoe County are roughly equal to that of the state even though they make up only about 95 percent of the state's total marijuana sales. This similarity, however, is within any expected margin of error.

### **i. TOTAL BENEFITS OF THE REGULATED MARIJUANA INDUSTRY: NEVADA**

Table III-1 shows the benefits of the Industry to Nevada for FY 2018 – 2024. Table III-2 illustrates the effects of the Industry to Nevada for 2024 only. That year's economic benefits should be a fairly good indicator of the annual benefit of legal marijuana sales in the long run because it shows what the Industry should look like after sales have stabilized. In general, the results of the Previous Studies were designed to be conservative. That appears to be borne out by the first two and a half years of retail sales. Table III-3 illustrates the economic effects of the Industry on Nevada for 2018 only.

It is important to note that the output/spending figures include Sales & Use tax and excise taxes collections, as per IMPLAN<sup>4</sup>. The Sales & Use tax has been in use in Nevada for a long time and so was included in the Industry's

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<sup>2</sup> Based on forecasts from the Philadelphia Federal Reserve, RCG assumed a two percent inflation rate (rounded). <https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/>.

<sup>3</sup> <https://www.bostonglobe.com/news/marijuana/2019/02/02/illicit-pot-market-remains-stubbornly-robust/Fqq5baxLvgrTB1ABJRbEL/story.html>

<sup>4</sup> Retail Margin: The markup to the price of a product when a product is sold through a retail trade activity. It is calculated as sales receipts less the cost of goods sold. Sales and excise taxes collected by the retailer are generally shown as a part of the retail margin (From IMPLAN glossary).

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

spending/output as prescribed. However, the new excise tax is somewhat unique in that it only applies to the Industry and, therefore, is as yet unlikely to be captured by the IMPLAN model. To be conservative, we did not include excise taxes in the industry spending IMPLAN inputs to avoid overestimating the marijuana market's effects on the economy. However, we added the excise tax revenues to the direct and total output after the analysis.

### **Summary of the Total Benefits of the Regulated Marijuana Industry: 2018 - 2024**

#### **DIRECT BENEFITS**

- ✦ An estimated \$5.7 billion of direct output/spending activity is projected to be generated in the Nevada economy during the first seven years of marijuana regulation (see Figure III-1).
- ✦ RCG forecasted that marijuana regulation will potentially support about 65,800 person-years of direct jobs in Nevada. This estimate does not factor in indirect and induced jobs.
- ✦ Marijuana regulation is estimated to generate approximately \$1.9 billion in direct labor earnings (payroll) during the seven-year study period.

*A person-year is a measure of jobs over time. For example, one full-time, or full-time equivalent ("FTE")<sup>5</sup>, job that is held over a one-year period is equal to one person-year of employment, whereas one job held over a seven-year period would make up seven person-years in employment. The sum of annual jobs in this report represents jobs in person-years, while individual years are in FTE. Therefore, to get average annual full-time jobs over the study period, one could divide the total number of jobs in person-years over seven years by seven.*

#### **INDIRECT AND INDUCED BENEFITS**

- ✦ A projected \$4.3 billion of indirect and induced output activity is forecasted in the Nevada economy from the first seven years of marijuana regulation.
- ✦ The Industry is projected to support 26,600 person-years of indirect and induced jobs in Nevada.
- ✦ The Industry is estimated to generate approximately \$1.3 billion in indirect and induced labor income during the seven-year study period.

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<sup>5</sup> A full-time equivalent job is the number of total full- and part-time jobs measured as full-time jobs. For example, one full-time job and one part-time 20-hour-per-week job make up 1.5 full-time equivalent jobs.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

### TOTAL BENEFITS

“Total economic benefits” are the sum of direct, indirect and induced benefits.

- ✦ An estimated \$10.0 billion of total output activity is projected to be generated for the Nevada economy during the first seven years of adult-use marijuana regulation.
- ✦ The Industry is forecasted to support about 92,400 person-years in jobs in Nevada in the seven-year study period.
- ✦ Marijuana regulation is estimated to generate approximately \$3.2 billion in direct, indirect and induced labor income during the seven-year study period.

### *Summary of the Total Benefits of the Regulated Marijuana Industry: 2024*

#### DIRECT BENEFITS

- ✦ By 2024, an estimated \$923.5 million of direct output activity is projected to be generated in the Nevada economy every year due to adult-use marijuana regulation (see Figure III-2).
- ✦ RCG forecasted that by 2024, the industry will potentially support approximately 10,500 direct FTE jobs in Nevada per year. This estimate does not factor in indirect and induced jobs.
- ✦ By 2024, the Industry is expected to generate approximately \$305.2 million in direct labor income per year.

#### INDIRECT AND INDUCED BENEFITS

- ✦ By 2024, a projected \$685.4 million of indirect and induced output activity is forecasted to be generated in the Nevada economy each year.
- ✦ By 2024, the Industry is forecasted to support 4,200 indirect and induced FTE jobs in Nevada every year.
- ✦ By 2024, the Industry is estimated to generate approximately \$204.5 million in indirect and induced labor income per year.

### TOTAL BENEFITS

“Total economic benefits” are the sum of direct, indirect and induced benefits.

- ✦ By 2024, an estimated \$1.6 billion of total output activity is projected to be generated for the Nevada economy each year due to marijuana regulation.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

- ✦ By 2024, the Industry is forecasted to support about 14,800 FTE jobs in Nevada per year.
- ✦ By 2024, the Industry is estimated to generate approximately \$509.7 million in direct, indirect and induced labor income each year.

### ***Summary of the Total Benefits of the Regulated Marijuana Industry: 2018***

#### **DIRECT BENEFITS**

- ✦ In 2018, an estimated \$597.6 million of direct output activity was generated in the Nevada economy due to marijuana regulation (see Figure III-3).
- ✦ RCG calculated that the industry supported approximately 6,900 direct FTE jobs in Nevada in 2018. This estimate does not factor in indirect and induced jobs.
- ✦ In 2018, the Industry generated approximately \$199.3 million in direct labor income.

#### **INDIRECT AND INDUCED BENEFITS**

- ✦ In 2018, an estimated \$448.5 million of indirect and induced output activity was generated in the Nevada economy.
- ✦ In 2018, the Industry supported 2,800 indirect and induced FTE jobs in Nevada.
- ✦ In 2018, the Industry generated approximately \$133.8 million in indirect and induced labor income.

#### **TOTAL BENEFITS**

“Total economic benefits” are the sum of direct, indirect and induced benefits.

- ✦ In 2018, an estimated \$1.0 billion of total output activity was generated for the Nevada economy by marijuana regulation.
- ✦ In 2018, the Industry supported about 9,700 FTE jobs in Nevada.
- ✦ In 2018, the Industry generated approximately \$333.2 million in direct, indirect and induced labor income.

There is a caveat in the employment results. There are two reasons RCG does not report income per worker. It is inappropriate to calculate income per worker as the ratio of total income benefits-to-total employment benefits. First, IMPLAN calculates total jobs: full- and part-time. Because the results were largely based on the IMPLAN

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

social accounting matrix, these results reflect the same nature of full- and part-time job mixing. Due to the method and tools that IMPLAN provides for the FTE (or person-year) job conversion, the apparent job-to-income ratio is not meaningful.

Using a straight calculation for average labor income in 2024 yields a result of approximately \$34,400 per worker per year. However, every FTE is counted as one job per year by definition rather than total jobs per year as originally calculated, which is approximately 1.1 jobs per FTE job. Therefore, using the FTE (or person-year) employment figure results in an overestimate of average income per job. The second reason is that labor income includes proprietor income and, therefore, does not reflect only employee compensation.

For example, imagine a retailer were to create two jobs – one 30-hour per week job and one 10-hour per week job. If the 30-hour per week worker is paid \$40,000 annually, while the 10-hour per week worker is paid \$10,000, annually, that would equate to an average of \$25,000 per year over the two jobs. However, as an FTE, it would equate to one job at \$50,000 per year. This would incorrectly double the combined average annual wage for these two employees from \$25,000 to \$50,000.

### **Multipliers**

Table III-4 illustrates the output, employment and labor income multipliers associated with the Industry. Multipliers are based on the “ripple effect” of economic change. They translate the benefits of a change in the direct variable on the other variables. In other words, multipliers generally estimate the “waves” of economic activities’ or events’ direct output/spending, employment and labor income. The multipliers in the table show the ratio of total benefits to direct benefits, based on the results of the IMPLAN model. For example, this table shows that for every dollar “directly” spent on retail marijuana, an additional \$0.74 of output/spending is generated (sum of indirect and induced benefits) in the Nevada economy.

### **ii. TOTAL BENEFITS OF THE REGULATED MARIJUANA INDUSTRY: CLARK COUNTY**

Table III-5 shows the benefits of the Industry to Clark County for FY 2018 – 2024. Table III-6 illustrates the effects of the Industry to Clark County for 2024 only. Like for Nevada, that year’s economic benefits should be a good indicator of the annual benefit of legal marijuana sales because it shows what the Industry should look like after sales have stabilized. Table III-7 illustrates the economic effects of the Industry on Clark County for 2018 only.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

### ***Summary of the Total Benefits of the Regulated Marijuana Industry: 2018 - 2024***

#### **DIRECT BENEFITS**

- ✦ An estimated \$4.9 billion of direct output/spending activity is projected to be generated in the Clark County economy during the first seven years of marijuana regulation (see Figure III-4).
- ✦ RCG forecasted that marijuana regulation will potentially support about 56,900 person-years of direct jobs in Clark County. This estimate does not factor in indirect and induced jobs.
- ✦ Marijuana regulation is estimated to generate approximately \$1.6 billion in direct labor earnings (payroll) during the seven-year study period.

#### **INDIRECT AND INDUCED BENEFITS**

- ✦ A projected \$3.5 billion of indirect and induced output activity is forecasted in the Clark County economy from the first seven years of marijuana regulation.
- ✦ The Industry is projected to support 19,600 person-years of indirect and induced jobs in Clark County.
- ✦ The Industry is estimated to generate approximately \$1.0 billion in indirect and induced labor income during the seven-year study period.

#### **TOTAL BENEFITS**

“Total economic benefits” are the sum of direct, indirect and induced benefits.

- ✦ An estimated \$8.4 billion of total output activity is projected to be generated for the Clark County economy during the first seven years of adult-use marijuana regulation.
- ✦ The Industry is forecasted to support about 76,500 person-years in jobs in Clark County in the seven-year study period.
- ✦ Marijuana regulation is estimated to generate approximately \$2.6 billion in direct, indirect and induced labor income during the seven-year study period.

### ***Summary of the Total Benefits of the Regulated Marijuana Industry: 2024***

#### **DIRECT BENEFITS**

- ✦ By 2024, an estimated \$784.7 million of direct output activity is projected to be generated in the Clark County economy every year due to adult-use marijuana regulation (see Figure III-5).

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

- ✦ RCG forecasted that by 2024, the industry will potentially support approximately 9,100 direct FTE jobs in Clark County per year. This estimate does not factor in indirect and induced jobs.
- ✦ By 2024, the Industry is expected to generate approximately \$257.3 million in direct labor income per year.

### INDIRECT AND INDUCED BENEFITS

- ✦ By 2024, a projected \$560.7 million of indirect and induced output activity is forecasted to be generated in the Clark County economy each year.
- ✦ By 2024, the Industry is forecasted to support 3,200 indirect and induced FTE jobs in Clark County every year.
- ✦ By 2024, the Industry is estimated to generate approximately \$161.0 million in indirect and induced labor income per year.

### TOTAL BENEFITS

“Total economic benefits” are the sum of direct, indirect and induced benefits.

- ✦ By 2024, an estimated \$1.3 billion of total output activity is projected to be generated for the Clark County economy each year due to marijuana regulation.
- ✦ By 2024, the Industry is forecasted to support about 12,300 FTE jobs in Clark County per year.
- ✦ By 2024, the Industry is estimated to generate approximately \$418.2 million in direct, indirect and induced labor income each year.

### ***Summary of the Total Benefits of the Regulated Marijuana Industry: 2018***

#### DIRECT BENEFITS

- ✦ In 2018, an estimated \$508.5 million of direct output activity was generated in the Clark County economy due to marijuana regulation (see Figure III-6).
- ✦ RCG calculated that the industry supported approximately 6,000 direct FTE jobs in Clark County in 2018. This estimate does not factor in indirect and induced jobs.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

✦ In 2018, the Industry generated approximately \$168.2 million in direct labor income.

### INDIRECT AND INDUCED BENEFITS

✦ In 2018, an estimated \$366.9 million of indirect and induced output activity was generated in the Clark County economy.

✦ In 2018, the Industry supported 2,000 indirect and induced FTE jobs in Clark County.

✦ In 2018, the Industry generated approximately \$105.2 million in indirect and induced labor income.

### TOTAL BENEFITS

“Total economic benefits” are the sum of direct, indirect and induced benefits.

✦ In 2018, an estimated \$875.4 million of total output activity was generated for the Clark County economy by marijuana regulation.

✦ In 2018, the Industry supported about 8,100 FTE jobs in Clark County.

✦ In 2018, the Industry generated approximately \$273.4 million in direct, indirect and induced labor income.

### **Multipliers**

Table III-4 illustrates the output, employment and labor income multipliers associated with the Industry in Clark County. This table shows that for every dollar “directly” spent on retail marijuana, an additional \$0.72 of output/spending is generated (sum of indirect and induced benefits) in the Clark County economy.

### **iii. TOTAL BENEFITS OF THE REGULATED MARIJUANA INDUSTRY: WASHOE COUNTY**

Table III-8 shows the benefits of the Industry to Washoe County for FY 2018 – 2024. Table III-9 illustrates the effects of the Industry to Washoe County for 2024 only. Again, like for Nevada and Clark County, that year’s economic benefits should be a good indicator of the annual benefit of legal marijuana sales after sales have stabilized. Table III-10 illustrates the economic effects of the Industry on Washoe County for 2018 only.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

### ***Summary of the Total Benefits of the Regulated Marijuana Industry: 2018 - 2024***

#### **DIRECT BENEFITS**

- ✦ An estimated \$967.6 million of direct output/spending activity is projected to be generated in the Washoe County economy during the first seven years of marijuana regulation (see Figure III-7).
- ✦ RCG forecasted that marijuana regulation will potentially support about 11,400 person-years of direct jobs in Washoe County. This estimate does not factor in indirect and induced jobs.
- ✦ Marijuana regulation is estimated to generate approximately \$325.9 million in direct labor earnings (payroll) during the seven-year study period.

#### **INDIRECT AND INDUCED BENEFITS**

- ✦ A projected \$676.1 million of indirect and induced output activity is forecasted in the Washoe County economy from the first seven years of marijuana regulation.
- ✦ The Industry is projected to support 3,800 person-years of indirect and induced jobs in Washoe County.
- ✦ The Industry is estimated to generate approximately \$190.7 million in indirect and induced labor income during the seven-year study period.

#### **TOTAL BENEFITS**

“Total economic benefits” are the sum of direct, indirect and induced benefits.

- ✦ An estimated \$1.6 billion of total output activity is projected to be generated for the Washoe County economy during the first seven years of adult-use marijuana regulation.
- ✦ The Industry is forecasted to support about 15,200 person-years in jobs in Washoe County in the seven-year study period.
- ✦ Marijuana regulation is estimated to generate approximately \$516.5 million in direct, indirect and induced labor income during the seven-year study period.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

### *Summary of the Total Benefits of the Regulated Marijuana Industry: 2024*

#### **DIRECT BENEFITS**

- ✦ By 2024, an estimated \$164.4 million of direct output activity is projected to be generated in the Washoe County economy every year due to adult-use marijuana regulation (see Figure III-8).
- ✦ RCG forecasted that by 2024, the industry will potentially support approximately 1,900 direct FTE jobs in Washoe County per year. This estimate does not factor in indirect and induced jobs.
- ✦ By 2024, the Industry is expected to generate approximately \$55.5 million in direct labor income per year.

#### **INDIRECT AND INDUCED BENEFITS**

- ✦ By 2024, a projected \$115.1 million of indirect and induced output activity is forecasted to be generated in the Washoe County economy each year.
- ✦ By 2024, the Industry is forecasted to support 700 indirect and induced FTE jobs in Washoe County every year.
- ✦ By 2024, the Industry is estimated to generate approximately \$32.5 million in indirect and induced labor income per year.

#### **TOTAL BENEFITS**

“Total economic benefits” are the sum of direct, indirect and induced benefits.

- ✦ By 2024, an estimated \$279.5 million of total output activity is projected to be generated for the Washoe County economy each year due to marijuana regulation.
- ✦ By 2024, the Industry is forecasted to support about 2,600 FTE jobs in Washoe County per year.
- ✦ By 2024, the Industry is estimated to generate approximately \$88.0 million in direct, indirect and induced labor income each year.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

### ***Summary of the Total Benefits of the Regulated Marijuana Industry: 2018***

#### **DIRECT BENEFITS**

- ✦ In 2018, an estimated \$92.7 million of direct output activity was generated in the Washoe County economy due to marijuana regulation (see Figure III-9).
- ✦ RCG calculated that the industry supported approximately 1,100 direct FTE jobs in Washoe County in 2018. This estimate does not factor in indirect and induced jobs.
- ✦ In 2018, the Industry generated approximately \$31.2 million in direct labor income.

#### **INDIRECT AND INDUCED BENEFITS**

- ✦ In 2018, an estimated \$64.8 million of indirect and induced output activity was generated in the Washoe County economy.
- ✦ In 2018, the Industry supported 400 indirect and induced FTE jobs in Washoe County.
- ✦ In 2018, the Industry generated approximately \$18.3 million in indirect and induced labor income.

#### **TOTAL BENEFITS**

“Total economic benefits” are the sum of direct, indirect and induced benefits.

- ✦ In 2018, an estimated \$157.5 million of total output activity was generated for the Washoe County economy by marijuana regulation.
- ✦ In 2018, the Industry supported about 1,500 FTE jobs in Washoe County.
- ✦ In 2018, the Industry generated approximately \$49.5 million in direct, indirect and induced labor income.

#### ***Multipliers***

Table III-4 illustrates the output, employment and labor income multipliers associated with the Industry in Washoe County. This table shows that for every dollar “directly” spent on retail marijuana, an additional \$0.70 of output/spending is generated (sum of indirect and induced benefits) in the Washoe County economy.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table III-1: Total Nevada Marijuana Industry Economic Benefits: 2018 – 2024**

Impact Type	Spending/Output	Employment* (Person-Years)	Labor Income
Direct Benefit	\$5,735,659,000	65,800	\$1,899,855,000
Indirect Benefit	\$2,318,537,000	15,900	\$703,036,000
Induced Benefit	\$1,951,880,000	10,700	\$571,305,000
<b>Total Benefits</b>	<b>\$10,006,076,000</b>	<b>92,400</b>	<b>\$3,174,196,000</b>
<b>Multipliers</b>	<b>1.74</b>	<b>1.40</b>	<b>1.67</b>

\*Note: Employment over study period is measured in person-years.

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table III-2: Total Nevada Marijuana Industry Economic Benefits: 2024**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$923,544,000	10,500	\$305,173,000
Indirect Benefit	\$371,917,000	2,500	\$112,797,000
Induced Benefit	\$313,450,000	1,700	\$91,745,000
<b>Total Benefits</b>	<b>\$1,608,911,000</b>	<b>14,800</b>	<b>\$509,715,000</b>
<b>Multipliers</b>	<b>1.74</b>	<b>1.41</b>	<b>1.67</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table III-3: Total Nevada Marijuana Industry Economic Benefits: 2018**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$597,613,000	6,900	\$199,338,000
Indirect Benefit	\$243,657,000	1,700	\$73,865,000
Induced Benefit	\$204,857,000	1,100	\$59,961,000
<b>Total Benefits</b>	<b>\$1,046,127,000</b>	<b>9,700</b>	<b>\$333,163,000</b>
<b>Multipliers</b>	<b>1.75</b>	<b>1.40</b>	<b>1.67</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table III-4: Regional Marijuana Industry Economic Multipliers: 2018 – 2024**

Multiplier	Spending/Output	Employment	Labor Income
Nevada	<b>1.74</b>	<b>1.40</b>	<b>1.67</b>
Clark County	<b>1.72</b>	<b>1.34</b>	<b>1.63</b>
Washoe County	<b>1.70</b>	<b>1.33</b>	<b>1.59</b>

Sources: RCG Economics, IMPLAN

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table III-5: Total Clark County Marijuana Industry Economic Benefits: 2018 – 2024**

Impact Type	Spending/Output	Employment* (Person-Years)	Labor Income
Direct Benefit	\$4,876,266,000	56,900	\$1,602,134,000
Indirect Benefit	\$1,850,623,000	10,600	\$519,459,000
Induced Benefit	\$1,642,772,000	9,000	\$483,001,000
<b>Total Benefits</b>	<b>\$8,369,661,000</b>	<b>76,500</b>	<b>\$2,604,594,000</b>
<b>Multipliers</b>	<b>1.72</b>	<b>1.34</b>	<b>1.63</b>

\*Note: Employment over study period is measured in person-years.

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table III-6: Total Clark County Marijuana Industry Economic Benefits: 2024**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$784,686,000	9,100	\$257,250,000
Indirect Benefit	\$296,882,000	1,700	\$83,402,000
Induced Benefit	\$263,789,000	1,500	\$77,558,000
<b>Total Benefits</b>	<b>\$1,345,357,000</b>	<b>12,300</b>	<b>\$418,211,000</b>
<b>Multipliers</b>	<b>1.71</b>	<b>1.35</b>	<b>1.63</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table III-7: Total Clark County Marijuana Industry Economic Benefits: 2018**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$508,549,000	6,000	\$168,176,000
Indirect Benefit	\$194,466,000	1,100	\$54,532,000
Induced Benefit	\$172,431,000	900	\$50,698,000
<b>Total Benefits</b>	<b>\$875,446,000</b>	<b>8,100</b>	<b>\$273,406,000</b>
<b>Multipliers</b>	<b>1.72</b>	<b>1.35</b>	<b>1.63</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table III-8: Total Washoe County Marijuana Industry Economic Benefits: 2018 – 2024**

Impact Type	Spending/Output	Employment* (Person-Years)	Labor Income
Direct Benefit	\$967,630,000	11,400	\$325,866,000
Indirect Benefit	\$380,164,000	2,200	\$102,640,000
Induced Benefit	\$295,985,000	1,600	\$88,041,000
<b>Total Benefits</b>	<b>\$1,643,779,000</b>	<b>15,200</b>	<b>\$516,547,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.33</b>	<b>1.59</b>

\*Note: Employment over study period is measured in person-years.

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table III-9: Total Washoe County Marijuana Industry Economic Benefits: 2024**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$164,402,000	1,900	\$55,478,000
Indirect Benefit	\$64,671,000	400	\$17,481,000
Induced Benefit	\$50,399,000	300	\$14,991,000
<b>Total Benefits</b>	<b>\$279,472,000</b>	<b>2,600</b>	<b>\$87,951,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.37</b>	<b>1.59</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

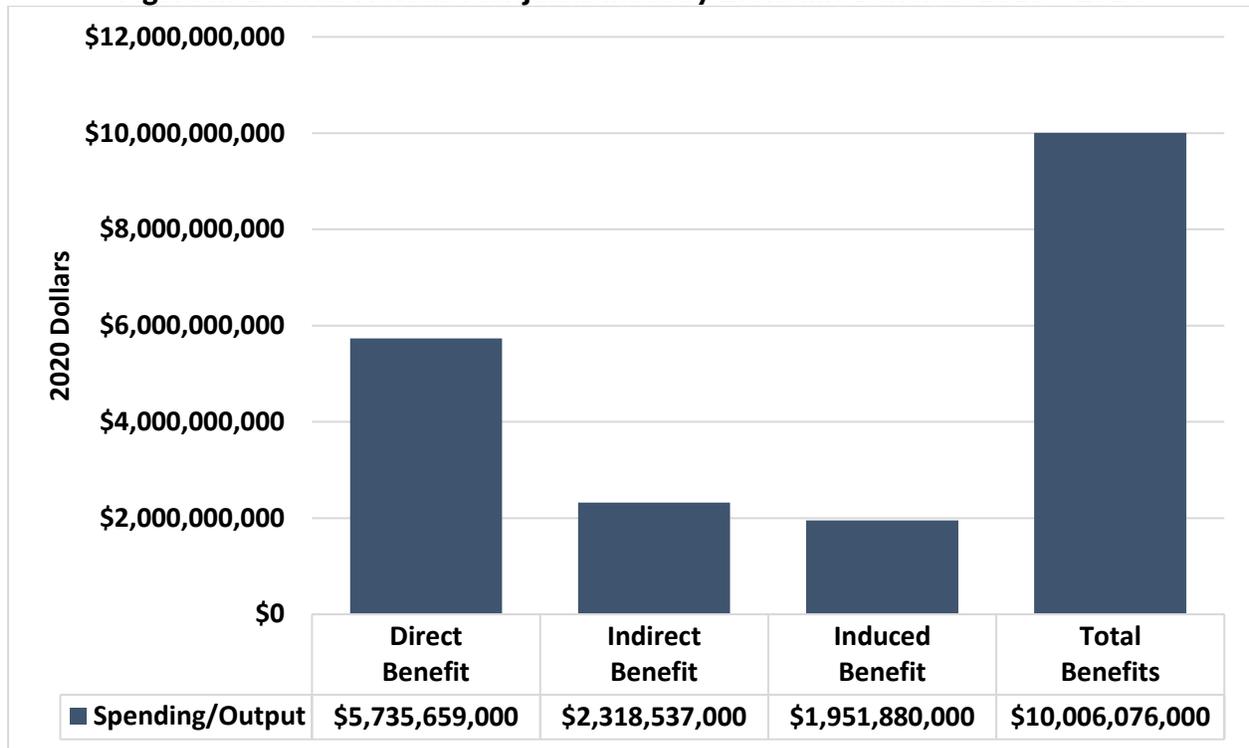
**Table III-10: Total Washoe County Marijuana Industry Economic Benefits: 2018**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$92,694,000	1,100	\$31,216,000
Indirect Benefit	\$36,454,000	200	\$9,827,000
Induced Benefit	\$28,348,000	200	\$8,432,000
<b>Total Benefits</b>	<b>\$157,496,000</b>	<b>1,500</b>	<b>\$49,475,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.36</b>	<b>1.58</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

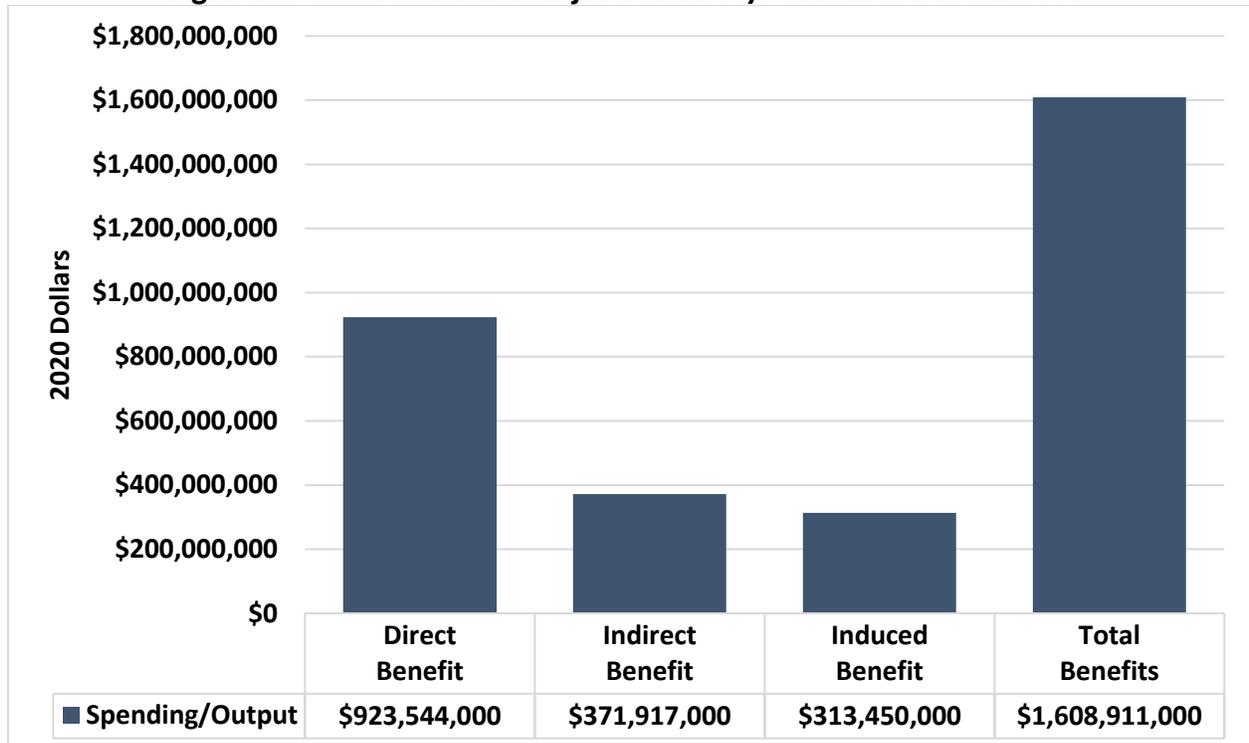
## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Figure III-1: Total Nevada Marijuana Industry Economic Benefits: 2018 - 2024**



Sources: RCG Economics, IMPLAN

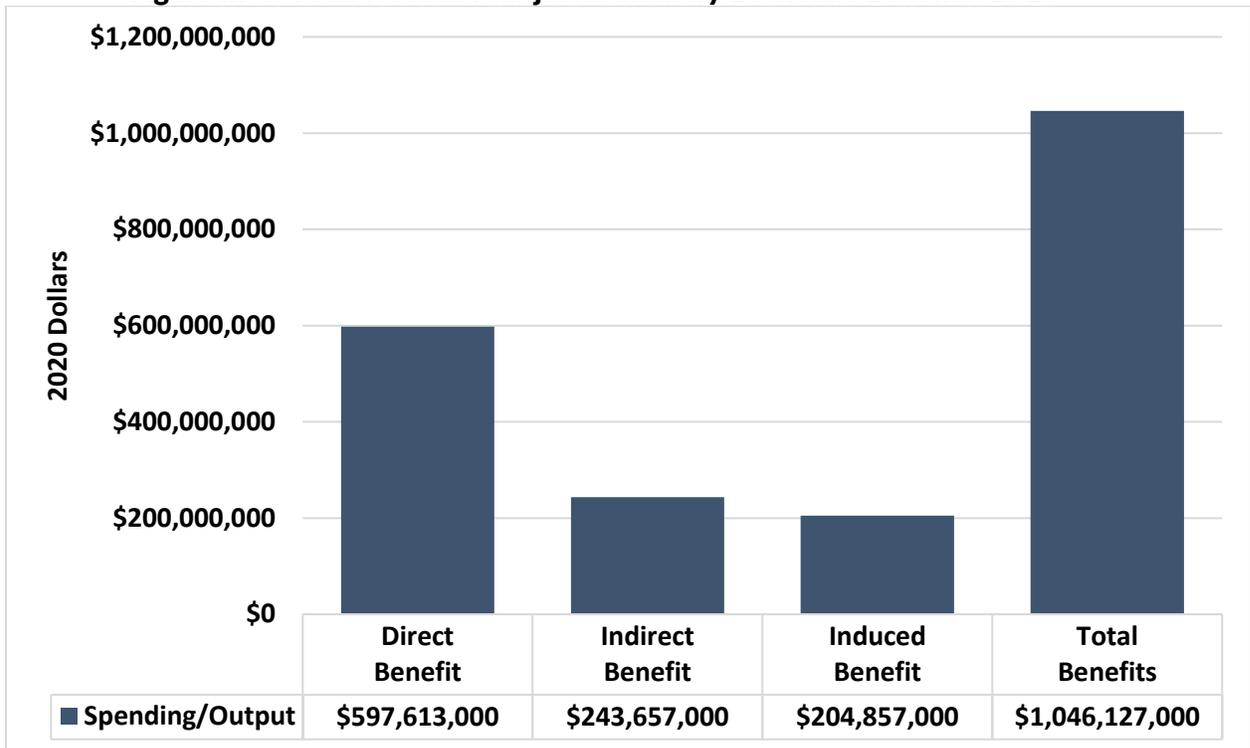
**Figure III-2: Total Nevada Marijuana Industry Economic Benefits: 2024**



Sources: RCG Economics, IMPLAN

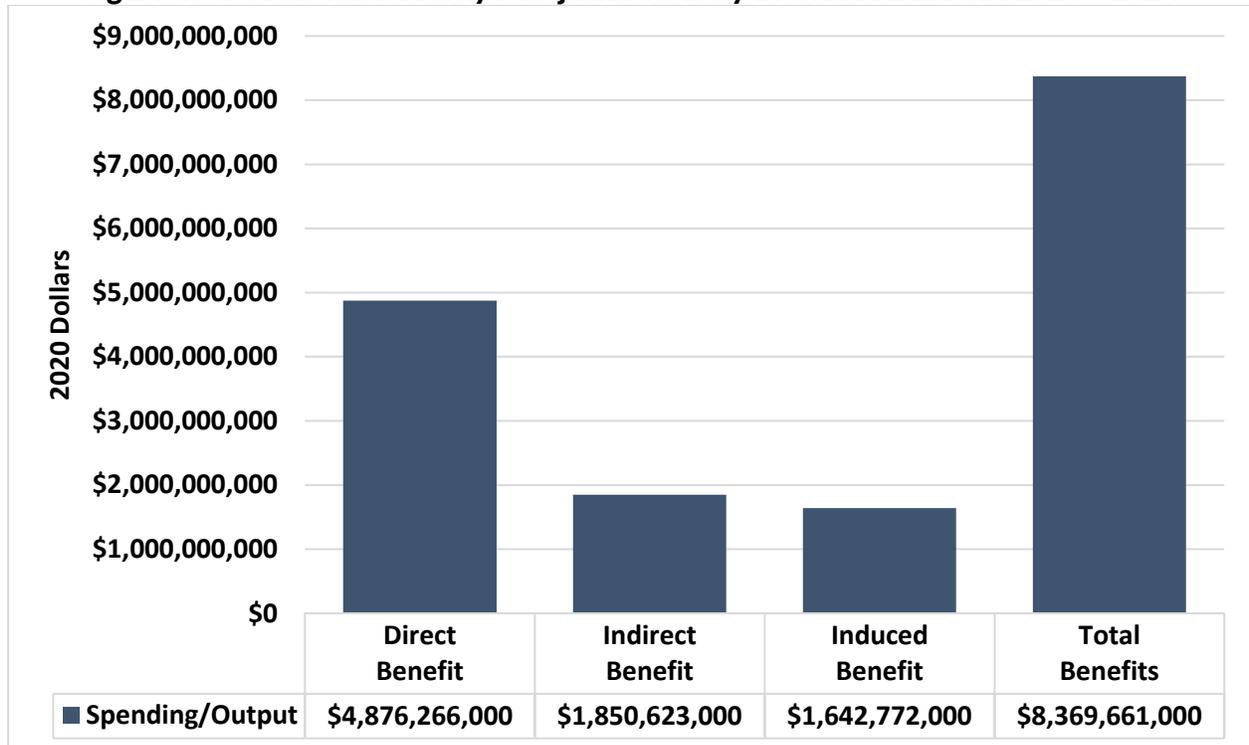
## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Figure III-3: Total Nevada Marijuana Industry Economic Benefits: 2018**



Sources: RCG Economics, IMPLAN

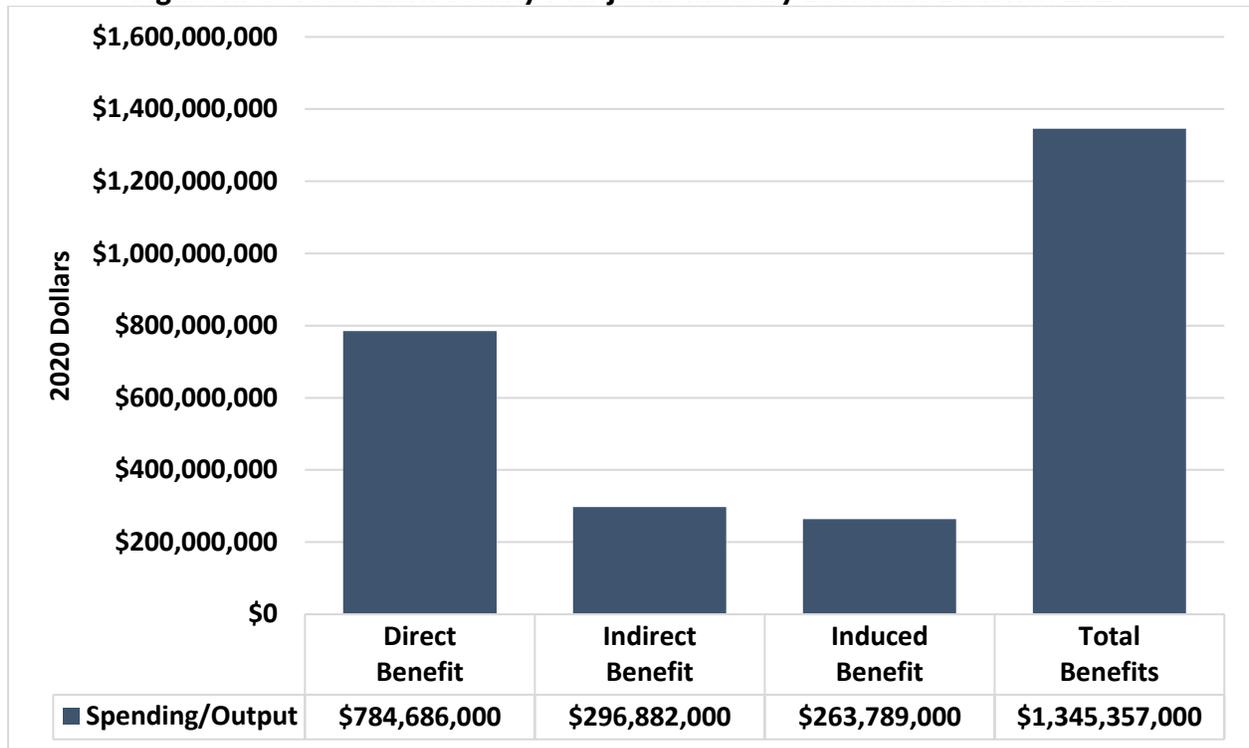
**Figure III-4: Total Clark County Marijuana Industry Economic Benefits: 2018 - 2024**



Sources: RCG Economics, IMPLAN

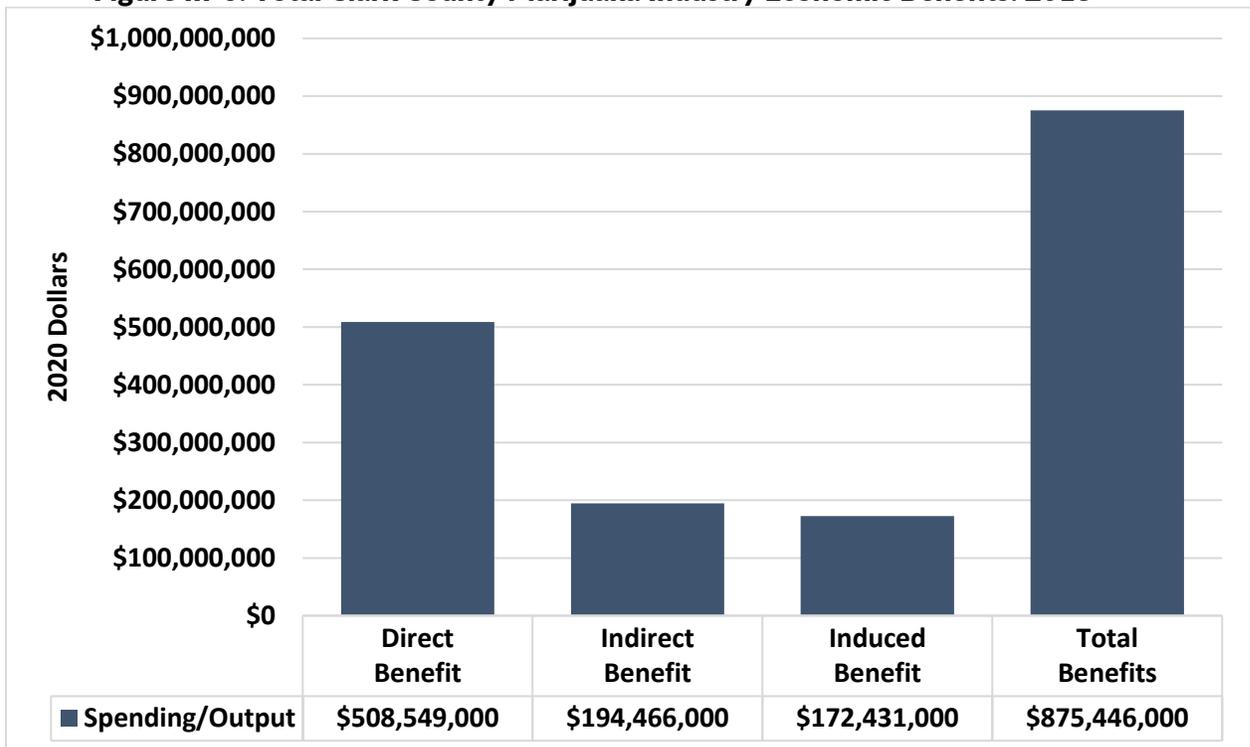
## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Figure III-5: Total Clark County Marijuana Industry Economic Benefits: 2024**



Sources: RCG Economics, IMPLAN

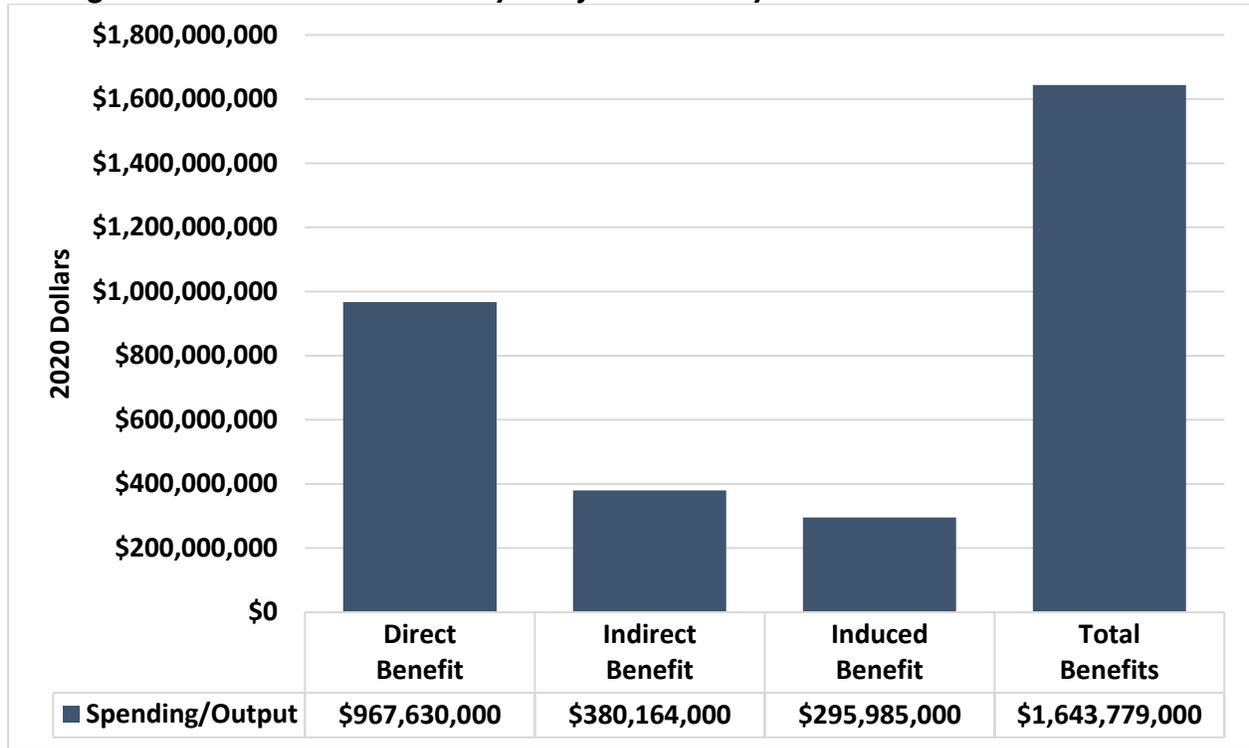
**Figure III-6: Total Clark County Marijuana Industry Economic Benefits: 2018**



Sources: RCG Economics, IMPLAN

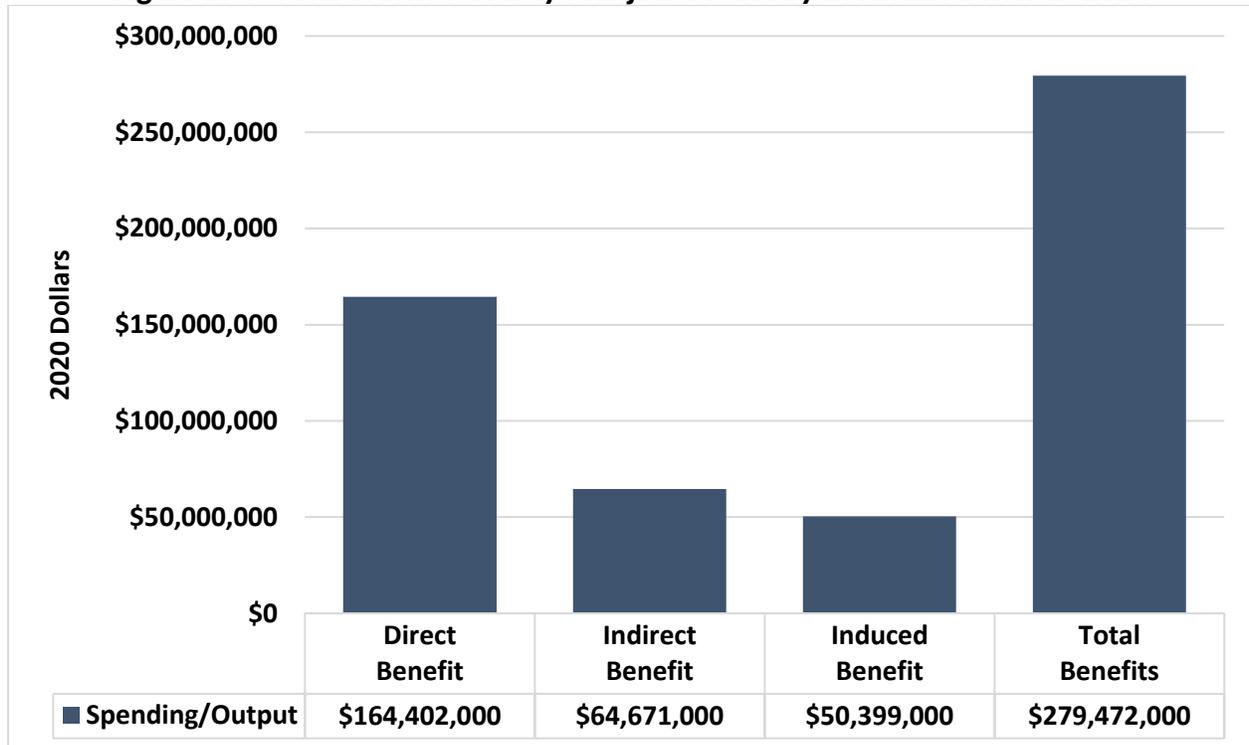
## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Figure III-7: Total Washoe County Marijuana Industry Economic Benefits: 2018 - 2024**



Sources: RCG Economics, IMPLAN

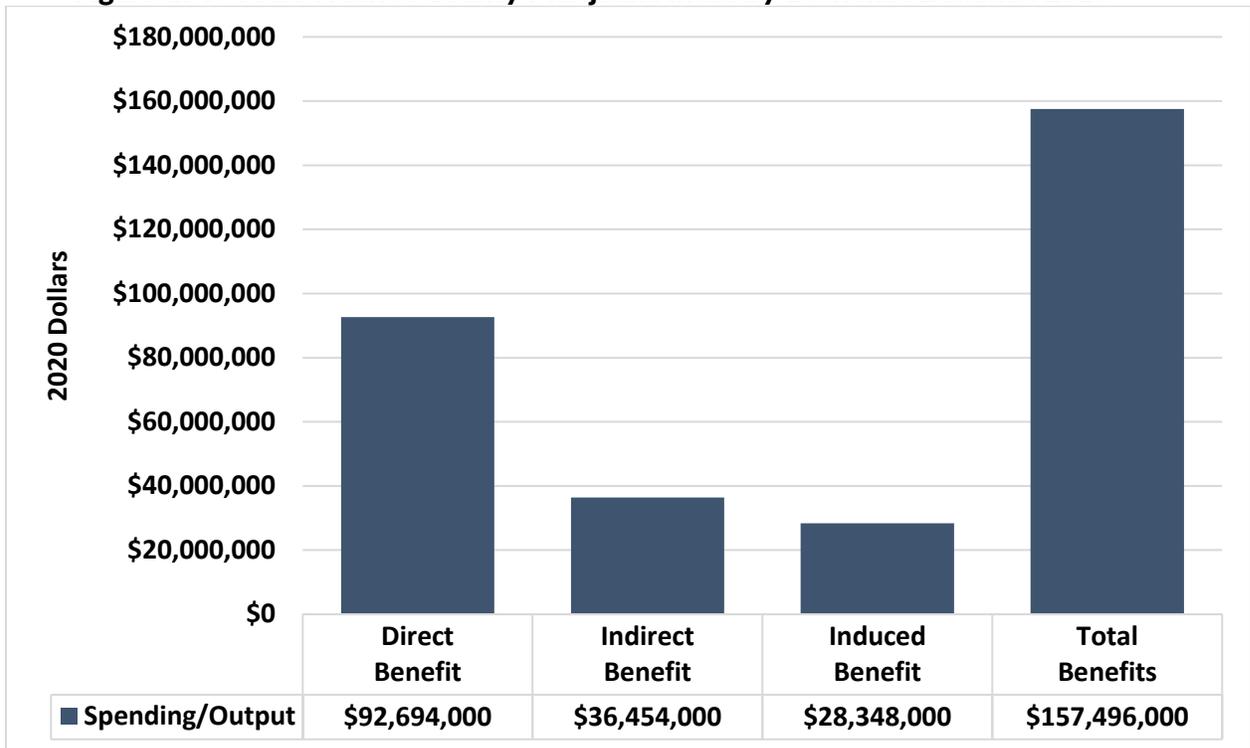
**Figure III-8: Total Washoe County Marijuana Industry Economic Benefits: 2024**



Sources: RCG Economics, IMPLAN

**2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS**

**Figure III-9: Total Washoe County Marijuana Industry Economic Benefits: 2018**



Sources: RCG Economics, IMPLAN

### IV. FISCAL BENEFITS ANALYSIS (“FBA”)

#### A. OVERVIEW

The Industry is producing economic activity in Nevada, which will fiscally benefit state and local governments. This FBA presents estimates of tax revenues potentially generated by the Industry for the seven-year period from 2018 – 2024 (see Table IV-1). Table IV-2 shows total tax revenues by year based on the taxes tabulated. The FBA does not estimate the public service or other costs associated with the Industry (e.g., public safety, health and human services, schools, parks, transportation and utilities). All fiscal benefits are in nominal dollars, i.e., not inflation adjusted.

These tax revenues discussed in this section will be produced via the following streams:

- # Retail sales and use tax revenue from the sale of marijuana.
- # Excise tax revenues from the wholesale of marijuana.
- # Excise tax revenues from the retail sale of marijuana.
- # Business license fees paid by retailers (not including cultivators or manufacturers). We did not include one-time application fees.

Excise tax revenues are discussed only at the state-level because both the wholesale and retail excise taxes benefit the state budget directly only, not sub-state budgets. Sales & Use taxes and business license fees are discussed and presented at the state level as well; however, we include estimates for the county options as a whole. License fees are discussed for the state, Clark County and Washoe County, as nearly all license fees will benefit agencies at the jurisdictional level.

RCG found that the Industry could potentially produce \$1.4 billion in fiscal benefits to the State and its local jurisdictions over the study period among the four tax streams discussed. In the 2018 Study, RCG included the Modified Business Tax and the Commerce Tax. In this version, we do not. However, those taxes together accounted for less than two percent of the total fiscal benefits in that study and would be expected to make up a similarly small share moving forward. Additionally, today’s tax structure has changed relative to two years ago. Local sales and use tax rates have risen in both Clark and Washoe Counties in the last two years, increasing the associated estimates for the sales and use revenues as well. That said, the differences are small enough that a comparison between the 2018 and current studies would be meaningful (see Figure IV-1 and Table IV-3).

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

### B. RETAIL SALES & USE TAX ESTIMATE

In Nevada, retail sales are subject to a combined minimum tax rate of 6.85 percent plus various county option taxes. Not all counties have chosen to enact a county option sales and use tax. The revenues generated from the combined minimum tax fund the State General Fund, school funds and city/county relief funds. This FBA does not estimate the total amount of tax revenue redistributed back to each county. The sales and use tax analysis herein is focused on revenue generated by the components of the minimum tax rate and the aggregated county option taxes at the state level (see Table IV-4).

RCG calculated the sales and use tax benefits based on the taxable retail sales reported by Taxation and projected by RCG as described above. Based on these annual sales, we applied a share to each county based on its share of marijuana sales in the state. RCG then applied each county's tax rate to its sales to calculate the revenue produced in each county by retail marijuana sales. This method weights the sales and use revenues by each county's tax rates.

The total estimated retail sales and use tax revenues generated in Nevada by the Industry are projected to be \$440 million during the study period. Of that total, the estimated county option sales and use tax revenue generated by Nevada's counties is \$77.8 million (see Table IV-5).

Additionally, Table IV-6 presents annual sales and use tax revenues. RCG estimated revenues of \$44.1 million generated by the marijuana industry in 2018, increasing to \$73.4 million in 2024.

### C. WHOLESALE & RETAIL EXCISE TAX ESTIMATE

A 15-percent excise tax is applied to the sale of marijuana by cultivation facilities in the State. The tax is projected to generate \$354.9 million over the seven-year study period. An additional 10 percent excise tax is applied to the sale of marijuana by a dispensary in the State. The tax for this excise tax is projected to generate \$453.4 million during the study period. Altogether, the two excise taxes are projected to generate a total of \$808.3 million dollars over seven years (see Table IV-7).

These figures are based on Taxation statistics over FY2018 and FY2019. The subsequent years' values were calculated based on the same growth rates as used for taxable retail sales in the *Economic Benefits Analysis*.

### D. BUSINESS LICENSING FEES

There are two types of licensing fees that the marijuana industry pays at the local level: application fees and licensing fees. The application fees are one-time fees that the State and municipalities require to establish a marijuana business. The licensing fees are generally a recurring fee on revenues that allow these firms to continue operating within local jurisdictions. In this Study, we focus on the latter type. The application fees are relatively small, and as one-time fees, do not accumulate over time. The licensing fees, however, are substantial.

The State allows municipal governments to tax marijuana firms at up to three percent of their total sales. Local governments, in the meantime, have developed ordinances to take advantage of this ability. From our research, RCG found that municipalities are generally taxing sales on cultivators, manufacturers and retailers, at the maximum allowable rate of three percent set by the State. This three percent tax rate only entered implementation after roughly a year of the marijuana market's operation. Therefore, RCG assumed no revenues from these fees in FY2018. Additionally, because these fees are collected at the jurisdictional level and have varying reporting requirements—as of writing, generally, none—our estimates are based on calculations derived from Taxation taxable sales data.

RCG estimates that during the seven-year study period, the Industry will generate \$142.8 million in Nevada business license fees to various jurisdictions (see Table IV-8). Clark County jurisdictions are expected to generate \$114.7 million of that total, while Washoe County jurisdictions are set to receive \$21 million. The remaining \$7.1 million will be collected by various other jurisdictions throughout Nevada (see Table IV-9).

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table IV-1: Nevada Total Marijuana Industry Fiscal Benefits, by Tax: 2018 – 2024**

Tax	Revenue
Sales and Use Tax	\$440,009,000
Wholesale Excise Tax	\$354,904,000
Retail Excise Tax	\$453,403,000
License Fees	\$142,750,000
<b>Total Fiscal Benefits</b>	<b>\$1,391,065,000</b>

*Note: Numbers may not sum exactly due to rounding*

*Sources: RCG Economics, Department of Taxation*

**Table IV-2: Nevada Total Marijuana Industry Fiscal Benefits, by Year: 2018 – 2024**

Fiscal Year	Revenue
2018	\$113,846,000
2019	\$171,527,000
2020	\$200,686,000
2021	\$214,735,000
2022	\$223,324,000
2023	\$230,023,000
2024	\$236,924,000
<b>Total Fiscal Benefits</b>	<b>\$1,391,065,000</b>

*Note: Numbers may not sum exactly due to rounding*

*Sources: RCG Economics, Department of Taxation*

**Table IV-3: Nevada 2018 vs. 2020 Studies Tax Revenue Comparison, by Tax: 2018 – 2024**

Taxes & Fees	Difference (\$)	Difference (%)
Sales and Use Tax	+\$90,574,000	+25.9%
Wholesale Excise Tax	+\$142,644,000	+67.2%
Retail Excise Tax	+\$117,171,000	+34.8%
License Fees	+\$30,777,000	+27.5%
<b>Total</b>	<b>+\$381,166,000</b>	<b>+37.7%</b>

*Note: Figures show relative increase in 2020 estimates vs 2018 estimates.*

*Numbers may not sum exactly due to rounding.*

*Sources: RCG Economics, Department of Taxation*

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table IV-4: Applicable Sales & Use Tax Rates: 2020**

Description	Tax Rate
<b>Minimum Statewide Tax Rate</b>	
State Sales and Use Tax	2.00%
Local School Support Tax	2.60%
Basic City-County Relief Tax (city governments)	0.50%
Supplemental City-County Relief Tax (city governments)	1.75%
<b>Option Taxes</b>	
County Option Sales Taxes	0.0%-1.525%
<b>Combined Sales &amp; Use Tax</b>	<b>6.85% - 8.375%</b>

Source: Department of Taxation

**Table IV-5: Nevada Sales & Use Tax Revenue, by Tax: 2018 – 2024**

Tax	Sales & Use
State Sales and Use Tax	\$105,765,000
Local School Support Tax	\$137,494,000
Basic City-County Relief Tax	\$26,441,000
Supplemental City-County Relief Tax	\$92,544,000
County Option Sales Taxes	\$77,765,000
<b>Total Sales and Use Tax Revenue – 7 Years</b>	<b>\$440,009,000</b>

Numbers may not sum exactly due to rounding

Sources: RCG Economics, NV Department of Taxation

**Table IV-6: Nevada Sales & Use Tax Revenue, by Year: 2018 – 2024**

FY	Sales & Use
2018	\$44,086,000
2019	\$53,171,000
2020	\$62,210,000
2021	\$66,565,000
2022	\$69,228,000
2023	\$71,304,000
2024	\$73,444,000
<b>Total</b>	<b>\$440,009,000</b>

Numbers may not sum exactly due to rounding

Sources: RCG Economics, NV Department of Taxation

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table IV-7: Nevada Wholesale & Retail Excise Tax Revenue, by Year: 2018 – 2024**

FY	Wholesale Excise	Retail Excise	Total Excise
2018	\$27,271,000	\$42,489,000	\$69,760,000
2019	\$44,000,000	\$55,185,000	\$99,185,000
2020	\$51,480,000	\$64,566,000	\$116,046,000
2021	\$55,084,000	\$69,086,000	\$124,170,000
2022	\$57,287,000	\$71,849,000	\$129,136,000
2023	\$59,006,000	\$74,004,000	\$133,010,000
2024	\$60,776,000	\$76,224,000	\$137,000,000
<b>Total</b>	<b>\$354,904,000</b>	<b>\$453,403,000</b>	<b>\$808,307,000</b>

Note: Numbers may not sum exactly due to rounding  
Sources: RCG Economics, Department of Taxation

**Table IV-8: Nevada Licensing Fee Revenues, by Year: 2018 – 2024**

FY	Nevada
2018	\$0
2019	\$19,171,000
2020	\$22,430,000
2021	\$24,000,000
2022	\$24,960,000
2023	\$25,709,000
2024	\$26,480,000
<b>Total</b>	<b>\$142,750,000</b>

Note: Numbers may not sum exactly due to rounding  
Sources: RCG Economics, Department of Taxation

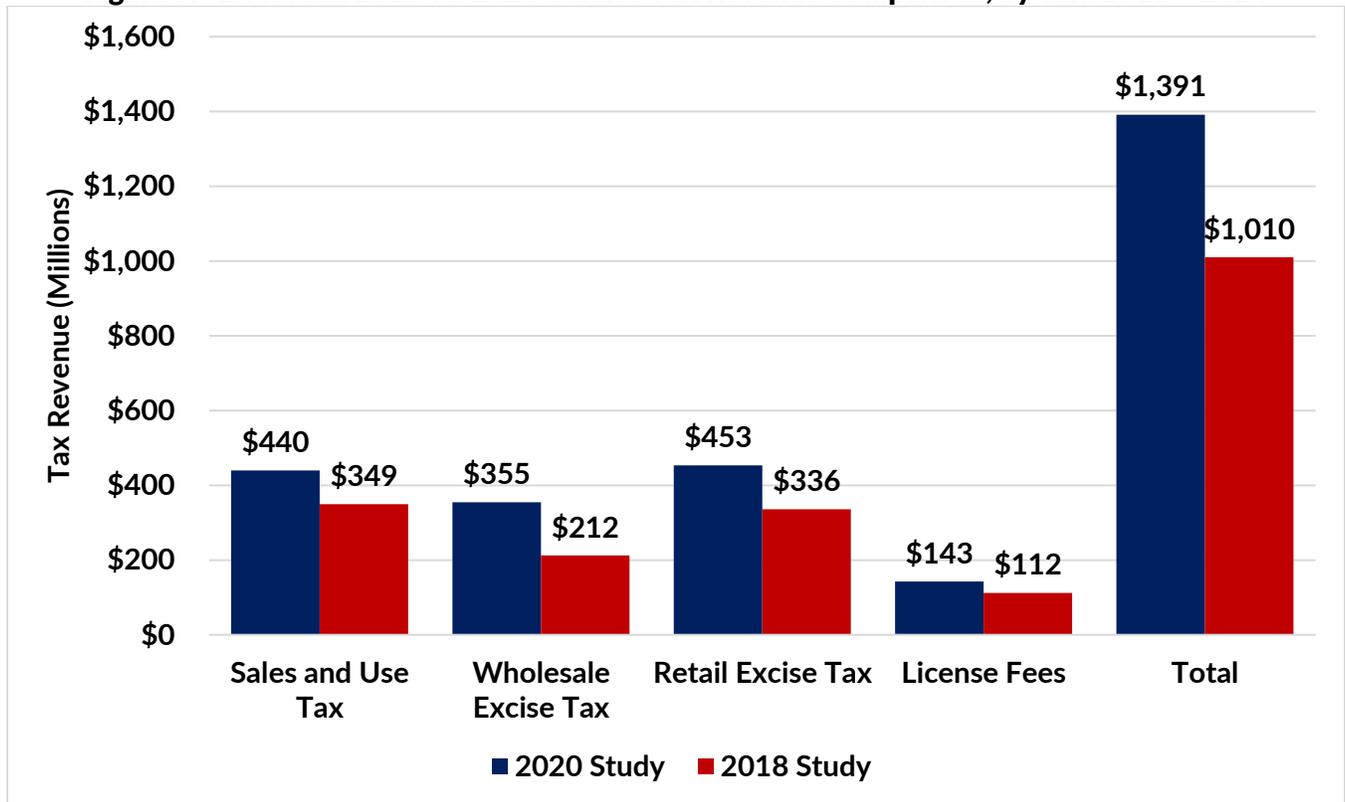
**Table IV-9: Sub-State Licensing Fee Revenues, by Year: 2018 – 2024**

FY	Clark	Washoe	Balance of State
2018	\$0	\$0	\$0
2019	\$15,400,000	\$2,817,000	\$954,000
2020	\$18,018,000	\$3,296,000	\$1,116,000
2021	\$19,279,000	\$3,526,000	\$1,195,000
2022	\$20,051,000	\$3,668,000	\$1,241,000
2023	\$20,652,000	\$3,778,000	\$1,279,000
2024	\$21,272,000	\$3,891,000	\$1,317,000
<b>Total</b>	<b>\$114,672,000</b>	<b>\$20,976,000</b>	<b>\$7,102,000</b>

Note: Numbers may not sum exactly due to rounding  
Sources: RCG Economics, Department of Taxation

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

Figure IV-1: Nevada 2018 vs. 2020 Studies Tax Revenue Comparison, by Tax: 2018 - 2024



Note: Numbers may not sum exactly due to rounding  
Sources: RCG Economics, Department of Taxation

**APPENDIX: ECONOMIC BENEFITS ANALYSIS TABLES**

This section presents the year-by-year results of RCG’s EBA for Nevada, Clark County and Washoe County. These tables show the EBA tables for each year in the study period (2018 - 2024), as well as the total results over that period.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table A-1: Total Nevada Marijuana Industry Economic Benefits: 2018 – 2024**

Impact Type	Spending/Output	Employment* (Person-Years)	Labor Income
Direct Benefit	\$5,735,659,000	65,800	\$1,899,855,000
Indirect Benefit	\$2,318,537,000	15,900	\$703,036,000
Induced Benefit	\$1,951,880,000	10,700	\$571,305,000
<b>Total Benefits</b>	<b>\$10,006,076,000</b>	<b>92,400</b>	<b>\$3,174,196,000</b>
<b>Multipliers</b>	<b>1.74</b>	<b>1.40</b>	<b>1.67</b>

\*Note: Employment over study period is measured in person-years.

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-2: Total Nevada Marijuana Industry Economic Benefits: 2018**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$597,613,000	6,900	\$199,338,000
Indirect Benefit	\$243,657,000	1,700	\$73,865,000
Induced Benefit	\$204,857,000	1,100	\$59,961,000
<b>Total Benefits</b>	<b>\$1,046,127,000</b>	<b>9,700</b>	<b>\$333,163,000</b>
<b>Multipliers</b>	<b>1.75</b>	<b>1.40</b>	<b>1.67</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-3: Total Nevada Marijuana Industry Economic Benefits: 2019**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$714,991,000	8,200	\$237,045,000
Indirect Benefit	\$289,606,000	2,000	\$87,801,000
Induced Benefit	\$243,587,000	1,300	\$71,297,000
<b>Total Benefits</b>	<b>\$1,248,183,000</b>	<b>11,600</b>	<b>\$396,142,000</b>
<b>Multipliers</b>	<b>1.75</b>	<b>1.41</b>	<b>1.67</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-4: Total Nevada Marijuana Industry Economic Benefits: 2020**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$825,351,000	9,500	\$273,460,000
Indirect Benefit	\$333,929,000	2,300	\$101,246,000
Induced Benefit	\$280,980,000	1,500	\$82,241,000
<b>Total Benefits</b>	<b>\$1,440,261,000</b>	<b>13,300</b>	<b>\$456,947,000</b>
<b>Multipliers</b>	<b>1.75</b>	<b>1.40</b>	<b>1.67</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table A-5: Total Nevada Marijuana Industry Economic Benefits: 2021**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$871,339,000	10,000	\$288,509,000
Indirect Benefit	\$352,132,000	2,400	\$106,773,000
Induced Benefit	\$296,416,000	1,600	\$86,759,000
<b>Total Benefits</b>	<b>\$1,519,887,000</b>	<b>14,000</b>	<b>\$482,041,000</b>
<b>Multipliers</b>	<b>1.74</b>	<b>1.40</b>	<b>1.67</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-6: Total Nevada Marijuana Industry Economic Benefits: 2022**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$894,121,000	10,200	\$295,856,000
Indirect Benefit	\$360,920,000	2,500	\$109,446,000
Induced Benefit	\$303,936,000	1,700	\$88,961,000
<b>Total Benefits</b>	<b>\$1,558,977,000</b>	<b>14,400</b>	<b>\$494,262,000</b>
<b>Multipliers</b>	<b>1.74</b>	<b>1.41</b>	<b>1.67</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-7: Total Nevada Marijuana Industry Economic Benefits: 2023**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$908,701,000	10,400	\$300,476,000
Indirect Benefit	\$366,375,000	2,500	\$111,108,000
Induced Benefit	\$308,654,000	1,700	\$90,342,000
<b>Total Benefits</b>	<b>\$1,583,731,000</b>	<b>14,600</b>	<b>\$501,926,000</b>
<b>Multipliers</b>	<b>1.74</b>	<b>1.40</b>	<b>1.67</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-8: Total Nevada Marijuana Industry Economic Benefits: 2024**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$923,544,000	10,500	\$305,173,000
Indirect Benefit	\$371,917,000	2,500	\$112,797,000
Induced Benefit	\$313,450,000	1,700	\$91,745,000
<b>Total Benefits</b>	<b>\$1,608,911,000</b>	<b>14,800</b>	<b>\$509,715,000</b>
<b>Multipliers</b>	<b>1.74</b>	<b>1.41</b>	<b>1.67</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table A-9: Total Clark County Marijuana Industry Economic Benefits: 2018 – 2024**

Impact Type	Spending/Output	Employment* (Person-Years)	Labor Income
Direct Benefit	\$4,876,266,000	56,900	\$1,602,134,000
Indirect Benefit	\$1,850,623,000	10,600	\$519,459,000
Induced Benefit	\$1,642,772,000	9,000	\$483,001,000
<b>Total Benefits</b>	<b>\$8,369,661,000</b>	<b>76,500</b>	<b>\$2,604,594,000</b>
<b>Multipliers</b>	<b>1.72</b>	<b>1.34</b>	<b>1.63</b>

\*Note: Employment over study period is measured in person-years.

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-10: Total Clark County Marijuana Industry Economic Benefits: 2018**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$508,549,000	6,000	\$168,176,000
Indirect Benefit	\$194,466,000	1,100	\$54,532,000
Induced Benefit	\$172,431,000	900	\$50,698,000
<b>Total Benefits</b>	<b>\$875,446,000</b>	<b>8,100</b>	<b>\$273,406,000</b>
<b>Multipliers</b>	<b>1.72</b>	<b>1.35</b>	<b>1.63</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-11: Total Clark County Marijuana Industry Economic Benefits: 2019**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$608,131,000	7,100	\$199,961,000
Indirect Benefit	\$231,144,000	1,300	\$64,837,000
Induced Benefit	\$205,025,000	1,100	\$60,280,000
<b>Total Benefits</b>	<b>\$1,044,300,000</b>	<b>9,600</b>	<b>\$325,079,000</b>
<b>Multipliers</b>	<b>1.72</b>	<b>1.35</b>	<b>1.63</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-12: Total Clark County Marijuana Industry Economic Benefits: 2020**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$701,851,000	8,200	\$230,647,000
Indirect Benefit	\$266,528,000	1,500	\$74,785,000
Induced Benefit	\$236,492,000	1,300	\$69,532,000
<b>Total Benefits</b>	<b>\$1,204,871,000</b>	<b>11,000</b>	<b>\$374,964,000</b>
<b>Multipliers</b>	<b>1.72</b>	<b>1.34</b>	<b>1.63</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table A-13: Total Clark County Marijuana Industry Economic Benefits: 2021**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$740,801,000	8,600	\$243,306,000
Indirect Benefit	\$281,065,000	1,600	\$78,887,000
Induced Benefit	\$249,476,000	1,400	\$73,350,000
<b>Total Benefits</b>	<b>\$1,271,342,000</b>	<b>11,600</b>	<b>\$395,543,000</b>
<b>Multipliers</b>	<b>1.72</b>	<b>1.35</b>	<b>1.63</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-14: Total Clark County Marijuana Industry Economic Benefits: 2022**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$760,009,000	8,800	\$249,467,000
Indirect Benefit	\$288,088,000	1,700	\$80,883,000
Induced Benefit	\$255,798,000	1,400	\$75,209,000
<b>Total Benefits</b>	<b>\$1,303,895,000</b>	<b>11,900</b>	<b>\$405,558,000</b>
<b>Multipliers</b>	<b>1.72</b>	<b>1.35</b>	<b>1.63</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-15: Total Clark County Marijuana Industry Economic Benefits: 2023**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$772,239,000	9,000	\$253,327,000
Indirect Benefit	\$292,450,000	1,700	\$82,132,000
Induced Benefit	\$259,761,000	1,400	\$76,374,000
<b>Total Benefits</b>	<b>\$1,324,450,000</b>	<b>12,100</b>	<b>\$411,833,000</b>
<b>Multipliers</b>	<b>1.72</b>	<b>1.34</b>	<b>1.63</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-16: Total Clark County Marijuana Industry Economic Benefits: 2024**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$784,686,000	9,100	\$257,250,000
Indirect Benefit	\$296,882,000	1,700	\$83,402,000
Induced Benefit	\$263,789,000	1,500	\$77,558,000
<b>Total Benefits</b>	<b>\$1,345,357,000</b>	<b>12,300</b>	<b>\$418,211,000</b>
<b>Multipliers</b>	<b>1.71</b>	<b>1.35</b>	<b>1.63</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table A-17: Total Washoe County Marijuana Industry Economic Benefits: 2018 – 2024**

Impact Type	Spending/Output	Employment* (Person-Years)	Labor Income
Direct Benefit	\$967,630,000	11,400	\$325,866,000
Indirect Benefit	\$380,164,000	2,200	\$102,640,000
Induced Benefit	\$295,985,000	1,600	\$88,041,000
<b>Total Benefits</b>	<b>\$1,643,779,000</b>	<b>15,200</b>	<b>\$516,547,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.33</b>	<b>1.59</b>

\*Note: Employment over study period is measured in person-years.

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-18: Total Washoe County Marijuana Industry Economic Benefits: 2018**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$92,694,000	1,100	\$31,216,000
Indirect Benefit	\$36,454,000	210	\$9,827,000
Induced Benefit	\$28,348,000	150	\$8,432,000
<b>Total Benefits</b>	<b>\$157,496,000</b>	<b>1,470</b>	<b>\$49,475,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.34</b>	<b>1.58</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-19: Total Washoe County Marijuana Industry Economic Benefits: 2019**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$110,835,000	1,310	\$37,114,000
Indirect Benefit	\$43,329,000	250	\$11,686,000
Induced Benefit	\$33,706,000	180	\$10,026,000
<b>Total Benefits</b>	<b>\$187,869,000</b>	<b>1,740</b>	<b>\$58,826,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.33</b>	<b>1.59</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-20: Total Washoe County Marijuana Industry Economic Benefits: 2020**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$136,528,000	1,620	\$45,918,000
Indirect Benefit	\$53,590,000	310	\$14,460,000
Induced Benefit	\$41,704,000	230	\$12,405,000
<b>Total Benefits</b>	<b>\$231,821,000</b>	<b>2,160</b>	<b>\$72,782,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.33</b>	<b>1.59</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

## 2020 MARIJUANA ECONOMIC & FISCAL BENEFITS ANALYSIS

**Table A-21: Total Washoe County Marijuana Industry Economic Benefits: 2021**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$148,479,000	1,760	\$50,020,000
Indirect Benefit	\$58,361,000	340	\$15,754,000
Induced Benefit	\$45,432,000	250	\$13,514,000
<b>Total Benefits</b>	<b>\$252,272,000</b>	<b>2,350</b>	<b>\$79,288,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.34</b>	<b>1.59</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-22: Total Washoe County Marijuana Industry Economic Benefits: 2022**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$155,040,000	1,830	\$52,271,000
Indirect Benefit	\$60,968,000	360	\$16,466,000
Induced Benefit	\$47,479,000	260	\$14,123,000
<b>Total Benefits</b>	<b>\$263,488,000</b>	<b>2,450</b>	<b>\$82,859,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.34</b>	<b>1.59</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-23: Total Washoe County Marijuana Industry Economic Benefits: 2023**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$159,652,000	1,890	\$53,850,000
Indirect Benefit	\$62,792,000	370	\$16,966,000
Induced Benefit	\$48,917,000	270	\$14,550,000
<b>Total Benefits</b>	<b>\$271,361,000</b>	<b>2,520</b>	<b>\$85,366,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.33</b>	<b>1.59</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

**Table A-24: Total Washoe County Marijuana Industry Economic Benefits: 2024**

Impact Type	Spending/Output	Employment	Labor Income
Direct Benefit	\$164,402,000	1,940	\$55,478,000
Indirect Benefit	\$64,671,000	380	\$17,481,000
Induced Benefit	\$50,399,000	270	\$14,991,000
<b>Total Benefits</b>	<b>\$279,472,000</b>	<b>2,590</b>	<b>\$87,951,000</b>
<b>Multipliers</b>	<b>1.70</b>	<b>1.34</b>	<b>1.59</b>

Sources: RCG Economics, IMPLAN. Numbers may not sum exactly due to rounding.

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