

#### **REPORT**

# NORWAY'S CONTRIBUTION TO THE U.S. ECONOMY: JOBS, TRADE, AND INVESTMENT



# **MENON PUBLICATION NO. 100/2023**



### **Preface**

On behalf of the Royal Norwegian Embassy in Washington, Menon Economics has analyzed the economic impact of Norwegian activity on job creation in the United States. The work has been conducted with Jonas Erraia as project manager and Odin Dager Moe, Sigrid Hernes and Per Fredrik F. Johnsen as project members.

Menon analyzes economic issues and provides advice to companies, organizations, and authorities. We combine economic and commercial expertise in fields such as industrial organization and competitive economy, strategy, finance, organizational design, and social profitability. We use research-based methods in our analyses and work closely with leading academics within our field of work.

We would like to thank the Royal Norwegian Embassy in Washington for an exciting project. We would also like to thank the everyone that has contributed with discussions, data, and valuable input during the process. The authors are responsible for all content in this report.

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September 2023

Jonas Erraia Project owner Menon Economics

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# A letter from Norway's Ambassador to the United States

Norway and the U.S. have a long history of close relations. Almost a third of Norway's population made the journey across the Atlantic in the 1800s and early 1900s, seeking new opportunities for better lives. In 2025, we will celebrate the bicentennial of the arrival of 52 Norwegians aboard the Restauration, marking the beginning of major immigration to the U.S. from Norway. Today, Americans of Norwegian descent number around five million, and represent an enduring bond between the U.S. and Norway.

Our strong and growing ties are reflected in the economic and trade bonds between our two nations – as demonstrated in this report. Our shared priorities and complementary strengths benefit both Americans and Norwegians, as Norwegian companies have heavily invested across a range of sectors throughout the United States, creating stable American jobs and economic value. Much of Norway's contribution to the U.S. economy can be found in the sectors where Norway itself excels, such as energy, the maritime sector, seafood, metals and minerals, and the defense industry. Foreign trade has been a backbone of the Norwegian economy for decades. We are integrated into Europe's single market, but not a member of the European Union.

Norwegian investments in the U.S. are substantial. The Norwegian government pension fund – the world's largest sovereign wealth fund – has invested around 45% of its portfolio in the U.S.: its largest investment in any single country. It has investments in more than 1500 U.S. companies, with an average ownership stake of 1.3%.

In addition to having a significant presence within the American oil and gas industry, many Norwegian companies are entering the U.S. sustainable energy market, for example developing offshore wind projects, investing in carbon capture projects, and providing equipment for clean hydrogen production.

Norwegian companies are present across the value chains of this industry, providing expertise and experience for the opportunities ahead.

As two countries with vast coastlines, Norway and the U.S. have a longstanding history of cooperation in shipping and maritime affairs. Some of the pioneering Norwegians who started businesses in the U.S. did so in the maritime sector. Today, Norwegian companies contribute to the U.S. with technology and knowledge – from battery technology that enables ship electrification to state-of-the-art offshore and subsea technology. The U.S. is the second most important market for the Norwegian shipping industry.

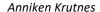
The defense sector is still another significant part of the U.S.-Norwegian industrial relationship. Norway's highly innovative defense industry has developed high-tech solutions over several decades. Their success in the American market has contributed positively to the US economy with manufacturing operations in the U.S. The U.S. and Norway have collaborated extensively for decades as founding members of NATO, and now work closely in their humanitarian and military equipment support for Ukraine, in response to Russia's brutal invasion.

Norway has also benefited from American expertise and investment. American companies' development of the nascent Norwegian oil industry in the early 1970s helped Norway develop into a technologically cuttingedge offshore energy exporter – as well as one of best countries in the world in which to live, work, and invest.

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Whether we are addressing climate crises, economic crises, or global health challenges, we have seen how trade and business can support shared policy goals through innovation and international cooperation. We strongly believe that the Norwegian business community will continue to contribute to the American economy in the years to come, as we jointly embark on the green transition and as technology becomes an ever greater part of our businesses and our lives.

Strong relationships – both personal and institutional – continue to bind America and Norway firmly together. Family ties, student exchanges, business, and travel across the Atlantic all help keep our relationship strong. We will do our best to maintain and strengthen this bond into the future.



Ambassador of Norway to the United States



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# A letter from the U.S. Ambassador to Norway

Dear friends,

I want to thank Ambassador Anniken Krutnes and her team for taking the initiative to produce this report. Thank you also to Menon Economics for providing such a detailed report with many insights, including that nearly 50,000 jobs are directly and indirectly supported by Norwegian multinationals in the United States.

Among my goals as the U.S. Ambassador to the Kingdom of Norway, is continuing to strengthen bilateral security, trade, investment, research, and development cooperation, with a particular focus on the green transition. Turning the tide on global warming requires every effort possible. The same with our mutual security. We warmly welcome technology, expertise, and contributions from our trusted partner Norway.

Since arriving in Norway in June 2022, it has been inspiring for me to meet so many of our businesses thriving in Norway and Norwegian companies invested and growing in the United States. Norwegian companies look to the U.S. economy to scale up and find new customers, partners, and investors. U.S. companies look to Norway for unique market opportunities, to innovate, find partners, and be challenged. In sum, to benefit from a very productive ecosystem.

Not only does trade create good paying jobs and prosperity to thousands of families in both of our countries, but it also tackles the many challenges at hand, including the green transition and our shared security needs.

This report describes the impact that Norwegian multinationals and SMEs have on the U.S. economy, and it demonstrates the strength of our trade and investment relationship. It provides examples and numbers to help us see emerging trends and the bigger picture and, in that way, can help us make better decisions for the future.

Let me emphasize that trade and investment is not a zero-sum game. It is an opportunity to improve upon what we have, use each other's strengths, grow in each other's markets, and create something better. Together with our trusted trading partners, we need to make sure we reduce our supply chain vulnerabilities and create a more resilient economy.

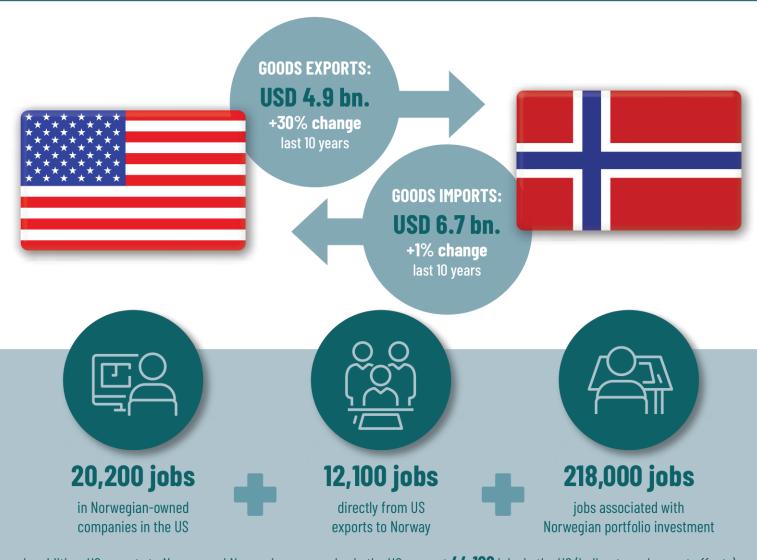
I have high hopes for the future, especially in the green industries where we have a broad intersection of companies, technologies, and opportunities. Please reach out to us at the U.S. Embassy in Oslo and let us know how we can build on what we have. For mutual prosperity, and for a better future.



Sincerely,
Marc B. Nathanson
U.S. Ambassador to the Kingdom of Norway

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# THE USA



In addition, US exports to Norway and Norwegian companies in the US support 44,100 jobs in the US (indirect employment effects).



USA	
Exports to Norway	
n USD billion	
Industrial supplies and materials	2.5
Capital goods excl. automotive	1.5
Travel	0.6
Other general merchandise	0.5
Other business services	0.5
Transport	0.4

Largest companies Number of US employees	
Hydro	6,040
Wilhelmsen	2,840
DNV	1,550
Tomra	1,090
Equinor	750
Nammo	640

# **Main findings**

The United States and Norway have a longstanding relationship, going back to waves of Norwegian migration to America in the late 19th and early 20th century. Today, this bond has evolved into a dynamic political and economic partnership characterized by economic cooperation, trade, and investments. The political cooperation between the two countries, includes a commitment to open and free trade; common security reinforced through NATO membership; promotion of human rights; as well as cooperation on fighting climate change.

Trade between the two countries has contributed to the growth and development of both economies. Although significantly smaller in size, innovative Norwegian companies in many sectors contribute in important ways to the US economy. The aim of this report is to quantify these effects in terms of the amount of US jobs associated with Norwegian multinationals, Norwegian import of American goods and services and investments from US-affiliated companies.

Based on extensive data collection, we find that **Norwegian multinational companies in the US contribute to the creation of 20,200 American jobs**. These companies include large companies, such as aluminum producer Hydro with over 6,000 employees in the US, maritime company Wilhelmsen with 2,800 employees and maritime classification company DNV with 1,550 employees, alongside many small and midsized Norwegian companies operating in a range of different industries.

Additionally, we estimate that the **export of US goods and services to Norway supports 12,100 American jobs**. Moreover, we estimate that Norwegian multinationals and US companies exporting to Norway indirectly support 44,200 US jobs through their purchases of goods and services. Finally, we find that there are **approximately 218,000 jobs associated with Norwegian portfolio investments in US companies**. These findings are summarized in the accompanying figure.

Jobs created by Norway and Norwegian actors 20,200
jobs created by
Norwegian
multinationals in the
US

**12,100**Jobs supported by US exports to Norway

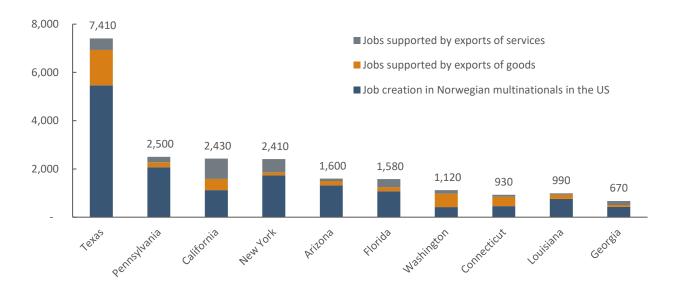
44,200 Indirect jobs supported 218,000 Jobs associated with Norwegian portfolio investments

In the report, we also estimate the jobs numbers for each US state. The figure below shows the ten states with the most jobs supported by exports to Norway and from Norwegian multinationals in the US. Texas is the state where the most US jobs are created from Norwegian activity, followed by Pennsylvania, California, and New York.<sup>1</sup>

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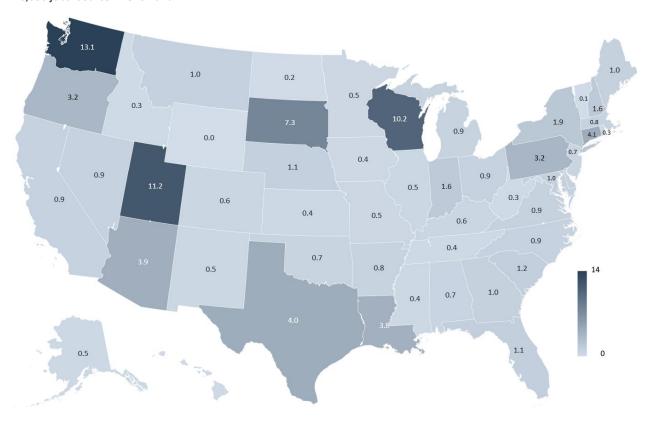
 $<sup>^{</sup>m 1}$  For detailed fact sheets on all US states, please refer to the final section of the report.

Figure 1: Top 10 states measured by number of jobs created from Norwegian multinationals in the US and supported by exports to Norway by state. Source: Menon



To compare the significance of jobs supported by Norwegian multinationals and from trade, we look at the number of jobs created relative to the total number of jobs in each state below.

Figure 2: Number of jobs created from Norwegian multinationals in the US and supported by exports to Norway by state per 10,000 jobs. Source: Menon and BEA



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The states with the highest relative importance of Norwegian job creation are Washington with 13.1 Norwegian supported jobs per 10,000 jobs, closely followed by Utah, Wisconsin, and South Dakota. For Utah and South Dakota this a mainly due to many jobs at Hydro plants. The states with the highest relative importance of jobs supported by Norwegian companies differ significantly from the states with the most jobs in absolute numbers.

However, Norwegian companies not only create important and well-paying jobs in the US. With world-leading and innovative companies operating in a range of different industries, Norwegian companies provide important inputs and technologies to US consumers and businesses. To illustrate this, we have conducted in-depth analyses of six specific industries that are of significant relevance in the economic ties between the United States and Norway. These industries include:

- Offshore wind
- Emerging green technologies
- Maritime sector
- Process industry
- Defense and security
- Seafood

Box 1: Members of Team Norway in the United States



Team Norway is a network-based collaboration between various public and private entities working to promote Norwegian business interests internationally. The purpose of this cooperation is to contribute to increased value creation in the Norwegian economy through information exchange, coordination, and coordinated efforts and initiatives.

Team Norway is a broadly composed group of various public and private organizations. The members of Team Norway in Washington is:

- Norwegian Embassy, Washington
- Norwegian Consulate General, New York
- Norwegian Consulate General, San Francisco
- Innovation Norway
- Norwegian Energy Partners
- The Norwegian-American Defense & Homeland Security Industry Council
- The Norwegian Seafood Council
- Chambers of commerce for every region of the United States
- Honorary consuls throughout the United States

All these industries are actively supported by a broad range of public and private Norwegian entities in the US, commonly referred to as Team Norway. See the box above for all Team Norway members.

In conclusion, the ties between the United States and Norway extend far beyond historical migration and shared values. Despite Norway's relatively small size, the political and economic cooperation between the two nations has had meaningful implications for job creation in the US. Norwegian multinationals and trade not only bolster the American economy in absolute numbers, but they also bring with them innovation, advanced technologies, and a shared commitment to common goals, not least fighting climate change. The analysis in this report leads us to conclude that the current – as well future potential for – economic ties between the two countries is vast. This highlights the continued importance of the comprehensive partnership between the US and Norway.

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### **Introduction: Norwegian-American relations**

The economic and cultural ties between Norway and the United States have a deep-rooted history, dating back to the waves of Norwegian migration to the US in the late 19th and early 20th centuries. Norwegian immigrants, seeking economic opportunities and freedom, settled all over the US, but primarily in the American Midwest, laying the foundation for a cultural bridge between Norway and the US, while maintaining strong ties to their homeland. In the 20th century businesses, inspired by the success stories of Norwegians in the U.S. and the growing global influence of America, began looking westward. Companies from both countries started collaborating, resulting in a surge of investments, joint ventures, and shared successes. Over time, this bond has evolved into a dynamic economic and political partnership with Norwegian companies investing in and import from almost all US states.

In today's complex geopolitical arena, the U.S. and Norway have fostered a strong relationship built on trust and mutual understanding on many important global issues. Their political cooperation is prominently showcased through their joint membership in NATO, underscoring a shared responsibility in upholding transatlantic peace and security. Beyond defense, both nations actively promote free and open trade, an aspect particularly pivotal for Norway, given its status as a small open economy. Furthermore, the U.S. and Norway converge on global challenges, reflecting their shared ambitions in championing human rights and mitigating the impacts of climate change.

In addition to political issues, the relationship has evolved in an important economic one. This includes both mutual trade as well as investments in both directions. Norwegian multinational companies in the US span various sectors, from green technology in California, Atlanta, and Michigan, to maritime enterprises on the Atlantic coast, and oil and gas companies in Texas. All of the companies contribute to job creation in local communities. Trade, a cornerstone of any bilateral relationship, has flourished between Norway and the U.S. The vast expanse of goods traded ranges from machinery and seafood to advanced equipment and petroleum products. It is also worth mentioning the particularly important role played by the Norwegian sovereign wealth fund. Norges Bank Investment Management (NBIM) is the largest sovereign wealth fund in the world. Counting both stocks, bonds, and real estate, about 45 percent of the NBIM's holdings are in US states. The fund is invested in over 1500 US listed companies, with an average ownership of 1.3 percent.

#### **Economic relationship**

In this chapter, we introduce and characterize the economic relationship between the U.S. and Norway. This includes a brief analysis on the trade flows between the two nations, as well as a look at Norwegian investments in the United States.

In 2022, the United States exported goods and services to Norway totaling USD 7.4 billion with exports of goods accounting for about two-thirds of the total.<sup>2</sup> The largest category within goods exports was *industrial supplies and material*, while export of services was dominated by travel services.

The figure below shows U.S. exports to Norway split between goods and services. From the graph, we see that exports to Norway have fluctuated in recent years. Overall, exports of goods to Norway have increased by 16 percent

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<sup>&</sup>lt;sup>2</sup> Source: Statistics Norway: <a href="https://www.ssb.no/statbank/table/08806/tableViewLayout1/">https://www.ssb.no/statbank/table/08806/tableViewLayout1/</a>

since 2010, while exports of services have decreased by 19 percent. Due to the pandemic, American exports were at their lowest in more than ten years in 2020 and 2021 but rebounded in 2022.

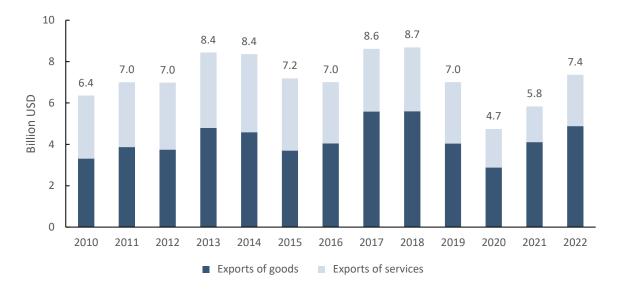


Figure 3. Exports of goods and services from the United States to Norway, current prices. 2010-2022. Source: BEA

While the focus of this report is on American exports to Norway, it is worth noting that the United States is Norway's primary market for service exports and is its second-most important trading partner outside of the EU for goods exports. The graph below shows imports from and exports to Norway from 2010 to 2022.

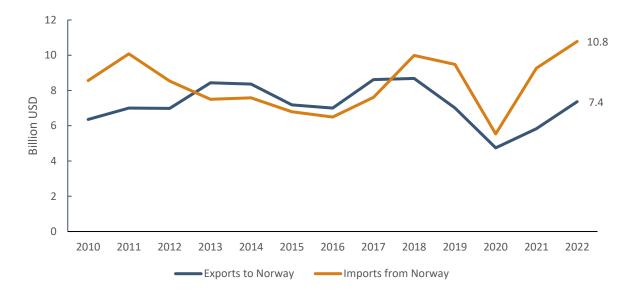


Figure 4. US exports to and imports from Norway. 2010-2022. Source: BEA

The figure below illustrates the distribution of American exports of goods and services to Norway in 2022, across the largest groups of export industries.

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3.0 2.5 2.5 2.0 Billion USD 1.5 1.5 1.0 0.6 0.5 0.5 0.4 0.4 0.5 0.3 0.0 Industrial Capital goods Travel Other general Other Transport Financial Telecom, supplies and excl. merchandise business services computer, materials automotive services and information services

Figure 5. Value of exports of goods and services in 2022, by product group. Blue columns represent goods, while green columns represent services. Billion USD. Source: BEA

Measured by export value, *industrial supplies and material* was the largest product category, with a total export value of USD 2.5 billion. This includes exports of crude oil, natural gas, and other petroleum products, including instruments used in the offshore industry.<sup>3</sup> The second-largest category was *capital goods excl. automotive*, with an export value of USD 1.5 billion. A significant portion of this category is related to Norway's purchase of 12 aircraft from the United States in 2022.<sup>4</sup> Combined, these two industries constitute over 80 percent of all goods exports from the United States to Norway.

Furthermore, the largest share of service exports was services related to travel. After dropping significantly in 2020 and 2021, exports related to travel increased sharply in 2022. However, exports related to travel are still only half of what they were before the pandemic. The second-largest category of service exports was *other business services*. This includes research, legal, and management consulting services. You might expect IT-related services to be more prevalent, but most revenues for large multinational tech companies are foreign revenues, and not considered as exports.

In addition to the flow of goods and services, financial ties between the US and Norway are considerable. As the global center for finance and home to many of the largest businesses in the world, the US is the recipient of a large portion of Norwegian investments. This includes investments from both private households, businesses, and the government.

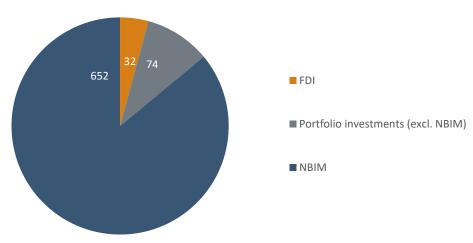
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<sup>&</sup>lt;sup>3</sup>https://apps.bea.gov/iTable/?reqid=62&step=6&isuri=1&6210=1&6200=45

 $<sup>^4 \</sup>underline{https://www.ssb.no/utenriksokonomi/utenrikshandel/statistikk/utenrikshandel-med-varer/artikler/norges-viktigste-handelspartnere$ 

Norwegian portfolio investments in the US are dominated by the state pension fund, NBIM, with a staggering USD 652 billion. In addition to NBIM, Norwegian households, businesses, banks, and institutional investors have portfolio investments in the US. In 2021, Norwegians had USD 74 billion worth of portfolio investments in the US when NBIM is excluded. Norwegian foreign direct investments (FDI) in the US amounted to USD 32 billion, up from USD 15 billion in 2013.<sup>5</sup> This constitutes 15 percent of total Norwegian FDI which makes the US the second largest recipient of Norwegian FDI, only surpassed by neighboring Sweden. The figure below summarizes Norwegian investment positions in the US in 2021.

Figure 6. Norwegian investment positions in the US by split by FDI and portfolio investments in the US in 2021. USD billion. Source: Statistics Norway



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<sup>&</sup>lt;sup>5</sup> Statistics Norway applies a 20 percent ownership threshold for distinguishing between direct investments and portfolio investments.

# Jobs created by Norwegian multinationals in the US

As the largest economy in the world, the US is an important market for Norwegian businesses. As a result, many Norwegian companies have subsidiaries in the US. Several Norwegian companies even have more employees in the US than in Norway. This is the case for companies such as Nammo, Tomra Systems, Hydro Aluminum, and Hexagon Composites.

Norwegian multinational companies are present in almost every state in the US. In total, 20,200 Americans are employed in Norwegian companies in the US.<sup>6</sup> Most of the jobs are concentrated in the most populous states such as Texas, California, and New York. In addition, a lot of jobs are related to a few key industries such as the petroleum industry, defense industry and process industry. The figure below shows the top 10 states with the most jobs in Norwegian multinationals.

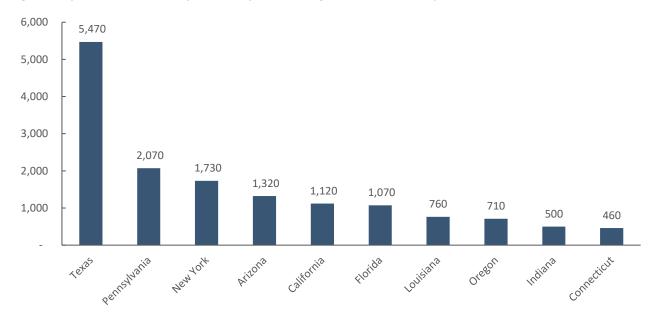


Figure 7. Top 10 states measured by number of jobs in Norwegian multinational companies. Source: Menon, ORBIS and web

Texas is the state with the most jobs in Norwegian companies, with 5,470 jobs. Texas is the capital of the US oil and gas industry. The oil and gas industry is Norway's most important industry in terms of value creation, and several Norwegian subsidiaries are located in Texas.

Pennsylvania is the state with the second most jobs. Pennsylvania is home to several Norwegian multinationals in the process industry, the largest being Hydro Aluminum. In addition, several companies in the maritime industry are located there, such as Philly Shipyard. The state with the third most jobs in Norwegian companies is New York. Many Norwegian companies within a broad range of industries are located in New York. The largest Norwegian company in terms of jobs in New York is Tomra Systems, followed by the maritime and technical classification company, DNV.

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<sup>&</sup>lt;sup>6</sup> See the methodology chapter for a thorough explanation behind the estimated number of jobs in Norwegian multinationals.

Table 1: Top 10 Norwegian multinationals measured by the number of jobs in the US. Source: Menon, Orbis and Web

Company	Number of US employees	Industry
Hydro	6,040	Aluminum producer
Wilhelmsen	2,840	Maritime group
DNV	1,550	Maritime classification, assurance, and risk management
Tomra	1,090	Design, manufacturing, and sale of reverse vending machines
Equinor	750	Oil and gas E&P company and operator of floating wind parks
Nammo	640	Manufacturer of specialty ammunition and rocket motors
Kongsberg Gruppen	610	Delivers high-technology systems and solutions within several industries
Hexagon Composites	730	Composite cylinder technology for storage and transportation
Stolt-Nielsen	510	Transportation, storage and distribution services for bulk liquids
Aker Solutions	500	Delivers integrated solutions, products and services to the global energy
		industry

#### Jobs indirectly supported by Norwegian multinationals

Norwegian demand for US products does not only support US jobs in exporting businesses. US regions and industries are closely intertwined, which means that activity in a US company exporting to Norway will spur activity in other parts of the company's supply chain. Such ripple effects in the US economy from exports to Norway create demand and support jobs in other industries. This is what is commonly referred to as indirect effects, whereas the jobs in the exporting companies are referred to as "direct effects".

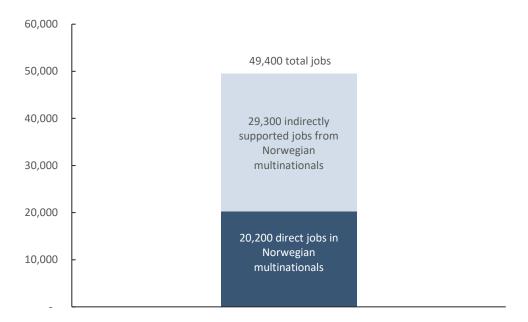
We have estimated the number of jobs supported indirectly throughout the value chain using the Bureau of Economic Analysis' input-output tables. Input-output tables show how different sectors interact with each other in terms of cross-industry demand and supply of products.

**Indirectly supported jobs from exports to Norway is estimated to 29,400 American jobs.** These jobs are supported at suppliers and sub-suppliers to exporting firms. These effects are spread throughout all states and industries in the US. The graph below illustrates in which states the direct job creation was most significant.

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<sup>&</sup>lt;sup>7</sup> See the appendix for a thorough explanation of the model.

Figure 8: Total employment effect split by direct and indirect employment effects. Source: Menon



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### Jobs supported by trade with Norway

Norwegian demand for goods and services produced in the U.S. contributes to increased revenues for the companies that manufacture and export these products to Norway. In turn, increased revenues lead to a higher demand for labor from these companies. In this way, exports from the U.S. to Norway directly support job creation in the U.S.

To calculate the number of American jobs sustained by exports to Norway, we have used export data from the U.S. Bureau of Economic Analysis (BEA), as well as the proportional relationship between revenue and employment in various industries (see the appendix for a detailed description of the methodology).

In total, we estimate that, in 2022, the export of goods and services to Norway supported 12,100 American jobs in the companies that produced and sold products to Norway. Including indirect effects in the supply chains of the exporting companies, this number rises to 26,900 jobs.

Of the total jobs 5,880 were supported through the export of goods, and 6,210 were supported through the export of services. US goods export to Norway are highly capital intensive and technologically advanced. The largest export goods are industrial capital goods which are characterized with high productivity and high revenue per employee. This translates in relatively low direct employment from goods export to Norway.

The graph below illustrates in which states the direct jobs supported by exports were most significant.

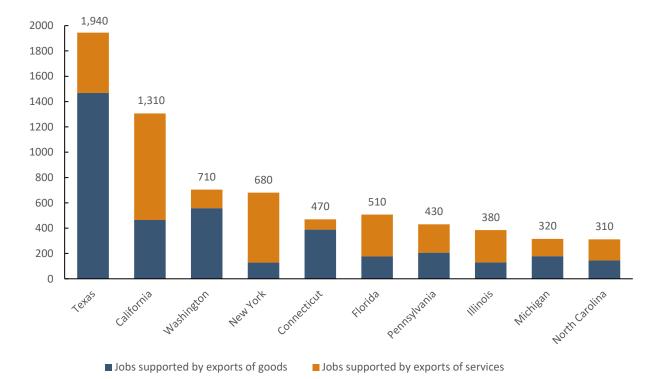


Figure 9. American jobs supported by exports to Norway, by state. Top 10. Source: Menon Economics and BEA

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As we can see from the graph, the direct jobs supported by trade were highest in Texas, driven by the largest exports of chemicals, machinery, and petroleum products to Norway. Second highest were the jobs supported by trade in California. Despite the fact that the total exports from California to Norway was nearly 80 percent lower than the export from Texas to Norway, the number of jobs supported through exports was only 40 percent lower in California compared to Texas. This is because, as mentioned, the export from Texas largely stems from the petroleum industry, which has particularly high productivity. In New York, Connecticut, Florida, Pennsylvania and Illinois, exports to Norway help sustain more than 300 jobs.

To highlight the relative importance of jobs supported by Norwegian exports, we have calculated the number of jobs directly supported by trade relative to the number of jobs in the respective state. The figure below shows the states with the highest number of jobs supported by trade per 10,000 jobs.

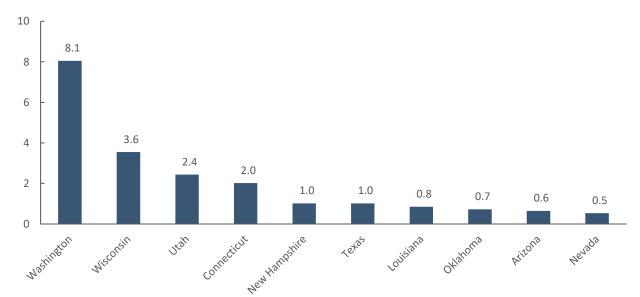


Figure 10. Directly supported jobs by exports to Norway per 10,000 jobs, by top 10 states. Source: Menon and BEA

Compared to the absolute number of jobs, the list of top ten states arranged by relative importance of jobs supported by exports to Norway looks very different. In Washington, 8.1 jobs per 10,000 jobs are supported by exports to Norway. The relative importance is more than double than what it is in Wisconsin with 3.6, which is in second place. Other states with a relatively high importance of trade with Norway are Utah, Connecticut, New Hampshire, and Texas, with more than one out of 10,000 jobs supported by exports to Norway. The top fifteen states are dominated by states with relatively small populations with a couple of exceptions, whereas the list of states with the most jobs supported by trade in absolute terms is dominated by populous states.

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#### Jobs indirectly supported by exports to Norway

We have estimated the number of jobs supported indirectly throughout the value chain using the Bureau of Economic Analysis's input-output tables. Input-output tables show how different sectors interact with each other in terms of cross-industry demand and supply of products.

As shown in the graph below, an estimated 14,800 American indirect jobs are supported by exports to Norway.

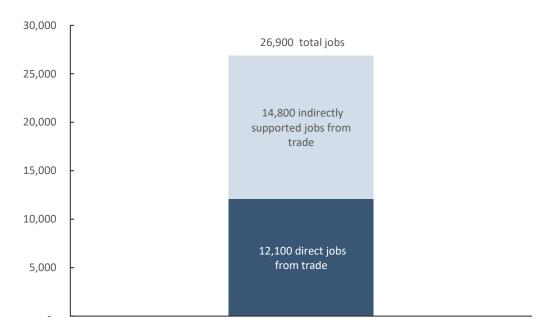


Figure 11: Total employment effect split by direct and indirect employment effects. Source: Menon

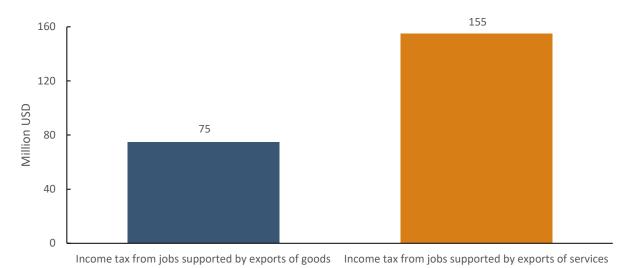
These jobs are supported at suppliers and sub-suppliers to exporting firms. Their effects are spread throughout all states and industries in the U.S. The graph below illustrates the states in which direct job creation was most significant.

Jobs supported by exports to Norway also contribute to American society by generating tax revenue. We find that the total tax revenue from jobs *directly* supported by exports to Norway was USD 190 million in 2022. As we see from the graph below, USD 75 million came from jobs supported by exports of goods, and USD 115 million came from jobs supported by exports of services.

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<sup>&</sup>lt;sup>8</sup> See methodology appendix for a thorough explanation of the model.

Figure 12. Income tax revenues from jobs directly supported by trade with Norway. Source: Menon Economics, BEA, US Census Bureau



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### Jobs associated with Norwegian investments

Norges Bank Investment Management (NBIM) is the largest sovereign wealth fund in the world, and invests in a wide range of asset classes, including equities, fixed income, and real estate, across various regions and markets. The goal of the fund is to preserve wealth for current and future generations of Norwegians. The fund's objective is to invest in a globally diversified portfolio to achieve the highest possible return while adhering to principles of responsible and ethical investing. From 2013 to 2022, total positions by NBIM in the US increased from USD 248 billion to USD 560 billion, an increase of almost 300 percent. In total, about 45 percent of the NBIM's stock positions are in the US. The fund is invested in over 1,500 US listed companies, with an average ownership of 0.9 percent.

NBIM owns a significant stake in many American companies that collectively employ millions of people in the US. In total, US-listed companies in which NBIM is invested collectively employ over 35 million people. Most of these jobs are in the US. Publicly available information about NBIM's positions is used to estimate the number of jobs associated with NBIM's ownership stakes in the US. In addition, we have estimated the impact of NBIM's ownership in each state.

Our estimates show that **218,000 jobs in the US** are associated with NBIM's ownership in US companies. The jobs are distributed across several sectors, but more than one third of jobs are found in *consumer discretionary* where we find investments such as Walmart (of which NBIM owns 0.65 percent) and Amazon (where NBIM owns 0.95 percent). Other industries with many jobs associated with NBIM investments are *industrials*, *technology*, and *health care*.

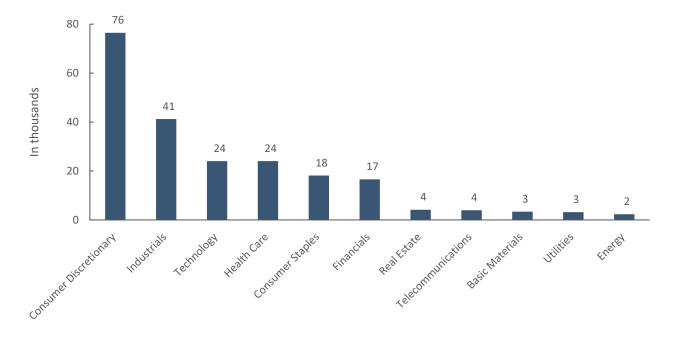


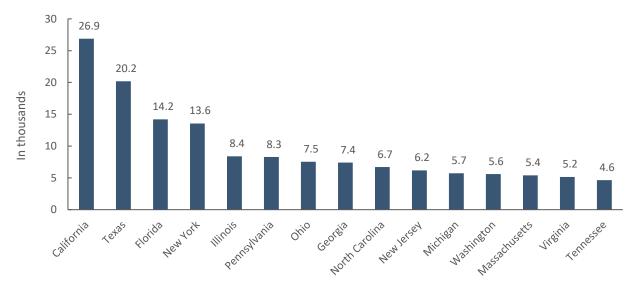
Figure 13: The number of jobs associated with NBIM's ownership stakes in the US. 2022. Source: NBIM and Menon

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<sup>&</sup>lt;sup>9</sup> When weighing the average for market valuation, the average ownership of NBIM is 1.3 percent.

When looking at how jobs associated with NBIM investments are distributed across states, the states with the most jobs coincide with the most populous states and the states with large metropolitan cities. The figure below shows how jobs associated with NBIM are distributed across states.





The top four states by number of NBIM jobs are California, Texas, Florida, and New York, and these is also the states with the largest populations. In California alone, 26,900 jobs are associated with NBIM's investments. This is more than the 20 states with the lowest number of jobs combined.

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# Offshore wind industry



Promoting offshore wind has lately been a growing priority in the U.S. government's agenda. In March 2021, the Biden administration announced targets for offshore wind deployment in the U.S., including installing 30 GW of offshore wind by 2030.9 For 2050, the Biden Administration has set a target of 110 GW. Even though these goals are technology neutral, the U.S. has set an ambition for floating offshore wind of 15 GW in 2035. The U.S. government's 2030-ambition will trigger huge capital investments, which in turn will create many jobs. On top of federal initiatives, several states are also promoting offshore wind in their own policies and programs, and actively compete with one another to attract parts of the supply chains. According to government estimates, more than 44,000 workers are expected to be employed in offshore wind by 2030, and nearly 33,000 additional jobs in communities will be supported by offshore wind activity.

The technical potential of offshore wind in the U.S. is large. According to the World Bank, the U.S. has a potential of around 8,700 GW.<sup>10</sup> Given the deep ocean depths off the West Coast, development there will mainly use floating turbines. Bottom-fixed offshore wind makes up 28 percent of U.S. technical potential, while offshore floating wind makes up 72 percent. However, the first projects are being developed in shallower Atlantic waters off Eastern states, where costs are lower.

# 'There is significant potential for Norwegian players within offshore wind in the US.'

There is significant U.S. potential for Norwegian players within offshore wind. Norwegian companies have advanced offshore expertise and technological insight, and they deliver products and services of high quality. Examples of offshore wind technologies where Norwegian companies are leading include cables, floating wind concepts (e.g., Hywind), and installations and maritime operations. Some Norwegian companies are already prominent in the U.S. offshore wind market, and cooperation will promote synergies and provide international market access for Norwegian companies entering the offshore wind market.

On the U.S. East Coast, there is already about 25 GW of offshore wind under development, albeit at varying stages. Equinor has considerable presence here, as the operator of two license areas (together with BP). The two areas, Empire Wind and Beacon Wind, will deliver 3.3 GW of energy to the state of New York, which is enough electricity for almost a million households. Other Norwegian companies have already signed contracts with Equinor on Empire Wind. Aker Solutions won the contract for front-end engineering and design (FEED) in cooperation with the American company Kiewit Infrastructure, and Nexans has signed a contract to provide Equinor with offshore wind cables. The latter's cables will be manufactured at Nexans facilities in Charleston, South Carolina, and Halden, Norway. In addition to this, Norwegian companies have supplied services to other offshore wind farms on the East Coast. For example, Fred. Olsen Windcarrier has installed five wind turbines at Block Island Wind off the coast of Rhode Island, which was the first commercial offshore wind farm in the U.S. Such growth is expected to continue, as a new auction round for areas in the Gulf of Mexico was announced in February 2023.

Offshore wind development is also increasing on the West Coast, where the first lease auction was held in December 2022. These areas will require floating turbines, given sea depths. Five areas were awarded in the auction. One of the areas, near Morro Bay in California, was won by Equinor. The area has a potential of 2 GW, enough to supply around 750,000 American homes with electricity. This moves Equinor's existing U.S. offshore wind portfolio of 3.3 GW up toward a further 2 GW — and thus secures its position as one of the leading companies in offshore wind development in the US.

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<sup>&</sup>lt;sup>9</sup> https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/

<sup>&</sup>lt;sup>10</sup> The World Bank – Global Offshore Wind Technical Potential (last updated January 2023).

 $<sup>^{11} \, \</sup>text{https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/energy-transition/051723-us-offshore-wind-power-development-expanding-beyond-the-east-coast-in-2023}$ 

# **Emerging green technologies**

Norway stands at the forefront of the global green transition, coming from deep traditions within environmental sustainability, innovative energy solutions, and renewable energy production. There is a broad political consensus in Norway that the country should be a leader in developing a more sustainable future. On the technological side of the green transition, three technologies - battery production, hydrogen, and Carbon Capture and Storage (CCS) – have emerged as key areas of ambition in Norway. In all of these, Norway has particularly strong foundations for developing solutions and products that can be produced and deployed globally, including in the U.S. Thus, these three sectors, all supported by the Inflation Reduction Act, lend themselves well to economic and technological cooperation between Norway and the U.S.

#### **Battery production**

Norway stands at the forefront of the global green transition, coming from deep traditions within sustainability, environmental innovative solutions, and renewable energy production. There is a broad political consensus in Norway that the country should be a leader in developing a more sustainable future. On the technological side of the green transition, three technologies - battery production, hydrogen, and Carbon Capture and Storage (CCS) – have emerged as key areas of ambition in Norway. In all of these, Norway has particularly strong foundations for developing solutions and products that can be produced and deployed globally, including in the U.S. Thus, these three sectors, all supported by the Inflation Reduction Act, lend themselves well to economic and technological cooperation between Norway and the U.S.

What makes Norwegian battery technology especially intriguing for the U.S. is the comprehensive nature of its value chain. Norwegian enterprises cover a wide spectrum, from the production of anode and cathode materials to the actual cell production, and from module assembly to recycling. A particularly relevant Norwegian company is Freyr Battery, which has recently moved its headquarters to the U.S. and has plans to build a large cell production factory near Atlanta. The project is expected to create more than 700 jobs over the next seven years. In addition, companies like Morrow (battery cell production), Vianode (anode material), and Hydrovolt (recycling) are expected to soon deliver innovative battery technology globally.



'Norway is uniquely positioned to offer batteries that carry an exceptionally low carbon footprint'

Research and innovation form a cornerstone of Norway's strategy. By fostering tight-knit collaborations between its universities, research institutions, and industry magnates, Norwegian companies are well positioned to move to the cutting edge of battery technology. Innovations to enhance longevity and efficiency, and to make batteries more sustainable, might prove helpful for the U.S. automobile industry — which, sparked by the IRA, is undergoing a rapid transition to electric vehicles.

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#### **Hydrogen industry**

Hydrogen has garnered significant attention in recent years, rapidly emerging as a versatile energy carrier with the potential to play a pivotal role in the global energy transition. Given its high energy content and environmentally friendly combustion products – primarily water – hydrogen is considered the fuel of the future. It is particularly important for the so-called hard-to-abate sectors, which cannot be electrified, including the production of fertilizer and steel.

Norway has a range of resources and industry experience, which makes it particularly well suited to drive innovation in hydrogen production and technology development. As a country, it boasts an abundance of clean energy, predominantly from its vast hydropower resources, making it an ideal hub for producing green hydrogen through water electrolysis. Furthermore, Norway's extensive reserves of natural gas offer the opportunity for blue hydrogen production, through which hydrogen is derived from natural gas with carbon capture and storage techniques. This interplay between green and blue hydrogen production methodologies could well lead to an optimized and flexible hydrogen economy. Going hand in hand with these possibilities on the production and technology side is the offtake on the demand side. Norway's strong maritime industry, as well as its process industry, provides both a potential consumer base for hydrogen fuel and expertise in handling large-scale energy operations.

'The blending of technology, resources, and industry in Norway provides a blueprint for how the US might integrate hydrogen into its own energy systems'

For the U.S., Norway's advancements in hydrogen can offer invaluable insights and collaborations. The blending of technology, resources, and industry in Norway provides a blueprint for how the U.S. might integrate hydrogen into its own energy systems. Notably, the establishment of the new **Nel** electrolyzer factory in Michigan underscores the potential for direct technology transfers and collaborations. This factory, specializing in the production of electrolyzers for green hydrogen production, is expected to create more than 500 jobs in the state.

#### Carbon capture and storage

Carbon Capture and Storage (CCS) is an emerging tool in the global effort to combat climate change. CCS will allow industries to capture carbon emissions at the source and then store them safely underground or use them in various applications, preventing them from exacerbating the greenhouse effect. Direct air-capture technologies may allow carbon dioxide to be removed from the ambient air.

'Norway has specifically touted CCS as part of its commitment to sustainability and the green transition'

Norway has major ambitions for CCS as a technology. This is rooted in its industrial traditions and vast experience with gas and energy projects. Having been a global leader in the oil and gas sector decades, possesses Norway advanced infrastructure, technical expertise, and a skilled workforce adept at handling complex energy projects. This extensive knowledge base translates well into the realm of CCS, providing Norway with an advantage going forward. Furthermore, Norway has specifically touted CCS as part of its commitment to sustainability and the green transition. This is expected to include research, development, and implementation of CCS projects at both the governmental and industry levels.

The significance of Norway's strides in CCS extends well beyond its borders, holding substantial relevance for countries like the U.S. A case in point is the large-scale "Langskip" project in Norway, a flagship initiative designed to capture and transport carbon dioxide on an unprecedented scale. This venture not only showcases the technological and logistical possibilities in the CCS domain but also presents a blueprint for similar endeavors worldwide. The technological developments being made and deployed in Norway have the potential to serve as a showcase for how to build CCS projects in other countries, including the U.S. In addition, some of the Norwegian companies working on the forefront of CCS technology, including **Equinor** and Aker Solutions, are already present in the U.S.

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### **Maritime sector**



The Norwegian maritime sector consists of ship owning companies, shipyards, and equipment and service providers. These companies form a complete industry cluster, which is considered among the most innovative and complete in the world. The maritime industry in Norway has undergone significant structural and content-related changes. Over the past decades, the industry has pivoted from being predominantly focused on deep-sea activities to serving the oil and gas sector. Subsequently, it has diversified to serve various maritime sectors in recent years. Today, the Norwegian maritime industry is a diverse and broad-based sector. Furthermore, Norway has the fourth-most valuable fleet in the world as of 2023. The United States is ranked as number five. 12 Both countries are, in other words, important shipping nations and thus have bilateral relations in several areas in the maritime sphere, where topics such as the green transition and Arctic shipping have been on the agenda.

'Norwegian maritime companies are world leading in technology development, especially within green technology'

The United States is one of largest destinations for Norwegian ships. Around 4,000 Norwegian-controlled vessels call in U.S. ports every year, 13 The United States is a market of importance for the Norwegian maritime industry, where several shipping companies, maritime services, and equipment suppliers have expanded their operations. This includes establishing local offices, hiring local staff, and collaborating with American businesses, integrating their expertise, technology, and services. This contributes to job creation in areas such as vessel operations, port services, ship management, and logistics operations. In addition, Norwegian maritime companies are world leaders in technology development, especially within emission reducing green technology. Through technology transfer and knowledge sharing, Norwegian maritime companies support the growth of the American maritime industry by creating jobs in research and development, engineering, and technological implementation.

The Norwegian maritime industry is a leading provider of offshore solutions, both to the oil and gas market and to the offshore wind market. This expertise has been shared and further developed in the American market, where companies such as DOF Subsea, a leading provider of subsea services to the offshore industry, offer services such as subsea construction, ROV operations, and surveying. Furthermore, shipping companies operating in other market segments have also established local companies and subsidiaries in the United States. Among these are Grieg Star (serving the American market with shipping and logistic solutions) and Wallenius Wilhelmsen (a roll-on-roll-off ship owning company with several offices and terminals across the country). DNV, a classification society and technical advisor for the maritime industry, and Kongsberg Maritime, a leading provider of maritime technology and engineering solutions, also have a strong presence in the United States. The Norwegian shipyard Vard has a subsidiary located in the United States, Vard Marine U.S. Inc., which offers professional ship design, engineering, and shipbuilding technology services.

The green transition and cutting emissions are on the agenda both for the Norwegian and American maritime industries, and the two countries are collaborating to meet the International Maritime Organization's emissions goals. As an extension to this, Norway and the U.S. launched the Green Shipping Challenge at COP27 in November 2022. This challenge encourages countries, ports, companies, and other players in the shipping value chain to find solutions that will help the shipping sector along their pathway to limiting the rise in global temperatures to 1.5 degrees Celsius.<sup>14</sup>

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<sup>12</sup> https://www.rederi.no/globalassets/dokumenter/alle/rapporter/ref-konjunkturrapport23-no-web.pdf

<sup>13</sup> https://www.norway.no/contentassets/9de6bc183a594297bbaa37802468d98b/norway\_creates\_jobs\_in\_the\_us.pdf

<sup>14</sup> https://greenshippingchallenge.org/

# **Process industry**



The Norwegian process industry is a vital sector of Norway's economy, encompassing a diverse range of activities related to the production, refinement, and transformation of raw materials into various intermediate goods. Historically, the industry has played a significant role in Norway's industrial landscape, contributing to economic growth and innovation. In addition to export-oriented companies located in Norway, there are several multinational companies that play a significant role on the global stage and are making their mark on employment in the United States. These companies have brought innovation, technology, and sustainable practices to the American market, contributing to both economic growth and sustainable innovation. Norwegian giants within the process industry are found in both metallurgical producers and chemicals and include the likes of Hydro, Yara, Elkem, and Borregaard, which all have considerable activity in the U.S. as it is one of their most important markets.

Hydro Aluminium is the ninth-largest producer of aluminum globally. With more than 6,000 American employees, it is the Norwegian multinational company with the largest job footprint in the U.S. Through its businesses, Hydro is present in a broad range of market segments for aluminum, renewable energy, metal recycling, and batteries, offering a unique wealth of knowledge and capabilities. Yara is one of the largest producers of fertilizers in the world and has significant activity in the U.S., with almost 300 employees. Yara's primary focus is on the production and distribution of nitrogen-based fertilizers, which are essential for enhancing crop yields and improving food production. The company's activities span the entire agricultural value chain, from the production of raw materials to the distribution of fertilizers and the provision of agronomic services.

'The process industry is undergoing a profound transition towards achieving net-zero emissions'

In addition, in recent years, Yara has made significant strides in developing the technology to produce so-called blue hydrogen (hydrogen made from natural gas with carbon capture), which is expected to constitute a key energy source in netzero economies. Among Norwegian process industry companies operating in the U.S., Borregaard and Elkem are some of the largest employers. The former produces chemical and the latter silicon products, which are among other things used in solar panels.

The process industry has long been associated with high carbon emissions due to the intricate processes and high energy requirements involved in the production and transformation of raw materials. However, in response to the global imperative of mitigating climate change, the process industry is undergoing a profound transition towards achieving net-zero emissions. This transformation entails approaches that combines technological innovation, operational optimization, and the integration of renewable energy sources. Moreover, the adoption of renewable energy solutions such as solar, wind, and hydropower is becoming increasingly prevalent, enabling the industry to shift away from fossil fuels and significantly lower its greenhouse gas emissions.

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## **Defense industry**

The defense industry has long played a significant role in the U.S. economy. With increasing geopolitical tensions, political willingness to invest in the defense industry has risen in recent years. In 2022, the U.S. Congress authorized USD 858 billion for fiscal year 2023's national defense, with approximately half of this designated to private sector contracts. Assuming that the distribution of outlays will be similar to recent years, approximately half of the funding will go to procurement, one third to services, and the rest to research and construction.<sup>15</sup>

'Norwegian companies are at the forefront on the technological barrier'

Norway's defense industry has a history stretching over 200 years. Today, it's vital to the country's defense and directly supports its security interests. While the U.S. defense industry is predominantly made up of American companies, Norwegian firms also play a significant role in the supply chain. Especially within areas such as systems integration, autonomous systems, missile technology, underwater technology, ammunition, and advanced materials, Norwegian companies are at the forefront of defense-related technology advancement.



Several Norwegian producers of defense-related products have activity in the U.S. and employ a significant number of people across the country. For instance, the Norwegian aerospace and defense company Nammo has more employees in the U.S. than in Norway. Operating under the name Nammo Defense Systems Inc., the company employs over 600 people across different states. Kongsberg Defence & Aerospace (KDA) is another large producer of defense material. With activity in four different locations across the country, KDA employs over 200 people in the U.S. Kitron should also be mentioned in this context. Although it is not a direct producer of defense material, Kitron specializes in complex electronic products and manufacturing processes, and it delivers important input factors to the defense industry. The company operates in the U.S. today and is seeking to increase its market share in the country in the coming years. In addition, Norway currently has nine active suppliers in the F35 program, with an additional nine having previously contributed to the program.

In addition to the presence of Norwegian companies creating jobs in U.S. communities, Norwegian companies exported defense related goods valued at USD 600 million in 2021. Of this more than three-fourths went to NATO countries. Norwegian defense companies exported materiel worth more than USD 200 million to the U.S. military and to American defense contractors. Additionally, Norwegian companies are playing an important role in producing supplies for Ukraine in its fight against Russia's invasion, as well as supplying European NATO countries with ammunition, drones, and missile technology as they replenish and increase their stockpiles.

Photo: KONGSBERG

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<sup>15</sup> https://www.forbes.com/sites/lorenthompson/2023/01/18/how-the-defense-industry-became-a-defining-feature-of-the-us-economy/

# **Seafood industry**



With its 25,000 kilometers of sprawling coastline, Norway's economy is intimately intertwined with the ocean. Nowhere is this more visible than in the seafood sector, which stands out as an important part of Norway's heritage and culture, but also as a forward-looking industry representing a substantial fraction of Norway's exports.

'North America is currently the highest growing region for Norwegian seafood'

In its quest for food quality and sustainability, the United States has found a substantial partner in Norway. Recent figures show that the U.S. imports well over USD 1 billion worth of Norwegian seafood annually. Atlantic salmon is the most imported species. By 2021, Norway had distinguished itself as the global leader in Atlantic salmon production, with the U.S. being one of its prime customers. But the partnership does not end at salmon. Cod, mackerel, herring, and snow crab represent hundreds of millions of dollars in annual trade volumes. North America is currently the fastest growing destination for Norwegian seafood exports.

Several Norwegian seafood companies have offices in the U.S. This includes the world's largest producer of salmon, Mowi, as well as Lerøy Seafood. In addition, Norwegian seafood companies Atlantic Sapphire and Nordic Aquafarms, who both are focused on land-based seafood production, have established production facilities in the U.S. The American market is attractive, as it is the largest market for salmon globally. Land-based production near the end user creates opportunities for improved sustainability and minimized environmental impact.

A pivotal aspect setting Norwegian seafood apart is its low carbon footprint. Seafood tends to have a much lower carbon footprint than terrestrial animal sources of protein. Given Norway's commitment to sustainable practices, Norwegian seafood amplifies this benefit. For the eco-aware American consumer, choosing Norwegian seafood means opting for a low-carbon source of protein, aligning dining preferences with their environmental ethos. The stringent aquaculture regulations in Norway, coupled with certifications like the Marine Council's, Stewardship ensure minimal environmental impact.

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# **Appendix: Methodology**

#### Calculation of jobs directly supported by export of goods

The basic idea to calculate the jobs supported by exports of goods is to divide the total exports by the revenue/employee. This is done on a sectoral level to account for differences in the denominator.

To calculate the number of jobs supported by export of goods to Norway, we have used the following methodology. First, we obtained output (production) and employment data per industry at the national level from the U.S. Bureau of Labor Statistics (BLS). The data provided output (in chained 2011 USD) and employment on two-, three-, and four-digit NAICS codes. To get the output numbers at 2022-levels, we adjusted the numbers using sector-specific consumer price indexes from the St. Louis Fed.

Figures for goods exports to Norway by state were then obtained from the U.S. Trade Representative. Finally, we applied the ratios between output and employment on these numbers to calculate the number of jobs supported by exports of goods to Norway.

#### Calculation of jobs directly supported by export of services

To calculate the number of jobs supported by export of services, we used the same ratio between output and employment as described above.

Service exports figures on a granular industry level were obtained from the World Trade Organization (WTO) with classification. The problem, however, is that we have not found any data on services export to Norway by state. To allocate service exports by state, we used the states' contributions to national GDP by industry. That means that if a state is responsible for 20 percent of, say, the ICT industry, we will attribute 20 percent of the total exports of ICT services to that state. In order to distribute according to GDP, we had to do a manual mapping of the WTO sectors.

#### Calculation of tax revenues from direct employment supported by trade with Norway

To calculate total income tax from jobs supported by trade to Norway, we used state income tax data from the US Census Bureau. To calculate the average income tax payment per employee per industry, we divided the total state income tax per industry with the average wage for each industry per state. Information about wages in different industries in each state were collected from the Bureau of Economic Analysis (BEA). In order to include federal tax revenues, we added a federal tax of 14 percent of the average wage in each industry.

#### **Definition of "Norwegian multinational"**

A Norwegian multinational in this report is a company which is either:

- Majority owned by Norwegians
- Headquartered in Norway
- Norwegian-founded company listed on Oslo Stock Exchange ("ASA")

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A notable difference from the previous analysis of Norway's economic impact on the US is that we do not include businesses that are "traditionally considered Norwegian". This has been done so as to minimize the reliance on subjective decisions, thus making comparisons between countries and between years easier.

#### Mapping of jobs in Norwegian multinationals

The mapping of jobs in Norwegian multinationals was conducted by compiling information from several different sources. We utilized annual reports for publicly traded companies and contacted companies directly to obtain the number of employees by state. In total, 16 of the companies responded on the direct requests. For smaller companies and those we were unable to get in touch with, we relied on ORBIS, an international database with company information, as well as company websites to determine the number of employees per state. 3.4 percent of the employment are gathered from ORBIS, whereas the rest is collected through direct contact with the company or through their home pages. In cases where no information was available regarding the distribution of employees across states in the US, we allocated the number of employees based on their operational presence in the US, supported by subjective research. About 80 percent of employment are distributed based upon information gathered directly from the companies or annual report, 3 percent from ORBIS and 17 percent is estimated on the on their operational presence in the US.

#### Estimation of jobs associated with NBIM ownership

We estimated the number of jobs associated with NBIM's ownership in US companies. We have done this by mapping the ownership of the Norwegian Oil Fund in all publicly traded companies in the USA and compared it with the number of employees in these companies. In total, our mapping covers more than 35 million jobs in American companies, of which 25 million are in the USA, while the remaining 10 million are jobs outside of the US, but in American multinational companies.

For each company we multiply the NBIM ownership of outstanding shares with the total number of jobs in the company to find the number of jobs in that given company that can be associated with NBIM investments.

To estimate the number of jobs per state, we utilized the employment distribution across states for some of the largest companies, such as Amazon and Walmart. For smaller companies, we used the employment distribution across states within each industry as a proxy for employment per state. The majority of the jobs were distributed using the latter method.

It is important to note that these jobs are not created by NBIM in any strict sense of the word. Instead, through its investments, NBIM helps the companies finance their activities.

# Estimation of jobs supported indirectly by Norwegian multinationals and from exports to Norway

When a Norwegian multinational company or US exporting company purchases equipment or services from a company in the US, this will support jobs and value added with the supplier. However, to deliver the equipment or the services, the supplying company also purchases other inputs (various services, other machines or raw materials)

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from a third company where, in turn, further value is added and jobs are supported. In this manner, the economic impact of the purchases from the company spreads through the US and its tight-knit supply chains.

The model constructed in this report is built by analysing supply chains in the US. The model takes as input the revenues related to exports to Norway. For Norwegian multinationals we have used revenues per employee in the respective industry, and the corresponding revenues related the number of employees per company. The output is the jobs supported by the exports to Norway and from Norwegian multinationals.

To build the model, we make use of the so-called Input-Output tables (IOTs) from BEA and have mapped NAICS industry codes to the 71 different IOT-industries. They show all cross-sectoral purchases of goods and services. For instance, they will tell the user how large a part of the agricultural sectors' total inputs goes towards the purchase of machinery. Furthermore, the tables show how much each sector imports from abroad.

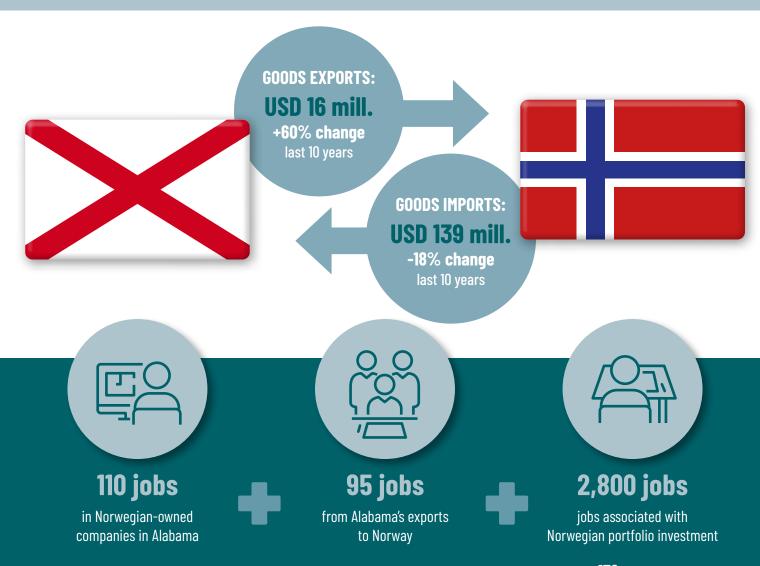
By looking at the individual sector purchases as a share of revenue, we can see how a purchase from one sector results in increased sales for other sectors.

We have estimated the number of jobs supported under the assumptions that the input-output tables for the US is representative for each state. This is clearly not true in reality, but in our experience this assumption has little effect on the magnitude of the final results.

To calculate the jobs supported by the supply revenue calculated above, we use average ratios between total revenue and employment respectively in the sectors. We run the model to the 12th, where the effects on jobs become negligible.

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# **ALABAMA**



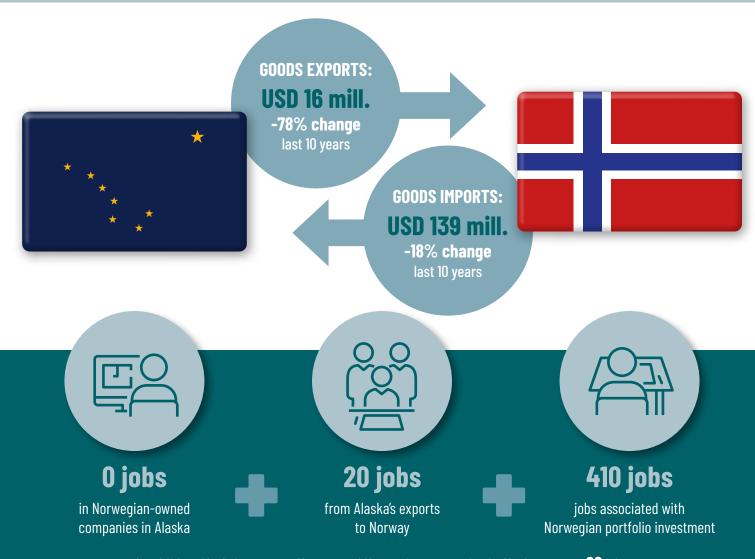
In addition, Alabama's export to Norway and Norwegian companies in Alabama support **170** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

A Norwegian helped to found the town of Thorsby, along with three Swedes. The town celebrates its Nordic heritage with a festival every October.

<b>Alabama</b> Exports to Norway in USD millio	ın	Largest companies Number of employees	
Machinery	6.3	Yara	56
Metal Products	3.3	Aker Solutions	50
Sea Transport	3.2	Frontier Bank National	2
Financial Services	3.0	Dolphitech	1
Electrical Equipment	2.8		
Computer Services	1.6		

# **ALASKA**



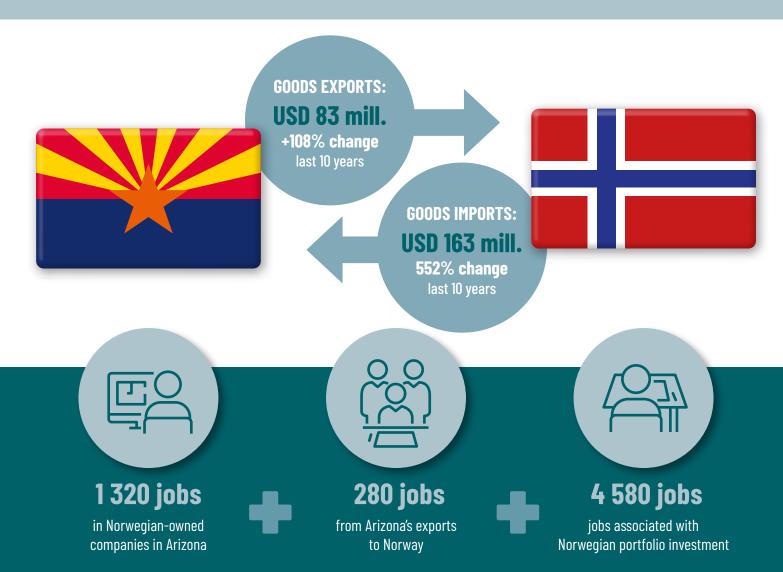
In addition, Alaska's export to Norway and Norwegian companies in Alaska support **20** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Due to Alaska's geographical location, Norway and the United States engage in collaborative efforts within the Arctic Council. The Council conducts its work through various working groups and initiatives that tackle topics such as environmental protection, climate change, and resource management in the Arctic. It is a crucial platform for dialogue and cooperation among stakeholders in the region.

<b>laska</b> xports to Norway in USD millio	n	Largest companies Number of employees
Sea Transport	3.6	No identified Norwegian-owned
Seafood	1.8	companies
Machinery	1.2	
Air Transport	0.3	
Government Services	0.3	
Financial Services	0.3	

# **ARIZONA**



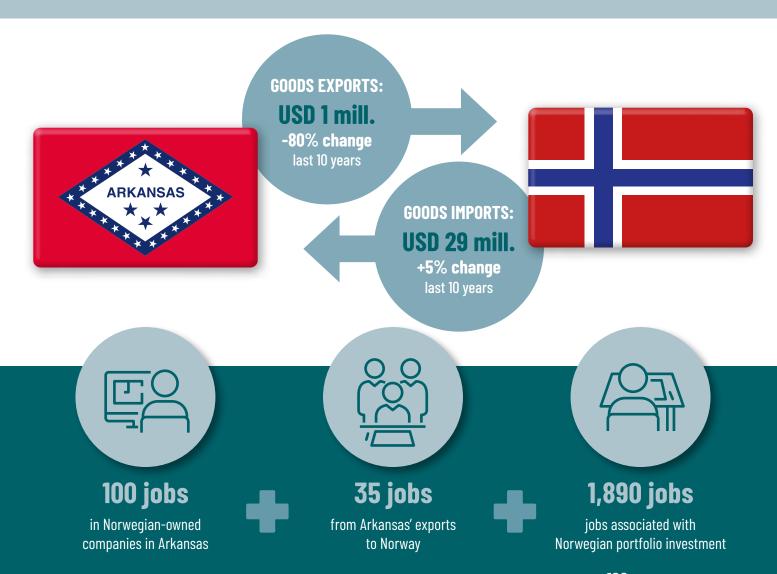
In addition, Arizona's export to Norway and Norwegian companies in Arizona support **2 510** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Norwegian F-35 fighter pilots train to fly the aircraft at Luke Air Force Base in Arizona. Every F-35 includes components built by Norwegian companies. Norwegian F-35 variants are fitted with a drag chute to assist with braking when landing on icy runways.

<b>Arizona</b> Exports to Norway in USD millio	ın	Largest companies Number of employees	
Transportation Equipment	47.7	Hydro	669
Metal Products	13.1	Nammo	555
Electronics	12.4	DNV	60
Financial Services	6.5	Q-Free	35
Sea Transport	6.5	Elkem	1
Computer Services	3.1		

## **ARKANSAS**



In addition, Arkansas' export to Norway and Norwegian companies in Arkansas support **190** jobs elsewhere in the US value chain (indirect employment effects).

# Did you know? 1900 jobs are supported by NBIM investments in Arkansas companies, which is the fifth highest density of NBIM associated employees among all states.

<b>Arkansas</b> Exports to Norway in USD millio	n	Largest companies Number of employees	
Sea Transport	3.0	Hydro	98
Financial Services	1.7		
Computer Services	1.1		
Consulting Services	1.0		
Business Services	0.9		
Goods Services	0.6		

## **CALIFORNIA**



**GOODS EXPORTS:** 

#### USD 216 mill.

**0% change** last 10 years



**GOODS IMPORTS:** 

USD 590 mill.

+1% change last 10 years



1,120 jobs

in Norwegian-owned companies in California



1,310 jobs

from California's exports to Norway



26,870 jobs

jobs associated with Norwegian portfolio investment

In addition, California's export to Norway and Norwegian companies in California support **2,840** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

State-owned company Equinor is developing two gigawatts of offshore wind capacity along the coast of California, enough to power 750 thousand homes. California also has the highest count of jobs supported by investments by NBIM among all states.

### **California**Exports to Norway in USD million

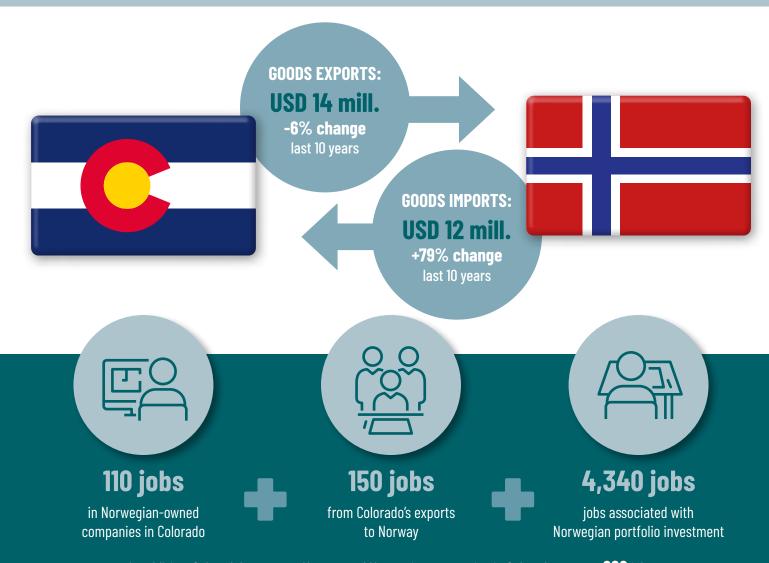
Electronics 64.6
Sea Transport 46.9
Financial Services 32.5
Computer Services 31.5
Consulting Services 27.7
Information Services 26.9

#### **Largest companies**

Number of employees

Hexagon Composites	400
Tomra	233
Hydro	191
DNV	90
NEL	66
Yara	56

## **COLORADO**



In addition, Colorado's export to Norway and Norwegian companies in Colorado support **280** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The 99th Infantry «Viking» Battalion, comprised of Norwegian-Americans and Norwegians who had sought refuge in the US, underwent training at Camp Hale in Colorado before embarking to Europe during World War II. The Battalion earned significant decorations throughout the war. A memorial dedicated to their honor stands alongside the memorial of the 10th Mountain Division. Descendants of the Viking Battalion gather each year to commemorate their legacy.

<b>Colorado</b> Exports to Norway in USD millio	n	Largest companies Number of employees	
Sea Transport	7.3	Hexagon Composites	52
Financial Services	5.0	Kongsberg Satelite Services	19
Computer Services	4.6	Zwipe	7
Machinery	4.6	SNR	6
Consulting Services	4.1	Tomra	6
Electronics	4.0	Ayfie	4

## CONNECTICUT



**GOODS EXPORTS:** 

USD 232 mill.

+82% change last 10 years



GOODS IMPORTS:

USD 219 mill.

+201% change last 10 years



**460 jobs** 

in Norwegian-owned companies in Connecticut



**470 jobs** 

from Connecticut's exports to Norway



2,480 jobs

jobs associated with Norwegian portfolio investment

In addition, Connecticut's export to Norway and Norwegian companies in Connecticut support **1,890** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The Norwegian company Nel Hydrogen has recently made the strategic decision to expand its operations in Connecticut. They plan to establish a 500 MW PEM production line in Wallingford, Connecticut, with the goal of completing it by 2025.

#### Connecticut

Exports to Norway in USD million

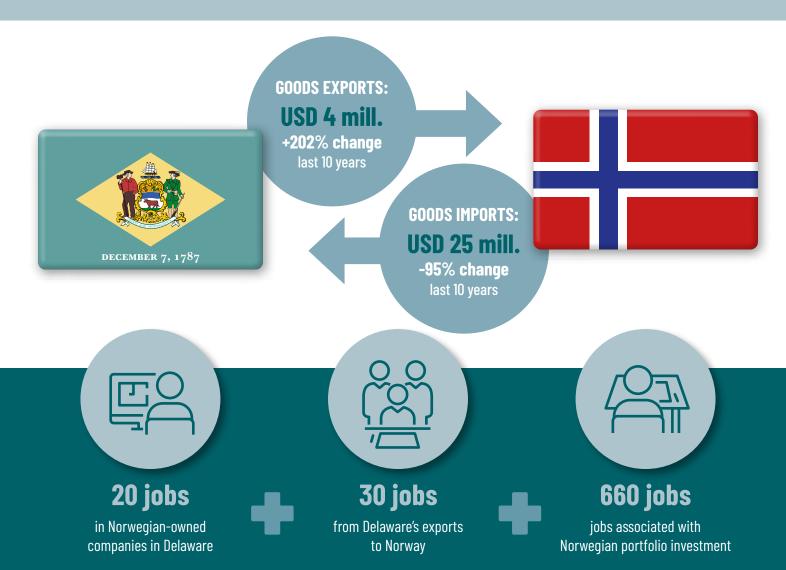
Transportation Equipment	76.6
Oil & Gas	51.1
Machinery	44.8
Chemicals	14.6
Electronics	14.5
Electrical Equipment	14.1

#### Largest companies

Number of employees

Tomra	174
NEL	120
Equinor	50
Norseland	35
DNV	30
Kongsberg Digital	30

## DELAWARE



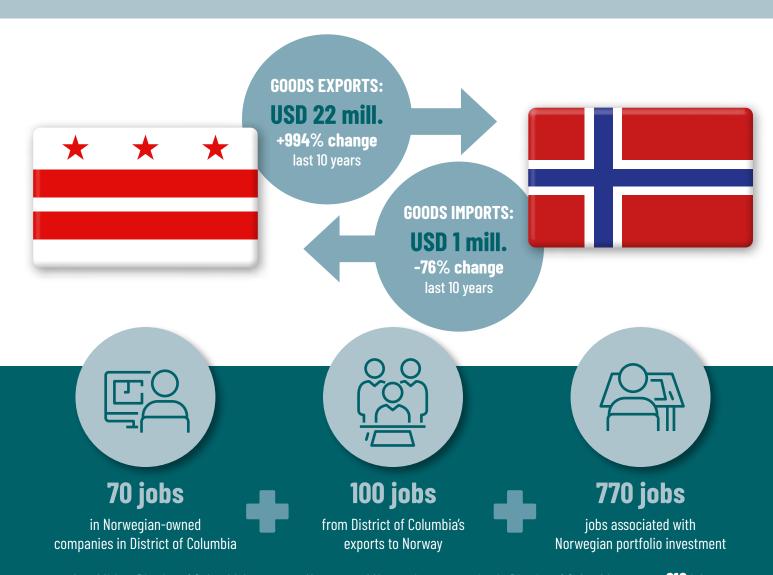
In addition, Delaware's export to Norway and Norwegian companies in Delaware support **75** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

During World War II, the Norwegian merchant ship Hvoslef was torpedoed by a German submarine off the Delaware coast. The survivors came ashore in a lifeboat at Fenwick Island and found a welcome reception from the locals. Scuba divers can now visit the wreck of the Hvoslef, and even swim inside.

<b>Delaware</b> Exports to Norway in USD milli	on	Largest companies Number of employees	
Financial Services	4.0	TGS	9
Transportation Equipment	1.2	Crayon Software	3
Sea Transport	0.8	Enwa Water Treatment	3
Electronics	0.7	Gray	3
Machinery	0.7	Hydro	1
Computer Services	0.6		

## DISTRICT OF COLUMBIA



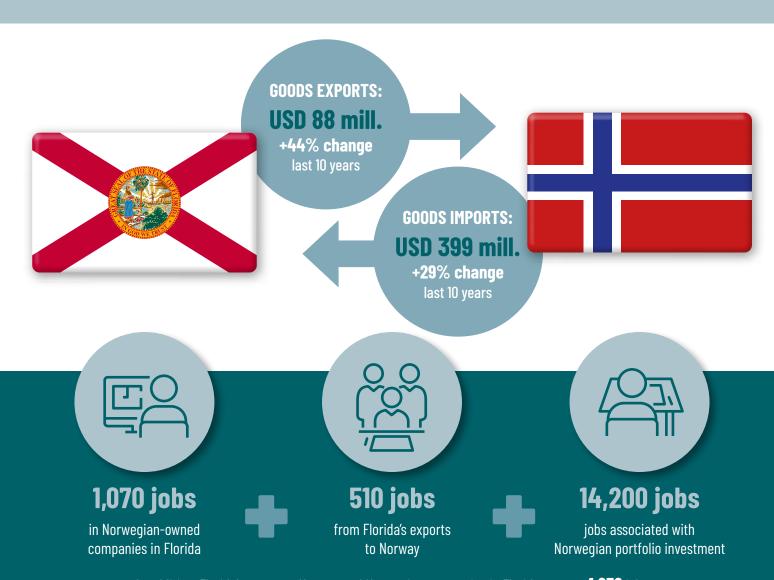
In addition, District of Columbia's export to Norway and Norwegian companies in District of Columbia support **210** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The Royal Norwegian embassy is located in Washington, DC, and boasts the largest employee count among all Norwegian embassies. Its chancery was recently renovated based on designs by Fentress Architects, earning a Grand Award from the American Institute of Architects in 2022.

<b>District of Columbia</b> Exports to Norway in USD millio	n	Largest companies Number of employees	
Computer Services	2.2	Equinor	40
Goods Services	2.1	DNV	30
Consulting Services	1.9		
Business Services	1.7		
Financial Services	1.6		
Government Services	1.3		

## **FLORIDA**



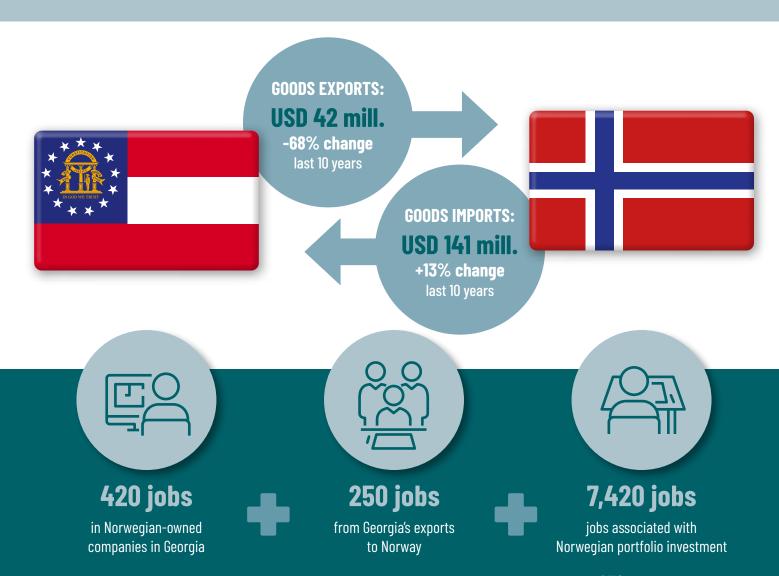
In addition, Florida's export to Norway and Norwegian companies in Florida support **1,850** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The Norwegian company ENRX has been selected to deliver a wireless charging system for electric vehicles on a one mile section of a four lane highway near Orlando. Among all states, Florida also has the third higest count of jobs supported by investments by NBIM.

Florida Exports to Norway in USD millio	n	Largest companies Number of employees	
Electronics	33.9	Hydro	627
Transportation Equipment	21.6	Atlantic Sapphire	173
Sea Transport	20.7	Borregaard	69
Financial Services	17.4	DNV	60
Electrical Equipment	11.9	Yara	55
Computer Services	11.1	Kongsberg Maritime	20

## **GEORGIA**



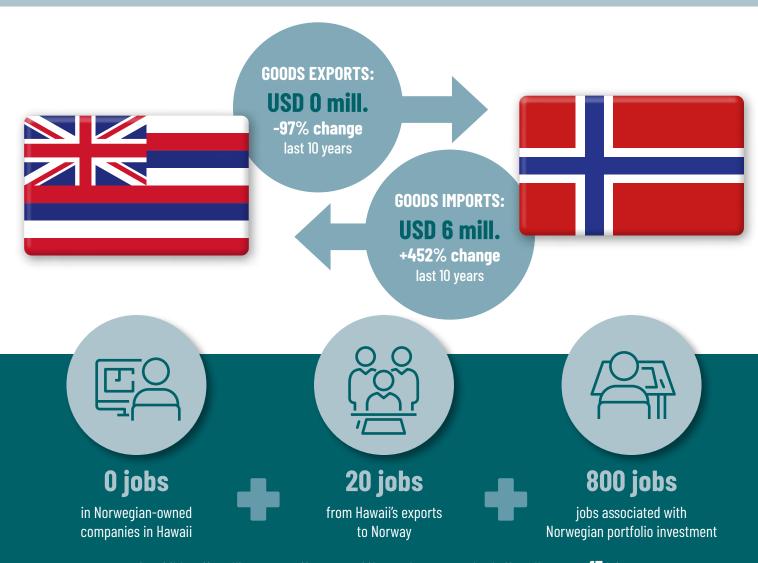
In addition, Georgia's export to Norway and Norwegian companies in Georgia support **930** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Freyr Battery is set to establish a battery manufacturing facility within the Atlanta metropolitan area, a strategic move projected to generate over 700 new jobs in the next seven years. Originating from Norway, Freyr specializes in the advancement and production of lithium-ion battery cells.

<b>Georgia</b> Exports to Norway in USD milli	on	Largest companies Number of employees	
Sea Transport	12.6	Hydro	383
Financial Services	11.0	Parkmobile	30
Transportation Equipment	9.1	Stokke	5
Machinery	7.2	Tomra	4
Special Classifications	6.7	Elkem	1
Computer Services	5.9		

## **HAWAII**



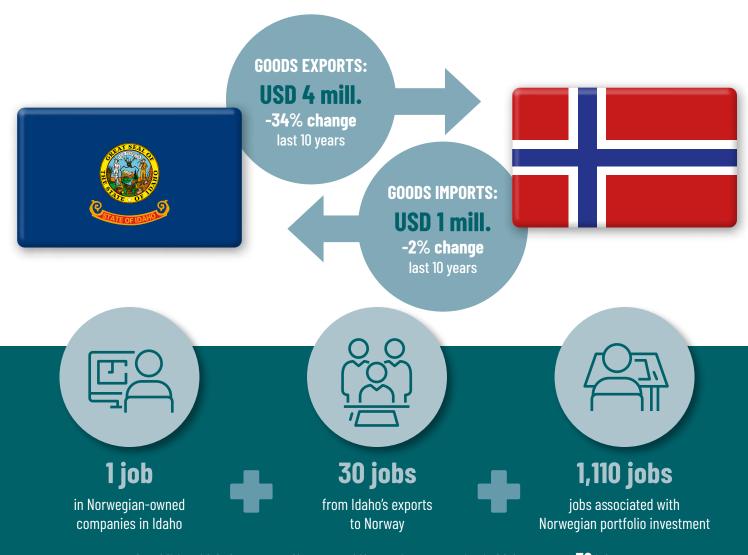
In addition, Hawaii's export to Norway and Norwegian companies in Hawaii support **15** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Norwegian synth-pop band A-ha, famous for the chart topping hit Take on Me, played their first US show in August 1986 at The Waikiki Shell in Honolulu.

<b>Hawaii</b> Exports to Norway in USD millio	n	Largest companies Number of employees
Sea Transport	2.2	No identified Norwegian-owned
Financial Services	0.8	companies
Personal Services	0.6	
Government Services	0.5	
Computer Services	0.5	
Consulting Services	0.4	

## **IDAHO**



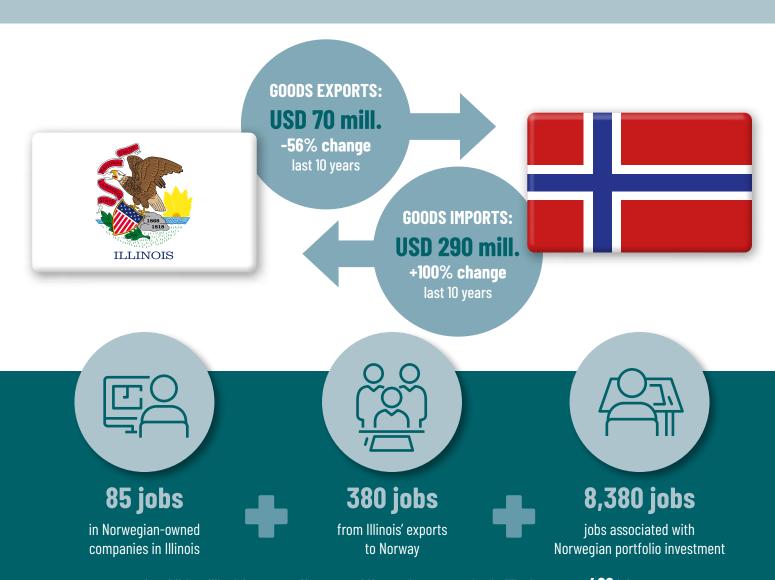
In addition, Idaho's export to Norway and Norwegian companies in Idaho support **30** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The highly renowned bassist Gary Peacock from Burley, Idaho, recorded some of his most famous music in Jan Erik Kongshaugs studio in Oslo, Norway.

<b>ldaho</b> Exports to Norway in USD milli	on	Largest companies Number of employees	
Sea Transport	1.3	Hydro	1
Financial Services	1.1		
Manufactured Goods	1.0		
Machinery	0.8		
Computer Services	0.7		
Transportation Equipment	0.7		

## **ILLINOIS**



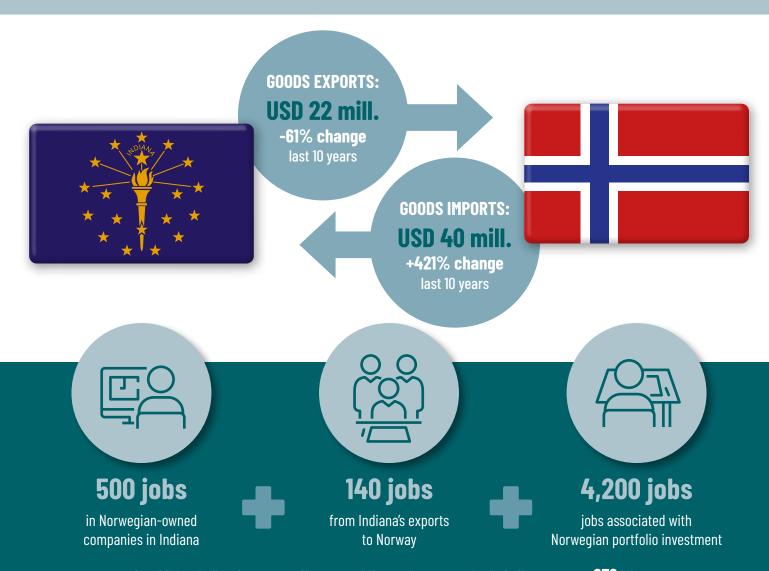
In addition, Illinois' export to Norway and Norwegian companies in Illinois support **480** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Norwegian-American Eliot Ness, who led the law enforcement team nicknamed 'The Untouchables,' is most famous for bringing down famed Chicago mobster Al Capone. Ness was born in Chicago to Norwegian immigrant parents. In addition, Hydro's head office for their aluminum extrusion business in North America is located in Illinois. The company is the largest Norwegian multinational in the US in terms of number of employees.

<b>llinois</b> exports to Norway in USD millio	on	Largest companies Number of employees	
Financial Services	19.0	Hydro	53
Sea Transport	18.5	DNV	30
Machinery	15.9	Elkem	2
Electronics	15.3		
Chemicals	12.6		
Transportation Equipment	9.9		

## **INDIANA**



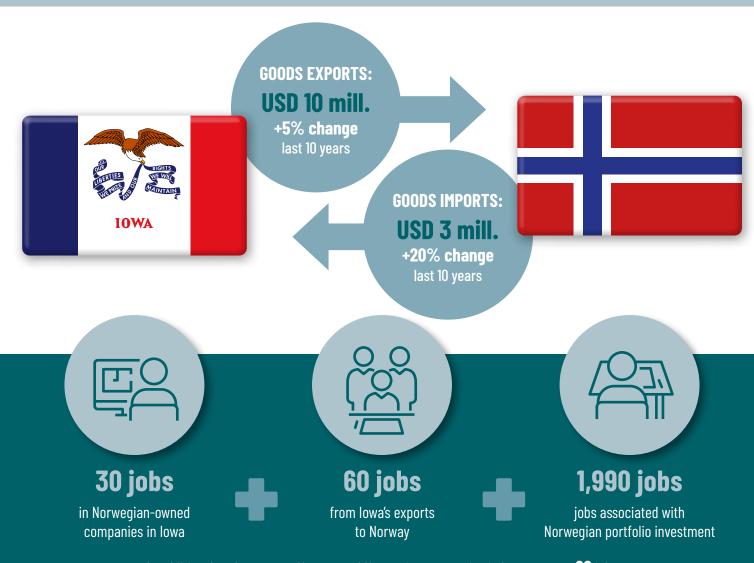
In addition, Indiana's export to Norway and Norwegian companies in Indiana support **970** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

A stave-style church dedicated to Saint Swithun can be found in Warren County, Indiana. Saint Swithun is also the patron saint of Stavanger.

<b>ndiana</b> Exports to Norway in USD milli	ion	Largest companies Number of employees	
Electronics	7.4	Hydro	497
Sea Transport	6.9	Tomra	2
Financial Services	5.2	Elkem	1
Transportation Equipment	4.4		
Machinery	3.4		
Information Services	2.6		
•			

## **IOWA**



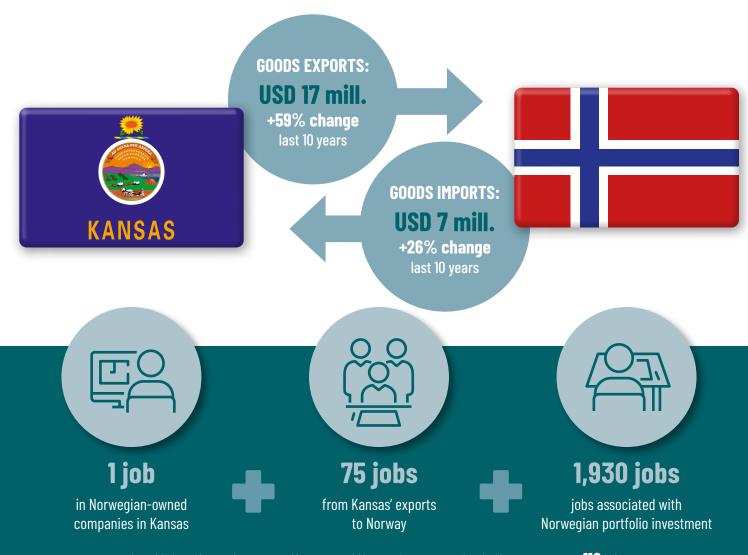
In addition, lowa's export to Norway and Norwegian companies in lowa support **80** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The Vesterheim Museum in Decorah, Iowa presents the experience of Norwegian-American immigrants through exhibits and activities - including classes teaching folk art skills. Also, Luther college in Decorah was the first college to be established by Norwegian-Americans.

<b>owa</b> Exports to Norway in USD millio	n	Largest companies Number of employees	
Financial Services	6.9	DNV	30
Chemicals	6.6	Hydro	2
Sea Transport	3.1		
Machinery	2.3		
Information Services	1.0		
Computer Services	1.0		

## KANSAS



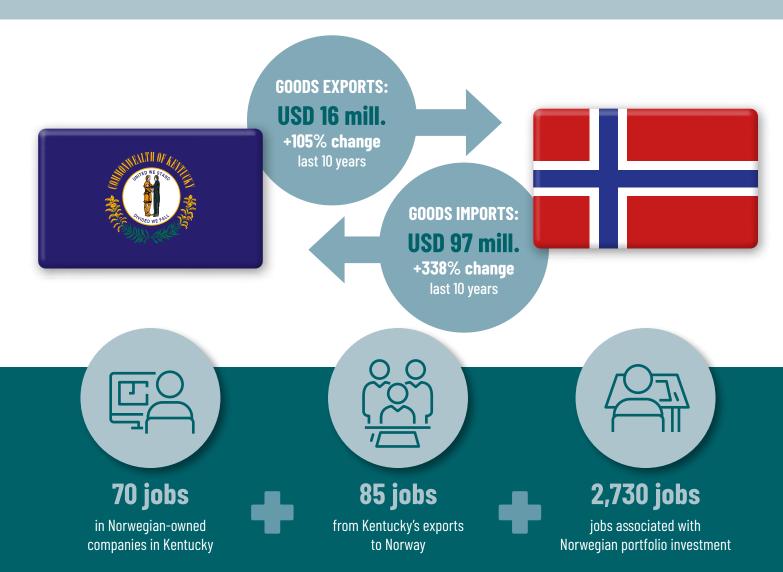
In addition, Kansas' export to Norway and Norwegian companies in Kansas support **110** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The Scandinavian Association in Kansas regularly hosts Nordic heritage festivals, to help international exchange between the US and the Nordic countries.

Kansas Exports to Norway in USD millio	n	Largest companies Number of employees	
Transportation Equipment	11.9	Elkem 1	
Sea Transport	3.5		
Machinery	2.2		
Financial Services	2.1		
Electronics	2.1		
Computer Services	1.4		

## **KENTUCKY**



In addition, Kentucky's export to Norway and Norwegian companies in Kentucky support **230** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Hydro's aluminum recycling plant in Henderson, Kentucky was the company's first aluminum recycling plant in the US. Today more than 6,000 people are employed by Hydro in the US, making the largest Norwegian multinational in the states.

<b>Centucky</b> xports to Norway in USD mill	lion	Largest companie Number of employee	
Transportation Equipment	10.2	Hydro	68
Sea Transport	5.8	Elkem	1
Financial Services	2.8		
Chemicals	2.3		
Computer Services	1.3		
Information Services	1.2		

## LOUISIANA





**760 jobs** 

in Norwegian-owned companies in Louisiana



230 jobs

from Louisiana's exports to Norway



**2,810 jobs** 

jobs associated with Norwegian portfolio investment

In addition, Louisiana's export to Norway and Norwegian companies in Louisiana support **1,730** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Louisiana serves as a hub for numerous Norwegian multinational companies within the maritime sector. Among them, Wilhelmsen, DNV, Stolt-Nielsen, and Kongsberg Maritime have established their offices, contributing to the state's significant maritime sector.

Louisiana	
Exports to Norway in USD million	

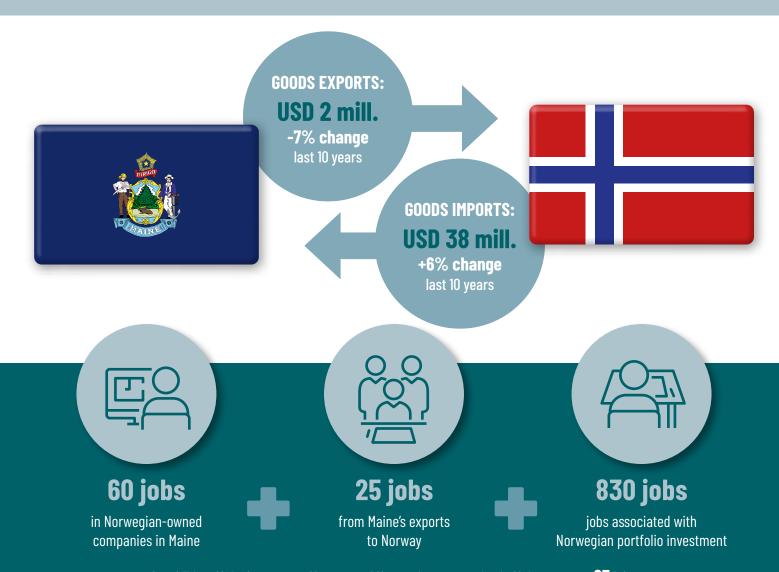
Petroleum Products	426.8
Chemicals	26.1
Minerals & Ores	21.2
Machinery	16.1
Metal Products	8.9
Electronics	5.5

#### **Largest companies**

Number of employees

Wilhelmsen	168
Stolt-Nielsen	157
DNV	60
Kongsberg Maritime	60
Jotun	27

## MAINE



In addition, Maine's export to Norway and Norwegian companies in Maine support **85** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

In the late 1800s and into the 1900s, the town of Norway, Maine was known as the 'snowshoe capital of the world' due to multiple snowshoe makers located there.

	Largest companies Number of employees	
1.1	DNV	30
0.7	Tomra	20
0.6	Hafslund	6
0.5	Nordic Aquafarms	6
0.5		
0.5		
	0.7 0.6 0.5 0.5	1.1 DNV 0.7 Tomra 0.6 Hafslund 0.5 Nordic Aquafarms 0.5

## MARYLAND



**GOODS EXPORTS:** 

#### USD 6 mill.

-51% change last 10 years

**GOODS IMPORTS:** 

#### USD 587 mill.

+137% change last 10 years



**290 jobs** 

in Norwegian-owned companies in Maryland



120 jobs

from Maryland's exports to Norway



**3,750 jobs** 

jobs associated with Norwegian portfolio investment

In addition, Maryland's export to Norway and Norwegian companies in Maryland support **320** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Norwegian multnational Hexagon Purus are expanding their operations in Maryland. The company opened a new site in Westminster, Maryland in january 2023. The site is expected support the production of up to 10,000 hydrogen cylinders annually, and will employ up to 150 skilled workers. They are currently relocating from their facility in Taneytown, Maryland, a plant with the capacity to produce 1,200 cylinders annually

#### Maryland

Exports to Norway in USD million

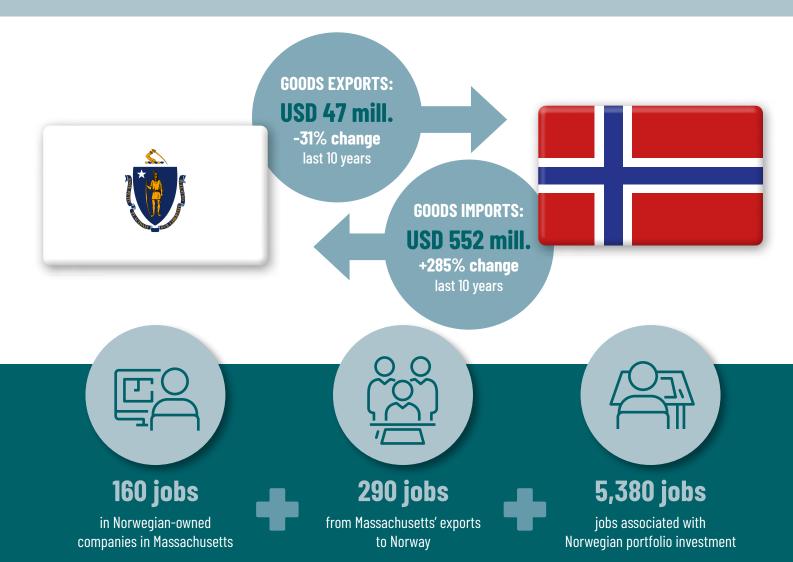
Financial Services	4.8
Sea Transport	4.5
Computer Services	4.3
Consulting Services	3.8
Business Services	3.3
Government Services	2.5

#### Largest companies

Number of employees

Wilhelmsen	168
Hexagon Composites	70
Gexcon	35
Hydro	13
IDEX Biometrics	2

## **MASSACHUSETTS**



In addition, Massachusetts' export to Norway and Norwegian companies in Massachusetts support **480** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

A significant portion of the scallop fleet operating out of New Bedford in the 1800s was crewed by Norwegians, particularly immigrants from the Norwegian island of Karmøy.

DNV Equinor	62 40
	40
_	
Tomra	24
IDEX Biometrics	14
Nordic Group	11
ABL	4
	Nordic Group

## **MICHIGAN**



**GOODS EXPORTS:** 

#### USD 79 mill.

+71% change last 10 years



**GOODS IMPORTS:** 

USD 43 mill.

+3% change last 10 years



200 jobs

in Norwegian-owned companies in Michigan



**320 jobs** 

from Michigan's exports to Norway



5,730 jobs

jobs associated with Norwegian portfolio investment

In addition, Michigan's export to Norway and Norwegian companies in Michigan support **650** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The Norwegian company Nel Hydrogen is set to build a new automated electrolyzer manufacturing facility in Michigan. The facility will be among the largest electrolyser manufacturing plants in the world.

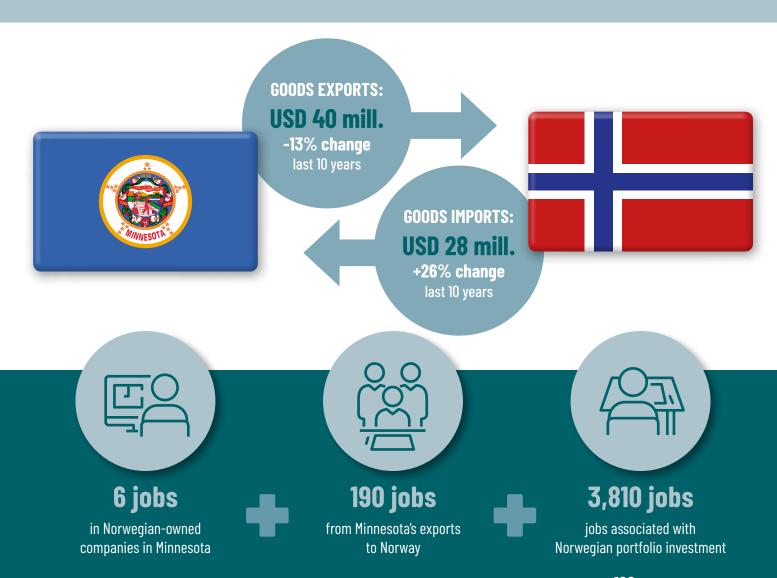
Michigan	
Exports to Norway in USD million	n
Flectrical Equipment	•

Electrical Equipment	24.8
Transportation Equipment	16.8
Manufactured Goods	9.0
Primary Metals	7.4
Sea Transport	7.4
Financial Services	5.9

#### Largest companies

Number of employees	
Hydro	84
DNV	60
Tomra	48
Elkem	4
IDEX Biometrics	2

## **MINNESOTA**



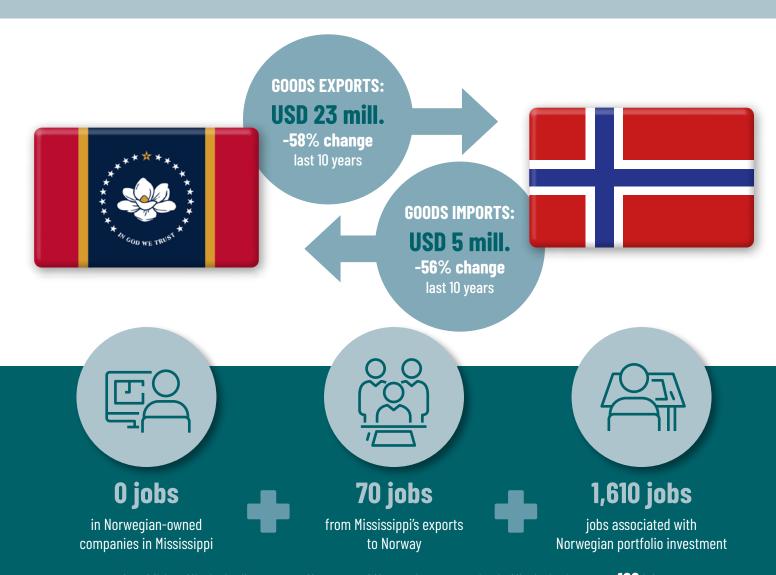
In addition, Minnesota's export to Norway and Norwegian companies in Minnesota support **160** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Minnesota boasts the highest population of individuals with Norwegian ancestry among all the states in the United States, with 758,000 residents tracing their roots back to Norway. Such a large number of Norwegian-Americans ensures considerable historical and cultural ties between Minnesota and Norway.

<b>finnesota</b> Exports to Norway in USD mill	lion	Largest companies Number of employees	
Electronics	22.5	Norsvin	4
Financial Services	7.5	Hydro	2
Sea Transport	5.9		
Manufactured Goods	4.7		
Computer Services	3.7		
Consulting Services	3.2		

## MISSISSIPPI



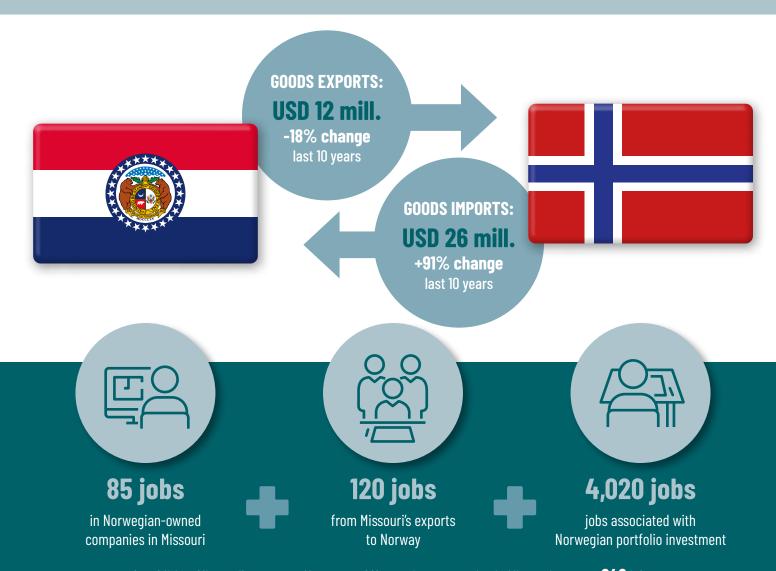
In addition, Mississippi's export to Norway and Norwegian companies in Mississippi support **120** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Mississippi and Missouri were among the first destinations for Norwegian immigrants to the USA. During the initial waves of immigration to the United States, a significant number of Norwegians sought new opportunities and a better life and Mississippi and Missouri emerged as primary destinations for these early Norwegian settlers.

<b>Mississippi</b> Exports to Norway in USD mill	lion	Largest companies Number of employees
Transportation Equipment	15.5	No identified Norwegian-owned
Machinery	2.4	companies
Sea Transport	2.2	
Electronics	1.6	
Chemicals	1.5	
Financial Services	1.3	

## **MISSOURI**



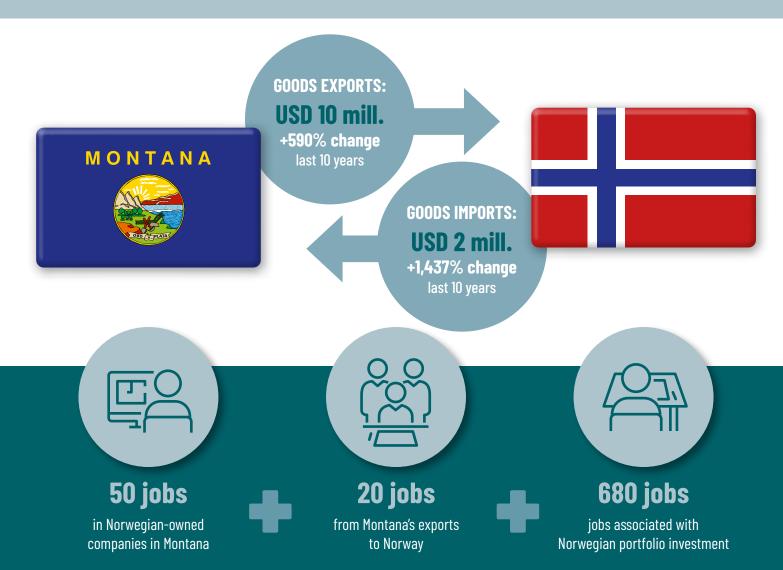
In addition, Missouri's export to Norway and Norwegian companies in Missouri support **240** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Jan Stenerud, the Kansas City Chiefs' star kicker in the late 1960s and '70s, came to the US on a college ski jumping scholarship but once in the US he was recruited to play American football too. He was named an All-American in both football and ski jumping. He helped the Chiefs to their first Super Bowl win in 1969. In 1991 he was the first placekicking specialist to be inducted to the Pro Football Hall of Fame. The street he grew up on in Fetsund, Norway has been renamed in his honor.

<b>Missouri</b> Exports to Norway in USD millio	n	Largest companies Number of employees	
Machinery	5.8	Hydro	84
Financial Services	5.6	Dolphitech	1
Sea Transport	5.4	Elkem	1
Computer Services	3.0		
Consulting Services	2.7		
Food Products	2.6		

## MONTANA



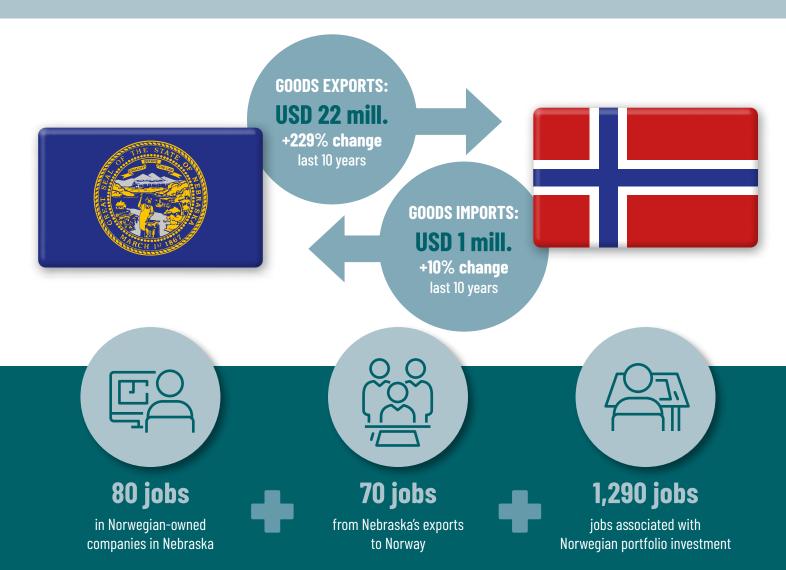
In addition, Montana's export to Norway and Norwegian companies in Montana support **60** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Norwegian multinational REC Silicon's facility in Butte, Montana is a leading supplier of specialty gases which, among other applications, are used for semiconductors and solar applications.

<b>Montana</b> Exports to Norway in USD millio	n	Largest companies Number of employees	
Chemicals	8.7	DNV	30
Sea Transport	1.1	REC Silicon	20
Financial Services	0.7		
Manufactured Goods	0.3		
Computer Services	0.3		
Consulting Services	0.3		
constituing convices	0.0		

## **NEBRASKA**



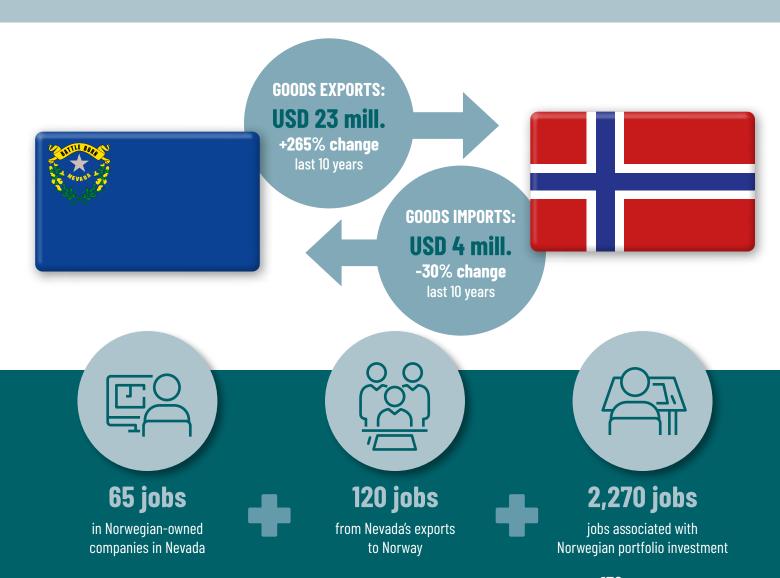
In addition, Nebraska's export to Norway and Norwegian companies in Nebraska support **230** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The earliest Norwegian settlement in Nebraska traces back to around 1857 and was established in Dixon County. Throughout Nebraska, various locations bore post offices with names such as Elling, Scandia, Scandinavia, Olnes, and Hoffland—believed to have been named in after of Norwegian immigrants.

<b>1assachu Nebraska setts</b> Exports to Norway in USD millio	ın	Largest companies Number of employees	
Transportation Equipment	12.1	Hexagon Composites	81
Chemicals	7.4	Hydro	1
Sea Transport	4.4		
Financial Services	3.5		
Plastics & Rubber	1.1		
Food Products	0.9		

## **NEVADA**



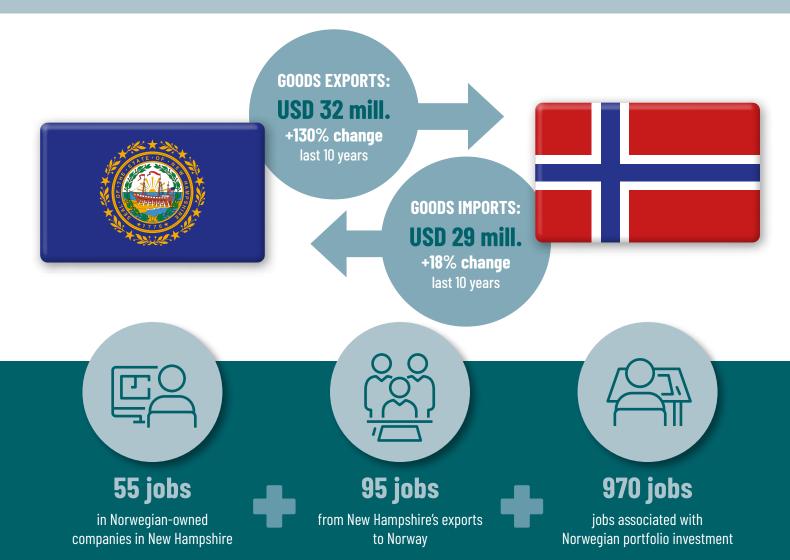
In addition, Nevada's export to Norway and Norwegian companies in Nevada support **130** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Out of all states, Nevada has the fourth higest share of jobs supported by investments by NBIM.

<b>Nevada</b> Exports to Norway in USD millio	n	Largest companies Number of employees	
Metal Products	9.5	DNV	60
Manufactured Goods	5.7	AK Pharmaceuticals	3
Sea Transport	4.1	Hydro	2
Electrical Equipment	3.6		
Electronics	3.2		
Financial Services	2.4		
Financial Services	2.4		

## **NEW HAMPSHIRE**



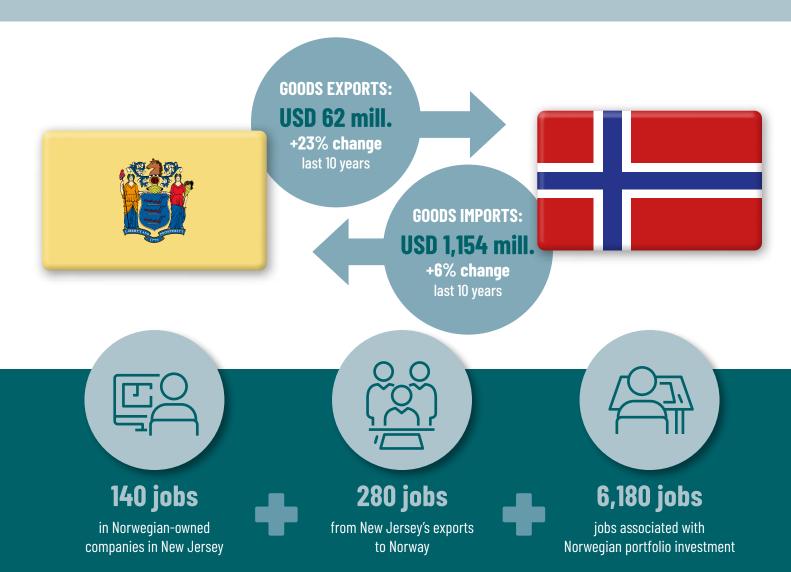
In addition, New Hampshire's export to Norway and Norwegian companies in New Hampshire support **180** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Norwegian multinational Agilyx has its headquarters in Portsmouth, New Hampshire. New Hampshire also has the fifth higest share of its employees supported by exports of goods and services to Norway among all states.

New Hampshire Exports to Norway in USD mill	ion	Largest companies Number of employees	
Electronics	15.6	Agilyx	54
Transportation Equipment	11.3	IDEX Biometrics	3
Seafood	1.5		
Financial Services	1.5		
Metal Products	1.3		
Machinery	1.2		

## **NEW JERSEY**



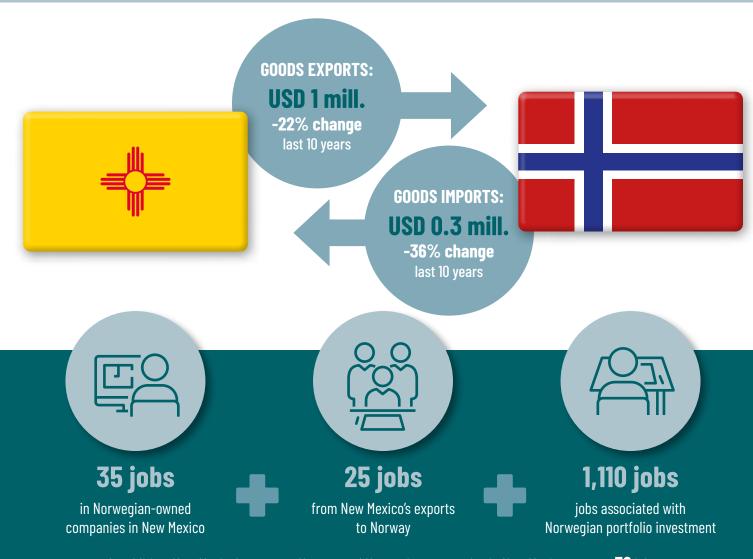
In addition, New Jersey's export to Norway and Norwegian companies in New Jersey support **410** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Aker BioMarine is situated in New Jersey. This Norwegian biotech company specializes in sustainable krill harvesting and the innovation of krill-based products for diverse sectors, encompassing dietary supplements, aquaculture, and animal feed.

<b>New Jersey</b> Exports to Norway in USD mil	lion	Largest companies Number of employees	
Transportation Equipment	13.2	Kongsberg D&A	30
Sea Transport	12.1	Elkem	20
Financial Services	8.9	Stolt-Nielsen	20
Metal Products	8.3	Aker Biomarine	15
Computer Services	7.5	Hydro	5
Consulting Services	6.6		

## **NEW MEXICO**



In addition, New Mexico's export to Norway and Norwegian companies in New Mexico support **30** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Norwegian-American Conrad Hilton, who founded the Hilton hotel chain and whose fortune funded the Hilton Foundation, grew up in New Mexico and represented the state in the US House of Representatives.

<b>lew Mexico</b> xports to Norway in USD millio	n	Largest companies Number of employees	
Sea Transport	1.5	DNV	30
Financial Services	0.9	Elkem	3
Computer Services	0.8		
Consulting Services	0.7		
Government Services	0.7		
Business Services	0.6		

## **NEW YORK**



**GOODS EXPORTS:** 

#### USD 83 mill.

-7% change last 10 years



**GOODS IMPORTS:** 

#### USD 293 mill.

**0% change** last 10 years



1730 jobs

in Norwegian-owned companies in New York



680 jobs

from New York's exports to Norway



13,560 jobs

jobs associated with Norwegian portfolio investment

In addition, New York's export to Norway and Norwegian companies in New York support **3,360** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

State-owned Equinor is set to develop a 2.5 gigawatt offshore wind project off the coast of New York, as operator of two license areas (together with BP). The two areas, Empire Wind and Beacon Wind, will deliver 3.3 GW of energy to the state of New York: enough electricity for almost a million households. Other Norwegian companies have already signed contracts with Equinor to supply the Empire Wind project. These include Aker Solutions for front-end engineering and design (FEED) and Nexans for offshore wind cables.

#### **New York**

Exports to Norway in USD million

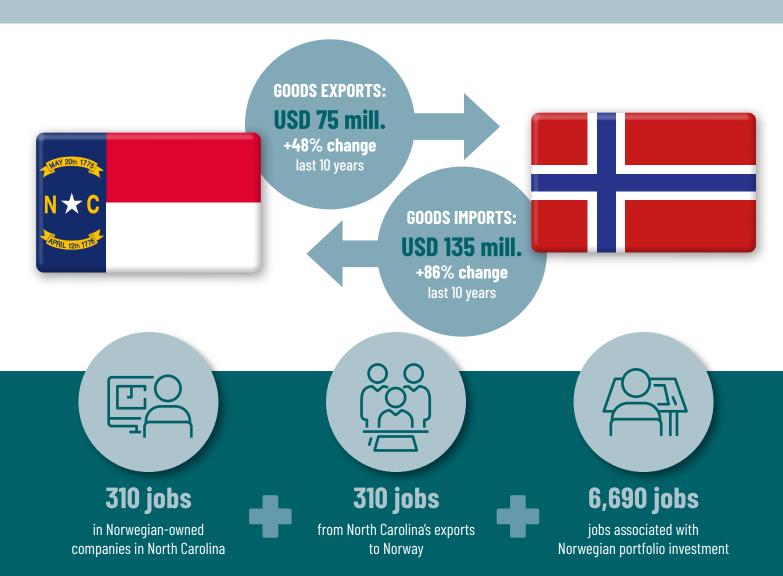
Financial Services	71.0
Used Merchandise	45.2
Sea Transport	17.1
Computer Services	15.4
Consulting Services	13.5
Business Services	11.9

#### **Largest companies**

Number of employees

Tomra	551
DNV	250
Laerdal Medical	180
DNB	176
Wilhelmsen	168
Snøhetta	73

## **NORTH CAROLINA**



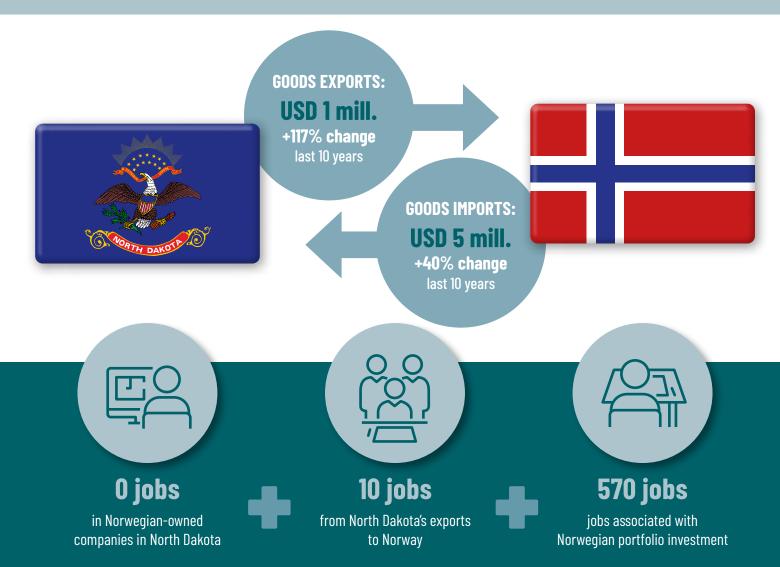
In addition, North Carolina's export to Norway and Norwegian companies in North Carolina support **750** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

In 2011, Ekornes established sofa manufacturing facilities in North Carolina. The technologically advanced Morganton factory was the company's first production facility outside of Norway. In 2022 Ekornes further bolstered their production capacity in North Carolina by introducing two highly popular Stressless power recliners to their line-up.

<b>North Carolina</b> Exports to Norway in USD millio	n	Largest companies Number of employees	
Machinery	36.9	Hexagon Composites	130
Minerals & Ores	22.1	Ekornes	120
Financial Services	10.9	Hydro	21
Sea Transport	7.9	Tomra	16
Computer Services	5.7	Lerøy	8
Consulting Services	5.0	Elkem	6

## **NORTH DAKOTA**



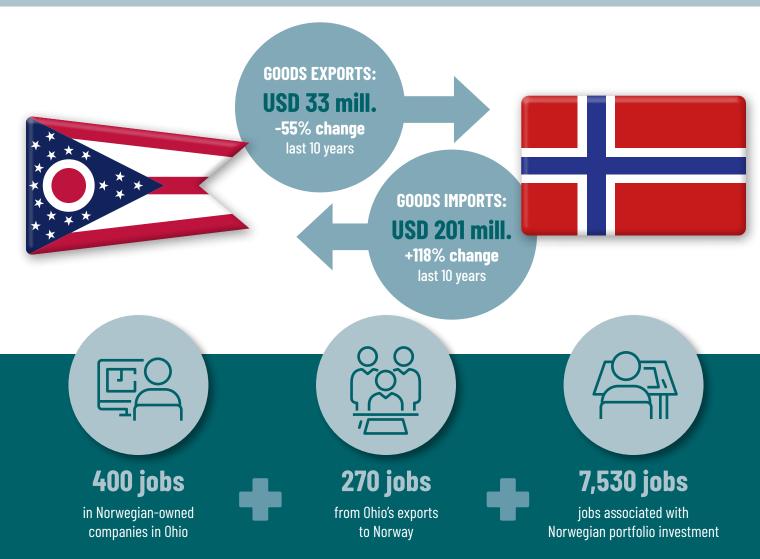
In addition, North Dakota's export to Norway and Norwegian companies in North Dakota support **10** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

North Dakota is the state with the highest percentage of Norwegian ancestry today - making up 22.5 per cent, almost one fourth of the population.

<b>lorth Dakota</b> xports to Norway in USD million	n	Largest companies Number of employees
Sea Transport	1.2	No identified Norwegian-owned
Financial Services	0.7	companies
Electronics	0.5	
Computer Services	0.2	
Goods Services	0.2	
Consulting Services	0.2	

## OHIO



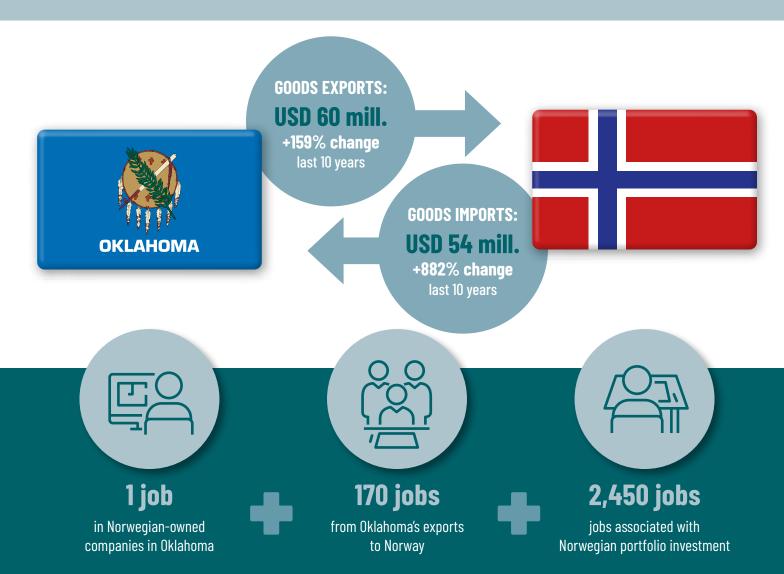
In addition, Ohio's export to Norway and Norwegian companies in Ohio support **870** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Hydro Extrusion's Sidney, Ohio facility provides state-of-the-art machining, fabrication, assembly and contract manufacturing services. From their facilities in Ohio, they deliver some of the most sophisticated aluminum fabrication services in the world.

<b>Ohio</b> Exports to Norway in USD millio	n	Largest companies Number of employees	
Financial Services	19.1	Hydro	339
Sea Transport	12.1	DNV	60
Transportation Equipment	7.5	Elkem	2
Metal Products	6.1	Dolphitech	1
Computer Services	5.6		
Consulting Services	5.0		

## OKLAHOMA



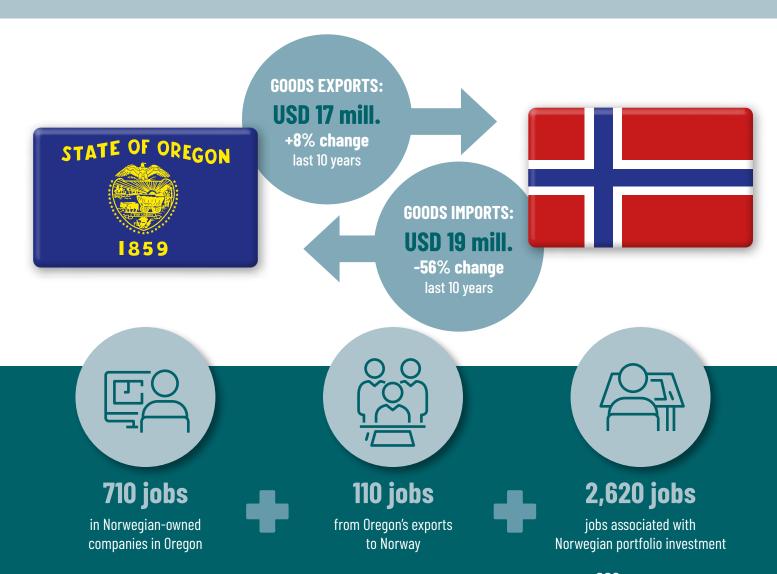
In addition, Oklahoma's export to Norway and Norwegian companies in Oklahoma support **340** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The Norwegian company Nel Hydrogen is providing key equipment to Woodside Energy's project H2OK. H2OK is Woodside's very first liquid hydrogen project in the US, and is intended to supply hydrogen to the heavy transport sector.

<b>Oklahoma</b> Exports to Norway in USD millio	n	Largest companies Number of employees	
Transportation Equipment	46.7	Hydro	1
Sea Transport	6.0		
Metal Products	4.3		
Machinery	3.8		
Electronics	3.6		
Financial Services	1.9		

## OREGON



In addition, Oregon's export to Norway and Norwegian companies in Oregon support **990** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The Norwegian company Agilyx, in collaboration with AmSty, is the world's first chemical recycler of post-use polystyrene at their joint facility Regenyx in Tigard, Oregon.

<b>Oregon</b> Exports to Norway in USD millio	n	Largest companies Number of employees	
Transportation Equipment	4.8	Hydro	367
Electronics	3.7	Wilhelmsen	168
Sea Transport	3.5	DNV	60
Machinery	3.5	Yara	56
Financial Services	2.4	Agilyx	55
Computer Services	2.3		

## PENNSYLVANIA



**GOODS EXPORTS:** 

#### USD 261 mill.

+284% change last 10 years



GOODS IMPORTS:

#### USD 112 mill.

-80% change last 10 years



2,070jobs

in Norwegian-owned companies in Pennsylvania



**430 jobs** 

from Pennsylvania's exports to Norway



8,280 jobs

jobs associated with Norwegian portfolio investment

In addition, Pennsylvania's export to Norway and Norwegian companies in Pennsylvania support **3,510** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The Philadelphia Shipyard, founded in 1776 and outfitter of the first American naval fleet, was set to close in the early 1990s before being acquired by Norwegian shipbuilding giant Kværner. Today, Philly Shipyard ASA is headquartered in Oslo and traded on the Oslo Stock Exchange. The yard is a leading U.S. shipbuilder and is presently pursuing a mix of commercial and government work, having delivered many large ocean-going commercial ships, particularly container and tanker ships.

#### Pennsylvania

Exports to Norway in USD million

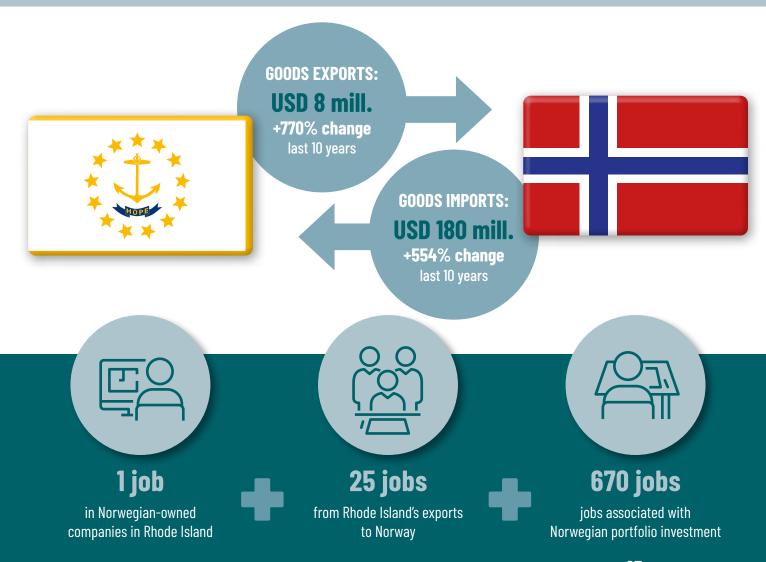
Chemicals	203.1
Oil & Gas	19.9
Sea Transport	15.6
Financial Services	11.7
Electronics	8.1
Computer Services	7.6

#### Largest companies

Number of employees

Hydro	1458
Philly Shipyard	411
Kitron	80
Aker Solution	50
DNV	30
Kongsberg D&A	30

## RHODE ISLAND



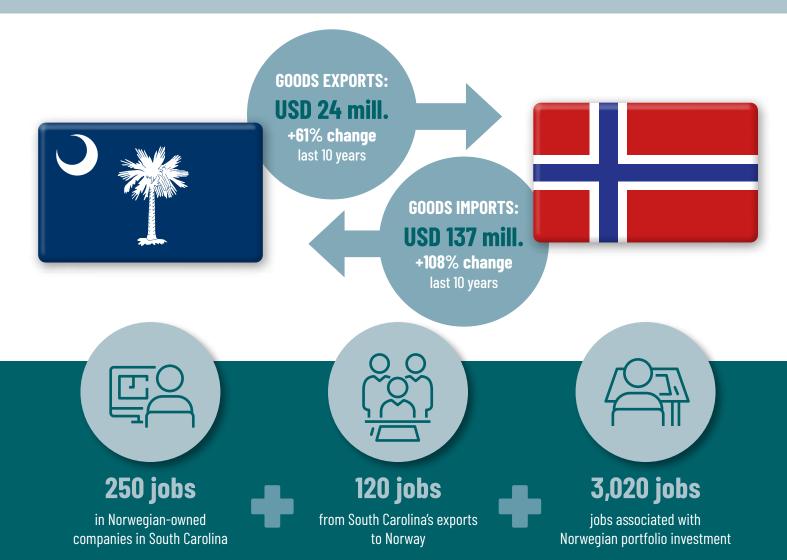
In addition, Rhode Island's export to Norway and Norwegian companies in Rhode Island support **25** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Fred Olsen Windcarrier completed the installation of the offshore wind turbines near Block Island - the very first commercial project in the US.

Hydro	1

# SOUTH CAROLINA



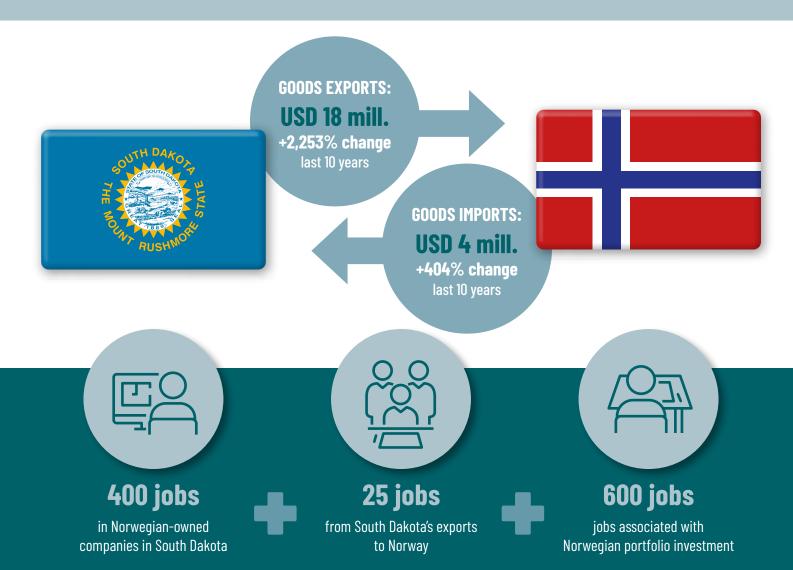
In addition, South Carolina's export to Norway and Norwegian companies in South Carolina support **550** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The town of Norway in Orangeburg County, South Carolina is so named because the railroad company that reached the area in 1891 was pursuing a Scandinavian theme for its new line. Nearby, the communities of Sweden and Finland were founded by the company along the same line and an existing depot was renamed to Denmark.

South Carolina Exports to Norway in USD mill	ion	Largest companies Number of employees	
Electrical Equipment	6.5	Elkem	217
Metal Products	5.3	Odfjell	16
Transportation Equipment	4.1	Hydro	12
Sea Transport	3.1		
Chemicals	2.9		
Financial Services	2.7		

## SOUTH DAKOTA



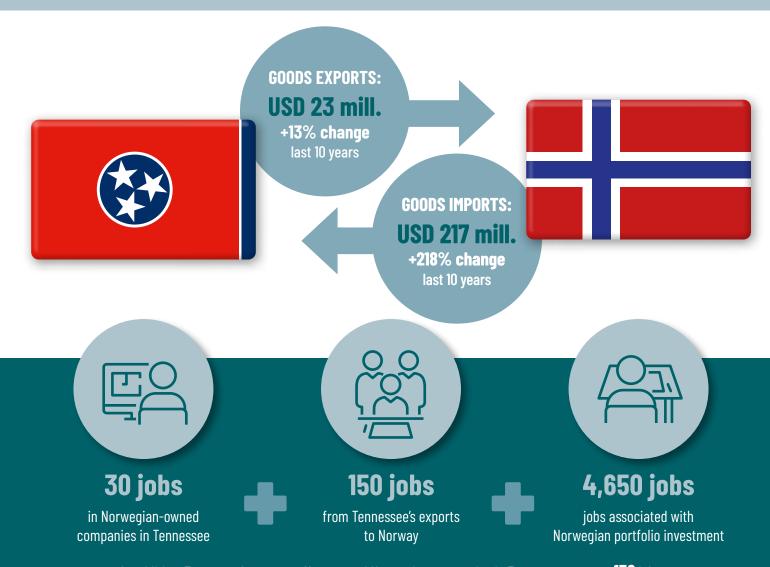
In addition, South Dakota's export to Norway and Norwegian companies in South Dakota support **710** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

In 1889, one third of the residents of South Dakota were Norwegian. Today the share of jobs with Norwegian multinational corporations is the second highest of all states in the US.

South Dakota Exports to Norway in USD millio	n	Largest companies Number of employees	
Chemicals	16.4	Hydro	404
Financial Services	2.0		
Sea Transport	0.6		
Used Merchandise	0.3		
Food Products	0.3		
Electronics	0.3		

# TENNESSEE



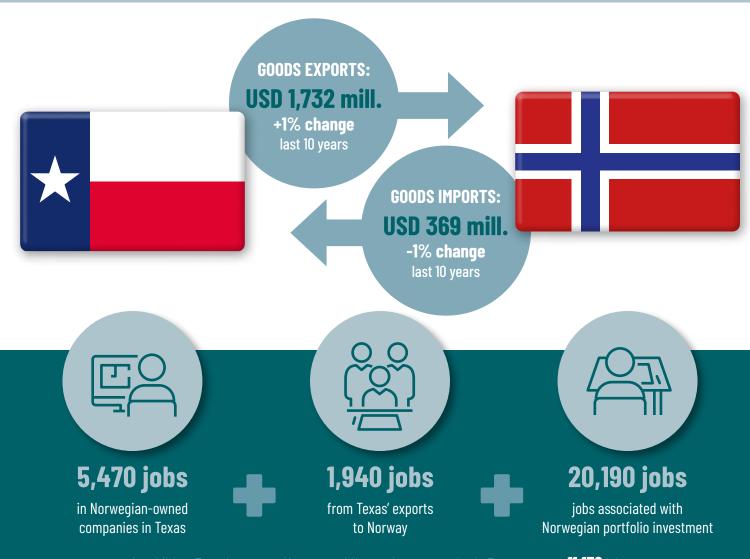
In addition, Tennessee's export to Norway and Norwegian companies in Tennessee support **150** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Norwegian country music artist Terje Nielsen, aka Teddy Nelson, was the first Scandinavian to perform in the famous Grand Ole Opry show in Nashville.

<b>Tennessee</b> Exports to Norway in USD mil	lion	Largest companies Number of employees	
Chemicals	11.2	DNV	30
Sea Transport	8.7	Hydro	2
Financial Services	5.5		
Computer Services	3.3		
Wood Products	3.3		
Consulting Services	2.9		

## **TEXAS**



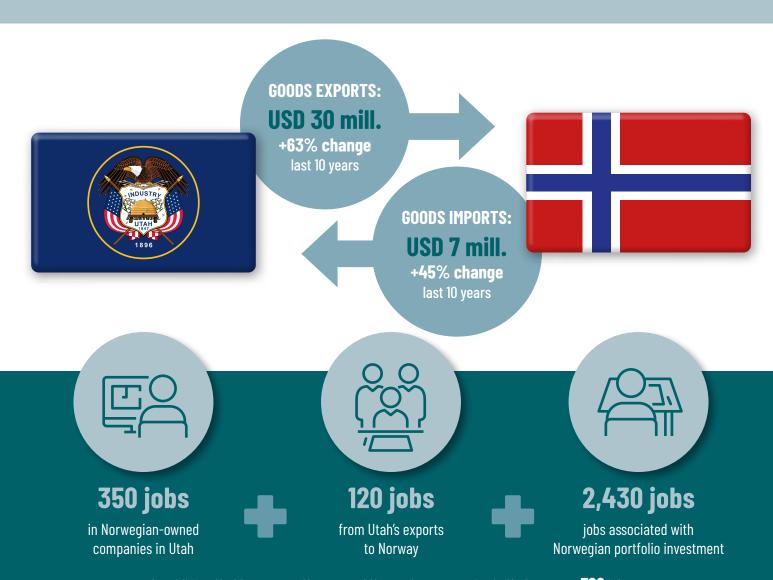
In addition, Texas' export to Norway and Norwegian companies in Texas support **11,170** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Texas has the highest employment count in Norwegian multinational companies among all states, with 5,900 individuals being employed. 1,800 jobs are also supported by exports of goods and services to Norway, which is the highest count in the US.

<b>Texas</b> Exports to Norway in USD mil	llion	Largest companies Number of employees	
Oil & Gas	894.1	Wilhelmsen	2000
Chemicals	325.1	Equinor	550
Electronics	160.3	Aker Solution	400
Machinery	108.4	DNV	400
Petroleum Products	91.0	TGS	387
Metal Products	62.2	NorAm Drilling Company	343

## UTAH



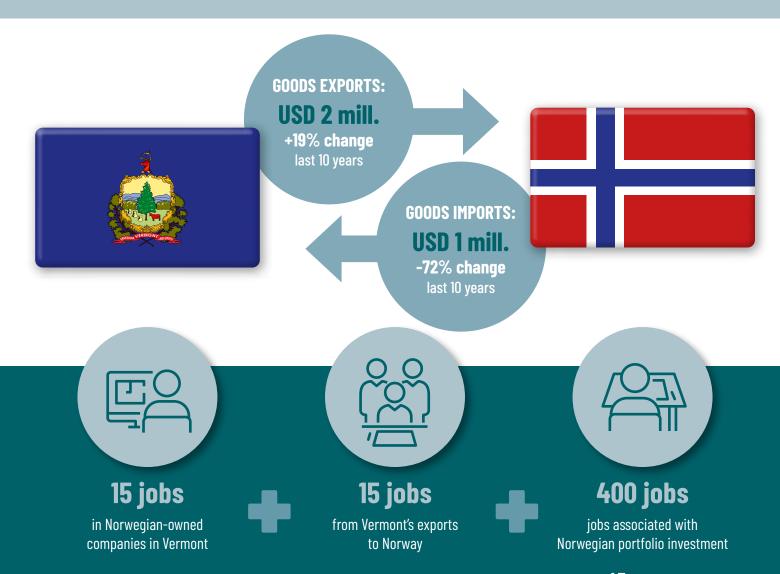
In addition, Utah's export to Norway and Norwegian companies in Utah support **700** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Utah had a Norwegian-language newspaper, Varden: Organ for de norske i Utah (The Beacon: Organ for the Norwegians in Utah). First published in 1910 in Salt Lake City, the paper reported on events in Utah, the US, and Norway. Today Utah has the higest propotion of jobs being within Norwegian multinationals out of all states.

<b>Utah</b> Exports to Norway in USD mi	illion	Largest companie	
Transportation Equipment	8.2	Hydro	265
Machinery	6.0	Nammo	87
Food Products	4.2		
Financial Services	3.9		
Sea Transport	3.4		
Metal Products	3.2		

## **VERMONT**



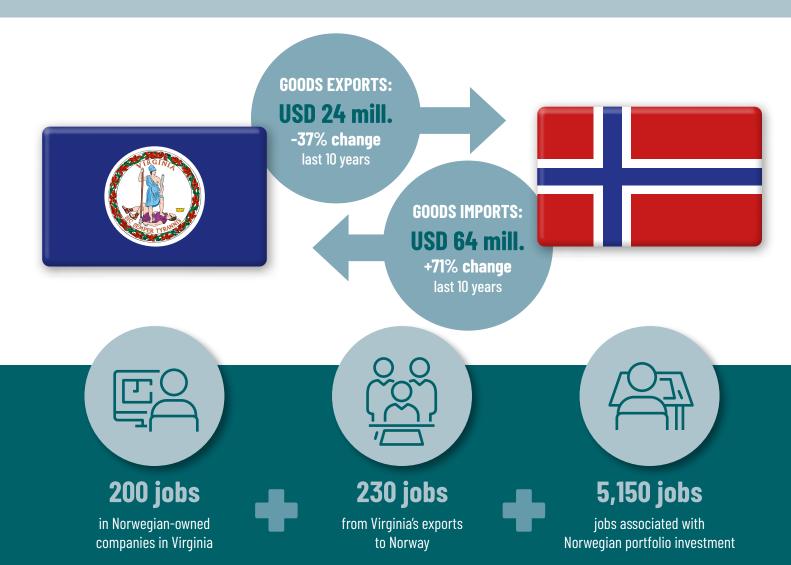
In addition, Vermont's export to Norway and Norwegian companies in Vermont support **45** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

In Vermont, there is a tradition known as "Syttende mai," also called "Constitution Day." This day celebrates the Norwegian constitution and Norway's National Day on May 17th. This is a unique tradition rooted in the history of Norwegian immigrants in Vermont.

<b>Vermont</b> Exports to Norway in USD mi	llion	Largest companies Number of employees	
Manufactured Goods	1.0	Tomra	14
Financial Services	0.4		
Computer Services	0.3		
Consulting Services	0.3		
Sea Transport	0.3		
Business Services	0.2		

## **VIRGINIA**



In addition, Virginia's export to Norway and Norwegian companies in Virginia support **520** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The Norwegian Lady, a memorial honoring those who died during an 1891 wreck of a Norwegian ship, can be found in Virginia Beach, with a twin statue in Moss, Norway.

<b>Virginia</b> Exports to Norway in USD mil	llion	Largest companies Number of employees	
Electronics	10.4	Kongsberg D&A	150
Computer Services	7.8	Q-Free	35
Financial Services	7.1	Weibel Equipment	5
Sea Transport	7.1	Pexip	4
Consulting Services	6.8	Intrapoint	3
Business Services	6.0	Hydro	2
Business Services	6.0	Hydro	

## WASHINGTON



**GOODS EXPORTS:** 

### USD 281 mill.

-50% change last 10 years



**GOODS IMPORTS:** 

### USD 59 mill.

+30% change last 10 years



**420** jobs

in Norwegian-owned companies in Washington



**710 jobs** 

from Washington's exports to Norway



5,600 jobs

jobs associated with Norwegian portfolio investment

In addition, Washington's export to Norway and Norwegian companies in Washington support **1,940** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

Seattle is home to the National Nordic Museum, whose CEO was recently awarded the Royal Norwegian Order of Merit. The museum presents the history of the Nordic regions as well as the experiences and legacies of nordic immigrants to the US.

#### Washington

Exports to Norway in USD million

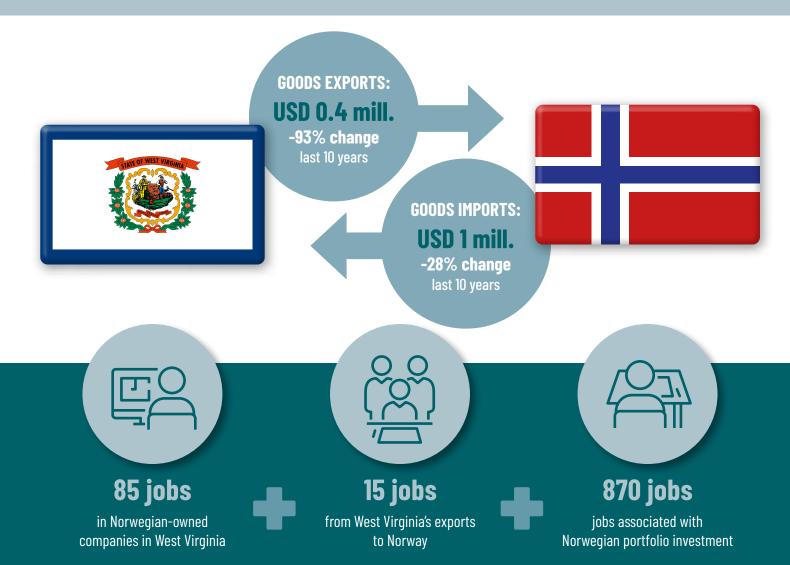
Transportation Equipment	260.3
Sea Transport	7.4
Information Services	7.2
Electronics	6.9
Published Matter	6.7
Financial Services	5.3

#### Largest companies

Number of employees

Wilhelmsen	168
Kongsberg Maritime	100
Yara	56
DNV	30
Optimar	30
REC Silicon	20

## **WEST VIRGINIA**



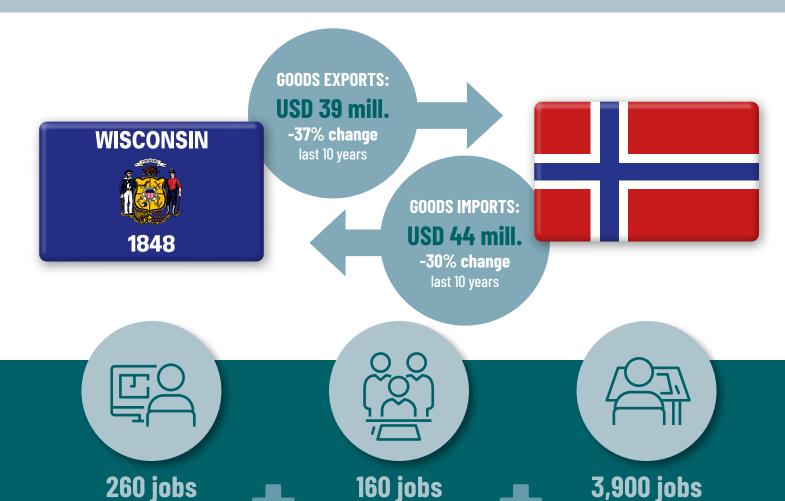
In addition, West Virginia's export to Norway and Norwegian companies in West Virginia support **10** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

In 2021 Equinor signed a memorandum of understanding (MoU) with US Steel to examine the potential for hydrogen and CCS development in the tri-state region of West Virginia, Ohio, amd Pennsylvania.

<b>West Virginia</b> Exports to Norway in USD mi	llion	Largest companies Number of employees	
Sea Transport	1.0	Beckwith Lumber	85
Financial Services	0.7		
Computer Services	0.4		
Consulting Services	0.3		
Government Services	0.3		
Goods Services	0.3		

## WISCONSIN



In addition, Wisconsin's export to Norway and Norwegian companies in Wisconsin support **480** jobs elsewhere in the US value chain (indirect employment effects).

from Wisconsin's exports

to Norway

#### Did you know?

A traditional stave church is located on Washington Island, off Wisconsin's Lake Michigan shoreline. Built between 1992 and 1999 by local volunteers, it is modeled on a stave church in Borgund, Norway that was built around 1200. Services are held there during the summertime. Washington Island was also the summertime home of Norwegian-American Economist Thorstein Veblen, who coined the term 'conspicuous consumption' in his 1899 book, *The Theory of the Leisure Class*.

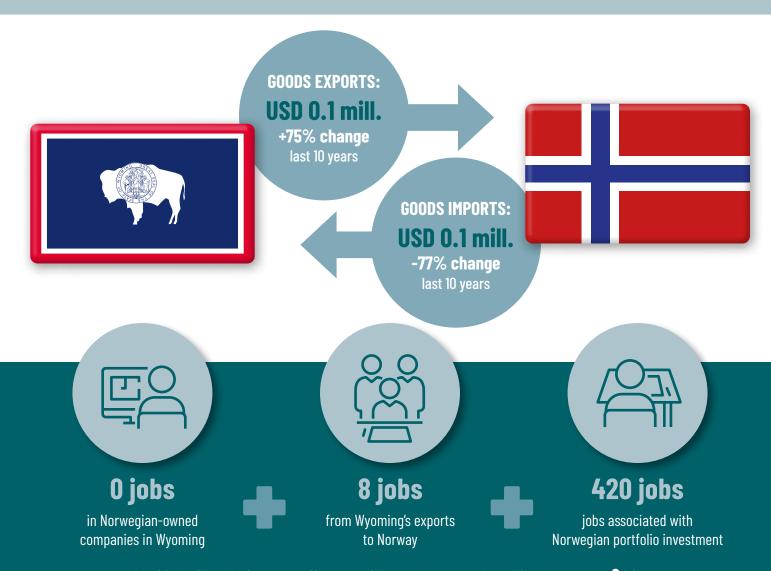
in Norwegian-owned companies in Wisconsin

14.9	Orkla	134
8.5	Borregaard	98
6.8	DNV	30
5.1	Elkem	1
4.5		
4.5		
	8.5 6.8 5.1 4.5	8.5 Borregaard 6.8 DNV 5.1 Elkem 4.5

jobs associated with

Norwegian portfolio investment

## WYOMING



In addition, Wyoming's export to Norway and Norwegian companies in Wyoming support **9** jobs elsewhere in the US value chain (indirect employment effects).

#### Did you know?

The Norwegian sports equipment manufacturer Sweet Protection entered into a partnership agreement with the Jackson Hole ski resort, one of the world's largest ski resorts, in 2023. The agreement is an important step in the company's international expansion and testing of new equipment. This follows the legacy from the 1960s to '80s, when the University of Wyoming in Laraime attracted dozens of Norwegian students – particularly for its then-NCAA Nordic skiing program. A UW alumni association group is still active in Norway.

#### Wyoming

Exports to Norway in USD million

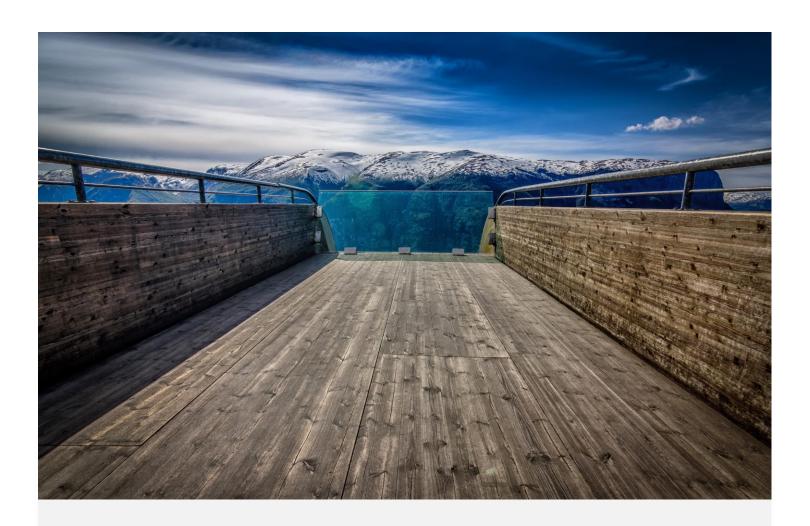
Sea Transport	1.8
Financial Services	0.3
Government Services	0.2
Computer Services	0.2
Air Transport	0.2
Consulting Services	0.1

#### **Largest companies**

Number of employees

No identified Norwegian-owned companies





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