
Vertica Knowledge Base Article

Vertica QuickStart for Tableau

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Vertica QuickStart for Tableau

The Vertica QuickStart for Tableau is a sample application implemented as a set of Tableau dashboards powered by the Vertica Analytic Database. The dashboards present sample retail data for analysis. The QuickStart shows how retail companies could use Vertica and Tableau to quickly explore, visualize, and gain insight into their data stored in Vertica.

You can download the Vertica QuickStart for Tableau from the following location:

<https://www.vertica.com/quickstart/vertica-quickstart-for-tableau/>

About the Vertica QuickStarts

The Vertica QuickStarts are free, sample applications created using front-end products from Vertica technology partners. For an overview, watch this short [video](#).

The QuickStarts are posted for download on the [Vertica QuickStart Examples](#) page.

Note The Vertica QuickStarts are freely available for demonstration and educational purposes. They are not governed by any license or support agreements and are not suitable for deployment in production environments.

About Tableau

Tableau Software provides visualization and business intelligence products, including Tableau Desktop, Tableau Server, Tableau Online, and Tableau Mobile. For details, see the [Tableau website](#).

Requirements

The Vertica QuickStart for Tableau requires a Vertica database server with the VMart example database, a Vertica client, and Tableau Desktop 9.0.

Installation and Setup

To install the software that is required for running the QuickStart, follow these steps:

- [Install the Vertica Database Server](#)
- [Install the VMart Example Database](#)
- [Install Tableau Desktop](#)
- [Install the ODBC Client Driver](#)

Install the Vertica Database Server

Vertica runs on Linux platforms. If you do not already have Vertica, you can download the Community Edition free of charge:

1. Navigate to [Vertica Community Edition](#).
2. Log in or click **Register Now** to create an account
3. Follow the on-screen instructions to download and install the Vertica Community Edition.

Install the VMart Example Database

The Vertica QuickStart for Tableau assumes a default installation of the Vertica VMart example database.

To install VMart, follow the instructions in the Vertica documentation:

- [Introducing the VMart Example Database](#)
- [Installing and Connecting to the VMart Example Database](#)

For details, see [VMart Example Database Schema, Tables, and Scripts](#).

Install Tableau Desktop

Tableau runs on Windows or Mac OS. If you do not have Tableau Desktop 9.0, you can download and install it as follows:

1. Go to the [Tableau website](#).
2. Review the [system requirements](#).
3. Download the Tableau installation file that matches your operating system.
4. Launch the executable.
5. Follow the prompts to install Tableau.

Install the ODBC Client Driver

Tableau uses ODBC to connect to Vertica. The ODBC drivers for Vertica are part of a Vertica client package.

Install the ODBC Driver on Windows

1. Go to <https://vertica.com/download/vertica/client-drivers/>.
2. Download the Vertica client package that matches your operating system (32- or 64-bit) and your version of the Vertica database.
3. As Windows Administrator, launch the installer and follow the prompts to install ODBC.

Install the ODBC Driver on Mac OS

1. Go to <https://vertica.com/download/vertica/client-drivers/>.
2. Download the Vertica client package for Mac OS.
3. Launch the installer and follow the prompts to install ODBC.

Download the QuickStart

1. Navigate to vertica.com/quickstart
2. Select **Vertica QuickStart for Tableau**.

3. Log in or create an account.
4. Click **Download**.

Open the QuickStart and Provide Your Connection Information

To open the QuickStart and connect to Vertica:

1. Either double-click the workbook file, `VMart_Quick_Start.twbx`, or start Tableau and open the workbook from the **File** menu.
2. In the **Sign In** dialog box, click **Edit Connection**.
3. In the **Server Connection** dialog box, enter the name or IP address of the server, the name of the database, and your user name and password.
4. Click **OK** to connect to the Vertica example database.

Note The QuickStart uses several data sources within the VMart data warehouse. When you connect to a data source for the first time in the session, Tableau prompts you to re-enter your connection information.

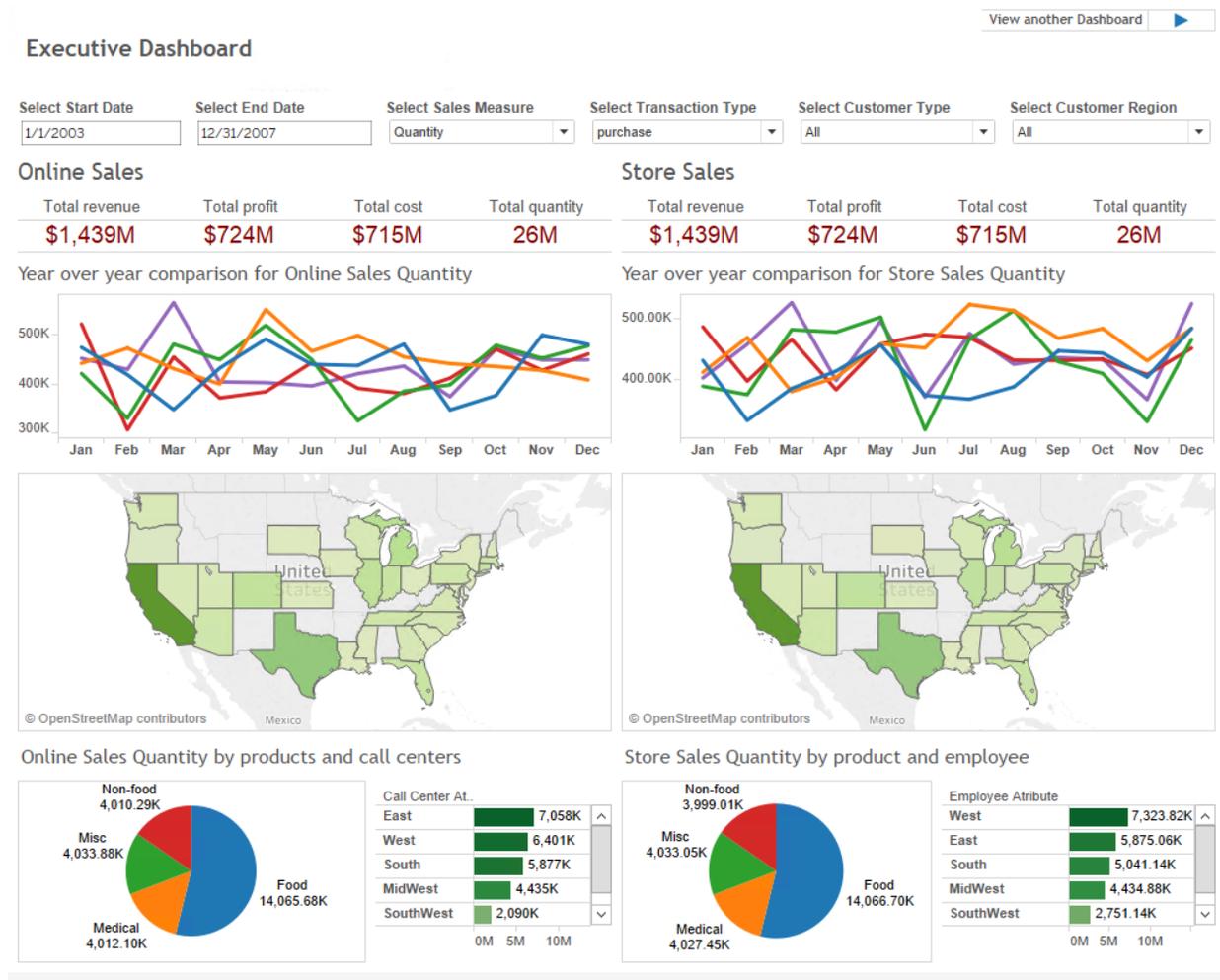
About the QuickStart Dashboards

The QuickStart dashboards present sample business and operational data that a large retail chain might track over time. The chain operates brick-and-mortar stores and an online marketplace. It sells a wide variety of products that it purchases from different vendors.

Note The data in your dashboards will not match the data in the screen shots in this document. This is because the VMart data generator generates data randomly.

Executive Dashboard

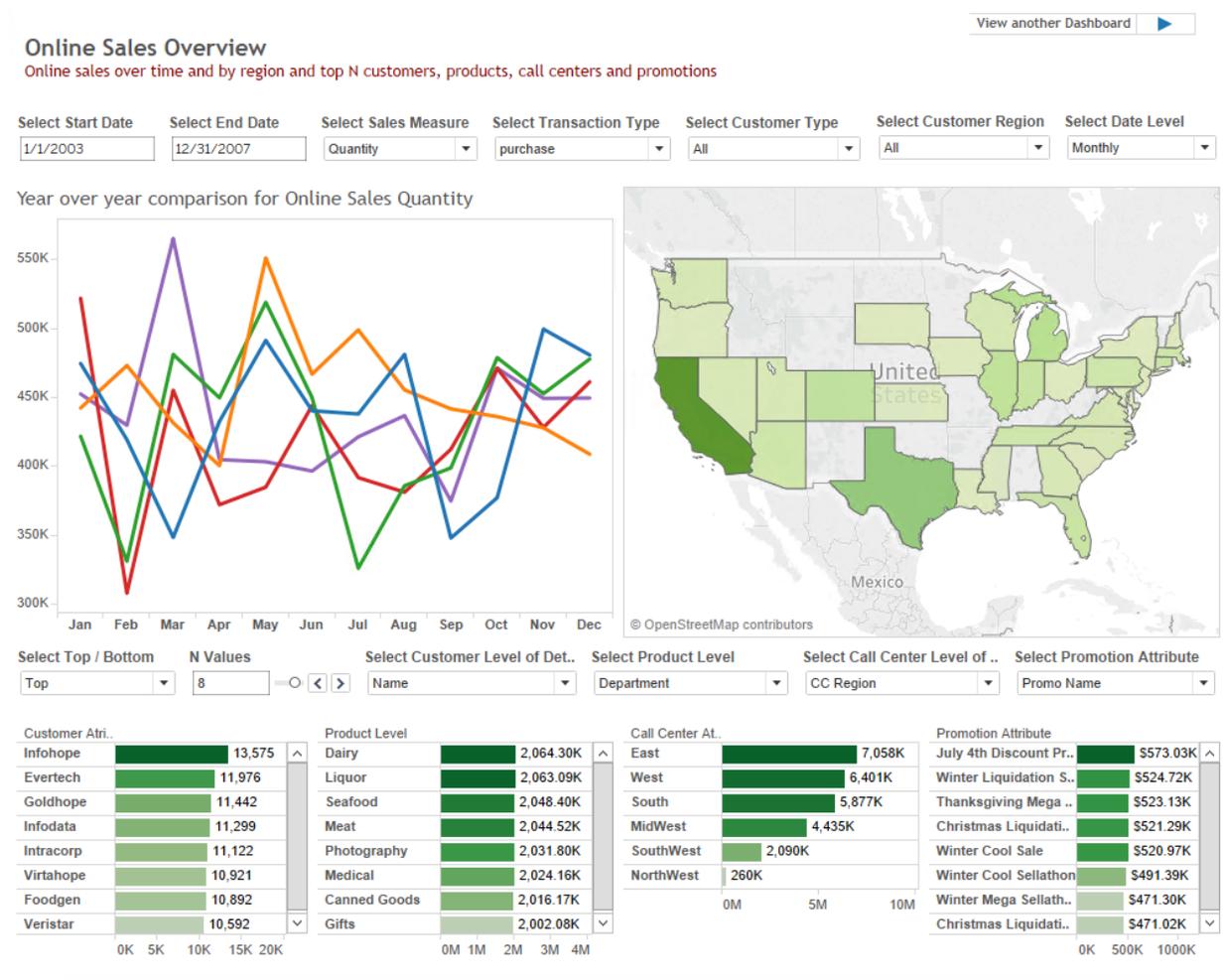
The Executive Dashboard presents a high-level view of the business data that is shown in greater detail in the other dashboards. In this instance, the dashboard is displaying revenue figures for products purchased during the years 2005 and 2006. During this time period, the overall revenue from online and store sales was roughly equivalent, however the sales were distributed very differently over time, especially in 2005. During that year, online revenue dipped almost to zero in the third quarter while store sales were at their highest for the year.



Online Sales Overview

This dashboard presents an overview of the online business. In this instance, the dashboard is displaying quarterly revenue for products purchased online during the years 2005 and 2006. In 2005, revenue peaked in Q2 and was at its lowest in Q3. In 2006, revenue was more even throughout the year.

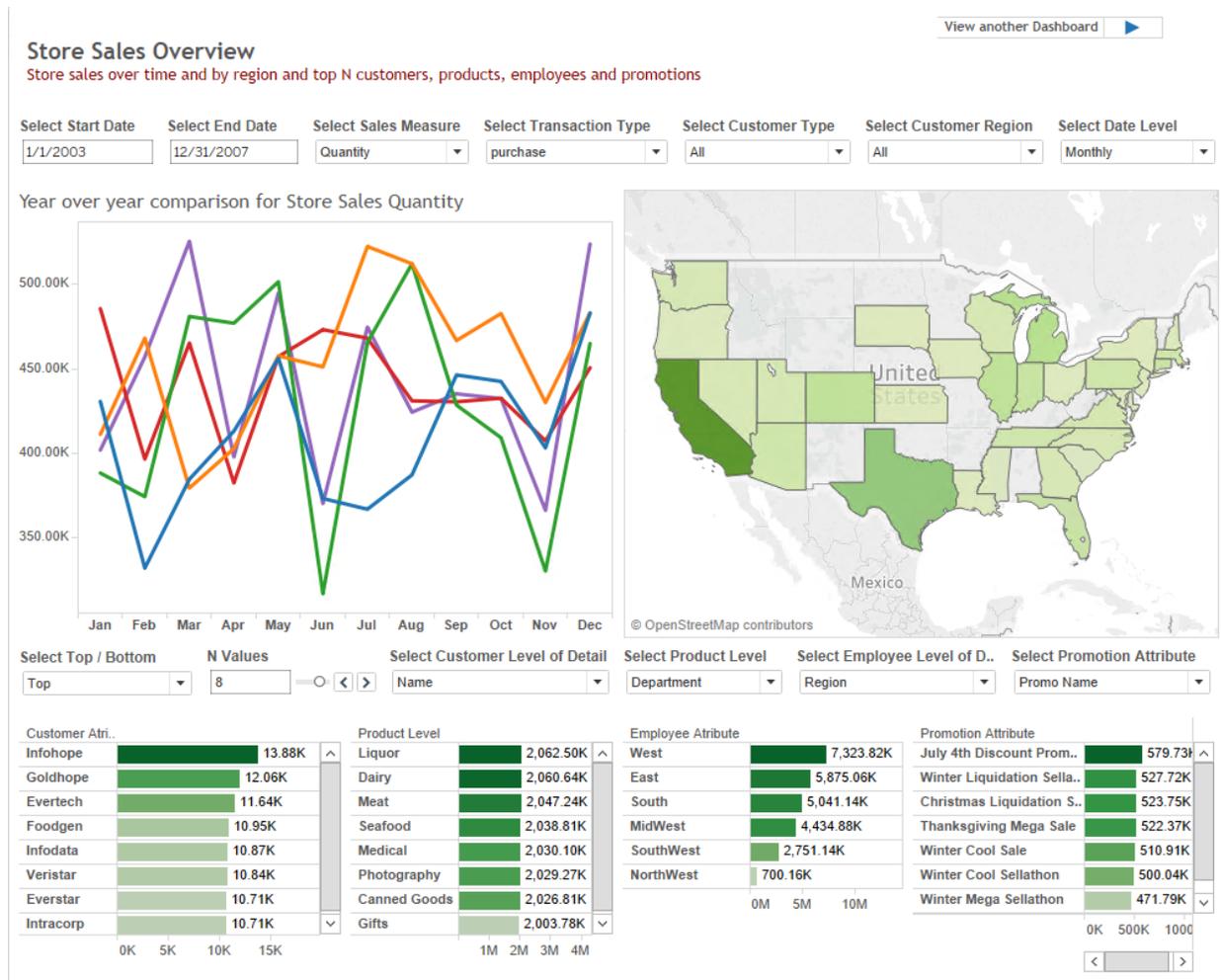
To gain further insight into online sales, change the filters in the top row. For example, if you change **Transaction Type** from **purchase** to **returns**, you will see the negative revenue that must be taken into account for this time period.



Store Sales Overview

This dashboard presents an overview of the traditional business conducted in the brick-and-mortar stores owned by this retail chain. In this instance, the dashboard is displaying quarterly revenue for products purchased during the years 2005 and 2006. In 2005, revenue peaked in Q3. In 2006, revenue was more even throughout the year.

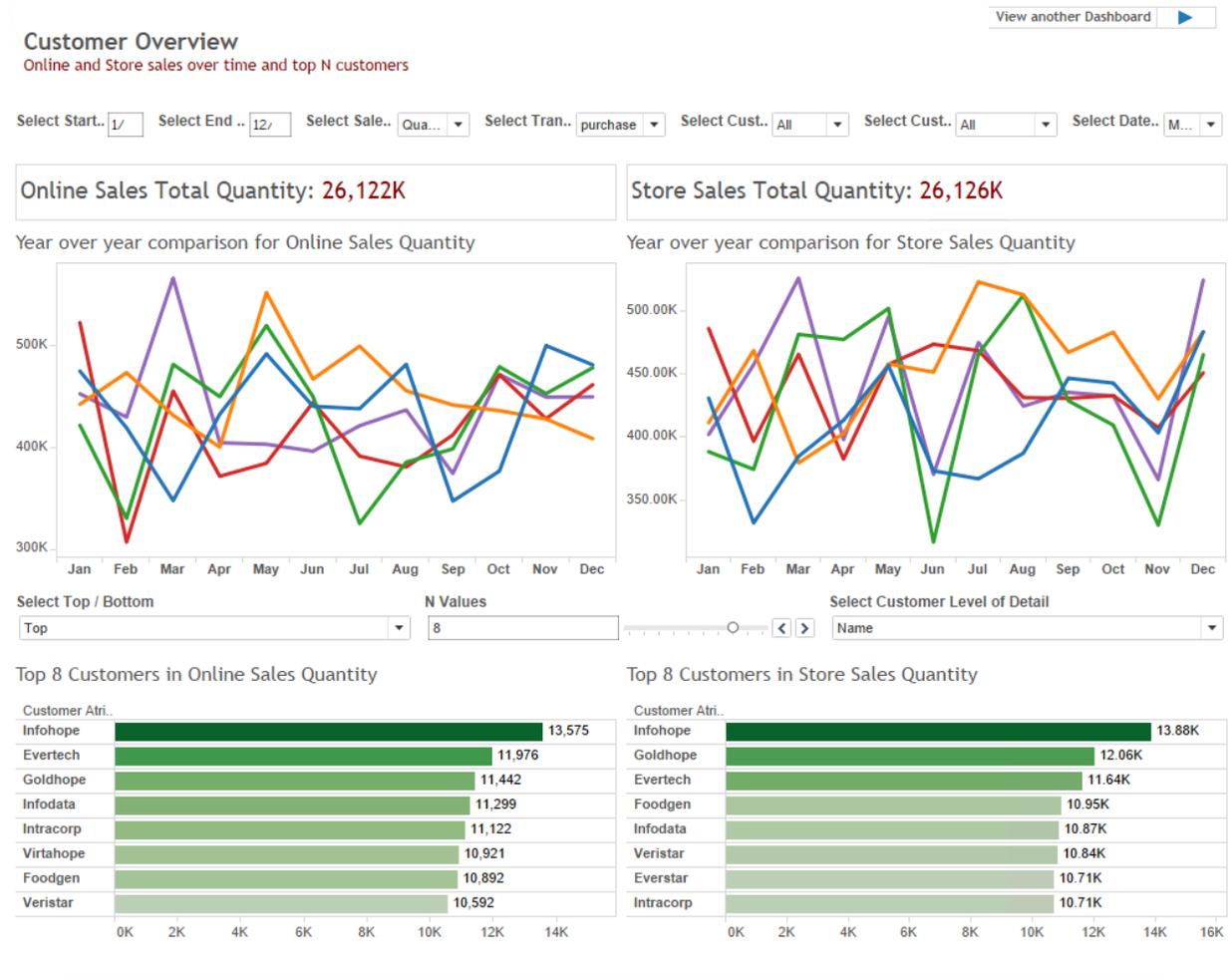
To gain deeper insight into store sales, change the filters in the top row. For example, if you change **Date Level** from **Quarterly** to **Monthly**, you will see a finer-grained analysis of the top customers, products, employees, and display types.



Customer Overview

This dashboard presents an overview of the online and store customers of the retail chain. In this instance, the dashboard is displaying quarterly revenue for the years 2005 and 2006 and includes the ages of the six customers who accounted for the greatest share of the revenue.

To gain a better understanding of your top customers during this period, explore the different attributes under **Select Customer Level of Detail**. For example, if you change the customer attribute from **Age** to **Gender**, you will learn the breakdown by both age and gender of this group of customers. Knowing who your top customers are is key in designing promotions and in minimizing churn.



Call Center and Employee Overview

This dashboard presents an overview of the performance of the chain’s sales personnel, both in stores and in online call centers. In this instance, the dashboard is displaying quarterly revenue for products purchased during the years 2005 and 2006.

To gain a better understanding of your top performing call centers during this period, explore the different attributes under **Select Call Center Level of Detail**. For example, if you change the call center attribute from **CC Region** to **CC Name**, you will discover the specific call centers that are producing the most revenue. Knowing who your top performers are is key in designing incentive programs, allocating raises and bonuses, and in targeting areas for improvement.

[View another Dashboard](#) 

Call Centers and Employees Overview

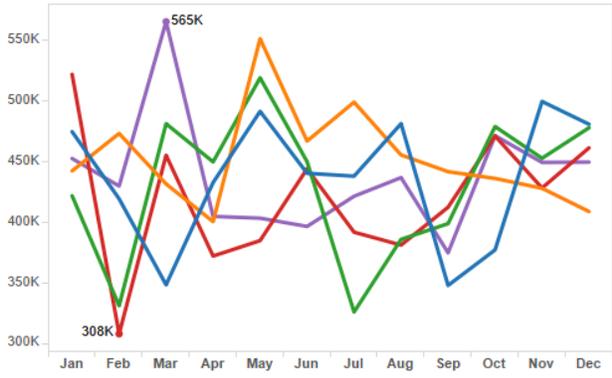
Online and Store sales performance overtime, top N and totals by call center and employee region

Select Start.. Select End Date Select Sales Measure Select Transaction Type Select Customer Type Select Customer Region Select Date Level

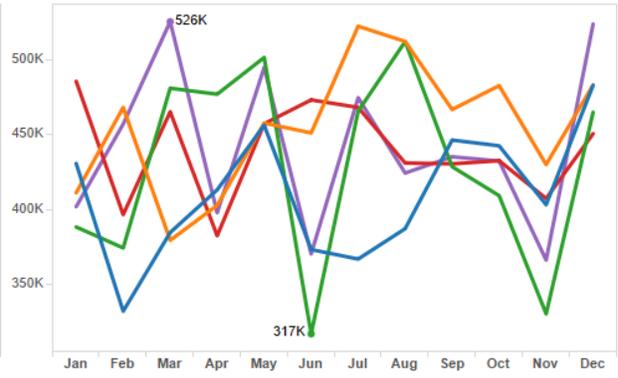
Online Sales Total Quantity: **26,121.95K**

Store Sales Total Quantity: **26,126.19K**

Year over year comparison for Online Sales Quantity

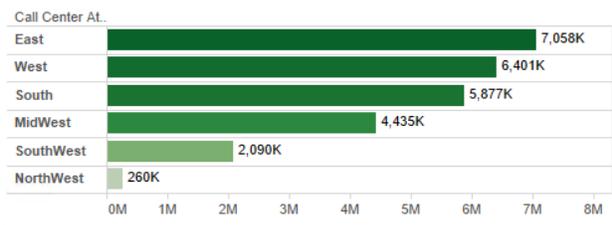


Year over year comparison for Store Sales Quantity

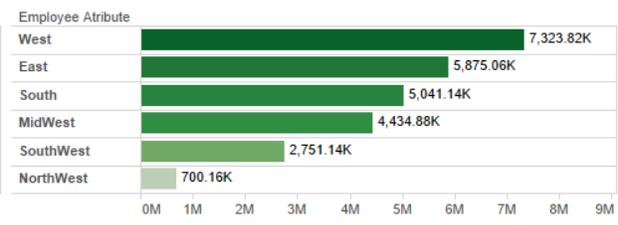


Select Call Center Level of Detail Select Top / Bottom N Values Select Employee Level of Detail

Top 8 Call Centers in Online Sales Quantity



Top 8 Employees in Store Sales Quantity



Product Overview

This dashboard presents an overview of the products and product categories sold in stores and online. In this instance, the dashboard is displaying revenue for products purchased during the years 2005 and 2006.

To gain a better understanding of your most popular products during this period, explore the different attributes under **Select Product Level**. For example, if you change the product attribute from **Department** to **Product**, you will learn the specific brands that are producing the most revenue.

[View another Dashboard](#) ▶

Product Overview

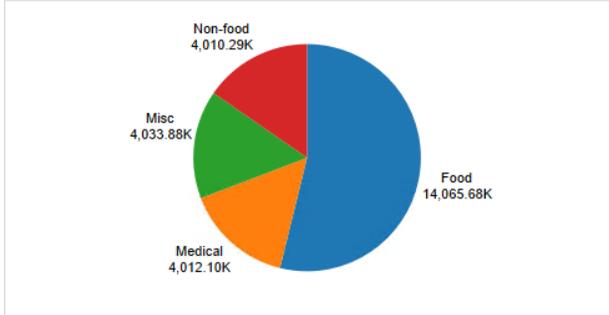
Total online and store sales by customer region and product

Select Start Date: 1/1/2003 | Select End Date: 12/31/2007 | Select Sales Measure: Quantity | Select Transaction Type: purchase | Select Customer Type: All | Select Customer Region: All

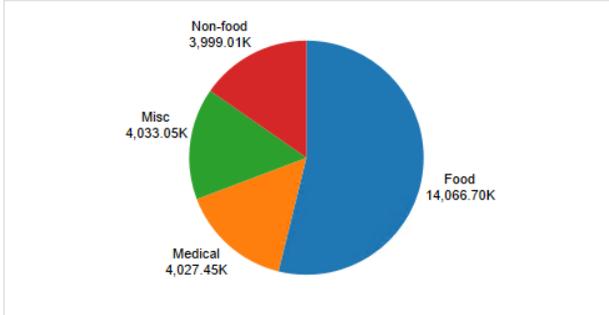
Online Sales Total Quantity: **26,121.95K**

Store Sales Total Quantity: **26,126.19K**

Quantity by Product Category

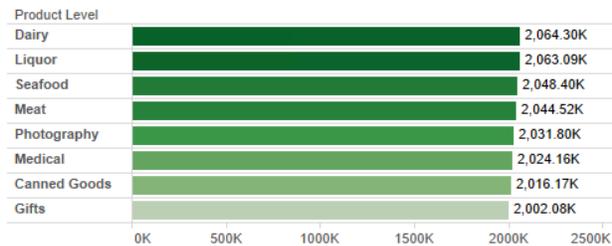


Quantity by Product Category

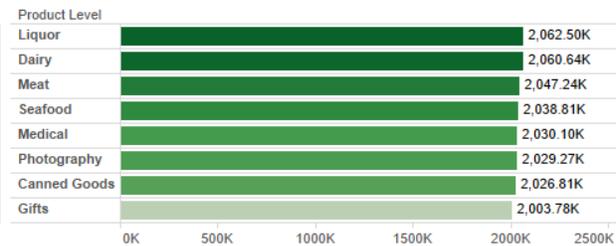


Select Top / Bottom: Top | N Values: 8 | Select Product Level: Department

Top 8 Products in Quantity



Top 8 Products in Quantity



Vendor Performance

This dashboard presents an overview of the performance of the vendors used by this retail chain. In this instance, the dashboard is displaying **Average days to deliver** during 2005 and 2006 for the vendor **Market Wholesale**. Included in the display is the overall average for different store locations and the vendors with the best delivery times during this two-year period.

To learn more about the performance of Market Wholesale, choose a different metric, such as **Average quantity ordered** or **Average quantity in stock**. Select a different vendor under **Select Vendor Name** to learn about the performance of a different vendor.

Vendor Performance

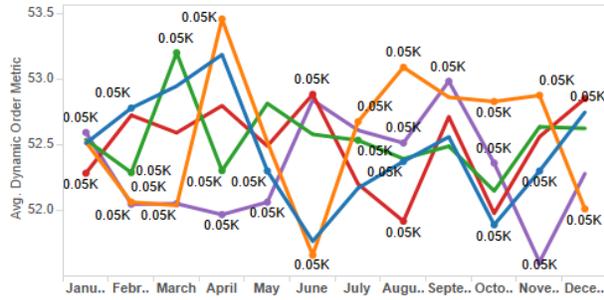
[View another Dashboard](#)

Select Start Date: Select End Date: Select Order Metric: Select Vendor Name:

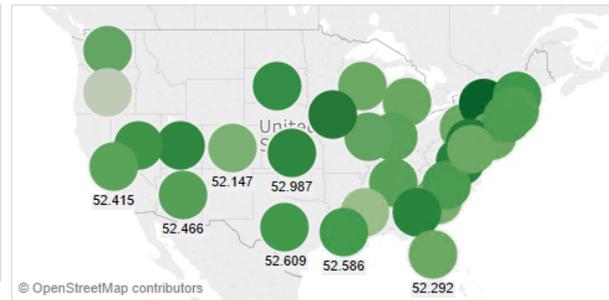
Vendor Performance for All

On-time delivery rate	Quantity accuracy rate	Perfect Order Rate	Avg. Quantity Ordered	Avg. Quantity Delivered	Avg. Quantity In Stock	Avg. Days to deliver	Avg. Order Cost	Avg. Shipping Cost
79.20%	90.05%	71.34%	0.05K	0.05K	0.06K	7.00	\$8.00K	\$0.11K

Average quantity ordered year over year comparison for All

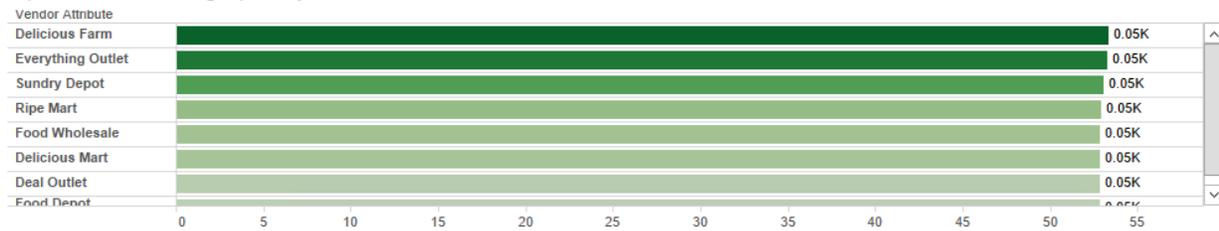


Average quantity ordered by Store Location



Select Vendor Attribute: Select Top / Bottom: N Values:

Top 8 Vendors in Average quantity ordered



Inventory Overview

This dashboard presents an overview of the inventory held by this retail chain. In this instance, the dashboard is displaying inventory information for **Medical** and **Misc** products during 2005 and 2006.

To see inventory for food items, click **Food** under **Inventory by product category**. You can narrow your focus by selecting **Product** instead of **Department** under **Select Product Level**. Under **Select Warehouse Attribute**, you can focus in on inventory by location: for a specific warehouse, or by region, state, or city.

[View another Dashboard](#) 

Inventory Overview

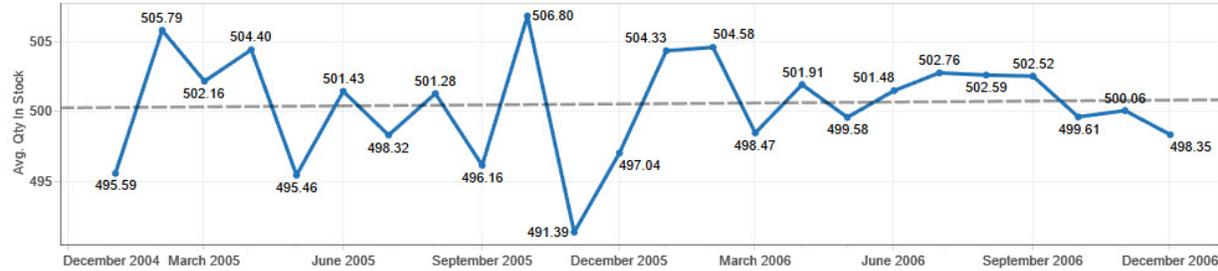
Inventory over time by product and warehouse

Select Start Date: Select End Date:

Average Quantity in Stock: **500.6**

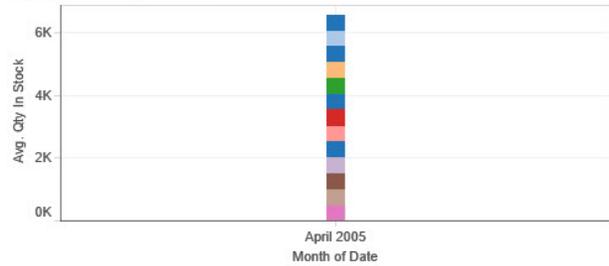
Inventory by product category			
Food	Medical	Misc	Non-food
500	501	502	500

Inventory over time
From 1/1/2005 to 12/31/2006. Hover over for detail or select a mark to filter the breakdown charts by product department and warehouse below.

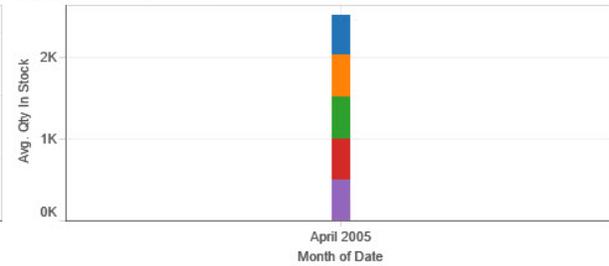


Select Product Level: Select Warehouse Attribute:

What is the inventory breakdown by department?
From 1/1/2005 to 12/31/2006



What is the inventory breakdown by warehouse?
From 1/1/2005 to 12/31/2006



Find More Information

- [Tableau](#)
- [Vertica Integration With Tableau: Connection Guide](#)
- [Vertica Integration With Tableau: Tips and Techniques](#)
- [Vertica Community Edition](#)
- [Vertica User Community](#)
- [Vertica Documentation](#)