



2023

# TAX CHANGES

Avalara

A TAX COMPLIANCE GUIDE FOR  
**MANUFACTURING**

# Contents

## DISCLAIMER

Tax rates, rules, and regulations change frequently. Although we hope you'll find this information helpful, this report is for informational purposes only and does not provide legal or tax advice.

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# Introduction

Between supply chain disruptions, staffing shortages, and technological advancements, the manufacturing industry has had to pivot, adapt, and update its processes time and time again over the last few years. Even though companies have made big adjustments to address these challenges – moving operations and choosing suppliers closer to home, investing in tech to reimagine everything from prototyping to hiring, and putting corporate social responsibility initiatives like environmental, social, and governance (ESG) efforts at the forefront of their mission statements – the manufacturing sector still needs to navigate complex and changing sales and use tax obligations.

Many manufacturers are **taking their operations into the future** by investing in “smart” factories. One auto manufacturer is even using the metaverse to simulate a production line in a virtual factory to ensure everything runs smoothly before implementing the factory in the real world. Technologies like intelligent automation (IA), connected operations, networked data, and the

industrial internet of things (IIoT) are heightening the appeal of manufacturing industry jobs.

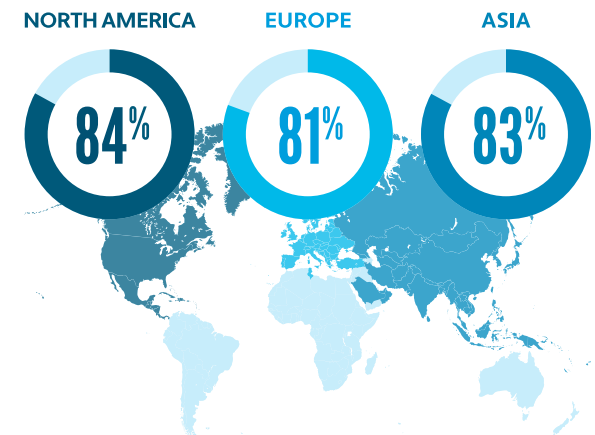
Technology is transforming other aspects of manufacturing as well. In fact, a **fourth industrial revolution** is underway, powered by the digitization of manufacturing. For example:

- Digital prototyping is transforming product development
- Inbound and outbound logistics platforms are making supply chains more efficient
- Performance data and real-time analytics are helping to forecast maintenance issues
- Real-time streaming platforms are facilitating collaboration among far-flung employees

The list goes on and on. McKinsey & Company predicts innovative manufacturing technologies could create up to \$3.7 trillion in value by 2025.

## PERCENTAGE OF SURVEYED EXECUTIVES WHO BELIEVE SMART ECOSYSTEMS WILL TRANSFORM THE WAY MANUFACTURERS DELIVER VALUE TO CUSTOMERS IN THE NEXT 3 TO 5 YEARS

BY REGIONAL AVERAGE



SOURCE: [Deloitte](#)

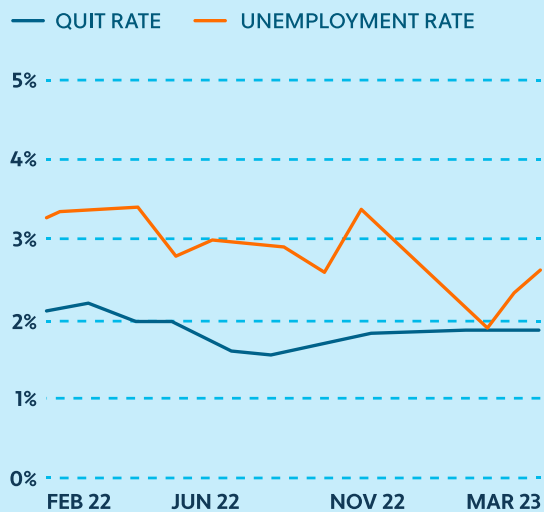
But the manufacturing industry is having trouble attracting and retaining enough workers to power this fourth industrial revolution. If every unemployed person with experience in the durable goods manufacturing industry were employed – and they're not – that would **fill only 44% of job openings**. And the problem will likely get worse: The U.S. could be short some **2.1 million** manufacturing workers by 2030, at a cost of \$1 trillion.

Labor shortages and supply chain troubles are compelling manufacturers to think outside the box. Some are adopting new technologies that

enable at least some employees to work remotely, a rarity in the manufacturing world. Others are creating new supply and distribution channels to smooth supply chain kinks. Both activities can expand a manufacturer's nexus footprint.

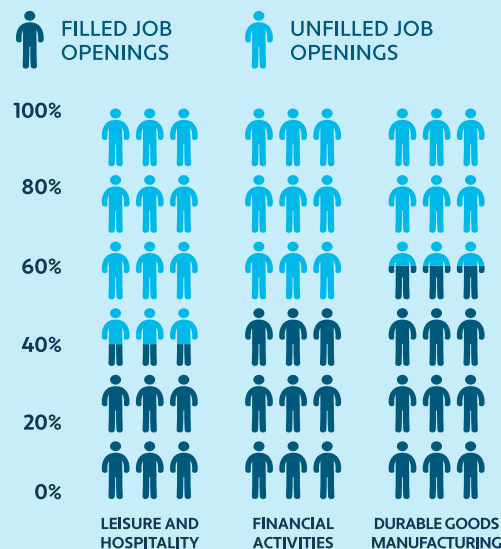
Other factors affecting the manufacturing industry include challenges that come with growing cross-border ecommerce, property tax compliance complexities, drop shipping difficulties, and new environmental fees.

### QUIT RATE AND UNEMPLOYMENT RATE IN DURABLE GOODS MANUFACTURING



SOURCE: U.S. Chamber of Commerce Analysis, BLS Data

### LABOR FORCE SHORTAGE BY INDUSTRY APRIL 2023

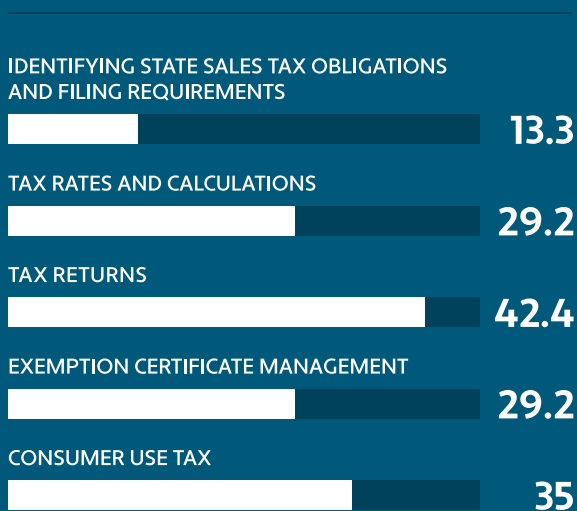


# Manufacturing

## SMALL BUSINESS ESTIMATES OF COST OF MANUAL COMPLIANCE PER MONTH

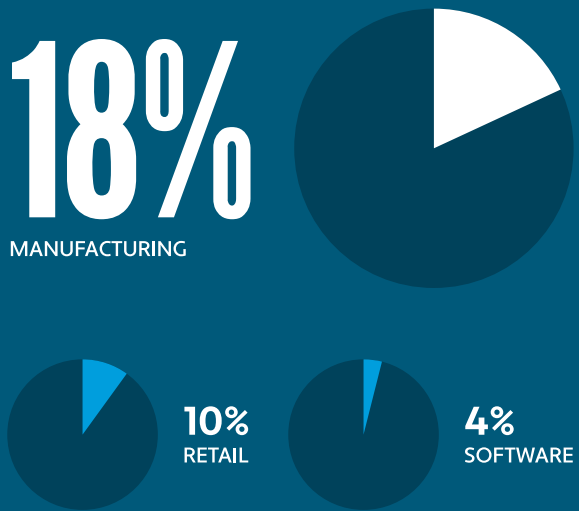


## SMALL BUSINESS ESTIMATE OF TIME SPENT ON MANUAL COMPLIANCE HOURS PER MONTH

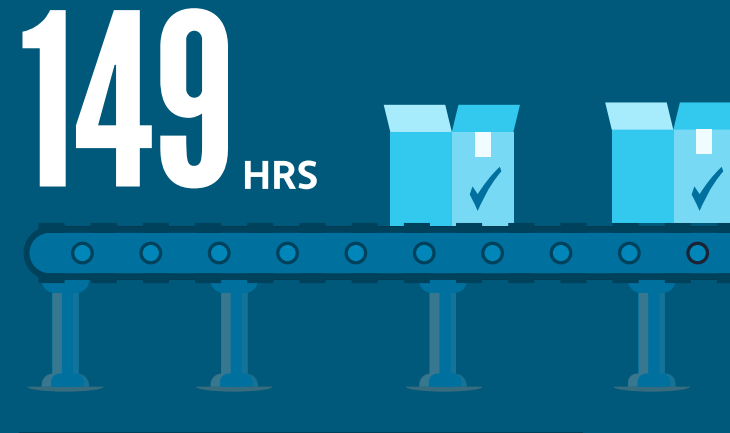


## SMALL BUSINESS AUDIT RATE

The highest rate among the industries surveyed



## SMALL BUSINESS AVERAGE HOURS PER MONTH SPENT ON TAX MANAGEMENT ACTIVITIES



SOURCE: Survey of businesses with less than 500 employees conducted by Avalara and Potentiate

# Changing circumstances increase tax compliance complexity

Managing sales and use tax is never easy for manufacturers, and the turbulence of the last few years has made it worse. Breaks in the [supply chain](#), geopolitical upheaval, and inflation can drive manufacturers to find new customers, source alternative suppliers, and develop new processes. [Labor shortages](#) may convince manufacturers to adopt [new technologies](#) that enable (at least some) employees to work remotely. All these factors add to the manufacturing sector's already considerable tax burden.

For example, a U.S. [manufacturer of fertilizer](#) saw sales explode after exports from Belarus, China, and Russia dramatically diminished. It had to quickly up production to meet the rise in demand. It also had to deliver to [new markets](#). A boon for business, perhaps, but new customers and new suppliers can create new sales and use tax obligations.

The speed at which manufacturers embrace new technologies and update operations to respond

# 91.5%



## OF SURVEYED MANUFACTURERS REPORTED SUPPLY CHAIN DISRUPTIONS

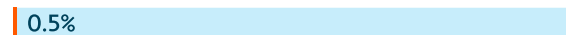
### SIGNIFICANT DISRUPTION



### PARTIAL DISRUPTION



### NO DISRUPTION



SOURCE: [National Association of Manufacturers](#)

## UNFILLED MIDDLE-SKILL ROLES, PROJECTED JOB OPENINGS 2019-2029

### MISCELLANEOUS ASSEMBLERS AND FABRICATORS



### PRODUCTION AND OPERATION SUPERVISORS



### INSPECTORS, TESTERS, SORTERS, SAMPLERS



### PRODUCTION HELPERS



### WELDERS, CUTTERS, SOLDERERS, BRAZERS



### PACKAGING AND FILLING MACHINE OPERATORS



### INDUSTRIAL MACHINERY MECHANICS

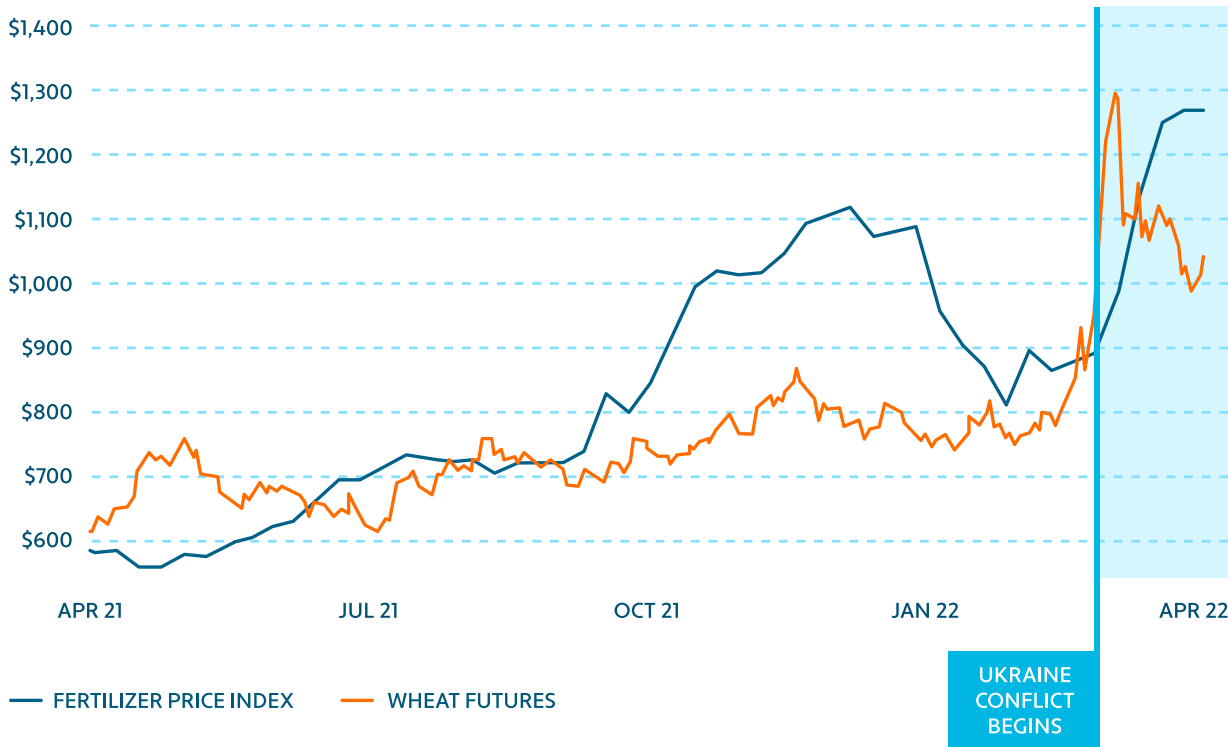


### MACHINISTS



SOURCE: [Deloitte](#)

**NORTH AMERICA FERTILIZER PRICE INDEX COMPARED TO WHEAT PRICES**



SOURCES: *Bloomberg's Green Markets* and *CNBC*

to changing circumstances isn't always mirrored by the finance departments that handle tax compliance. On the other hand, **tax officials** increasingly rely on artificial intelligence and other new technologies to find noncompliant taxpayers and shore up revenue. Manufacturing businesses therefore need to be on top of changing tax obligations more than ever.

**THE ONGOING CHALLENGE OF ECONOMIC NEXUS**

Like businesses in other industries, manufacturers are often subject to **state economic nexus laws**, which base a sales and use tax obligation on business activity in a state (e.g., \$100,000 in sales or 200 transactions in the previous calendar year) rather than physical presence.

Economic nexus isn't new: The Supreme Court of the United States overturned the physical presence rule with its decision in *South Dakota v. Wayfair, Inc.* in 2018. And in the **five years** since, sales tax complexity for the manufacturing industry has only grown.

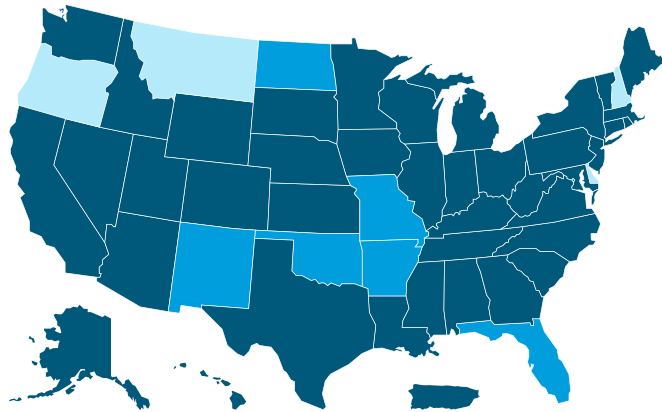
Some states base economic nexus solely on taxable tangible personal property, or taxable goods and services. Unfortunately for manufacturers, many states **include exempt sales** of products or services in their economic nexus thresholds.

Manufacturers that establish economic nexus with a state must register with the tax department, collect sales tax on any taxable sales made in the state, remit use tax as required, validate exempt transactions with an exemption certificate, and file returns on time.

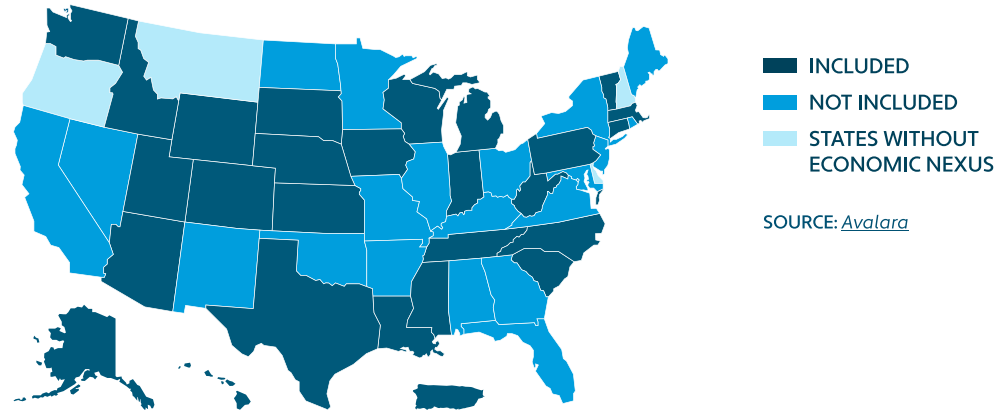
On top of all that, manufacturers must monitor sales into all states with a sales tax because they all have economic nexus laws now too. Some states require businesses to register and comply with all applicable sales and use tax laws immediately after crossing an economic nexus threshold.

Economic nexus can also impact a manufacturer's purchases. "Manufacturers often purchase large quantities of goods and services from outside their state or country," explains Scott Peterson, VP of Government Relations at Avalara. "Many remote suppliers may now have to charge sales tax because of economic nexus, so manufacturers that were accustomed to reporting use tax now

**EXEMPT SALES OF TANGIBLE PERSONAL PROPERTY (TPP) IN STATES' ECONOMIC NEXUS THRESHOLD**



**EXEMPT SERVICES IN STATES' ECONOMIC NEXUS THRESHOLD**



INCLUDED  
 NOT INCLUDED  
 STATES WITHOUT ECONOMIC NEXUS  
  
 SOURCE: [Avalara](#)

have to monitor their purchase invoices to make sure all those new sales-tax-collecting companies are charging the right sales tax.”

**EVER-PRESENT PHYSICAL PRESENCE NEXUS**

Economic nexus didn't eliminate physical presence nexus: All states with a sales tax still require businesses with a physical presence in the state to register for sales tax. In some states, picking up or dropping off supplies in a company vehicle can be enough to establish a physical presence. Attendance at a conference or trade show can also trigger nexus, as can storing inventory in a state.

Clogged supply chains have influenced manufacturers across many industries, from construction to pharmaceuticals, to [build new fulfillment centers](#), warehouses, and data centers.

More storage space allows businesses to stock up on key supplies as they become available. More fulfillment centers can lead to faster order fulfillment and happier customers. There are advantages to expanding a physical footprint, but such growth can also trigger nexus in different tax jurisdictions.

While there are similarities, every state's nexus laws are unique. This fact alone makes sales and use tax compliance challenging for all businesses working across state lines. Especially manufacturers.

**ADDING NEW TECHNOLOGY ADDS NEW TAX OBLIGATIONS**

Higher costs may persuade manufacturers to put more into research and development (R & D) in the hopes of streamlining production, and U.S. states are encouraging it with tax exemptions. Many

states, including [Indiana](#) and [Washington](#), provide an exemption, partial exemption, or reduced rate for machinery and equipment, and even supplies purchased for use in R & D. Before you funnel funds into the R & D team, however, you'll want to involve your finance team; though generally beneficial to businesses, such exemptions can complicate compliance. Like everything tax-related, qualifying R & D activities vary from state to state and can change over time.

For example, as of July 1, 2022, [Vermont's](#) sales and use tax exemption for manufacturing machinery and equipment includes equipment used as part of an integrated process. As of the same date, [Florida](#) provides an exemption for machinery and equipment necessary to produce electrical or steam energy that results from burning hydrogen.



Florida’s policy also specifies that hydrogen is exempt from sales and use tax when purchased for use as a combustible fuel in an industrial manufacturing, processing, compounding, or production process at a fixed location.

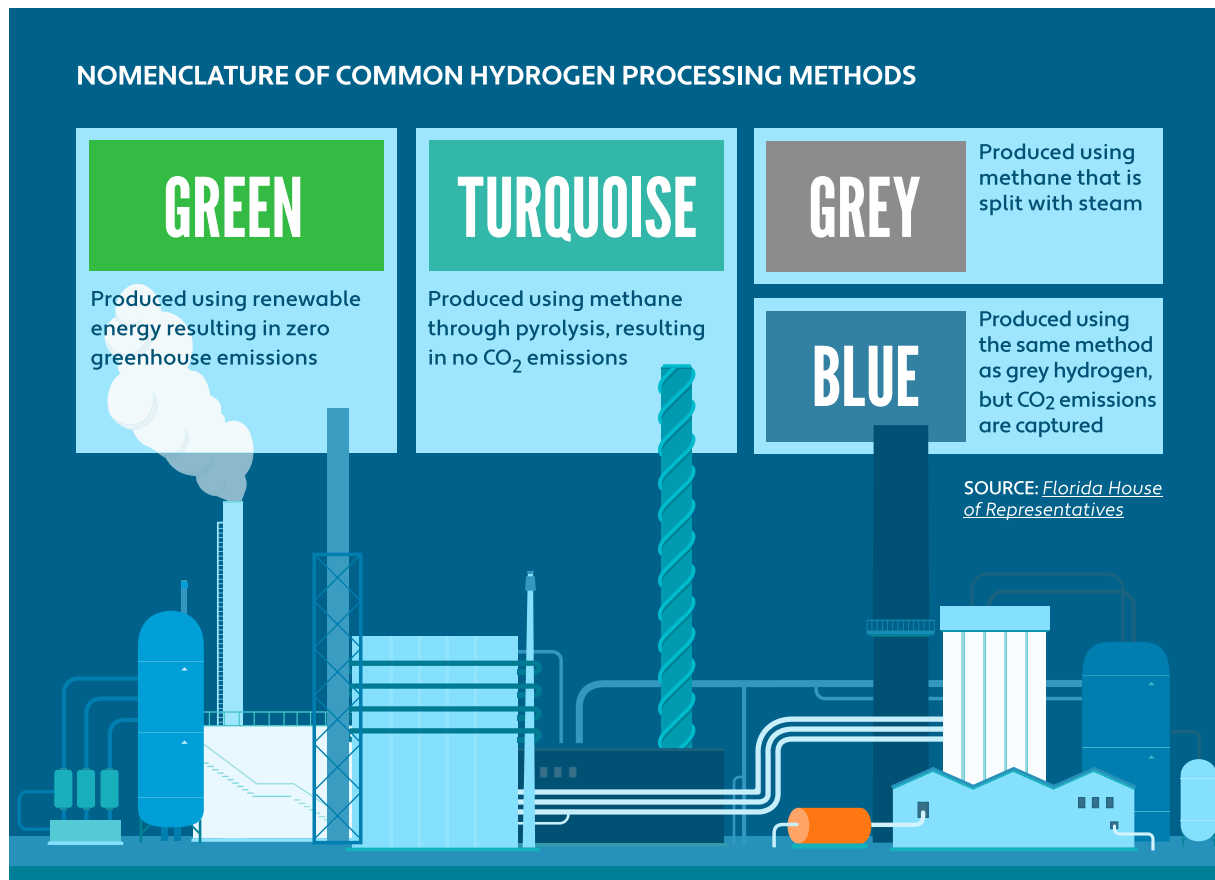
Managing the documents that must accompany tax-exempt sales is another big pain point for manufacturers.

**MORE EXEMPTION CERTIFICATES, MORE COMPLIANCE RISK**

Manufacturers often have to deal with hundreds or even thousands of exemption certificates. Case in point: **R&B Wagner**, a small manufacturer specializing in architectural handrails, has over 11,000 exemption certificates in its system.

According to Kael Kelly, General Manager of Certificates and Tax Research at Avalara, there are more than 1,000 different tax exemption forms in use in the United States. Determining the correct form for each exempt transaction is the first step. Ensuring each form is properly and accurately completed comes next. Then, exemption certificates need to be stored, mapped to customer account records, and easily accessed for reporting and audits. Imagine doing this manually for thousands of certificates and reaching out to customers to renew expired certificates. It’s a big job.

Knowing sales tax exemption certificate management is difficult, state tax officials tend to focus on it during audits.



# Other factors likely to affect the manufacturing industry in 2023

## CONSUMER USE TAX

Manufacturers often overlook [consumer use tax](#) for one reason or another, and they may be even more likely to do so today given the kinks in normal supply chains. To fill orders, manufacturers may need to dig into their own stores, exposing items purchased tax-free to use tax liability. They may need to pick up supplies from a new supplier rather than have them delivered from a long-term supplier. That type of flexibility is essential today, but can also expose businesses to consumer use tax liability. And as Kael Kelly points out, issuing exemption certificates for purchases that don't qualify for an exemption can create higher audit use tax liability than sales tax liability.

## MORE B2B MARKETPLACES

With only 5-10% of business-to-business (B2B) transactions transpiring online, there's tremendous opportunity for B2B marketplace growth. An estimated [\\$100 trillion](#) changes hands between businesses each year.

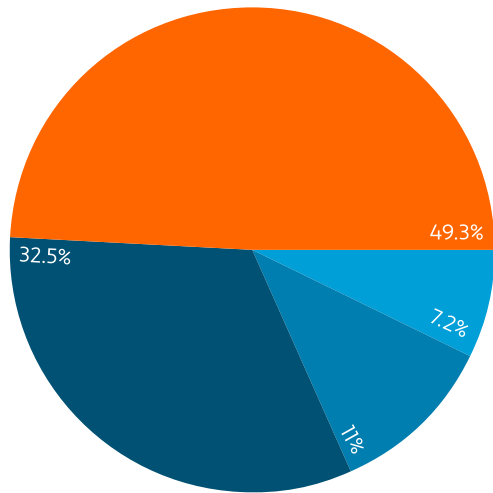
“ ... issuing exemption certificates for purchases that don't qualify for an exemption can create higher audit use tax liability than sales tax liability.”

According to research conducted by Gartner, “B2B organizations have shown strong interest in the marketplace model because it helps them to better engage partners and improve efficiency in the buying and selling process.”

Yet B2B marketplaces also face more complexity. In addition to dealing with economic nexus and marketplace facilitator laws like their

business-to-consumer (B2C) counterparts, B2B marketplaces must validate exempt sales by collecting and maintaining exemption certificates for each and every third-party seller. They also must connect all their channels so they can properly validate, document, and report both taxable and exempt sales. It's an enormously burdensome task.

**ELECTRONIC TRANSACTIONS ACCOUNT FOR A MAJORITY OF B2B SALES**



**49.3%**  
MANUAL  
TRANSACTIONS

**32.5%**  
ELECTRONIC DATA  
INTERCHANGE (EDI)

**11%**  
E-PROCUREMENT/  
NETWORKS

**7.2%**  
ECOMMERCE  
SITES

SOURCE: *Digital Commerce 360*

**OVERPAYMENT AND/OR UNDERPAYMENT OF TAX**

Manufacturers must improve sales processes to ensure a positive customer experience. It’s not uncommon for manufacturing businesses to either undercollect or overcollect sales and use tax because it can be so difficult to determine which transactions are exempt and which are taxable (and at what rate). Businesses may not realize they’ve charged a customer the **wrong rate** until months down the line. Such errors can lead to steep assessments, penalties, and fines.

Auditors tend to take a keen interest in manufacturers because they usually get a good return on their investment. It’s something to keep in mind.

**SUPPLY CHAIN ISSUES MEAN TAX COMPLEXITY**

Ongoing supply chain issues in the U.S. are forcing companies to store inventory in transit, often resulting in sales tax compliance challenges. Depending on the rules and regulations of the state where inventory is stored, a company might **trigger physical nexus and owe taxes in that state**.

Generally considered cost-effective and low-waste, just-in-time (JIT) inventory management has been popular in the U.S. since the 1970s. With JIT manufacturing, items are created to meet demand, rather than have a surplus of goods in a warehouse ahead of time. But ongoing supply issues have stretched JIT to its limits. Some companies are pivoting back to a just-in-case

(JIC) model, moving manufacturing back onshore and holding more inventory. Depending on where inventory is held or how it’s transferred between states, those businesses may be on the hook for sales and use tax.

Some businesses are avoiding the cost of warehouses altogether by **drop shipping**: When a seller takes an order from a buyer, the seller orders that item from a supplier, who ships it directly to the customer on behalf of the seller. But because the transaction involves multiple companies, multiple transactions, and often a few states, it can complicate sales tax.

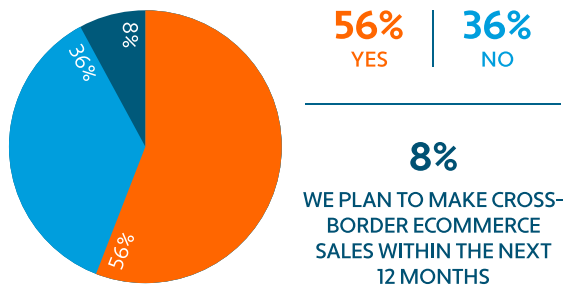
“ ... ongoing supply issues have stretched [just-in-time inventory management] to its limits. Some companies are pivoting ... [and] depending on where inventory is held or how it’s transferred between states, those businesses may be on the hook for sales and use tax.”

### CROSS-BORDER CHALLENGES

Cross-border ecommerce is rapidly growing ([64% of manufacturers, retailers, and logistics service providers surveyed either conduct cross-border ecommerce or plan to within the next year](#)), but not without growing pains. Organizations are struggling with delayed shipments, customs regulatory compliance, supply chain costs, tariffs and duties costs, and delivery costs. Global issues like recession, tensions between the U.S. and China, and changes in trade agreements will affect ecommerce and could complicate compliance.

If transfer pricing isn't on your radar, it should be. [Transfer pricing is an accounting process that can lead to tax savings](#) when one subsidiary or affiliate of a larger enterprise buys goods from another subsidiary of the same enterprise. As global tax rules change and supply chain disruptions continue, transfer pricing may be in your business's best interest.

### “DOES YOUR ORGANIZATION MAKE CROSS-BORDER ECOMMERCE SALES, OR PLAN TO, IN THE NEAR FUTURE?”



SOURCE: [Reuters Events and Avalara](#)

### PROPERTY TAX COMPLIANCE

According to a [recent market research study](#), 56% of enterprise companies surveyed receive between 500 to 10,000 property tax bills each year. Each of these bills must be received, tracked, responded to, and paid. Every state has its own rules and regulations when it comes to property tax, and those rules are continually evolving. If your business spends more time and money managing [real and personal property](#) taxes than you'd like, it's time to invest in an automated solution.

### ENVIRONMENTAL FEES

From a hazardous waste generation fee administered by Washington's Department of Ecology to tire and lead-acid battery fees in Missouri to general environmental fees in California, manufacturers are required to pay and report a growing number of environmental fees. But knowing whether your business meets the qualifications and how much to pay can be tricky.

As manufacturers streamline operations in response to today's challenges, sales and use tax compliance may inadvertently get more complicated. As long as manufacturers are embracing new technologies and updating operations, the finance departments that handle compliance might want to take note.

## LEARN MORE

Explore what's happening in other industries, and with tax compliance in general, by visiting our website:

[AVALARA.COM](https://www.avalara.com)



# Looking ahead

It's impossible to cover every sales tax change in one report, so we aimed to spotlight the biggest headlines impacting the tax landscape ... and your business. Leading tax experts take a deeper dive into some of the most pressing issues affecting tax compliance in our [Avalara Tax Changes 2023 webinar](#).

## FOR MORE RESOURCES:

- Stop by the [Avalara Tax Desk](#) for breaking tax news
- Read about VAT changes in the [EU and U.K.](#)
- Check out the [Avalara resource center](#) for extensive tax compliance content
- Learn how tax changes mentioned in this report may affect your obligations with a free [sales tax risk assessment](#)

Or give us a call at **877-352-4646**. Avalara is committed to ensuring tax compliance doesn't interfere with the growth or success of your business. Discover how automating tax compliance helps businesses track and comply with ever-changing tax laws around the world.