

Quality in Construction (QIC)

Microsoft Teams Meeting

February 16, 2022

9:00 am - 12:00 pm

Attendees:

- Ann McGauran, OSA
- Chris Byerly, OSA
- Stokey Bourque, OSA
- John Hull, STREAM
- Patti Miller, THEC
- Paul Marshall, THEC
- Jennifer Murphy, STREAM
- Brian Wilson, STREAM
- Austin Oakes, UT
- Michelle Crowder, UT
- Philip Zoch, APSU
- Bill Waits, MTSU
- Jim Cobb, TTU
- Chuck Milam, ETSU
- Tony Poteet, UM
- Dick Tracy, TBR
- Jim Prillaman, ACEC
- Kurt Boyd, ACEC
- Rich McNeil, AIA
- Greg Campbell, AIA
- Trey Wheeler, AIA
- Ashley Cates, AIA
- Jason Madeiros, AGC
- Jeffrey Banta, AGC
- Bryan Hay, ABC
- Clay Crownover, ABC
- Bob Pitts, ABC
- Bradley Jackson, TMA
- Kelly Boutwell, TMA
- Grace Rodger, AGC

Discussion:

- I. A role call was conducted, and each attendee identified themselves by name and the organization that they represent.
- II. Tennessee Manufacturers Association (TMA), *Manufacturing: Policy and Economic Overview* – Bradley Jackson, (TMA), (see attached).
 1. Bradley Jackson provided a presentation on manufacturing policy and economics in Tennessee.
 2. Bradley Jackson stated that the Tennessee Chamber of Commerce and Industry is a private, member-funded trade association focusing on government affairs for manufacturing interests noting tax policy, occupational safety and health, environment and human resources. Bradley noted that Tennessee is a top location nationally for manufacturing citing a pro-business philosophy, location, high work force productivity, strong infrastructure, no state income tax requirement, strong economic development strategies and implementation of a single sales tax formula allowing taxation only on in-state sales. Bradley noted top manufacturing sectors in TN including motor vehicles, food/beverage, chemical and electrical equipment/appliance manufacturing.
 3. Bradley Jackson stated that current challenges in Tennessee manufacturing include the COVID pandemic, workforce education, an aging workforce, supply chain, and taxes (excise/business/property).
 4. Bradley Jackson summarized current Tennessee manufacturing initiatives which include technical school enrollment, embedding right to work into the state constitution, trade policy and rapid acceleration of automation.
 5. Bradley Jackson provided a state economic update noting a strong 2022 manufacturing growth of 6.5%. He noted continuing challenges in supply chain, labor shortages and

inflation. Bradley provided a labor market update noting that currently there is five-tenths of an unemployed worker per job opening in Tennessee. Bradley further noted that this is three-tenths below the national average and that in-migration and favorable tax policy have recently facilitated a 2.1% growth in Tennessee's labor force participation rate. Bradley provided a federal manufacturing update emphasizing infrastructure provisions, trade, supply chain and inflation additionally noting that manufacturing trending is moving away from China to Mexico and Malaysia.

6. Bradley Jackson summarized manufacturing policy priority items citing initiatives in business taxes, economic recovery, human resources, workforce education, environmental compliance, worker's compensation and unemployment insurance. Bradley concluded his presentation and solicited questions and comments from the attendees.
 - a. Ann McGauran asked Bradley that given the new budget and supply chain issues, if Bradley had any comments relating specifically to construction. Bradley noted the continued challenges in the procurement of raw goods and materials including workforce personnel are areas where TMA is aware and willing to partner and assist in such challenges. Ann McGauran thanked Bradley for his presentation and turned the next agenda item over to Bryan Hay to provide an update on the construction industry market update.

III. Construction Industry Market Update, Bryan Hay (see attached)

1. Bryan Hay provided an ABC news release summary noting construction input prices rose in January 3.5% compared to the previous month and construction input prices are up 23.6% over the previous 12 months. Bryan noted that ABC chief economists predict that later this year construction material prices will moderate, supply chains will become more orderly and that current indications point to a decrease in shipping cost over the next 12 months. Bryan Hay cited the Dodge Momentum Index stating that total construction starts for 2021 were up 12% compared to 2020. Bryan further added that commercial starts were up 8%, institutional starts were up 5% and manufacturing starts were up 89% compared to 2020.
2. Bryan Hay stated that regarding the local market there is an expected increase of 5% per annum over the next 6-12 months for construction price inflation and an expected increase of 3%-5% over the next 1 to 2 years. Bryan noted that this expectation and potential interest rate increases may result in a modest pull back for the construction market over the next 2 years.
3. Bryan Hay addressed labor markets noting that the ABC is estimating a current shortage of about 200,000 workers across the state citing future projects such as multi-family, the Oracle project and Nissan Stadium improvements as particular sectors and projects that will continue to add labor pressure locally.
4. Bryan Hay spoke to material price escalation emphasizing continued roofing and insulation cost escalation of 5%-10% with estimated 50-week lead times. Bryan noted that drywall is up 30%-50% in cost and that heavy steel and bar joists are seeing decreases in lead times. Bryan estimated 10%-50% increase in roof top units and other HVAC products while lead times are expected to trend toward modest decreases. Bryan emphasized electrical switch gear as being heavily impacted by price increases noting expected price increases of 8%-15% throughout 2022.
5. Bryan Hay spoke to logistics stating that port congestion is improving but that supply chain costs are still expected to result in shipping cost increases of 5%-15% throughout the year.
6. Bryan Hay provided remedies to the current construction industry market update noting that teams should be gaining a deeper understanding of lead times through direct communication with manufacturers. Bryan noted that receiving partial material deliveries in order to maintain critical path improves overall strategy. Bryan suggested that developing a robust procurement plan is becoming as important as the development of sophisticated construction schedules. Bryan closed by noting that procuring and warehousing materials

too early can exacerbate material escalation noting that balancing early material procurement and need should be considered as a means to protect project budgets and stakeholders. Bryan Hay concluded his presentation and solicited questions and comments from the attendees.

- a. Ann McGauran asked if members have experienced situations, specifically in roofing, where contractors are not holding bid prices and pulling out of projects due to price volatility.
- b. Bryan Hay stated that this is occurring in steel and HVAC as well for the same reason.
- c. Ann McGauran raised the question as to appropriate solutions and remedies for the owner when such situations arise.
- d. Bryan Hay noted that in these situations, owner/contractor cost sharing and owner cost absorption are occurring in the industry as a remedy.
- e. Greg Campbell noted that price volatility has impacted many subcontractors noting that in most cases they cannot absorb cost increases and in some cases are only holding prices for 7-14 days. Greg added that in some cases contingencies can mitigate price increases and that overall material price volatility is an ongoing challenge.
- f. Bryan Hay stated that increased transparency with trade partners and carrying allowances has proven to be a successful mitigation strategy in some cases.
- g. Rich McNeil asked if there was the possibility of less hard bids and more CM/GC.
- h. Ann McGauran wondered if there is the possibility of more CM/GC projects and invited SPA representatives to speak to the question.
- i. Brian Wilson noted the decision to designate projects as design bid build (D/B/B) or CM/GC has historically been based on project size and that STREAM is currently looking at different ways of budgeting and scheduling projects to mitigate price uncertainty.
- j. Dick Tracey added that contractors are not typically inclined to bid CM/GC on smaller projects and that attempts to designate smaller projects as such can result in a decreased bid pool.
- k. Ann McGauran noted that the State is working to be more strategic when bringing forward larger projects by defining critical needs and being sensitive to the impact of bringing such projects to the market concurrently.
- l. Brian Wilson agreed with Ann noting that FY23 projects will likely be rolled out over the course of the year opposed to 5-6 months as has typically been the goal.
- m. Chris Byerly asked Bryan Hay if a market summary can be provided for attachment to the QIC minutes. Bryan Hay stated that he would provide the summary.
- n. Ann McGauran thanked the Bryan Hay and the members for the robust conversation and turned the next agenda item over to Chris Byerly.

IV. HPBr, BIM and Project Team Evaluations – Chris Byerly (OSA)

1. Chris Byerly noted that tracking sheets for 2021 substantially completed projects will be provided to the SPA's for HPBr and Project Team Evaluations. Chris noted that upon providing these tracking sheets, SPA's would be contacted to clarify any non-applicable projects including justification. Chris solicited continued feedback for improving HPBr.
2. Chris Byerly requested that SPAs provide any BIM updates relating to projects during the project update portion of the meeting. Chris concluded his update and turned the meeting back over to Ann McGauran to proceed with the SPA project update section of the agenda.

V. SPA Projects Update – Austin Oakes (UT)

1. Austin Oakes stated that they are anticipating significant investment in the Knoxville region. Austin stated through the budget amendment process that they are planning to self-fund a renovation to the Stokely Management Center which is part of the business complex in Knoxville. Austin noted that in the BIM space, that the Nursing complex is moving forward after a recent budget increase through the SBC. Austin stated that the team is moving into

schematic design and OSA will be updated on BIM development in the coming months. Austin noted two renovation projects for the Nash Building and the Cancer Research Building. Austin stated that in Chattanooga a new nursing building is proceeding as well as a large renovation of the former state office building.

2. Austin Oakes indicated that there are numerous major maintenance projects anticipated system wide.

VI. SPA Projects Update – Chuck Milan (ETSU)

1. Chuck Milan noted that the new academic building is in program verification phase and that the project will soon issue a RFP for CM/GC selection.
2. Chuck Milan noted that there are several capital maintenance projects including a computer science project that has received bids and indicated that bids are reflecting material cost escalation.

VII. SPA Projects Update – Jim Cobb (TTU)

1. Jim stated that TTU currently has 15 projects in design and 10 in various stages of construction.
2. Jim indicated two major projects in the proposed budget including the renovation of Johnson Hall which involves the demolition of the adjacent Foster Hall and extensive utility relocation and is valued at about \$37 million. Jim stated that a second major project includes the Advanced Construction and Manufacturing Engineering Building budgeted at \$62 million.
3. Jim shared that TTU intends to bring forward a project to demolish the west side of the football stadium and replace it with a new facility estimated at \$30 million and a new parking garage estimated at \$13.9 million. Jim stated the football stadium and parking garage projects will include bond funding so they will be managed in coordination at TBR.

VIII. SPA Projects Update – Bill Waits (MTSU)

1. Bill stated MTSU will soon be issuing a CM/GC RFP's for the Applied Engineering Building which is a 92,000-sf. academic building and will be adjacent to the School of Concrete and Construction Management. Bill stated that a second CM/GC RFP will be issued in March for the Student Athlete Performance Center.
2. Bill Waits stated that there are 5 capital maintenance projects with total budget at about \$7 million including mechanical and elevator work in the proposed budget.
3. Bill identified two improvement projects in the proposed budget include renovations of the Kirksey Old Main and Rutledge Hall estimated at \$54.3 million and a \$62 million at the Shelbyville Airport for the aerospace program.

IX. SPA Projects Update – Dick Tracey (TBR)

1. Dick Tracey noted major capital outlay projects in the proposed budget include the Allied Health Facility estimated at \$75 million as well as an estimated \$200 million for TCAT improvements across the State.
2. Dick Tracey stated that there is an estimated \$250 million allocated in the proposed budget for TSU maintenance, improvements and planning. Dick stated that funding was approved for a new campus at the Ford TCAT facility which is currently in design and will need to come online in 2024.

X. SPA Projects Update – Brian Wilson (STREAM)

1. Brian Wilson stated that most FY 22 projects are in the design phases and that STREAM is preparing to move to start FY 23 projects noting that many of these will be maintenance projects. Brian stated that the larger Multi Agency Law Enforcement Training Academy project will be a multi-phase project.

2. Brian Wilson noted that American Rescue Plan funded projects are anticipated and should be coming forward for approval but some may be brought forward as separate smaller projects.

XI. SPA Projects Update – Tony Poteet (UM)

1. Tony Poteet stated that UM is currently constructing a major performance arts project estimated at \$40 million that is expected to be completed mid-year 2022. Tony added that the Lambuth Campus is completing the conversion of a residence hall into a nursing facility. Tony stated that a new Engineering and Computer Science building is currently out for trade bidding. Tony noted that an extensive round of value engineering was required.
2. Tony stated that the UM fire alarm and elevator projects have received bids and that they came in on budget. Tony added that projects in design are including main programmatic needs but also including alternates to manage budgeting.
3. Tony Poteet stated that in the proposed budget, UM has 2 major renovation projects estimating \$55 million for the Business College and Mynders Hall. Tony stated that these will be CM/GC projects. Tony stated that there will be 4 capital major maintenance projects. Tony added that they are working closely with the designers early to improve cost estimating.

XII. SPA Projects Update – Patti Miller (THEC)

1. Patti Miller stated that the capital project outlay process was influenced by impacts of the pandemic resulting in the consideration of numerous renovation projects driven by remote learning considerations. Patti noted that many productive discussions have occurred regarding the industry impact of rolling out the various renovation and new construction projects.

XIII. Open Discussion:

1. Ann McGauran opened the discussion for thoughts relating to the current legislative session.
2. Ashley Cates stated that this year there does not appear to be any legislation being introduced that impacts building codes. Ashley stated that AIA Day on the Hill will be on March 8th.
3. Ann McGauran indicated that there is an administration bill to raise the threshold from \$100,000 to \$250,000 for projects required to come before the SBC.
4. Chris Byerly provided an update on the OSA Change Order Report Form indicating that the revision is being finalized, and that SPAs would be notified once the final form has been updated. This form will just impact how these items are presented to the SBC.

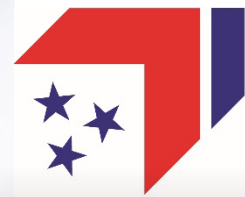
XIV. Closing Remarks

1. Ann McGauran thanked the members for their involvement with QIC, welcomed continued dialogue with the members and adjourned the meeting.

Action Items:

- Bryan Hay to provide Construction Market Update (See Attached)

Next Meeting: May 18, 2022
Virtual / MS Teams



TENNESSEE CHAMBER
of Commerce & Industry

TENNESSEE MANUFACTURERS ASSOCIATION

Manufacturing: Policy and Economic Overview:

February 16, 2022

Tennessee Chamber of Commerce & Industry: Our Work

Tennessee Manufacturers Association: Founded in 1912

- **Private Trade Association: Board of Directors**
 - Government Affairs: Tax/ Permit / Regulatory/ Connections / Problem Solving /
 - Grassroots Legislative Engagement / Expertise Research and Data Public Policy
 - Workforce Policy
 - Tax Policy
 - Environment & Energy Policy
 - Human Resources Policy
 - Seminars / Events: Informing Business government actions
 - Partnerships: Local Chambers, TEDC, U.S. Chamber, NAM, ACC
 - Events and Seminars: Business & Politics



Tennessee At-A-Glance - Staples for a Strong Manufacturing Climate

- **Advantages:**

- Economic Impact of Manufacturing:
- Pro-Business: Right to Work / Employment at Will: Workforce Productivity
- Location / Reputation
- Infrastructure: Roads, Water, Power & Natural Resources
- No Personal Income Tax - Single Sales Factor (Manufacturers 2017)
- Pro-Business: Friendly / #1 Fiscally Managed State Comparison
- Statewide Office Elections / Governor / U.S. Senate -No Statewide Judicial Elections
- Business Rankings / Economic Development and Recruitment
- \$3.5 Billion overcollections over 7-8 year period: Tremendous Economic Growth: almost \$1B in cuts past 10 years
- Tennessee Promise / Workforce Solutions
- Regulatory Climate/ Workers Compensation / Unemployment / TOSHA / Environmental Regulations and Permits



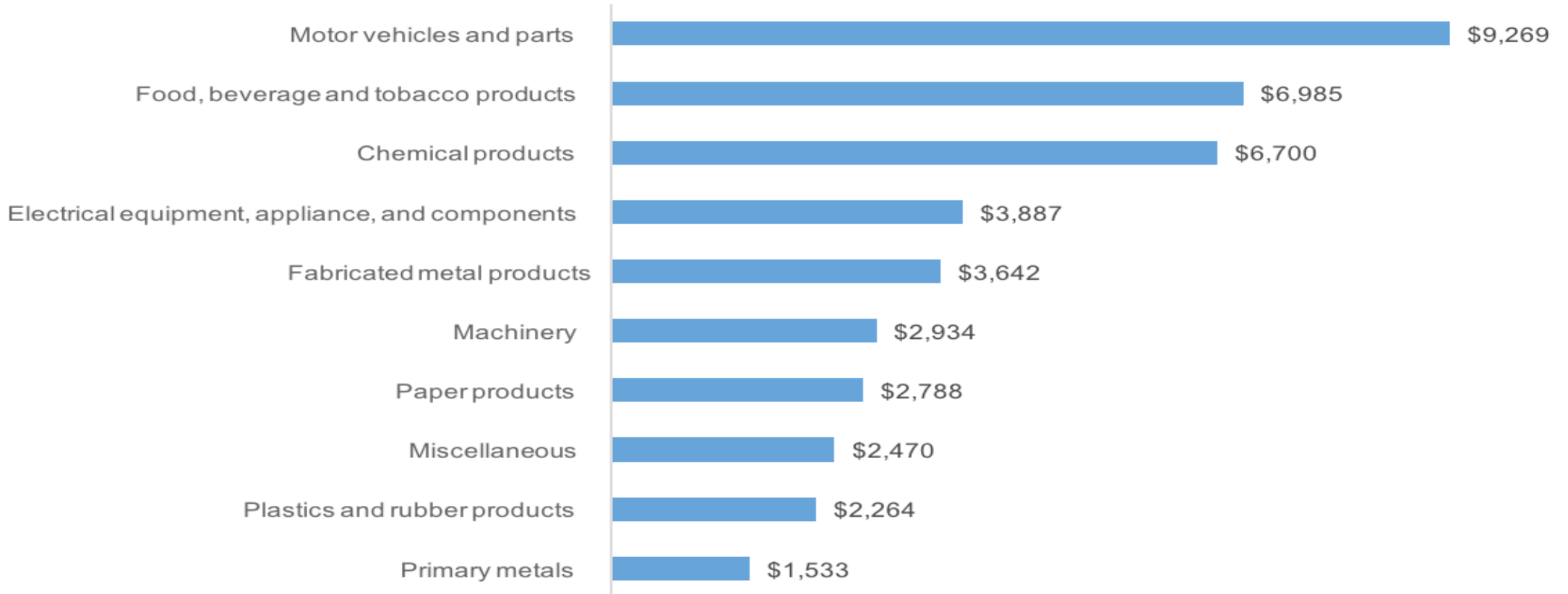
History of Manufacturing Policy



- Industrial Machinery Sales and Use Tax Exemption-- \$300M (1985)
- Single Sales Factor - \$150M (2017)
- Energy and Water Exempt Sales and Use
- State Administered Regulatory Programs- Occupational Safety and Environmental Regulation



Tennessee Top 10 Manufacturing Sectors





Tennessee Manufacturing

- 14.46% Total Output
- 10.96% Workforce
- 352,700 Employees
- 7,125 Firms
- \$71,751 Avg Annual Compensation vs. \$45,578 (other nonfarm)
- **SECTORS:**
 - Motor vehicles parts, Food Beverage tobacco, Chemicals, Fabricated Metal, Appliances, Machinery, Paper manufacturing Plastics and rubber products



Improving Manufacturing Climate

- **Challenges:**
 - Pandemic, Workforce, Supply Chain, Inflation
 - Workforce Crisis- 94% / Soft Skills
 - Educational Attainment : College Educated - TN Ranking
 - Workforce Participation 60% / Aging Rural Populations
 - Healthcare / Systems / Population
 - Infrastructure /Cybersecurity
 - Border State
 - Access : Rapid Acceleration of Automation / Technology
 - Sales and Use Tax
 - Taxes: Higher Cost: Franchise and Excise Taxes / Business Tax, Local Property Tax , Real & Tangible

TN Low Individual Tax Burdens per Capita

- AR / 17th / \$4,581
- NC / 32nd / \$4,490
- KY / 25th / \$4,279
- GA / 41st / \$4,221
- FL / 43rd / \$4,555
- AL / 38th / \$3,893
- MS / 33rd / \$3,654
- SC / 40th / \$4,000
- LA / 36th / \$4,292
- TN / 48th / \$3,368

State-Local Tax Burdens per Capita & as a Percentage of Income

Fiscal Year 2019

State	State-Local Tax Burden as a Share of State Income	Rank	Total Tax Burden (per Capita)
N.D.	8.9%	9	\$4,996
Ohio	10.3%	31	\$5,107
Okla.	8.2%	5	\$3,841
Ore.	11.1%	40	\$5,809
Pa.	10.4%	35	\$5,970
R.I.	11.4%	42	\$6,334
S.C.	8.9%	11	\$4,000
S.D.	9.1%	14	\$4,855
Tenn.	7.0%	3	\$3,368
Tex.	8.0%	4	\$4,143
Utah	9.6%	21	\$4,636
Vt.	12.3%	47	\$6,693
Va.	10.0%	27	\$5,854
Wash.	9.8%	24	\$6,245
W.Va.	9.9%	25	\$4,114
Wis.	10.7%	37	\$5,632
Wyo.	7.0%	2	\$4,282
D.C.	10.1%	(29)	\$8,261

2022 State Business Tax Climate Index

Note: The State Business Tax Climate Index measure's how each state's tax laws affect economic performance. A rank of 1 means the state's tax system is more favorable for business; a rank of 50 means the state's tax system is less favorable for business. Tennessee improved 8 spots one of the largest gains due to UI tax improvements but dropped two places in Corporate Income Tax

State	Overall Index Rank	Corp. Tax	Ind. Income Tax	Sales Tax	Unemp. Ins. Tax	Prop. Tax
Alabama	39	17	27	50	19	18
Arkansas	44	30	39	45	27	33
Florida	4	7	1	21	12	2
Georgia	32	8	35	33	25	37
Kentucky	18	15	17	13	22	48
Louisiana	42	34	34	48	23	5
Mississippi	30	13	25	32	38	6
North Carolina	11	4	16	20	13	12
South Carolina	31	5	33	31	36	27
Tennessee	8	26	6	46	20	33

2021 State Business Tax Climate Index

Note: The State Business Tax Climate Index measure's how each state's tax laws affect economic performance. A rank of 1 means the state's tax system is more favorable for business; a rank of 50 means the state's tax system is less favorable for business.

State	Overall Index Rank	Corp. Tax	Ind. Income Tax	Sales Tax	Unemp. Ins. Tax	Prop. Tax
Alabama	41	23	30	50	14	19
Arkansas	45	34	41	46	23	25
Florida	4	6	1	21	2	13
Georgia	31	7	36	27	39	24
Kentucky	19	19	18	13	49	21
Louisiana	42	35	32	49	4	23
Mississippi	32	12	27	32	5	37
North Carolina	10	4	16	22	10	26
South Carolina	33	5	34	31	24	34
Tennessee	18	24	8	47	26	33

**Tennessee High F&E
Corporate Tax Burden
State Corporate Income
Tax Collection per Capita
FY2019: F&E**

- *Source: Census Bureau: Tax Foundation Calculation
2021 Facts and Figures Data*

TN ranks 9th in 2021 at the bottom of South East states.

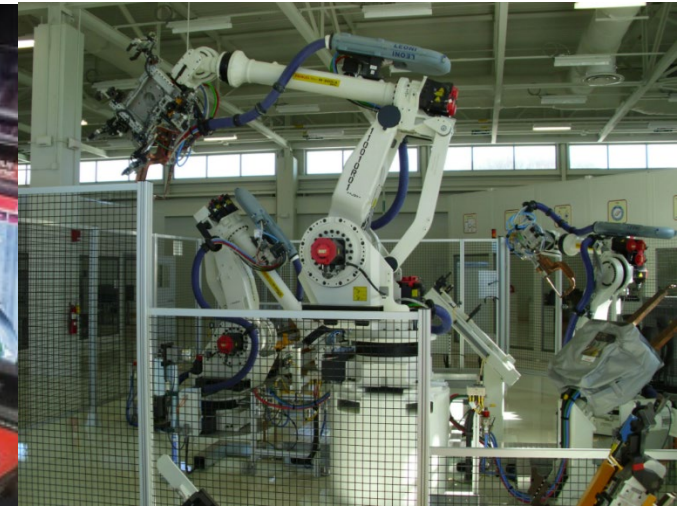
State	Rank	Collections (Per Capita)
Tennessee	9	\$249
Mississippi	25	\$166
Arkansas	20	\$177
Florida	28	\$145
Alabama	29	\$140
Kentucky	32	\$130
Georgia	33	\$120
North Carolina	40	\$80
South Carolina	41	\$77
Louisiana	38	\$107

Manufacturing Initiatives: Tennessee

- Workforce:
 - Career Awareness
 - Dual Enrollment
 - Soft Skills: Work Ethic Distinction
 - Increasing Enrollment Technical Schools
- Tennessee Be Pro/ Be Proud- Funding Request
- Smart Factory Institute: Chattanooga
- Tax Policy: Maintain Exemptions / Improve F&E
- Right To Work www.tnright2work.com

- Trade Policy
- Domestic Economy / Spending / Inflation / Government Spending
- Foreign Relations Policy

- Rapid Acceleration of Automation / Technology:



Economic Update: Manufacturing

- Forecasted 6.5% growth for 2022
- Manufacturing grew 4.8 in the fourth quarter of 2021
- Manufacturing Expansion Trends: KC Federal Reserve Bank expanding fastest rate in history
- 52% of firms in KC FRB reported that 10% or more of their workforce missed work in January due to COVID
- Purchasing, costs, supply chain are still massive issues
- Environmental Regulations
- Tax Increases
- Immigration Policy
- Organized Labor (PRO ACT)

- Trade Policy
- Domestic Economy / Spending / Inflation / Government Spending
- Inflation is at its highest rate in 40 years, with significant cost pressures in agriculture.
- Foreign Relations Policy

- Rapid Acceleration of Automation / Technology:

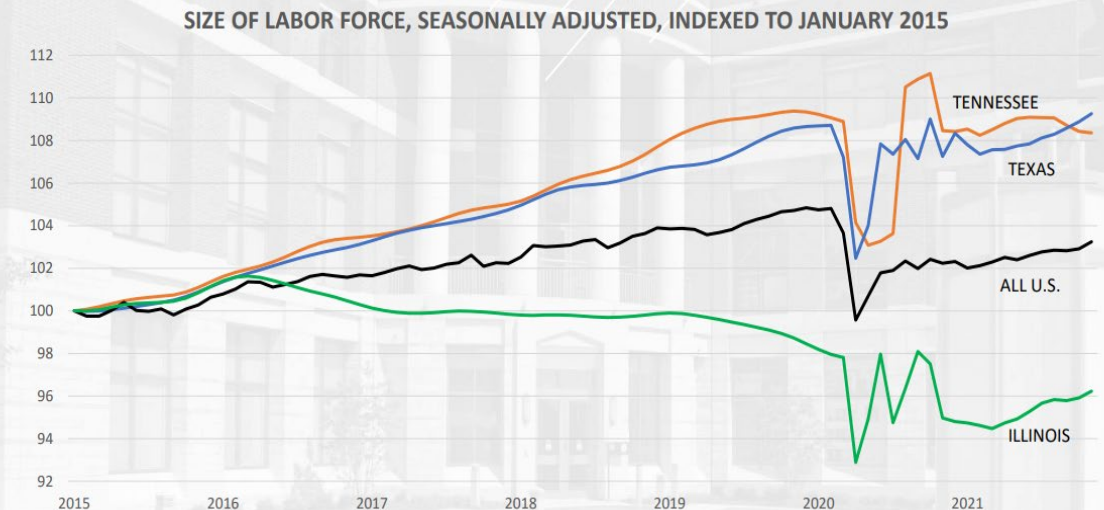


Labor Market Update – Marianne Wanamaker

- Tennessee’s economic output has returned to pre-pandemic levels
- Labor force participation has not fully recovered—currently **five-tenths** of an unemployed person per job opening in Tennessee
 - a rate better than west coast countries, **three-tenths** lower than the national average.
 - trend of low labor availability—projected to continue without further action—is linked to the national and state challenges of **stagnant population growth** and **decreasing legal immigration**
- According to the Kansas City Federal Reserve: nationwide, half of the labor force participation drop-off (**2.1M workers**) is due to early retirements

- In-migration, as well as favorable business climate and tax policies, has facilitated the **2.1% growth Tennessee’s labor force participation rate** has seen since its low of 58% in May of 2020

TO DATE, IN-MIGRATION HAS HELPED TENNESSEE AVOID THE WORST DEMOGRAPHIC CONSEQUENCES



SOURCE: FRED

FEBRUARY 2022

Source: Marianne Wanamaker - Haslam College of Business

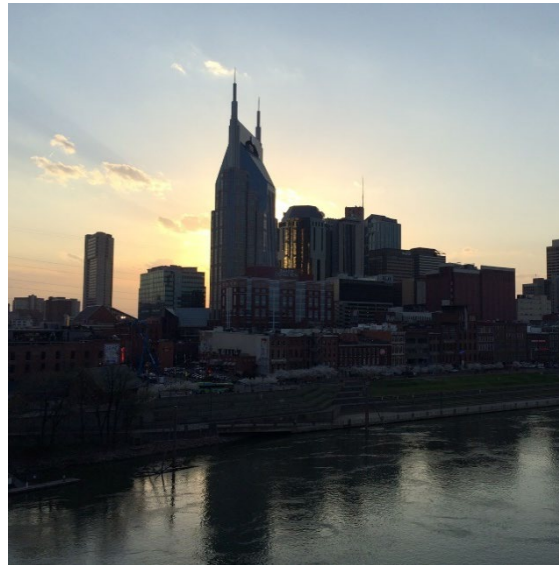
Manufacturing : Federal Updates

- Regulatory / Mandates: EPA, OSHA, Transportation, Commerce
- Build Back Better : \$1.7T Infrastructure bill: Climate Policy: SuperFund Tax Increases: 2023 State of the State
- Supply Chain / Shipping / Trade: China Challenges: Onshoring
- OSHA - ETS - Vaccine / Testing Requirements
- Workforce : 3M less People in Workforce: Immigration Policy
- Inflation: Disruptions in Raw Goods and Materials: Estimating Costs: National Deficits
- Data / Technology: Cyberattacks
- Organized Labor (PRO ACT)



Manufacturers Responses:

- 73% Manufacturers encountered supplier problems
- Regionalization in Manufacturing/ Shorter and Stronger Supply Chains
- Leveraging Cost Savings - Mexico and Malaysia: Wages, Productivity, Currency Exchange & Energy Costs
- Building Resilient Supply Chains: Closer to Customers and Supplier
- Developing Local Workforce Pipelines
- Changing the perception of modern Manufacturing

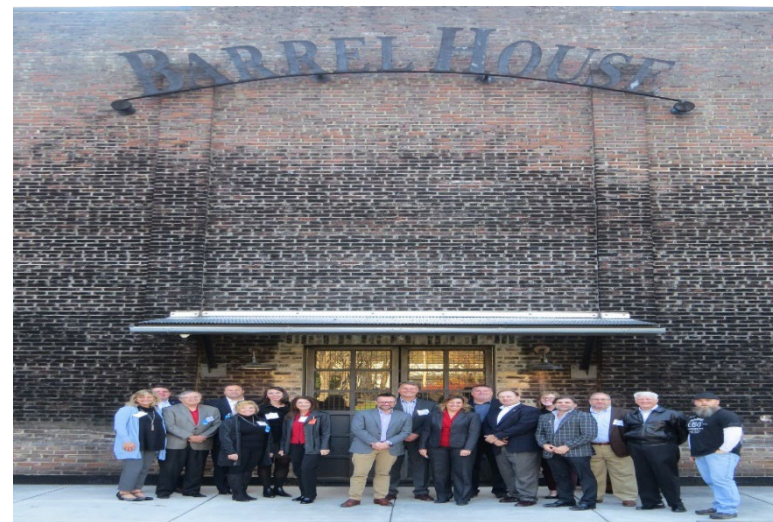


TN Chamber Business / Manufacturing Policy Priority Items

- Tax
 - Lower overall business tax burdens
 - Resolve tax disputes fairly
 - Protecting taxpayer confidentiality
- Economic Development and Recovery
 - Current Process
 - Maintaining liability protections
 - Minimize or eliminate business shutdowns
- Human Resources
 - Significant Employer Mandates Increasing Costs
 - Litigation and Rights of Action
- Workforce & Education
 - Learning loss/ Accountability/ technical skills
 - TN CAPs / Career Awareness
 - Dual Enrollment
 - More enrollment Technical Schools (InDemand)
- Environment & Energy
 - Environmental Compliance
 - Workplace Safety
- Workers' Compensation
 - Compensable Injury / Stable System
 - Payments to workers
- Unemployment Insurance
 - Work Share
 - Fund solvency / tax hikes

Tennessee Chamber of Commerce & Industry

February 16, 2022



AGC / ABC – Construction Industry Market Update: 2-16-2022

This report is in keeping with Bradley Jackson's TN Mfg Association report – high demand, labor shortages, and supply chain issues are causing significant disruption in both of our industries.

The report this morning is a collaborative report from ABC and AGC as Bryan Hay talked with John Gromos at AGC earlier this week to compare notes.

Market Overview

- From ABC yesterday morning: Construction input prices rose 3.5% in January compared to the previous month
- Construction input prices are up 23.6% over the past 12 months
- ABC Chief Economist – “While many economists expect inflation to moderate over the course of 2022, as of now, there is effectively no relief in sight for the nation’s contractors”.
- Inflation remains hot, hot, hot, with estimates of price increases repeatedly coming in above consensus expectations.
- It may seem naïve given current data readings, but the expectation remains that, at some point later this year, construction materials prices will moderate.
- As the pandemic fades, supply chains will become more orderly. There are already indications that shipping costs are headed lower, and contractors remain optimistic, according to ABC’s Construction Confidence Index
- Dodge Momentum Index: Total construction starts for all of 2021 rose by 12% compared to starts in 2020
 - o Commercial starts up 8%
 - o Institutional starts up 5%
 - o Manufacturing starts up 89%

Local Market

- Next 6 months: the market is experiencing significant/abnormal construction price inflation – 5% per annum
- Next 6-12 months: the market is experiencing significant/abnormal construction price inflation – 5% per annum
- Next 1-2 years: construction price inflation is expected to be above normal – 3-5% per annum
- The construction labor shortage is significant across Tennessee. ABC estimates we are short 200,000 workers across the state.
 - o Regionally, we experienced bid cost going up close to 10% in Q4 of last year
 - o 5.1% labor cost increase over the past 12 months – largest since being tracked in 2010
- The Nashville market is saturated with construction projects in the pipeline and more on the horizon – Nashville Yards, East Bank Oracle, redevelopment of Titan’s Stadium. Multifamily construction is the hottest market right now.
- The Ford project in West TN may have a similar effect to Middle TN in that large projects can quickly consume local and regional labor resources in an already busy market.

Material Escalation/Supply Chain

- Roofing and insulation – high demand

- PolyISO Insulation lead times and pricing increasing (5-10%)
 - 48-52 weeks lead time
- Structural Steel – lead times are improving, pricing stabilizing
 - Wide flange and tube steel have stabilized
 - Bar joist lead times are down to 32 weeks, from 48 weeks
 - Steel studs have been flat (good news!)
- HVAC
 - AHU/RTU's – escalation increasing (10-15%), lead times improving
 - Lead time: 30-40 weeks
- Electrical Switchgear– most challenging of all materials and equipment
 - Lead times 38-52 weeks
 - Pricing 8-15%
 - Stable lead times
- Drywall – the residential market is still causing shortages of drywall (30-50% increases!)
- Metal Commodities: Rising costs for copper, aluminum, and nickel, impacting products from curtain wall to door, frames and hardware
-
- Transportation – Trucking and Rail
 - Ports are still congested
 - Containers are leaving the ports faster (dwell times are decreasing)
 - Dwell time down 4-6 days
 - 5-15% increase in pricing
- General: Trade partners and manufacturers continue to indicate that pricing is subject to change upon fairly-short notice...pricing “commitments” continue to be short

Remedies/Solutions

- Every team needs to get deeper into the supply chain. It is not enough to depend on subcontractor and supplier input.
- Contractors should be leveraging relationships with the manufacturers to access delayed materials and equipment – can push to get partial, critical orders on critical path.
- It is not enough to look at overall escalation %, you need to look closer and account for escalation material by material because of the variation between materials.
- A robust procurement strategy is essential – leads times are emphasis.
- Example item in a procurement strategy: Buying large air handlers early and designing around it.
- Cost benefit of escalation clauses – leverage allowances – talk with trade partners about allowances in lieu of trade partner taking all the risk to keep from paying worse-case scenario all the time.
- You can drive escalation into a project by buying too early.
 - Understand when materials need to be on site.
 - Make acquisitions just in time where possible.
- Early release packages for long-lead items continues to be a good strategy...consider warehousing strategies (costs associated with this) to ensure schedule.