



INSTITUTE FOR SUPPLY MANAGEMENT

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ISM—Western Washington, Inc

Kellen Betts  
Data Visualization with Tableau

# Installation and Setup

1. Tableau Desktop
2. Tableau Public account

# Introductions

# Kellen Betts

**zulily**

- Senior Analyst
- Business Development Group

**ISM-WW**

**University of Washington**

- MS in Applied Mathematics

**Portland State University**

- MS in Global Supply Chain Management



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# Data in the Supply Chain Context

- Forecasting
- Inventory Planning
  - Economic order quantity
  - Inventory optimization
- Sourcing and Procurement
  - Spend analysis
  - Scorecards & supplier performance
- Production Planning
  - Materials Requirements Planning
- Distribution
  - Network optimization
- Many more...



# Data Analytics

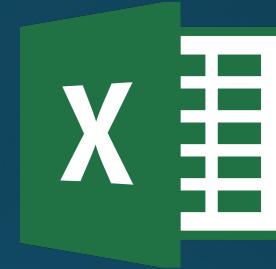
Descriptive ... reporting on the past

Predictive ... predict the future

Prescriptive ... specify optimal behaviors  
and actions

# Descriptive Analytics

- Inventory
- Order Fill Rate
- On-time shipping
- Quality metrics
- Purchase Price Var.



# Descriptive -> Predictive -> Prescriptive

## Machine learning

- Forecasting
- Classification
- Clustering

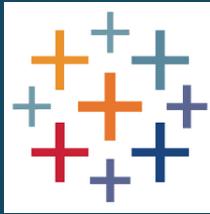


## Integration

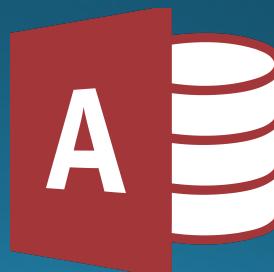
- Advanced planning systems
- Order suggestions, catalog sort
- Advanced visualization
- Dashboards



# Why Tableau?



- Powerful visualization
- Friendly graphical interface
- Integration with many different data sources →
- Publishing

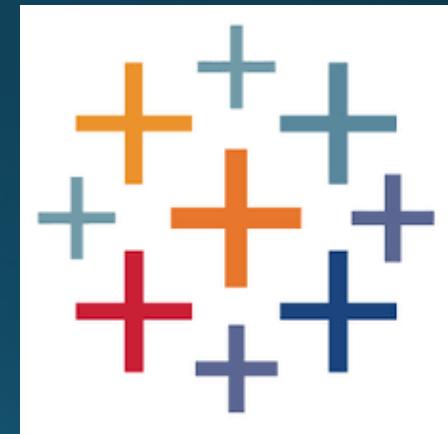
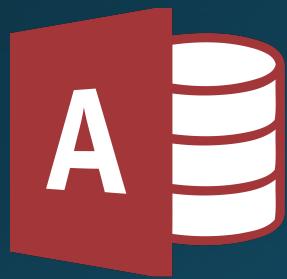


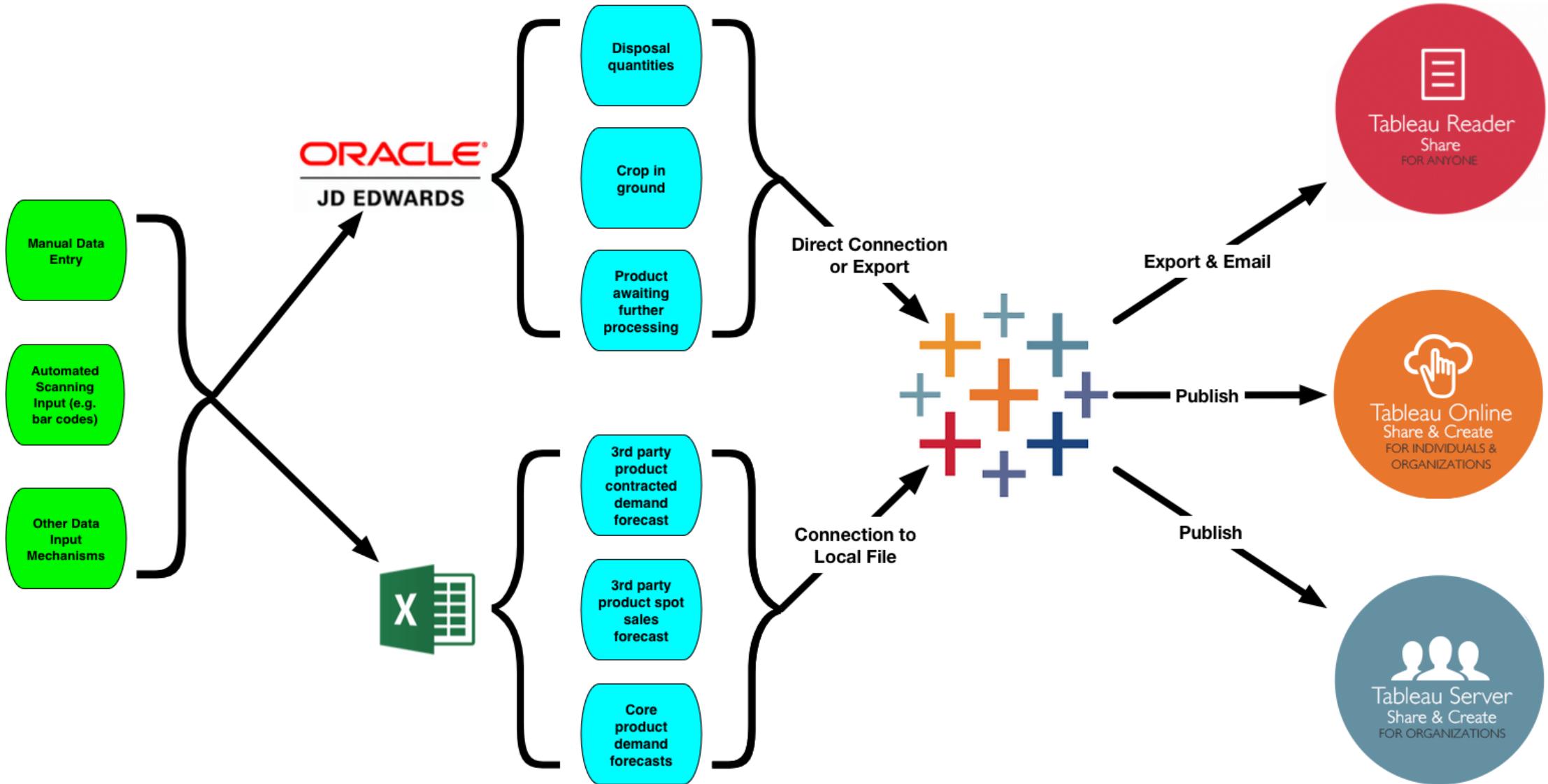
# Data Workflow

1. Pull data from data warehouse, database, spreadsheets, etc.
2. Merge, clean, repair ... “data munging/wrangling”
3. Basic summary and descriptive analysis
4. Exploratory analysis
5. Modeling
6. Visualization and presentation

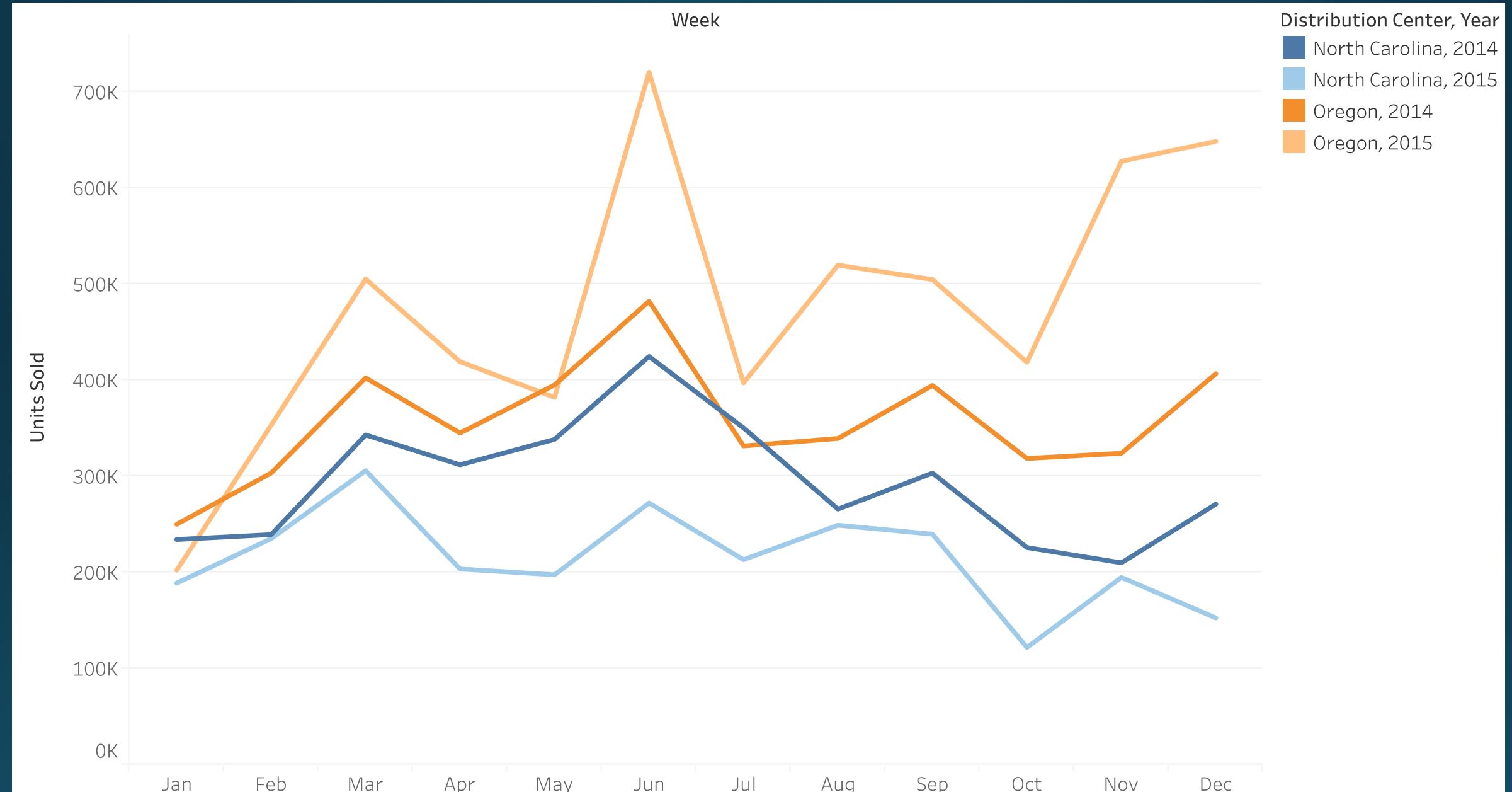
# Data Workflow

Pull/Prepare Data → Exploration/Modeling/Analysis → Visualization





Lets dive in...



# Upcoming Events



## January Economic Panel

- January 12, 2017
- Maggiano's Little Italy in Bellevue

## Supply Chain Technology Startups

- Emerging Professionals, Industry Focus Night
- January 26, 2017
- North Seattle area