

THE ECONOMIC IMPACT OF MEMBERS OF BLOCKCHAIN ASSOCIATION AND CRYPTO COUNCIL FOR INNOVATION

DECEMBER 2022

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EXECUTIVE SUMMARY

Blockchain networks and cryptocurrencies have the potential to dramatically transform financial and digital services. In the 13 years since the Bitcoin network was launched there has been strong growth in the sector. Blockchain technologies underpinning cryptocurrencies can reduce the need for centralized intermediaries, replacing them with decentralized agents. Today, cryptocurrencies are used throughout the world. They can be used as a store of value and have been the basis for an explosion of financial and digital services built on their underlying infrastructures.

The total economic contribution of a sample of nearly 100 members of Blockchain Association (BA) and Crypto Council for Innovation (CCI) on the US economy amounted to \$6.6 billion in 2021. While the sampled members made a direct contribution of \$2.6 billion, they supported a further \$1.6 billion through associated supply chains, and \$2.4 billion through the spending by workers at member companies and those in their supply chains. This means that for every \$100 of value-added output created by the cryptocurrency industry, a further \$157 of value added is created in other industries of the US economy, a multiplier impact of 2.6.

Today, the cryptocurrency industry generates value throughout the US economy and employs people across a range of occupations in roles such as software development, investment specialist, and network and systems engineering. The sampled BA and CCI firms directly employed more than 7,300 US workers, across nearly all states. In total, including indirect and induced impacts, the US cryptocurrency industry supported more than 45,000 US jobs in 2021.

That is, for each US worker directly employed by BA and CCI members sampled in this study, an additional 5.2 jobs are supported in the wider US economy, either in the supply chains of the cryptocurrency industry or through the wage spending of those employed by the firms themselves or their supply chains. The industry also makes a significant contribution to tax revenues at a federal, state, and local level. In total, we calculate that the direct, indirect, and induced economic activity supported by the surveyed BA and CCI members sustained around \$1.4 billion in total tax revenues in 2021.

\$6.6bn

contribution of business activity by BA and CCI members to US GDP in 2021.

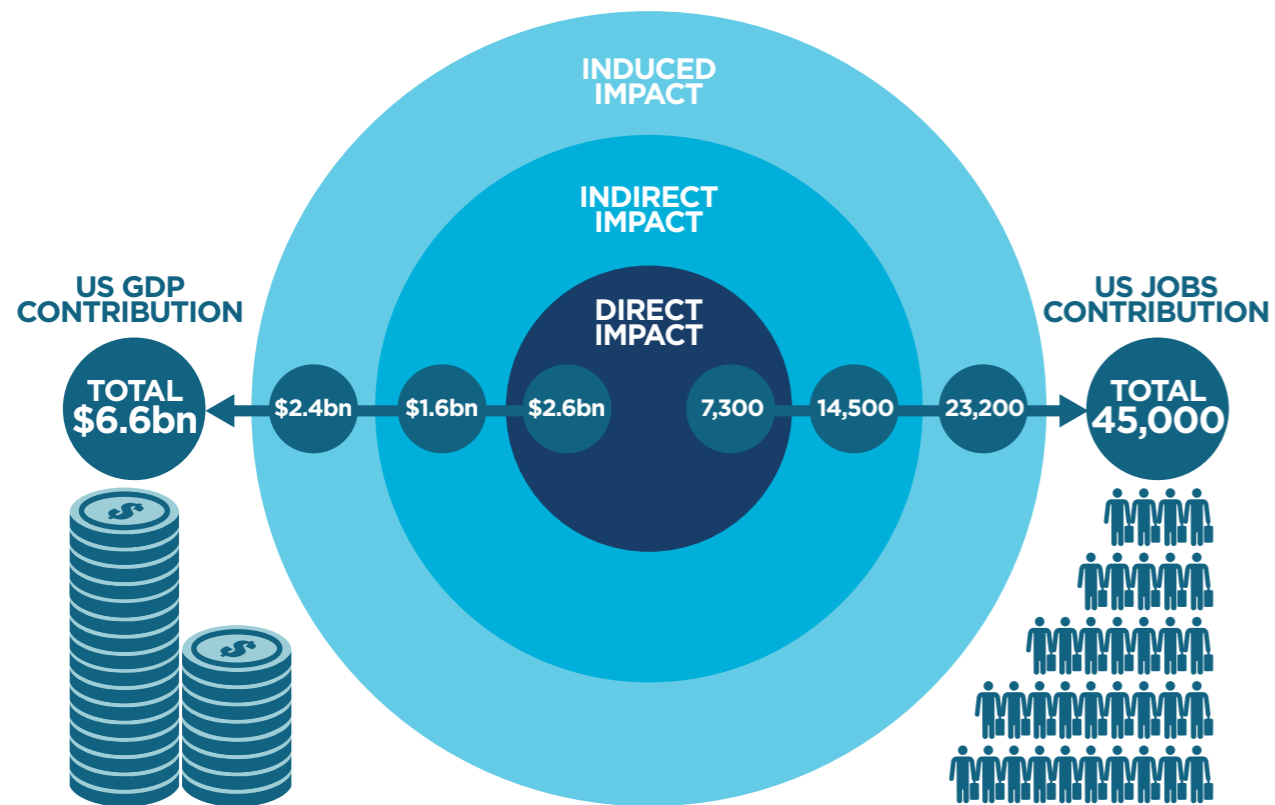
45,000 jobs

supported throughout the US in 2021 by the activity of BA and CCI members.

BA and CCI members have employees across 49 states and the District of Columbia, and the economic impact of the sampled BA and CCI cryptocurrency industry companies reaches every state. The three largest states in terms of direct employment of surveyed BA and CCI members are California, New York, and Connecticut. We estimate that in 2021 sampled BA and CCI members supported:

- In California: \$1.5 billion in GDP, more than 8,600 jobs, and almost \$320 million in tax revenues.
- In New York: \$715 million in GDP, almost 3,300 jobs, and around \$133 million in tax revenues.
- In Connecticut: \$330 million in GDP, more than 1,800 jobs, and around \$74 million in tax revenues.

Fig. 1: The economic impact of sampled BA and CCI members



Source: Oxford Economics



1. INTRODUCTION

There has been dramatic growth in blockchain networks and cryptocurrencies in the 13 years since the Bitcoin network was launched in 2009. Blockchain Association itself was founded in September 2018. Together, blockchain and cryptocurrencies have demonstrated the potential to dramatically transform financial and digital services. Blockchain technologies underpinning cryptocurrencies reduce the need for centralized intermediaries, replacing them with decentralized systems. Today, cryptocurrencies are used throughout the world. They can be used as a store of value and have formed the basis for the explosion of innovative financial and digital services built on their underlying infrastructures.

Despite this extensive interest and rapid growth, our research indicates no comprehensive analysis documenting the overarching impact of the cryptocurrency industry on the US economy. To address this, Blockchain Association, which represents more than 100 member companies in the industry, commissioned Oxford Economics to conduct research, analysis, and impact modeling to quantify the economic contribution of its members to the US economy. The industry comprises a diverse group of organizations, including financial institutions, portfolio managers, software developers, and consulting firms.

Oxford Economics used economic impact analysis, specifically input-output modeling, to quantify the economic contribution of the US Blockchain Association and Crypto Council for Innovation's members participating in this study. A sample snapshot of 92 firms in the US in 2021, part of a much broader and growing global industry, highlights the importance of blockchain networks and the cryptocurrency industry to the US economy in terms of GDP, jobs, and tax revenues, which we detail in the following sections of the report.

1.1 MODELING ECONOMIC IMPACT

To capture the full extent of the economic contribution of the surveyed Blockchain Association and Crypto Council for Innovation members, Oxford Economics leveraged proprietary survey data on employment and compensation to estimate the impact that the companies make on Gross Domestic Product (GDP)—the standard measure of a country's economic output—people employed, and tax revenues. The methodology box below provides details of the economic impact modeling approach.

INTRODUCTION TO METHODOLOGY: ECONOMIC IMPACT ANALYSIS

Economic impact results were calculated using an input-output model constructed using IMPLAN software, an industry standard.¹ Input-output models capture the flow of value throughout the economy, following the inter-industry linkages of supply chains. Results are for 2021 and are presented in 2021 dollars.

In calculating our results, we include the following three “channels” of economic activity. These distinguish among spending for direct operations, the supply-chain supporting those operations, and wider impacts as the additional employees from the first two channels (direct and suppliers) spend their wages in the broader US economy. The three channels are defined as follows:

Direct impact is the economic activity directly generated by the sampled crypto industry companies themselves.

Indirect impact is the activity supported throughout the domestic supply chains of those direct entities, as a result of their procurement of goods and services, such as computing equipment, marketing services, and financial services.

Induced impact: This includes the economic benefit that results as employees and others in the supply chain spend their incomes in the broader economy

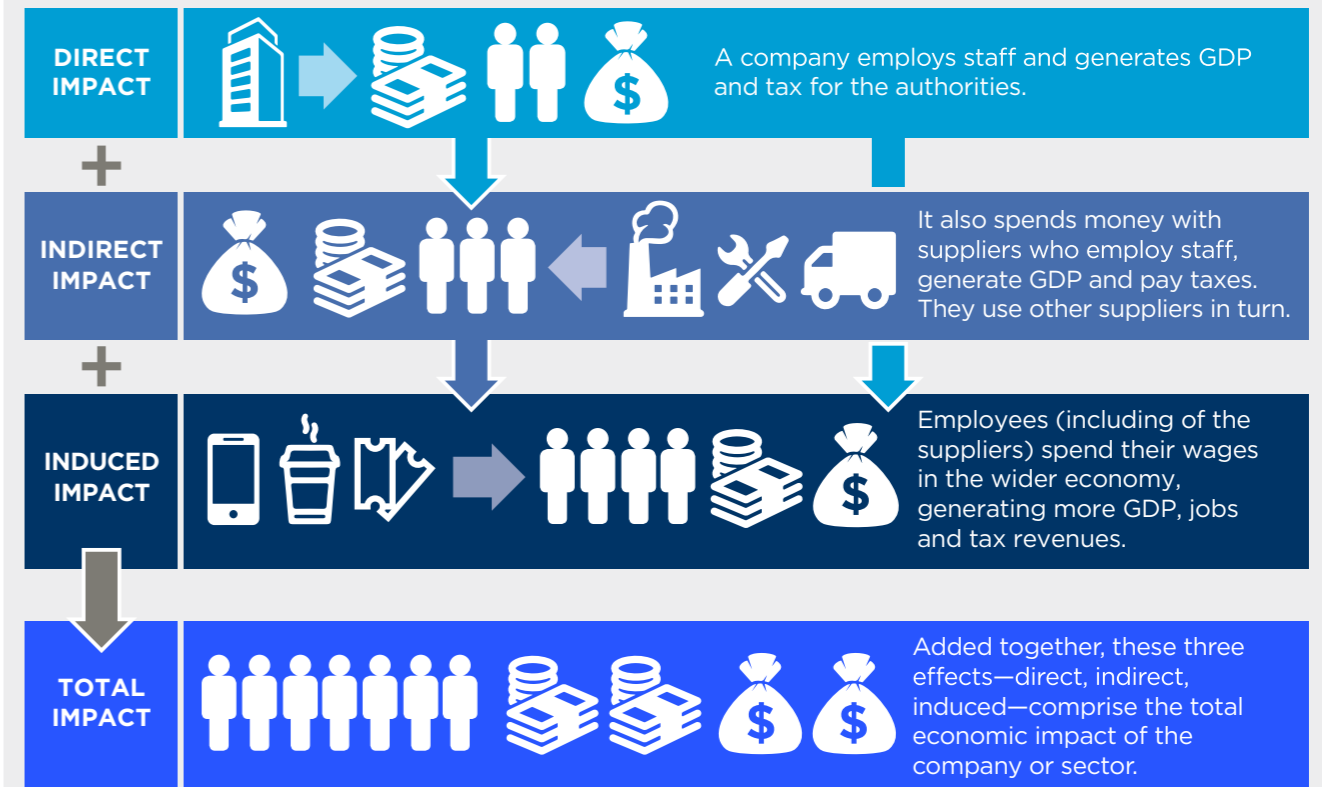
These three channels are summarized graphically in Fig. 2. These impacts are quantified according to the following four metrics:

Economic output: This represents the sum of sales or revenue of entities through the supply chain. Because total sales include the value of production inputs, totaling economic output of different entities through the supply chain results in double-counting the economic activity that goes into producing these goods and services.

GDP avoids the double-counting problem noted above by totaling only the economic value-added of each entity in the supply chain, and thus reflects the sum of economic activity occurring in the region as a result of the activity being modelled.

Employment: This represents the headcount employment associated with the economic activity being quantified. Taxes: This includes taxes at the local, state, and federal levels as a result of the economic activity.

Fig. 2: The relationship among direct, indirect, and induced channels



Additional details of the data, assumptions, and estimates that underpin the economic impact model can be found in the Appendix.

Source: Oxford Economics

2. THE IMPACT OF CRYPTOCURRENCY FIRMS

The cryptocurrency industry already has a substantial economic footprint in the US, a sample of which is captured in this report. Over 7,300 people work directly at Blockchain Association and CCI member organizations participating in this study, in such activities as exchanges, portfolio management, software development, consulting, and planning for all types of business throughout the US.² The purchases made by the cryptocurrency industry from suppliers (i.e., the indirect effects) enable further activity throughout the US economy, sustaining thousands more jobs across the country. Finally, wages paid to employees, and those employed in the supply chain, fund consumer spending (i.e., the induced effects), for example in grocery stores and gas stations, and deliver additional economic benefit to the US economy.

In the following sections, we subsequently explore each channel of impact, in turn, that comprise the economic contribution of the participating BA and CCI members in this study before looking at the total contribution of the cryptocurrency industry across all channels.

2.1 TOTAL ECONOMIC IMPACT OF THE SURVEYED BA AND CCI SAMPLE

Combining all the channels of impact—direct, indirect (supply chain), and induced (wage spending)—the total impact of the sampled BA and CCI firms on the US economy amounted to \$6.6 billion in 2021. Fig. 3 shows the breakdown of this impact across the three core channels, in terms of GDP contribution.

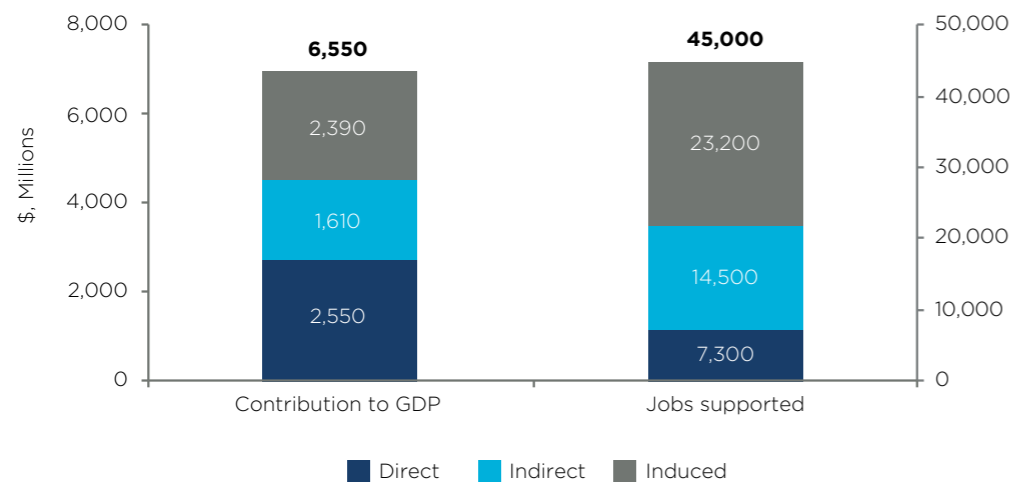
\$6.6bn

GDP contribution in 2021.

This is made up of direct, indirect, and induced effects as the impact of cryptocurrency firms spreads through the US economy.

² For the purposes of this study, members of BA and the CCI were assumed to have activities primarily focused on crypto, and total headcounts from these organizations formed the basis of our modeling. However, in the case of one of the respondents, we reduced reported headcount by more than two-thirds to account for the fact that its major reporting segment does not yet, to our knowledge, include crypto applications. Please see Appendix 1 for additional information about the data sources and assumptions.

Fig. 3: The GDP and employment contribution of the sampled BA and CCI members, 2021



Source: Oxford Economics

2.2 DIRECT IMPACT

The direct impact of cryptocurrency firms comprises the value-added output generated by the sector: those employed directly by BA and CCI businesses; the wages these businesses pay their employees; and their operation expenditures.

We estimate the cryptocurrency industry directly accounted for \$2.6 billion in GDP and 7,300 jobs in 2021.

A comparison of the total impact with the direct impact reveals how, for every \$100 of value-added output created by the cryptocurrency

industry, a further \$157 of value added is created in other industries of the US economy as a result of supply chain and employee expenditure impacts. This means that the industry has a value-add multiplier impact of 2.6.

We estimate that BA and CCI members directly employed more than 7,300 workers across all states and DC and supported an additional 37,700 jobs through supply-chain and consumer spending. This translates into a jobs multiplier of 6.2: this means for every direct job, an additional 5.2 jobs are created through indirect or induced effects.

2.3 INDIRECT IMPACT

The indirect impact of the cryptocurrency industry reflects the employment and GDP contribution made by the suppliers of those companies (i.e., firms providing employment services, legal services, accounting services, advertising and public relations services, data processing, and hosting services, etc.) and, in turn, within the supply chains of those suppliers. In 2021, the GDP contribution of these suppliers was \$1.6 billion. Along with this GDP contribution was an indirect employment contribution of 14,500 jobs.

2.4 INDUCED IMPACT

The induced impact of the cryptocurrency industry represents the economic activity supported by the consumer spending of wages by those employed directly by cryptocurrency companies or indirectly through their supply chains. As a result of the cryptocurrency firms' and their suppliers' employees spending their wages in the economy, we estimate the induced impact attributable to cryptocurrency firms' operations to be a \$2.4 billion contribution to GDP in 2021 and 23,300 jobs.

2.5 TAX IMPACT

The \$6.6 billion GDP impact supported by surveyed BA and CCI members generated

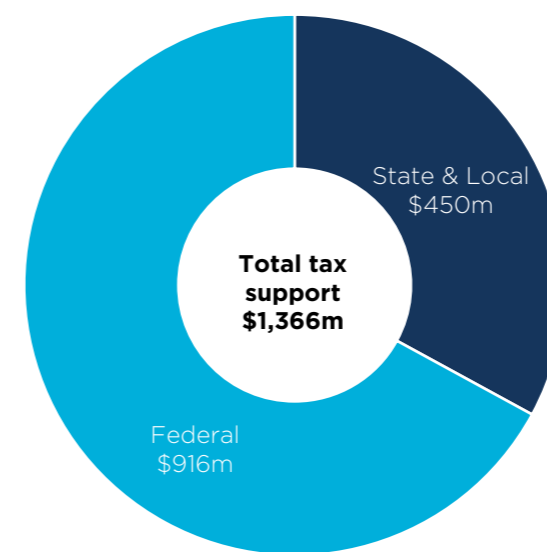
significant tax revenues at the federal, state, and local levels. These include income and payroll taxes, corporate income taxes, and taxes paid as part of the production process, such as excise taxes and import duties.³

We calculate that the direct, indirect, and induced economic activity supported by the surveyed BA and CCI members sustained almost \$1.4 billion in total tax revenues in 2021, out of which \$916 million or 65% were federal tax revenues and \$450 million or 35% were state and local tax revenues (see Fig. 4). In total, every job supported by the industry's activity results in around \$30,000 in additional tax revenue (from all sources).

\$1.6bn
contribution to GDP from supply chain purchases (indirect) in 2021.

\$2.4bn
contribution to GDP from consumer spending (induced) in 2021.

Fig. 4: The tax contribution of sampled BA and CCI members



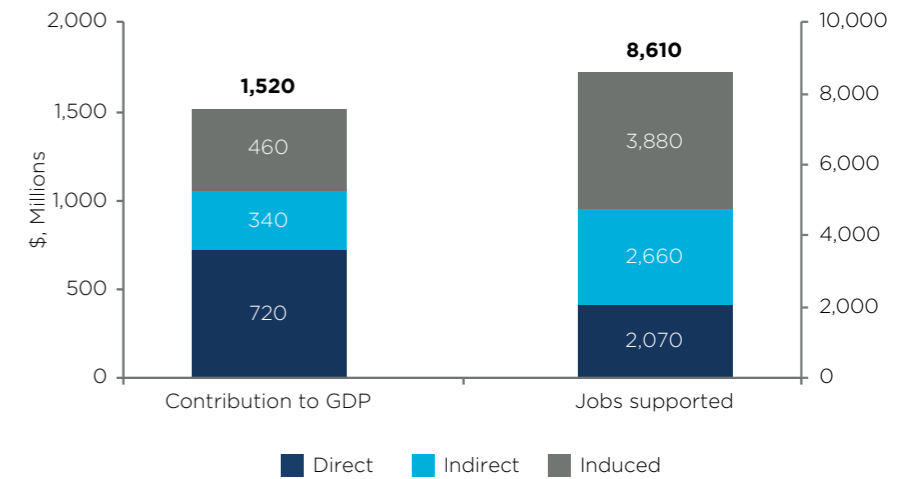
Source: Oxford Economics

³ Specifically, the IMPLAN software includes the following federal tax categories: social insurance (Social Security and Medicare), personal income, corporate income, excise taxes, customs duties, and other taxes on production and imports. These categories are all included in our results. In addition, IMPLAN software includes the following state and local tax categories: social insurance, personal income, taxes on corporate profits and dividends, personal and business property taxes, various sales and excise taxes, motor vehicle taxes, severance tax, and other personal and business taxes.

3. STATE-LEVEL IMPACTS

Surveyed BA and CCI members have employees across 49 states and the District of Columbia. As a result of supply-chain and interstate trade effects, the economic impact of the sampled BA and CCI cryptocurrency industry companies reaches every state. The three largest states in terms of direct employment of surveyed BA and CCI members are California, New York, and Connecticut, and we consider impacts in these states in greater detail below.

Fig. 5: California economic and employment impact of sampled BA and CCI members



Source: Oxford Economics

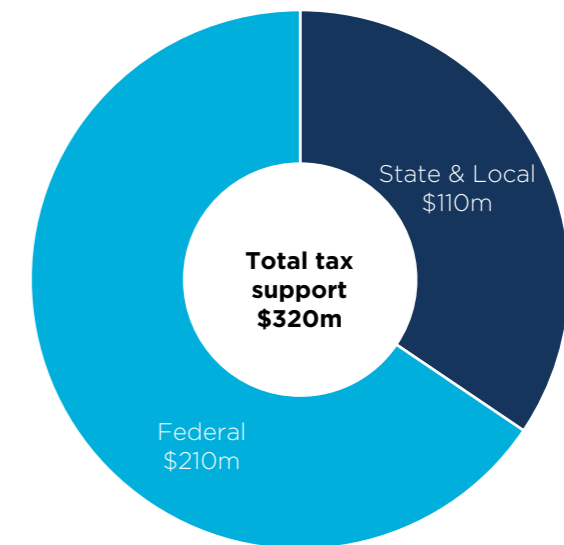
3.1 CALIFORNIA

Of the sampled BA and CCI members, California contained the highest number of directly employed workers. Subsequently, the economic contribution of the industry is the largest at \$1.5 billion.

Fig. 6: Tax contribution of sampled BA and CCI members in California

In terms of employment, more than 8,600 jobs were supported in 2021 by sampled BA and CCI members in California alone, combining direct, indirect, and induced impacts.

In addition, the California-based economic activities of the sampled BA and CCI organizations supported a total tax contribution of almost \$320 million, with a state and local tax contribution of around \$110 million, and a federal tax contribution of almost \$209 million.



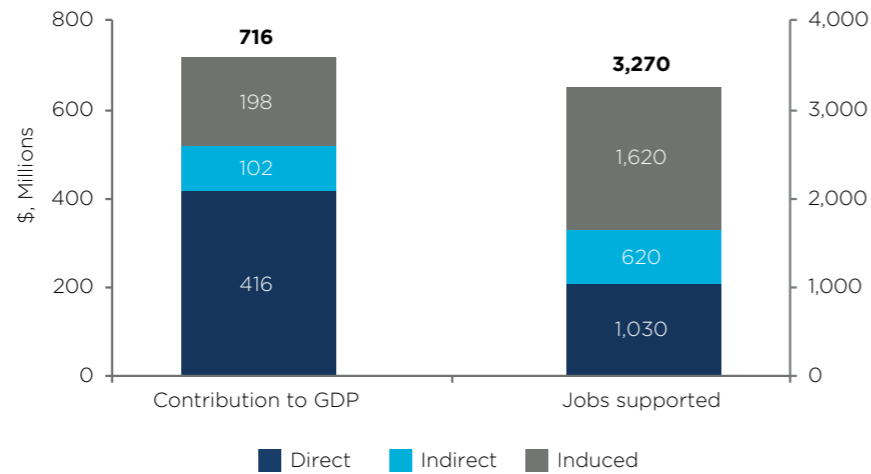
Source: Oxford Economics

3.2 NEW YORK

New York was the second largest location for direct employment of our sample of BA and CCI members, and the second largest state in terms of the \$716 million GDP contribution. In terms of employment, almost 3,300 jobs were supported in 2021 by sampled BA and CCI members in New York, combining direct, indirect, and induced impacts. Fig. 7. New York economic and employment impact of sampled BA and CCI members

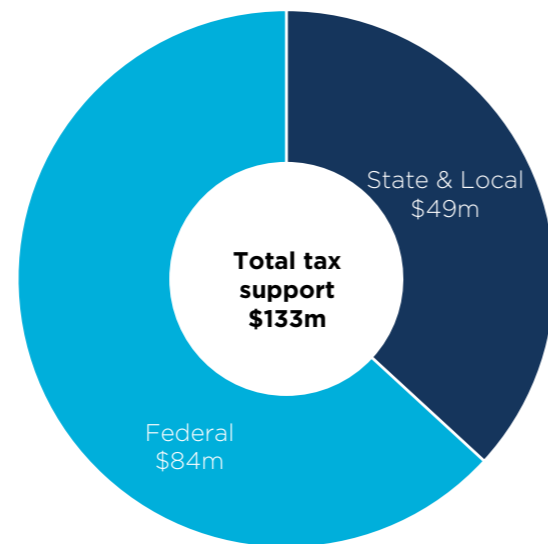
In addition, the New York-based economic activities of BA and CCI organizations supported a state and local tax contribution of around \$49 million and a federal tax contribution of around \$84 million.

Fig. 7: New York economic and employment impact of sampled BA and CCI members



Source: Oxford Economics

Fig. 8: Tax contribution of sampled BA and CCI members in New York



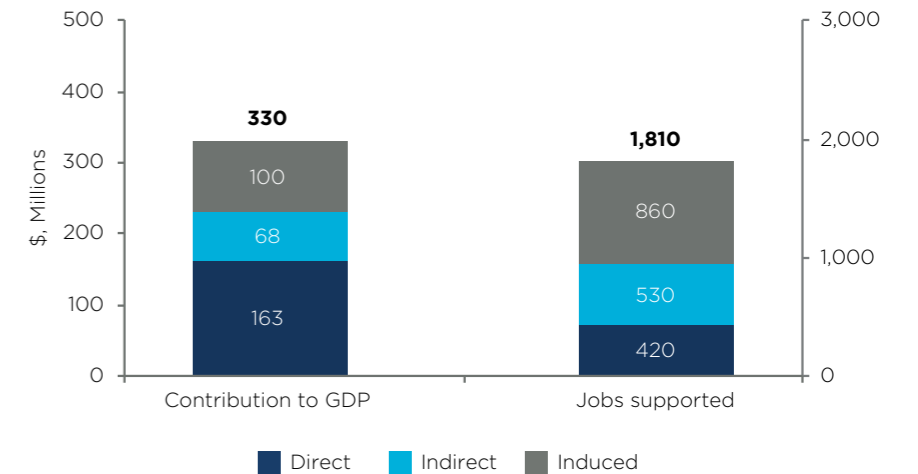
Source: Oxford Economics

3.3 CONNECTICUT

Connecticut was the third largest location for direct employment of our sample of BA and CCI members, and similarly in terms of its \$330 million GDP contribution. In terms of employment, more than 1,800 jobs were supported in 2021 by sampled BA and CCI members in Connecticut, combining direct, indirect, and induced impacts.

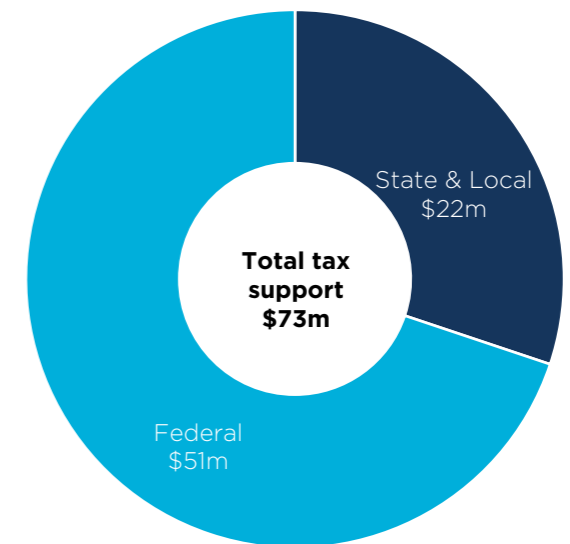
In addition, the Connecticut-based economic activities of BA and CCI organizations supported a state and local tax contribution of around \$22 million, and a federal tax contribution of around \$51 million.

Fig. 9: Connecticut economic and employment impact of sampled BA and CCI members



Source: Oxford Economics

Fig. 10: Tax contribution of sampled BA and CCI members in CT



Source: Oxford Economics

3.4 SUMMARIES OF STATE-LEVEL IMPACTS

California	Direct	Indirect	Induced	Total
Employment (thousands)	2.1	2.7	3.9	8.6
GDP Contribution (millions)	719	335	460	1,513

New York	Direct	Indirect	Induced	Total
Employment (thousands)	1.0	0.6	1.6	3.3
GDP Contribution (millions)	416	102	198	716

Connecticut	Direct	Indirect	Induced	Total
Employment (thousands)	0.4	0.5	0.9	1.8
GDP Contribution (millions)	163	68	100	330

Source: Oxford Economics





4. THE CRYPTOCURRENCY WORKFORCE

Surveyed BA and CCI members were already significant employers in the US in 2021, around a decade following the birth of the industry. As shown in Chapter 3, in 2021, based on our industry survey, we estimate the size of the workforce represented by the 92 BA and CCI study participants to be around 7,300.

Oxford Economics worked with Lightcast™ to better understand the profiles of the people working in the cryptocurrency industry more generally, and not just at sampled firms. Lightcast™ provides labor market analytics by compiling and aggregating individual employment profiles sourced from people's professional social media profiles.⁴ Specifically, Lightcast™ provided data from their Social Profiles Database setting out the total number of crypto industry workers by industry code, the number of workers by industry code by occupation cluster, the specialized occupations with the most job postings in 2021, and the skills and certifications associated with the crypto industry.⁵

4.1 BA AND CCI MEMBERS' WORKFORCES ARE HIGHLY PRODUCTIVE

Importantly, workers in the companies represented by Blockchain Association and the Crypto Council for Innovation are highly productive, as reflected in annual average wages. Examining the industries in which sampled firms operate, we find compensation ranging from around \$70,000 to around \$320,000 per employee, placing them above the US average total compensation per employee across all industries for 2021 (around \$83,000⁶).

4.2 OCCUPATIONAL PROFILE OF THE CRYPTO INDUSTRY

In terms of the workforce occupations, analysis of Lightcast™ data identifies the following 10 clusters as comprising the most cryptocurrency workers in the US.

⁴ Such data can be limited, for example where profiles are private, not updated in a timely manner, etc.

⁵ Data were retrieved corresponding only to "Crypto Employers" in Lightcast™'s Job Posting Database, based on US 2021 Labor Market Demand. A crypto employer was defined as a company whose main activities are solely related to the crypto world, or having a sector or work involved in the crypto work (e.g., Technology Companies, Investment Banks) where job data that are only relevant to the crypto sector of these companies were included.

⁶ This is calculated by combining 2021 QCEW wage data and 2020 IMPLAN payroll to compensation ratios.

Fig. 11: Top 10 occupations in cryptocurrency sector, 2021

Occupation clusters with largest employment	
1	Software Development
2	Investment Specialists
3	General Managers
4	Network and Systems Engineering
5	Client Support and Sales
6	Marketing Specialists
7	Project and Program Managers
8	Network and Systems Support
9	Non-Technical Sales
10	Business Analysis

Source: Lightcast™, Oxford Economics analysis

Fig. 12: Top 10 job openings in cryptocurrency sector, 2021

Top Occupations in Demand	
1	Senior Software Developer / Engineer
2	Software Developer / Engineer
3	Attorney
4	Anti-Money Laundering Specialist / Analyst / Officer
5	Retail Store Manager
6	Network Engineer / Architect
7	Compliance Manager
8	Product Manager
9	Financial Manager (General)
10	Sales Representative

Source: Lightcast™

The crypto industry has directly created a wide range of job opportunities. Figure 12 summarizes job postings data from Lightcast™ to identify the most in demand cryptocurrency roles in 2021, as measured by job postings.

4.3 EMPLOYMENT IN HIGHLY SKILLED TECHNOLOGY AND FINANCE ROLES

Further analysis of the Lightcast™ data provides insight into the industry sectors where cryptocurrency companies, such as those in our BA and CCI survey respondent dataset, operate—specifically across finance/banking and software development and data processing.

4.4 THE INDUSTRY PROVIDES OPPORTUNITIES FOR REMOTE WORK

Opportunities for telework vary across industries. BA and CCI members in our sample operate in industries where there are relatively greater rates of full- and part-time remote work. According to the Bureau of Labor Statistics' 2021 Business Response Survey,⁷ between July and September 2021, 13% of private sector jobs involved full-time telework, and another 9%

involved part-time telework. In contrast, around 32% of the jobs represented by the industries in which sampled BA and CCI members operate involved full-time telework, and another 17% involve telework some of the time. Thus, the industries in which cryptocurrency companies operate appear to be more flexible in offering remote work opportunities—similar to firms engaged in information services, financial activities, or professional and business services.

High-skilled sectors:

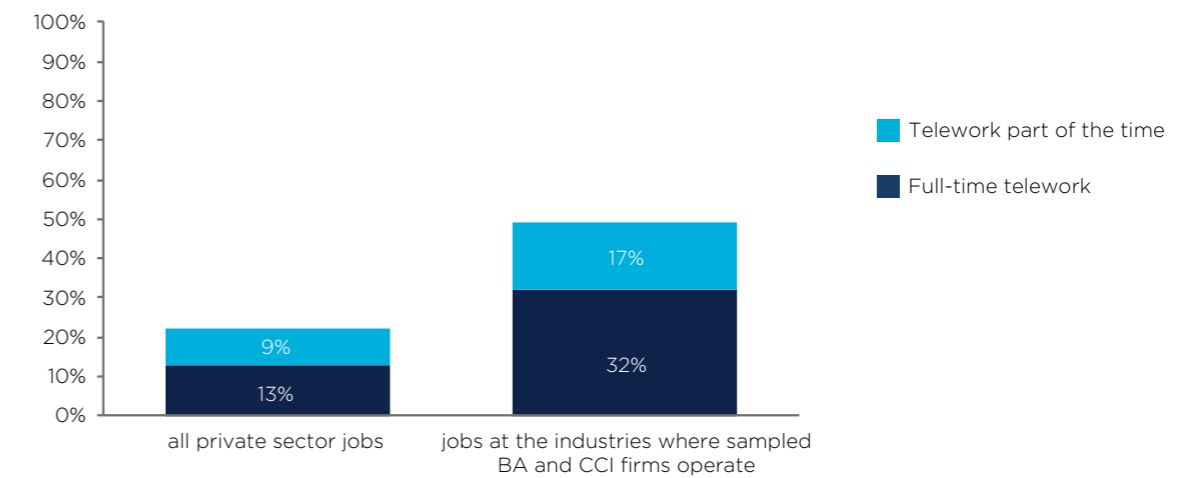
Crypto industry companies have highly-skilled workers at the cutting edge of innovation in financial technology.

Fig. 13: Industry profile of cryptocurrency sector companies

NAICS 4-Digit Code	NAICS Name
5112	Software Publishers
5239	Other Financial Investment Activities
5231	Securities and Commodity Contracts Intermediation and Brokerage
5222	Non depository Credit Intermediation
5182	Data Processing, Hosting, and Related Services

Source: Lightcast™

Fig. 14: Telework share for cryptocurrency company industries



Source: BLS, Oxford Economics

⁷ BLS, "Telework during the COVID-19 pandemic: estimates using the 2021 Business Response Survey," March 2022, at <https://www.bls.gov/opub/mlr/2022/article/telework-during-the-covid-19-pandemic.htm>



5. CONCLUSION

The cryptocurrency industry is an innovative and growing industry in the US. It has formed the basis for the explosion of financial and digital services built on their underlying infrastructures. As well as potentially transforming the country's financial and digital services ecosystem, it has supported a large amount of economic activity, employment, and tax revenues. In total, in 2021 BA and CCI member respondents supported \$6.6 billion, 45,000 employees, and the payment of \$1.4 billion in total tax revenues.

This impact was seen across the United States and most prominently in three states—California, New York, and Connecticut—wherein BA and CCI member respondents supported a total of more than \$2.5 billion in GDP, some 13,700 jobs, and around \$525 million in tax revenues.

The industry's innovation and ability to offer a growing number of high paid opportunities in the finance and technology industries is evidenced by the analysis in section 4 above. Together, the work of software developers, investment specialists, and systems and network engineers help to support the continual evolution of a still nascent sector.

APPENDIX 1: DATA SOURCES

DATA SOURCES

To conduct the impact assessment and analysis, Oxford Economics constructed a dataset combining information from various sources. This was done to increase the accuracy of the study by reducing chances of error arising from the presence of outliers in the estimation process. The main sources of data in this study included the following:

1. Blockchain Association and Crypto Council for Innovation survey results
2. Lightcast™ employment data

Both of the main data sources are described further below, along with the additional sources consulted, and the methodology and assumptions involved in aggregating the finalized data inputs for the economic impact model.

1. BA AND CCI SURVEY

A key data source for company level data was a BA and CCI member survey used to obtain company level data on both employment and payroll. Oxford Economics worked with Blockchain Association to reach out to members of both Blockchain Association and the Crypto Council for Innovation to distribute the survey. Specifically, the survey collected each organization's industry classification, employment data on a national and state level basis, and average employee compensation data. A total of 92 responses were received.

2. LIGHTCAST™ EMPLOYMENT DATA

Oxford Economics worked with Lightcast™ to define the broader cryptocurrency industry and to better understand the profiles of the organizations that make up the industry. Lightcast™ provides labor market analytics through compiling and aggregating individual employment profiles across the United States. Individual employment profiles are sourced from people's professional social media profiles. Lightcast™ maintains a database of these individual profiles, and goes through a thorough process of standardizing, deduplicating, merging, and normalizing data across profiles. Such data has limitations, for example where profiles are private, or not updated in a timely manner. For the purposes of the economic impact study, Lightcast™ provided employment data for the organizations making up BA and CCI. Specifically, they leveraged their proprietary labor market database to provide headcount numbers on a national level for each of these companies. In addition, to provide a broader snapshot of the industry workforce, we also draw on Lightcast™ data provided from their Social Profiles Database setting out the total number of crypto industry workers by industry code, the number of workers by industry code by occupation cluster, and the specialized occupations with the most job postings in 2021.

COMBINING DATASETS AND ADDITIONAL ESTIMATES AND ASSUMPTIONS

The two datasets provide a detailed view of employment and payroll at BA and CCI survey respondents at both the national and state level that powered the economic impact analysis. To combine the data, we used the following procedure:

Headcount numbers: Where employment data was provided directly in BA or CCI organization's survey response, we used the self-reported data rather than the estimates provided by Lightcast™. Where there were gaps in provided employment data from survey respondents, we used the Lightcast™ estimates to impute that data. In the case of one of the larger respondents, we reduced reported headcount by more than two-thirds to account for the fact that its major reporting segment does not yet, to our knowledge, include crypto applications. (We proxied for the share of employment at this respondent in this segment by using the revenue share of that segment).

Compensation data: In the cases where BA and CCI survey respondents self-reported total compensation, the self-reported data were used. In cases where these fields in the survey were omitted, we used wage data from the Quarterly Census of Employment and Wages (QCEW) to impute average earnings for the relevant industry of that respondent (industry code was either self-reported or imputed from Lightcast™'s analysis). For each of the NAICS codes of the organizations that made up the study, 2021 average annual wage data from QCEW for privately owned organizations were used. We calculated payroll to total compensation ratios by industry from IMPLAN and applied these ratios to scale QCEW wages into total compensation estimates. There were some cases for which multiple organizations were mapped to the same NAICS codes: in these cases, the weighted average of the self-reported compensation numbers and the QCEW wage data was used.

APPENDIX 2: IMPACT MODEL

AN INTRODUCTION TO ECONOMIC IMPACT ANALYSIS

The model is designed to capture the inter-industry relationships, consumer spending, and ripple effects that result from the direct economic activity generated by cryptocurrency firms. A standard economic impact assessment identifies three channels of impact that stem from an activity:

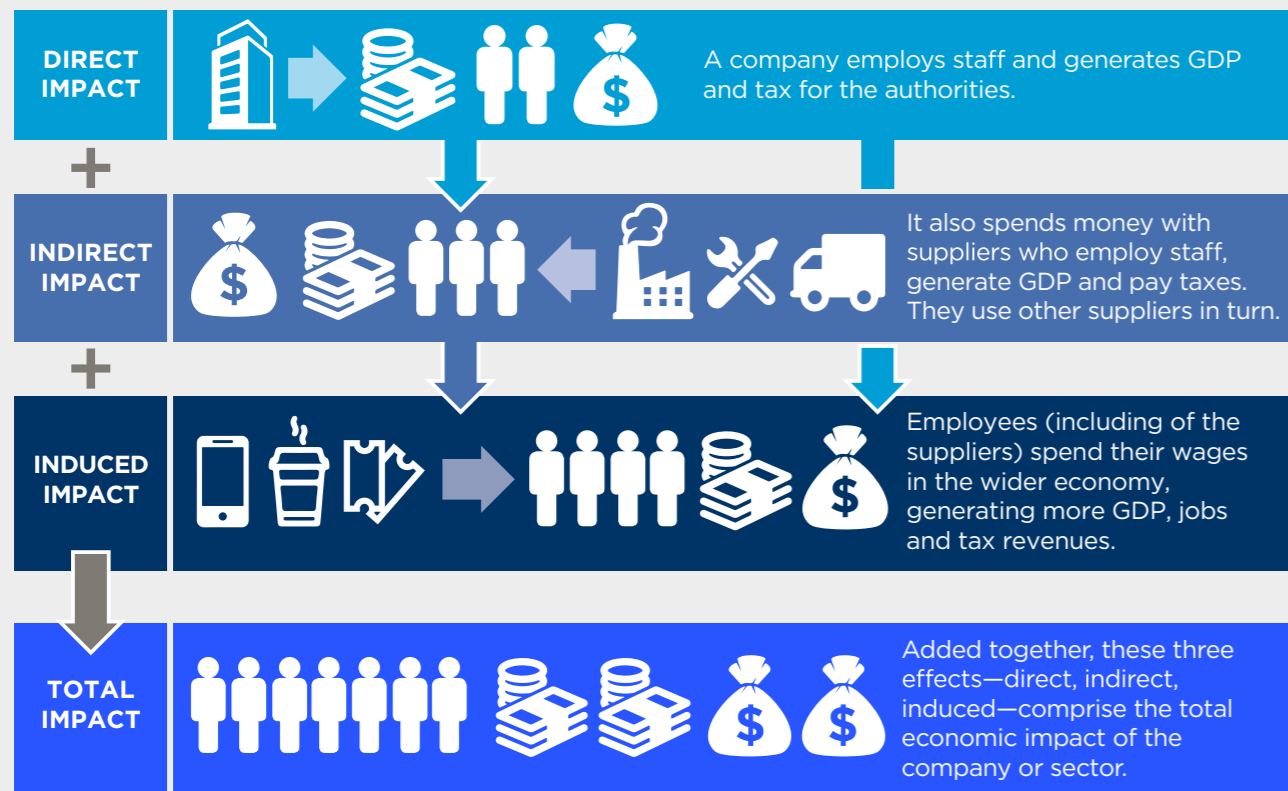
- **Direct effect**, which measures the economic benefit of cryptocurrency operations and activities in the US.
- **Indirect effect**, which encapsulates the activity driven by the supply chain as a result of the procurement of goods and services from other businesses.
- **Induced effect**, which captures the impact of workers spending their wages on locally produced goods and services. This supports activity across the spectrum of consumer goods and services, and their supply chains. An example of this is the purchases a worker makes spending their wages on groceries, clothing, transportation, and utilities.

In accordance with standard economic impact assessments, the scale of the cryptocurrency industry is measured using key metrics:

- **GDP contribution**—the gross value added (GVA) contribution to GDP.
- **Employment**—employment is measured in terms of headcount of workers.
- **Taxes**—Gross tax receipts paid at the federal, state, and local level.

All monetary impacts in this report are presented in current 2021 (i.e., non-inflation adjusted) \$US.

Fig. 15: The channels of economic impact

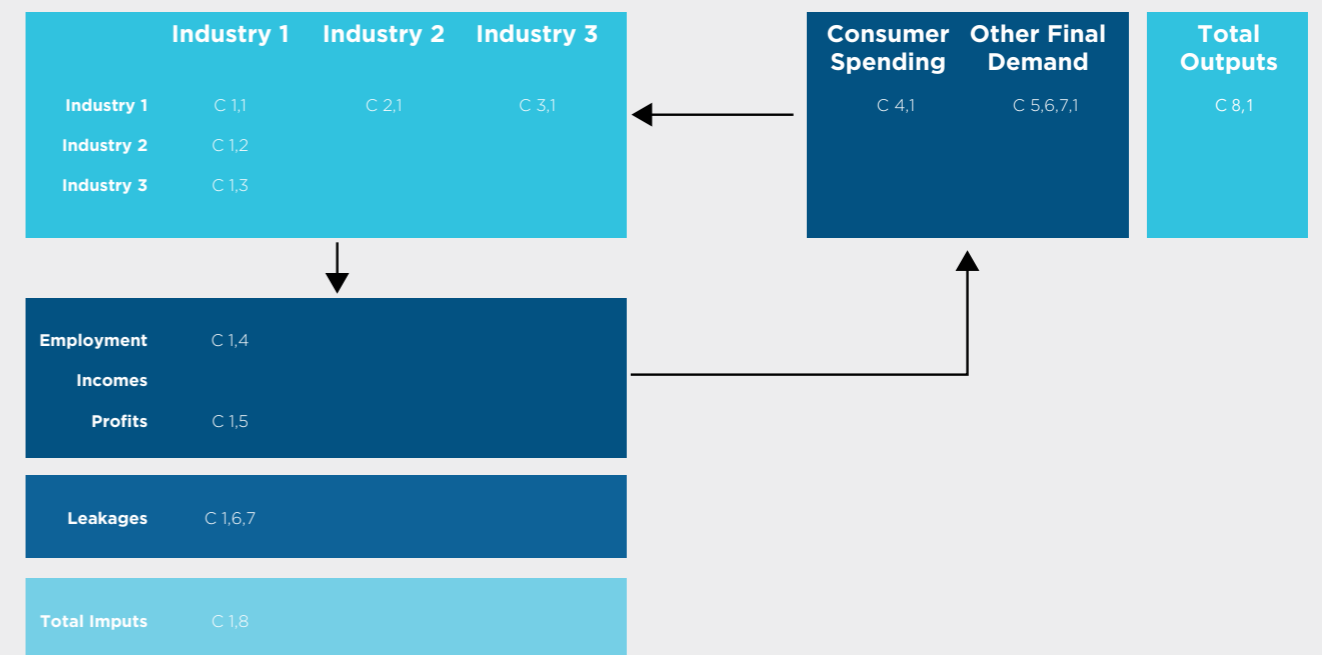


Source: Oxford Economics

INPUT-OUTPUT MODEL STRUCTURE

Input-output modeling characterizes and follows the flow of spending through an economy, thereby capturing and quantifying effects on supply chains, consumer/payroll spending, economic leakages, and even taxes paid to governments. Fig. 16 depicts the overarching structure of the model.

Fig. 16: Structure of the input-output model



Source: Oxford Economics

ABOUT IMPLAN

This analysis utilized IMPLAN economic impact software. IMPLAN is an input-output modeling system used to build models at various levels of geography, including national, state, county, and congressional district. It allows for adjustable assumptions of supply-chain connections and leakages from survey input data and improved accuracy of assumptions. IMPLAN is widely used and recognized by government organizations, non-profits, economic development organizations, workforce planners, education institutions, and consultants across the US and Canada.

ABOUT OXFORD ECONOMICS

Oxford Economics was founded in 1981 as a commercial venture with Oxford University's business college to provide economic forecasting and modelling to UK companies and financial institutions expanding abroad. Since then, we have become one of the world's foremost independent global advisory firms, providing reports, forecasts and analytical tools on more than 200 countries, 100 industrial sectors, and 8,000 cities and regions. Our best-of-class global economic and industry models and analytical tools give us an unparalleled ability to forecast external market trends and assess their economic, social and business impact.

Headquartered in Oxford, England, with regional centers in London, New York, and Singapore, Oxford Economics has offices across the globe in Belfast, Boston, Cape Town, Chicago, Dubai, Frankfurt, Hong Kong, Los Angeles, Melbourne, Mexico City, Milan, Paris, Philadelphia, Stockholm, Sydney, Tokyo, and Toronto. We employ 450 full-time staff, including more than 300 professional economists, industry experts and business editors—one of the largest teams of macroeconomists and thought leadership specialists. Our global team is highly skilled in a full range of research techniques and thought leadership capabilities, from econometric modelling, scenario framing, and economic impact analysis to market surveys, case studies, expert panels, and web analytics.

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Blockchain Association is the collective voice of the cryptocurrency industry. Our members include the sector's leading investors, companies, projects, and protocols, working together to support a future-forward, pro-innovation national policy and regulatory framework for the crypto economy.

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