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2022 CONNECTICUT MANUFACTURING REPORT





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CONNECTICUT MANUFACTURING'S ECONOMIC POWER

EMPLOYEES



160,200

Manufacturing employees in
Connecticut (as of Sept. 2022)

MANUFACTURERS



4,368

Manufacturing companies
in Connecticut (2021)

WAGES



\$16.2
BILLION

Total manufacturing
compensation

\$101,136

Average manufacturing
compensation in
Connecticut

TAXES



\$166.9
MILLION

State corporate
taxes paid in 2019

\$267.2
MILLION

State sales & use
taxes paid (2021)

MULTIPLIERS



5

ADDITIONAL JOBS

What each manufacturing
job creates in other parts
of the economy

\$31
BILLION

Manufacturing accounted for
13% of the state's GDP in 2021

\$2.68

Amount generated in
additional activity for every
\$1 spent in manufacturing

EXPORTS



\$14.5
BILLION

Manufacturing accounted
for \$14.5 billion in exports
in 2021

DEFENSE



\$19.3
BILLION

Connecticut manufacturing
defense contract spending
(2021)

Sources: U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, U.S. Department of Defense, U.S. Census Bureau, National Association of Manufacturers, Connecticut Department of Revenue Services, Connecticut Department of Labor.



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FOREWORD

We are at a very exciting time for manufacturing here in Connecticut. As we move out of the pandemic, we face a growing backlog of work, a steady stream of new opportunities, and are incorporating new technologies that will help improve productivity and efficiency.

The manufacturing sector is a critical part of Connecticut’s economy. Manufacturing jobs change the lives of individuals and communities with high wages, advancement opportunities, and employment for people of all ages and socioeconomic backgrounds. We have high school graduates working alongside PhDs on our shop floors, making products that are integral to our everyday life.

Connecticut’s manufacturing landscape is both dense and diverse. We rank third in the U.S. in manufacturing density, and produce a wide range of products, from submarines, to airplanes, food, pharmaceuticals, medical devices, semiconductors, and even games and toys. Seventy-six percent of the goods manufactured in Connecticut are exported out of the state, providing critical products both to the U.S. and internationally.

We have 4,368 manufacturers in the state, employing more than 160,000 people. The average manufacturer is small but mighty, with grit, determination, and nimbleness, that directly impacts their ability to innovate and respond quickly to market forces.

The manufacturing landscape is changing. The availability of a well-trained workforce is the single biggest factor preventing growth today (and tomorrow). We are addressing workforce shortages through a series of programs developed by the Governor’s Workforce Council and the continued leadership of our chief workforce officer and the Office of Workforce Strategy.

We participate in several federally funded programs supporting the underemployed and unemployed. We are implementing systemic change throughout our workforce ecosystem, providing our residents with the opportunity to gain a high-quality career in manufacturing by connecting them with the resources they need to succeed financially, academically, and socially.

We continue to experience supply chain issues. We must shorten the supply chain by moving work back to Connecticut through reshoring and creating relationships with friendly countries—what I call “Connecticut shoring” and “friendly shoring.”

We must ensure that all manufacturers are connected to one another and understand local capabilities and the capacity within our manufacturing ecosystem. Keep in mind that you cannot spell Connecticut without Connect!

Finally, we need to accelerate the adoption of new technologies at the speed of relevancy.

The future has already happened, and we need to support our manufacturing sector if we hope to maintain our competitive advantage and capitalize on our core strengths: high value, low volume, and highly complex part manufacturing.

To address this need and determine the best ways to accelerate the adoption of new technologies, Connecticut's Industry 4.0 Working Group is detailing the current innovation infrastructure and resources available.

This report, coupled with the upcoming Manufacturing Strategic Plan, will detail a comprehensive strategic and tactical plan to strengthen the manufacturing ecosystem through the adoption of technologies, developing the workforce, and building a sustainable supply chain that will have a significant impact on the effectiveness, efficiency, sustainability, and ultimately, the success of the manufacturing sector in Connecticut.

I am optimistic about the future of manufacturing in Connecticut. As we look at the manufacturing landscape throughout the U.S., it is clear that Connecticut punches well above our weight class.

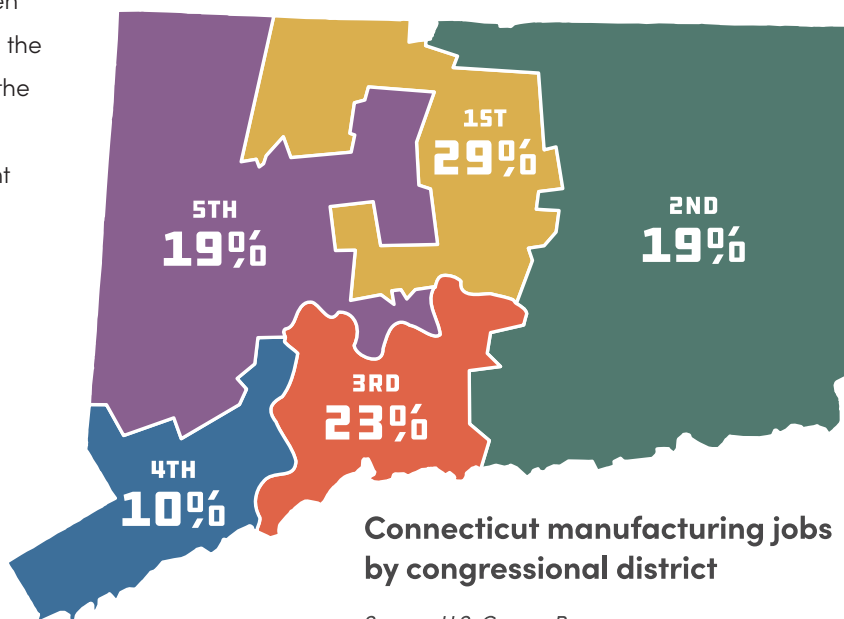
We have exciting opportunities in clean energy, especially offshore wind, electric vehicles, and battery storage, and we are positioned to be leaders in the sustainable aerospace fuel future.

Connecticut has prioritized effective leadership, made smart investments in direct supplier support programs, and has collectively agreed that workforce, supply chain, and innovation are our top priorities today and tomorrow.

With this knowledge, Team Connecticut has created a vibrant manufacturing ecosystem. While we are strong as individual entities, we will be invincible in manufacturing as a team. The best has yet to come.

— PAUL LAVOIE

Chief Manufacturing Officer, State of Connecticut



Source: U.S. Census Bureau

INTRODUCTION

The 2022 Connecticut Manufacturing Report, produced by CBIA and affiliates CONNSTEP and Ready CT, and made possible again this year through the generous support of RSM, reviews the state of the sector, examines the impact of an uneven economic recovery, and explores the outlook for the next 12 months, including growth factors, policy priorities, and hiring and investment trends.

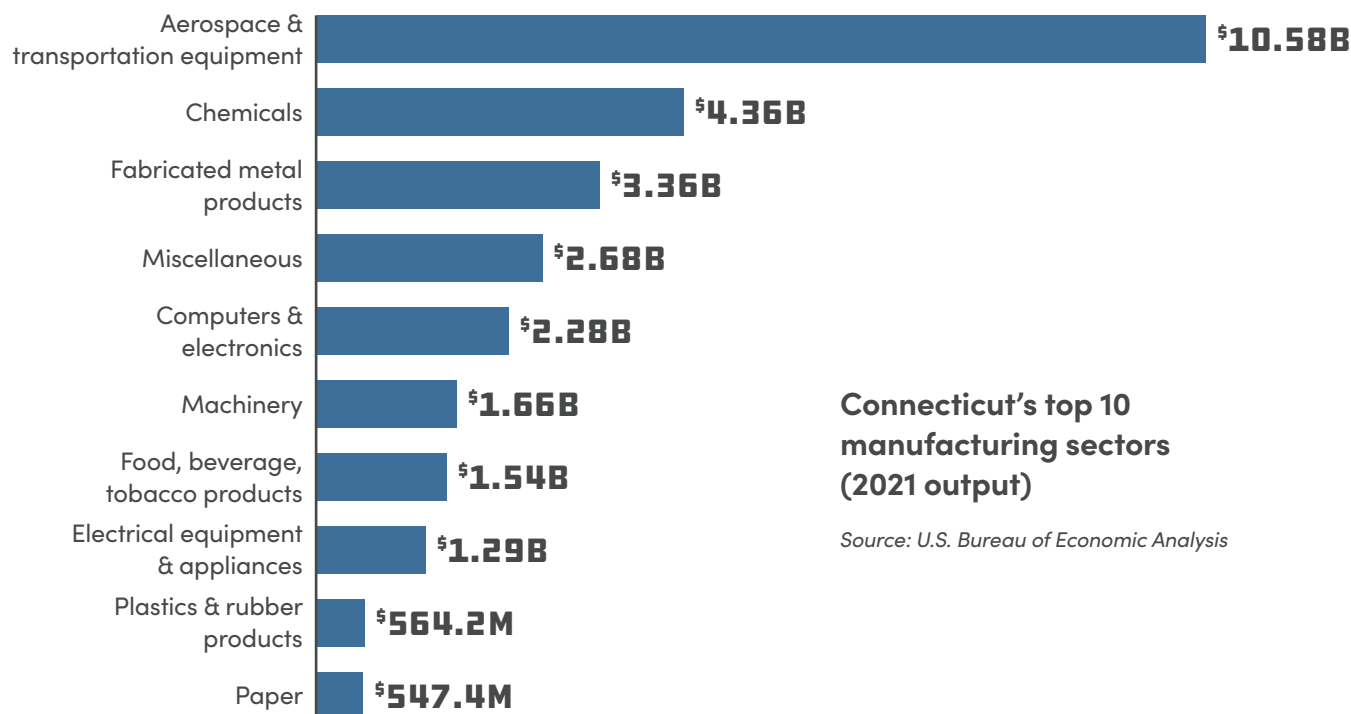
On the positive side, Connecticut's fiscal health has not been this robust in decades.

This year's General Assembly session leveraged federal pandemic relief dollars and a historic \$4.3 billion surplus to provide \$660 million in individual tax relief (albeit with more than half as one-time measures) and \$4.1 billion in contributions to the state's chronically underfunded state employee pension system, while also building one of the healthiest rainy day funds in the nation.

Is Connecticut now in a position to build on this foundation and seize the opportunity to transform the state, make our economy more competitive and robust, and create opportunities for all?

There are troubling warning signs ahead for Connecticut's manufacturing sector and the state's economic growth prospects. The labor shortage shows no sign of abating. Inflation is at a decades-high. And manufacturers struggle to obtain materials because of ongoing supply chain disruptions.

While these are issues facing the national economy—and for that matter, the global economy—Connecticut is more vulnerable than most states, given long-term structural issues that predate the pandemic.



Take the worker shortage. While Connecticut's manufacturing sector has recovered 93% of the 11,500 jobs lost to pandemic-related restrictions in March and April of 2020, almost nine in 10 manufacturers report difficulty finding and/or keeping workers.

As of September 2022, Connecticut had 114,000 job openings, with a labor force that had declined by 47,100 people since the onset of the pandemic. An estimated 11,000 of those job openings are in the manufacturing sector, where manufacturers are struggling to fill record demand for their products.

The first two quarters of 2022 perhaps showcase the volatility of the state's economic recovery. Connecticut's economy expanded 5.5% in the first quarter—second best in the country—before contracting 4.7% in the second quarter, the second worst performance of any state.

The past two-plus years fully tested the resiliency and innovation of Connecticut's manufacturing sector. Companies are adapting to a rapidly changing post-pandemic world, with the way we view systems, business models, consumer behavior, careers, and the workplace in a constant state of flux.

This report offers critical insights into the state of manufacturing in Connecticut, and offers a path to transform the sector and fully leverage our state's remarkable assets by building a sustainable economy that emphasizes affordability, meaningful careers, and a positive business climate.

The information and data shared in the 2022 Connecticut Manufacturing Report was drawn from multiple sources, including a comprehensive July 6–August 8 CBIA survey of manufacturers, numerous state and federal agencies, and interviews with private and public sector manufacturing leaders and officials.

KEY TAKEAWAYS

- ▶ 87% of manufacturers report difficulty finding and/or retaining employees and 44% say the lack of skilled applicants is the greatest obstacle to growth
- ▶ Over a third (35%) report that the state's high cost of living was the top concern for employees and their families
- ▶ Just over two-thirds (68%) of manufacturers reported profits in 2021, up from 64% in 2020
- ▶ 69% expect a profitable 2022, with just 6% forecasting losses
- ▶ Only 21% see Connecticut's economy growing in the next year and just 19% expect U.S. GDP growth
- ▶ 91% of manufacturing leaders say the cost of doing business in Connecticut is increasing, while 53% say the state's business climate is declining
- ▶ 93% of manufacturers were impacted by supply chain disruptions
- ▶ 22% of manufacturers are making their greatest investment in employee retention
- ▶ 42% expect their workforce to grow in the next six months, down two points from last year
- ▶ 47% forecast sales growth in 2022, down six percentage point from last year

MANUFACTURING AT A GLANCE

Connecticut manufacturing companies are typically well-established small businesses. Seventy-one percent of those who responded to CBIA's July–August survey

employ less than 50 employees, and 85% have less than 100 employees.

The average age of surveyed companies was 59 years, with 93% in operation for more than 20 years. Only three surveyed firms had less than 10 years in operation, and 26 have operated for 100 years or more.

Forty-eight percent of those firms are privately-held, 41% are family-owned, 36% are S-corporations, 32% are incorporated, and 15% are limited liability companies.

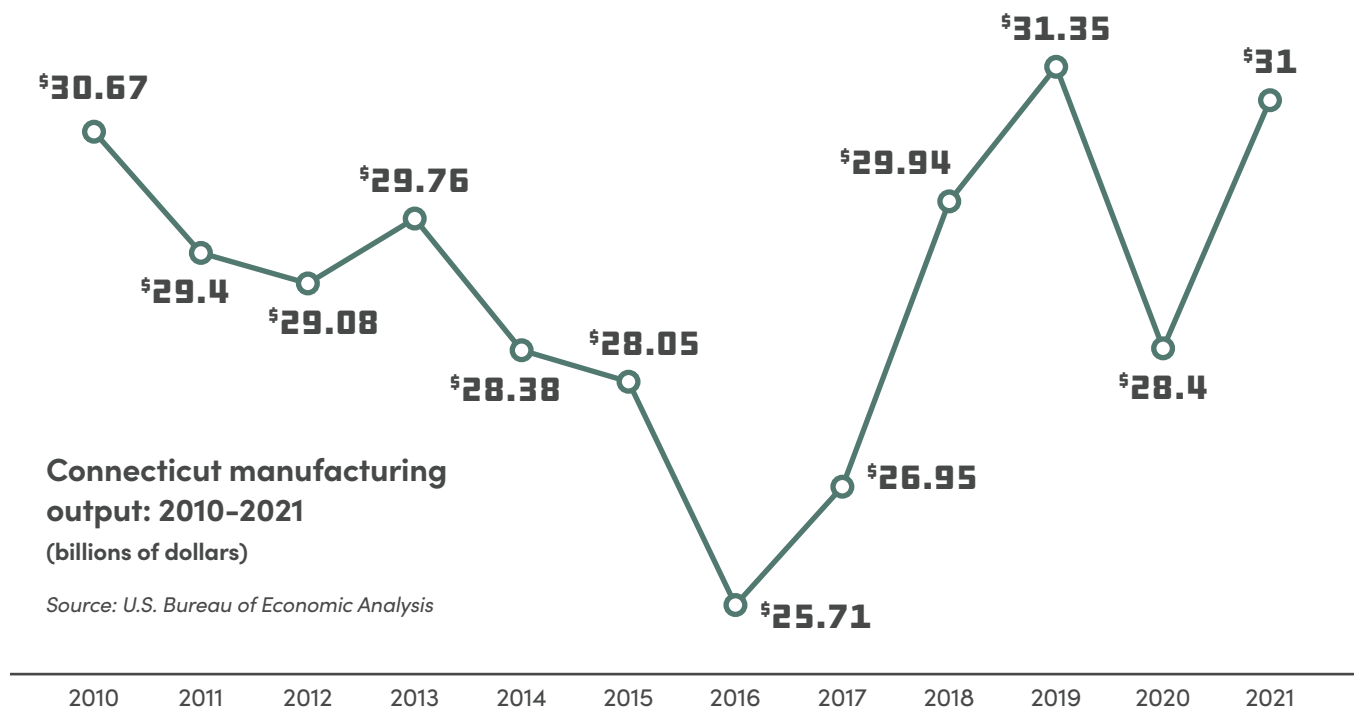
Twelve percent are women-owned, 8% are veteran-owned, 3% are foreign-owned, and 2% are publicly-held.

Nearly all (98%) surveyed manufacturers have their primary facility in Connecticut, with 90% making all their products in the state and 10% locating partial production here.

As of September 2022, the state's 4,368 manufacturers employed 160,200 employees—10% of Connecticut's workforce—and pay \$16.2 billion in annual wages and benefits. That represents an average income of \$101,136, well above the state's \$84,963 per capita personal income.

Based on U.S. Bureau of Economic Analysis data, aerospace and transportation equipment make up the largest percentage of manufacturing in Connecticut, responsible for 37% of the sector's annual output.

Chemical manufacturing represents 15% of sector GDP, followed by fabricated metal products (12%), miscellaneous manufacturing (9%), computer and electronic parts (8%), machinery (6%), food, beverage, and tobacco products (5%), electrical equipment and appliances (4%), plastics and rubber products (2%), and paper (2%).



Connecticut manufacturers pay \$167 million annually in state corporate taxes, and \$267 million in sales and use taxes.

Most critically, the sector drives other parts of the economy, creating up to five additional jobs for every manufacturing job and generating \$2.68 in additional economic activity for every dollar spent.

Connecticut's manufacturing output last year was \$31 billion, the second highest since 2010, behind only 2019 (\$31.35 billion). That represents 13% of Connecticut's annual GDP, including \$14.6 billion in commodity exports and \$19.3 billion in defense contracts.

Connecticut's economy grew 4.8% in 2021, after contracting 6.2% in 2020. GDP expanded 6.3% in the New England region last year while the national economy grew 5.9%.

As noted earlier, the first half of 2022 underscored the fragility and uncertainty of the state's economic recovery. While Connecticut's GDP grew 5.5% in the first quarter—trailing only Arkansas (6.5%)—it contracted 4.7% from April to June, second worst of all states.

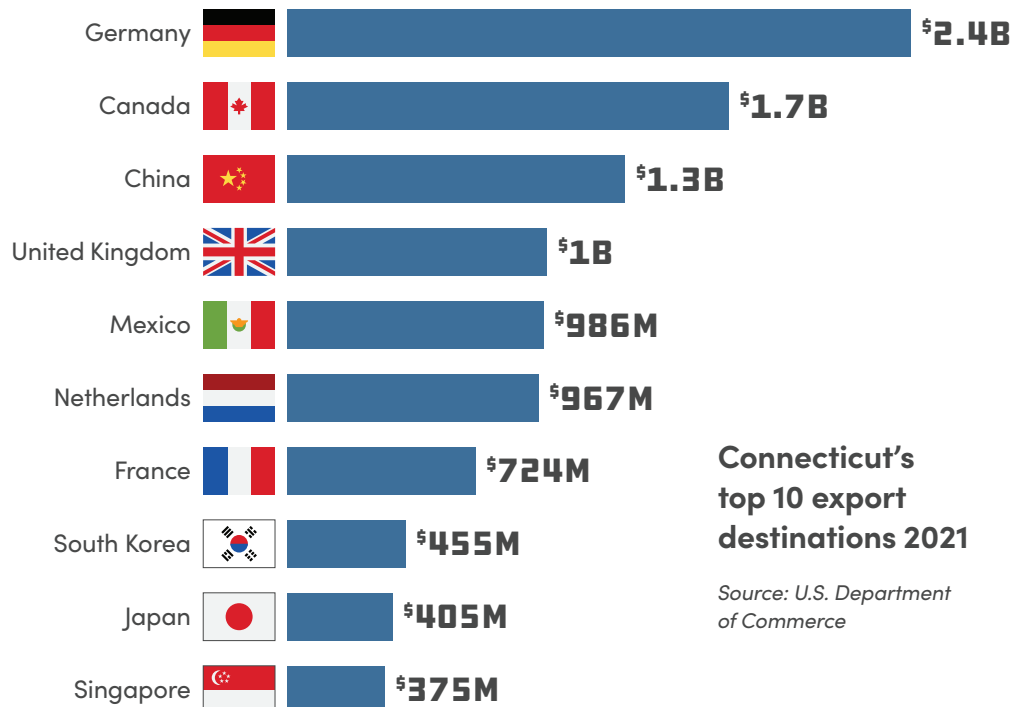
Durable goods manufacturing declined 1.66% in the second quarter (down \$366 million) after growing just 0.08% in the previous three months. Nondurable goods

manufacturing fell 0.44% after contracting 1.17% in the first quarter. Both were among the worst five performing sectors for the quarter.

Connecticut commodity exports grew to \$14.6 billion in 2021, but remained well below pre-pandemic levels. Exports increased 5.4% over 2020 levels, almost \$1.7 billion (~10.3%) below 2019 output. Commodity exports accounted for 4.72% of the state's GDP last year.

Aircraft, spacecraft, and parts accounted for \$4.5 billion (up 3.5% from 2020) of all commodity exports in 2021, followed by industrial machinery (\$3 billion; +2.3%), optic, photo, and medical equipment (\$1.3 billion; +9.5%), electric machinery (\$1.2 billion; +6.2%), and plastics (\$500 million; +14.6%).

Iron and steel exports posted the largest year-to-year increase, increasing 73% to \$235 million while pharmaceutical products posted the biggest loss, falling 38% to \$276 million in 2021.



Connecticut's top 10 export destinations 2021

Source: U.S. Department of Commerce

Germany was the state's largest international market last year, with \$2.4 billion in commodity exports (up 7.9% over 2020), followed by Canada (\$1.7 billion; +3.1%), China (\$1.3 billion; +14.5%), Great Britain (\$1 billion; -11%), and Mexico (\$986 million; +31%).

Regionally, Connecticut is the number two exporter in New England, behind Massachusetts. New England's 2021 commodity exports totaled more than \$62 billion—up 21% from 2020 and up \$5.4 billion from 2019.

Connecticut ranked 31st nationally for exports last year, dropping three places from 2020. Texas, California, New York, Louisiana, and Illinois were the nation's top exporting states.

STATE OF MANUFACTURING

In 2021, 70% of Connecticut manufacturers expected to return a profit, 10% projected losses, and 20% anticipated breaking even. The actual returns were in line with these projections, as 68% reported profits, 14% posted losses, and 18% broke even.

Sixty-one percent of manufacturers credited sales growth when asked about the main factor that drove profits. While last year's report showed that the fulfillment of two years worth of backlog orders was largely responsible for profits, sales this year were attributed to new customers and business flow beginning to return to pre-pandemic levels.

As one survey respondent said, "sales recovered mostly from the COVID slump." Another cited the "surge in customer demand due to COVID-19 vaccine production."

A third attributed "increased sales due to a post pandemic rebound coupled with pandemic-induced cost cutting."

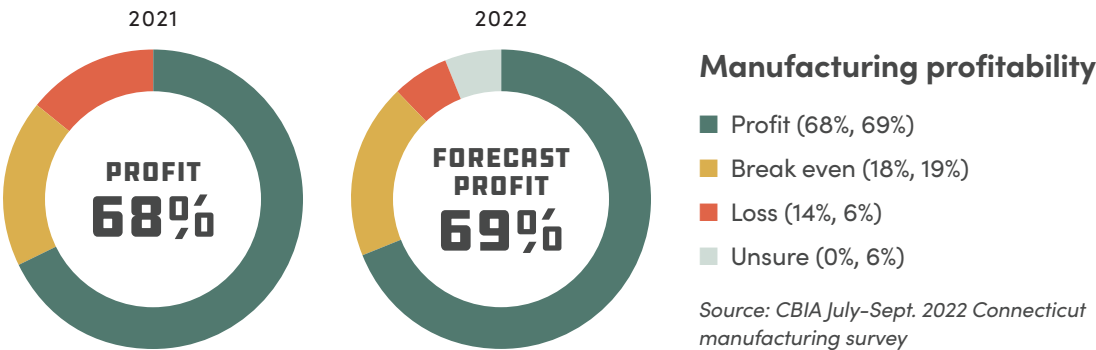
Nine percent attributed profits to increased workforce productivity. As one respondent said: "The skill of our workforce that allows us to provide equipment of unmatched capability and quality" led to profits.

Seven percent of respondents cited cost controls and 7% said pricing.

Conversely, over a quarter (26%) cited a lack of business as the biggest factor driving losses. Twenty-two percent said the pandemic causes losses, 15% cited increased costs, 11% attributed supply chain bottlenecks, and 7% noted a lack of available skilled workers to meet demand.

As one respondent said: "Supply chain delays and lack of qualified employees to hire" caused losses, with another citing the "lack of sales due to the pandemic," and a third saying "labor and rising material costs."

For 2022, 69% of manufacturers expect to make a profit, 19% project breaking even, and only 6% anticipate losses—the lowest percentage in the four years of this survey's publication.



Nearly half (47%) of surveyed manufacturers expect their business to grow next year, down six percentage points from last year. Forty-one percent expect to break even, and only 10% forecast a contraction.

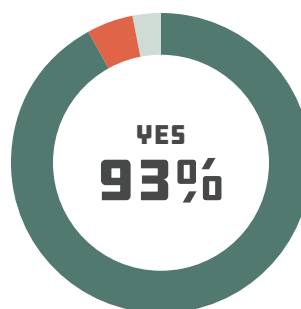
Thirty-eight percent of surveyed manufacturers introduced a new product in the last 12 months—down from 41% the previous year and 45% in 2020—while 42% plan on introducing a new product in the coming year. Seventeen percent are unsure about their future production plans, and 42% do not plan on launching a new product or service.

Of those introducing a new product or service, 81% will locate all production in Connecticut, and 16% will locate partial production in the state.

INFLATION, SUPPLY CHAIN DISRUPTIONS

With inflation at a 40-year high and supply chain disruptions continuing to impact production, Connecticut manufacturers are grappling with economic uncertainty.

More than three-quarters (77%) raised prices to combat skyrocketing inflation. Seventy-two percent saw margins



Was your company impacted by supply chain disruptions?

- Yes (93%)
- No (5%)
- Unsure (3%)

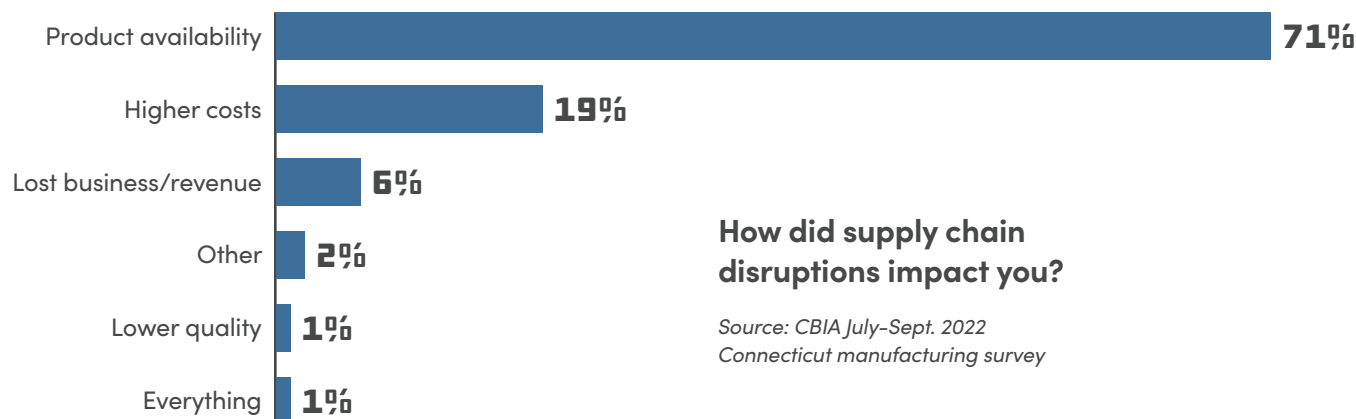
erode, while 24% invested less in equipment and other capital assets and 6% laid off employees.

More than half of those manufacturers that were impacted by inflation raised their prices (57%), while 20% implemented cost control and efficiency practices, and 11% decreased spending.

One respondent said that “prices of everything have increased significantly.”

Another said they combated inflation through “bulk ordering tying up capital, increased prices, and reduced benefits,” while a third said they raised prices, “and are now receiving pushback from long-standing customers.”

A staggering 93% of respondents were impacted by supply chain disruptions.



How did supply chain disruptions impact you?

Source: CBIA July–Sept. 2022
Connecticut manufacturing survey

Seventy-one percent said they dealt with product availability issues, while 19% experienced higher costs and 6% lost business or revenue.

"It's difficult getting raw material," one manufacturer said, "and the price increases 100% plus." "Material prices increased more than expected, and material came in late, making a lot of orders late as well," said another.

The Institute for Supply Management's September monthly survey showed that national manufacturing output grew in September for the 28th consecutive month, "but at the lowest rate since the pandemic recovery began."

ISM reported that the average lead time for production materials was 94 days in September, down from 96 in

August and 100 in June and July.

The lead time for maintenance, repair, and operating was 48 days, up two days from August. Commitment lead time for capital expenditures was 178 days, down two days over the previous month.

The report noted there was not "any large-scale mentioning of layoffs; this indicates companies are confident of near-term demand, so primary goals are managing medium-term head counts and supply chain inventories."

The majority of Connecticut manufacturers surveyed by CBIA earlier this year believe there is little that state government can do to help ease supply chain bottlenecks.

'LEVERAGE HIGH-QUALITY CAREER OPPORTUNITIES'

As Connecticut employers navigate the labor shortage crisis, how are manufacturers grappling with recruiting entry-level talent?

An overwhelming 90% of Connecticut manufacturers report difficulties recruiting entry level talent. Only 6% referred to the process as somewhat easy.

Manufacturing industry leaders surveyed earlier this year by CBIA summarized the steps needed to address the early stages of the talent pipeline:

- ▶ "Continue to invest in strong regional trade schools"
- ▶ Teach "high school students that they can have well-paying careers without college"
- ▶ "Encourage the trades at an early level"
- ▶ "Develop internal training to get directly-out-of-school people trained to do the jobs"

A new initiative makes it easier for manufacturers to connect with area

schools and districts and, therefore, early talent.

MFGSkillsCT.com—a collaboration between ReadyCT, CBIA, and CONNSTEP—bridges the education-manufacturing gap, offering information on K-12 career pathway programs, best practices for high-quality programs, a map of manufacturers across the state, and other resources for educators and employers to form meaningful partnerships.

Twenty-nine percent of respondents were unsure of what could be done at the state level, and 21% said there was little to nothing that could be done. Fifteen percent called for less involvement by the state government. However, 10% wanted policies that will improve and expand manufacturing production in the state, 8% wanted policymakers to be more business friendly, and 7% called for a reduction in taxes.

One respondent urged state lawmakers to “invest in job training so more materials are made in Connecticut.” Another said policymakers must “support trucking services and the ports to get products unloaded faster.” “Get companies who have left the U.S. to come back and manufacture their products here so we are not dependent on foreign manufacturing,” said a third.

WORKFORCE & HIRING

Connecticut’s workforce—traditionally a competitive strength—is critical to the manufacturing sector’s successful economic recovery. Connecticut’s shrinking labor force—down 47,100 people since February 2020—and a surge in job openings has created a harsh reality for manufacturers. As of August 2022, there were 114,000 job openings in Connecticut—up 8,000 from the same time last year. If every unemployed person in the state were hired tomorrow, 37,000 positions would remain unfilled.

And while manufacturing has recovered 93% of the 11,500 jobs lost to pandemic lockdowns and restrictions in March and April of 2020, the sector accounts for an estimated 11,000 of the state’s open jobs.

CONNSTEP received a grant from the U.S. Department of Commerce, National Institute of Technology Manufacturing Extension Program Competitive Awards Program to fund the project.

ReadyCT led the effort from the education perspective, with CBIA and CONNSTEP providing representation directly from Connecticut manufacturers.

ReadyCT executive director Shannon Marimón encourages educators to use the website to find manufacturers in their region.

As these collaborations grow, “students will be able to leverage high-quality career opportunities for their individual success in ways that grow the local and state economies,” Marimón said.

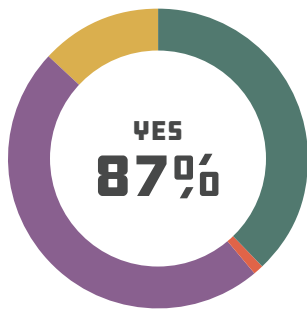
“This website is an important platform that can connect manufacturers with schools in their areas to further develop the talent pipeline,” added CBIA president and CEO Chris DiPentima.

CONNSTEP president and CEO Beatriz Gutierrez called the website “a great tool for manufacturers and schools alike.”

“We’re thrilled to play a part in helping the next generation find career opportunities in Connecticut manufacturing,” she said.



Scan the QR code to learn more and get involved at mfgskills.com



Is it difficult to find and/or retain workers?

- Finding only (38%)
- Retaining only (1%)
- Both (48%)
- I have no trouble finding and retaining workers (13%)

Source: CBIA July–Sept. 2022
Connecticut manufacturing survey

Demand for workers in the manufacturing sector is high. And yet, a staggering majority of Connecticut manufacturers have trouble either finding and/or retaining employees.

More than one-third of Connecticut manufacturers (38%) report difficulty finding employees, 1% struggle just with retention, and 48% say finding and retaining employees is difficult—up from 32% last year. Only 13% report no issues finding or retaining workers.

The skilled worker shortage is not a new issue for Connecticut manufacturers. The sector’s aging workforce and a lack of cohesive collaboration around talent development has challenged manufacturers for much of the past decade.

Post-pandemic demand has exacerbated the issue, however. One-third of manufacturers (33%) said applicants do not possess the required skills or expertise, and over a quarter (27%) cited a lack of work ethic in applicants.

Seventeen percent of surveyed manufacturers cited competition from

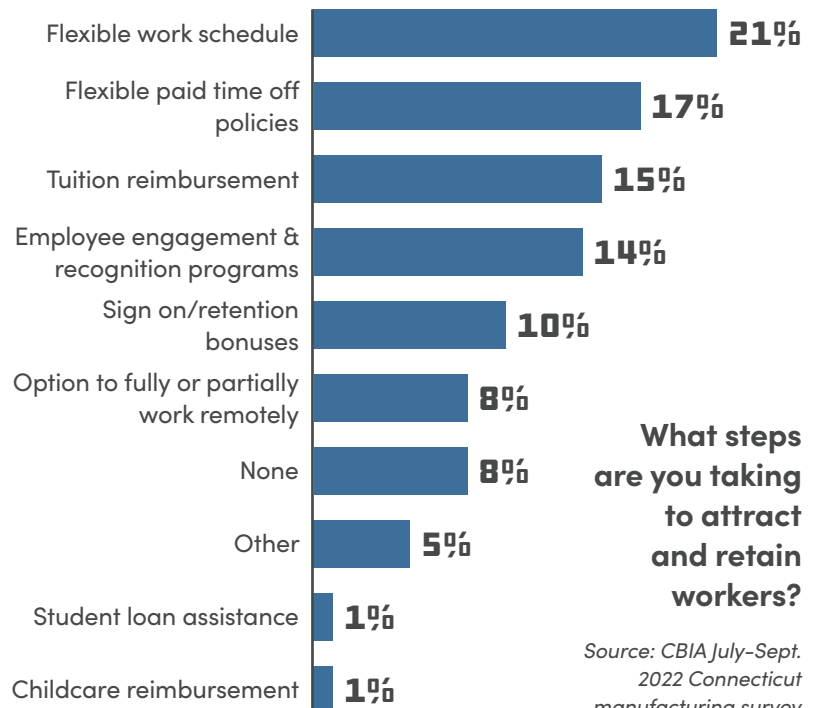
other employers offering higher wages and/or more expansive benefits, and 10% said candidates’ desired pay was beyond budget.

Sixty-two percent of those surveyed said competition from other employers was the main obstacle to retaining employees, 16% cited the high cost of living, and 5% noted a fixed work schedule and the lack of employee engagement and recognition.

“Every company is looking for good help,” one respondent said. Another said that “larger companies are pushing up the wage scales.”

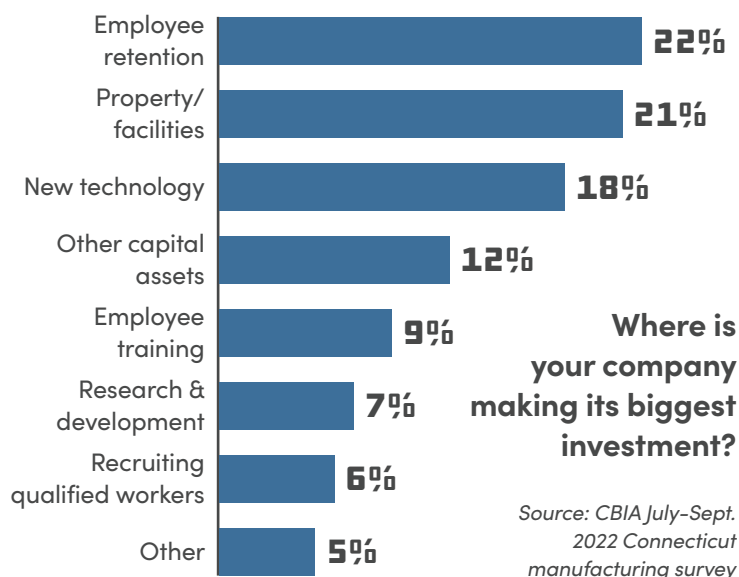
A third noted a “lack of public school technical training.”

Twenty-two percent of Connecticut manufacturers reported that employee retention efforts were the target of their greatest investment—the highest of any category. An additional 9% said employee training, and 6% said recruiting qualified workers.



What steps are you taking to attract and retain workers?

Source: CBIA July–Sept. 2022 Connecticut manufacturing survey



And despite the difficulty finding and retaining employees, 42% expect their workforce to grow in the next six months, 49% believe it will remain stable, and only 9% forecast a decrease.

POLICY DIRECTIONS

The 2022 session of the Connecticut General Assembly featured a number of manufacturing-related bills.

Most notably, the legislature approved the expansion of the manufacturing apprenticeship tax credit to pass-through entities, putting most small and medium sized manufacturers on an equal playing field with larger companies.

Lawmakers also approved a return to work economic development plan for women, an expansion of the appropriate uses of Connecticut Higher Education Supplemental Loan Authority loans, and a study to determine the feasibility of allowing

pass-through entities to take advantage of the R&D tax credit.

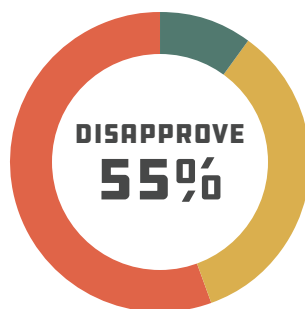
The legislative session did, however, include some disappointment and missed opportunities.

Lawmakers failed to restore the pass-through entity tax credit to its original level—despite that tax generating an additional \$700 million in fiscal 2022. Employers, particularly small businesses, also felt a lack of support for several other tax proposals and the state's modest response to using federal pandemic relief funds to relieve employers from the burden of paying off its unemployment loan debt.

More than three quarters (77%) of surveyed manufacturers believe state lawmakers did not do enough to help businesses with this debt, while a mere 9% believe they did.

Only one in 10 of surveyed manufacturers approve of the state legislature's handling of the economy and job creation, with 34% neutral and more than half (55%) disapproving.

Nearly half (49%) cited anti-business policies and regulations as their reasons for that disapproval. Thirteen percent said high taxes, with another 13% nominating state spending.



Do you approve of the state legislature's handling of the economy and job creation?

- Approve (10%)
- Neutral (34%)
- Disapprove (55%)

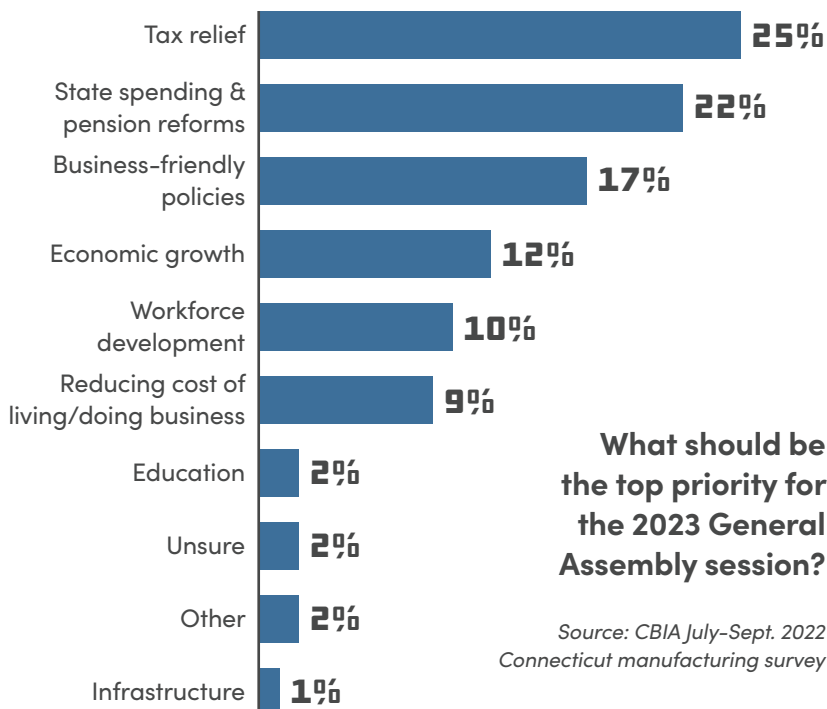
Source: CBIA July-Sept. 2022 Connecticut manufacturing survey

And less than one in five respondents (17%) believe that state government does enough to drive workforce development initiatives, with 51% disagreeing and 32% unsure.

Twenty-eight percent said expanded funding for education and trade schools would best drive workforce development, followed by skilled labor training (23%), financial incentives and affordability (20%), and less government involvement (12%).

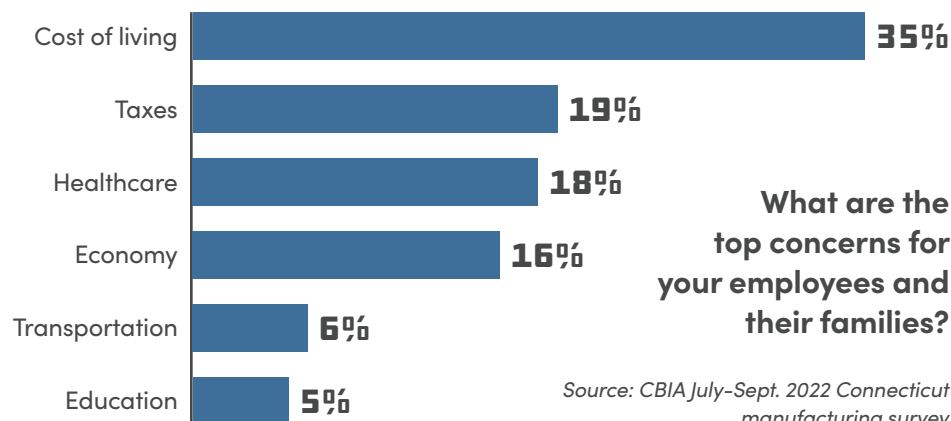
"The training grant has been a valuable tool and should be expanded," one manufacturer said. Another suggested that "starting from middle school, introduce kids to manufacturing the way it is today, and that way they could make a good living."

One quarter of respondents want tax relief to be the top policy priority in the next legislative session. Twenty-two percent want a focus on state spending and pension reforms, followed by business friendliness (17%), the economy (12%), reducing the cost of living/doing business (9%), and workforce (10%).



Manufacturers see lower taxes as key to improving Connecticut's business climate and driving overall economic growth. As one respondent said: "Improve the environment to grow a business with a reduction in regulations and taxes."

As another put it: "Create a competitive employment environment with reduced taxes; business, income, personal, and sales. Learn how to do more with less just like we have to."



Respondents were also asked what the most important issues were for employees and their families, with more than one third (35%) nominating the state's high cost of living. Nineteen percent said high taxes, followed by

healthcare (18%), the economy (16%), and transportation (6%).

The state this year also launched the \$70 million CareerConneCT job training initiative.

Administered by the Office of Workforce Strategy and funded through federal pandemic relief dollars, CareerConneCT features 19 training programs designed to train and place residents in high-quality, in-demand jobs throughout the state. The initiative targets populations that are most underrepresented in the workforce.

Gov. Ned Lamont also appointed manufacturing executive Paul Lavoie as the state’s second chief manufacturing officer. Lavoie, who succeeded Colin Cooper, has prioritized workforce development and stakeholder collaboration since he was appointed in February.

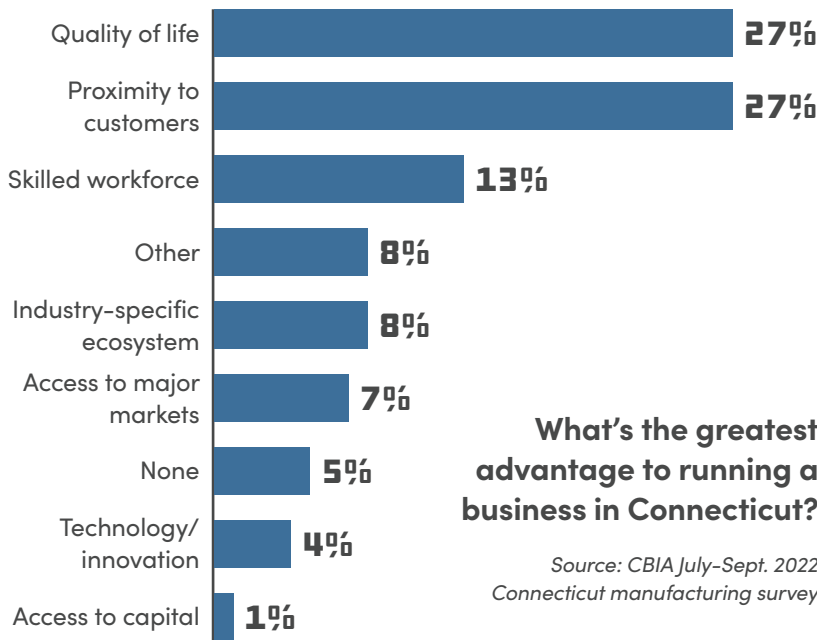
COMPETITIVE LANDSCAPE

Surveyed manufacturers were split on the greatest advantage to running a business in Connecticut, with 27% nominating the state’s quality of life and the same percentage citing proximity to customers.

Thirteen percent of respondents listed the state’s skilled workforce, followed by the industry-specific ecosystem (8%) and access to major markets (7%).

In past issues of this report, taxes and the high cost of living consistently dominated as the main factors hampering manufacturing growth. But as manufacturers—and employers in general—struggle to find workers, workforce has become the most pressing issue.

Forty-four percent of respondents said the availability of skilled job applicants was their main obstacle—up three percentage points from last year, and 24 percentage points higher than in 2020.



Fifteen percent said Connecticut’s cost of living was the main factor hampering business, followed by high business taxes (14%), increasing regulatory compliance costs (8%), the uncertainty and unpredictability of legislative decision-making (8%), and workplace mandates (6%).

Manufacturers shared an uncertain outlook for the Connecticut and national economy.

Only 1% believe the cost of doing business in Connecticut is decreasing. Five percent say it is remaining the

same, 3% are unsure, and a stunning 91% think it is increasing.

In addition, more than half (53%) believe the state's business climate is declining, with 34% saying it is static and only 6% seeing improving conditions.

Amid growing concerns of a global recession, only 21% of manufacturers believe the state's economy will grow in the next 12 months. Forty percent believe it will contract and 39% believe it will remain stable.

The outlook for the U.S. economy is even starker, with 57% predicting a contraction, 23% forecasting static conditions, and only 19% predicting economic growth.

Forty percent of surveyed manufacturers were either approached by another state in the past 12 months about relocating their facilities, independently considered a move, or plan on moving.

Of those, 40% considered moving to Florida, followed by South Carolina (29%), Texas (24%), and North Carolina (19%).

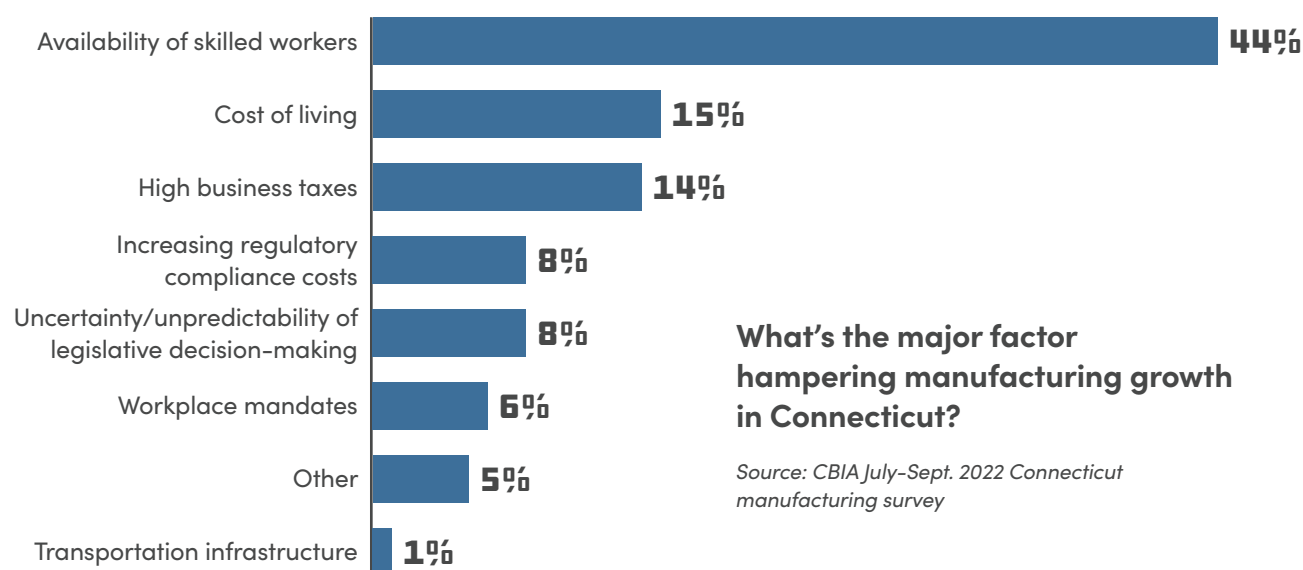
One manufacturer who considered the Southeast said those states "recognized the advantages of a strong manufacturing base and geared their education programs to provide the people with the skills needed to work in high tech manufacturing."

Another said these states have a "lower cost of living, more workforce, and enhanced infrastructure."

Forty-one percent of manufacturers also reported that South Carolina reached out to their company—the most of any state. Florida was second at 37%, followed by North Carolina (33%), Texas (22%), Tennessee (22%), and Virginia (9%).

TRANSFORMING CONNECTICUT MANUFACTURING

Competitiveness is critical for manufacturers. They are innovators and visionaries, leading the way in addressing today's challenges and creating tomorrow's opportunities.



In collaboration with a strong private sector, policymakers can create the conditions for manufacturers to compete and succeed—now more than ever, as companies navigate a seemingly never-ending series of obstacles.

Connecticut's manufacturers make it clear that systemic issues prevent Connecticut from fully realizing its true economic potential. From a shrinking labor force, to expensive workplace mandates and regulations, to the high cost of living in the state, manufacturers often struggle to thrive.

CNBC's annual America's Top States for Business study—known for its independence and meticulous research methods—ranked Connecticut's business climate 39th this year, down 15 spots from 2021. The state's economy and cost of living both received F grades, while infrastructure and the cost of doing business received D grades.

It cannot be emphasized enough how critical the manufacturing industry is to Connecticut. The prospects for the state's economic recovery and growth are heavily dependent on the manufacturing sector's resurgence.

Manufacturers face constant competition in the global economy. When policymakers support opportunities to boost Connecticut's competitiveness, everybody wins.

When they fail to support solutions that make the state more affordable, expand workforce pipelines, lower taxes and business costs, promote research and development, and reward innovation, we all lose.

As Connecticut continues its post-pandemic recovery, now is the time to transform how our state does business.

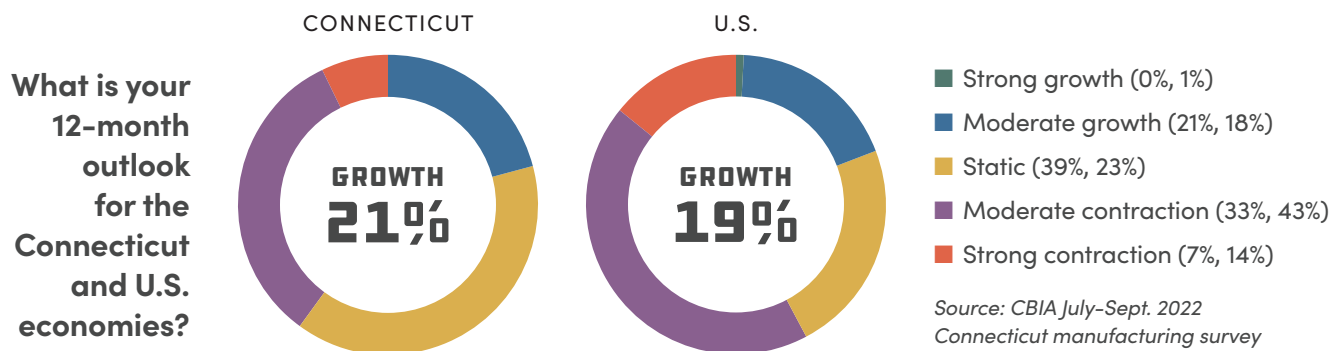
Doing things the way they have always been done is no longer enough; Connecticut needs change.

CBIA's Transform Connecticut policy solutions chart this path forward.

These recommendations are designed to transform the state for the long term by building a sustainable opportunity economy that emphasizes affordability, meaningful careers, and a positive business climate.

They will help attract and retain a new generation of residents, expand opportunities for manufacturers of all sizes, and make Connecticut a more competitive state where people want to live, work, and play.

The road ahead is not an easy one. But together, we can make Connecticut stronger than ever. ■



Transform Connecticut Policy Solutions

#transformCT

- ▶ **Incentivize developers and municipalities** to build workforce housing on former brownfield sites and in opportunity zones.
- ▶ **Help residents struggling with student loans** by incentivizing employers to provide employees with loan or tuition reimbursement.
 - ▶ **Make it easier for small businesses** to access and provide affordable health insurance options for employees.
 - ▶ **Reduce the number of years** for transferability of out-of-state occupational licenses from three years to one year.
 - ▶ **Determine the feasibility** of public universities using H1-B cap exempt visas to promote workforce development, using the Massachusetts model as a guide for filling in-demand jobs (as recommended by the Governor's Workforce Council's strategic plan).
 - ▶ **Reduce the cost of developing** the workforce of the future by eliminating the sales tax on training programs.
- ▶ **Restore the pass-through entity tax credit** to its original level, returning more than \$53 million that struggling small businesses can use to invest and grow.
- ▶ **Promote the development** of new products and create a level playing field for small businesses by allowing them to take advantage of the R&D tax credit.
- ▶ **Make necessary investments** in the state's unemployment trust fund to address pandemic solvency issues and protect against future recessions.
- ▶ **Promote electric grid reliability and energy affordability** by ramping up and optimizing the commercial and industrial energy storage solutions battery incentive program.
- ▶ **Support economic growth and job creation** by protecting intellectual property and promoting early- and mid-stage private and public investment in the life sciences and medical device sectors.
- ▶ **Incentivize business investment** by extending net operating loss carry forwards from 20 to 30 years.

transform ▶ **CT**

KEY STAKEHOLDERS

AEROSPACE COMPONENTS MANUFACTURERS

Jessica Taylor, Executive Director (860.282.4239)

aerospacecomponents.org

ADVANCECT

Peter Denious, CEO

(pdenious@advancect.org; 860.571.6200)

John Bourdeaux, President

(jbourdeaux@advancect.org; 860.571.6206)

Ted Fisher, Director of Business Development,
Advanced Manufacturing

(tfisher@advancect.org; 860.571.6210)

advancect.org

CBIA

Chris DiPentima, President & CEO

(chris.dipentima@cbia.com; 860.244.1900)

Manufacturing Policy & Outreach:

Ashley Zane, Government Affairs Associate

(ashley.zane@cbia.com; 860.244.1169)

cbia.com

CONNECTICUT CENTER FOR ADVANCED MANUFACTURING

Ron Angelo, President & CEO

(rangelo@ccat.us; 860.282.4234)

ccat.us

CONNECTICUT COLLEGE OF TECHNOLOGY & REGIONAL CENTER FOR NEXT GENERATION MANUFACTURING

Karen Wosczyzna-Birch, Executive Director & Principal Investigator (kwosczyzna-birch@commnet.edu)

nextgenmfg.org

CONNECTICUT DEPARTMENT OF ECONOMIC & COMMUNITY DEVELOPMENT

David Lehman, Commissioner (860.500.2300)

Paul Lavoie, Connecticut Chief Manufacturing Officer
(paul.lavoie@ct.gov; 860.500.2300)

portal.ct.gov/DECD

CONNECTICUT DEPARTMENT OF EDUCATION

Charlene Russell-Tucker, Commissioner (860.713.6543)

portal.ct.gov/SDE

CONNECTICUT DEPARTMENT OF LABOR

Danté Bartolomeo, Commissioner

(dante.bartolomeo@ct.gov; 860.263.6000)

Todd Berch, Connecticut Apprenticeship Director
(860.263.6085)

Statewide manufacturing employer contact:

Keri Valente (keri.valente@ct.gov; 860.263.6129)

ctdol.state.ct.us

CONNECTICUT MANUFACTURERS' COLLABORATIVE

Michelle Hall, Executive Administrator
(mhallcmc@gmail.com; 860.380.7904)

CONNECTICUT OFFICE OF WORKFORCE STRATEGY

Kelli-Marie Vallieres, Executive Director
(kelli-marie.vallieres@ct.gov)

Laura Baker, Workforce Development Specialist
(laura.m.baker@ct.gov)

portal.ct.gov/GWC/OWS-Initiatives

CONNECTICUT TECHNICAL EDUCATION & CAREER SYSTEM

Ellen Solek, Interim Superintendent of Schools
(superintendent@cttech.org; 860.807.2200)

cttech.org

CONNECTICUT TOOLING & MACHINING ASSOCIATION

Dee Babkirk, Executive Director
(director@ct-ntma.org; 860.314.2101)

ct-ntma.org

CONNSTEP

Beatriz Gutierrez, President & CEO
(bgutierrez@connstep.org; 860.513.3204)

connstep.org

EASTERN ADVANCED MANUFACTURING ALLIANCE

John Murphy, Executive Director
(jmurphy@eamainc.com; 860.859.4100, ext. 114)

eamainc.com

GOODWIN UNIVERSITY

Melanie Hoben, Director of Workforce Development
(mhoben@goodwin.edu; 860.913.2283)

goodwin.edu

MADE IN AMERICA PODCAST

Ari Santiago (contactus@compassmsp.com)

madeinamericawithari.com

MAKERSPACECT

Devra Sisitsky, Executive Director
(info@makerspacect.com; 860.619.MAKE)

makerspacect.com

MANUFACTURECT

Jamison Scott, Executive Director
(jscott@manufacturect.org; 860.430.4976)

manufacturect.org

MANUFACTURERS' EDUCATION & TRAINING ALLIANCE

info@eMETAL.org

emetal.org

MANUFACTURING ALLIANCE SERVICE CORPORATION

Cyndi Zoldy, School Director
(czoldy@mascttc.com; 203.574.8285, ext. 111)

mascttc.com

NEW ENGLAND SPRING & METALSTAMPING ASSOCIATION

Dee Babkirk, NESMA Secretary
(d.babkirk@nesma-usa.com; 860.314.2101)

nesma-usa.com

READYCT

Shannon Marimón, Executive Director
(shannon.marimon@readyct.org; 860.244.1900)

readyct.org

SMALLER MANUFACTURERS ASSOCIATION OF CONNECTICUT

Sabrina Beck, President
(admin@sma-ct.com; 203.575.0711)

sma-ct.com

U.S. DEPARTMENT OF COMMERCE, MIDDLETOWN EXPORT ASSISTANCE CENTER

Melissa Grosso, Director
(melissa.grosso@trade.gov; 860.638.6955)

trade.gov/connecticut-middletown

U.S. SMALL BUSINESS ADMINISTRATION, CONNECTICUT DISTRICT OFFICE

Catherine Marx, District Director
(catherine.marx@sba.gov; 202.313.8800)

sba.gov/offices/district/ct/hartford

REGIONAL WORKFORCE BOARDS

CAPITAL WORKFORCE PARTNERS (NORTH CENTRAL REGION)

Alex Johnson, President & CEO
(ajohnson@capitalworkforce.org; 860.899.3470)

capitalworkforce.org

EASTERN CONNECTICUT WORKFORCE INVESTMENT BOARD

Christopher Jewell, Chair

ewib.org

NORTHWEST REGIONAL WORKFORCE INVESTMENT BOARD, INC.

Catherine Awwad, President & CEO
(catherine.awwad@nrwib.org; 203.574.6971 ext. 426)

nrwib.org

THE WORKPLACE, INC. (SOUTHWEST REGION)

Joseph Carbone, President & CEO (203.610.8502)

workplace.org

WORKFORCE ALLIANCE (SOUTH CENTRAL REGION)

William Villano, President & CEO
(bvillano@workforcealliance.biz; 203.867.4030 ext. 234)

workforcealliance.biz

2022 CONNECTICUT MANUFACTURING INNOVATION FUND PROGRAMS

Connecticut's Manufacturing Innovation Fund supports the growth, innovation, and progress of the state's advanced manufacturing sector.

The \$100 million fund provides loans and grants for a range of programs, including workforce development, technology adoption and awareness, Industry 4.0 integration, and energy efficiency.

The fund is administered by the state Department of Economic and Community Development, with input on funding allocations provided by an advisory board.

Consulting and training offerings from CBIA affiliate CONNSTEP are also often eligible for matching funds through the fund. For more information, visit connstep.org.

WORKFORCE DEVELOPMENT

INCUMBENT WORKER TRAINING PROGRAM

Administered by the Connecticut Center for Advanced Technology, the IWT matching fund program assists

manufacturing companies in providing workforce training. Total proposed training project value must be at least \$5,000 (in this case, \$2,500 provided by the IWT program and \$2,500 company match). Maximum award is up to \$50,000 per employer, per calendar year.

For more information or to apply visit ctiwt.ccat.us.

APPRENTICESHIP PROGRAM

This CCAT-administered AFP provides on-the-job training, combined with classroom instruction, ensuring well-qualified, job-ready employees. Apprenticeships generally range from one to four years. Up to \$15,000 per apprentice can be awarded over the course of their apprenticeship program. On completion, the Connecticut Department of Labor's Office of Apprenticeship Training provides a portable training credential. A registered apprenticeship program can help employers develop a world-class workforce and enhance productivity.

For more information or to apply visit ctafp.ccat.us.

MANUFACTURING CAREERS ROADSHOW

The roadshows, administered by ReadyCT in collaboration with the state's regional sector partnerships, CCAT, and Goodwin University, connect middle, high school, and community college students with local manufacturers to increase their knowledge and excitement around the manufacturing sector. Events occur throughout the year.

For more information, contact Deb Presbie (deb.presbie@readyct.org; 860.729.4216) or go to readyct.org/contact and subscribe to receive updates.

TECHNOLOGY AWARENESS & ADOPTION PROGRAMS

INDUSTRY 4.0 FOR THE MANUFACTURING SUPPLY CHAIN

This program, designed to advance the global competitiveness of Connecticut's manufacturing supply chain, provides access to no-cost education and demonstration in support of Industry 4.0 technologies. The program is designed to minimize disruption to the company's current manufacturing process.

For more information or to apply, contact CCAT's Nasir Mannan (nmannan@ccat.us; 860.282.4227).

HIGH RATE ADDITIVE MANUFACTURING

HRAM is designed to drive the adoption of additive manufacturing technologies within the Connecticut manufacturing supply chain across industry sectors, with a focus on small and medium-size manufacturers, including no-cost workshops introducing AM technologies, explanation of various applications and existing case studies, and demonstrations.

Manufacturers that are ready to adopt AM tools can receive assistance in selecting and procuring AM machine tools, in addition to assistance in applying for AMAP additive manufacturing grant funds.

For more information or to apply, contact CCAT's Jeff Crandall (jcrandall@ccat.us).

MANUFACTURING VOUCHER PROGRAM

MVP provides companies with access to capital to help obtain new equipment and the expertise needed to become more efficient, productive and competitive.

Eligible companies may apply for vouchers up to \$100,000 for the purchase of specialized equipment and expertise. Participating companies are required to provide a cash match from two-to-one to three-to-one, depending on the amount of prior awards received and the grant amount being requested.

For more information or to apply visit ctmvp.ccat.us.

INDUSTRY 4.0 INTEGRATION VOUCHER PROGRAM

IVP is intended to help Connecticut supply chain companies with the adoption and integration of IoT solutions. The program provides matching grants up to \$20,000 for hardware, sensors, platforms, and related third-party integration services.

Project proposals that fall under any of the four areas of focus above will be considered for funding. The goal of this program is to ensure that the Connecticut supply chain is positioned to implement modern digital manufacturing tools to continue to compete favorably against any manufacturing sector in the world.

For more information or to apply visit ctivp.ccat.us.

SIRI & CYBER ASSISTANCE PROGRAM

SAC is intended to provide financial assistance to Connecticut manufacturing companies seeking Smart Industry Readiness Index assessments and/or cyber security assessments and certification. The goal is to help companies striving to meet federal cybersecurity requirements and to also assist those interested in pursuing their smart factory transformation journey. Eligible companies can apply for a grant up to \$10,000 to conduct assessments and testing. Participating companies must pay half the cost.

For more information or to apply, visit ctsac.ccat.us.

ENERGY EFFICIENCY

ENERGY ON THE LINE PROGRAM

Through this program, Connecticut manufacturing facilities are eligible for up to \$40,000 in grant money when working with C-PACE to implement green energy upgrades. Grant funds may be used for any project related expenses at the sole discretion of individual recipients (e.g. capital improvements, additional equipment, cash flow optimization). To further assist in lowering the long-term cost of energy, manufacturers may also be eligible for full financing of their energy upgrades through the C-PACE program.

For more information or to apply, contact the Connecticut Green Bank's Robert Schmitt (robert.schmitt@ctgreenbank.com; 860.563.0015).

ENGINEERING INTERNSHIP PROGRAM

The EIP program is administered by CCAT and is intended to keep engineering graduates in-state and employed within Connecticut businesses. It seeks to attract rising sophomores to rising seniors enrolled in undergraduate engineering programs to provide experience within small- to min-sized manufacturing companies. Each grant will provide up to \$3,500 per intern to each Connecticut SMM with less than 200 employees for hosting a student. This grant will cover up to half the wages for summer engineering interns. Each SMM may receive a wage subsidy for no more than two interns.

For more information, contact CCAT at 860.291.8832 or visit ccat.us for more information about the program, eligibility, and application process.



Connecticut manufacturing has a rich legacy of innovation and ingenuity, changing the course of world history through groundbreaking inventions.

This is where Igor Sikorsky designed and flew the first helicopter. Where the first submarine took shape.

Connecticut is where—thanks to Charles Goodyear—the rubber first hit the road and color television first flickered to life.

We have a fun side, too. Connecticut gave birth to lollipops, Frisbees, and Wiffle Balls.

That legacy of innovation continues today.

We still make helicopters and submarines. Not to mention jet engines, cutting edge electronics, sophisticated medical devices, and lifesaving medicines.

What are you going to make?

What's your legacy?

