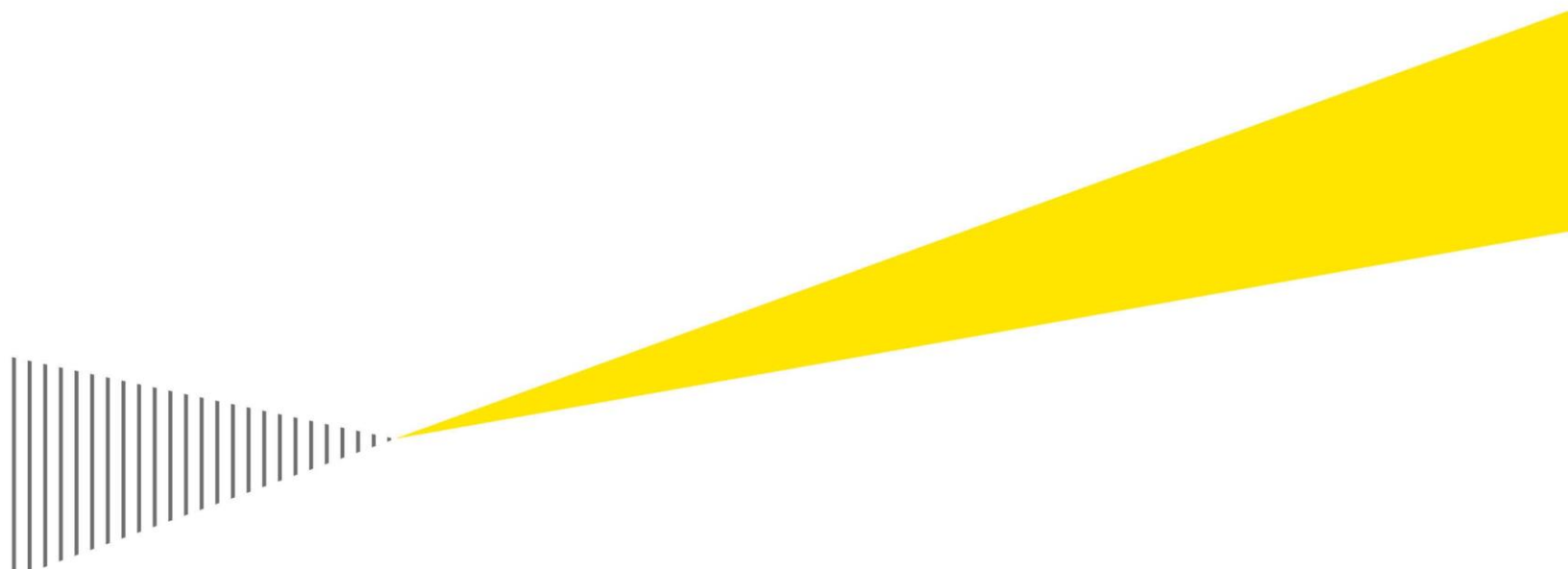


Economic contribution of the US private equity sector in 2022

Prepared for the American Investment Council

April 2023



Building a better
working world

Executive summary

This report estimates the current economic activity of, and related to, the US private equity sector – i.e., US private equity firms and private equity-backed companies – within the US economy in 2022.

Key findings include:

Economic activity of the US private equity sector

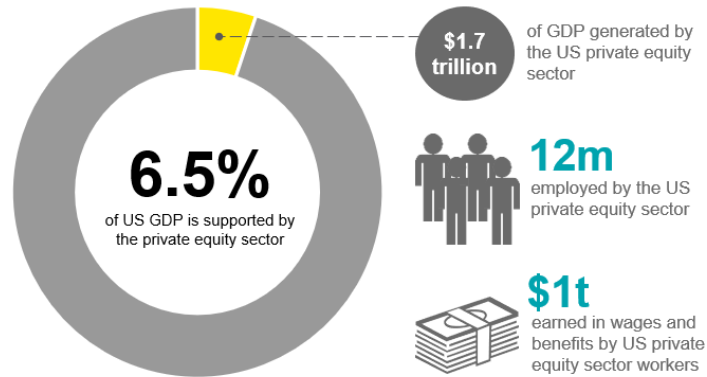
- ▶ **Employment and wage contribution.** The US private equity sector provides employment and earnings for millions of workers. Overall, in 2022, the US private equity sector directly employed 12 million workers earning \$1 trillion in wages and benefits.¹ The average US private equity sector worker earned approximately \$80,000 in wages and benefits in 2022. For a full-time worker this is approximately \$41 per hour.² The median full-time US private equity sector worker earned approximately \$50,000 in 2022.³
- ▶ **Share of US economic activity.** The US private equity sector directly generated \$1.7 trillion of gross domestic product (GDP) in the United States in 2022. GDP measures a sector's or industry's contribution to the production of final goods and services produced in the United States. The US private equity sector comprised approximately 6.5% of US GDP in 2022.
- ▶ **PE-backed small businesses.** In 2022, the median PE-backed business employed 69 workers. Moreover, approximately 85% of PE-backed businesses were small businesses (i.e., had fewer than 500 employees). PE-backed small businesses directly employed a total of 1.4 million workers throughout the US economy in 2022. These workers earned \$135 billion in wages and benefits and generated \$240 billion of GDP.
- ▶ **Tax contribution.** The US private equity sector generates tax revenue through US private equity firms, private equity-backed companies, and its employees. In 2022, the US private equity sector paid \$304 billion of federal, state, and local taxes. Approximately two-thirds of these were federal taxes (\$208 billion) with the remaining taxes paid to state and local governments (\$95 billion).

¹ All numbers are prorated to account for cases where private equity owns less than 100% of a company.

² This \$80,000 is computed prior to rounding the wages and benefits and employment estimates. In particular, the \$1 trillion of wages and benefits is approximately \$961 billion and 12 million employees is approximately 11.957 million employees.

³ By comparison, the comparable median wage for the US economy is approximately \$50,000 and comparable average wage is approximately \$73,000. See report for more detail.

Figure E-1. Economic contribution of the US private equity sector, 2022



Note: Figure only includes economic activity of the US private equity sector (i.e., the economic activity at US private equity firms and private equity-backed companies). Wages and benefits includes all labor income (i.e., employee cash compensation and benefits, as well as proprietors' income). Wages and benefits is a component of GDP.

Source: PitchBook; Dun & Bradstreet; US Bureau of Economic Analysis; EY analysis.

Economic activity related to the US private equity sector

- ▶ **Suppliers to the US private equity sector.** Suppliers to the US private equity sector employed an additional 7.8 million workers throughout the US economy earning \$700 billion in wages and benefits and generating \$1.1 trillion of US GDP in 2022. Suppliers to PE-backed small businesses (i.e., a subset of this) employed 1.3 million workers earning \$110 billion of wages and benefits and generating \$180 billion of US GDP. Wages and benefits is a component of GDP. This economic activity supported \$207 billion of taxes – federal (\$142 billion) and state and local (\$65 billion).
- ▶ **Related consumer spending.** The consumer spending of workers of the US private equity sector and the sector's suppliers supported an additional 11.5 million workers throughout the US economy earning \$700 billion in wages and benefits and generating \$1.3 trillion of US GDP in 2022. Consumer spending related to PE-backed small businesses and their suppliers (i.e., a subset of this) supported 1.8 million workers earning \$115 billion of wages and benefits and generating \$195 billion of US GDP. Consumer spending related to the US private equity sector supported \$235 billion of taxes – federal (\$161 billion) and state and local (\$74 billion).

Total economic activity of, and related to, the US private equity sector

In total, the US private equity sector, the sector's US suppliers, and the related US consumer spending supported an estimated 31.3 million workers earning \$2.4 trillion in wages and benefits and generating \$4.0 trillion in US GDP in 2022. PE-backed small businesses, their suppliers, and related consumer spending (i.e., a subset of this) together supported 4.4 million workers earning \$360 billion in wages and benefits and generating \$615 billion GDP. Additionally, the federal, state, and local taxes paid by, and related to, the US private equity sector totaled more than \$700 billion in 2022.

Table E-1. Total economic activity of, and related to, the US private equity sector, 2022
Millions of jobs; trillions of dollars

	US private equity sector	Suppliers to US private equity	Related consumer spending	Total
Employment	12.0	7.8	11.5	31.3
Wages and benefits	\$1.0	\$0.7	\$0.7	\$2.4
GDP	\$1.7	\$1.1	\$1.3	\$4.0
Taxes paid	\$0.3	\$0.2	\$0.2	\$0.7

Note: Wages & benefits includes all labor income (i.e., employee cash compensation and benefits, as well as proprietors' income). Wages & benefits is a component of GDP. Figures may not sum due to rounding.

Source: EY analysis.

Contents

- I. Introduction 1
 - Overview of private equity 1
- II. Economic activity of the US private equity sector 4
- III. Economic activity related to the US private equity sector 6
- IV. Economic contribution of US PE-backed small businesses 9
- IV. State distribution of economic activity of, and related to, the US private equity sector 11
- V. Taxes paid by, and related to, the US private equity sector 15
- VI. Caveats and limitations 19
- Appendix. Modeling approach 21
- Endnotes 22

Economic contribution of the US private equity sector in 2022

I. Introduction

This report estimates the current economic activity of, and related to, the US private equity sector – US private equity firms and private equity-backed companies – within the US economy in 2022, a single point in time. As such, the estimates provide a snapshot of the economic footprint of the sector as measured by employment, wages & benefits, gross domestic product (GDP), and taxes. By providing information on the overall scope of the industry, measured and defined in several different ways, this report attempts to shed light on the reach of the private equity industry with the US economy.

Overall, the US private equity sector provides employment and earnings for millions of workers and contributes jobs and earnings to other sectors of the US economy that relate to private equity operations. In 2022, the US private equity sector directly employed 12 million workers throughout the US economy earning \$1 trillion in wages and benefits and generating \$1.7 trillion of GDP. Suppliers to the US private equity sector employed an additional 7.8 million workers throughout the US economy earning \$700 billion in wages and benefits and generating \$1.1 trillion of GDP. The consumer spending of workers of the US private equity sector and the sector's suppliers supported an additional 11.5 million workers throughout the US economy earning \$700 billion in wages and benefits and generating \$1.3 trillion of GDP.

Overview of private equity

Private equity firms partner with investors to form funds that invest in companies, primarily those in need of retooling or that are on the cusp of growth. The aim of the investment, which most often takes the form of a majority stake, is to help bolster the company through use of the private equity firm's access to capital and its strategic, financial, and operational expertise. Ultimately, transforming the target company's operations generates returns for the private equity fund, the private equity firm that manages the fund, and the fund's investors.

Private equity firms partner with a variety of investor types, including pension funds, university endowments, charitable foundations, and insurance companies. Private equity funds invest across a range of industries such as energy, healthcare, manufacturing, retail, and technology. In 2022, the US private equity sector included approximately 5,000 private equity firms and 18,000 PE-backed companies. Jobs at private equity firms are estimated to be less than 1% of US private equity sector employment.

Though some sector participants use the term private equity in different ways, for the purposes of this analysis private equity only includes private investment in growth capital or established companies aiming to improve the company. In contrast, venture capital – which is not included in the definition of private equity used for this analysis – consists of private investment in startup and early-stage companies.

The most common private equity fund types are: (1) buyout funds, and (2) growth equity funds. For the purposes of this study all deals in both subcategories will be referred to as private equity funds.

Private equity funds that invest in more mature businesses

An established company may, perhaps due to increased competition, the changing structure of an industry or its markets, or high overhead costs, perform below its potential. Identifying and addressing the root cause of underperformance, however, often requires expertise and potentially significant infusions of capital. A private equity fund can provide both.

Obtaining a controlling stake in such a company often requires significant investment. A private equity fund often finances acquisitions, in part through debt issuance, sometimes a cost-effective method for such transactions. In a typical case, the target company's future cash flows are the collateral. The private equity fund generates returns on its investment by maximizing profits net of interest expenses and payments of the debt principal. A successful private equity fund often has expertise in helping lift the performance of target companies, and both the private equity fund and target company can benefit from a buyout.

In addition, achieving higher performance may involve changes in higher-level management or refocusing of the target's business purposes by spinning off peripheral business components. Sweeping changes to a company are not always welcome by all stakeholders, particularly in the short term. The intervention of an outside actor can be not only beneficial, but critical to achieve change and realign a target company.

Growth equity funds

Growth equity funds are private equity funds that invest in companies to foster expansion. Growth equity target companies often have established business models, revenues, and operating profits, but are unable to raise sufficient capital to undertake a significant expansion. Such an expansion could include moving the company into new markets, facilitating new product development, or possibly a strategic acquisition.

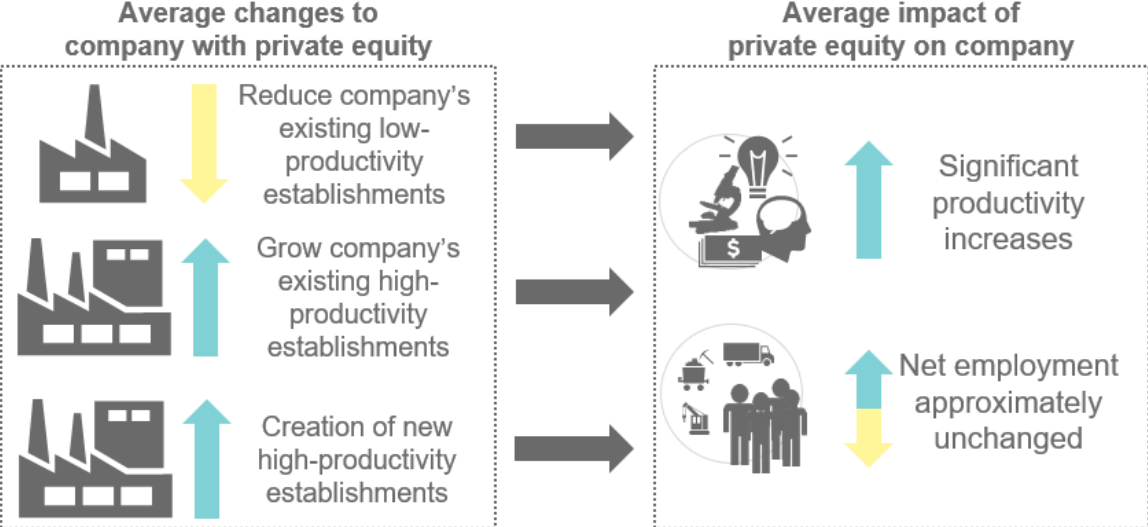
The target company for a growth equity fund, were it not for such investors, could be in a difficult spot. There are significant cost and regulatory hurdles to raising public capital. The target company might also not be able to rely on venture capital investment. Venture capital generally specializes in providing relatively smaller levels of financing and generating returns from very high revenue growth from very young companies that might be less likely from a more established company. Growth equity private equity funds, in effect, are a middle ground between venture capital that targets startup companies and private equity funds that focus on well-established companies in need of retooling.

Growth equity investors rely on the company's revenue growth to generate returns, which can be accomplished by providing additional capital, as well as through strategic and operational support from the private equity firm. Growth equity funds typically undertake a significant role in the target company's day-to-day operations.

Private equity-backed company performance

Notably, given the access to capital and expertise of private equity firms, private equity-backed companies often have better prospects for experiencing rapid growth and restructuring as compared to similar companies without a private equity investment. For example, as seen in Figure 1, a recent study analyzing the performance of 3,200 private equity-backed companies with more than 150,000 establishments from 1980 through 2005 estimates that, on average, two years after a private equity investment the productivity of a private equity-backed company increases significantly with a near-zero net employment change relative to a comparable company without private equity investment.¹ The study found that, relative to a comparable company, an average private equity-backed company was more likely to reduce a company’s low-productivity establishments, grow a company’s high-productivity establishments, and create new high-productivity establishments; that is, refocus the company on its higher-productivity activities.

Figure 1. Estimated average impact of private equity investment in a company after two years



Note: Figure shows the average changes to a company with a private equity investment relative to a comparable company without it. That is, the changes displayed are estimates of what would have happened to a private equity-backed company, on average, if not for a private equity investment. Results are from an analysis of 3,200 PE-backed companies with more than 150,000 establishments over the 1980-2005 period for two years after the LBO. Source: Davis et al. (2014) and Davis et al. (2019).

II. Economic activity of the US private equity sector

The US private equity sector, comprised of US private equity firms and private equity-backed companies, provides employment and income for millions of workers and contributes to jobs in other sectors of the economy that are connected to private equity operations.

The economic activity described in this report includes the following indicators:

- ▶ **Employment.** Employment is measured as the total headcount of workers. For example, a company with three full-time workers and a company with two full-time workers and one part-time worker would both be measured as having three workers.
- ▶ **Wages and benefits.** Wages and benefits includes employee cash compensation and benefits as well as proprietor income.² Wages and benefits is a component of GDP.
- ▶ **GDP.** GDP measures a sector's contribution to the production of all final goods and services produced in the United States.

As displayed in Table 1, the US private equity sector supported 12 million jobs in 2022. The table also displays the type of economic activity of these jobs.³ The largest share of US private equity sector employment was estimated to be in business services. Business services accounted for 4.3 million jobs, or 36% of US private equity sector employment in 2022. These services include finance and insurance, real estate and rental and leasing, professional, scientific, and technical services, management of companies and enterprises, administrative and support services, and waste management and remediation services. Included in business services are US private equity firms. However, the vast majority of US private equity sector workers were estimated to be employed at private equity-backed companies, as opposed to private equity firms. Jobs at private equity firms are estimated to comprise less than 1% of US private equity sector employment.⁴

Personal services employed the second largest share of US private equity sector workers with 3.1 million jobs, or 26% of US private equity sector employment. Personal services includes healthcare, accommodation, food services, recreation, and other personal services. US private equity sector employment in manufacturing is the third largest segment of the sector's employment. In particular, 1.5 million workers were estimated to be employed in manufacturing in 2022. This is 13% of total US private equity sector employment. These three segments of the US private equity sector – personal services, business services, and manufacturing – comprise approximately three-quarters of the sector's total employment. Other significant segments of the sector include retail trade (0.8 million jobs; 7% of total), information (0.8 million jobs; 6% of total), wholesale trade (0.4 million jobs; 4% of total), transportation and warehousing (0.4 million jobs; 3% of total), and construction (0.3 million jobs; 3% of total).

Table 1. US private equity sector employment by type of economic activity, 2022
Millions of jobs

	Jobs	% of total	
Business services	4.3	36%	
Personal services	3.1	26%	
Manufacturing	1.5	13%	
Retail trade	0.8	7%	
Information	0.8	6%	
Wholesale trade	0.4	4%	
Transportation and warehousing	0.4	3%	
Construction	0.3	3%	
Utilities	0.2	1%	
Mining, quarrying, and oil and gas extraction	0.1	1%	
Agriculture, forestry, fishing, and hunting	*	*	
Total employment	12.0	100%	

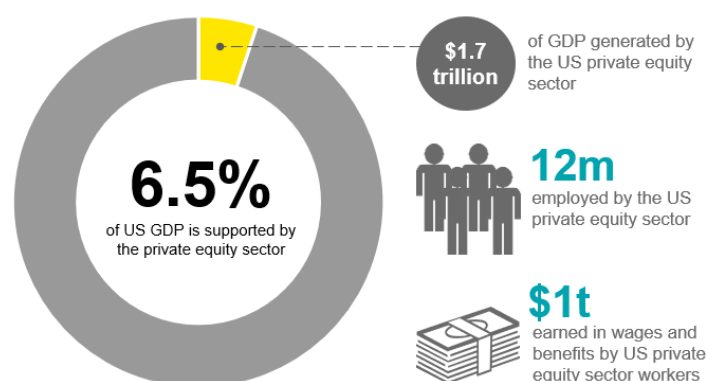
*Less than 0.05 million jobs or 0.5%

Note: Companies industry classifications use the North American Industry Classification System (NAICS), which is commonly used in government statistics. Company NAICS classifications were generally identified using Dun & Bradstreet. Figures may not sum due to rounding.

Source: PitchBook; Dun & Bradstreet; and EY analysis.

Overall, in 2022, the US private equity sector employed 12 million workers throughout the US economy who earned \$1 trillion in wages and benefits and generated \$1.7 trillion of GDP.⁵ Wages and benefits is a component of GDP. This amounts to an average worker in the US private equity sector earning approximately \$80,000 in wages and benefits.⁶ The comparable average wages and benefits for the US economy is approximately \$73,000.⁷ For a full-time worker this is approximately \$41 per hour.⁸ The median full-time US private equity sector worker earned approximately \$50,000 in 2022.⁹ The comparable median for the US economy is also approximately \$50,000.¹⁰ Additionally, as summarized in Figure 2, the \$1.7 trillion of GDP of the US private equity sector in 2022 was approximately 6.5% of US GDP (\$25.5 trillion in 2022).¹¹

Figure 2. Economic contribution of the US private equity sector, 2022



Note: Figure only includes economic activity of the US private equity sector (i.e., the economic activity at US private equity firms and private equity-backed companies). Wages and benefits includes all labor income (i.e., employee cash compensation and benefits, as well as proprietors' income). Wages and benefits is a component of GDP.

Source: PitchBook; Dun & Bradstreet; US Bureau of Economic Analysis; EY analysis.

III. Economic activity related to the US private equity sector

In addition to the economic activity of the US private equity sector, this report also estimates the related economic activity of: (1) suppliers to the US private equity sector, and (2) related consumer spending:

- ▶ **Suppliers to the US private equity sector.** The US private equity sector purchases goods and services from other businesses, which support jobs, wages and benefits, and GDP at these supplier businesses. For example, the US private equity sector's expenditures on utilities, telecommunications, raw materials, and security, among other goods and services, support sales at suppliers. Moreover, demand for these goods and services leads to additional rounds of economic activity as suppliers to the US private equity sector purchase operating inputs from their own suppliers. Goods and services imported from abroad are not included in this report's estimates of US economic activity.
- ▶ **Related consumer spending.** Related consumer spending refers to the consumer spending supported by workers in the US private equity sector and their suppliers. When these workers spend their earnings at US businesses (e.g., grocery stores, retailers, movie theaters), they support economic activity in those sectors. The earnings that these workers spend on food at a restaurant, for example, creates jobs at the restaurant and at farms, transportation companies, and other industries that are involved in the restaurant's supply chain.

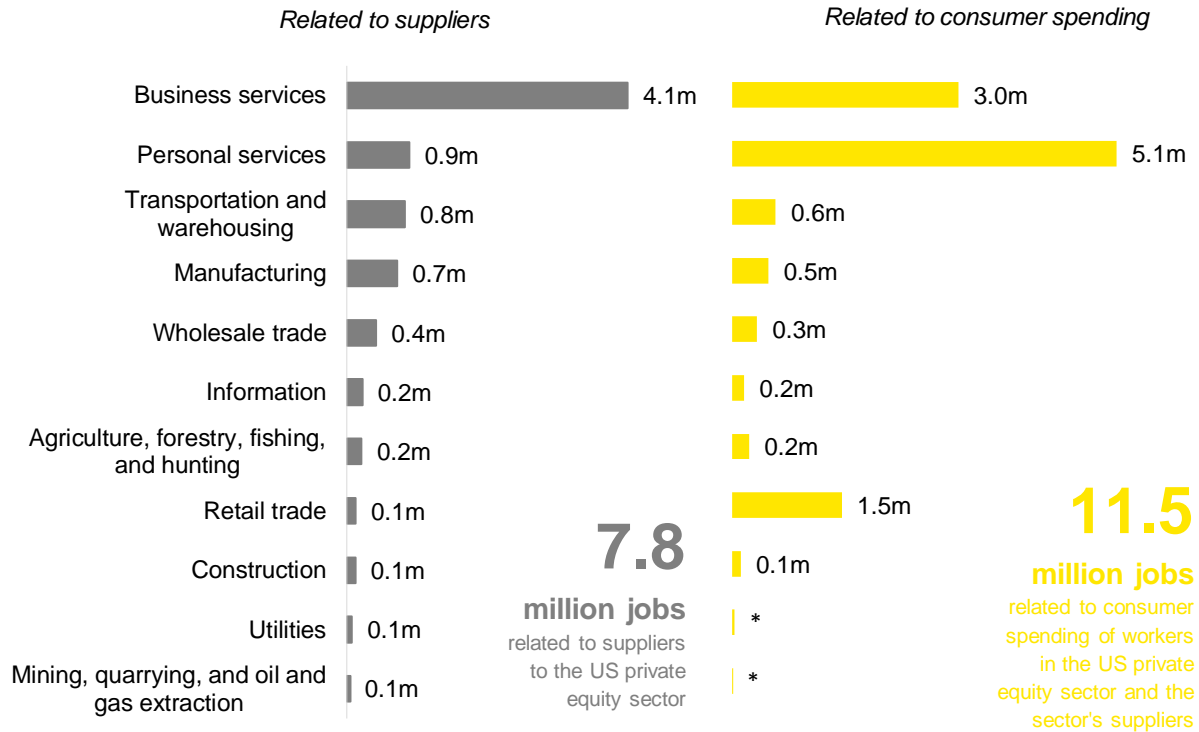
The magnitude of the economic activity related to the US private equity sector is estimated with the 2021 Impacts for Planning (IMPLAN) input-output model of the United States. Unlike other economic models, IMPLAN includes the interaction of more than 500 industries, thus identifying the interaction of specific industries that are related to the US private equity sector. See the Appendix for further details.

As displayed in Figure 3, suppliers to the US private equity sector were estimated to support 7.8 million jobs throughout the US economy in 2022. The largest segments of suppliers to the US private equity sector were estimated to be business services (4.1 million jobs; 52% of total), personal services (0.9 million jobs; 12% of total), and transportation and warehousing (0.8 million jobs; 11% of total). These three supplier industries comprise three-quarters of the total employment related to suppliers to the US private equity sector. The remaining related supplier employment includes manufacturing (0.7 million jobs; 9% of total), wholesale trade (0.4 million jobs; 5% of total), information (0.2 million jobs; 3% of total), agriculture, forestry, fishing, and hunting (0.2 million jobs; 3% of total), retail trade (0.1 million jobs; 2% of total), construction (0.1 million jobs; 2% of total), utilities (0.1 million jobs; 1% of total), and mining, quarrying, and oil and gas extraction (0.1 million jobs; 1% of total).

Consumer spending of workers in the US private equity sector and the sector's suppliers was estimated to support 11.5 million jobs throughout the US economy in 2022. The largest segments of employment related to the consumer spending of workers in the US private equity sector and the sector's suppliers were estimated to be personal services (5.1 million jobs; 44% of total), business services (3.0 million jobs; 26% of total), and retail trade (1.5 million jobs; 13% of total). These three industries comprise more than three-quarters of the related economic activity. The

remaining employment related to the consumer spending of workers in the US private equity sector and the sector's suppliers includes transportation and warehousing (0.6 million jobs; 5% of total), manufacturing (0.5 million jobs; 4% of total), wholesale trade (0.3 million jobs; 3% of total), agriculture, forestry, fishing, and hunting (0.2 million jobs; 2% of total), information (0.2 million jobs; 1% of total), and construction (0.1 million jobs; 1% of total).

Figure 3. Economic activity related to the US private equity sector, 2022



*Less than 0.05m

Note: Industry definitions are based on the North American Industry Classification System (NAICS).

Figures may not sum due to rounding.

Source: EY analysis.

Table 2 summarizes the estimated economic activity of, and related to, the US private equity sector in the 2022 US economy. The private equity sector directly employed a total of 12 million workers throughout the US economy who earned \$1 trillion in wages and benefits and generated \$1.7 trillion of GDP. Wages and benefits is a component of GDP. Suppliers to the US private equity sector employed an additional 7.8 million workers throughout the US economy who earned \$700 billion in wages and benefits and generated \$1.1 trillion of GDP. In addition, the consumer spending of workers in the US private equity sector and its suppliers employed 11.5 million workers throughout the US economy who earned \$700 billion in wages and benefits and generated \$1.3 trillion of GDP.

Table 2. Total economic activity of, and related to, the US private equity sector, 2022
Millions of jobs; trillions of dollars

	US private equity sector	Suppliers to US private equity	Related consumer spending	Total
Employment	12.0	7.8	11.5	31.3
Wages and benefits	\$1.0	\$0.7	\$0.7	\$2.4
GDP	\$1.7	\$1.1	\$1.3	\$4.0

Note: Wages & benefits include all labor income (i.e., employee cash compensation and benefits, as well as proprietors' income). Wages and benefits is a component of GDP. Figures may not sum due to rounding.

Source: EY analysis.

IV. Economic contribution of US PE-backed small businesses

As previously noted, in 2022, the private equity sector included approximately 18,000 PE-backed companies. As seen in Table 3, approximately 85% were businesses with fewer than 500 employees. Moreover, 14% had fewer than 10 employees, 40% had fewer than 50 employees, and more than 60% had fewer than 100 employees. Throughout this report, small businesses refers to PE-backed companies with fewer than 500 employees. The median PE-backed business employed 69 employees.

Table 3. PE-backed companies and jobs, by company size
Thousands of companies; thousands of jobs

Number of employees	Companies	Share of companies	Jobs	Share of jobs
<10	2.6	14%	14	*
11 to 50	4.8	26%	127	1%
51 to 100	3.9	21%	275	2%
101 to 500	4.4	24%	1,024	9%
501 to 1,000	1.0	6%	771	7%
1,001 to 5,000	1.3	7%	2,839	24%
5,001+	0.4	2%	6,816	57%
Total	18.4	100%	11,867	100%











*Less than 0.5%

Note: Figures are rounded. The numbers are reflecting PE-backed companies only, without PE firms themselves.

Source: PitchBook; Dun & Bradstreet; and EY analysis.

As displayed in Table 4, PE-backed small businesses supported 1.4 million jobs in 2022. The largest share of PE-backed small business employment was in business services, which included 476,000 jobs, or 35% of PE-backed small business employment in 2022. The second largest sector was manufacturing, which included 265,000 jobs, or 19% of PE-backed small business employment. The third largest sector was personal services, which included 207,000 jobs, or 15% PE-backed small business employment. These three sectors (business services, manufacturing, and personal services) comprised approximately 70% of total PE-backed small business employment in 2022.

Table 4. PE-backed small businesses by type of economic activity, 2022
Thousands of jobs

	Jobs	% of total	
Business services	476	35%	
Manufacturing	265	19%	
Personal services	207	15%	
Information	118	9%	
Wholesale trade	109	8%	
Retail trade	61	4%	
Construction	52	4%	
Transportation and warehousing	34	2%	
Mining, quarrying, and oil and gas extraction	24	2%	
Utilities	19	1%	

Agriculture, forestry, fishing, and hunting	6	*
Total employment	1,371	100%

*Less than 0.5%

Note: Companies industry classifications use the North American Industry Classification System (NAICS), which is commonly used in government statistics. Company NAICS classifications were generally identified using Dun & Bradstreet. Figures may not sum due to rounding.

Source: PitchBook; Dun & Bradstreet; and EY analysis.

Table 5 summarizes the estimated economic activity of, and related to, PE-backed small businesses in 2022. PE-backed small businesses directly employed a total of 1.4 million workers throughout the US economy. These workers earned \$135 billion in wages and benefits and generated \$240 billion of GDP. Wages and benefits is a component of GDP.

Suppliers to PE-backed small businesses employed an additional 1.3 million workers throughout the US economy. These workers earned \$110 billion in wages and benefits and generated \$180 billion of GDP. In addition, the consumer spending of workers at PE-backed small businesses and their suppliers employed 1.8 million workers throughout the US economy. These workers earned \$115 billion in wages and benefits and generated \$195 billion of GDP.

In total, the economic activity of, and related to, PE-backed small businesses supported 4.4 million jobs, \$360 billion of wages and benefits, and \$615 billion of GDP.

Table 5. Total economic activity of, and related to, the US PE-backed small businesses, 2022

Millions of jobs; billions of dollars

	US private equity sector	Suppliers to US private equity	Related consumer spending	Total
Employment	1.4	1.3	1.8	4.4
Wages & benefits	\$135	\$110	\$115	\$360
GDP	\$240	\$180	\$195	\$615

Note: Wages & benefits include all labor income (i.e., employee cash compensation and benefits, as well as proprietors' income). Wages and benefits is a component of GDP. Figures may not sum due to rounding.

Source: EY analysis.

IV. State distribution of economic activity of, and related to, the US private equity sector

The distribution of jobs, wages and benefits, and GDP by state (plus the District of Columbia) of the economic activity of the US private equity sector is displayed in Table 6 and Figure 4. The states estimated to have the most US private equity sector employment are: (1) California (1.5 million jobs), (2) Texas (1.1 million jobs), (3) Florida (760,000 jobs), (4) New York (739,000 jobs), and (5) Illinois (491,000 jobs).

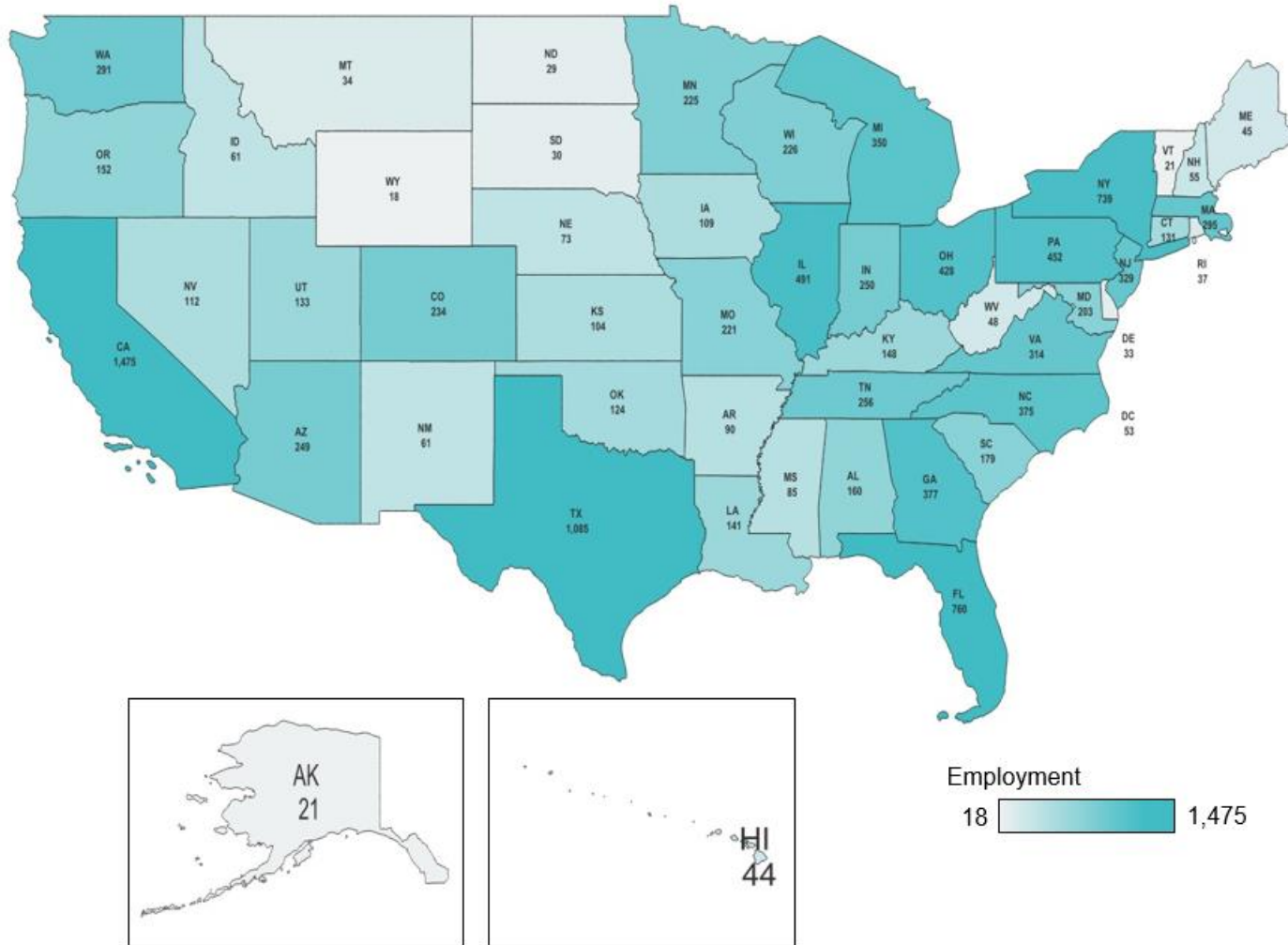
Table 6. Direct economic activity of the US private equity sector by state, 2022
Thousands of jobs; billions of dollars

	Jobs	Wages & benefits	GDP		Jobs	Wages & benefits	GDP
Alabama	160	13	22	Montana	34	3	4
Alaska	21	2	3	Nebraska	73	6	11
Arizona	249	19	33	Nevada	112	8	12
Arkansas	90	7	12	New Hampshire	55	4	7
California	1,475	123	211	New Jersey	329	26	45
Colorado	234	20	35	New Mexico	61	5	8
Connecticut	131	10	18	New York	739	60	102
Delaware	33	2	4	North Carolina	375	29	50
District of Columbia	53	5	7	North Dakota	29	3	5
Florida	760	56	95	Ohio	428	34	59
Georgia	377	30	51	Oklahoma	124	10	18
Hawaii	44	3	5	Oregon	152	12	21
Idaho	61	5	8	Pennsylvania	452	36	62
Illinois	491	39	65	Rhode Island	37	3	5
Indiana	250	19	34	South Carolina	179	13	23
Iowa	109	9	15	South Dakota	30	2	4
Kansas	104	8	15	Tennessee	256	20	34
Kentucky	148	12	20	Texas	1,085	93	161
Louisiana	141	12	20	Utah	133	11	19
Maine	45	3	6	Vermont	21	2	3
Maryland	203	16	26	Virginia	314	25	41
Massachusetts	295	26	44	Washington	291	26	48
Michigan	350	28	47	West Virginia	48	4	7
Minnesota	225	19	32	Wisconsin	226	18	31
Mississippi	85	6	11	Wyoming	18	2	3
Missouri	221	18	30	United States	11,957	\$961	\$1,652

Note: Table only includes employment at US private equity firms and private equity-backed companies. Wages and benefits includes all labor income (i.e., employee compensation and proprietor income). Wages and benefits is a component of GDP. Figures may not sum due to rounding.

Source: EY analysis.

Figure 4. Economic activity of the US private equity sector by state, 2022
Thousands of jobs



Note: Figure only includes employment at US private equity firms and private equity-backed companies. Figures may not sum due to rounding.
 Source: EY analysis.

The distribution of jobs, wages and benefits, and GDP by state (plus the District of Columbia) of economic activity of, and related to, the US private equity sector is displayed in Table 7 and Figure 5. The states estimated to have the most employment in or related to the US private equity sector are: (1) California (3.9 million jobs), (2) Texas (2.8 million jobs), (3) Florida (2.0 million jobs), (4) New York (1.9 million jobs), and (5) Illinois (1.3 million jobs).

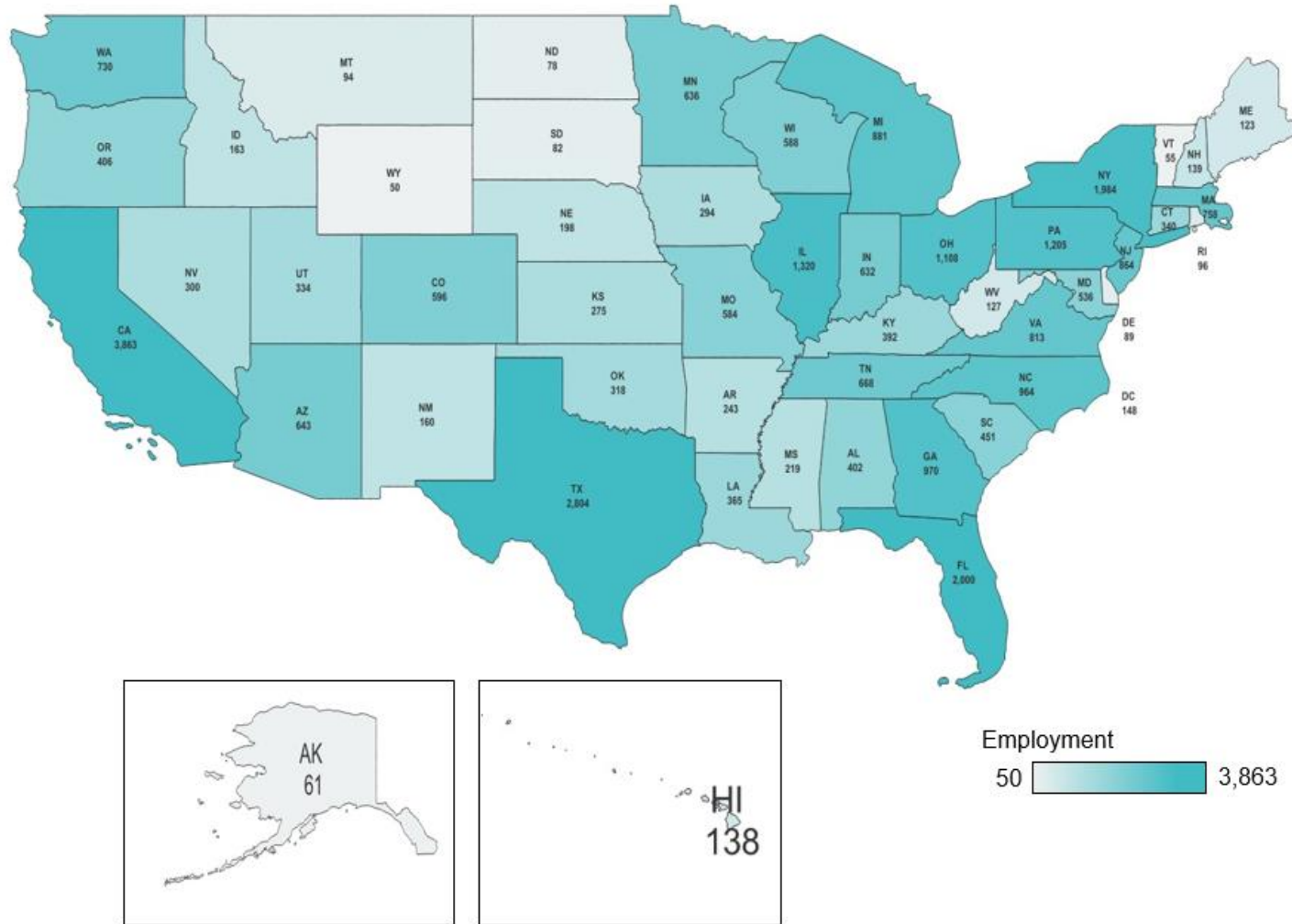
**Table 7. Total economic activity of, and related to,
the US private equity sector by state, 2022**
Thousands of jobs; billions of dollars

	Jobs	Wages & benefits	GDP		Jobs	Wages & benefits	GDP
Alabama	402	30	51	Montana	94	7	11
Alaska	61	5	8	Nebraska	198	15	25
Arizona	643	47	80	Nevada	300	20	33
Arkansas	243	18	30	New Hampshire	139	10	17
California	3,863	295	509	New Jersey	864	65	108
Colorado	596	46	82	New Mexico	160	12	20
Connecticut	340	25	43	New York	1,984	149	254
Delaware	89	6	10	North Carolina	964	71	121
District of Columbia	148	12	19	North Dakota	78	6	11
Florida	2,000	142	245	Ohio	1,108	84	141
Georgia	970	72	123	Oklahoma	318	24	42
Hawaii	138	10	15	Oregon	406	30	51
Idaho	163	11	19	Pennsylvania	1,205	91	150
Illinois	1,320	100	174	Rhode Island	96	7	11
Indiana	632	46	79	South Carolina	451	32	56
Iowa	294	22	36	South Dakota	82	6	10
Kansas	275	21	35	Tennessee	668	49	82
Kentucky	392	28	47	Texas	2,804	222	393
Louisiana	365	28	49	Utah	334	25	43
Maine	123	9	15	Vermont	58	4	7
Maryland	536	40	65	Virginia	813	62	99
Massachusetts	758	60	99	Washington	730	57	104
Michigan	881	67	113	West Virginia	127	10	17
Minnesota	636	51	92	Wisconsin	588	44	74
Mississippi	219	15	26	Wyoming	50	4	7
Missouri	584	44	74	United States	31,289	\$2,356	\$4,021

Note: Table includes employment at US private equity firms and private equity-backed companies as well as the related supplier and consumer spending employment. Wages and benefits includes all labor income (i.e., employee compensation and proprietor income). Wages and benefits is a component of GDP. Figures may not sum due to rounding.

Source: EY analysis.

Figure 5. Total economic activity of, and related to, the US private equity sector by state, 2022
Thousands of jobs



Note: Figure includes employment at US private equity firms and private equity-backed companies as well as the related supplier and consumer spending employment. Figures may not sum due to rounding.
 Source: EY analysis.

V. Taxes paid by, and related to, the US private equity sector

The US private equity sector generates tax revenue through US private equity firms, private equity-backed companies, and their employees. Additionally, taxes are paid by the suppliers of the US private equity sector and paid on worker-related consumer spending. Table 8 summarizes the federal, state, and local taxes paid by, and related to, the US private equity sector in 2022. The estimates of taxes paid include all major federal, state, and local taxes (e.g. corporate and individual income taxes, sales and excise taxes, property taxes), where applicable. Taxes paid by the US private equity sector are displayed separately for those paid by businesses and those paid by its employees.

As seen in Table 8, the US private equity sector generated \$304 billion of federal, state, and local taxes in 2022. Approximately two-thirds of these were federal taxes (\$208 billion) with the remaining taxes being paid to state and local governments (\$95 billion). About two-thirds of the \$208 billion of federal taxes paid were employee taxes (\$141 billion). These were primarily individual income taxes (\$102 billion) and payroll taxes (\$33 billion). State and local taxes were more evenly split between major tax types: property taxes (\$30 billion), sales taxes (\$23 billion), individual income taxes (\$22 billion), excise, license, and other taxes (\$17 billion), and corporate income taxes (\$3 billion).

Table 8 also summarizes the federal, state, and local taxes related to the US private equity sector. Suppliers to the US private equity sector paid \$207 billion of federal (\$142 billion) and state and local (\$65 billion) taxes. Additionally, consumer spending related to the US private equity sector supported \$235 billion of federal (\$161 billion) and state and local (\$74 billion) taxes. Overall, the federal, state, and local taxes paid by, and related to, the US private equity sector totaled nearly \$750 billion in 2022.

**Table 8. Federal, state, and local taxes paid by,
and related to, the US private equity sector, 2022**

Billions of dollars

	US private equity sector			Suppliers of US private equity	Related consumer spending	Total
	Business taxes	Employee taxes	Total			
Federal taxes	\$67	\$141	\$208	\$142	\$161	\$511
Individual income taxes	14	102	116	79	90	284
Payroll taxes	33	33	66	45	51	161
Corporate income taxes	19	0	19	13	14	46
Excise taxes	1	3	4	3	3	10
Customs duties and fees	1	4	4	3	3	11
State and local taxes	\$38	\$57	\$95	\$65	\$74	\$234
Property taxes	16	13	30	20	23	73
Sales taxes	10	13	23	15	18	56
Individual income taxes	0	22	22	15	17	55
Excise, license, and other taxes	9	8	17	12	13	43
Corporate income taxes	3	0	3	2	3	8
Total taxes	\$106	\$198	\$304	\$207	\$235	\$746

Note: Figures may not sum due to rounding.
Source: EY analysis.

The distribution of state and local taxes paid by state (plus the District of Columbia) by the US private equity sector is displayed in Table 9. The states estimated to have the most taxes paid by the US private equity sector are: (1) California (\$13.8 billion), (2) New York (\$8.4 billion), (3) Texas (\$8.2 billion), (4) Illinois (\$4.2 billion), and (5) Florida (\$4.1 billion).

Table 9. State and local taxes paid directly by the US private equity sector by state, 2022

Billions of dollars

Alabama	1.0	Montana	0.2
Alaska	0.1	Nebraska	0.6
Arizona	1.7	Nevada	0.7
Arkansas	0.7	New Hampshire	0.4
California	13.8	New Jersey	2.9
Colorado	1.8	New Mexico	0.6
Connecticut	1.2	New York	8.4
Delaware	0.3	North Carolina	2.6
District of Columbia	0.7	North Dakota	0.4
Florida	4.1	Ohio	3.3
Georgia	2.5	Oklahoma	0.9
Hawaii	0.4	Oregon	1.2
Idaho	0.4	Pennsylvania	3.6
Illinois	4.2	Rhode Island	0.3
Indiana	1.9	South Carolina	1.1
Iowa	0.9	South Dakota	0.2
Kansas	0.8	Tennessee	1.5
Kentucky	1.1	Texas	8.2
Louisiana	1.1	Utah	1.1
Maine	0.4	Vermont	0.2
Maryland	1.7	Virginia	2.3
Massachusetts	2.5	Washington	2.4
Michigan	2.5	West Virginia	0.4
Minnesota	2.1	Wisconsin	1.8
Mississippi	0.6	Wyoming	0.1
Missouri	1.5	United States	\$95.4

Note: Table reports state and local tax contribution of the private equity sector. This table does not include the state and local taxes paid by suppliers of the private equity sector or state and local taxes supported by consumer spending related to the private equity sector. Figures may not sum due to rounding.

Source: EY analysis.

The distribution of state and local taxes paid by state (plus the District of Columbia) by the US private equity sector and related economic activity is displayed in Table 10. The states estimated to have the most taxes paid by, and related to, the US private equity sector are: (1) California (\$33.3 billion), (2) New York (\$21.0 billion), (3) Texas (\$19.5 billion), (4) Illinois (\$11.0 billion), and (5) Florida (\$10.4 billion).

Table 10. Total state and local taxes paid by, and related to, the US private equity sector by state, 2022

Billions of dollars

Alabama	2.5	Montana	0.6
Alaska	0.4	Nebraska	1.5
Arizona	4.1	Nevada	1.8
Arkansas	1.7	New Hampshire	0.8
California	33.3	New Jersey	7.2
Colorado	4.2	New Mexico	1.4
Connecticut	2.9	New York	21.0
Delaware	0.7	North Carolina	6.3
District of Columbia	1.8	North Dakota	0.9
Florida	10.4	Ohio	8.0
Georgia	6.0	Oklahoma	2.1
Hawaii	1.3	Oregon	3.1
Idaho	1.0	Pennsylvania	9.1
Illinois	11.0	Rhode Island	0.7
Indiana	4.5	South Carolina	2.7
Iowa	2.3	South Dakota	0.5
Kansas	2.1	Tennessee	3.6
Kentucky	2.7	Texas	19.5
Louisiana	2.6	Utah	2.5
Maine	1.1	Vermont	0.5
Maryland	4.2	Virginia	5.7
Massachusetts	5.9	Washington	5.3
Michigan	6.0	West Virginia	1.0
Minnesota	5.8	Wisconsin	4.3
Mississippi	1.6	Wyoming	0.3
Missouri	3.7	United States	\$234.2

Note: Table reports state and local taxes paid by, and related to, the private equity sector. This table includes the state and local taxes paid by suppliers of the private equity sector and the state and local taxes supported by consumer spending related to the private equity sector. Figures may not sum due to rounding.

Source: EY analysis.

VI. Caveats and limitations

The estimates of the economic contribution of the US private equity sector presented in this report are based on an input-output model of the US economy and the data and assumptions described elsewhere in the report. Readers should be aware of the following limitations of the modeling approach and limitations specific to this analysis.

- ▶ **The results show a snapshot of current economic contributions.** The input-output modeling approach used in this analysis shows the 2022 economic contribution of the US private equity sector based on its relationships with other industries and households in the US economy. The analysis is at a single point in time (i.e., 2022). The results do not reflect or attempt to estimate an expansion, contraction, or any other changes, or related impacts, of the sector.
- ▶ **Estimates are limited by available public information.** The analysis relies on information reported by federal government agencies (primarily the US Bureau of Economic Analysis, US Bureau of Labor Statistics, US Census Bureau, and Congressional Budget Office), and other publicly available sources (i.e., PitchBook, Dun & Bradstreet, and IMPLAN model). The analysis did not attempt to verify or validate this information using sources other than those described in the report.
- ▶ **Modeling the economic contribution of the US private equity sector relies on government industry classifications.** This report relates the activities of US private equity sector companies to the operating profiles of various industries as defined by the North American Industry Classification System (NAICS) to most effectively estimate the economic contribution of the US private equity sector. Workers in the US private equity sector are assumed to receive the average wages and benefits of workers in their respective industry and to require the level of operating input purchases characteristic of the industries into which they have been categorized. This analysis relies on estimates of the domestically purchased inputs from the IMPLAN economic model, which are estimated using aggregate trade flow data and may vary by industry.
- ▶ **Modeling the average and median wage of the US private equity sector relies on industry averages.** This report relates the activities of US private equity sector companies to the operating profiles of various industries as defined by the NAICS industry classification system to most effectively estimate the average and median wage of the US private equity sector. Workers in the US private equity sector are assumed to receive the average wages and benefits of workers in their respective industry and to require the level of operating input purchases characteristic of the industries into which they have been categorized.
- ▶ **Estimates do not reflect the economic impact of the PE industry.** This analysis does not attempt to estimate or indicate the effect or impact of the PE industry or sector on the US economy. Rather, the analysis presents estimates of the economic contribution or footprint of the PE sector. An economic impact analysis might instead analyze the impact on the US economy of a change to or in an industry or sector, perhaps due to a policy change, natural disaster, or some other exogenous factor. An economic impact analysis might attempt to account for the economic dynamics that occur in response to such a change and show the

impact net of shifts of economic activity across different parts of the economy (e.g., industries, sectors) as impacts ripple through the economy.¹²

- ▶ **Input-output modeling can include double counting.** Input-output modeling can include double counting in its indirect and induced estimates. For example, a PE-backed company's suppliers or suppliers of suppliers could be a PE-backed company and consumer re-spending of income supported by private equity could be at PE-backed businesses or businesses with PE-backed suppliers. This limitation is due to the use of industry averages in estimating indirect and induced economic contributions in input-output modeling. This analysis attempts to remove double counting by assuming the private equity sector is included in the indirect and induced contributions, by industry, proportional to its direct employment share in each industry.
- ▶ **State-level results are high-level estimates.** The state-level results are an allocation of the national results to the 50 states (plus the District of Columbia) with a high-level estimate based on the industries in which the private equity sector operates. An allocation approach is necessary because sufficiently detailed data on the US private equity sector are not available by state from publicly available sources. For example, for a given private equity-backed company only a total employment number is available, not a state-by-state number.
- ▶ **Taxes paid by, and related to, the US private equity sector based on historical averages.** In general, estimates of federal, state, and local taxes paid are based on the historical relationship between federal, state, and local tax collections (by tax type) to economic activity.
- ▶ **Results are not sensitive to including or excluding employment and labor income of private equity firms.** Employment and labor income at private equity firms contribute less than 1% of the total for the private equity sector. Results included throughout this report are not sensitive to including or excluding private equity. That is, the economic and tax contribution estimates are primarily a result of PE-backed companies.

Appendix. Modeling approach

Technical details: IMPLAN model of the US economy

This analysis uses an input-output model to estimate the economic contribution of the US private equity sector in 2022. The economic multipliers in this report were estimated using the 2021 Impacts for Planning (IMPLAN) input-output model of the United States. IMPLAN is used by more than 500 universities and government agencies. Unlike other economic models, IMPLAN includes the interaction of more than 500 industries, thus identifying the interaction of specific industries that are related to the US private equity sector.

The multipliers in the IMPLAN model are based on the Leontief production function, which estimates the total economic requirements for every unit of direct output in a given industry based on detailed inter-industry relationships documented in the input-output model. The input-output framework connects commodity supply from one industry to commodity demand by another. The multipliers estimated using this approach capture all of the upstream economic activity (or backward linkages) related to an industry's production by attaching technical coefficients to expenditures. These output coefficients (dollars of demand) are then translated into dollars of GDP and wages and benefits and number of employees based on industry averages.

The multipliers presented in this report include the US private equity sector, suppliers to US private equity, and related consumer spending. Economic activity at suppliers to the US private equity sector is attributable to operating input purchases from US suppliers. Economic activity related to consumer spending is attributable to spending by US private equity sector and supplier employees based on household spending patterns. The US private equity sector is estimated to have an employment multiplier of 2.6, a wages and benefits multiplier of 2.5, and a GDP multiplier of 2.4.

In general, estimates of federal, state, and local taxes paid are based on the historical relationship between federal, state, and local tax collections (by tax type) to economic activity (measured as personal income). This ratio estimates the effective tax rates for each tax type as a share of total personal income.

Endnotes

¹ In particular, the analysis' estimates of the net differential in the employment growth rate of the private equity-backed companies relative to the comparable companies not backed by private equity after two years range from a 0.26 percentage-point increase to a 0.88 percentage-point decrease. This reflects the net effect of (1) higher rates of job destruction at a company's shrinking and exiting establishments, (2) greater job creation at a company's expanding establishments, and (3) greater job creation at new company establishments. See Steven J. Davis, John Haltiwanger, Kyle Handley, Ron Jarmin, Josh Lerner, and Javier Miranda, (2014), "Private equity, jobs, and productivity," *American Economic Review* 104(12): pp. 3956-3990. An analysis using a similar methodology for approximately 5,100 private equity buyouts between 1980 and 2011 found similar results (i.e., a statistically insignificant impact on employment and significant productivity increases), but highlighted heterogeneity within the data. In particular, on average, public-to-private buyouts resulted in significant employment declines and private-to-private buyouts and secondary deals resulted in significant employment increases. See Steven J. Davis, John Haltiwanger, Kyle Handley, Ben Lipsius, Josh Lerner, and Javier Miranda, (2019), "The Social Impact of Private Equity Over the Economic Cycle."

² Proprietor income includes the payments received by self-employed individuals and unincorporated business owners.

³ Companies are classified based on the North American Industry Classification System (NAICS), which is commonly used for industry classification in government statistics. Company NAICS classifications were generally identified using Dun & Bradstreet. All numbers are prorated to account for cases where private equity owns less than 100% of a company.

⁴ The only available employment data from PitchBook on US private equity firms was for the number of investment professionals. This report estimated the total number of employees at US private equity firms based on the ratio of non-investment professionals to investment professionals for the securities, commodity contracts, and other financial investments and related activities industry with data from the US Bureau of Labor Statistics.

⁵ EY was provided data on 2022 private equity-backed companies by PitchBook. Private equity-backed companies only included those headquartered in the United States with an ownership status of privately held (backing), in IPO registration, or publicly held. Companies backed by venture capital were not included in these data. In order to classify each company based on the NAICS hierarchy, as well as supplement PitchBook's data with additional employment data for entities lacking this information through PitchBook, the PitchBook company list was matched to data from Dun & Bradstreet (D&B). The resulting dataset was reviewed and cleaned as per the following steps: verifying NAICS code matching for a subset of companies, as well as additional review of the top 250 companies (based on PitchBook employment data, or D&B employment data when PitchBook data was missing).

The next step of the data cleaning procedure was to verify NAICS code matching for a subset of companies, given that certain issues arise in the process of matching PitchBook data to D&B data. For instance, certain companies were classified under NAICS codes associated with holding companies as opposed to the NAICS code associated with the company's primary activity. In addition, companies may have been matched incorrectly, resulting in an incorrect NAICS code classification, or a NAICS code may simply not be provided. To address these issues, EY manually reviewed the NAICS codes for the top 250 companies (based on PitchBook employment data, or D&B employment data when PitchBook data was missing), and when errors were identified, manually updated the NAICS codes based on PitchBook descriptions of the company's primary function.

For the top 250 companies, EY verified whether there are active investors in the business according to PitchBook, and manually reviewed and excluded transactions involving portfolio acquisitions.

The wages and benefits paid to employees of private equity-backed companies and GDP generated by private equity-backed companies were estimated from industry averages with the IMPLAN model, which is discussed in the appendix to this report.

⁶ This \$80,000 is computed prior to rounding the wages and benefits and employment estimates. In particular, the \$1 trillion of wages and benefits is approximately \$961 billion and 12 million employees is approximately 11.957 million employees.

⁷ The \$80,000 average wage estimated in this analysis is based on industry-level labor income data from the IMPLAN model. Accordingly, the comparable average wage is the average wage for the overall US economy in the IMPLAN model, which is approximately \$73,000. The main IMPLAN economic data sources are Census of Employment and Wages (Bureau of Labor Statistics), Regional Economic Accounts (Bureau of Economic Analysis), County Business Patterns (Census Bureau), and National Income and Product Accounts (Bureau of Economic Analysis).

⁸ In particular, the average wages and benefits per worker number was converted to a full-time equivalent average wages and benefits per worker number and then divided by the number of hours a full-time worker works. This estimate assumes that a full-time worker works 40 hours per week 52 weeks a year (i.e., 2,080 hours).

⁹ In order to calculate the median wage of employees in the private equity sector, this analysis used the American Community Survey (ACS) 2021 micro-level data of individual wage earners. The ACS is a survey conducted by the US Census Bureau that is representative of the overall United States. In particular, this analysis assumes that the wage distribution of employees in the private equity sector, by industry, follows that of the overall United States. This

assumption then facilitates the calculation of a median wage for the private equity sector. This calculation excludes proprietor income.

¹⁰ As discussed in endnote 9, to calculate the median wage of employees in the private equity sector, this analysis used the American Community Survey (ACS) 2021 micro-level data of individual wage earners. The comparable calculation of median earnings for the overall US economy is approximately \$50,000 (full-time, year-round workers 16 years and over with earnings).

¹¹ This is 2022 US GDP as reported by the US Bureau of Economic Analysis.

¹² A key point is that an economic impact analysis typically attempts to estimate impacts that net out shifts in economy activity across industries and sectors as the economy moves from its initial equilibrium to its new equilibrium. In contrast, an economic contribution analysis shows the gross amount of economic activity tied to an industry or sector directly, and through its suppliers and related consumer spending. The EY Quantitative Economics and Statistics (QUEST) practice has other modeling frameworks it uses to account for the shifts in economic activity and estimate net impacts.