

# How much money goes to farmers' pocket in your grocery spending?

-- Visualization of USDA "Price Spreads from Farm to Consumer" dataset

## Story Board

**Data domain:** "Price Spreads from Farm to Consumer" dataset from [United States Department of Agriculture Economic Research Service](#)

### **Data background:**

ERS compares prices paid by consumers for food with prices received by farmers for corresponding commodities. This dataset reports comparisons for a variety of foods sold through retail food stores.

Comparisons are made for individual foods and groupings of individual foods — market baskets — that represent what a typical U.S. household buys at retail in a year. For that there are some missing data, we contacted the Hayden Stewart, the officer of USDA. And, we acknowledged that the baskets do not include every item in grocery stores, while they are only a representative basket based on data showing Americans' shopping habits, they are not a comprehensive basket.

### **Data transformation:**

There are two kinds of datasets — individual food dataset and basket dataset. For the individual food datasets, we visualize the actual prices. For the basket datasets, which shows the index instead of prices, we converted retail index and farm index into retail price and farm price in actual dollars.

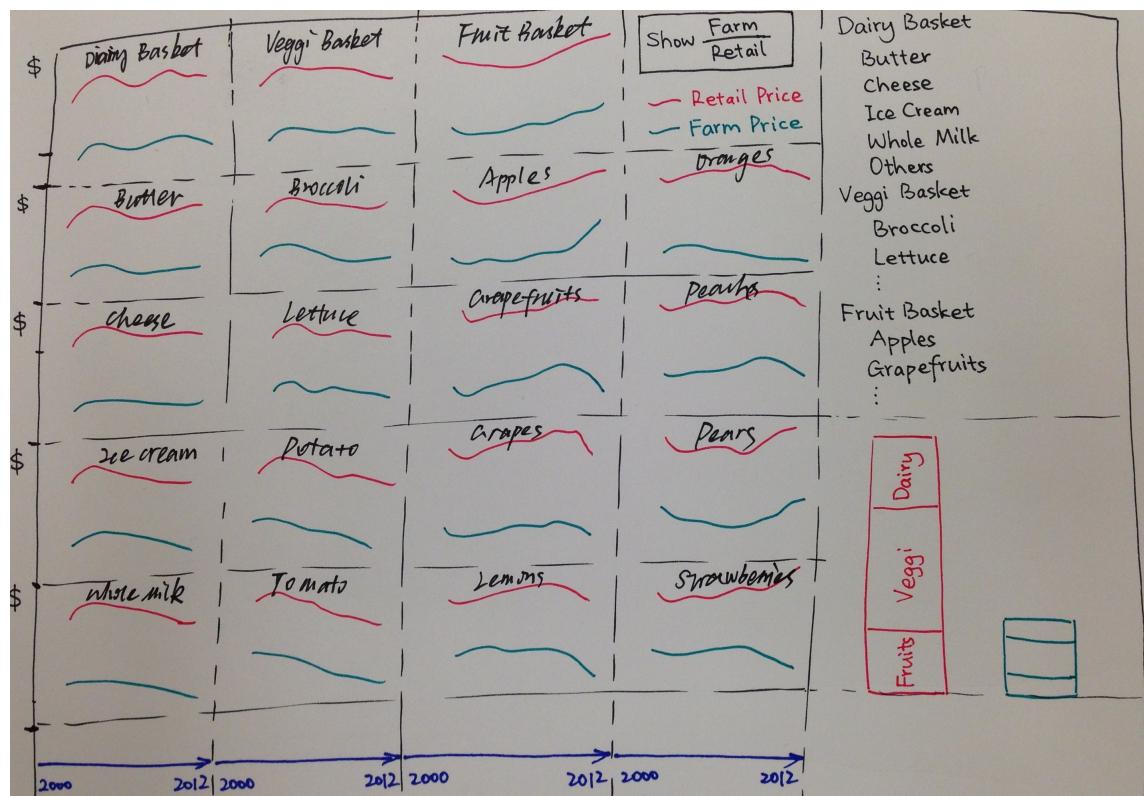
We chose the same Year span for all diaries, vegetables and fruits: 2000 ~ 2012. While there are some exceptions: For pears, there is a breakdown in the dataset. We interpolate prices for the missing years. For some other food products, when the last few years in the time span is missing, we leave the space empty.

### **Data Filtering:**

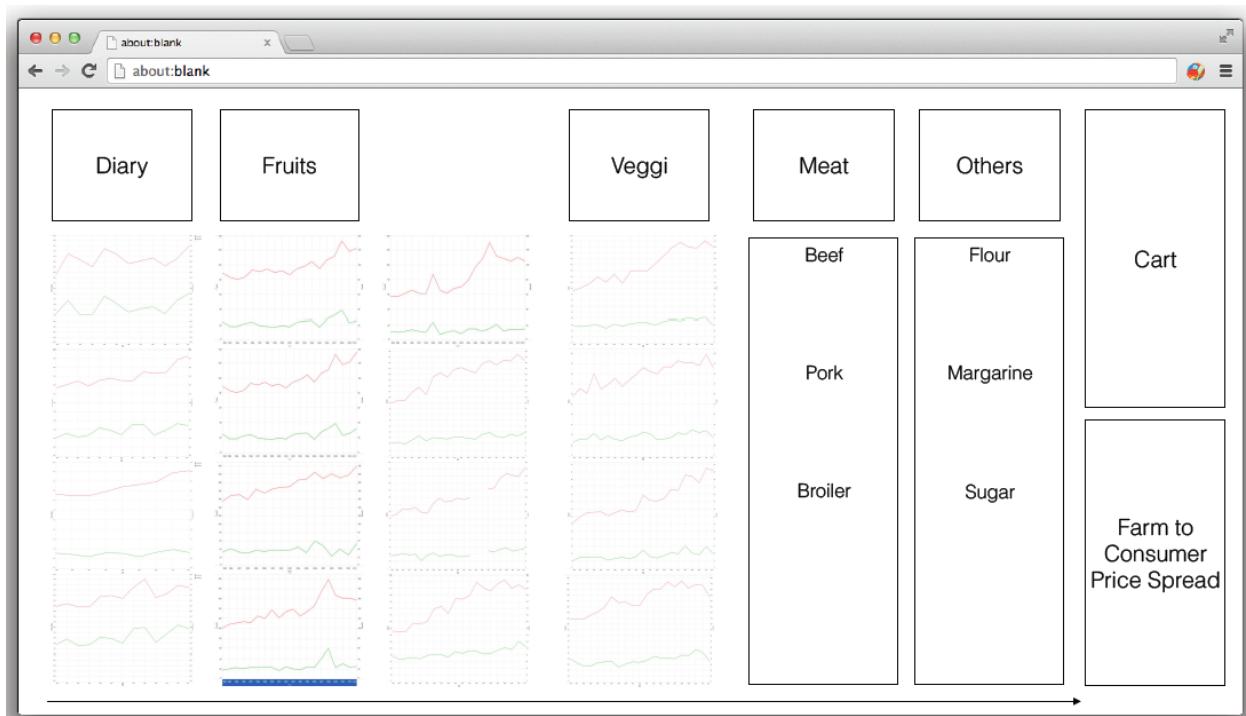
We only visualize diaries, vegetables and fruits because data for the other food categories are as incomplete.

## Initial Visualization

Low-Fidelity Prototype (Sketching)



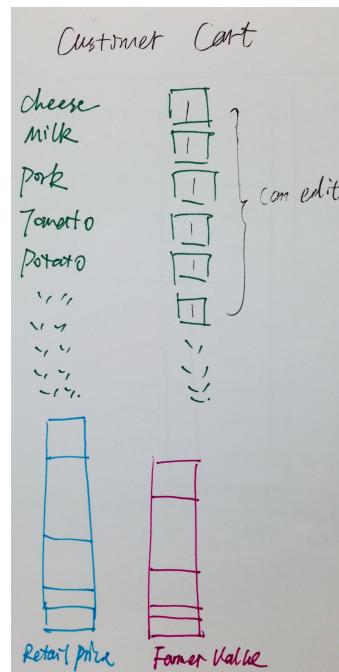
High-Fidelity Prototype (Tableau)



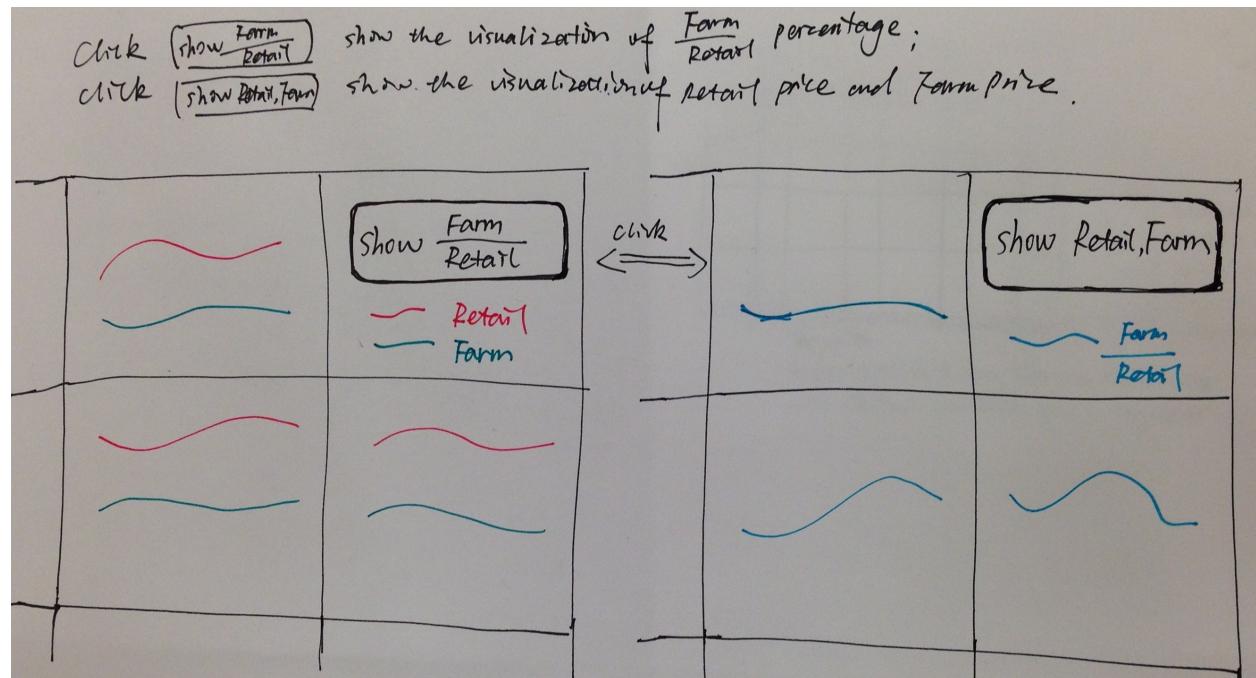
There are two panels in this initial visualization:

### Control panel (right-side)

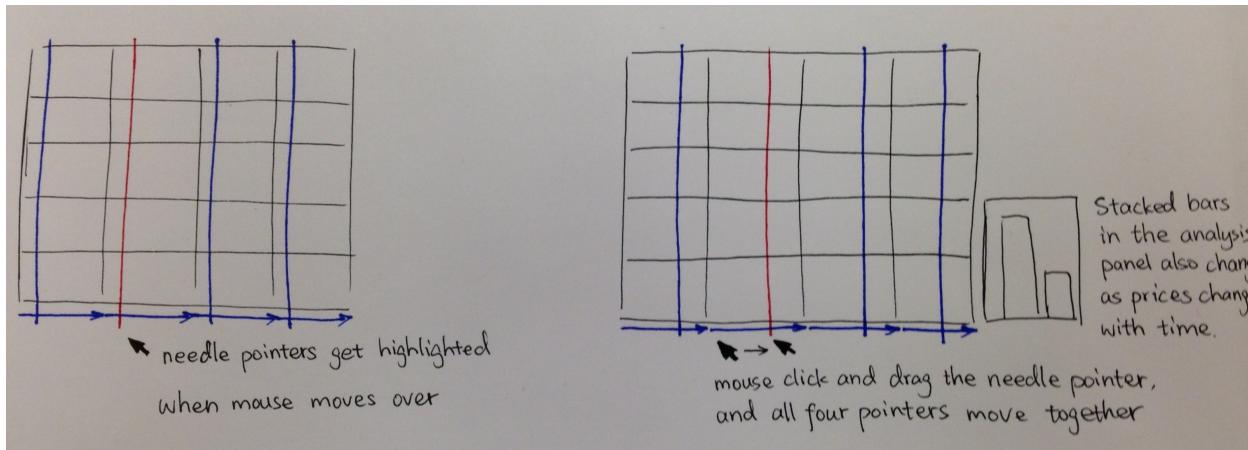
The above is a customize table, acts as a shopping cart. The default content summarizes a typical American household's spending on each food category in a year, and the stacked bar below will shows total spending in grocery stores and the money received by farmers computed using the customized dataset input by users.



### Display panel (left-side)



Show the charts of retail and farm price by default, users could click the button above the legend, and then the farm/retail percentage will be shown.



All line plots have the same time axis. Line plots of the same column share a common axis at the bottom of the display. As be shown, we use four needles on the time lines to indicate the same time in each line plot. The four needles move together.