

# The Competent Accountant – Mastering the Controller/CFO Role

By Jim Lindell, CPA, CSP, CGMA, MBA

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NCACPA Mt. Cluster  
Asheville, NC

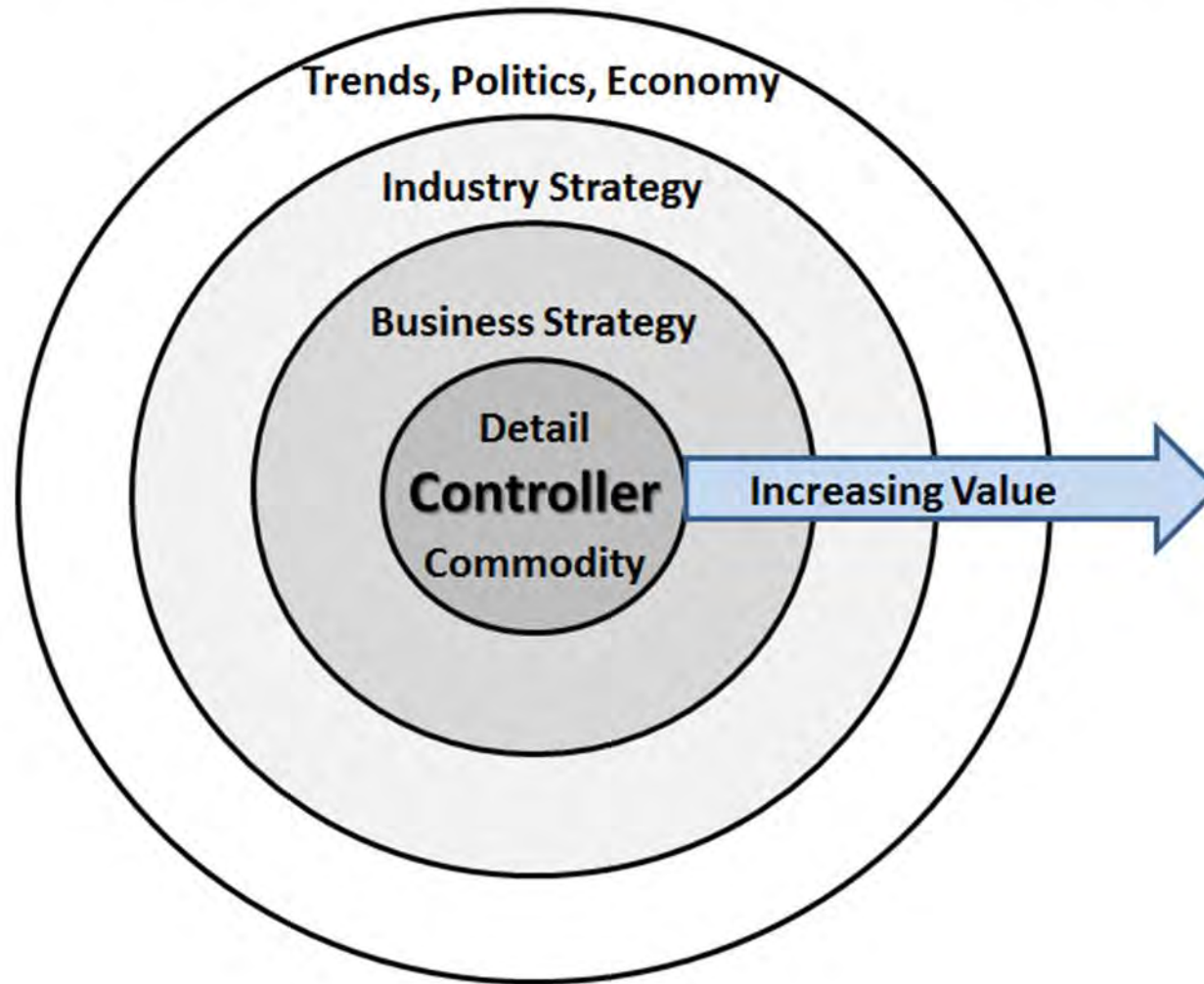


# Objectives

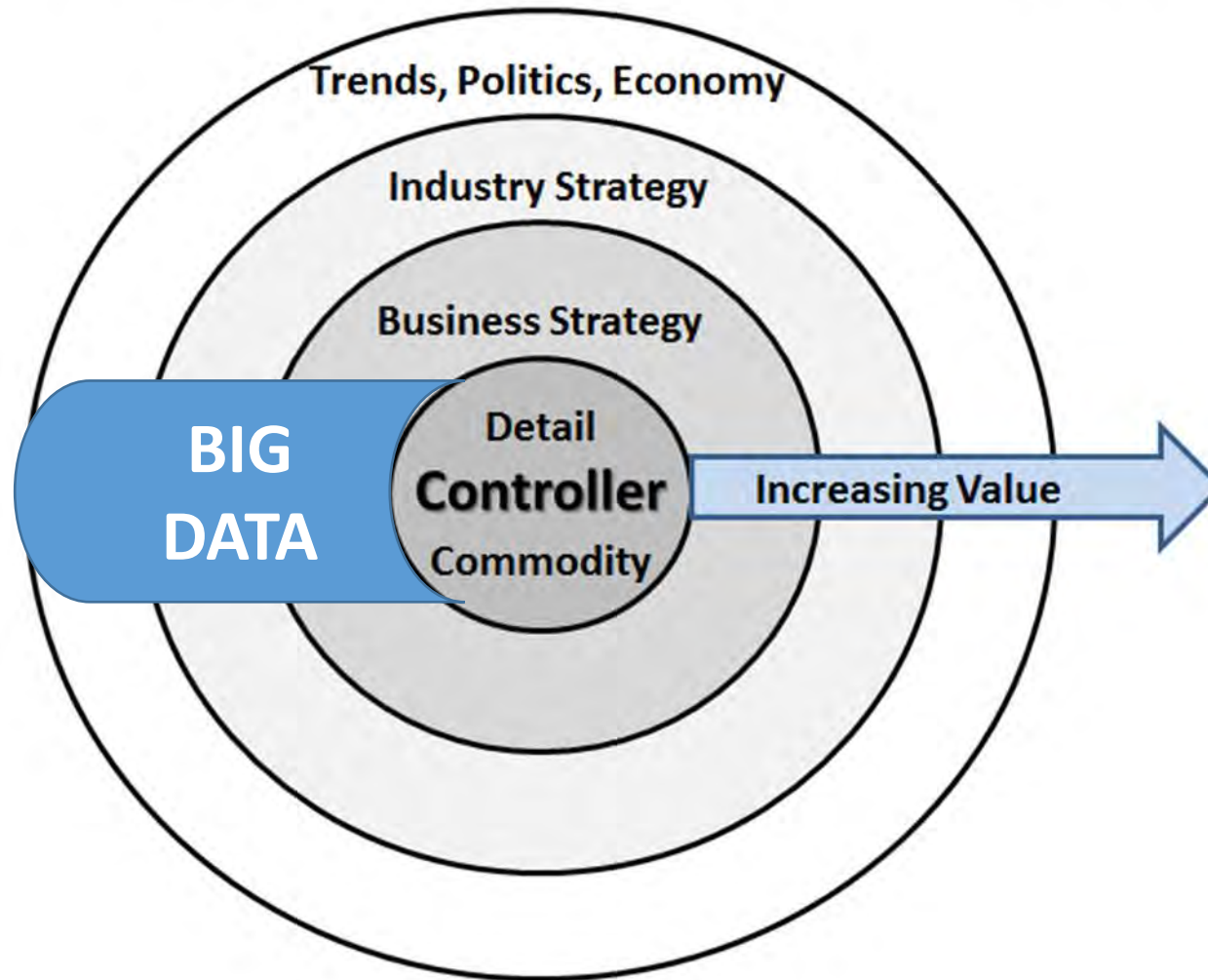
- Managing the Controller/CFO Role is essential to provide financial, strategic and tactical guidance for a company.
- CGMA Competency skills of Leadership, Business, People, and Technical.
  - Part 1 – focuses on Business and Technical Skills.
  - Part 2 – focuses on Leadership and People Skills.



# Expanding Controller Value



# Expanding Controller Value



# Scotty



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<https://www.youtube.com/watch?v=LkqiDu1BQXY&feature=youtu.be><sup>5</sup>

**Ask a  
Question**



**Ask A  
Question**

# The Accountant Position



# COVID-19

# Implications

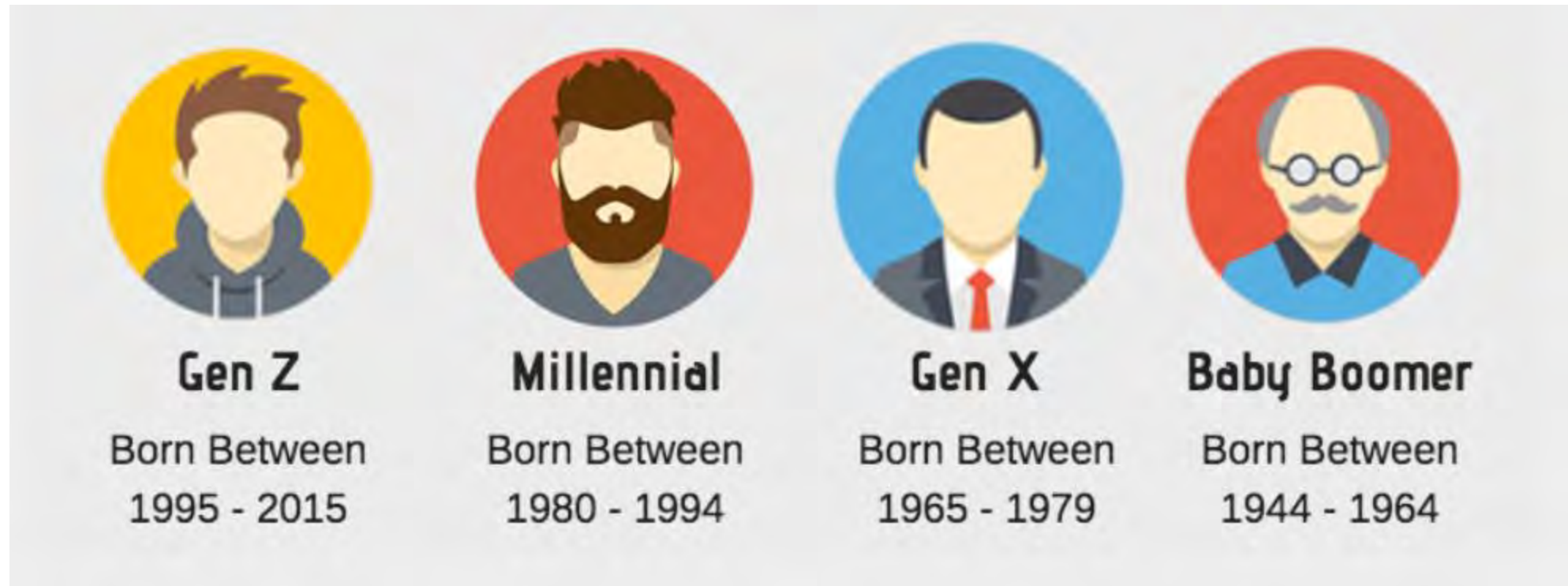




# Impacts of the virus

- Supply chain disruption
- Increase in remote interaction
  - Implications of a potential acceleration in 5G adoption
  - Telehealth, telemedicine
  - Teleconferencing
- Return to work versus Hybrid
- Digital media consumption – graphic from <https://www.visualcapitalist.com/media-consumption-covid-19/> Published April 7, 2020.

# Processing Media Differences



<https://www.kasasa.com/articles/generations/gen-x-gen-y-gen-z>

# MEDIA CONSUMPTION IN THE AGE OF COVID-19

**MEDIA CONSUMPTION IN THE AGE OF COVID-19**  
Due to the frenzy of pandemic-induced quarantines, media consumption has seen a massive increase. But what exactly are people doing, and how are they staying informed?

**GLOBAL WEB INDEX**  
surveyed almost 4,000 internet users between the ages of 16-64 across the U.S. and the UK to find out how the COVID-19 outbreak has changed their media consumption.

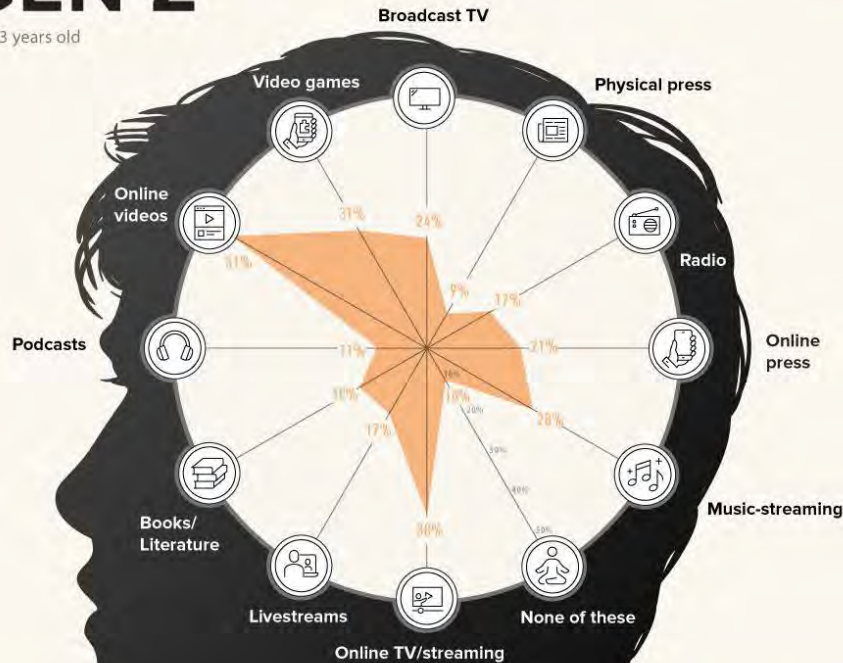
**MEDIA CONSUMPTION** % WHO SAY THEY HAVE STARTED CONSUMING OR ARE CONSUMING MORE OF THE FOLLOWING SINCE THE OUTBREAK

## MEDIA CONSUMPTION GEN Z

16-23 years old

% WHO SAY THEY HAVE STARTED CONSUMING OR ARE CONSUMING MORE OF THE FOLLOWING SINCE THE OUTBREAK

● Gen Z

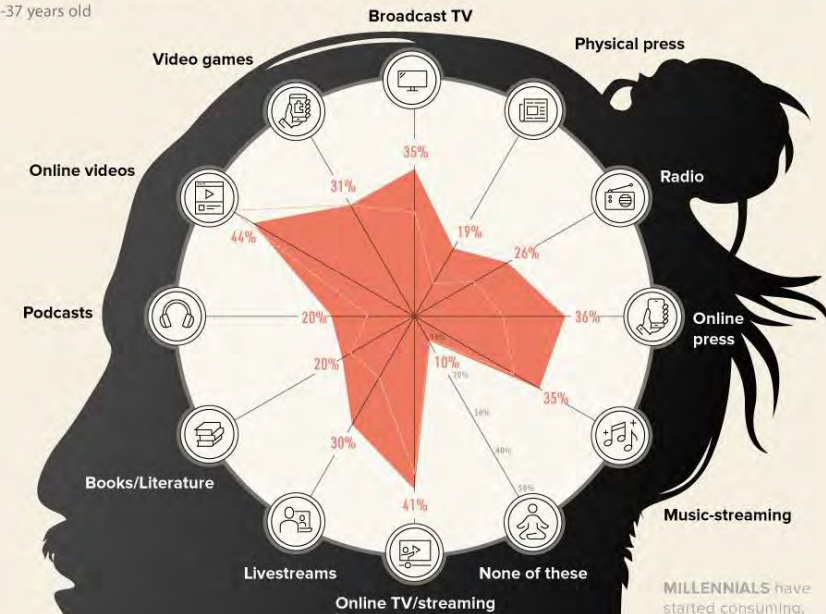


Over half of the GEN Z age group are consuming significantly more online video content than before the COVID-19 outbreak.

## MEDIA CONSUMPTION MILLENNIALS

24-37 years old

● Gen Z ● Millennials

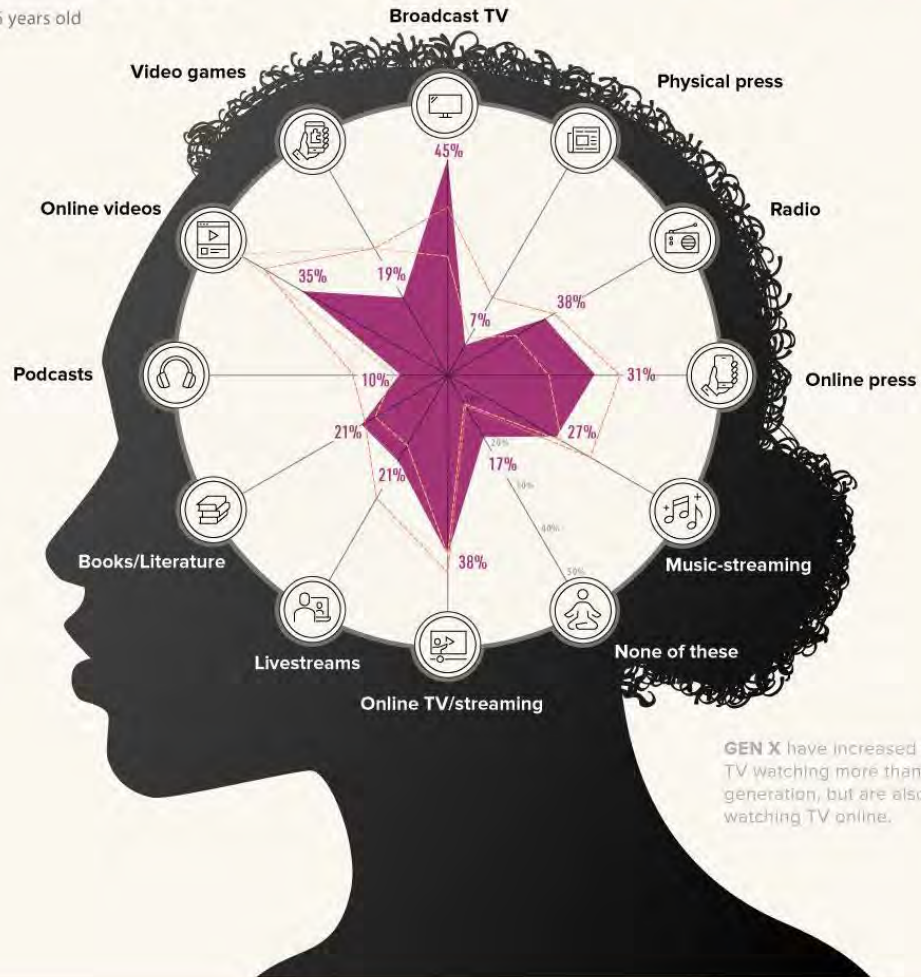


MILLENNIALS have started consuming, or are consuming more content across several media types including online video, online TV and broadcast TV.

# MEDIA CONSUMPTION GEN X

38-56 years old

● Gen Z ● Millennials ● Gen X

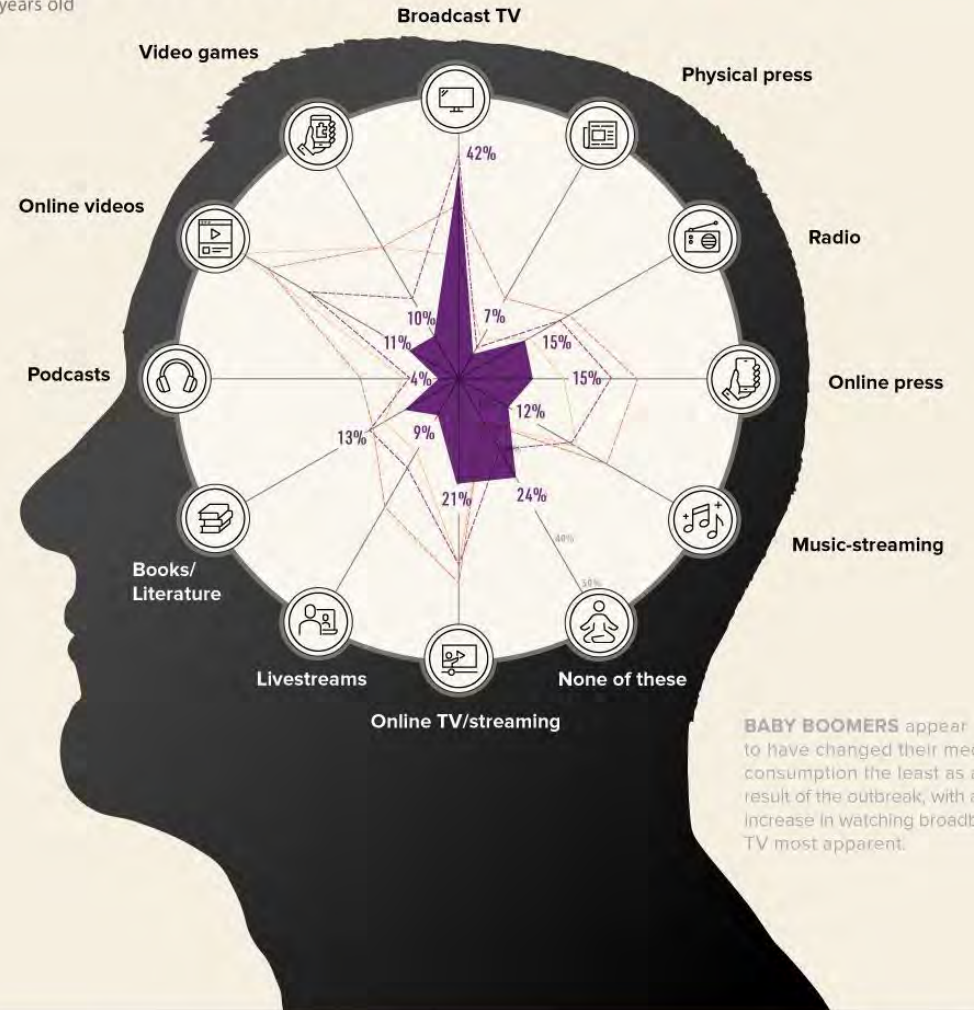


GEN X have increased their TV watching more than any generation, but are also watching TV online.

# MEDIA CONSUMPTION BOOMER

57-64 years old

● Gen Z ● Millennials ● Gen X ● Boomers



BABY BOOMERS appear to have changed their media consumption the least as a result of the outbreak, with an increase in watching broadband TV most apparent.

• <https://www.visualcapitalist.com/media-consumption-covid-19/> Published April 7, 2020.

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Source: Global Web Index, Coronavirus Research Report April 2020

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[@visualcap](https://www.instagram.com/visualcap)
[@visualcap](https://www.tiktok.com/@visualcap)
[visualcapitalist.com](http://visualcapitalist.com)

# Impacts of the virus, cont.

- Event cancellations and repercussions
  - Conferences and conventions
  - Family events
- Ad spending changes
  - <https://www.emarketer.com/content/the-biggest-business-impacts-of-the-coronavirus-pandemic-according-to-business-insider-intelligence> Published March 14, 2020.
    - Out-of-home ad spending negatively impacted
    - Increased digital spending for some industries
    - Decreased ad spending impacting media sites – Expedia chairman says company to cut ad spending by at least 80%  
<https://www.fool.com/investing/2020/04/17/expedia-chairman-says-company-to-cut-ad-spending-b.aspx> Published April 17, 2020
      - Thus, revenue down for media as well



# Impacts of the virus, cont. 2

- Move toward cashless society, encouraged by WHO
- Ecommerce grows
- Banking
  - Stock market volatility means increased interest in savings options
- Healthcare - Telemedicine
- Delivery services – Increase as further growth of e-commerce
- Reduced spending impacting brick-and-mortar shops
- Increased Fintech – technologies used and applied in the financial services sector, chiefly used by financial institutions themselves on the back end of their businesses (i.e. mobile payment industry)



# Political and Social turmoil

- Growing global unrest
- The new recession (real or not?)
- Knock-on implications for fashion, retail company supply chains as southeast Asia's 40 million garment workers are devastated by the coronavirus crisis  
<https://www.maplecroft.com/insights/analysis/labour-rights-unravelling-as-asias-garment-sector-comes-apart-at-the-seams/> Published April 24, 2020
- Renewed civil unrest throughout the world.
- U.S. societal unrest? Divided country?



# CFOs steering companies through coronavirus crisis



“As finance function takes on a greater operation role at companies, CFOs often find themselves acting as the key decision makers **along with the CEO** in guiding corporate strategy to deal with the effects of the pandemic on their company.”

<https://www.accountingtoday.com/news/cfos-steering-companies-through-coronavirus-crisis-ima-finds>

Published April 3, 2020.

Are decisions based on COVID, Biases, financial realities?



# Coronavirus driving accounting change

- Young accountants prefer remote work. Make this more possible ad hoc in the present term, and more possible going forward.
- Become more focused on advisory – “shift from backward-looking compliance services to more proactive consultative services”. (Note – Experience is what allows someone to move to proactive consultative work.)

Daniel Hood, “A Spur to Change,” Accounting Today, March 17, 2020, <https://www.accountingtoday.com/opinion/a-spur-to-change>.



# Part 1 – Business and Technical

# How are your technical skills?

- Are you a traditional accountant or have you learned to expand your technical expertise to go beyond “what are the financial numbers?” to “why did these financial results occur?”
- Are you able to use ratios to understand the business dynamics and the implications to change course or take corrective action?
- Are the systems that you implement and operate best practices or merely stop-gap solutions?



# The Range of Technical Skills - Titles

Scope of skills can vary drastically depending on:

- The type of industry,
- The size of the industry,
- The complexity of the industry,
- The supporting cast of employees, and
- The arena expectations of the management team and the board of directors based on their experiences which are also impacted by the preceding points.

# The Range Technical Skills

- Traditional Accounting – dependent on Co. Size
  - Transactions
  - Financial Statements
  - Internal Controls
  - Financial Reporting
  - Budgeting
  - Variance Analysis
  - Ratio Analysis
  - Treasury functions
  - Credit



# Range of skills (continued)

- Information technology
- Human Resources
- Contracts
- Facilities management
- Operational management
- What additional areas should be included for future success?



# Job Descriptions

- Controller
- CFO
- Treasurer

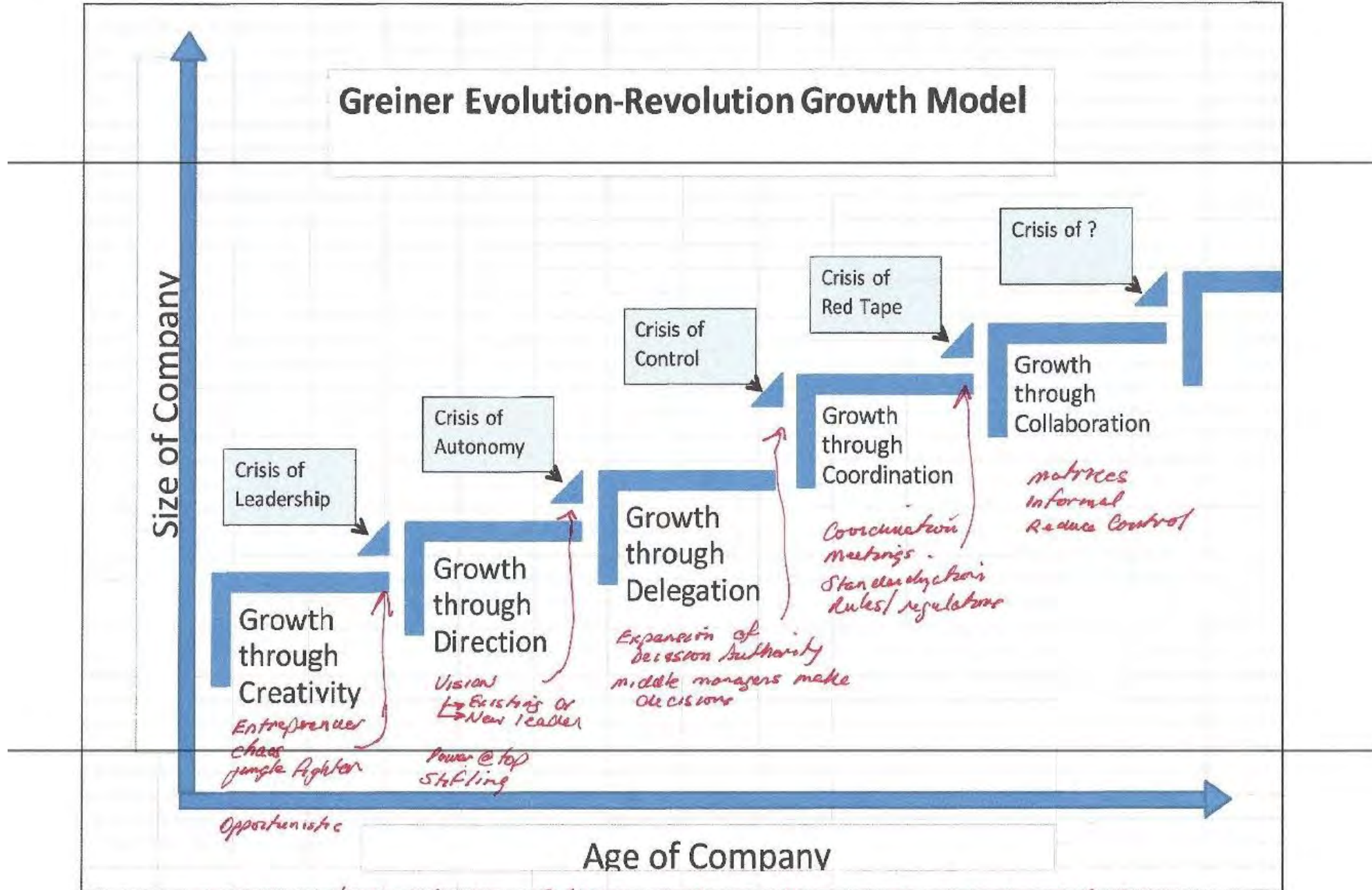


- Self-Actualization**  
Achievement Concerns (autonomy, subject matter expert).
- Esteem Needs**  
Respect and Recognition concerns (perks, job titles).
- “Belongingness” Needs**  
Social concerns (cooperative peers, good boss).
- Security Needs**  
Stable work environment (benefits, work safety).
- Physiological Needs**  
Survival Issues (salary, stable employment).





# Greiner Evolution-Revolution Growth Model



Contrast w/ Handy's Corp. Cultures and 5 phases in Organization Life Cycle  
 1) startup, 2) growth, 3) maturity, 4) decline, 5) end of Business.

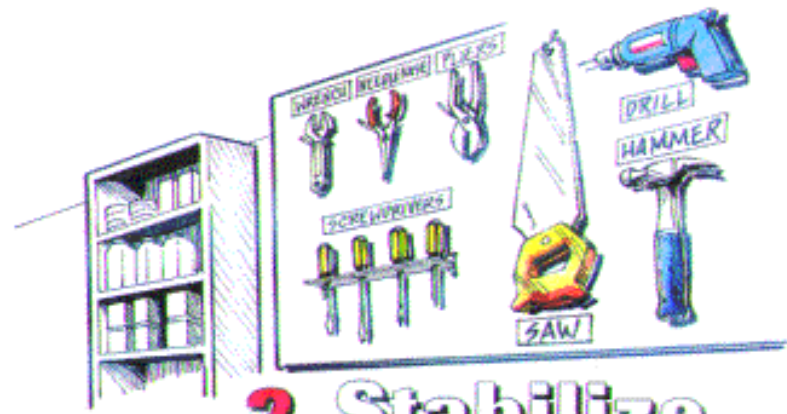
# Other Management Theory

- Theory X and Y
- Lean
  - Two main premises
  - 5 Principles – Womack
  - “Muda”
  - 5S
  - Kaizen
  - Kanban
- Six Sigma
- Business Models



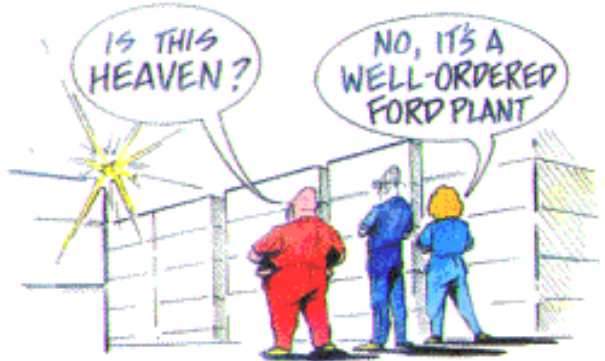


**1. Sort**



**2. Stabilize**

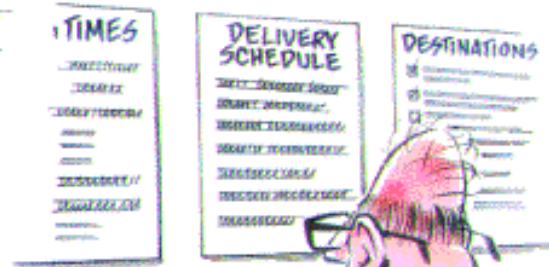
# 5 S's



**5. Sustain**



**3. Shine**



**4. Standardize**

So



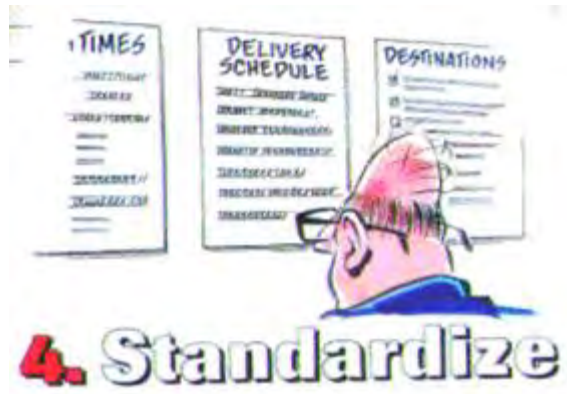
# Sort



Set









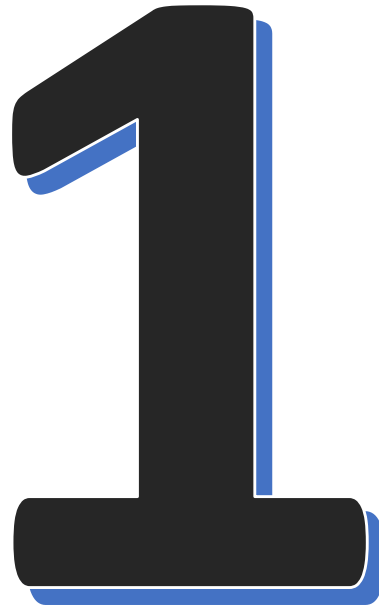
List out things that cause waste in your company?

3

List out things that cause waste in your company?

2

List out things that cause waste in your company?



List out things that cause waste in your company?

**30**










Seconds

# What is waste?

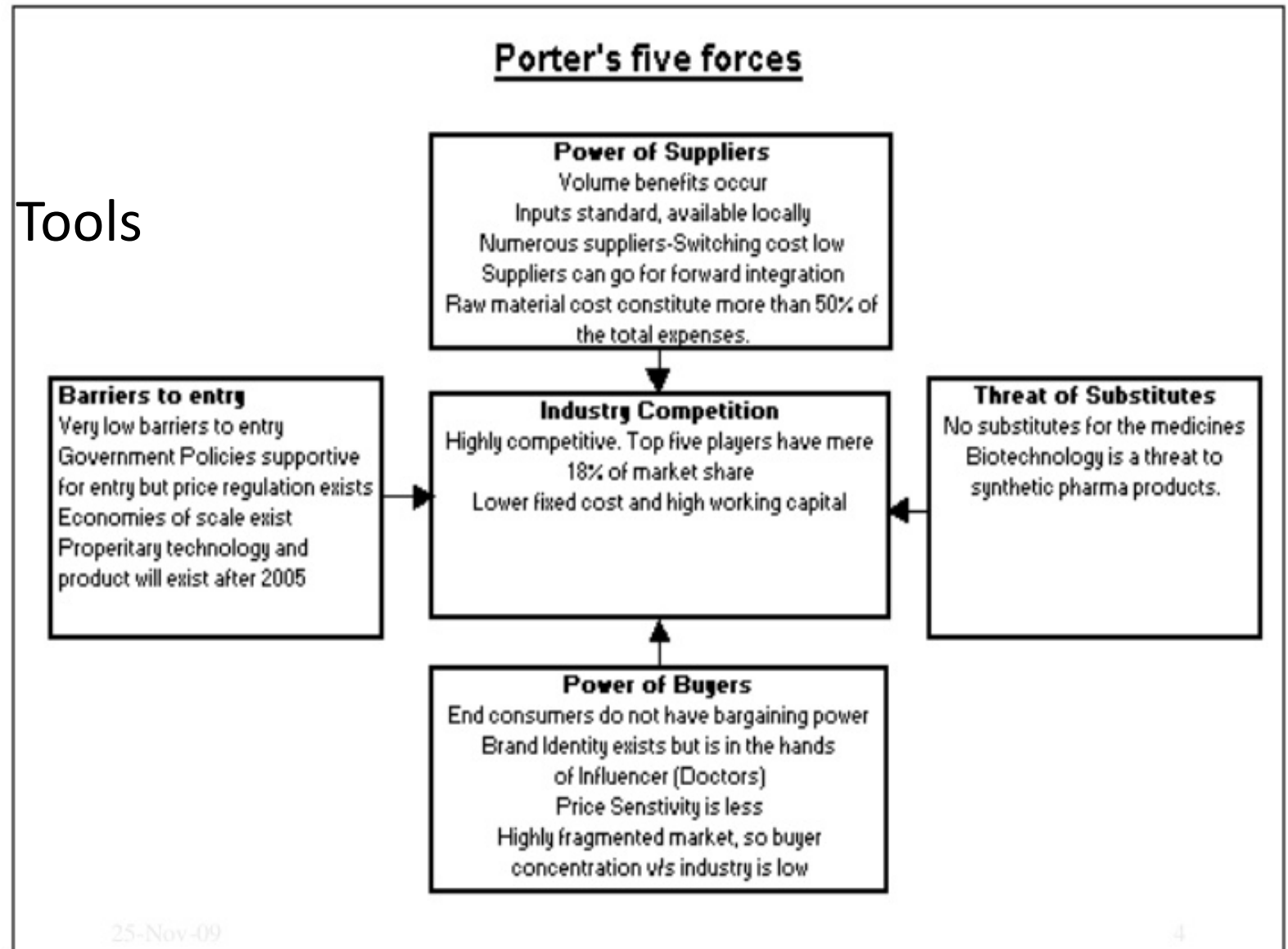
Waste typically shows up in the following categories:

- Overproduction
- Inventory
- Defects
- Extra processing
- Waiting time
- Underutilized people
- Motion
- Transportation



|   |   |  |  |   |
|---|---|--|--|---|
| <h3>Key Partners</h3>  <p>Who are our Key Partners?<br/>Who are our key suppliers?<br/>Which Resources are we acquiring from partners?<br/>Which Key Activities do partners perform?</p> <p><b>KEY PARTNER CAN BE:</b><br/>Specialization and expertise<br/>Wide area of reach and geographic<br/>Access to government resources and authority</p>   | <h3>Key Activities</h3>  <p>What Key Activities do our Value Propositions require?<br/>Our Distribution Channels?<br/>Customer Relationships?<br/>Revenue Streams?</p> <p><b>KEY ACTIVITIES CAN BE:</b><br/>Production<br/>Production activities<br/>Customer service</p> | <h3>Value Propositions</h3>  <p>What value do we deliver to the customer?<br/>Which one of a customer's problems are we helping to solve?<br/>What bundles of products and services are we offering to each Customer Segment?<br/>Which customer needs are we satisfying?</p> <p><b>VALUE PROPOSITIONS CAN BE:</b><br/>New<br/>Performance<br/>Customization<br/>"Getting the Job Done"<br/>Design<br/>Brand<br/>Price<br/>Place<br/>Pack &amp; Delivery<br/>Risk Reduction<br/>Flexibility<br/>Convenience/Quality</p>   | <h3>Customer Relationships</h3>  <p>What type of relationship does each of our Customer Segments expect us to establish, and maintain with them?<br/>Which ones have we established?<br/>How are they integrated with the rest of our business model?<br/>How costly are they?</p> <p><b>CUSTOMER RELATIONSHIPS CAN BE:</b><br/>Personal assistance<br/>Individual Personalized Service<br/>Self-Service<br/>Automated Personalized Service<br/>Communities<br/>Co-creation</p> | <h3>Customer Segments</h3>  <p>For whom are we creating value?<br/>Who are our most important customers?</p> <p><b>CUSTOMER SEGMENTS CAN BE:</b><br/>Mass<br/>Niche<br/>Segmented<br/>Individual<br/>Addressable Markets</p> |
|   | <h3>Key Resources</h3>  <p>What Key Resources do our Value Propositions require?<br/>Our Distribution Channels?<br/>Customer Relationships?<br/>Revenue Streams?</p> <p><b>KEY RESOURCES CAN BE:</b><br/>Physical<br/>Intellectual<br/>Human<br/>Financial</p>            |  | <h3>Channels</h3>  <p>Through which Channels do our Customer Segments want to be reached?<br/>How are we reaching them now?<br/>How are our Channels integrated?<br/>Which ones work best?<br/>Which ones are most cost-efficient?<br/>How are we integrating them with customer routines?</p> <p><b>CHANNELS CAN BE:</b><br/>Direct<br/>Indirect<br/>Partners<br/>Retail<br/>Wholesale<br/>Multi-channel<br/>Hybrid</p>  |   |
| <h3>Cost Structure</h3>  <p>What are the most important costs inherent to our business model?<br/>Which Key Resources are most expensive?<br/>Which Key Activities are most expensive?</p> <p><b>COST STRUCTURE CAN BE:</b><br/>Cost of Sales<br/>Fixed Costs<br/>Variable Costs<br/>Semi-variable Costs<br/>Cost of Distribution<br/>Cost of Production<br/>Cost of Service<br/>Cost of Support<br/>Cost of Marketing<br/>Cost of Sales<br/>Cost of Customer Support<br/>Cost of Distribution<br/>Cost of Production<br/>Cost of Service<br/>Cost of Support<br/>Cost of Marketing<br/>Cost of Sales</p> |   | <h3>Revenue Streams</h3>  <p>For what value are our customers really willing to pay?<br/>For what do they currently pay?<br/>How are they currently paying?<br/>How would they prefer to pay?<br/>How much does each Revenue Stream contribute to overall revenues?</p> <p><b>REVENUE STREAMS CAN BE:</b><br/>Fixed<br/>Variable<br/>Usage-based<br/>Subscription<br/>Licensing<br/>Advertising<br/>Freemium<br/>Affiliate<br/>Reseller<br/>Brokerage<br/>Transaction<br/>Rental/Lease<br/>License<br/>Royalty<br/>Resale<br/>Commission<br/>Advertising<br/>Affiliate<br/>Reseller<br/>Brokerage<br/>Transaction<br/>Rental/Lease<br/>License<br/>Royalty<br/>Resale<br/>Commission</p> |  |   |

- Planning and Planning Tools
- Business Cycles
- Porter's 5 Forces



# The Purpose of Ratio Analysis

- Which Ratios
- What do they mean
- What actions should you take?





# Ratio Analysis

- Causal Ratios
- Effect Ratios
- Almanac of Industrial Financial Ratios
- Bizminer.com
- RMA
- SEC data
- Altman's Z-Score
- Dupont Formula



# Effect Ratios

- **LIQUIDITY MEASURES**

- Current ratio
- Quick ratio
- Defensive interval
- Cash conversion cycle
- Inventory/working capital
- Receivables/working capital
- Net sales/working capital
- Operating cash flow to current liabilities

- **LEVERAGE MEASURES**

- Debt to net worth
- Debt to assets
- Tangible debt ratios
- Short-term debt to net worth
- Times interest earned
- Cash times interest earned
- Fixed charge coverage

# Selected Ratios

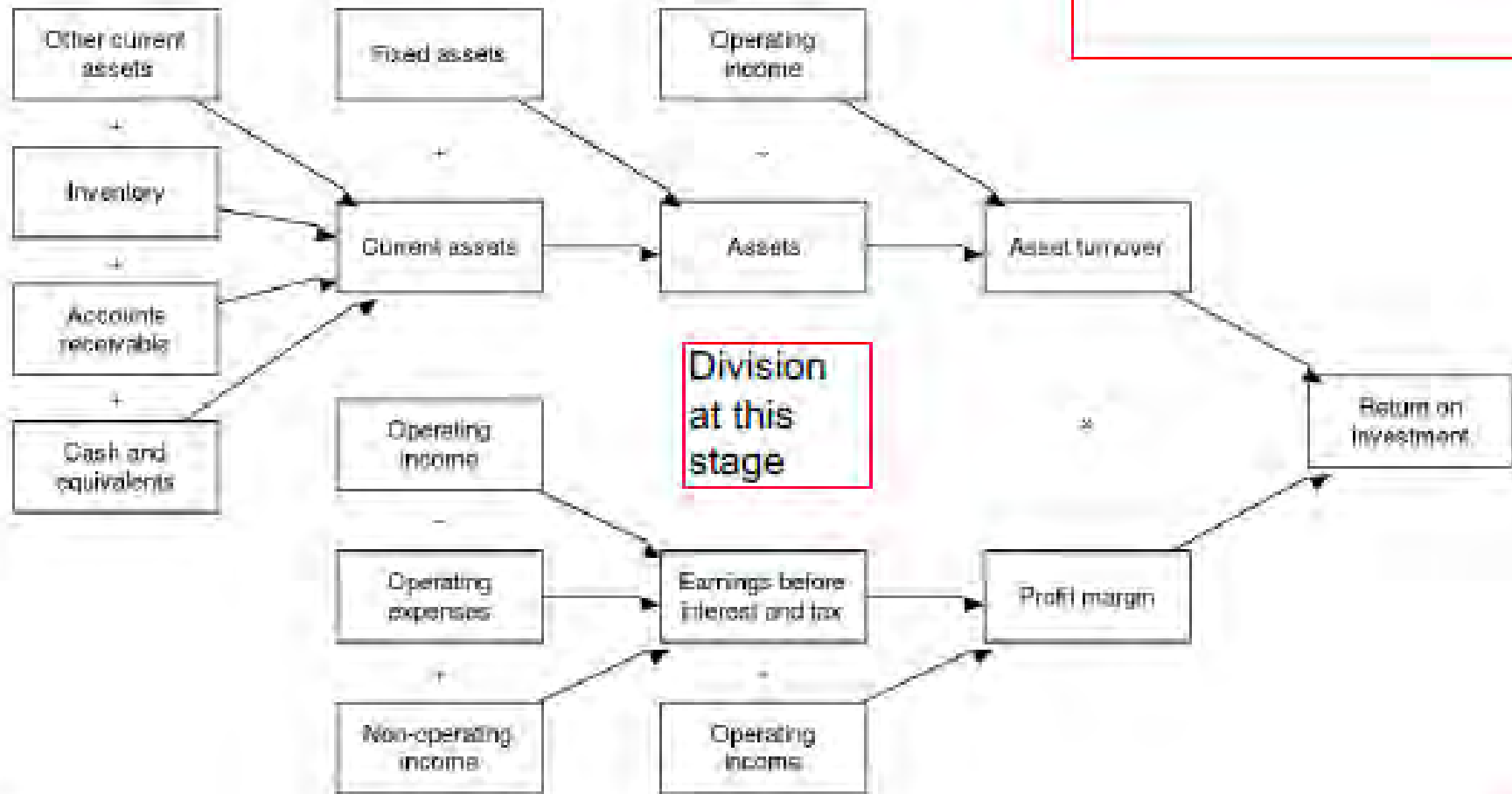
- Current Ratio
- Liquid Ratio
- DSO
- DAP
- DSO/DAP
- Inventory Turnover
- Net Working Capital to Sales
- Debt to Net Worth

# Best Practices

- Cash – 90 days on hand
- $(\text{cash} + \text{investments} + \text{avail LOC}) / \text{daily cash expenses}$
- AR – Terms and discounts
- AP – Terms and discounts
- Inventory – how much?

# DuPont Model

stand. High profit but need more volume



# The 1 Key Statistic to Track the Health of Your Company

- Altman Z-Score



# Altman Z-Score Model 1

- The formula for the most commonly used public model Z-Score is:
  - $Z = (1.2 \times X1) + (1.4 \times X2) + (3.3 \times X3) + (0.6 \times X4) + (0.999 \times X5)$
- Where the X variables stand for the following:
  - X1= Working Capital/Total Assets
  - X2= Retained Earnings/Total Assets
  - X3= Earnings before Interest and Taxes (EBIT)/Total Assets
  - X4= Market Value of Equity/Book Value of Debt
  - X5= Sales/Total Assets

# Altman Z-Score Model 1 (Continued)

- Once you have calculated the Z-Score, it can be compared to the following table:

| <u>Z-Score</u> | <u>Probability of Bankruptcy</u> |
|----------------|----------------------------------|
| 1.8 or less    | Very high                        |
| 1.81 – 2.99    | Not indicative of bankruptcy     |
| 3.0 or higher  | Not likely                       |



# Private Co. Z-SCORE MODEL 2

- A.  $[(\text{Current Assets} - \text{Current Liabilities}) / \text{Total Assets}] \times 6.56 = \underline{\hspace{2cm}}$ .
- B.  $(\text{Retained Earnings} / \text{Total Assets}) \times 3.26 = \underline{\hspace{2cm}}$ .
- C.  $(\text{Earnings Before Interest. \& Taxes} / \text{Total Assets}) \times 6.72 = \underline{\hspace{2cm}}$ .
- D.  $(\text{Equity} / \text{Total Liabilities}) \times 1.05 = \underline{\hspace{2cm}}$ .
- The sum of (A + B + C + D) equals your Z-score. Then see where you score falls on the following table:
  - 0 - 1.09 -- Bankruptcy Imminent
  - 1.10 - 2.60 -- Very Questionable
  - 2.60+ -- Bankruptcy Not Imminent

# Private Manufacturing - Z-SCORE MODEL 3

- There is also a 3rd Z-Score model for private manufacturing models.
- $X1 = (\text{Current Assets} - \text{Current Liabilities}) / \text{Total Assets}$
- $X2 = \text{Retained Earnings} / \text{Total Assets}$
- $X3 = \text{Earnings before Interest and Taxes} / \text{Total Assets}$
- $X4 = \text{Book Value of Equity} / \text{Total Liabilities}$
- $X5 = \text{Sales} / \text{Total Assets}$
  
- Z-Score Bankruptcy Model:
- $Z = 0.717X1 + 0.847X2 + 3.107X3 + 0.420X4 + 0.998X5$
  
- Then see where you score ranks in the following table:
- $Z > 2.9$  — “Safe” Zone
- $1.23 < Z < 2.9$  — “Grey” Zone
- $Z < 1.23$  — “Distress” Zone

# Implication of current Systems and future choices

- Best practice systems
- System selection
- Obtaining approval and convincing others



# Data Analytics – The Story is in the Data!

- Microsoft BI
- Qlik
- Tableau

# The Accountant Position



# Accountants - data science skills gap

- Advanced Excel
- Data Mining/SQL Programming
- Advanced Revenue Analytics
- Mathematical Optimization
- Analytical Segmentation
- Visualization
- Real-time models



Hernandez, Robert. The 7 Data Science Skills That Will Change the Accounting Career

# Data Scientist

- Use trends to predict the future, explore data from numerous sources
- Emphasis on programming, statistical skills, machine learning, mathematics and algorithmic techniques
- Goal to derive insight by digging through large piles of raw data
- Use this insight to develop “evidence-based analytical accuracy and strong decision capabilities
- Excellent communication skills and data visualization skills
- Develop the business questions that data looks to solve







# Data Analyst

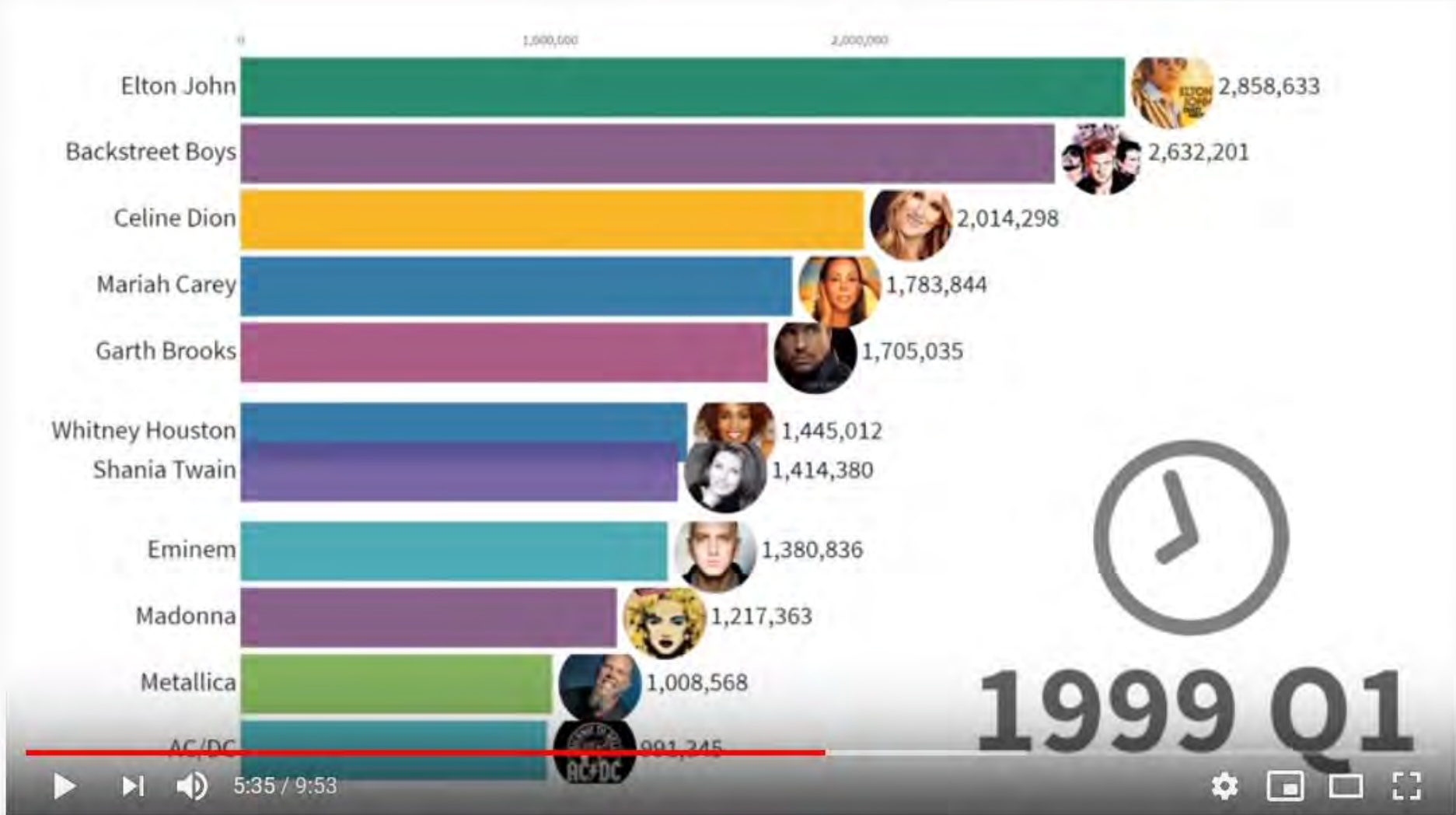


- Takes the business questions created by the data scientist and business team and finds the data and tools to solve them.
- Process and perform analysis on the data.
- Use the data to draw conclusions and solve problems.
- Package the data for use by others in the form of data reports.

# Data Storyteller

- Use data visualization to communicate the information in a way that everyone can understand





### Best-Selling Music Artists 1969 - 2019



# Best Selling Artists

# 1969-2019

# Accountants with data analytics skills are few and far between

- Among technical skills, here's what is missing the most:
  - Identifying key data trends (29 percent)
  - Data mining and extraction (28 percent)
  - Operational analysis (28 percent)
  - Technological acumen (27 percent)
  - Statistical modeling and data analysis (27 percent)
- The most significant gaps in nontechnical skills, or soft skills, are found in:
  - Decision analysis (37 percent)
  - Process improvement (35 percent)
  - Strategic thinking and execution (32 percent)
  - Adaptability to change (31 percent)
  - Communication skills (29 percent)



Bramwell, Jason. "Accountants with Data Analytics Skills Are Difficult to Find." AccountingWeb, April 27, 2016. [https://www.accountingweb.com/practice/team/accountants-with-data-analytics-skills-](https://www.accountingweb.com/practice/team/accountants-with-data-analytics-skills-are-difficult-to-find)

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[are-difficult-to-find.](https://www.accountingweb.com/practice/team/accountants-with-data-analytics-skills-are-difficult-to-find)

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# Reorienting accounting to a future-looking role

- Increase forecasting role
- Seek out industry trends on a regular basis
- Use historical data in novel ways
- Become an invaluable asset to the decision-making process
- Harness predictive analytics

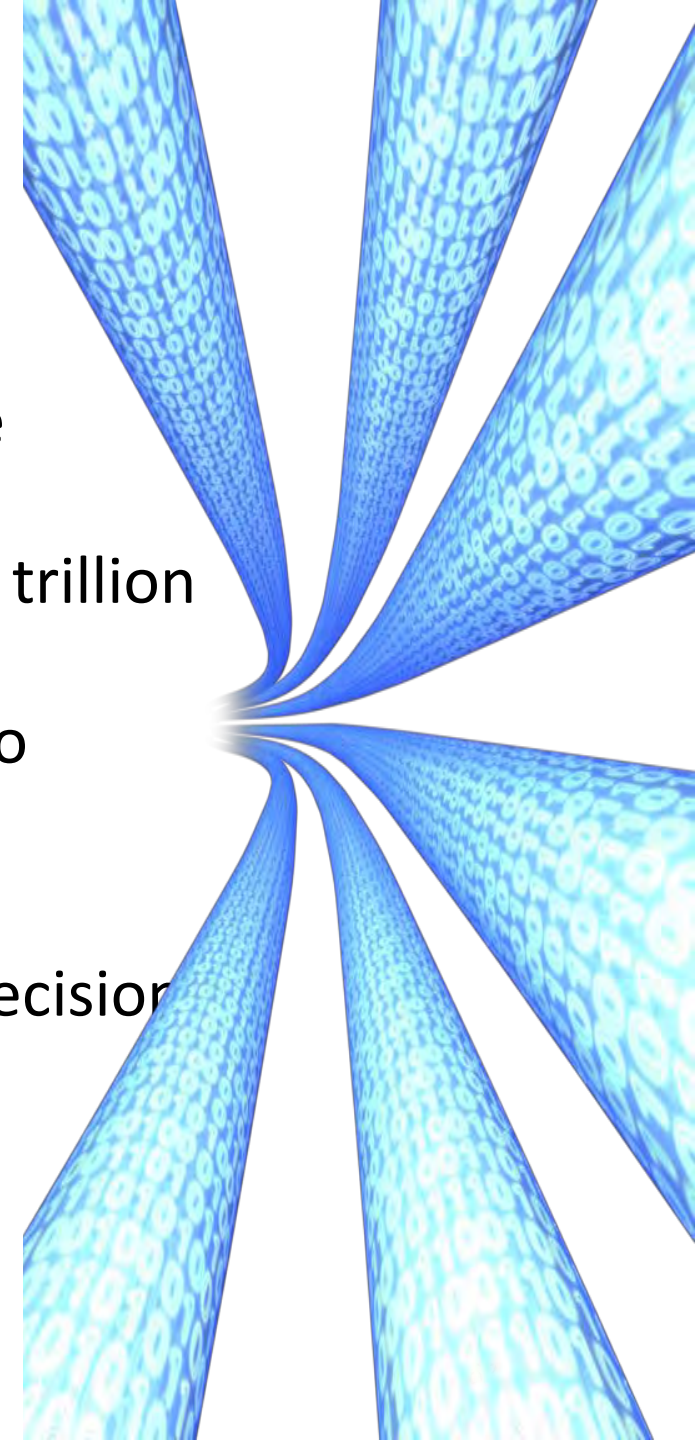


# It's all in the data

- More data was generated in the last two years than in the entirety of mankind up until that point.
- 40,000 search queries per second on Google alone, or 1.2 trillion searches every year.
- Every minute, there are more than 300 new hours of video uploaded to YouTube.
- 99.5% of collected data is never analyzed or used.
- Less than 50% of structure data from IoT is ever used in decision making.

<https://hostingtribunal.com/blog/big-data-stats/>

Updated 2020



# Predictive Analytics

- A type of data analytics with the goal of making predictions about future outcomes based on historical data, statistical modeling, machine learning and analytic techniques.
- Includes methods and processes such as data mining, big data, statistical modeling, mathematical processes and machine learning.
- Goal is to exploit patterns to detect risks and opportunities.

<https://www.cio.com/article/3304301/7-secrets-to-predictive-analytics-success.html> September 11, 2018





# Advanced Analytics

P&C Insurance Advanced Analytics Survey Report Willis Towers Watson

- Insurers expected that they would have more functionality in advanced analytics by this point in time. Implementation has been slower than anticipated.
- **Three main organizational change obstacles:**
  - IT and organizational bottlenecks
  - Lack of expertise and staff to analyze the data
  - Data infrastructure



<https://www.willistowerswatson.com/en-US/Insights/2020/01/advanced-analytics-are-insurers-living-the-dream-2019-2020-P-C-insurance-advanced-analytics>  
Published January 28, 2020

# Additional Skills for Accountants to learn to take advantage of the data science skills gap

- Advanced Excel
- Data Mining/SQL Programming
- Advanced Revenue Analytics
- Mathematical Optimization
- Analytical Segmentation
- Visualization
- Real-time models



**Hernandez, Robert. The 7 Data Science Skills That Will Change the Accounting Career**

# Why Robotic process automation?

- Frees accounting time up for more people-centric tasks
- Allows more room to create more value-added work



# Robotic Process Automation

Look how manual tasks are being mimicked by machines:

- Chat bots
- Pepper PARLOR, a café in Japan where three different types of robots serve customers (with a few humans).
  - Semi-humanoid robot named Pepper does most of the customer interaction, greeting, and taking orders.
- Baseball team is filling stadium with 500 robot spectators. Taiwan's CPBL (Chinese Professional Baseball League) Rakuten Monkeys have robotic mannequins sitting in the stadium for the upcoming game.

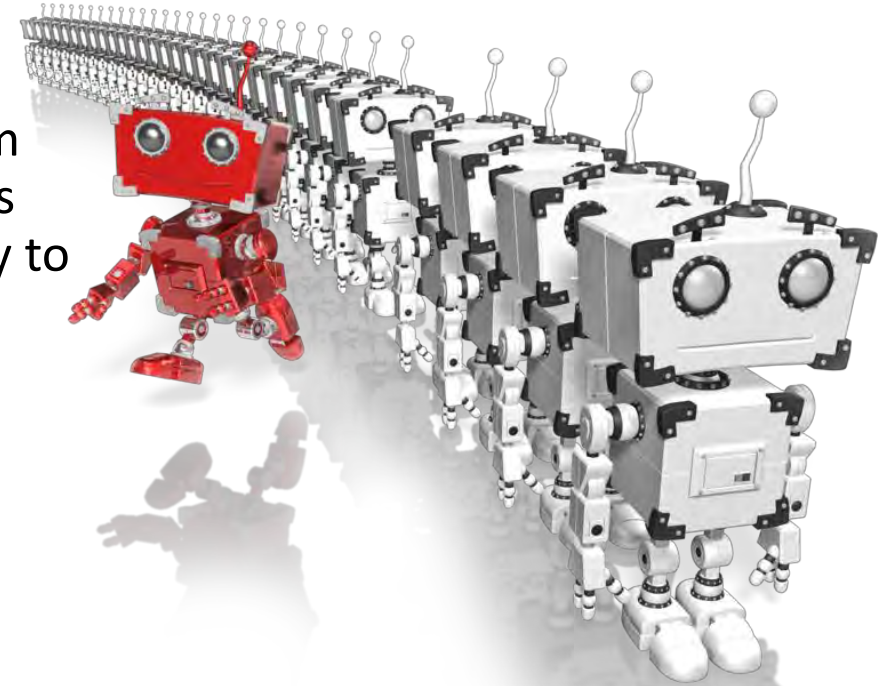


Kristin Houser, "Cafe Staffed by Robots Opens in Japan," Futurism, December 5, 2019, <https://futurism.com/the-byte/cafe-robots-opens-japan>.

Victor Tangermann, "A Baseball Team Is Filling Its Stadium with 500 Robot Spectators," Futurism, April 7, 2020, <https://futurism.com/the-byte/baseball-team-robot-spectators>.

# Robotic Process Automation, cont.

- What Remote works means for RPA
- “A new employee needs to create a new task in a CRM system they have never used. Provide them with a bot that performs all the necessary clicks and keystrokes to take them to exactly to the spot they need to be in the CRM system.”
- An example of what we will likely see is from Automation Anywhere. The company recently launched its Discovery Bot, which uses AI to map and optimize processes by tracking keystrokes, mouse movements and other actions within applications.



Tom Taulli, “Remote Working: What It Means for RPA (Robotic Process Automation),” Forbes, April 4, 2020, <https://www.forbes.com/sites/tomtaulli/2020/04/04/remote-working-what-it-means-for-rpa-robotic-process-automation/#80562fc3f996>.

# Robotic Accounting and using RPA in the accounting department

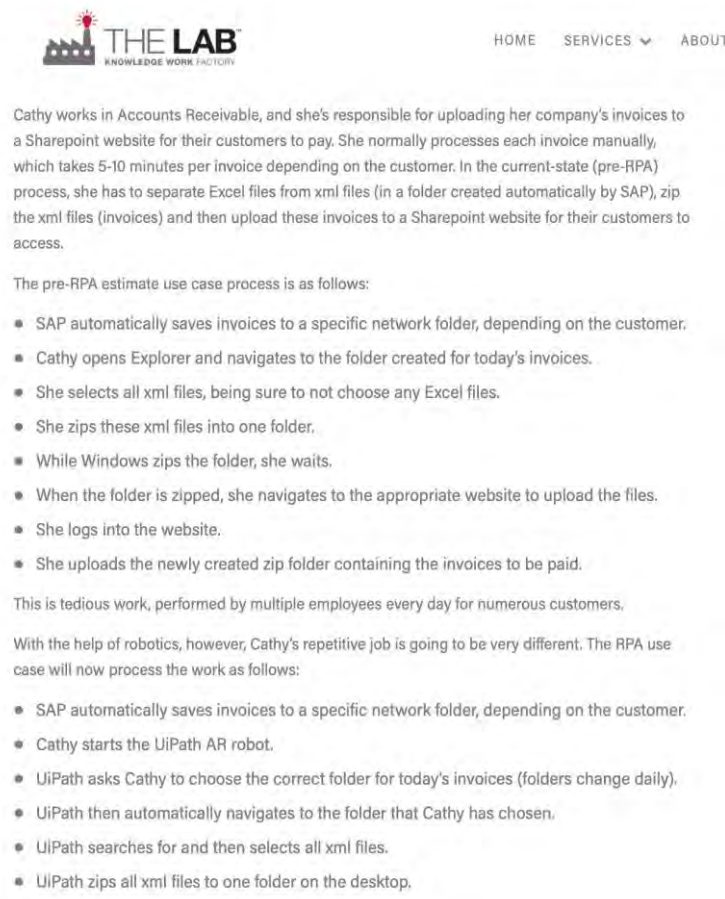
## Benefits of robotic accounting

- Non-invasive application
- Customizable workflow
- Nonstop performance
- Consistency and reduced errors in work
- Major lifting
- Ease and speed of installation



The Lab Consulting, "Robotic Accounting – 5 Use Cases, a Case Study, and Examples of RPA in Finance and Accounting Departments," The Lab Knowledge Work Factory, July 7, 2018, <https://thelabconsulting.com/robotic-accounting-5-use-cases-case-study-examples-rpa-finance-accounting-departments/>.

# Case study of robotic accounting



**THE LAB**  
KNOWLEDGE WORK FACTORY

HOME SERVICES ABOUT

Cathy works in Accounts Receivable, and she's responsible for uploading her company's invoices to a Sharepoint website for their customers to pay. She normally processes each invoice manually, which takes 5-10 minutes per invoice depending on the customer. In the current-state (pre-RPA) process, she has to separate Excel files from xml files (in a folder created automatically by SAP), zip the xml files (invoices) and then upload these invoices to a Sharepoint website for their customers to access.

The pre-RPA estimate use case process is as follows:

- SAP automatically saves invoices to a specific network folder, depending on the customer.
- Cathy opens Explorer and navigates to the folder created for today's invoices.
- She selects all xml files, being sure to not choose any Excel files.
- She zips these xml files into one folder.
- While Windows zips the folder, she waits.
- When the folder is zipped, she navigates to the appropriate website to upload the files.
- She logs into the website.
- She uploads the newly created zip folder containing the invoices to be paid.

This is tedious work, performed by multiple employees every day for numerous customers.

With the help of robotics, however, Cathy's repetitive job is going to be very different. The RPA use case will now process the work as follows:

- SAP automatically saves invoices to a specific network folder, depending on the customer.
- Cathy starts the UiPath AR robot.
- UiPath asks Cathy to choose the correct folder for today's invoices (folders change daily).
- UiPath then automatically navigates to the folder that Cathy has chosen.
- UiPath searches for and then selects all xml files.
- UiPath zips all xml files to one folder on the desktop.

- A pre-set delay allows Windows enough time to zip the folder (zip time depends on the number of files).
- UiPath then navigates to the company's invoice site, logs in with Cathy's username and password, chooses "upload file" and uploads the zip folder full of invoices.
- After uploading, UiPath deletes the zip folder from the desktop to reduce desktop clutter.

The above steps (1-9) only took a few clicks of a button compared to the 50+ clicks required before RPA.

It used to take Cathy 5-10 minutes to zip and upload invoices, but now it takes her 2 minutes—saving an average of 7 minutes per invoice. Cathy used to spend a large portion of her day just zipping and uploading invoices. Now she has time to focus on more important matters. With RPA, she can "set it and forget it." The AR robot does most of the work for her.

The Lab Consulting, "Robotic Accounting – 5 Use Cases, a Case Study, and Examples of RPA in Finance and Accounting Departments," The Lab Knowledge Work Factory, July 7, 2018, <https://thelabconsulting.com/robotic-accounting-5-use-cases-case-study-examples-rpa-finance-accounting-departments/>.

# Other robotic accounting applications

- Accounts payable
- Controller function
- Finance and accounting cost allocation
- Financial close and reporting
- Accounting reconciliation



HOME SERVICES ABOUT

Consider these five finance and accounting RPA use cases that we implemented and let them plant the seed of ideation for your own robotics implementation project, with or without or RPA implementation help from The Lab:

- **Accounts payable RPA use case example** - Vendor invoice processing cycle times were reduced by 60% by implementing a robot that aided accountants with the transcribing of inbound invoice information from PDFs (invoice number, data received, and dollar amount) into web-based SAP, internal use spreadsheets used for reporting, and by placing a final PDF copy on a local server to maintain SOX compliance.
- **Controller function RPA use case example** - Manual work time required to process weekly invoice data feed validation comparisons to previous week invoices received were reduced by installing an accounting robot that automatically reconciled the current period feed against the last period once the controller opened the file. The robot then spit out any exceptions or rejections that required human review if they did not reconcile automatically.
- **Finance and accounting cost allocation RPA use case example** - Business units submitted cost allocation data through Sharepoint, in bodies of individual emails, Excel spreadsheets, or Google documents - all of which had to be merged into one "master file" before being uploaded to SAP. RPA was able to eliminate the manual merging of data by scraping all of the inbound data submissions into the master file automatically in less than one minute, compared to 2 hours before the robot was installed.
- **Financial close and reporting RPA use case example** - Baseline 10K and 10Q report creation processes were improved by implementing RPA that automatically processed tax entries into Quickbooks from spreadsheets received from business units - reducing manual copying and data transcribing tasks of finance managers by 85%.
- **Accounting reconciliation RPA use case example** - the exception review process required reconciliation of accounting data from Quickbooks, multiple Excel sheets, and customer invoices. RPA was installed as a bridge between the three data sources to automatically compare the invoice discrepancies in less than 1 minute compared to the 30 minutes it took prior.

The Lab Consulting, "Robotic Accounting – 5 Use Cases, a Case Study, and Examples of RPA in Finance and Accounting Departments," The Lab Knowledge Work Factory, July 7, 2018, <https://thelabconsulting.com/robotic-accounting-5-use-cases-case-study-examples-rpa-finance-accounting-departments/>.



# Gartner 2020 Morphing RPA

## Overview

## Key Findings

- Organizations have paid for an expensive patchwork quilt of applications and systems. Business executives are demanding a path to digital operational excellence. The net result is a tremendous pent-up demand to democratize process automation and data integration. Robotic process automation (RPA) fulfills a need but requires strategy, guardrails and governance.
- Hyperautomation refers to an approach in which organizations rapidly identify and automate as many business processes as possible. It involves the use of a combination of technology tools, including but not limited to machine learning, packaged software and automation tools to deliver work.
- RPA offerings are in the midst of market disruption. New offerings, new vendors and new commercial models are emerging rapidly. The largest RPA providers are using their significant capital resources to add complementary components in an attempt to distinguish themselves. Similarly, vendors in adjacent categories are delivering new RPA-oriented functionality.

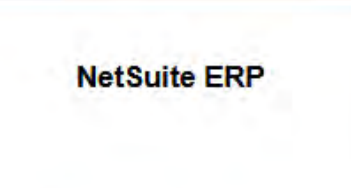
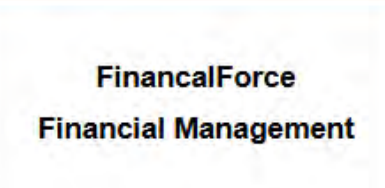

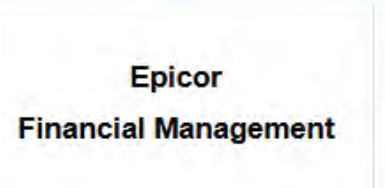


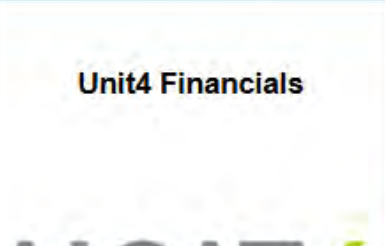
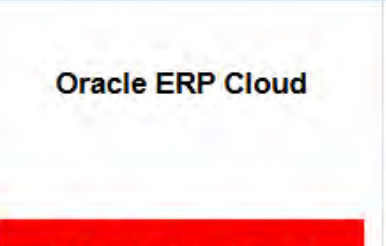

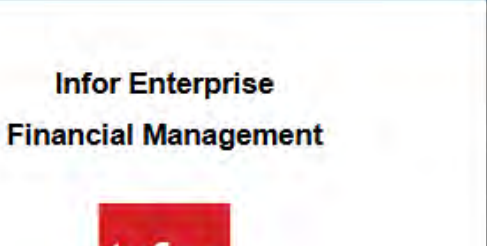

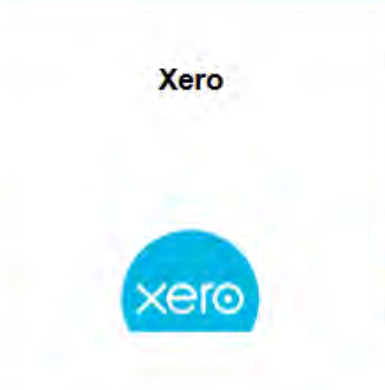



# Gartner Morphing RPA (cont.)

## Recommendations

IT leaders responsible for sourcing RPA offerings (services and solutions) should:

- Drive organizational adoption and avoid potential missteps on the hyperautomation journey by engaging business units, IT, security and assurance functions into a process automation governance board. This will help drive organizational adoption and avoid potential missteps on the hyperautomation journey.
- Plan your hyperautomation journey by focusing on a wider spectrum of business functions and knowledge work. Strategize and architect across the toolbox of options, including RPA, iBPMS, iPaaS and decision management tools. This is the only way to effectively leverage related components (for example, process mining, analytics, user experience and machine learning).
- Avoid the hype with rigorous due diligence of RPA offerings and their ecosystems. Focus on the providers' abilities to address outcomes critical to your organization across multiple areas. Assess vendor process models carefully as seen with Microsoft's entry into these offerings that changed the marketplace dynamics significantly – especially for the small and midsize business (SMB) sector.

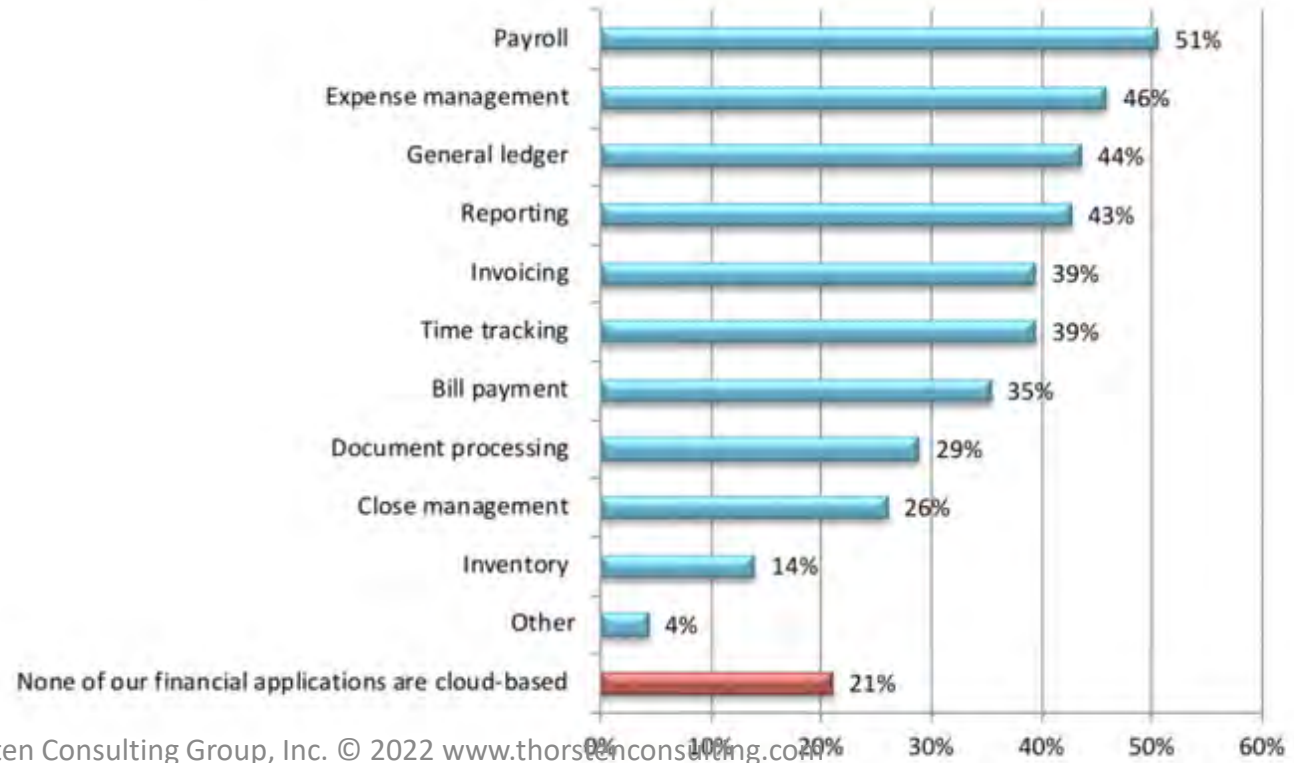
# Top 15 Accounting Software Comparison

|   |  |  |   |   |
|---|--|--|---|---|
| <p><b>NetSuite ERP</b></p>       | <p><b>FinancialForce<br/>Financial Management</b></p>  | <p><b>Sage Intacct</b></p>            | <p><b>Epicor<br/>Financial Management</b></p>  | <p><b>Sage 100c &amp;<br/>Sage 300c</b></p>              |
| <p><b>Intuit QuickBooks</b></p>  | <p><b>Unit4 Financials</b></p>                         | <p><b>Oracle ERP Cloud</b></p>        | <p><b>SYSPRO</b></p>                           | <p><b>Infor Enterprise<br/>Financial Management</b></p>  |
| <p><b>FreshBooks</b></p>        | <p><b>Xero</b></p>                                    | <p><b>Microsoft Dynamics GP</b></p>  | <p><b>Wave</b></p>                            | <p><b>Acumatica Financial<br/>Management Suite</b></p>  |

# HERE'S WHAT IT MEANS TO BE A "CLOUD ACCOUNTANT"

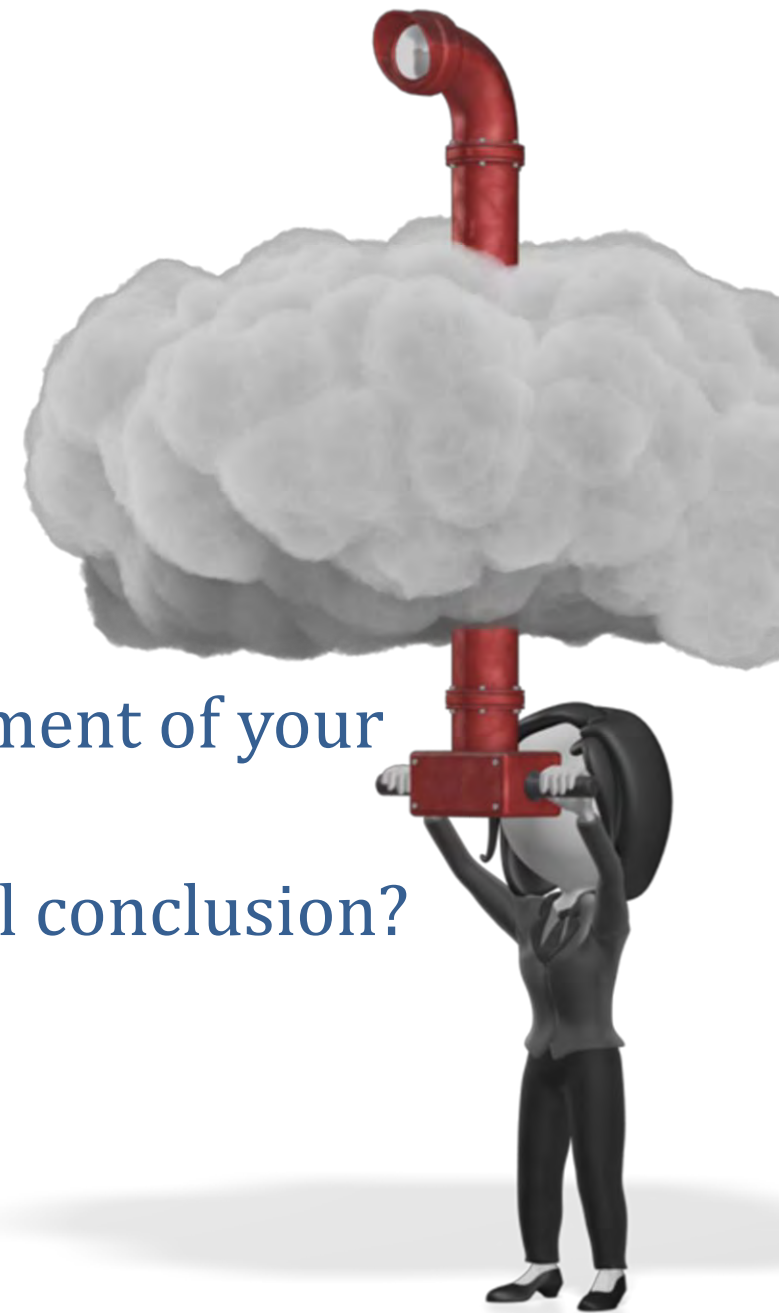
According to a new survey of 506 accounting and finance professionals commissioned by FloQast and conducted by Dimensional Research, 79 percent of accountants are using at least one cloud-based financial application. However, most of them are not yet what we would call true "cloud accountants."

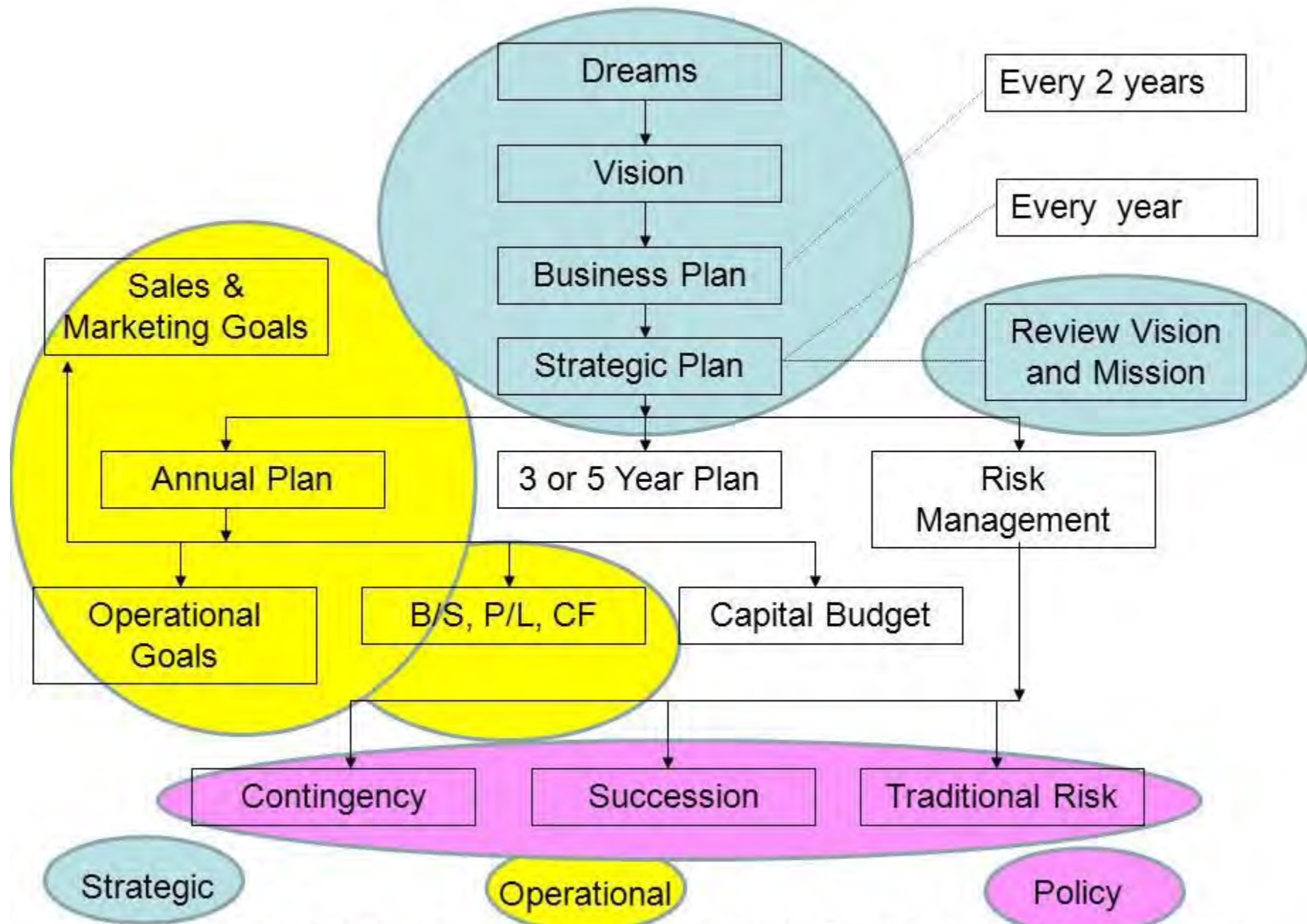
**What types of cloud-based or SaaS financial applications does your company use?**



# How are your business skills?

- Can you set a vision?
- Can you develop a strategy?
- Do you understand the macroeconomic environment of your organization?
- Can you lead an important project to a successful conclusion?





# How well do you understand operations?

- Your organization
- Management theory and practice
- Lean
- Continuous Improvement
- Six Sigma
- Greiner Curve
- Process Management
- Servant Leadership

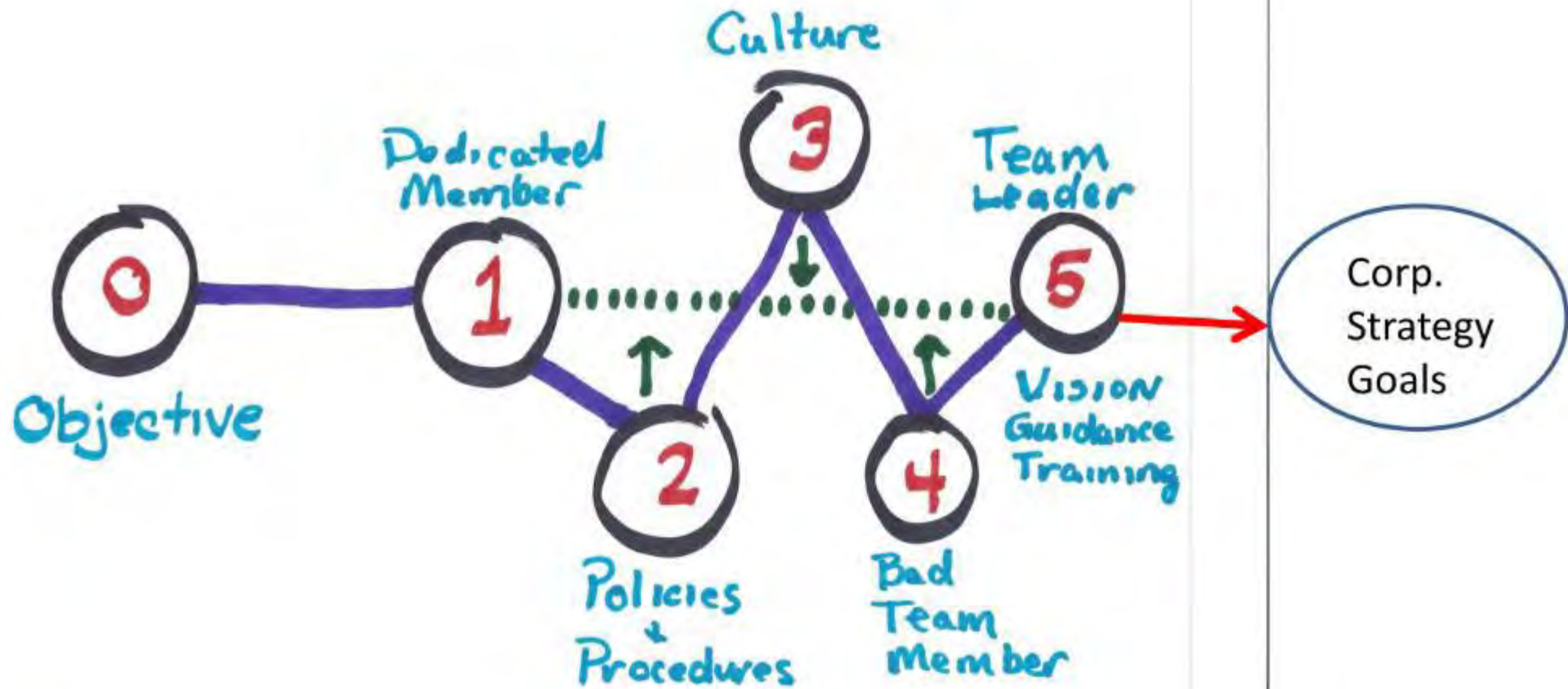


# Vision

- Original Ideas
- Value generation







ONLY 262 MILES TO BUC-EE'S.  
**YOU CAN HOLD IT.**



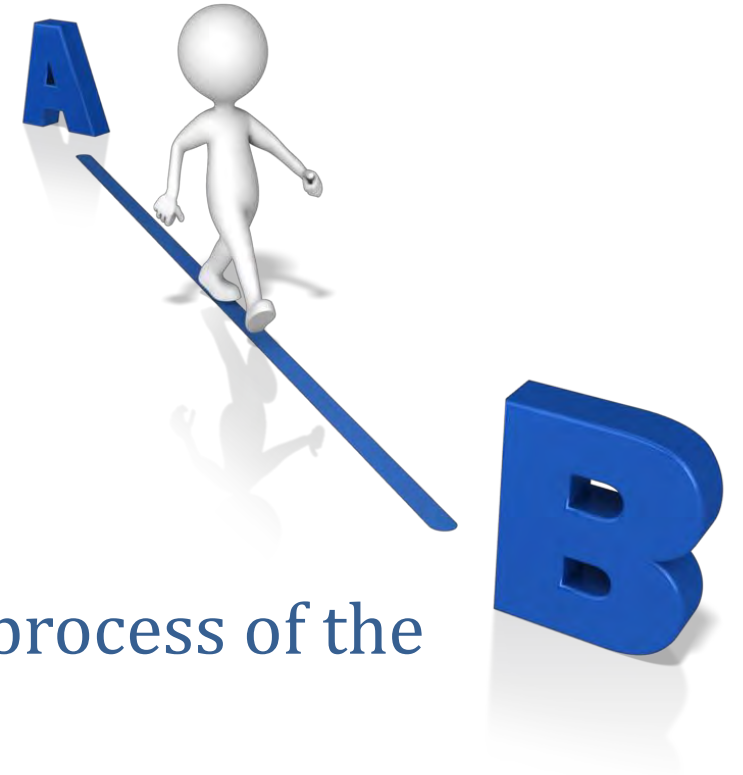
**BUC-EE'S**

**262 MILES**



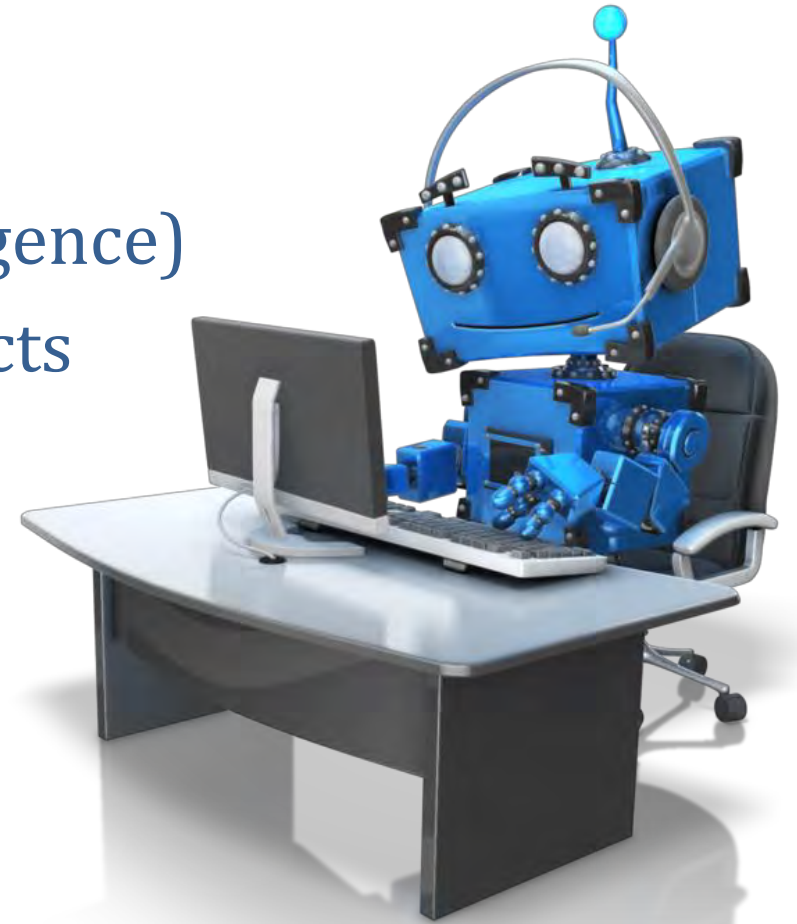
# Strategy and Planning

- Planning process
- Business
- Strategic
- How do we incorporate staff into the planning process of the organization?
- What is the future of Accounting?
- What is Alignment and how is it integrated into the culture of the organization?



# Macroeconomic environment

- Understanding environment
- Competitive Intelligence (all types of intelligence)
- Translating Macro events into business effects



# How Macro Trends shape the market

- A macro trend is a “long-term directional shift that affects a large population, often on a global scale”.
- Macro trends are essential to discover long-term market opportunities because they are
  - Unbiased and based on data
  - Not impacted by the news cycle
  - Typically less risky
  - Can be segmented out by industries or regions

<https://www.visualcapitalist.com/how-macro-trends-shape-the-markets-future/> April 1, 2019

# Google Alerts

- Tool
- Research
  - Competitors,
  - Industry Trends,
  - Technology Trends,
  - Employee or Management Issues
  - Customer problems
- Predictions 2022

The screenshot shows the Google Alerts interface. At the top, the word "Alerts" is displayed in white on a blue background, with the subtitle "Monitor the web for interesting new content" below it. A search bar contains the text "steel industry trends 2022". Below the search bar, there is a field for "Enter email", a blue "Create Alert" button, and a "Show options" dropdown menu. The main content area is titled "Alert preview" and lists several news items under the heading "NEWS".

**Alert preview**

NEWS

**Silicon Carbide Global Market to Reach \$7.7 Billion by 2027 at a 6.42% CAGR**  
PR Newswire  
PRNewswire/ - The "Silicon Carbide Market: Global **Industry Trends**, Share, Size, Growth, Opportunity and Forecast **2022-2027**" report has been added ...

**Steel and Composite Well Tank Market Investment Analysis – Sioux City Catholic Globe**  
Catholic Globe  
**2022** Published research titled "**Steel** and Composite Well Tank Market - Global **Industry Analysis** - by Player, Region, Type, Application and Sales ...

**South African Mining Industry Trends Report 2022 with - GlobeNewswire**  
GlobeNewswire  
South African Mining **Industry Trends Report 2022** with Impacts of Russia-Ukraine War on ... Aquicure (Pty) Ltd; Aquila **Steel** (S Africa) (Pty) Ltd ...

steel industry trends 2022



Enter email

Create Alert

Show options

### Grain-Oriented Silicon **Steel** Market Future Scope Analysis 2022-2029 Stalprodukt Sa, Ak ...

Catholic Globe

Differentiable **industry** factors promoting growth in the global Grain-Oriented Silicon **Steel** market are studied in detail along with the detection of ...

### Silicon Carbide Global Market to Reach \$7.7 Billion by 2027 at a 6.42% CAGR - Yahoo Finance

Yahoo Finance

The "Silicon Carbide Market: Global **Industry Trends**, Share, Size, Growth, Opportunity and Forecast 2022-2027" report has been added to ...

### Global Ferro Manganese Market 2022: Covering Prime Factors and Competitive Outlook of ...

Digital Journal

The entire study is based on the latest **industry** news, market **trends**, and growth probability. It also consists of a deep analysis of the market and ...

### Chinese **Steel** Manufacturers On The Brink Of Bankruptcy | OilPrice.com

Oil Price

China's **steel** manufacturing **industry** is facing mounting headwinds, and steelmaker profitability ... By Ag **Metal Miner** - Oct 18, 2022, 3:00 PM CDT.

### Roll Forming Machines Market 2022 with Top Countries Data Analysis by **Industry Trends** ...

Alpenhorn News


... Market 2022 with Top Countries Data Analysis by **Industry Trends**, Size, ... Construction and Building Materials , Green energy , **Steel Service** ...

# Automotive Industrial Production – G17

| Year                               | 2020     | 2021     | 2022     | 2023     | 2024     | 2025     | 2026     | 2027     | 2028     | 2029     | 2030     | 2031     | 2032     |          |
|------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| "IPS.G33611"                       | 109.8823 | 114.4956 | 103.7355 | 117.3314 | 106.0457 | 98.9552  | 101.9705 | 97.5916  | 104.3525 | 99.4798  | 87.6973  | 102.5704 | 104.7023 | 102.4130 |
| "G336111: Automobile NAICS=336111" |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
| "IPS.G336111"                      | 1972     | 94.8425  | 97.1988  | 97.8697  | 102.9366 | 100.1190 | 98.5217  | 105.5371 | 108.5845 | 109.8731 | 113.9237 | 117.7985 | 118.8980 |          |
| "IPS.G336111"                      | 1973     | 120.7492 | 122.9356 | 123.0491 | 122.8737 | 123.1868 | 125.2005 | 126.1604 | 110.7514 | 128.3685 | 126.7390 | 127.4423 | 117.6570 |          |
| "IPS.G336111"                      | 1974     | 94.2901  | 94.3247  | 93.0393  | 98.6644  | 98.6654  | 102.4855 | 106.2901 | 107.3467 | 115.2883 | 115.4047 | 101.0931 | 79.4116  |          |
| "IPS.G336111"                      | 1975     | 69.2351  | 64.0231  | 78.8897  | 86.3640  | 88.4689  | 91.2702  | 100.1020 | 107.0872 | 109.8743 | 107.7407 | 108.8970 | 115.2550 |          |
| "IPS.G336111"                      | 1976     | 112.6393 | 120.1556 | 119.9985 | 122.3872 | 121.5143 | 123.6609 | 124.4901 | 125.5142 | 113.3064 | 108.6643 | 128.7638 | 144.7569 |          |
| "IPS.G336111"                      | 1977     | 131.9917 | 129.3164 | 140.3014 | 137.4904 | 136.4448 | 144.9692 | 145.1667 | 141.8629 | 141.8203 | 143.7216 | 137.2729 | 141.4146 |          |
| "IPS.G336111"                      | 1978     | 121.4913 | 127.4161 | 141.5441 | 152.5971 | 143.4489 | 143.1943 | 146.8677 | 146.1471 | 141.2886 | 145.3453 | 152.4676 | 145.4467 |          |
| "IPS.G336111"                      | 1979     | 157.2865 | 146.3837 | 144.5073 | 129.3322 | 142.9057 | 133.4029 | 124.9079 | 104.3152 | 127.4409 | 120.8675 | 112.5929 | 107.7754 |          |
| "IPS.G336111"                      | 1980     | 99.4310  | 109.7311 | 101.6923 | 90.8418  | 77.9115  | 79.1224  | 77.9189  | 72.0722  | 90.6052  | 95.6537  | 103.4094 | 91.7034  |          |
| "IPS.G336111"                      | 1981     | 83.8337  | 85.3645  | 91.8481  | 101.2656 | 104.3610 | 102.8256 | 100.9386 | 97.4761  | 82.3174  | 86.7883  | 79.4308  | 75.1321  |          |
| "IPS.G336111"                      | 1982     | 59.1941  | 63.9527  | 74.3761  | 85.4043  | 91.5532  | 92.0122  | 102.2975 | 90.3842  | 82.9593  | 75.3994  | 76.7420  | 85.0160  |          |
| "IPS.G336111"                      | 1983     | 92.5844  | 96.0287  | 90.0317  | 94.3446  | 97.0712  | 101.7739 | 106.2069 | 115.0200 | 117.8252 | 120.6615 | 118.7381 | 125.6152 |          |
| "IPS.G336111"                      | 1984     | 134.1729 | 130.2700 | 132.1775 | 122.8867 | 116.9653 | 117.7760 | 124.1718 | 129.0219 | 116.4487 | 115.7445 | 127.3793 | 136.1143 |          |
| "IPS.G336111"                      | 1985     | 142.1558 | 128.9945 | 127.6371 | 125.4593 | 120.8440 | 118.4749 | 133.9683 | 121.9728 | 120.0624 | 117.7883 | 124.9564 | 118.2938 |          |
| "IPS.G336111"                      | 1986     | 133.4459 | 129.5407 | 123.7809 | 116.6586 | 114.6040 | 120.1279 | 117.3230 | 113.6355 | 119.0280 | 118.6736 | 123.4934 | 128.1823 |          |
| "IPS.G336111"                      | 1987     | 125.0776 | 134.9496 | 130.3293 | 124.9549 | 119.9518 | 115.3245 | 104.5577 | 104.2973 | 112.8153 | 122.4246 | 120.7571 | 112.3886 |          |
| "IPS.G336111"                      | 1988     | 104.8602 | 109.2721 | 112.6908 | 121.4871 | 124.7494 | 125.5164 | 102.1334 | 108.2325 | 119.4996 | 119.0055 | 122.6628 | 127.2401 |          |
| "IPS.G336111"                      | 1989     | 131.3941 | 124.7400 | 120.7240 | 121.2436 | 114.6391 | 104.3411 | 86.5454  | 106.3750 | 110.9067 | 103.4864 | 99.4882  | 100.7312 |          |
| "IPS.G336111"                      | 1990     | 72.6579  | 99.5774  | 105.5164 | 97.1412  | 100.2492 | 105.4212 | 102.0580 | 98.4440  | 107.7635 | 97.6532  | 76.4983  | 77.8346  |          |
| "IPS.G336111"                      | 1991     | 85.9529  | 79.2571  | 76.5854  | 75.7557  | 81.1953  | 83.4769  | 94.1442  | 83.8170  | 96.1897  | 92.3823  | 88.7407  | 85.4432  |          |
| "IPS.G336111"                      | 1992     | 74.1620  | 80.7542  | 80.3262  | 85.8536  | 92.7170  | 90.9410  | 97.2112  | 88.4325  | 86.1079  | 90.3043  | 88.7622  | 93.4057  |          |
| "IPS.G336111"                      | 1993     | 94.2400  | 92.3989  | 93.9435  | 95.9319  | 94.9285  | 92.6888  | 88.4978  | 79.8476  | 86.6974  | 94.6387  | 100.9501 | 101.7293 |          |
| "IPS.G336111"                      | 1994     | 106.3290 | 107.8772 | 105.9224 | 106.9697 | 105.0710 | 106.5248 | 99.4569  | 104.8538 | 106.4175 | 110.9690 | 108.2050 | 112.1948 |          |
| "IPS.G336111"                      | 1995     | 112.3174 | 114.0069 | 113.7261 | 107.8784 | 102.0425 | 101.1233 | 98.8525  | 99.9022  | 103.9115 | 100.5429 | 98.8141  | 99.9854  |          |
| "IPS.G336111"                      | 1996     | 92.4368  | 100.2780 | 77.0317  | 106.2827 | 108.4495 | 111.9578 | 115.3151 | 106.6208 | 104.6772 | 91.3405  | 100.4987 | 99.4508  |          |
| "IPS.G336111"                      | 1997     | 100.5607 | 103.4582 | 103.6697 | 97.7362  | 100.1079 | 101.2528 | 102.2747 | 106.4468 | 100.4558 | 103.1868 | 107.4037 | 105.2002 |          |
| "IPS.G336111"                      | 1998     | 107.1440 | 101.1817 | 100.4913 | 102.9375 | 104.0932 | 88.8581  | 71.3662  | 119.4826 | 120.1931 | 120.6822 | 114.1284 | 117.6489 |          |
| "IPS.G336111"                      | 1999     | 111.3426 | 106.2149 | 109.0766 | 109.4645 | 107.3756 | 108.0263 | 107.4974 | 111.6594 | 108.5578 | 112.6146 | 113.5211 | 109.6470 |          |
| "IPS.G336111"                      | 2000     | 111.9588 | 109.7641 | 109.4162 | 112.2588 | 113.3225 | 110.2242 | 107.7081 | 112.8533 | 109.8370 | 104.3287 | 97.8233  | 91.3110  |          |
| "IPS.G336111"                      | 2001     | 94.7482  | 92.4874  | 98.4614  | 96.9863  | 100.7381 | 98.5785  | 93.6054  | 90.8014  | 90.6768  | 87.2716  | 92.3579  | 98.3162  |          |
| "IPS.G336111"                      | 2002     | 97.0715  | 103.1031 | 98.5870  | 100.7592 | 100.8093 | 101.7379 | 105.3759 | 97.3408  | 93.2232  | 93.7635  | 99.4022  | 91.5106  |          |
| "IPS.G336111"                      | 2003     | 102.7868 | 90.8082  | 90.6393  | 92.9509  | 95.6677  | 96.3426  | 98.5023  | 91.8458  | 101.7746 | 99.8039  | 100.5888 | 96.6111  |          |
| "IPS.G336111"                      | 2004     | 96.1491  | 100.4730 | 99.9074  | 101.0622 | 94.9500  | 91.5217  | 94.4804  | 94.7503  | 95.8564  | 92.7477  | 91.5376  | 96.4409  |          |
| "IPS.G336111"                      | 2005     | 94.9332  | 102.8867 | 97.4316  | 95.8257  | 95.8798  | 99.9791  | 92.8552  | 96.7855  | 96.6834  | 97.2899  | 102.3038 | 98.5845  |          |
| "IPS.G336111"                      | 2006     | 106.6485 | 105.0446 | 109.2386 | 109.6841 | 105.5712 | 101.5090 | 94.7560  | 102.1654 | 102.5158 | 101.4992 | 98.6380  | 102.2539 |          |
| "IPS.G336111"                      | 2007     | 99.3442  | 94.1763  | 90.3619  | 93.8280  | 91.7054  | 97.5936  | 100.0019 | 93.6707  | 87.3912  | 89.2501  | 92.3313  | 96.7087  |          |
| "IPS.G336111"                      | 2008     | 96.9663  | 93.6920  | 96.1033  | 84.8271  | 86.3913  | 93.3875  | 112.9532 | 98.4134  | 95.0328  | 89.2282  | 80.7994  | 71.6324  |          |
| "IPS.G336111"                      | 2009     | 31.3976  | 39.9503  | 48.2758  | 48.0825  | 46.1655  | 47.2837  | 59.6724  | 66.4438  | 78.0651  | 80.2128  | 74.3250  | 77.7719  |          |
| "IPS.G336111"                      | 2010     | 76.4745  | 77.3548  | 77.9137  | 80.3337  | 90.0127  | 84.5008  | 90.1673  | 85.4813  | 85.4305  | 83.9438  | 84.5358  | 79.6577  |          |
| "IPS.G336111"                      | 2011     | 76.6771  | 89.7067  | 94.3178  | 83.2714  | 88.6746  | 86.0152  | 89.1901  | 100.3928 | 96.4953  | 108.6891 | 108.2656 | 114.9017 |          |
| "IPS.G336111"                      | 2012     | 121.5328 | 119.3496 | 116.7080 | 121.6921 | 120.0758 | 119.2329 | 121.6239 | 114.0687 | 114.6652 | 116.1328 | 117.7995 | 115.1363 |          |
| "IPS.G336111"                      | 2013     | 122.1815 | 121.8162 | 125.6632 | 119.1843 | 122.0191 | 126.0411 | 110.0857 | 122.0219 | 126.9695 | 124.9654 | 128.8741 | 128.8611 |          |
| "IPS.G336111"                      | 2014     | 127.0473 | 130.6911 | 128.2303 | 122.3730 | 123.6559 | 138.7260 | 142.6927 | 132.9695 | 130.6617 | 124.5581 | 133.8946 | 137.0084 |          |
| "IPS.G336111"                      | 2015     | 126.4664 | 116.4243 | 130.9273 | 130.7057 | 137.3460 | 125.6336 | 137.9062 | 130.9482 | 126.7617 | 129.0832 | 122.3538 | 125.1466 |          |
| "IPS.G336111"                      | 2016     | 131.7811 | 130.4603 | 133.4550 | 132.5311 | 130.7488 | 145.4471 | 137.8436 | 137.2435 | 135.0272 | 128.3121 | 125.9633 | 118.2785 |          |
| "IPS.G336111"                      | 2017     | 110.2855 | 110.8557 | 103.9234 | 112.1740 | 109.9226 | 100.1587 | 88.5009  | 98.9598  | 90.1487  | 91.8155  | 91.5582  | 91.6969  |          |
| "IPS.G336111"                      | 2018     | 90.4897  | 106.4382 | 119.7583 | 116.3964 | 111.1756 | 110.0909 | 95.8404  | 105.4479 | 113.2805 | 110.5344 | 106.5069 | 114.1783 |          |
| "IPS.G336111"                      | 2019     | 100.7905 | 94.9921  | 94.9384  | 91.3517  | 93.6603  | 92.7828  | 91.6295  | 95.2744  | 87.7625  | 82.1708  | 97.9739  | 95.3685  |          |
| "IPS.G336111"                      | 2020     | 100.9507 | 110.4463 | 78.7255  | 0.8317   | 26.3178  | 81.6807  | 119.2291 | 110.8612 | 111.0921 | 106.4784 | 107.3962 | 97.8600  |          |
| "IPS.G336111"                      | 2021     | 96.6654  | 78.6070  | 72.1561  | 76.6794  | 72.9898  | 71.0058  | 81.2296  | 71.5904  | 49.9046  | 72.1476  | 73.4676  | 75.5250  |          |
| "IPS.G336111"                      | 2022     | 72.6299  | 76.7958  | 93.0666  | 90.3693  | 90.5894  | 93.5459  | 99.4422  | 97.9431  | 90.5068  |          |          |          |          |



# FRED Graph

DOWNLOAD 


1Y | 5Y | 10Y | Max

1975-09-01

to

2022-09-01

EDIT GRAPH 

**FRED**  — Industrial Production: Manufacturing: Durable Goods: Automobile and Light Duty Motor Vehicle (NAICS = 33611) (left)  
— Total Vehicle Sales (right)




Shaded areas indicate U.S. recessions.

Sources: Board of Governors; BEA

fred.stlouisfed.org



# Industrial Production: Total Index (INDPRO)

DOWNLOAD 

Observation:  
May 2021: **14.0128** (+ more)  
Updated: Jun 15, 2021

Units:  
Change from Year Ago, Index  
2017=100,  
Seasonally Adjusted

Frequency:  
Monthly

1Y | 5Y | 10Y | Max

1989-01-01

to

2021-05-01

EDIT GRAPH 



U.S. recessions are shaded; the most recent end date is undecided. Source: Board of Governors of the Federal Reserve System (US)

fred.stlouisfed.org

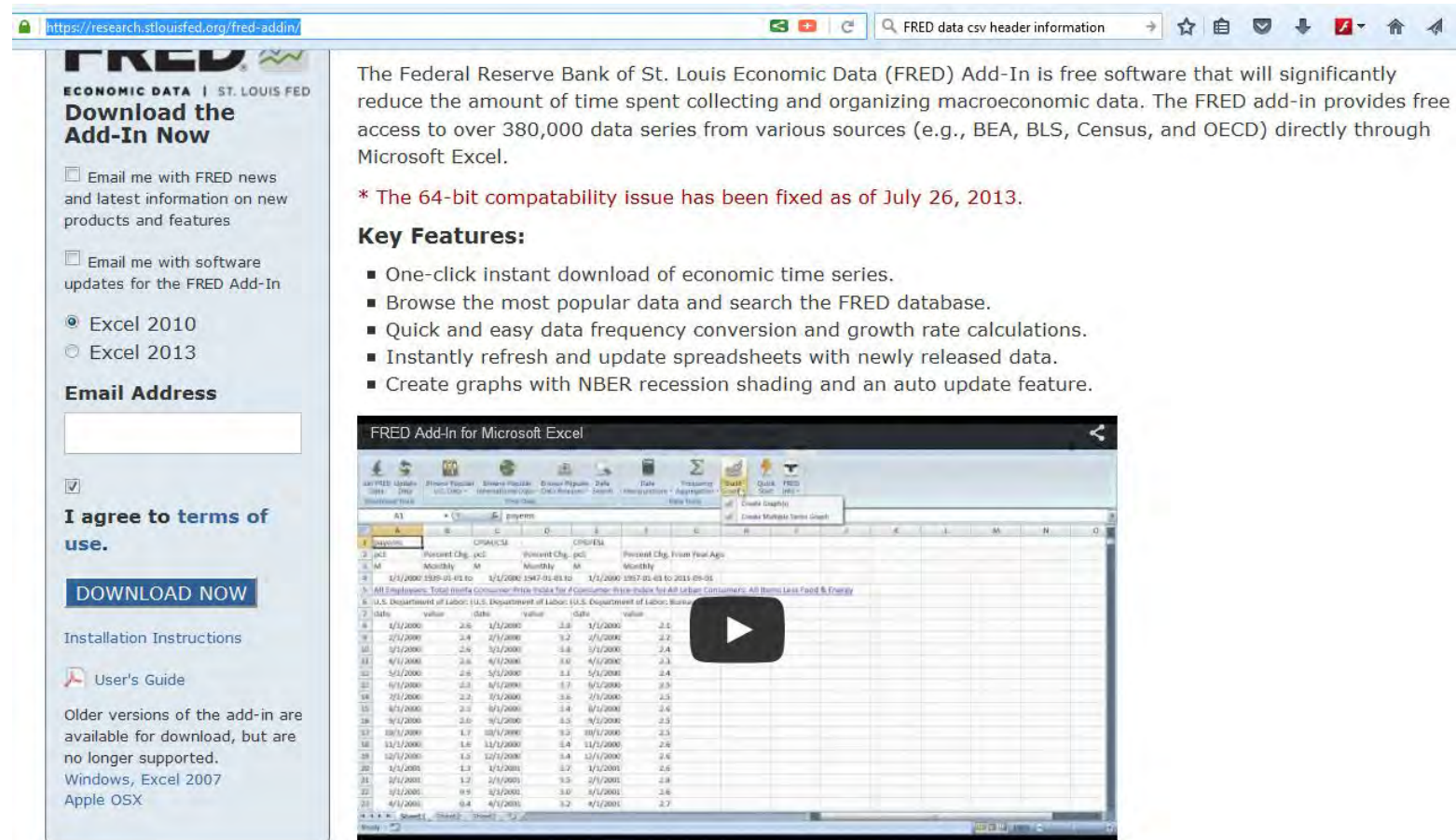


**FRED**  — Industrial Production: Manufacturing: Durable Goods: Engine, Turbine, and Power Transmission Equipment (NAICS = 3336)  
— Industrial Production: Manufacturing: Durable Goods: Raw Steel (NAICS = 3311,2pt.)



*U.S. recessions are shaded; the most recent end date is undecided.* Source: Board of Governors of the Federal Reserve System (US)

# Economic Data: Excel Add-in Instructions for Federal Reserve Bank of St. Louis



The screenshot shows the website for the FRED Add-in. The left sidebar contains a navigation menu with the following items:

- FRED ECONOMIC DATA | ST. LOUIS FED**
- Download the Add-In Now**
- Email me with FRED news and latest information on new products and features
- Email me with software updates for the FRED Add-In
- Excel 2010
- Excel 2013
- Email Address**
- 
- I agree to terms of use.
- DOWNLOAD NOW**
- Installation Instructions
- User's Guide
- Older versions of the add-in are available for download, but are no longer supported.
- Windows, Excel 2007
- Apple OSX

The main content area contains the following text:

The Federal Reserve Bank of St. Louis Economic Data (FRED) Add-In is free software that will significantly reduce the amount of time spent collecting and organizing macroeconomic data. The FRED add-in provides free access to over 380,000 data series from various sources (e.g., BEA, BLS, Census, and OECD) directly through Microsoft Excel.

\* The 64-bit compatibility issue has been fixed as of July 26, 2013.

**Key Features:**

- One-click instant download of economic time series.
- Browse the most popular data and search the FRED database.
- Quick and easy data frequency conversion and growth rate calculations.
- Instantly refresh and update spreadsheets with newly released data.
- Create graphs with NBER recession shading and an auto update feature.

The video player shows the FRED Add-In for Microsoft Excel interface. The video title is "FRED Add-In for Microsoft Excel". The video content shows a screenshot of the Excel spreadsheet with the FRED Add-In ribbon visible. The ribbon includes buttons for "Download Data", "Refresh Data", "Create Graphs", and "Update All". The spreadsheet displays a table of economic data with columns for "Date", "Value", and "Date". The data is organized into a table with the following structure:

| Date      | Value | Date      | Value |
|-----------|-------|-----------|-------|
| 1/1/2000  | 2.6   | 1/1/2000  | 3.8   |
| 2/1/2000  | 2.4   | 2/1/2000  | 3.2   |
| 3/1/2000  | 2.6   | 3/1/2000  | 3.8   |
| 4/1/2000  | 2.4   | 4/1/2000  | 3.3   |
| 5/1/2000  | 2.6   | 5/1/2000  | 3.1   |
| 6/1/2000  | 2.3   | 6/1/2000  | 3.7   |
| 7/1/2000  | 2.2   | 7/1/2000  | 3.6   |
| 8/1/2000  | 2.3   | 8/1/2000  | 3.4   |
| 9/1/2000  | 2.6   | 9/1/2000  | 3.5   |
| 10/1/2000 | 1.7   | 10/1/2000 | 3.3   |
| 11/1/2000 | 1.6   | 11/1/2000 | 3.4   |
| 12/1/2000 | 1.5   | 12/1/2000 | 3.4   |
| 1/1/2001  | 1.3   | 1/1/2001  | 3.7   |
| 2/1/2001  | 1.2   | 2/1/2001  | 3.3   |
| 3/1/2001  | 0.9   | 3/1/2001  | 3.0   |
| 4/1/2001  | 0.4   | 4/1/2001  | 3.2   |

|              |      |          |          |          |          |          |          |          |          |          |          |          |          |
|--------------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| "IPS.B50001" | 1980 | 52.0677  | 52.0899  | 51.8687  | 50.8454  | 49.5947  | 48.9621  | 48.6090  | 48.7646  | 49.5764  | 50.2058  | 51.0418  | 51.3906  |
| "IPS.B50001" | 1981 | 51.0656  | 50.8554  | 51.1107  | 50.8864  | 51.1788  | 51.4496  | 51.7764  | 51.7129  | 51.4605  | 51.0625  | 50.4730  | 49.9364  |
| "IPS.B50001" | 1982 | 48.9114  | 49.9102  | 49.5691  | 49.1146  | 48.7805  | 48.6606  | 48.4863  | 48.0569  | 47.9303  | 47.4738  | 47.3200  | 46.9813  |
| "IPS.B50001" | 1983 | 47.8523  | 47.5667  | 47.9599  | 48.5564  | 48.8647  | 49.1558  | 49.8873  | 50.4843  | 51.2160  | 51.6139  | 51.8420  | 52.0948  |
| "IPS.B50001" | 1984 | 53.1348  | 53.3763  | 53.6314  | 53.9491  | 54.2396  | 54.4288  | 54.5865  | 54.6530  | 54.4949  | 54.4772  | 54.6594  | 54.6892  |
| "IPS.B50001" | 1985 | 54.6505  | 54.8169  | 54.8978  | 54.7833  | 54.8704  | 54.8401  | 54.5582  | 54.7381  | 54.9416  | 54.7538  | 54.9390  | 55.4945  |
| "IPS.B50001" | 1986 | 55.7802  | 55.3994  | 55.0001  | 55.0641  | 55.1705  | 54.9588  | 55.2944  | 55.2029  | 55.3511  | 55.5857  | 55.8030  | 56.3441  |
| "IPS.B50001" | 1987 | 56.1259  | 56.8779  | 56.9516  | 57.3177  | 57.6774  | 57.9875  | 58.3790  | 58.8171  | 59.0391  | 59.8340  | 60.1367  | 60.4739  |
| "IPS.B50001" | 1988 | 60.4594  | 60.7643  | 60.8948  | 61.2475  | 61.1353  | 61.2995  | 61.3110  | 61.6234  | 61.4255  | 61.6940  | 61.8494  | 62.1171  |
| "IPS.B50001" | 1989 | 62.3103  | 62.0353  | 62.1950  | 62.1753  | 61.8321  | 61.8246  | 61.2285  | 61.8334  | 61.6221  | 61.5537  | 61.7575  | 62.1111  |
| "IPS.B50001" | 1990 | 61.7781  | 62.3426  | 62.6446  | 62.5104  | 62.6898  | 62.8923  | 62.7933  | 63.0241  | 63.0328  | 62.6466  | 61.8681  | 61.4345  |
| "IPS.B50001" | 1991 | 61.2241  | 60.7790  | 60.4377  | 60.5982  | 61.2041  | 61.6923  | 61.8569  | 61.8681  | 62.3855  | 62.3229  | 62.2427  | 61.9705  |
| "IPS.B50001" | 1992 | 61.6471  | 62.0794  | 62.5955  | 63.0726  | 63.2761  | 63.3102  | 63.8769  | 63.5221  | 63.7217  | 64.1556  | 64.4144  | 64.5161  |
| "IPS.B50001" | 1993 | 64.7738  | 65.0805  | 65.0176  | 65.2041  | 64.9433  | 65.0984  | 65.2554  | 65.1946  | 65.5282  | 66.0152  | 66.3292  | 66.7038  |
| "IPS.B50001" | 1994 | 66.9164  | 66.9642  | 67.6335  | 68.0334  | 68.3531  | 68.8002  | 68.8863  | 69.3412  | 69.5574  | 70.1190  | 70.5942  | 71.2814  |
| "IPS.B50001" | 1995 | 71.4303  | 71.3343  | 71.4451  | 71.3289  | 71.6600  | 71.8967  | 71.5924  | 72.5339  | 72.8247  | 72.7130  | 72.8884  | 73.1429  |
| "IPS.B50001" | 1996 | 72.7471  | 73.7871  | 73.6749  | 74.4153  | 74.9718  | 75.5317  | 75.5323  | 75.9129  | 76.4032  | 76.3931  | 77.0672  | 77.5543  |
| "IPS.B50001" | 1997 | 77.6945  | 78.6120  | 79.1021  | 79.1683  | 79.6084  | 79.9802  | 80.6492  | 81.4548  | 82.2120  | 82.9309  | 83.5919  | 83.9696  |
| "IPS.B50001" | 1998 | 84.3467  | 84.4865  | 84.5212  | 84.8275  | 85.3596  | 84.8466  | 84.5061  | 86.2464  | 86.1707  | 86.7671  | 86.6929  | 87.0633  |
| "IPS.B50001" | 1999 | 87.4252  | 87.9260  | 88.1101  | 88.3106  | 88.8487  | 88.7978  | 89.3119  | 89.7109  | 89.3331  | 90.4924  | 90.9650  | 91.6804  |
| "IPS.B50001" | 2000 | 91.6261  | 91.9626  | 92.3118  | 92.8872  | 93.1620  | 93.2168  | 93.0400  | 92.7900  | 93.1547  | 92.8361  | 92.8395  | 92.5334  |
| "IPS.B50001" | 2001 | 92.0304  | 91.4079  | 91.1751  | 90.8767  | 90.3750  | 89.8626  | 89.3288  | 89.2201  | 88.7478  | 88.4755  | 87.9631  | 87.9329  |
| "IPS.B50001" | 2002 | 88.5452  | 88.5362  | 89.2097  | 89.6389  | 90.0271  | 90.7645  | 90.7437  | 90.6268  | 90.7241  | 90.4879  | 90.9823  | 90.4919  |
| "IPS.B50001" | 2003 | 91.2395  | 91.3384  | 91.0690  | 90.4913  | 90.4697  | 90.5899  | 91.0614  | 90.8452  | 91.4453  | 91.5595  | 92.1763  | 92.2532  |
| "IPS.B50001" | 2004 | 92.4067  | 92.9687  | 92.6000  | 92.9761  | 93.6446  | 92.9303  | 93.6109  | 93.6958  | 93.7958  | 94.6226  | 94.8491  | 95.5841  |
| "IPS.B50001" | 2005 | 95.9285  | 96.6287  | 96.4907  | 96.6809  | 96.7925  | 97.1900  | 96.8981  | 97.2223  | 95.3463  | 96.4981  | 97.5646  | 98.0222  |
| "IPS.B50001" | 2006 | 98.2044  | 98.2404  | 98.4742  | 98.7765  | 98.7884  | 99.1069  | 99.0357  | 99.4583  | 99.2544  | 99.1514  | 99.0974  | 100.1117 |
| "IPS.B50001" | 2007 | 99.7226  | 100.6919 | 100.8857 | 101.5777 | 101.6481 | 101.6741 | 101.5627 | 101.7751 | 102.0279 | 101.7289 | 102.3185 | 102.3074 |
| "IPS.B50001" | 2008 | 102.1686 | 101.7673 | 101.3986 | 100.7238 | 100.1399 | 99.9141  | 99.4943  | 97.9367  | 93.6585  | 94.5845  | 93.3455  | 90.7183  |
| "IPS.B50001" | 2009 | 88.4683  | 87.9360  | 86.5503  | 85.8598  | 84.9991  | 84.7277  | 85.7091  | 86.6333  | 87.3615  | 87.5488  | 87.9144  | 88.2318  |
| "IPS.B50001" | 2010 | 89.1936  | 89.5089  | 90.1449  | 90.4740  | 91.7131  | 91.9287  | 92.2737  | 92.6150  | 92.8668  | 92.6138  | 92.6772  | 93.5741  |
| "IPS.B50001" | 2011 | 93.3793  | 93.0051  | 93.9780  | 93.6525  | 93.7878  | 94.0378  | 94.5146  | 95.1263  | 95.0732  | 95.7291  | 95.7455  | 96.2147  |
| "IPS.B50001" | 2012 | 96.8051  | 97.1033  | 96.5973  | 97.3006  | 97.5046  | 97.4903  | 97.7234  | 97.3130  | 97.2405  | 97.5610  | 97.9589  | 98.2061  |
| "IPS.B50001" | 2013 | 98.1990  | 98.6835  | 99.0994  | 98.9898  | 99.0782  | 99.2141  | 98.9132  | 99.4891  | 100.0172 | 99.9038  | 100.1479 | 100.3576 |
| "IPS.B50001" | 2014 | 99.9828  | 100.7485 | 101.7391 | 101.8023 | 102.2116 | 102.5637 | 102.8425 | 102.6499 | 102.9647 | 102.9704 | 103.6017 | 103.5920 |
| "IPS.B50001" | 2015 | 102.7980 | 102.1554 | 101.8077 | 101.2285 | 100.7536 | 100.4529 | 101.1100 | 100.8802 | 100.6080 | 100.1510 | 99.3817  | 98.8572  |
| "IPS.B50001" | 2016 | 99.4086  | 98.8946  | 98.1385  | 98.4364  | 98.2096  | 98.6766  | 98.8371  | 98.7302  | 98.6287  | 98.7126  | 98.3004  | 98.9063  |
| "IPS.B50001" | 2017 | 98.7349  | 98.4178  | 99.0726  | 100.0545 | 100.1390 | 100.3148 | 100.1418 | 99.6878  | 99.7829  | 101.0401 | 101.2260 | 101.3878 |
| "IPS.B50001" | 2018 | 101.3450 | 101.7068 | 102.2785 | 103.4340 | 102.4735 | 103.2508 | 103.4588 | 104.1802 | 104.1665 | 104.0476 | 103.9603 | 103.8690 |
| "IPS.B50001" | 2019 | 103.2684 | 102.8157 | 102.9000 | 102.3826 | 102.5756 | 102.5928 | 102.2012 | 102.9086 | 102.5790 | 101.7775 | 102.0979 | 101.7632 |
| "IPS.B50001" | 2020 | 101.3030 | 101.7038 | 97.8746  | 84.9590  | 86.3345  | 91.7523  | 95.2439  | 96.1173  | 96.0711  | 96.8250  | 97.1183  | 98.1380  |
| "IPS.B50001" | 2021 | 99.2645  | 96.2231  | 98.8621  | 99.0246  | 99.7785  | 100.1923 | 100.8724 | 100.8370 | 99.8498  | 101.3602 | 101.9610 | 101.7587 |
| "IPS.B50001" | 2022 | 102.1460 | 102.8987 | 103.5717 | 104.2709 | 104.1848 | 104.0982 | 104.8526 | 104.7797 | 105.1762 |          |          |          |

10/15/2022

Apps > FRED Data > Launch



## FRED Data

Federal Reserve Bank of St. Louis

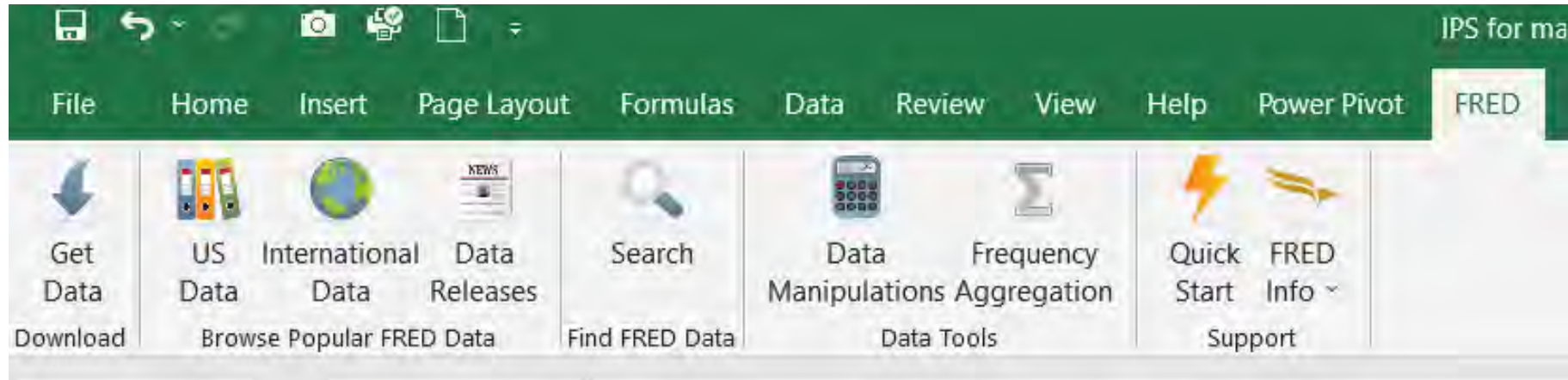
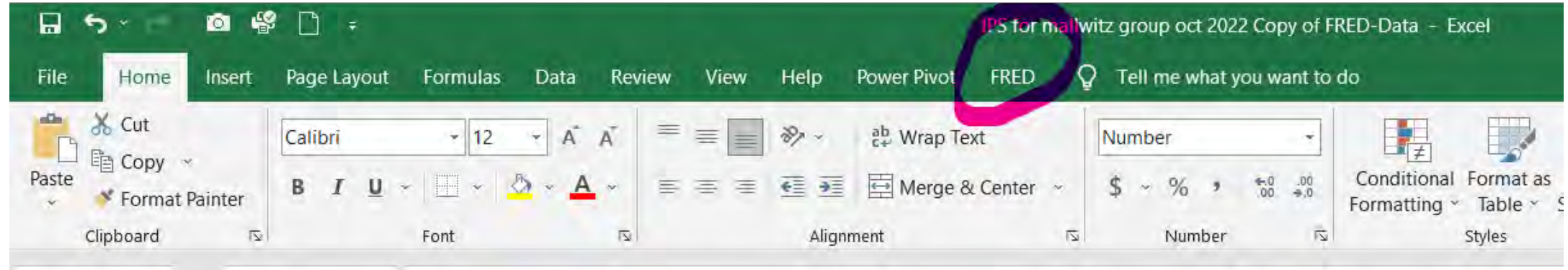
Get started with the add-in:



This add-in works in: Excel 2016 or later on Mac, Excel 2016 or later on Windows, Excel on the web.

If you don't have the above, [try using Office Online](#).

# Accessing Data: Federal Reserve Bank of St. Louis



# Accessing Data—Industrial Production Federal Reserve Bank of St. Louis

The image displays two side-by-side screenshots of a web browser interface for the FRED DATA website. Both screenshots show a navigation menu under the heading 'Production and Business Activity'. The menu items are: Industrial Production, Capacity Utilization, Inventories, Real Retail and Food Services Sales, Vehicle Sales: Auto's and Light Trucks, Manufacturers' New Orders: Durable Goods, New Orders: Nondefense Ex. Aircraft, and Commercial and Industrial Loans. In both screenshots, the 'Industrial Production' item is circled with a red oval. The browser address bar in both screenshots shows the URL: https://s3.amazonaws.com/files.fred.stlouisfed.org/fred-addin/dist/dialogs/browse/index.htm...



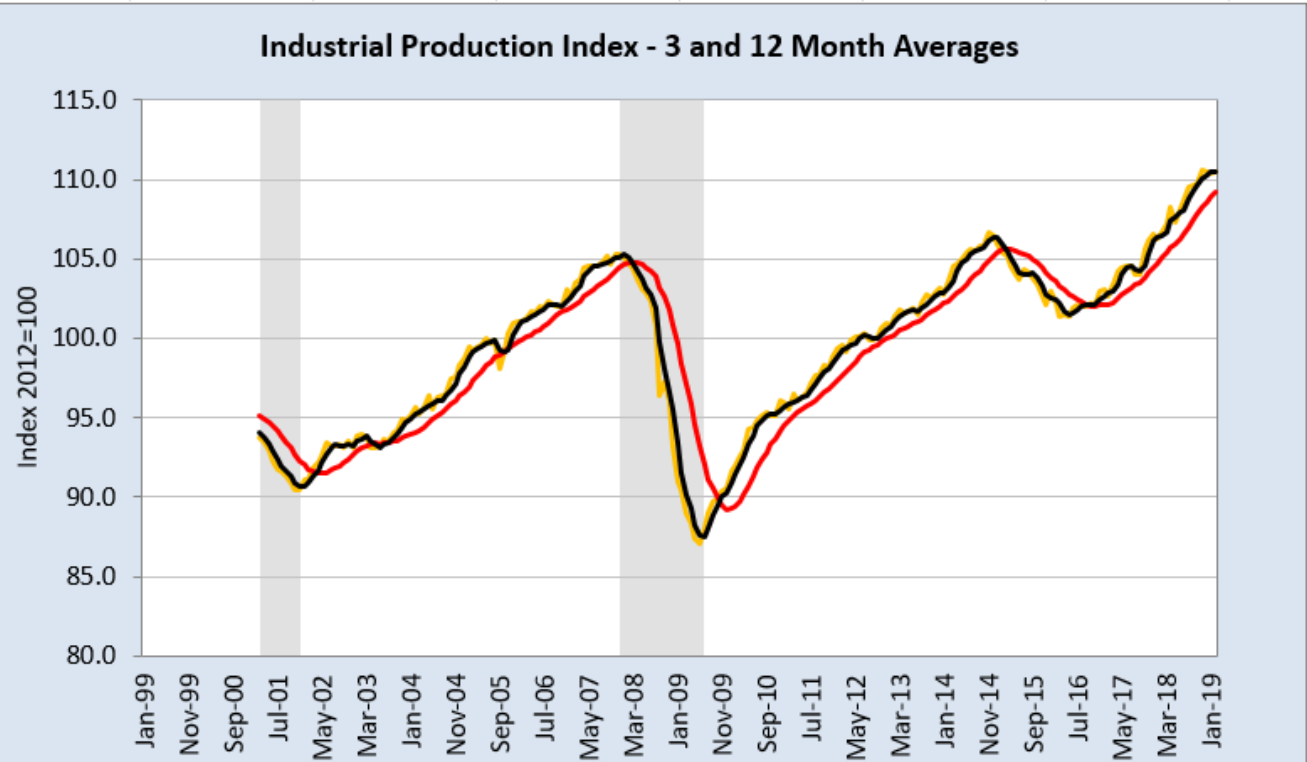
# Data— Industrial Production Index Federal Reserve Bank of St. Louis

|          |                          |                    |                |            |                    |                       |             |           |
|----------|--------------------------|--------------------|----------------|------------|--------------------|-----------------------|-------------|-----------|
| Get Data | US Data                  | International Data | Data Releases  | Search     | Data Manipulations | Frequency Aggregation | Quick Start | FRED Info |
| Download | Browse Popular FRED Data |                    | Find FRED Data | Data Tools |                    | Support               |             |           |

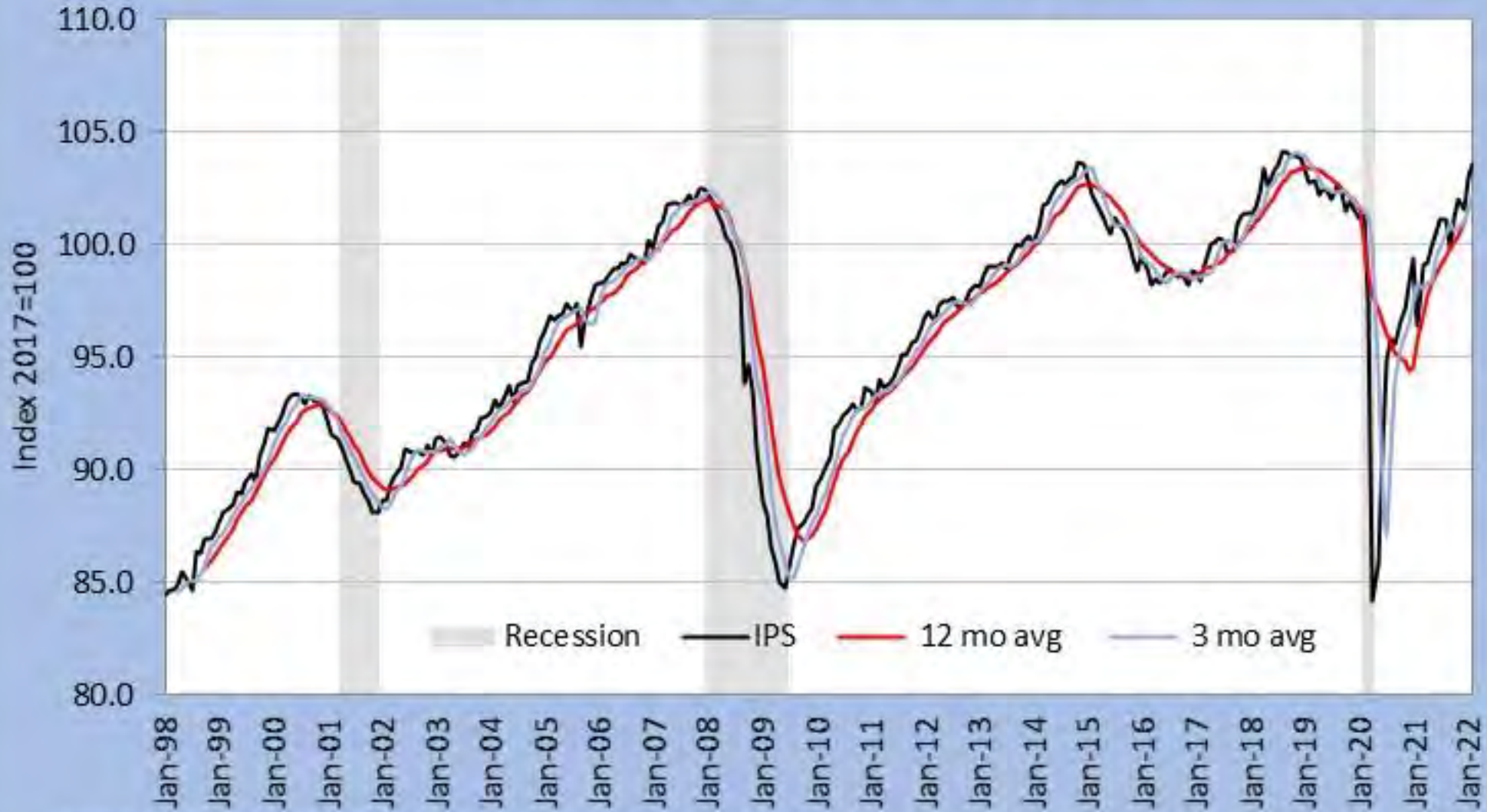
|    | A   | B                                   | C        | D        | E        | F     | G          | H |     | A         | B         | C        | D        | E        | F        | G        |   |
|----|---|-------------------------------------|----------|----------|----------|-------|------------|---|-----|-----------|-----------|----------|----------|----------|----------|----------|---|
| 1  | INDPRO  |                                     | INDPRO   |          |          |       |            |   | 267 | 8/1/2020  | 96.1173   | 94.37117 | 96.95883 | 0.920088 | 0.940064 | 0        |   |
| 2  | lin   | Index 2017=100, Seasonally Adjusted |          |          |          |       |            |   |     | 268       | 9/1/2020  | 96.0711  | 95.81077 | 96.41651 | 0.934166 | 0.936006 | 0 |
| 3  | m   | Monthly                             |          |          |          |       |            |   |     | 269       | 10/1/2020 | 96.825   | 96.3378  | 96.0038  | 0.9406   | 0.933714 | 0 |
| 4  | 1/1/1999  | 1999-01-01 to 2022-08-01            |          |          |          |       |            |   |     | 270       | 11/1/2020 | 97.1183  | 96.67147 | 95.58883 | 0.946354 | 0.931084 | 0 |
| 5  | Industrial Production: Total Index                    |                                     |          |          |          |       |            |   | 271 | 12/1/2020 | 98.138    | 97.36043 | 95.28673 | 0.955643 | 0.929731 | 0        |   |
| 6  | Board of Governors of the Federal Reserve System (US) |                                     |          |          |          |       |            |   | 272 | 1/1/2021  | 99.2645   | 98.1736  | 95.11686 | 0.965123 | 0.929559 | 0        |   |
| 7  | date  | value                               | 3avg     | 12avg    | 3ttm     | 12ttm | recessions |   | 273 | 2/1/2021  | 96.2231   | 97.8752  | 94.66013 | 0.963433 | 0.925934 | 0        |   |
| 8  | 1/1/1999  | 87.4252                             |          |          |          |       | 0          |   | 274 | 3/1/2021  | 98.8621   | 98.11657 | 94.74243 | 0.978291 | 0.93055  | 0        |   |
| 9  | 2/1/1999  | 87.926                              |          |          |          |       | 0          |   | 275 | 4/1/2021  | 99.0246   | 98.0366  | 95.91456 | 1.033642 | 0.955692 | 0        |   |
| 10 | 3/1/1999  | 88.1101                             | 87.82043 |          |          |       | 0          |   | 276 | 5/1/2021  | 99.7785   | 99.22173 | 97.03489 | 1.105871 | 0.980072 | 0        |   |
| 11 | 4/1/1999  | 88.3106                             | 88.11557 |          |          |       | 0          |   | 277 | 6/1/2021  | 100.1923  | 99.66513 | 97.73823 | 1.136667 | 0.996266 | 0        |   |
| 12 | 5/1/1999  | 88.8487                             | 88.42313 |          |          |       | 0          |   | 278 | 7/1/2021  | 100.8724  | 100.2811 | 98.20727 | 1.100656 | 1.006998 | 0        |   |
| 13 | 6/1/1999  | 88.7978                             | 88.65237 |          |          |       | 0          |   | 279 | 8/1/2021  | 100.837   | 100.6339 | 98.60058 | 1.066363 | 1.016932 | 0        |   |
| 14 | 7/1/1999  | 89.3119                             | 88.98613 |          |          |       | 0          |   | 280 | 9/1/2021  | 99.8498   | 100.5197 | 98.91547 | 1.049149 | 1.025918 | 0        |   |
| 15 | 8/1/1999  | 89.7109                             | 89.27353 |          |          |       | 0          |   | 281 | 10/1/2021 | 101.3602  | 100.6823 | 99.2934  | 1.045097 | 1.034265 | 0        |   |
| 16 | 9/1/1999  | 89.3331                             | 89.45197 |          |          |       | 0          |   | 282 | 11/1/2021 | 101.961   | 101.057  | 99.69696 | 1.045365 | 1.042977 | 0        |   |
| 17 | 10/1/1999   | 90.4924                             | 89.84547 |          |          |       | 0          |   | 283 | 12/1/2021 | 101.7587  | 101.6933 | 99.99868 | 1.044503 | 1.04945  | 0        |   |
| 18 | 11/1/1999   | 90.965                              | 90.2635  |          |          |       | 0          |   | 284 | 1/1/2022  | 102.146   | 101.9552 | 100.2388 | 1.03852  | 1.053849 | 0        |   |
| 19 | 12/1/1999   | 91.6804                             | 91.04593 | 89.24268 |          |       | 0          |   | 285 | 2/1/2022  | 102.8987  | 102.2678 | 100.7951 | 1.04488  | 1.064811 | 0        |   |
| 20 | 1/1/2000  | 91.6261                             | 91.42383 | 89.59275 |          |       | 0          |   | 286 | 3/1/2022  | 103.5717  | 102.8721 | 101.1876 | 1.048469 | 1.068028 | 0        |   |
| 21 | 2/1/2000  | 91.9626                             | 91.75637 | 89.92913 |          |       | 0          |   | 287 | 4/1/2022  | 104.2577  | 103.576  | 101.6237 | 1.056504 | 1.059523 | 0        |   |
| 22 | 3/1/2000  | 92.3118                             | 91.96683 | 90.27928 | 1.047215 |       | 0          |   | 288 | 5/1/2022  | 104.1868  | 104.0054 | 101.991  | 1.048212 | 1.051076 | 0        |   |
| 23 | 4/1/2000  | 92.8872                             | 92.3872  | 90.66066 | 1.048478 |       | 0          |   | 289 | 6/1/2022  | 104.1778  | 104.2074 | 102.3232 | 1.045576 | 1.04691  | 0        |   |
| 24 | 5/1/2000  | 93.162                              | 92.787   | 91.0201  | 1.049352 |       | 0          |   | 290 | 7/1/2022  | 104.7189  | 104.3612 | 102.6437 | 1.040687 | 1.045174 | 0        |   |
| 25 | 6/1/2000  | 93.2168                             | 93.08867 | 91.38835 | 1.050042 |       | 0          |   | 291 | 8/1/2022  | 104.5464  | 104.481  | 102.9528 | 1.038229 | 1.04414  | 0        |   |
| 26 | 7/1/2000  | 93.04                               | 93.1396  | 91.69903 | 1.046675 |       | 0          |   | 292 |           |           |          |          |          |          |          |   |

# Build Graph Industrial Production Index Federal Reserve Bank of St. Louis (continued)

|    | A   | B                        | C        | D         | E      | F      | G | H | I | J | K | L | M |
|----|---|--------------------------|----------|-----------|--------|--------|---|---|---|---|---|---|---|
| 1  | INDPRO  |                          |          |           |        |        |   |   |   |   |   |   |   |
| 2  | lin   | Index 2012=100           |          |           |        |        |   |   |   |   |   |   |   |
| 3  | M   | Monthly                  |          |           |        |        |   |   |   |   |   |   |   |
| 4  | 01/01/1999  | 1919-01-01 to 2019-02-01 |          |           |        |        |   |   |   |   |   |   |   |
| 5  | <a href="#">Industrial Production Index</a>           |                          |          |           |        |        |   |   |   |   |   |   |   |
| 6  | Board of Governors of the Federal Reserve System (US) |                          |          |           |        |        |   |   |   |   |   |   |   |
| 7  | date  | value                    | 3 mo avg | 12 mo avg | 3 TTM  | 12 TTM |   |   |   |   |   |   |   |
| 34 | 03/01/2001  | 93.7                     | 94.07    | 95.14     | 0.9957 | 1.0257 |   |   |   |   |   |   |   |
| 35 | 04/01/2001  | 93.4                     | 93.70    | 94.97     | 0.9873 | 1.0195 |   |   |   |   |   |   |   |
| 36 | 05/01/2001  | 92.9                     | 93.35    | 94.74     | 0.9794 | 1.0132 |   |   |   |   |   |   |   |
| 37 | 06/01/2001  | 92.3                     | 92.88    | 94.45     | 0.9714 | 1.0060 |   |   |   |   |   |   |   |
| 38 | 07/01/2001  | 91.8                     | 92.33    | 94.13     | 0.9652 | 0.9993 |   |   |   |   |   |   |   |
| 39 | 08/01/2001  | 91.7                     | 91.93    | 93.83     | 0.9622 | 0.9933 |   |   |   |   |   |   |   |
| 40 | 09/01/2001  | 91.3                     | 91.60    | 93.47     | 0.9589 | 0.9861 |   |   |   |   |   |   |   |
| 41 | 10/01/2001  | 90.9                     | 91.31    | 93.10     | 0.9565 | 0.9801 |   |   |   |   |   |   |   |
| 42 | 11/01/2001  | 90.5                     | 90.92    | 92.69     | 0.9520 | 0.9741 |   |   |   |   |   |   |   |
| 43 | 12/01/2001  | 90.5                     | 90.64    | 92.30     | 0.9509 | 0.9691 |   |   |   |   |   |   |   |
| 44 | 01/01/2002  | 91.1                     | 90.69    | 92.01     | 0.9542 | 0.9658 |   |   |   |   |   |   |   |
| 45 | 02/01/2002  | 91.1                     | 90.88    | 91.77     | 0.9612 | 0.9637 |   |   |   |   |   |   |   |
| 46 | 03/01/2002  | 91.8                     | 91.31    | 91.61     | 0.9707 | 0.9629 |   |   |   |   |   |   |   |
| 47 | 04/01/2002  | 92.2                     | 91.68    | 91.50     | 0.9784 | 0.9635 |   |   |   |   |   |   |   |
| 48 | 05/01/2002  | 92.6                     | 92.18    | 91.48     | 0.9875 | 0.9656 |   |   |   |   |   |   |   |

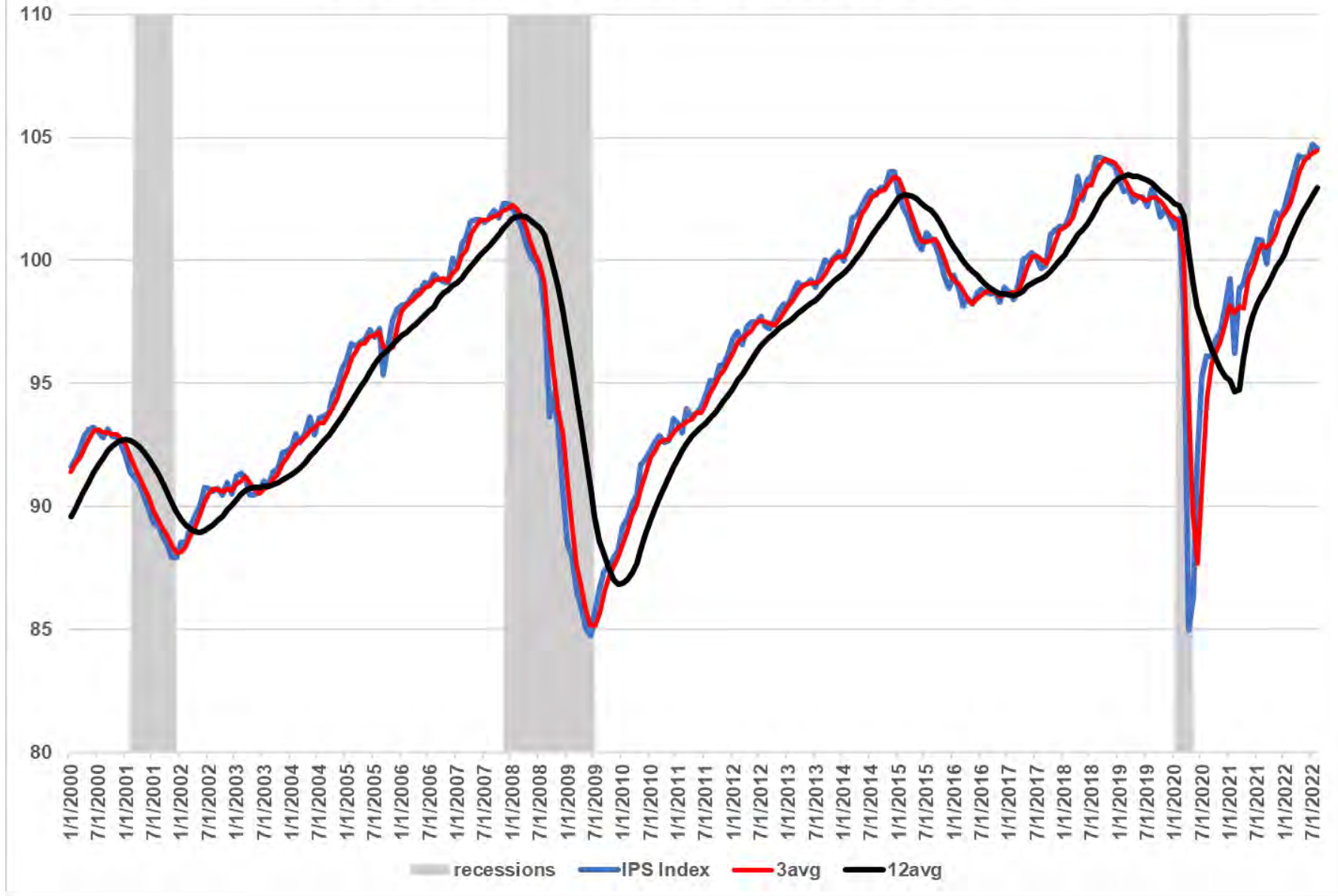


# Industrial Production: Total Index - Feb 2022



Source: Board of Governors of the Federal Reserve System (US)/FRED

# IPS - Index 3 MO and 12 MO Averages



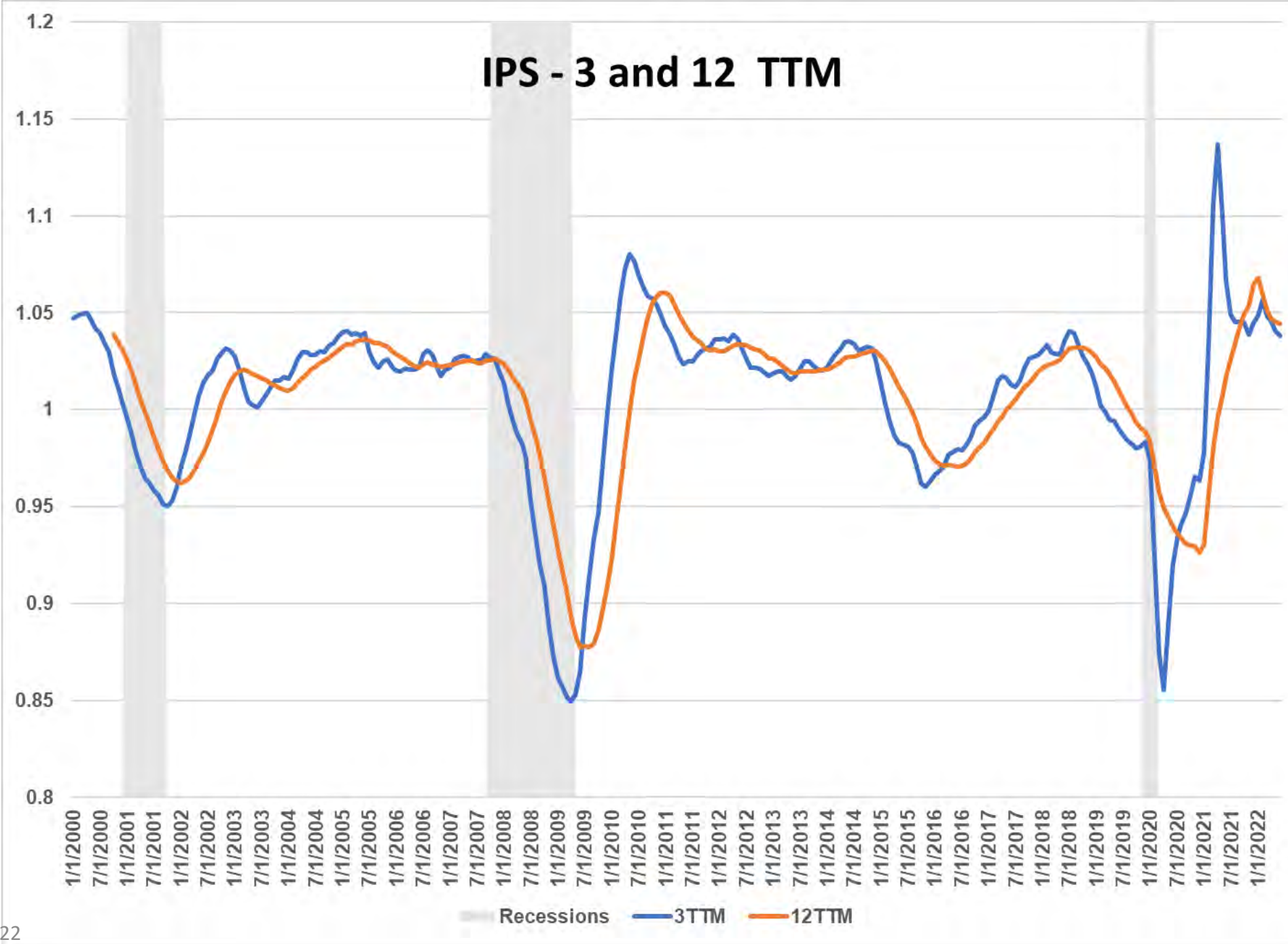
# Industrial Production: Total Index - Feb 2022



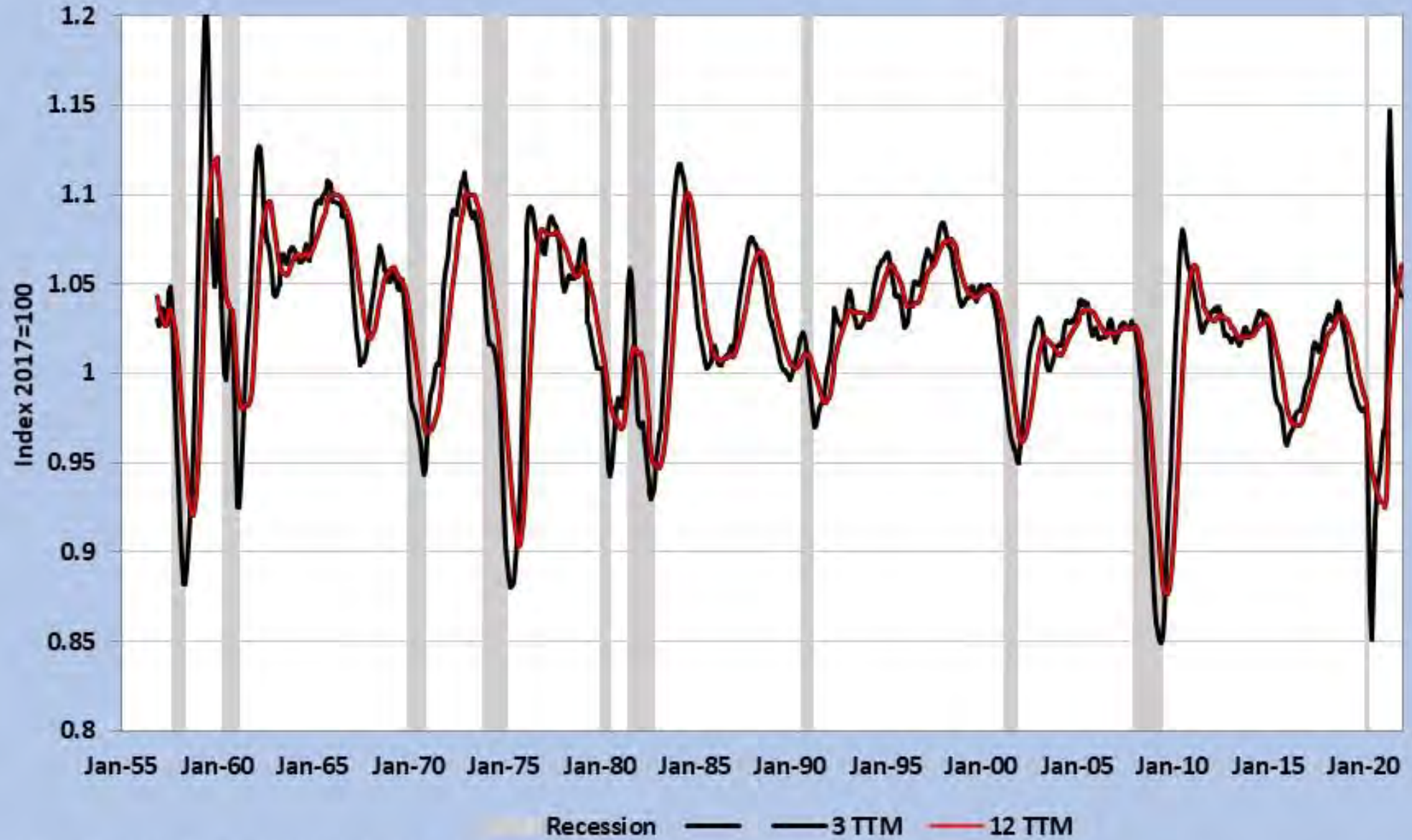
10/19/2022

Source: Board of Governors of the Federal Reserve System (US)/FRED

# IPS - 3 and 12 TTM



# Industrial Production: Total Index



10/19/2022

Source: Board of Governors of the Federal Reserve System (US)/FRED

# ☆ Industrial Production: Total Index (INDPRO)

DOWNLOAD 

Observation:  
Mar 2022: 5.4235 (+ more)  
Updated: Apr 15, 2022

Units:  
Change from Year Ago, Index  
2017=100,  
Seasonally Adjusted

Frequency:  
Monthly

1Y | 5Y | 10Y | Max

1989-01-01

to

2022-03-01

EDIT GRAPH 

## FRED — Industrial Production: Total Index



Shaded areas indicate U.S. recessions.


Source: Board of Governors of the Federal Reserve System (US)

fred.stlouisfed.org





# FRED Graph

DOWNLOAD 

1Y | 5Y | 10Y | Max

1980-01-01 to 2022-09-30

EDIT GRAPH 


**FRED** 


- 10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity (right)
- 10-Year Treasury Constant Maturity Minus 3-Month Treasury Constant Maturity (right)
- Unemployment Rate (left)




Shaded areas indicate U.S. recessions.

Sources: St. Louis Fed; BLS


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# ☆ Consumer Price Index for All Urban Consumers: Purchasing Power of the Consumer Dollar in U.S. City Average (CUUR0000SA0R)

DOWNLOAD 

Observation:  
Aug 2022: -7.7 (+ more)  
Updated: Sep 13, 2022

Units:  
Percent Change from Year Ago,  
Not Seasonally Adjusted


Frequency:  
Monthly

1Y | 5Y | 10Y | Max

1940-01-01

to

2022-08-01

EDIT GRAPH 

FRED 

— Consumer Price Index for All Urban Consumers: Purchasing Power of the Consumer Dollar in U.S. City Average



Shaded areas indicate U.S. recessions.

Source: U.S. Bureau of Labor Statistics

fred.stlouisfed.org



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SEARCH OVER 300,252 DATASETS

2 years Ago

**GET STARTED**  
SEARCH OVER 211,237 DATASETS

3 Years Ago

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SEARCH OVER 275,223 DATASETS

2 - 1/2 Year Ago

**GET STARTED**  
SEARCH OVER 335,221 DATASETS

Oct. 2022

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## MAJOR ECONOMIC INDICATORS

### Consumer Price Index

In March, the Consumer Price Index for All Urban Consumers fell 0.4 percent on a seasonally adjusted basis; rising 1.5 percent over the last 12 months, not seasonally adjusted. The index for all items less food and energy fell 0.1 percent in March (SA); up 2.1 percent over the year (NSA).  
Full text: ([HTML](#)) ([PDF](#)) ([Charts](#))

### Employment Cost Index

Compensation costs rose 0.8 percent for civilian workers, seasonally adjusted, from December 2019 to March 2020. Over the year, compensation rose 2.8 percent, with wages and salaries rising 3.1 percent and benefit costs increasing 2.1 percent.  
Full text: ([HTML](#)) ([PDF](#)) ([Charts](#))

### Employment Situation

Total nonfarm payroll employment fell by 701,000 in March, and the unemployment rate rose to 4.4 percent. These changes reflect the effects of the coronavirus (COVID-19) and efforts to contain it. Employment in leisure and hospitality fell sharply, with smaller job losses in other industries.  
Full text: ([HTML](#)) ([PDF](#)) ([Charts](#))

### Producer Price Index

The Producer Price Index for final demand fell 0.2 percent in March, as prices for final demand goods dropped 1.0 percent and the index for final demand services moved up 0.2 percent. The final demand index advanced 0.7 percent for the 12 months ended in March.  
Full text: ([HTML](#)) ([PDF](#)) ([Charts](#))

### Productivity and Costs

Productivity increased 1.2 percent in the nonfarm business sector in the fourth quarter of 2019; unit labor costs increased 0.9 percent (seasonally adjusted annual rates). In manufacturing, productivity decreased 0.8 percent and unit labor costs increased 3.6 percent.  
Full text: ([HTML](#)) ([PDF](#)) ([Charts](#))

### Real Earnings

Real average hourly earnings increased 0.8 percent over the month in March, seasonally adjusted. Average hourly earnings increased 0.4 percent and CPI-U decreased 0.4 percent. Real average weekly earnings increased 0.2 percent over the month.  
Full text: ([HTML](#)) ([PDF](#))

### U.S. Import and Export Price Indexes

Prices for U.S. imports fell 2.3 percent in March, after decreasing 0.7 percent in February. U.S. export prices declined 1.6 percent in March following a 1.1-percent drop in February. Over the past 12 months, import prices decreased 4.1 percent and export prices fell 3.6 percent.  
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- Advance Economic Indicators Report

### Monthly Retail Trade

#### Advance Monthly Retail Trade Report

**Statement Regarding COVID-19 Impact:** Due to recent events surrounding COVID-19, many businesses are operating on a limited capacity or have ceased operations completely. The Census Bureau has monitored response and data quality and determined estimates in this release meet publication standards. For more information on the compilation of this months report, see [COVID-19 FAQs](#).

**Notice of Revision:** This report no longer contains the most up to date estimates. Monthly retail sales estimates were revised on April 27, 2020 based on the results of the 2018 Annual Retail Trade Survey and Service Annual Survey.

The **March 2020** Advance Monthly Sales for Retail Trade and Food Services report was released on April 15, 2020 at 8:30 a.m., and available as:

- Full Publication in [Excel](#) [128KB] | [PDF](#) [730KB]
- [Time Series \(Adjusted Sales Data/Seasonal Factors—1992 to present\)](#)

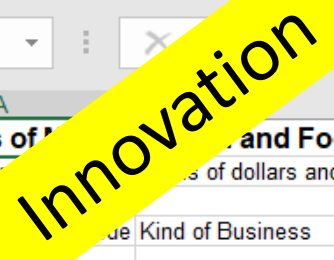
**Time Series/Trend Charts:** Create your own customizable time series.

#### Monthly Retail Trade Report

**Notice of Revision:** Monthly retail sales, inventories, and inventories-to-sales ratios were revised on April 27, 2020 at 10:00 a.m. based on the results of the 2018 Annual Retail Trade Survey.

- Retail and Food Services Sales: [Excel \(1992-present\)](#) [737KB]
- Retail Inventories and Inventories/Sales Ratios: [Excel \(1992-present\)](#) [455KB]
- Adjustment Factors for Seasonal and Other Variations of Monthly Estimates: [Sales](#) [8KB] | [Inventories](#) [3KB]
- Reliability of Monthly Estimates: [Sales](#) [13KB] | [Inventories](#) [3KB]
- [Annual Revision of Monthly Retail and Food Services: Sales and Inventories--January 1992 through March 2020](#)

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**Estimates of Monthly Retail and Food Services Sales by Kind of Business: 2022**

[Estimates are in millions of dollars and are based on data from the Monthly Retail Trade Survey, Annual Retail Trade Survey, Service Annual Survey, and administrative records]

Kind of Business

Jan. 2022 Feb. 2022 Mar. 2022 Apr. 2022 May 2022 Jun. 2022 Jul. 2022(p) CY CUM PY CUM

**NOT ADJUSTED**

|   |         |         |         |         |         |         |         |           |           |
|---|---------|---------|---------|---------|---------|---------|---------|-----------|-----------|
| Retail and food services sales, total                                   | 587,961 | 579,139 | 681,854 | 681,357 | 705,001 | 697,935 | 690,576 | 4,623,823 | 4,194,366 |
| Retail sales and food services excl motor vehicle and parts             | 474,414 | 462,148 | 541,746 | 544,061 | 572,984 | 565,376 | 562,840 | 3,723,569 | 3,314,843 |
| Retail sales and food services excl gasoline stations                   | 538,863 | 529,564 | 617,457 | 616,581 | 632,118 | 622,594 | 616,699 | 4,173,876 | 3,874,552 |
| Retail sales and food services excl motor vehicle and parts and gasolin | 425,316 | 412,573 | 477,349 | 479,285 | 500,101 | 490,035 | 488,963 | 3,273,622 | 2,995,029 |
| Retail sales, total   | 518,146 | 506,400 | 597,077 | 594,426 | 614,474 | 609,933 | 601,000 | 4,041,456 | 3,708,114 |
| Retail sales, total (excl. motor vehicle and parts dealers)             | 404,599 | 389,409 | 456,969 | 457,130 | 482,457 | 477,374 | 473,264 | 3,141,202 | 2,828,591 |
| GAFO(1)   | 105,279 | 103,278 | 124,548 | 121,740 | 126,342 | 125,089 | 125,437 | 831,713   | 804,615   |
| 441 Motor vehicle and parts dealers                                     | 113,547 | 116,991 | 140,108 | 137,296 | 132,017 | 132,559 | 127,736 | 900,254   | 879,523   |
| 4411,4412 Automobile and other motor vehicle dealers                    | 104,500 | 108,112 | 129,327 | 126,870 | 121,308 | 121,771 | 117,268 | 829,156   | 815,545   |
| 4411 Automobile dealers   | 96,689  | 99,008  | 117,183 | 114,762 | 109,724 | 109,501 | 105,738 | 752,605   | 747,483   |
| 44111 New car dealers   | 84,442  | 86,147  | 101,277 | 100,066 | 95,567  | 95,305  | 92,052  | 654,856   | 653,326   |
| 44112 Used car dealers  | 12,247  | 12,861  | 15,906  | 14,696  | 14,157  | 14,196  | 13,686  | 97,749    | 94,157    |
| 4413 Automotive parts, acc., and tire stores                            | 9,047   | 8,879   | 10,781  | 10,426  | 10,709  | 10,788  | 10,468  | 71,098    | 63,978    |
| 442,443 Furniture, home furn, electronics, and appliance stores         | 17,141  | 17,111  | 20,160  | 19,277  | 19,252  | 18,863  | 18,844  | 130,648   | 131,879   |
| 442 Furniture and home furnishings stores                               | 10,423  | 10,685  | 12,533  | 12,197  | 12,180  | 11,863  | 11,829  | 81,710    | 80,382    |
| 4421 Furniture stores   | 5,549   | 5,996   | 6,978   | 6,721   | 6,758   | 6,692   | 6,625   | 45,319    | 45,247    |
| 4422 Home furnishings stores  | (S)     | (S)     | (S)     | (S)     | (S)     | (S)     | (S)     |           |           |
| 44221 Floor covering stores   | (S)     | (S)     | (S)     | (S)     | (S)     | (S)     | (S)     |           |           |
| 442299 All other home furnishings stores                                | (S)     | (S)     | (S)     | (S)     | (S)     | (S)     | (S)     |           |           |
| 443 Electronics and appliance stores                                    | 6,718   | 6,426   | 7,627   | 7,080   | 7,072   | 7,000   | 7,015   | 48,938    | 51,497    |
| 443141 Household appliance stores                                       | 1,547   | 1,564   | 1,809   | 1,731   | 1,791   | 1,815   | 1,724   | 11,981    | 12,309    |
| 443142 Electronics stores   | 5,171   | 4,862   | 5,818   | 5,349   | 5,281   | 5,185   | 5,291   | 36,957    | 39,188    |
| 444 Building mat. and garden equip. and supplies dealers                | 33,771  | 33,529  | 44,478  | 46,152  | 50,099  | 48,211  | 43,581  | 299,821   | 282,125   |
| 4441 Building mat. and supplies dealers                                 | 29,770  | 29,463  | 38,803  | 39,589  | 42,979  | 41,870  | 38,399  | 260,873   | 244,007   |
| 44412 Paint and wallpaper stores  | 1,051   | 1,096   | 1,424   | 1,386   | 1,494   | 1,608   | 1,470   | 9,529     | 8,747     |
| 44413 Hardware stores   | 2,728   | 2,631   | 3,252   | 3,479   | 3,895   | 3,839   | 3,568   | 23,392    | 21,981    |
| 445 Food and beverage stores  | 74,984  | 69,315  | 76,325  | 76,368  | 79,628  | 79,471  | 81,631  | 537,722   | 498,539   |
| 4451 Grocery stores   | 68,099  | 62,339  | 68,614  | 68,404  | 71,460  | 71,214  | 73,151  | 483,281   | 444,399   |
| 44511 Supermarkets and other grocery (except convenience) stores        | 65,318  | 59,584  | 65,494  | 65,091  | 68,066  | 67,737  | 69,638  | 460,928   | 424,265   |
| 4453 Beer, wine, and liquor stores                                      | 4,939   | 5,057   | 5,590   | 5,710   | 5,919   | 6,038   | 6,230   | 39,483    | 39,408    |
| 446 Health and personal care stores                                     | 32,224  | 29,947  | 33,648  | 32,435  | 32,952  | 33,459  | 32,463  | 227,128   | 218,433   |
| 44611 Pharmacies and drug stores  | 27,297  | 24,847  | 27,579  | 26,772  | 27,158  | 27,520  | 26,947  | 188,120   | 182,116   |
| 447 Gasoline stations   | 49,098  | 49,575  | 64,397  | 64,776  | 72,883  | 75,341  | 73,877  | 449,947   | 319,814   |
| 448 Clothing and clothing access. stores                                | 18,113  | 20,509  | 25,622  | 25,904  | 26,831  | 25,031  | 25,119  | 167,129   | 153,941   |
| 4481 Clothing stores  | 12,368  | 13,204  | 17,506  | 17,794  | 18,360  | 17,280  | 17,418  | 113,930   | 104,804   |

**Innovation**

|    | A  | B  | C         | D         | E         | F         | G        | H         | I         | J         | K         | L         | M         | N         | O         |
|----|--|--|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1  | <b>Estimates of Motor Vehicle and Food Services Sales by Kind of Business: 2021</b>  |  |           |           |           |           |          |           |           |           |           |           |           |           |           |
| 2  | [Estimates are shown in millions of dollars and are based on data from the Monthly Retail Trade Survey, Annual Retail Trade Survey, Service Annual Survey, and administrative records] |  |           |           |           |           |          |           |           |           |           |           |           |           |           |
| 3  |  |  |           |           |           |           |          |           |           |           |           |           |           |           |           |
| 4  |  | Kind of Business   |           |           |           |           |          |           |           |           |           |           |           |           |           |
| 5  |  |  | Jan. 2021 | Feb. 2021 | Mar. 2021 | Apr. 2021 | May 2021 | Jun. 2021 | Jul. 2021 | Aug. 2021 | Sep. 2021 | Oct. 2021 | Nov. 2021 | Dec. 2021 | TOTAL     |
| 6  |  | <b>NOT ADJUSTED</b>  |           |           |           |           |          |           |           |           |           |           |           |           |           |
| 7  |  | Retail and food services sales, total                                    | 518,300   | 492,597   | 634,945   | 629,451   | 644,652  | 638,109   | 636,312   | 633,403   | 609,406   | 638,069   | 654,469   | 711,673   | 7,441,386 |
| 8  |  | Retail sales and food services excl motor vehicle and parts              | 417,671   | 393,273   | 493,286   | 490,560   | 507,052  | 505,812   | 507,189   | 509,783   | 490,752   | 517,883   | 538,632   | 589,369   | 5,961,262 |
| 9  |  | Retail sales and food services excl gasoline stations                    | 481,306   | 456,524   | 588,937   | 582,495   | 594,839  | 587,217   | 583,234   | 580,562   | 557,412   | 583,335   | 602,186   | 659,844   | 6,857,891 |
| 10 |  | Retail sales and food services excl motor vehicle and parts and gasoline | 380,677   | 357,200   | 447,278   | 443,604   | 457,239  | 454,920   | 454,111   | 456,942   | 438,758   | 463,149   | 486,349   | 537,540   | 5,377,767 |
| 11 |  | Retail sales, total  | 462,558   | 438,933   | 565,764   | 557,874   | 567,461  | 560,679   | 554,845   | 553,822   | 532,840   | 557,737   | 579,687   | 632,849   | 6,565,049 |
| 12 |  | Retail sales, total (excl. motor vehicle and parts dealers)              | 361,929   | 339,609   | 424,105   | 418,983   | 429,861  | 428,382   | 425,722   | 430,202   | 414,186   | 437,551   | 463,850   | 510,545   | 5,084,925 |
| 13 |  | GAFO(1)  | 100,170   | 93,197    | 124,196   | 117,693   | 124,204  | 121,517   | 123,638   | 125,034   | 116,392   | 125,223   | 137,115   | 163,597   | 1,471,976 |
| 14 | 441  | Motor vehicle and parts dealers  | 100,629   | 99,324    | 141,659   | 138,891   | 137,600  | 132,297   | 129,123   | 123,620   | 118,654   | 120,186   | 115,837   | 122,304   | 1,480,124 |
| 15 | 4411,4412  | Automobile and other motor vehicle dealers                               | 92,943    | 91,835    | 131,491   | 129,053   | 128,180  | 122,624   | 119,419   | 113,791   | 109,222   | 110,342   | 106,400   | 112,739   | 1,368,039 |
| 16 | 4411   | Automobile dealers   | 87,117    | 85,259    | 120,463   | 117,514   | 116,807  | 111,154   | 109,169   | 104,362   | 100,594   | 101,704   | 98,587    | 105,140   | 1,257,870 |
| 17 | 44111  | New car dealers  | 77,391    | 74,874    | 104,050   | 101,980   | 102,538  | 96,934    | 95,559    | 90,256    | 86,553    | 87,437    | 85,574    | 92,521    | 1,095,667 |
| 18 | 44112  | Used car dealers   | 9,726     | 10,385    | 16,413    | 15,534    | 14,269   | 14,220    | 13,610    | 14,106    | 14,041    | 14,267    | 13,013    | 12,619    | 162,203   |
| 19 | 4413   | Automotive parts, acc., and tire stores                                  | 7,686     | 7,489     | 10,168    | 9,838     | 9,420    | 9,673     | 9,704     | 9,829     | 9,432     | 9,844     | 9,437     | 9,565     | 112,085   |
| 20 | 442,443  | Furniture, home furn, electronics, and appliance stores                  | 17,275    | 16,037    | 20,276    | 19,297    | 19,426   | 19,621    | 19,947    | 19,945    | 19,522    | 19,936    | 21,735    | 23,124    | 236,141   |
| 21 | 442  | Furniture and home furnishings stores                                    | 10,432    | 9,916     | 12,401    | 11,951    | 11,925   | 11,730    | 12,027    | 12,091    | 11,974    | 12,040    | 12,795    | 12,678    | 141,960   |
| 22 | 4421   | Furniture stores   | 6,009     | 5,657     | 7,074     | 6,770     | 6,742    | 6,406     | 6,589     | 6,542     | 6,614     | 6,629     | 6,656     | 6,455     | 78,143    |
| 23 | 4422   | Home furnishings stores  | (S)       | (S)       | (S)       | (S)       | (S)      | (S)       | (S)       | (S)       | (S)       | (S)       | (S)       | (S)       |           |
| 24 | 44221  | Floor covering stores  | (S)       | (S)       | (S)       | (S)       | (S)      | (S)       | (S)       | (S)       | (S)       | (S)       | (S)       | (S)       |           |
| 25 | 442299   | All other home furnishings stores  | (S)       | (S)       | (S)       | (S)       | (S)      | (S)       | (S)       | (S)       | (S)       | (S)       | (S)       | (S)       |           |
| 26 | 443  | Electronics and appliance stores   | 6,843     | 6,121     | 7,875     | 7,346     | 7,501    | 7,891     | 7,920     | 7,854     | 7,548     | 7,896     | 8,940     | 10,446    | 94,181    |
| 27 | 443141   | Household appliance stores   | 1,606     | 1,470     | 1,930     | 1,829     | 1,754    | 1,889     | 1,831     | 1,797     | 1,785     | 1,769     | 1,834     | 1,747     | 21,241    |
| 28 | 443142   | Electronics stores   | 5,237     | 4,651     | 5,945     | 5,517     | 5,747    | 6,002     | 6,089     | 6,057     | 5,763     | 6,127     | 7,106     | 8,699     | 72,940    |
| 29 | 444  | Building mat. and garden equip. and supplies dealers                     | 30,890    | 29,284    | 43,010    | 46,533    | 46,315   | 44,931    | 41,162    | 39,586    | 38,859    | 39,435    | 39,491    | 38,294    | 477,790   |
| 30 | 4441   | Building mat. and supplies dealers                                       | 26,897    | 25,401    | 36,990    | 39,531    | 39,644   | 39,143    | 36,401    | 35,049    | 34,340    | 34,618    | 34,925    | 33,323    | 416,262   |
| 31 | 44412  | Paint and wallpaper stores   | 983       | 952       | 1,358     | 1,358     | 1,352    | 1,422     | 1,322     | 1,362     | 1,330     | 1,302     | 1,180     | 1,079     | 15,000    |
| 32 | 44413  | Hardware stores  | 2,576     | 2,410     | 3,188     | 3,443     | 3,575    | 3,535     | 3,254     | 3,148     | 3,082     | 3,127     | 3,158     | 3,269     | 37,765    |
| 33 | 445  | Food and beverage stores   | 70,026    | 64,261    | 70,946    | 69,944    | 74,598   | 73,120    | 75,644    | 74,501    | 72,978    | 75,780    | 75,733    | 82,729    | 880,260   |
| 34 | 4451   | Grocery stores   | 63,171    | 57,543    | 63,134    | 62,163    | 66,336   | 64,865    | 67,187    | 66,583    | 65,263    | 67,795    | 67,280    | 71,845    | 783,165   |
| 35 | 44511  | Supermarkets and other grocery (except convenience) stores               | 60,599    | 55,126    | 60,297    | 59,212    | 63,246   | 61,800    | 63,985    | 63,468    | 62,268    | 64,744    | 64,320    | 68,773    | 747,838   |
| 36 | 4453   | Beer, wine, and liquor stores  | 5,031     | 4,910     | 5,658     | 5,645     | 6,016    | 5,986     | 6,162     | 5,701     | 5,572     | 5,761     | 6,021     | 7,701     | 70,164    |
| 37 | 446  | Health and personal care stores  | 29,377    | 27,599    | 33,452    | 31,960    | 31,436   | 32,617    | 31,992    | 32,537    | 32,089    | 32,541    | 32,432    | 37,356    | 385,388   |

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### Quarterly Financial Report (QFR) Manufacturing, Mining, Trade, and Selected Service Industries

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The following bar charts present **After Tax Profit** information for U.S. manufacturers and large retailers.

- U.S. Manufacturers Seasonally Adjusted (Billions of Dollars)   [JPG](#)
- Large U.S. Retailers Seasonally Adjusted (Billions of Dollars)   [JPG](#)



**Table 6 Manufacturing, Mining, Wholesale Trade, and Selected Service Industries –**

**Seasonally Adjusted Sales and Profits**

|   | Sales             |           |           | Operating profits <sup>1</sup> |          |          | After-tax profits |          |          |
|---|-------------------|-----------|-----------|--------------------------------|----------|----------|-------------------|----------|----------|
|   | 2Q                | 1Q        | 2Q        | 2Q                             | 1Q       | 2Q       | 2Q                | 1Q       | 2Q       |
|   | 2022              | 2022 (r)  | 2021 (r)  | 2022                           | 2022 (r) | 2021 (r) | 2022              | 2022 (r) | 2021 (r) |
|   | (million dollars) |           |           |                                |          |          |                   |          |          |
| All manufacturing <sup>2</sup> .....                          | 2,204,902         | 1,959,795 | 1,803,333 | 255,211                        | 205,961  | 189,518  | 283,397           | 258,515  | 247,725  |
| All nondurable manufacturing.....                             | 1,176,473         | 1,008,173 | 877,139   | 151,762                        | 116,521  | 94,959   | 150,017           | 123,422  | 104,526  |
| Food .....  | 206,944           | 190,296   | 171,734   | 16,162                         | 16,618   | 14,986   | 13,812            | 15,451   | 12,485   |
| Beverage and tobacco products .....                           | 56,795            | 49,644    | 51,448    | 12,370                         | 10,085   | 12,754   | 9,058             | 13,634   | 11,469   |
| Textile mills and textile product mills .....                 | 11,665            | 11,337    | 10,892    | 826                            | 903      | 1,008    | 785               | 945      | 1,183    |
| Apparel and leather products .....                            | 22,499            | 20,816    | 21,783    | 3,037                          | 2,506    | 3,718    | 2,935             | 2,912    | 3,429    |
| Paper .....   | 36,476            | 34,000    | 32,812    | 3,792                          | 2,888    | 2,504    | 3,698             | 2,967    | 2,356    |
| Printing and related support activities .....                 | 14,352            | 13,748    | 12,207    | 1,013                          | 912      | 990      | 620               | 621      | 976      |
| Petroleum and coal products .....                             | 418,988           | 312,031   | 232,670   | 46,043                         | 20,875   | 6,983    | 54,848            | 22,819   | 20,797   |
| Chemicals .....   | 342,499           | 313,726   | 288,884   | 60,674                         | 55,546   | 46,605   | 57,483            | 58,960   | 44,845   |
| Basic chemicals, resins, and<br>synthetics <sup>3</sup> ..... | 94,125            | 85,795    | 76,184    | 14,590                         | 11,991   | 10,932   | 13,445            | 11,460   | 9,745    |
| Pharmaceuticals and medicines <sup>3</sup> .....              | 160,289           | 154,789   | 141,137   | 33,562                         | 33,483   | 26,508   | 31,210            | 35,208   | 23,104   |
| All other chemicals <sup>3</sup> .....                        | 88,086            | 73,141    | 71,562    | 12,523                         | 10,072   | 9,165    | 12,827            | 12,292   | 11,996   |
| Plastics and rubber products .....                            | 66,255            | 62,575    | 54,709    | 7,845                          | 6,188    | 5,412    | 6,777             | 5,113    | 6,986    |
| All durable manufacturing.....                                | 1,028,429         | 951,621   | 926,195   | 103,449                        | 89,439   | 94,559   | 133,381           | 135,092  | 143,199  |
| Wood products .....   | 42,299            | 37,023    | 40,918    | 7,083                          | 8,073    | 9,379    | 6,116             | 6,617    | 8,727    |
| Nonmetallic mineral products .....                            | 42,658            | 31,917    | 36,700    | 6,806                          | 3,043    | 5,671    | 7,692             | 3,043    | 5,321    |
| Primary metals .....  | 93,581            | 83,334    | 74,475    | 14,667                         | 13,429   | 10,990   | 14,428            | 13,394   | 10,911   |
| Iron, steel, and ferroalloys <sup>3</sup> .....               | 52,361            | 46,393    | 41,365    | 10,768                         | 9,323    | 7,217    | 9,065             | 8,079    | 6,586    |
| Nonferrous metals <sup>3</sup> .....                          | 33,607            | 30,239    | 27,064    | 3,217                          | 3,629    | 3,150    | 4,691             | 4,927    | 3,669    |
| Foundries <sup>3</sup> .....                                  | 7,613             | 6,702     | 6,046     | 681                            | 478      | 623      | 672               | 388      | 656      |
| Fabricated metal products .....                               | 88,169            | 83,619    | 82,412    | 9,470                          | 8,126    | 10,356   | 8,947             | 8,076    | 10,767   |
| Machinery .....   | 120,234           | 104,637   | 105,443   | 12,046                         | 8,596    | 10,705   | 14,977            | 12,245   | 15,102   |
| Computer and electronic products .....                        | 192,107           | 188,542   | 176,436   | 22,239                         | 25,127   | 21,926   | 48,381            | 69,902   | 59,120   |
| Computer and peripheral equipment <sup>3</sup> .....          | 64,441            | 68,978    | 62,526    | 7,787                          | 8,490    | 8,176    | 20,973            | 26,849   | 25,230   |
| Communications equipment <sup>3</sup> .....                   | 28,689            | 26,759    | 26,642    | 4,731                          | 5,360    | 4,455    | 4,934             | 7,760    | 6,811    |
| All other electronic products <sup>3</sup> .....              | 98,976            | 92,804    | 87,268    | 9,721                          | 11,277   | 9,296    | 22,474            | 35,294   | 27,079   |
| Electrical equipment, appliances, and<br>components .....     | 52,940            | 49,305    | 46,065    | 5,927                          | 4,218    | 3,861    | 2,951             | 4,017    | 3,157    |
| Transportation equipment .....                                | 309,491           | 290,030   | 276,864   | 17,214                         | 10,982   | 13,090   | 19,516            | 12,948   | 18,794   |




































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|---|--|--|---|
|    | <p><b>Rental Vacancy Rate</b><br/>                     The rental vacancy rate in the first quarter 2020, 6.6 percent, was lower than the rate in the first quarter 2019. The rental vacancy rate in the South was lower than the first quarter 2019 rates. Rental vacancy rates in the Northeast, Midwest, and West were not statistically different from the first quarter 2019 rates.</p> <p>Current Press Release -     </p> | <p>Archived Releases -<br/> <a href="#">1994 - present</a><br/>                     Historic Time Series -<br/> <a href="#">1956 - present</a><br/> <a href="#">Time Series/Trend Charts</a></p> | <p><b>Released:</b><br/>                     April 28, 2020<br/> <b>Next Release:</b><br/>                     July 28, 2020</p>   |
|    | <p><b>Homeownership Rate</b><br/>                     The homeownership rate in the first quarter 2020, 65.3 percent, was higher than the rate in the first quarter 2019. The homeownership rates in the Northeast, Midwest, and South were higher than the first quarter 2019 rates. The rate in the West was not statistically different from the first quarter 2019 rate.</p> <p>Current Press Release -     </p>             | <p>Archived Releases -<br/> <a href="#">1994 - present</a><br/>                     Historic Time Series -<br/> <a href="#">1956 - present</a><br/> <a href="#">Time Series/Trend Charts</a></p> | <p><b>Released:</b><br/>                     April 28, 2020<br/> <b>Next Release:</b><br/>                     July 28, 2020</p>   |
|    | <p><b>Advance Monthly Wholesale Inventories</b><br/>                     March end-of-month inventories were \$650.0 billion, down 1.0 percent (+/- 0.2 percent) from last month.</p> <p>Current Press Release -     </p>  | <p>Archived Releases -<br/> <a href="#">2016 - present</a><br/>                     Historic Time Series -<br/> <a href="#">Time Series/Trend Charts</a></p>                                     | <p><b>Released:</b><br/>                     April 28, 2020<br/> <b>Next Release:</b><br/>                     May 29, 2020</p>    |
|  | <p><b>Advance U.S. International Trade in Goods</b><br/>                     The advance international trade deficit in goods increased to \$64.2 billion in March from \$59.9 billion in February as exports decreased more than imports.</p> <p>Current Press Release -     </p>   | <p>Archived Releases -<br/> <a href="#">2016 - present</a><br/>                     Historic Time Series -<br/> <a href="#">Time Series/Trend Charts</a></p>                                     | <p><b>Released:</b><br/>                     April 28, 2020<br/> <b>Next Release:</b><br/>                     May 29, 2020</p>   |
|  | <p><b>Advance Monthly Retail Inventories</b><br/>                     March 2020 end-of-month inventories were \$666.8 billion, up 0.9 percent (+/- 0.2%) from last month.</p> <p>Current Press Release -     </p>   | <p>Archived Releases -<br/> <a href="#">2016 - present</a><br/>                     Historic Time Series -<br/> <a href="#">Time Series/Trend Charts</a></p>                                     | <p><b>Released:</b><br/>                     April 28, 2020<br/> <b>Next Release:</b><br/>                     May 29, 2020</p>  |

|   |   |   |  |
|---|---|---|--|
|    | <p><b>Advance Report on Durable Goods Manufacturers' Shipments, Inventories, and Orders</b><br/>New orders for manufactured durable goods in March decreased \$36.0 billion or 14.4 percent to \$213.2 billion.</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">X</a> <a href="#">Bar Chart</a> <a href="#">RSS</a> <a href="#">Email</a></p>  | <p>Archived Releases -<br/>1992 - present<br/>Historic Time Series -<br/>1992 - present (NAICS)<br/>1958 - 2001 (SIC)</p> <p><a href="#">Time Series/Trend Charts</a></p> | <p><b>Released:</b><br/>April 24, 2020<br/><b>Next Release:</b><br/>May 28, 2020</p>    |
|    | <p><b>New Residential Sales</b><br/>Sales of new single-family houses in March 2020 were at a seasonally adjusted annual rate of 627,000. This is 15.4 percent (+/- 14.8%) below the revised February 2020 estimate of 741,000.</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">X</a> <a href="#">Bar Chart</a> <a href="#">RSS</a> <a href="#">Email</a></p>  | <p>Archived Releases -<br/>1995 - present<br/>Historic Time Series -<br/>1963 - present</p> <p><a href="#">Time Series/Trend Charts</a></p>                               | <p><b>Released:</b><br/>April 23, 2020<br/><b>Next Release:</b><br/>May 26, 2020</p>    |
|    | <p><b>New Residential Construction</b><br/>Privately-owned housing starts in March 2020 were at a seasonally adjusted annual rate of 1,216,000. This is 22.3 percent (+/- 12.2%) below the revised February 2020 estimate of 1,564,000.</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">X</a> <a href="#">Bar Chart</a> <a href="#">RSS</a> <a href="#">Email</a></p>  | <p>Archived Releases -<br/>1995 - present<br/>Historic Time Series -<br/>1959 - present</p> <p><a href="#">Time Series/Trend Charts</a></p>                               | <p><b>Released:</b><br/>April 16, 2020<br/><b>Next Release:</b><br/>May 19, 2020</p>    |
|    | <p><b>Manufacturing and Trade Inventories and Sales</b><br/>U.S. total business end-of-month inventories for February 2020 were \$2,012.7 billion, down 0.4 percent (+/- 0.1 percent) from last month. U.S. total business sales were \$1,464.2 billion, down 0.5 percent (+/- 0.2 percent) from last month.</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">X</a> <a href="#">Bar Chart</a> <a href="#">RSS</a> <a href="#">Email</a></p> | <p>Archived Releases -<br/>1996 - present<br/>Historic Time Series -</p> <p><a href="#">Time Series/Trend Charts</a></p>  | <p><b>Released:</b><br/>April 15, 2020<br/><b>Next Release:</b><br/>May 15, 2020</p>    |
|   | <p><b>Business Formation Statistics</b><br/>Total U.S. Business Applications were 842,614 in the first quarter of 2020, down 4.5% from fourth quarter 2019.</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">X</a> <a href="#">Bar Chart</a> <a href="#">RSS</a> <a href="#">Email</a></p>  | <p>Archived Releases -<br/>2019 - present<br/>Historic Time Series -<br/>2004 - present</p> <p><a href="#">Time Series/Trend Charts</a></p>                               | <p><b>Released:</b><br/>April 15, 2020<br/><b>Next Release:</b><br/>July 15, 2020</p>   |
|  | <p><b>Advance Monthly Sales for Retail and Food Services</b><br/>U.S. retail and food services sales for March 2020 were \$483.1 billion, a decrease of 8.7 percent (+/- 0.4%) from the previous month.</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">X</a> <a href="#">Bar Chart</a> <a href="#">RSS</a> <a href="#">Email</a></p>  | <p>Archived Releases -<br/>1953 - present<br/>Historic Time Series -<br/>1992 - present</p> <p><a href="#">Time Series/Trend Charts</a></p>                               | <p><b>Released:</b><br/>April 15, 2020<br/><b>Next Release:</b><br/>May 15, 2020</p>  |

|   |  |   |  |
|---|--|---|--|
|    | <p><b>Monthly Wholesale Trade</b><br/>February 2020 sales of merchant wholesalers were \$500.7 billion, down 0.8 percent (+/- 0.5 percent) from last month. End-of-month inventories were \$655.8 billion, down 0.7 percent (+/- 0.2 percent) from last month.</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">Excel</a> <a href="#">Charts</a> <a href="#">RSS</a> <a href="#">Email</a></p>   | <p>Archived Releases -<br/>1990 - present<br/>Historic Time Series -<br/>1992 - present, adjusted<br/>1992 - present, not adjusted</p> <p><a href="#">Time Series/Trend Charts</a></p>      | <p><b>Released:</b><br/>April 9, 2020<br/><b>Next Release:</b><br/>May 8, 2020</p>      |
|    | <p><b>Manufacturers' Shipments, Inventories, and Orders</b><br/>New orders for manufactured goods in February decreased \$0.1 billion or virtually unchanged to \$497.4 billion.</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">Excel</a> <a href="#">Charts</a> <a href="#">RSS</a> <a href="#">Email</a></p>   | <p>Archived Releases -<br/>1992 - present<br/>Historic Time Series -<br/>1992 - present (NAICS)<br/>1958 - 2001 (SIC)</p> <p><a href="#">Time Series/Trend Charts</a></p>                   | <p><b>Released:</b><br/>April 2, 2020<br/><b>Next Release:</b><br/>May 4, 2020</p>      |
|    | <p><b>U.S. International Trade in Goods and Services</b><br/>The nation's international trade deficit in goods and services decreased to \$39.9 billion in February from \$45.5 billion in January (revised), as imports decreased more than exports.</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">Text</a> <a href="#">Excel</a> <a href="#">Charts</a> <a href="#">RSS</a> <a href="#">Email</a></p>   | <p>Archived Releases -<br/>1991 - present<br/>Historic Time Series -<br/>US Trade Data (various)<br/>Country&amp;Product Data (various)</p> <p><a href="#">Time Series/Trend Charts</a></p> | <p><b>Released:</b><br/>April 2, 2020<br/><b>Next Release:</b><br/>May 5, 2020</p>      |
|    | <p><b>Construction Spending</b><br/>Total construction activity for February 2020 (\$1,366.7 billion) was 1.3 percent (+/- 0.8 percent) below the revised January 2020 (\$1,384.5 billion).</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">Excel</a> <a href="#">Charts</a> <a href="#">RSS</a> <a href="#">Email</a></p>  | <p>Archived Releases -<br/>2003 - present<br/>Historic Time Series -<br/>1993 - present (new format)<br/>1964 - 2001 (legacy format)</p> <p><a href="#">Time Series/Trend Charts</a></p>    | <p><b>Released:</b><br/>April 1, 2020<br/><b>Next Release:</b><br/>May 1, 2020</p>      |
|    | <p><b>Quarterly Financial Report - Retail Trade</b><br/>Seasonally adjusted after-tax profits for retail corporations with assets of \$50 million and over were \$30.8 billion for the fourth quarter 2019 (the 3 months ending January 31, 2020), up \$5.7 (+/- 0.6) billion from third quarter 2019 (the 3 months ending October 31, 2019).</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">Excel</a> <a href="#">Charts</a> <a href="#">RSS</a> <a href="#">Email</a></p>                    | <p>Archived Releases -<br/>1993 - present<br/>Historic Time Series -</p> <p><a href="#">Time Series/Trend Charts</a></p>  | <p><b>Released:</b><br/>March 23, 2020<br/><b>Next Release:</b><br/>June 8, 2020</p>    |
|  | <p><b>Quarterly Financial Report - Manufacturing, Mining, Wholesale Trade, and Selected Service Industries</b><br/>Manufacturing corporations' seasonally adjusted after-tax profits were \$152.9 billion for the fourth quarter of 2019, up \$7.6 (+/- 2.1) billion from third quarter of 2019.</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">Excel</a> <a href="#">Charts</a> <a href="#">RSS</a> <a href="#">Email</a></p>   | <p>Archived Releases -<br/>1993 - present<br/>Historic Time Series -</p> <p><a href="#">Time Series/Trend Charts</a></p>  | <p><b>Released:</b><br/>March 23, 2020<br/><b>Next Release:</b><br/>June 8, 2020</p>  |
|  | <p><b>Quarterly Services Survey</b><br/>The estimate of U.S. selected services total revenue for the fourth quarter of 2019, adjusted for seasonal variation but not for price changes, was \$4,127.1 billion, an increase of 1.0 percent (+/- 0.4 percent) from the third quarter of 2019 and up 4.6 percent (+/- 0.6 percent) from the fourth quarter of 2018.</p> <p>Current Press Release - <a href="#">PDF</a> <a href="#">Excel</a> <a href="#">Charts</a> <a href="#">RSS</a> <a href="#">Email</a></p> | <p>Archived Releases -<br/>2004 - present<br/>Historic Time Series -<br/>2004 - present</p> <p><a href="#">Time Series/Trend Charts</a></p>   | <p><b>Released:</b><br/>March 12, 2020<br/><b>Next Release:</b><br/>May 20, 2020</p>  |

Innovation



Office of Structured Disclosure

Contact OSD

What is Structured Data?

History and Rulemaking

Inline XBRL

IFRS Taxonomy

▶ Data

▶ Preparers

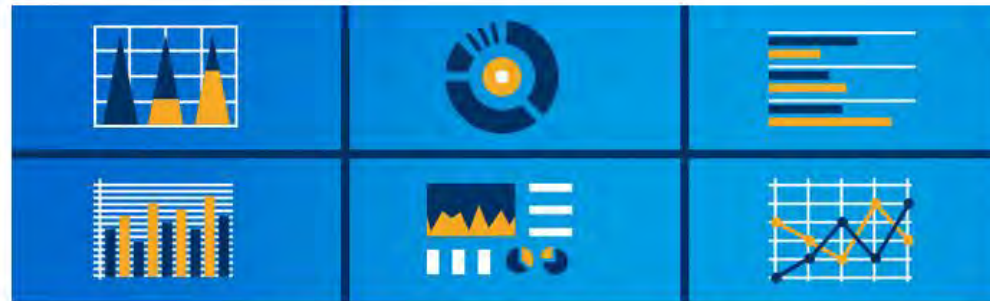
▶ Technical

## Data

+ Add This + Add This

# Financial Statement Data Sets

January 2009 - March 2021



The Financial Statement Data Sets below provide numeric information from the face financials of all financial statements. This data is extracted from exhibits to corporate financial reports filed with the Commission using eXtensible Business Reporting Language (XBRL). As compared to the more extensive [Financial Statement and Notes Data Sets](#), which provide the numeric and narrative disclosures from all financial statements and their notes, the Financial Statement Data Sets are more compact.

The information is presented without change from the "as filed" financial reports submitted by each registrant. The data is presented in a flattened format to help users analyze and compare corporate

## Related Materials


- [Financial Statement and Notes Data Sets](#)
- [Getting the Big Picture](#)

# - Sources of Competitive Intelligence <sup>15</sup>



# Alerts

Monitor the web for interesting new content

 competitive intelligence



How often

At most once a day



Sources

Automatic



Language

English



Region

Any Region



How many

Only the best results



Deliver to

jim@thorstenconsulting.com



**CREATE ALERT**

Hide options ▲

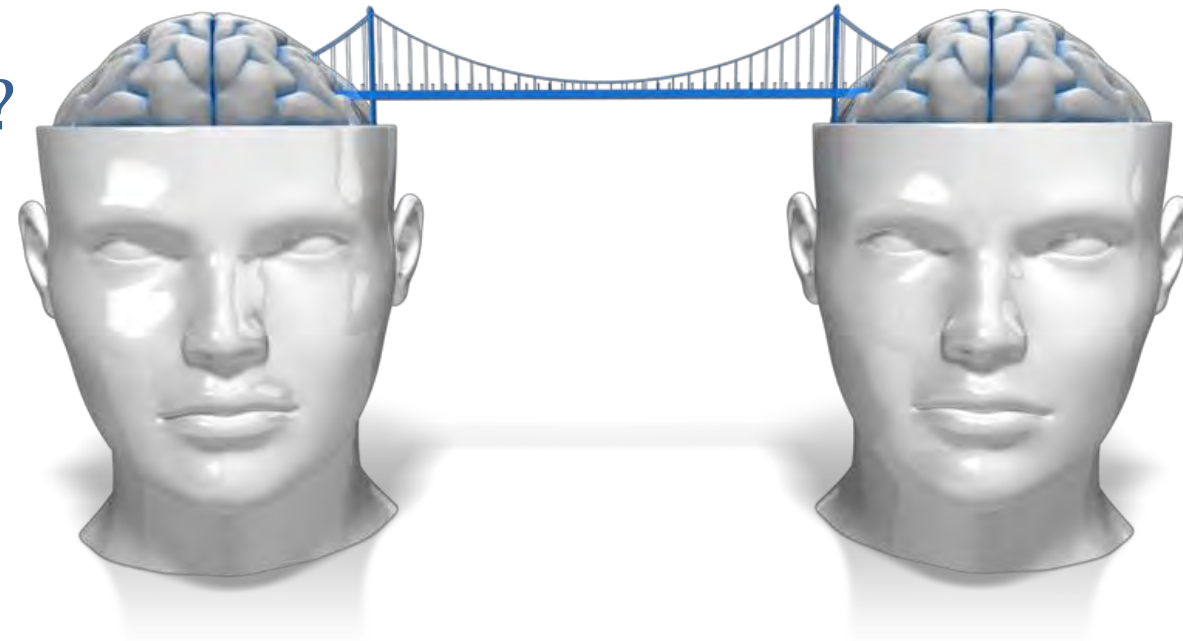
# Part 2 – Leadership and People





# How are you people skills?

- How good is your ability to influence others?
- How successful are your negotiation skills?
- How well can you communicate?
- Are you a collaborator or a partner?



# Influencing others

- In what ways do we influence others?
- Actions
- Words
- Inactions
- Unspoken words
- Media – emails, social media



# Understanding Customers

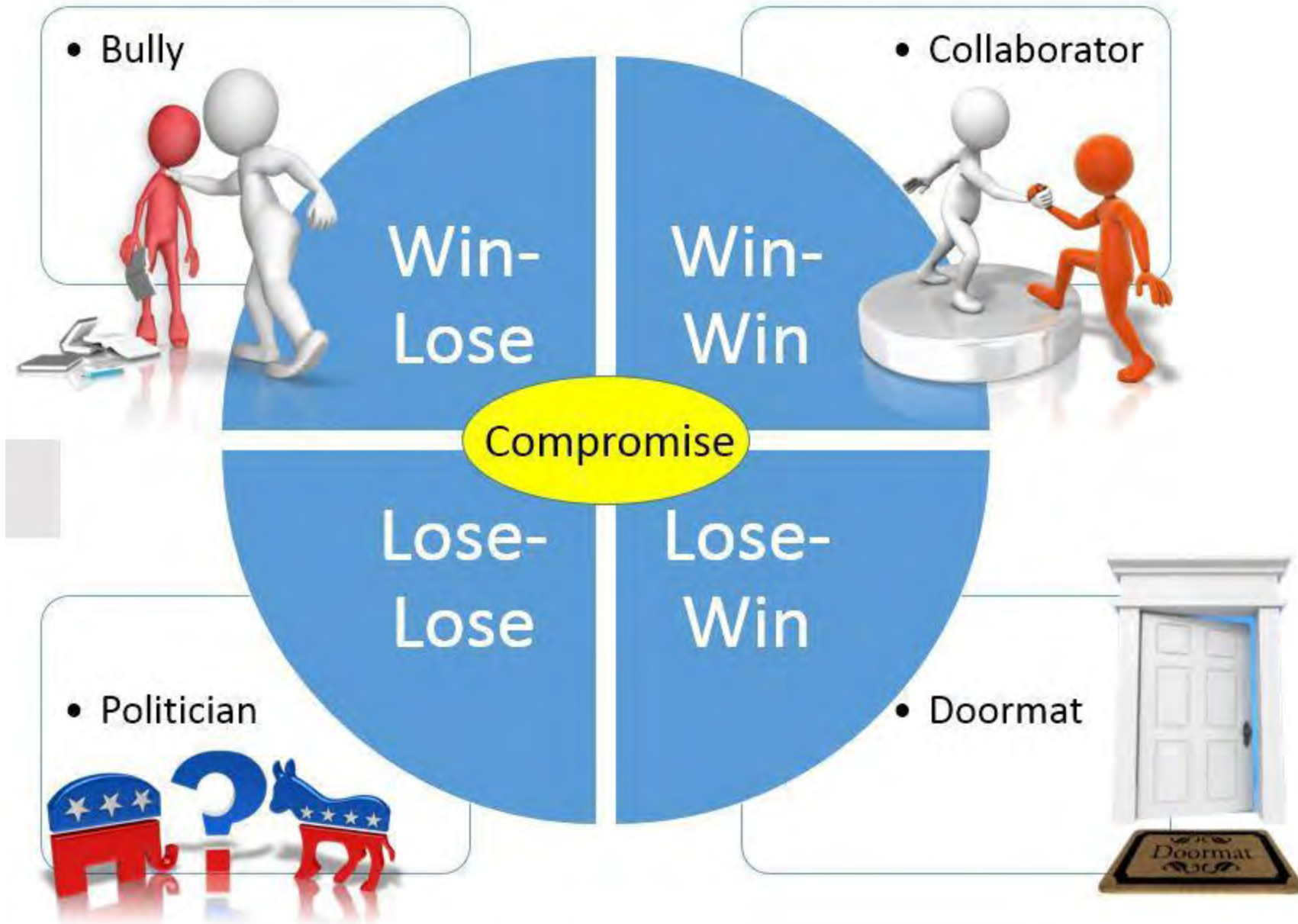
- Who are your customers?
  - External
  - Internal
  - Compliance
- How do you identify – meet – exceed customer expectations?
  - Board
  - Management Team
  - Operation Leaders
  - Your Staff
  - Other Stakeholders



# Negotiation skills

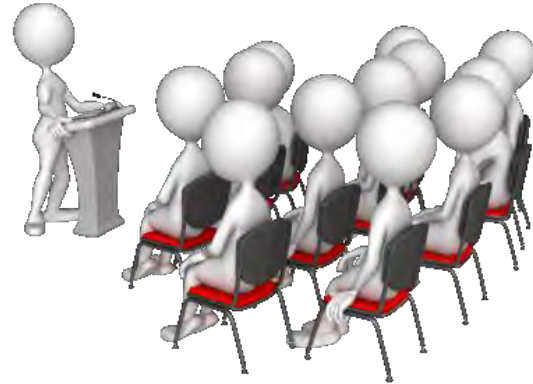
- In what areas do we negotiate?
- What are different types of negotiation skills?
- How do you deal with other negotiator behaviors?
- What are some negotiation tactics?





# Your communication skills

- Listening
- Speaking
- Writing
- Non-verbal communication
- Neuro-linguistic programming
- Presentation Skills



**Defensive**



**Arrogance**



**Annoyed**



Are you being defensive? - I don't think so!

**Irritated**



**Happy**



**Confused**



**Worried**



| <b>PERIOD ENDING</b>                  | <b>30-Sep-03</b> | <b>30-Jun-03</b> | <b>31-Mar-03</b> | <b>31-Dec-02</b> |
|---------------------------------------|------------------|------------------|------------------|------------------|
| <b>Total Revenue</b>                  | <b>5,369,000</b> | <b>5,460,000</b> | <b>5,112,000</b> | <b>4,813,000</b> |
| Cost of Revenue                       | 4,252,000        | 4,347,000        | 4,073,000        | 3,842,000        |
| <b>Gross Profit</b>                   | <b>1,117,000</b> | <b>1,113,000</b> | <b>1,039,000</b> | <b>971,000</b>   |
| Operating Expenses                    |                  |                  |                  |                  |
| Research Development                  | 47,000           | 50,000           | 50,000           | 58,000           |
| Selling General and Administrative    | 307,000          | 343,000          | 294,000          | 324,000          |
| Non Recurring                         | 1,000            | -15,000          | -4,000           | 412,000          |
| Others                                | 295,000          | 303,000          | 285,000          | 288,000          |
| <b>Total Operating Expenses</b>       | <b>650,000</b>   | <b>681,000</b>   | <b>625,000</b>   | <b>1,082,000</b> |
| <b>Operating Income or Loss</b>       | <b>467,000</b>   | <b>432,000</b>   | <b>414,000</b>   | <b>-111,000</b>  |
| Income from Continuing Operations     |                  |                  |                  |                  |
| Total Other Income/Expenses           |                  |                  |                  |                  |
| Net                                   | 41,000           | 57,000           | 37,000           | 67,000           |
| Earnings before interest and Taxes    | 508,000          | 489,000          | 451,000          | -44,000          |
| Interest Expense                      | 74,000           | 81,000           | 88,000           | 97,000           |
| Income Before Tax                     | 434,000          | 408,000          | 363,000          | -141,000         |
| Income Tax Expense                    | 93,000           | 106,000          | 109,000          | -28,000          |
| Minority Interest                     | -54,000          | -75,000          | -59,000          | 2,000            |
| <b>Net Income From Continuing Ops</b> | <b>287,000</b>   | <b>227,000</b>   | <b>195,000</b>   | <b>-111,000</b>  |
| Non-recurring Events                  |                  |                  |                  |                  |
| Discontinued Operations               | -7,000           | -11,000          | 3,000            | -112,000         |
| Extraordinary Items                   | -                | -                | -                | -                |
| Effect Of Accounting Changes          | -                | -                | -47,000          | -                |
| Other Items                           | -                | -                | -                | -                |
| <b>Net Income</b>                     | <b>280,000</b>   | <b>216,000</b>   | <b>151,000</b>   | <b>-223,000</b>  |



|    | A                                  | B | C                | D                | E                | F                | G |
|----|------------------------------------|---|------------------|------------------|------------------|------------------|---|
| 1  | <b>PERIOD ENDING</b>               |   | <b>30-Sep-03</b> | <b>30-Jun-03</b> | <b>31-Mar-03</b> | <b>31-Dec-02</b> |   |
| 2  | <b>Total Revenue</b>               |   | <b>5,369,000</b> | <b>5,460,000</b> | <b>5,112,000</b> | <b>4,813,000</b> |   |
| 3  | Cost of Revenue                    |   | 4,252,000        | 4,347,000        | 4,073,000        | 3,842,000        |   |
| 5  | <b>Gross Profit</b>                |   | <b>1,117,000</b> | <b>1,113,000</b> | <b>1,039,000</b> | <b>971,000</b>   |   |
| 6  |                                    |   |                  |                  |                  |                  |   |
| 7  | Operating Expenses                 |   |                  |                  |                  |                  |   |
| 8  | Research Development               |   | 47,000           | 50,000           | 50,000           | 58,000           |   |
| 9  | Selling General and Administrative |   | 307,000          | 343,000          | 294,000          | 324,000          |   |
| 10 | Non Recurring                      |   | 1,000            | -15,000          | -4,000           | 412,000          |   |
| 11 | Others                             |   | 295,000          | 303,000          | 285,000          | 288,000          |   |
| 12 |                                    |   |                  |                  |                  |                  |   |
| 13 | Total Operating Expenses           |   | 650,000          | 681,000          | 625,000          | 1,082,000        |   |
| 14 |                                    |   |                  |                  |                  |                  |   |
| 16 | <b>Operating Income or Loss</b>    |   | <b>467,000</b>   | <b>432,000</b>   | <b>414,000</b>   | <b>-111,000</b>  |   |
| 17 |                                    |   |                  |                  |                  |                  |   |
| 18 | Income from Continuing Operations  |   |                  |                  |                  |                  |   |
| 19 | Total Other Income/Expenses Net    |   | 41,000           | 57,000           | 37,000           | 67,000           |   |
| 20 | Earnings Before Interest And Taxes |   | 508,000          | 489,000          | 451,000          | -44,000          |   |
| 21 | Interest Expense                   |   | 74,000           | 81,000           | 88,000           | 97,000           |   |
| 22 | Income Before Tax                  |   | 434,000          | 408,000          | 363,000          | -141,000         |   |
| 23 | Income Tax Expense                 |   | 93,000           | 106,000          | 109,000          | -28,000          |   |
| 24 | Minority Interest                  |   | -54,000          | -75,000          | -59,000          | 2,000            |   |
| 25 |                                    |   |                  |                  |                  |                  |   |
| 26 | Net Income From Continuing Ops     |   | 287,000          | 227,000          | 195,000          | -111,000         |   |
| 27 |                                    |   |                  |                  |                  |                  |   |
| 28 | Non-recurring Events               |   |                  |                  |                  |                  |   |
| 29 | Discontinued Operations            |   | -7,000           | -11,000          | 3,000            | -112,000         |   |
| 30 | Extraordinary Items                |   | -                | -                | -                | -                |   |
| 31 | Effect Of Accounting Changes       |   | -                | -                | -47,000          | -                |   |
| 32 | Other Items                        |   | -                | -                | -                | -                |   |
| 33 |                                    |   |                  |                  |                  |                  |   |
| 35 | <b>Net Income</b>                  |   | <b>280,000</b>   | <b>216,000</b>   | <b>151,000</b>   | <b>-223,000</b>  |   |

# Your Personal skills and profile

- Are you a collaborator or a partner?
- What tools can be utilized to identify yours and others skills?
- Myers-Briggs
- Now discover your strengths
- Disc
- Wonderlic



Median score by profession

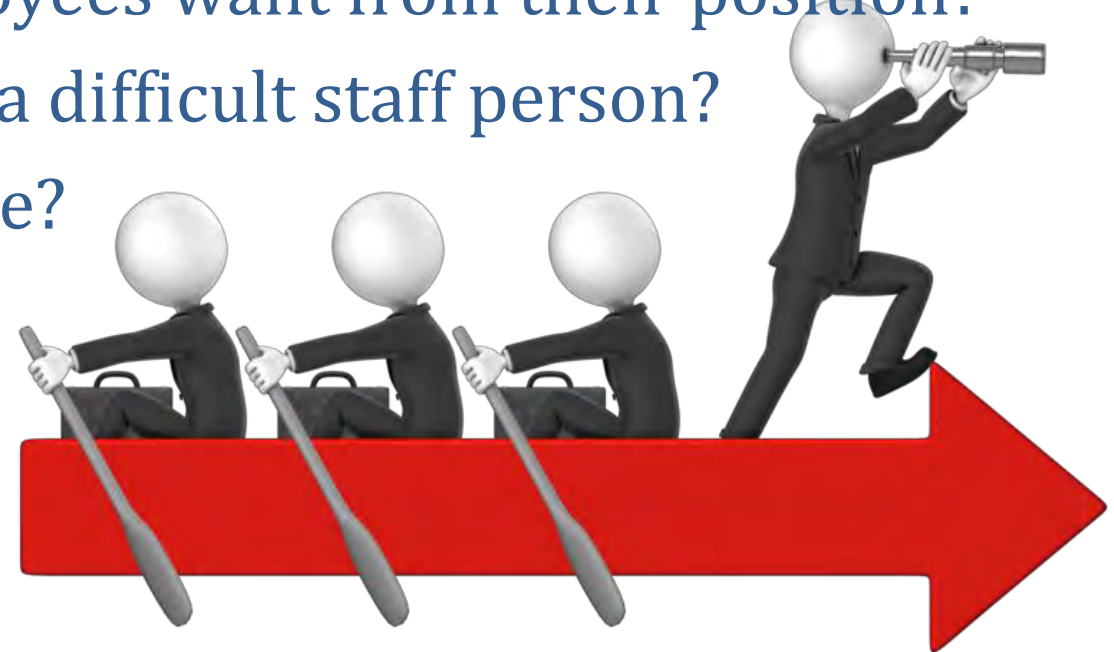
Listed are a sample of median scores by profession on the Wonderlic test from 1983. The scores are listed in descending numerical order, and professions with the same score have been alphabetized. [13]

|                            |                      |
|----------------------------|----------------------|
| Geologist - 35             | Dispatcher - 23      |
| Systems analyst - 32       | Drafter - 23         |
| Chemist - 31               | Electrician - 23     |
| Electrical engineer - 30   | Nurse - 23           |
| Engineer - 29              | Bank teller - 22     |
| Programmer - 29            | Cashier - 21         |
| Accountant - 28            | Firefighter - 21     |
| Executive - 28             | Clerical worker - 21 |
| Reporter - 28              | Machinist - 21       |
| Teacher - 28               | Receptionist - 21    |
| Copywriter - 27            | Train conductor - 21 |
| Investment analyst - 27    | Craftsman - 18       |
| Librarian - 27             | Security guard - 17  |
| Electronic technician - 26 | Welder - 17          |
| Salesperson - 25           | Warehouseman - 15    |
| Secretary - 24             | Janitor - 14         |

| Median score by position |  |
|--------------------------|--|
|                          |  |
| NFL Pro Football Players |  |
|                          |  |
| Offensive tackle – 26    |  |
| Center – 25              |  |
| Quarterback – 24         |  |
| Guard – 23               |  |
| Tight end – 22           |  |
| Safety – 19              |  |
| Linebacker – 19          |  |
| Comeback – 18            |  |
| Wide receiver – 17       |  |
| Fullback – 17            |  |
| Halfback – 16[22]        |  |

# How are your Leadership skills?

- Do you inspire staff or make them angry?
- Do you know why your team works for your company and you?
- Do you understand what employees want from their position?
- Do you know how to deal with a difficult staff person?
- Can you lead demanding change?



We Few We happy Few



We Band of Brothers

# King Henry V



# Difficult Team Members





# Examples

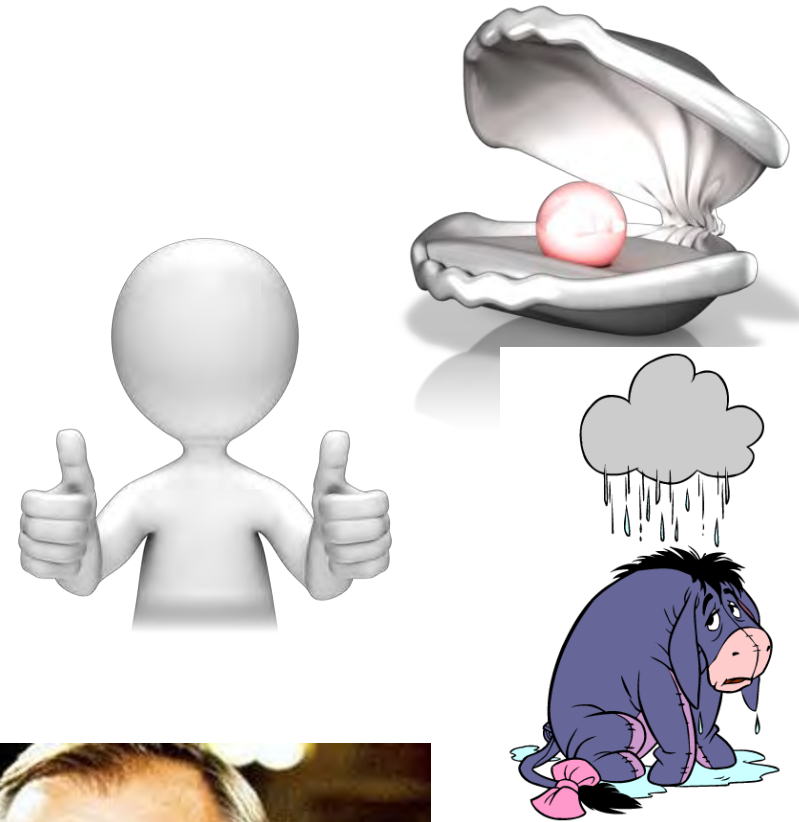
- **Sherman Tank**
- **Snipers**
- **Exploder**
- **Complainers**

Source: Dr. Robert Bramson, author of the book *Coping With Difficult People*,



# Examples (cont.)

- **Clams**
- **Super-Agreeables**
- **Negativists**
- **Know-it-alls**



Source: Dr. Robert Bramson, author of the book *Coping With Difficult People*,



## Examples (cont.)

- **Balloons**
- **Indecisives**
- **Talks too much**
- **Rambler**
- **Personality Clash**

Source: Dr. Robert Bramson, author of the book *Coping With Difficult People*,



# Dealing with difficult team members

- At the onset, when you are concerned:
- Has something triggered the problem behavior?
- Is the behavior this person exhibits with you typical of his/her behavior with others?
- Am I overreacting?
- Will direct, open discussion relieve the situation?



Source:Stewart-Kirkby, Carol. "Coping With Problem Behaviour."



"ENGLAND EXPECTS EVERY MAN TO DO HIS DUTY"

THE COMMISSION OF  
H. M. S.  
**TERRIBLE**  
BY GEORGE CROWE M.A.A.



## TEAM Example

### Story:

- For queen and country
- Captain's log

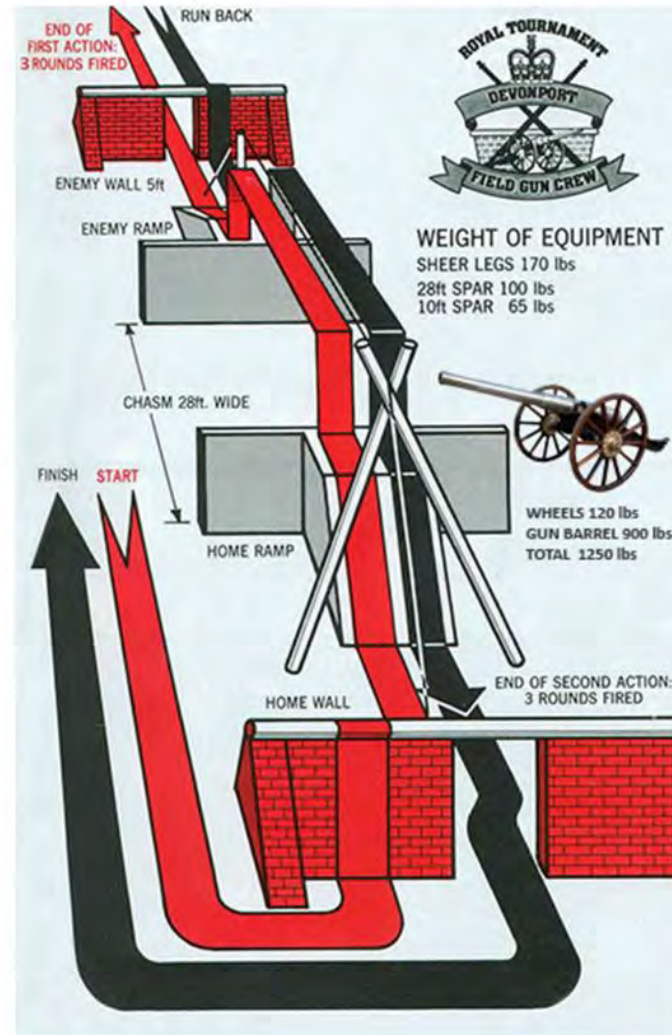




## Story:

- Difficulties
- Purpose
- Anyone quit?
- All pulling at same time?
- Proper tools

# Royal Field Gun Competition



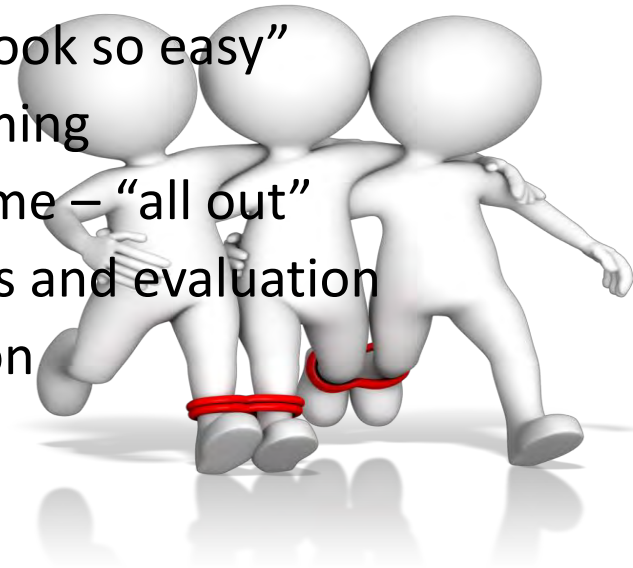
V





# Takeaway implications

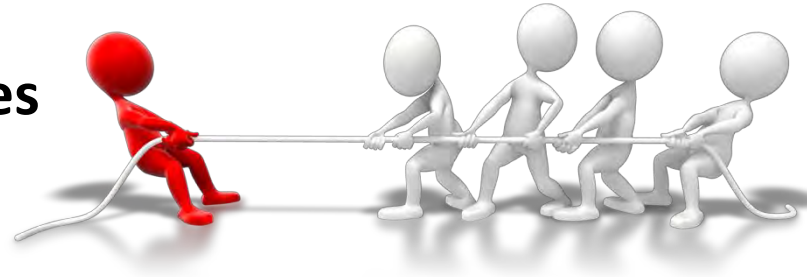
- Uniforms
- Pomp & Circumstance
- Arms Marching syncopated
- Loosen up
- Everyone in their place
- Organizing ropes
- Training
- Helping one another
- Everyone together
- Not finished until shells fired
- Rest
- Time measured
- Rules
- “Make it look so easy”
- Trainer timing
- Sprint Home – “all out”
- Scorecards and evaluation
- Celebration





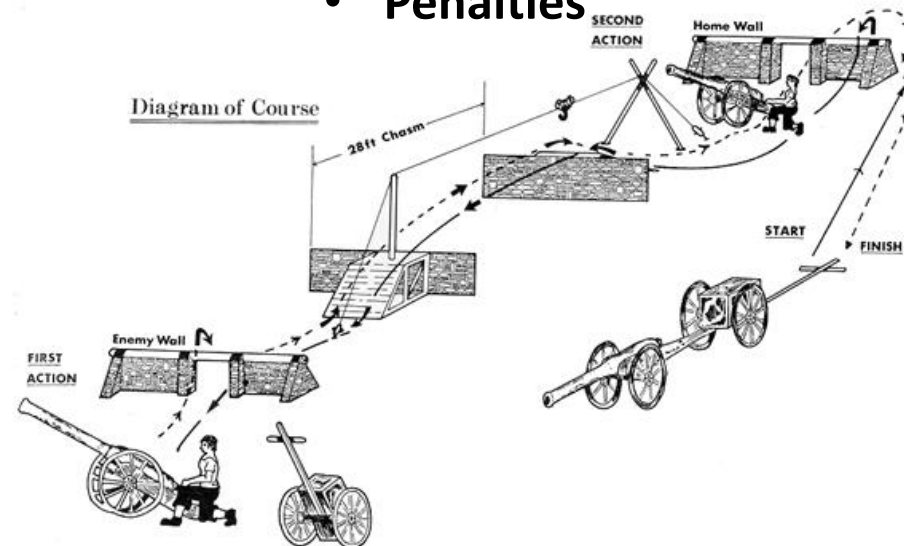
## Alignment:

- Vision
- Goals
- Differences
- Biases



## Event:

- Pageantry
- Competition
- Uniforms
- Time trials
- Penalties





### Training:

- Commitment
- Common goal
- Everyone carries own weight
- Help one another out
- Competition
- Hanging on for dear life
- No slackers
- Break big job into little pieces



# Do you know Leadership models?

- How do you define Leadership?
- Qualities of Leaders
- What is Leadership in the Accounting department?
- Shackleton
- Charles Handy
- Robert Green leaf – Servant Leadership



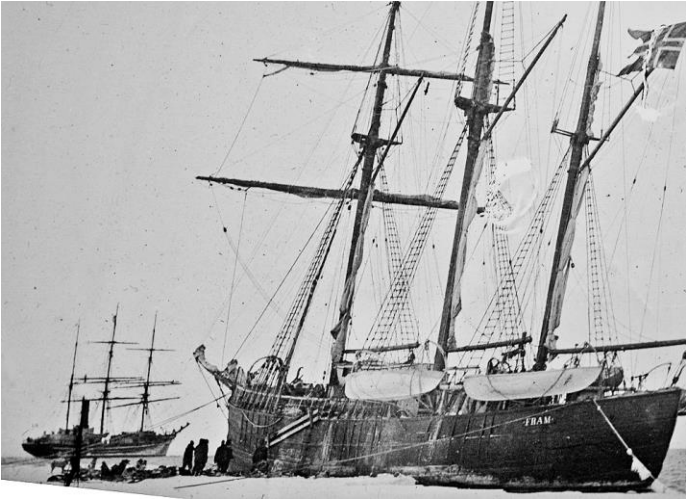
# Amundsen & Scott

- [1 Overview](#)
- [2 Objectives of the expeditions](#)
- [3 Base camps](#)
- [4 Methods of transport](#)
  - [4.1 Motor sledges](#)
  - [4.2 Ponies vs dogs](#)
  - [4.3 Walking vs skiing on snow](#)
- [5 Weather conditions](#)
- [6 Route marking and depot laying](#)
- [7 Food and fuel](#)
- [8 Clothing and goggles](#)
- [9 Delay in meeting Scott's returning party](#)
- [10 Other reasons for Scott's failure](#)
- [11 Timelines of Amundsen and Scott expeditions](#)
- [12 References](#)

(Source:[https://en.wikipedia.org/wiki/Comparison\\_of\\_the\\_Amundsen\\_and\\_Scott\\_expeditions#Route\\_marking\\_and\\_depot\\_laying](https://en.wikipedia.org/wiki/Comparison_of_the_Amundsen_and_Scott_expeditions#Route_marking_and_depot_laying))











Norwegian explorer Roald Amundsen (left) reached the South Pole on December 14, 1911. On January 17, British Capt. Robert F. Scott arrived at the pole and was bitterly disappointed to find Amundsen's tent, a Norwegian flag, and a letter to the King of Norway left a month earlier by Amundsen's team (above).





THE LEADER

Photograph by E. Hartig

...d. M. L. Barker. 1408 Chap-  
man Bldg. ... business thoroughly

# MEN WANTED

for hazardous journey, small wages,  
bitter cold, long months of complete  
darkness, constant danger, safe re-  
turn doubtful, honor and recognition  
in case of success.

Ernest Shackleton 4 Burlington st.

MEN—Neat-appearing young men of  
pleasing personality, between  
and 40







# Hussey's Banjo – Shackleton Expedition















# 10 characteristics of Servant Leadership

- **Listening:** Servant leader must listen to verbal and non-verbal signals and interpret what the others are saying. Also, the servant leader must listen to their inner thoughts and feelings and interpret them (Spears, p.2).
- **Empathy:** "The most successful servant-leaders are those who have become skilled, empathetic listeners." "One assumes the good intentions of co-workers and colleagues and does not reject them as people, even when one may be forced to refuse to accept certain behaviors or performance (Spears, p.3).
- **Healing:** "servant-leaders recognize that they have an opportunity to help make whole those with whom they come in contact" (Spears, p.3).
- **Awareness:** Servant leaders should "view most situations from a more integrated, holistic position." Robert Greenleaf said awareness "is a disturber and an awakener. Able leaders are usually sharply awake and reasonably disturbed" (Spears, p.3).
- **Persuasion:** The servant leader should rely "on persuasion, rather than on one's positional authority, in making decisions within an organization." The technique of convincing rather than coercion should be used. This is in contrast to the "authoritarian model " of leadership. "The servant-leader is effective at building consensus within groups" (Spears, p.3).
- <http://www.maxwideman.com/guests/servant/characteristics.htm>

# 10 characteristics of Servant Leadership (cont.)

- **Conceptualization:** "The ability to look at a problem or an organization from a conceptualizing perspective means that one must think beyond day-to-day realities" (Spears, p.3).
- **Foresight:** "a characteristic that enables the servant-leader to understand the lessons from the past, the realities of the present, and the likely consequence of a decision for the future" (Spears, p.3).
- **Stewardship:** "commitment to serving the needs of others. It also emphasizes the use of openness and persuasion, rather than control" (Spears, p.4).
- **Commitment to the growth of people:** "deeply committed to the growth of each and every individual within his or her organization." An example is "taking a personal interest in the ideas and suggestions from everyone, encouraging worker involvement in decision making" (Spears, p.4).
- **Building community:** A servant-leader should "seek to identify some means for building community among those who work within a given institution" (Spears, p.4).
- <http://www.maxwideman.com/guests/servant/characteristics.htm>



**Upgrading yourself  
to a higher  
leadership level**

# Leadership Responsibility

- Where are you right now at this point in time – own it!
- Invictus - William Ernest Henley





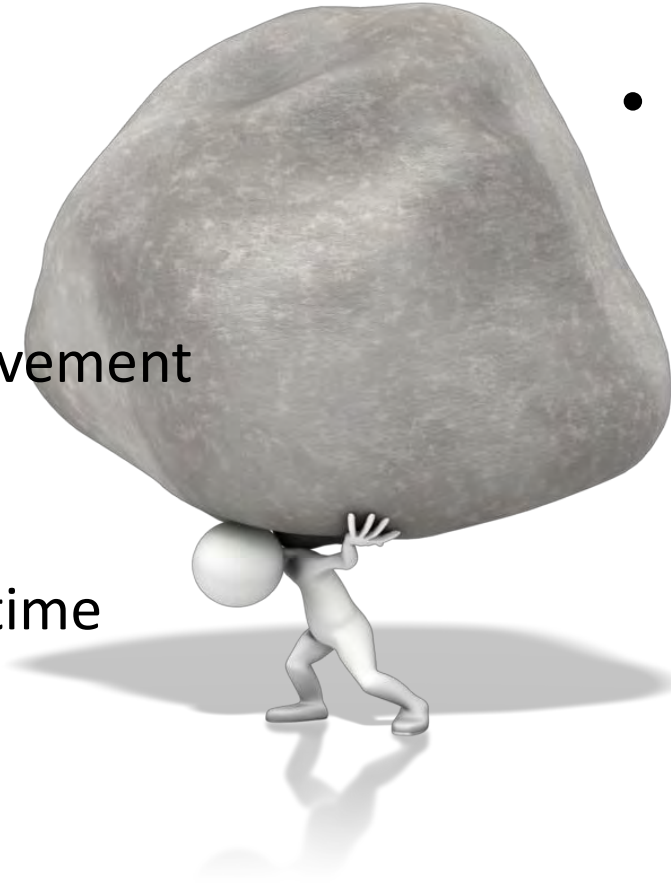
# When are you going to get better?

- Business
  - Planning
  - Developing People
  - Technology
  - Benchmarks
  - Sought-out Resource
  - Leadership Skills
  - Team proponent
- Personal
  - Family
  - Spiritual
  - Health
  - Balance
  - Hobbies
  - Rejuvenation

# What is holding you back?

- Business

- Boss
- Locality
- No upward movement
- Your attitude
- Your education
- Investment of time



- Personal

- Habits
- Friends
- Family
- Beliefs
- Education
- Your history

# Average of the 5 people you hang around

- Could also have people rate individuals
- Select who you would like to get to know
- Select a mentor



# Become an Outstanding Business Person

- Know your Business
- Understand Industry Trends
- Understand Global and Political Trends
- Access Google Alerts daily

# Health – Take Care of Yourself

- Fitbit or phone app
- BMI
- Start Today
- Blood Sugar
- Blood Pressure
- REDUCE CARBS - Keto



# Questions? More Information?

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<http://www.linkedin.com/in/jimlindell/>  
<https://twitter.com/thorlessons>

