



# Purchases Report

February 2022

## Table of Contents

### **Highlights**

### **Long-Term Trends**

### **Analysis of Quarterly Data**

### **Analysis of Monthly Data**

### **Appendix**

*Important notes:*

*As of November 2016, unless explicitly specified otherwise, RTA uses 3-month moving average for reporting on inventory (including historical data), hence, affecting calculated values of purchases and Inventory-to-Sales Ratio. In this way, any exaggerations that might be manifest in monthly purchases data, due to regular inventory counts by members, are not emphasized.*

*Highlighted areas in the graphs represent time of recessions.*

*Explanation about how to read box plots and histograms can be found in the Appendix section.*

**Copyright: Railway Tie Association, 2022.**

*Disclaimer: The data and report presented herein are based solely on RTA member monthly reports on production and inventory. Occasionally, members send corrections to previously submitted data. If and when these corrections are received they are incorporated at that time. Users of this report should note while all care is taken to accurately compile the data submitted by member companies, that no warranty is made as to the accuracy of any RTA member reports.*

## Highlights

In February, the 12-month moving average of purchases' growth rate improved measurably from last month and continued its upward trend. Production continued in its declining trend. Monthly statistics showed production somewhat below its seasonal norm. In contrast, purchases were above their seasonal median. This resulted in further decrease of the Inventory-to-Sales ratio.

## Long-Term Trends

Production fell at a 14.6% annual rate.

Purchases advanced at a 3.2% annual rate.

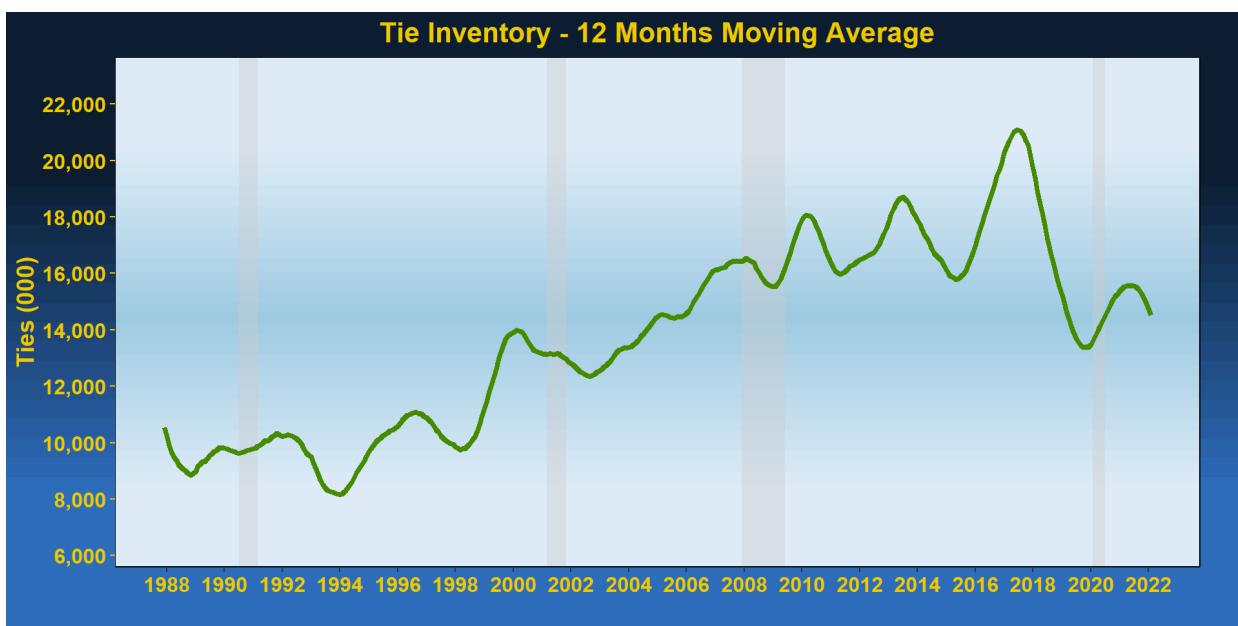
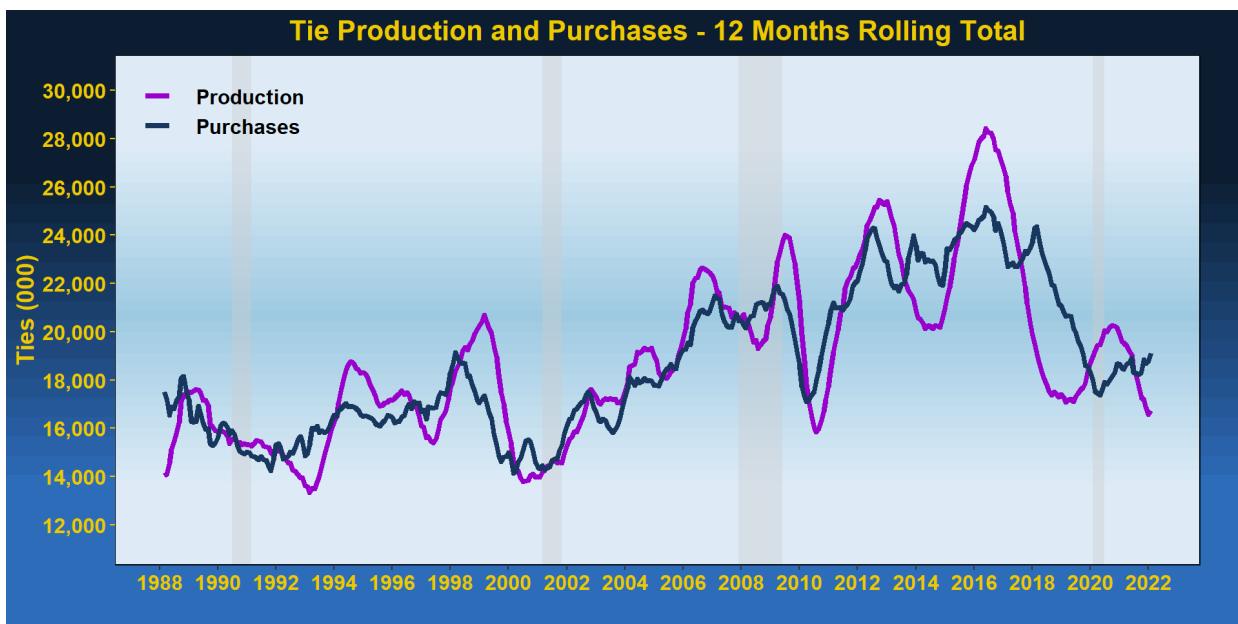
Inventory's 12 month moving average (12MMA) fell by 5.9% from a year ago levels.

Inventory-to-Sales Ratio's 12MMA came down from 0.85 to 0.79.

**Table of Annual Observations**

*Production and Purchases are 12 months rolling totals, Inventory and ISR are 12MMA*

Date	Production	Purchases	Inventory	ISR
February 2021	19,581	18,516	15,425	0.85
February 2022	16,724	19,101	14,521	0.79





## Analysis of Quarterly Data

Production in Q4 came down by 6.5% from last quarter and dropped by 18.3% from a year ago.

For the same intervals, purchases declined by 4.7% and advanced by 11.5% respectively.

Inventory's 3MMA dropped by 4.1% from last quarter and declined by 11.6% from a year ago levels.

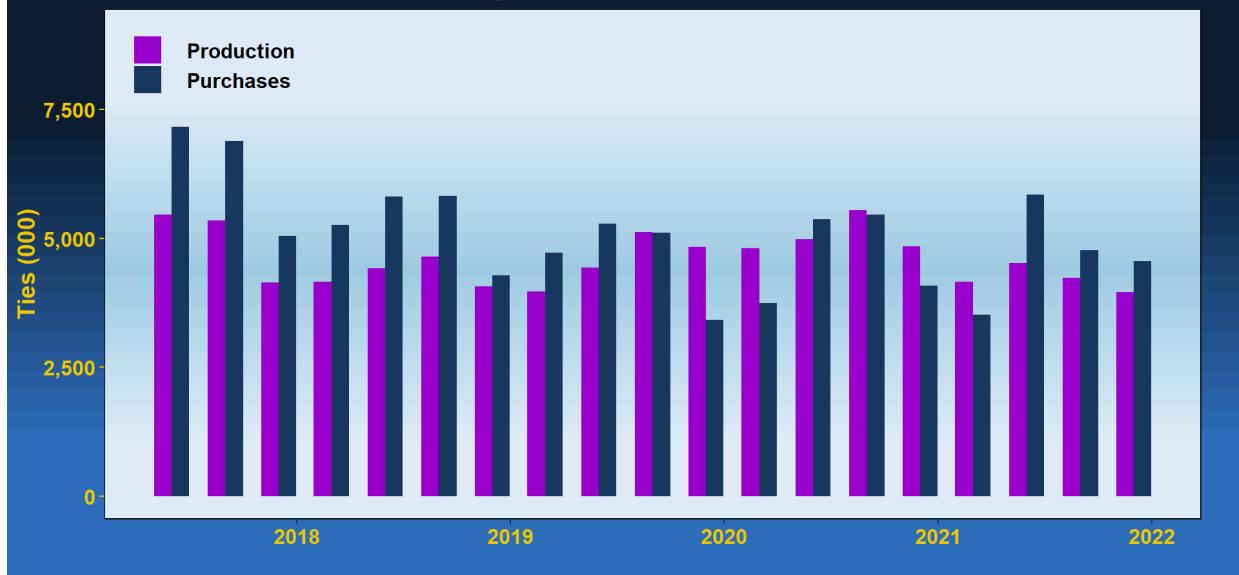
From Q3 to Q4 2021, the 3MMA of Inventory-to-Sales Ratio dwindled from 0.8 to 0.76. One year ago, the ratio was 0.85.

**Table of Quarterly Observations**

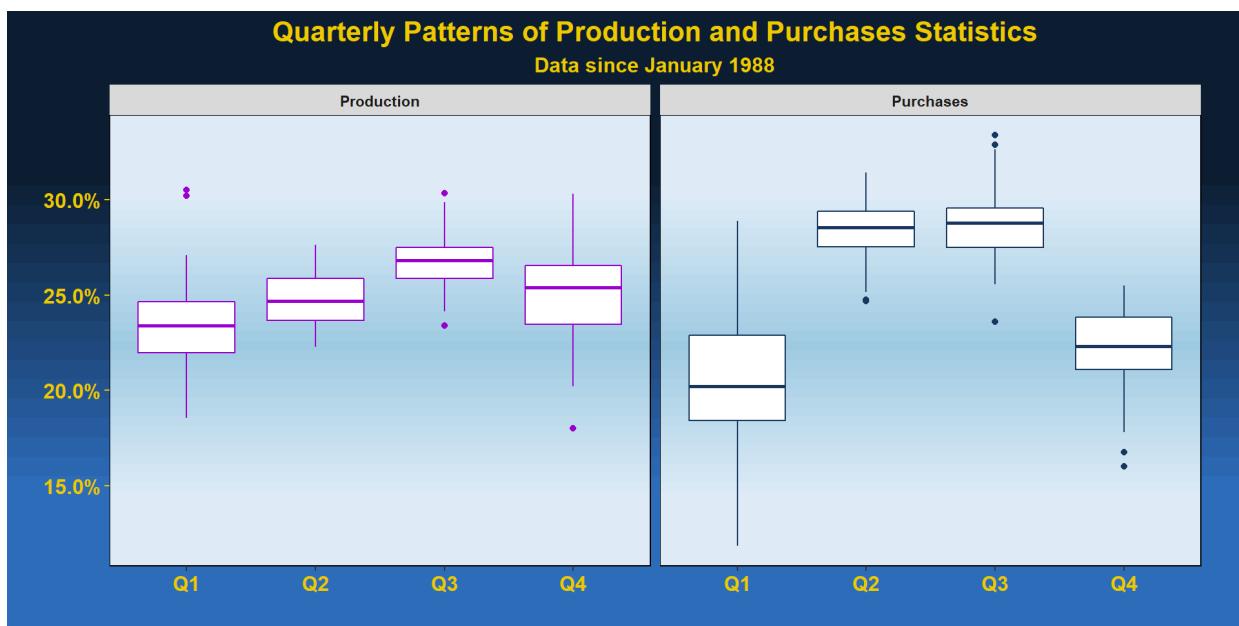
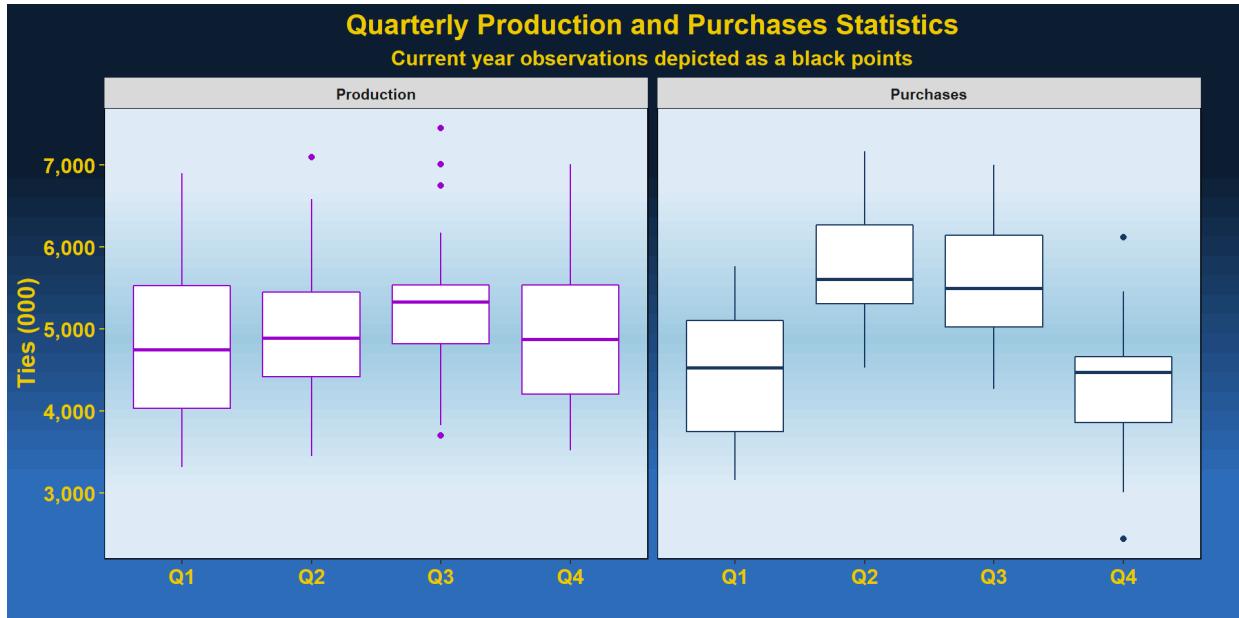
*Production and Purchases Quarterly Sum, Inventory and ISR - 3MMA*

Date	Production	Purchases	Inventory	ISR
December 2020	4,840	4,084	15,756	0.85
September 2021	4,229	4,776	14,521	0.80
December 2021	3,952	4,552	13,921	0.76

**Quarterly Tie Production and Purchases**



Quarterly pattern of production and purchases uses data from January 2000. The top graph shows data analysis within each quarter. It shows the median, upper quartile and lower quartile boundary (a more detailed explanation is available in the Appendix section). It also displays what the production and purchases were in each quarter of reporting year represented by black points in relation to quarterly statistical values. The second graph shows the contribution of each quarter to the total annual production and purchases.



## Analysis of Monthly Data

Production rose by 9.6% from last month and expanded by 12.7% from a year ago.

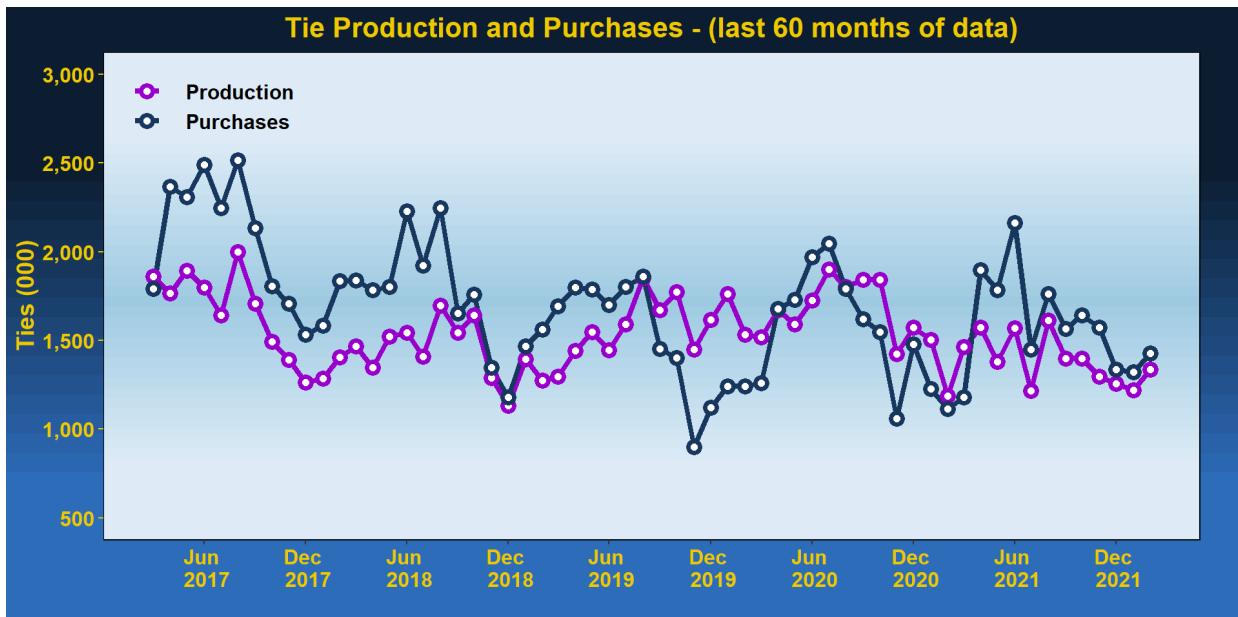
For the same time intervals, purchases grew by 8.1% and advanced by 28.2% respectively.

Inventory levels declined by 0.7% from last month and dropped by 14.8% from a year ago levels.

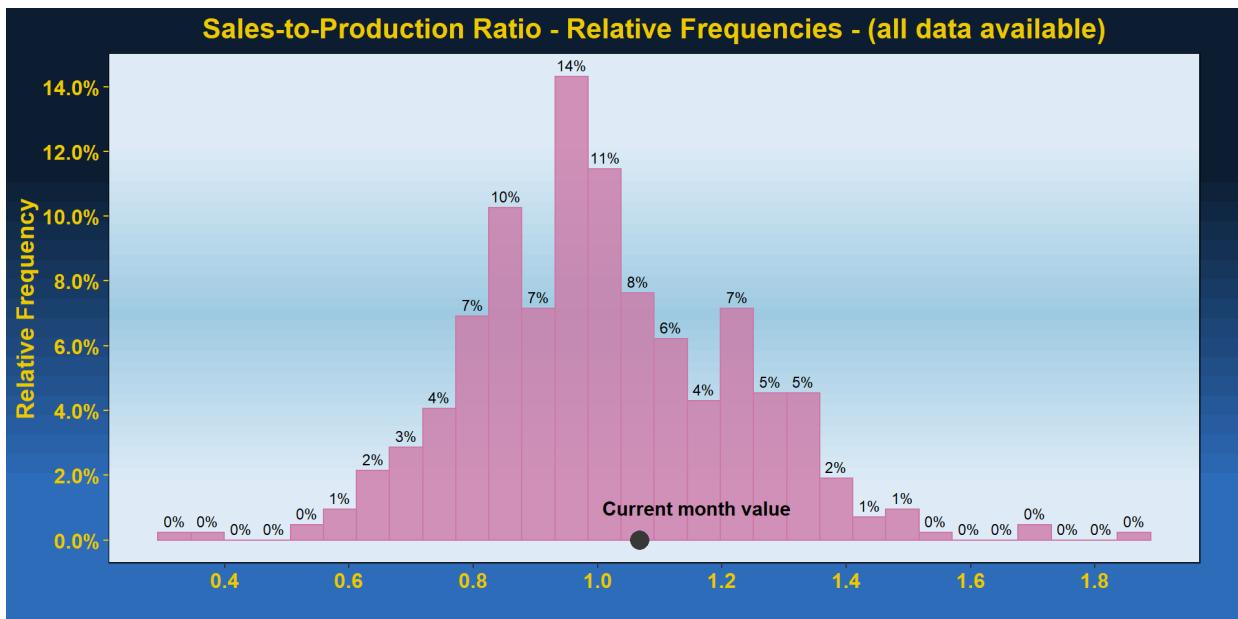
From month ago, the Inventory-to-Sales Ratio fell from 0.74 to 0.72, and from year ago, the ratio came down from 0.87.

**Table of Monthly Observations**

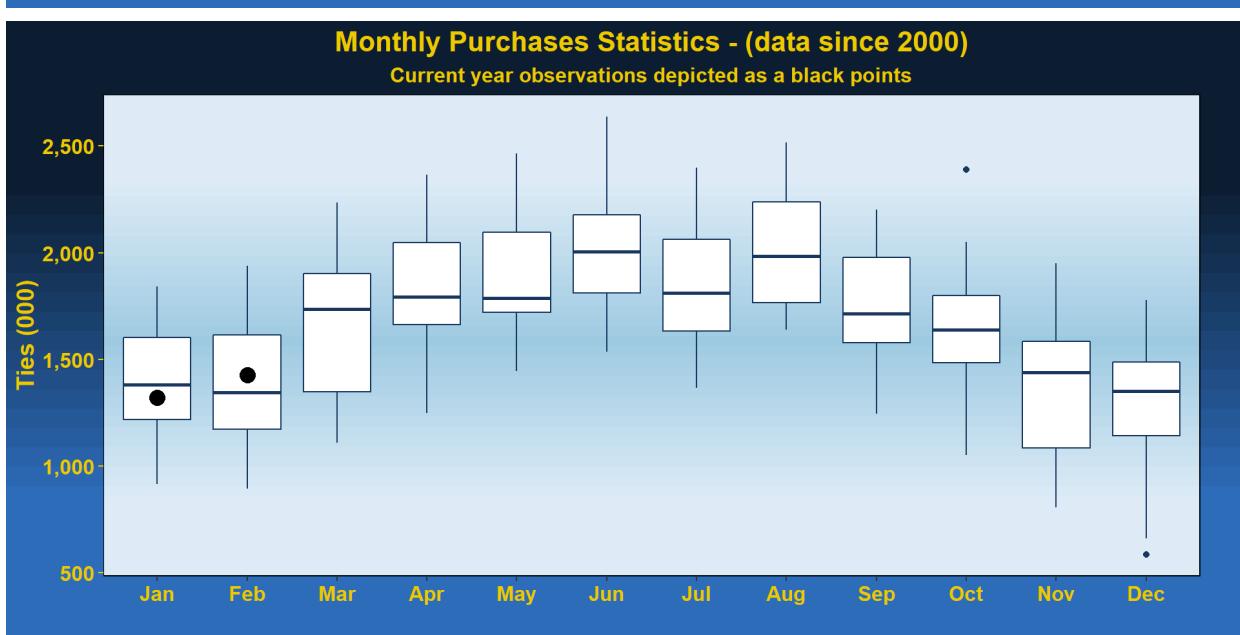
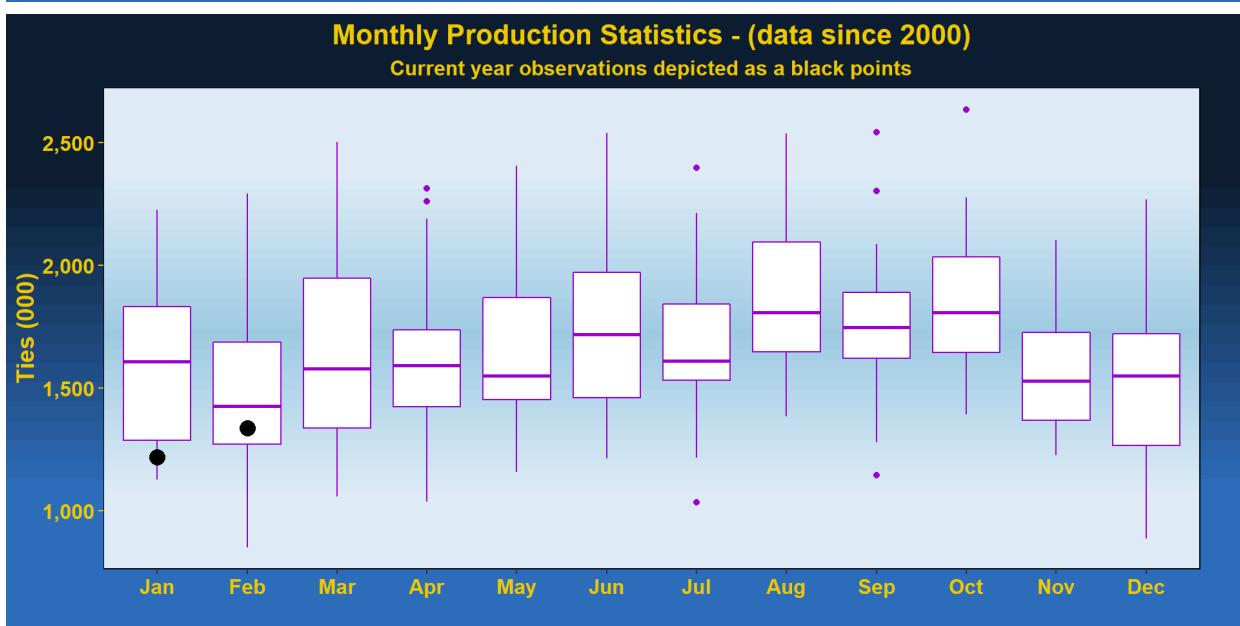
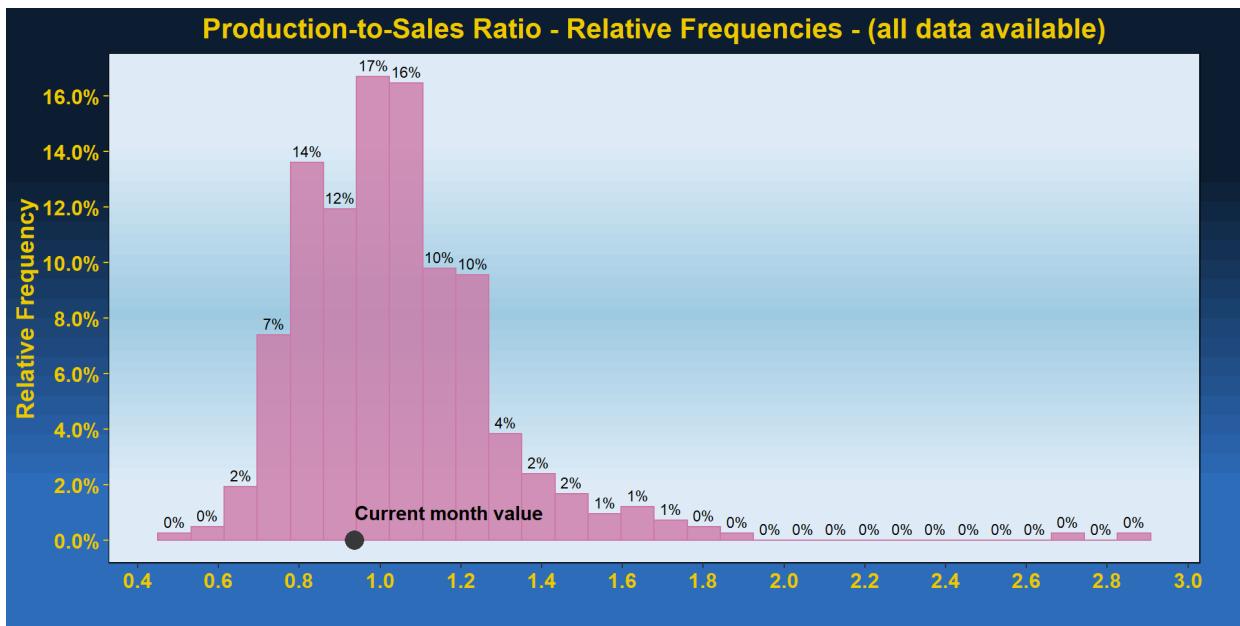
Date	Production	Purchases	Inventory	ISR
February 2021	1,186	1,113	16,108	0.87
January 2022	1,220	1,320	13,821	0.74
February 2022	1,337	1,427	13,730	0.72



Sales-to-Production Ratio shows the replenishment/diminishment of inventory. Ratio above one signals diminishment and ratio below one replenishment of inventory stock.

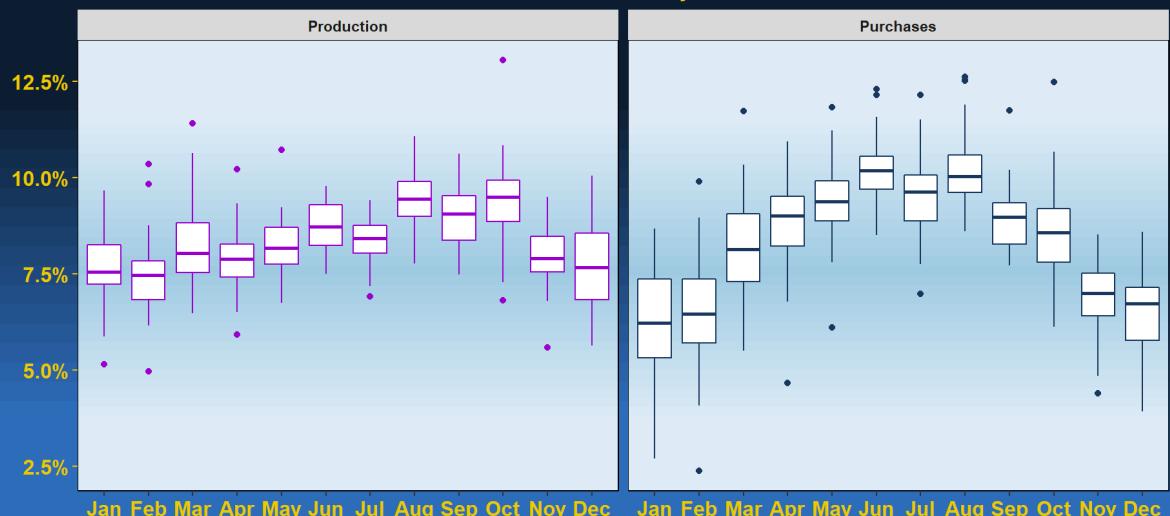


The following graph tells the same story as the graph above, just the ratio is reversed - Production-to-Sales Ratio.

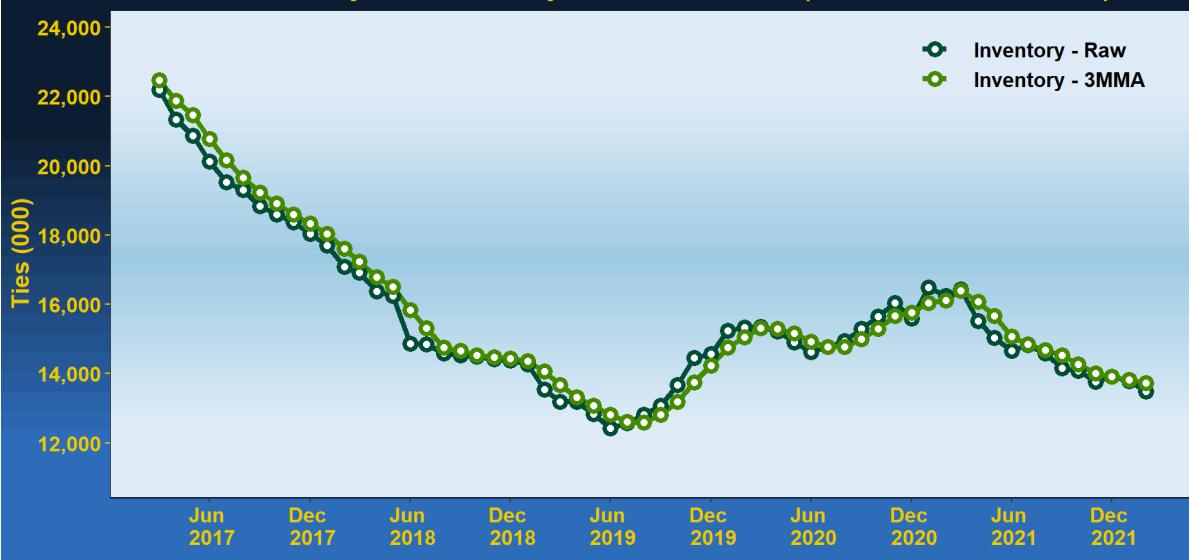


## Monthly Pattern of Production and Purchases Statistics - Percent of Annual Total

Data since January 1988



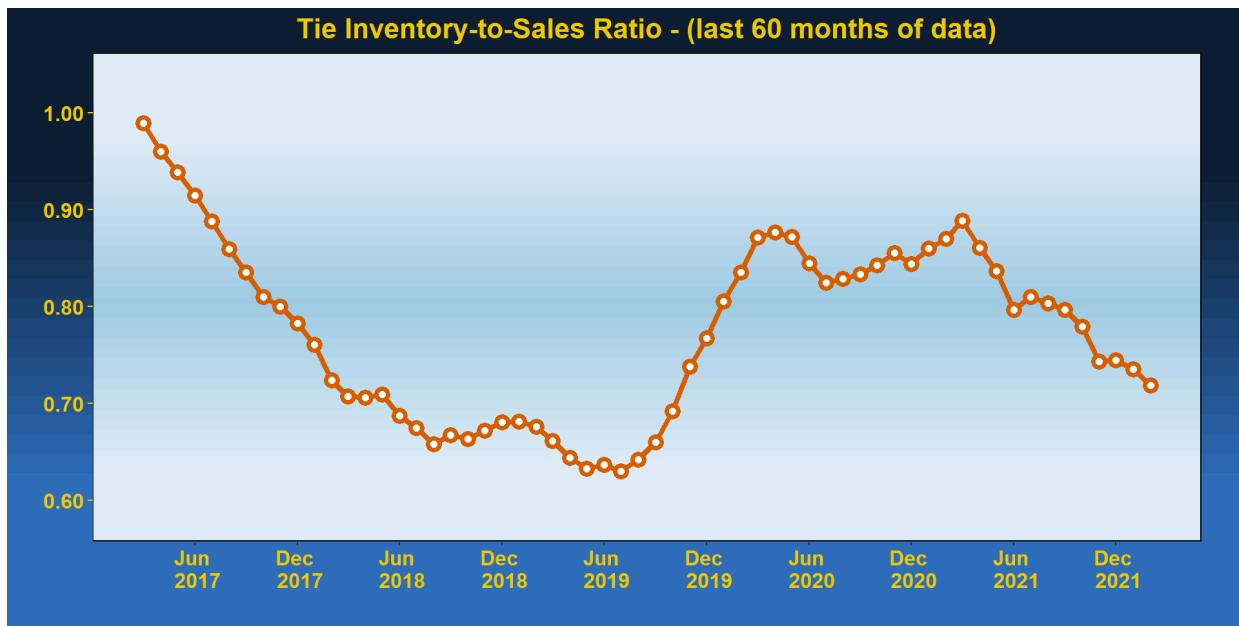
## Tie Inventory - Raw Monthly and 3MMA Data - (last 60 months of data)



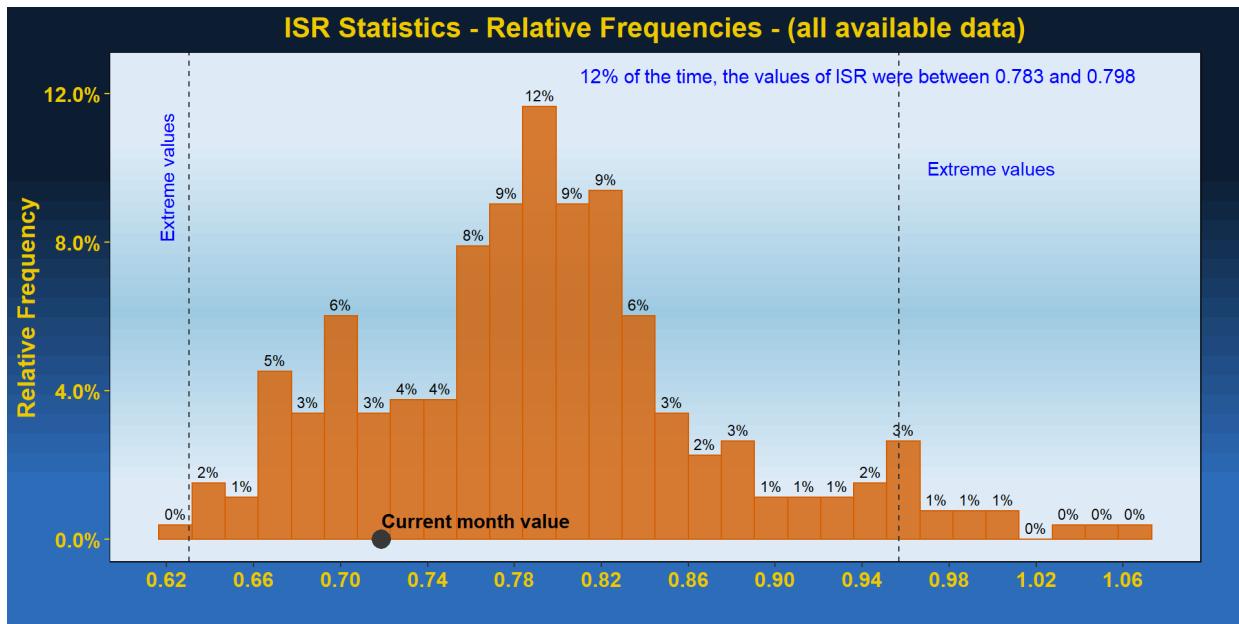
## Monthly Patterns of Inventory - (data since 2000)

Monthly average depicted with solid green line, current year observations depicted as a black points





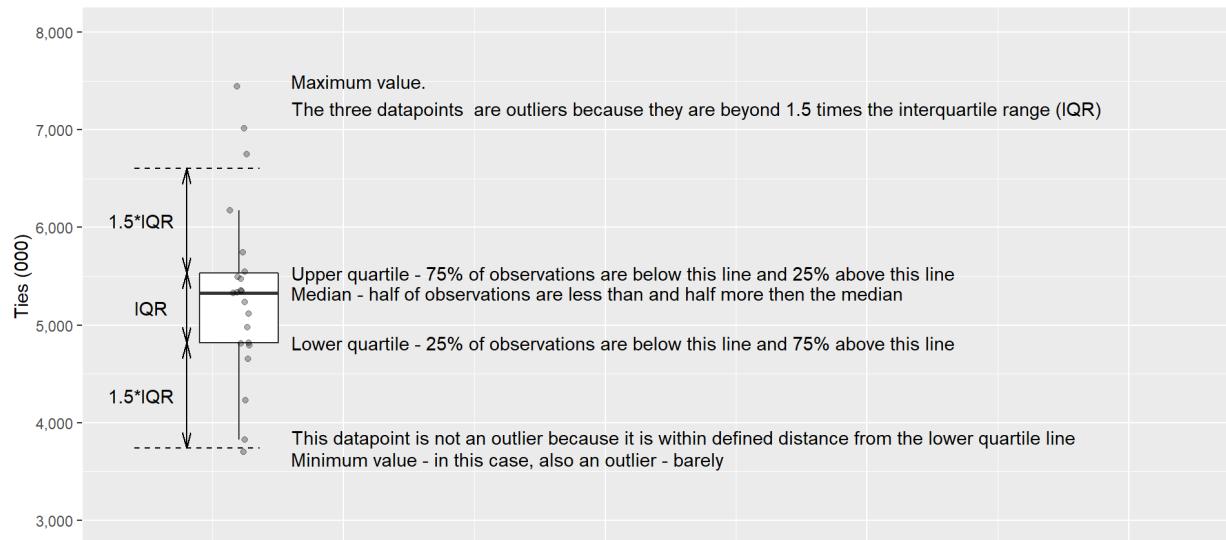
Inventory-to-Sales Ratio (ISR) histogram of relative frequencies shows the monthly ISR data distribution and the black point represents the value for the current reporting month.



## Appendix

### Box Plot Explained

Underlying data displayed as 'jittered' points



### Histogram of Relative Frequencies Explained

