# HW6 Write up

## By Hongkai Wang

The primary audience for my dashboard would be an executive of a pharmaceutical company that monitors the company's sales performance across the country on a local zip code level.

I created this dashboard to give some insights into the performance of the company down to a zip-code granular level and the performances of top drugs in terms of net profit. I am trying to showcase as much information about a specific drug in specific zip codes so that the company can adjust its strategy on an atomic level to achieve its desired goal of drug sales.

Here are the three main insights that I gained from the dashboard:

1. **The US Northeast is the most profitable area for the pharmaceutical company.** The color-coded symbol maps reveal this insight. I chose to use a green-orange color scale and circle size that correlates with net profit to highlight the net profitability of a zip code. The biggest and brightest circles are all in the country's Northeast region. Other regions of the country are relatively small and green.
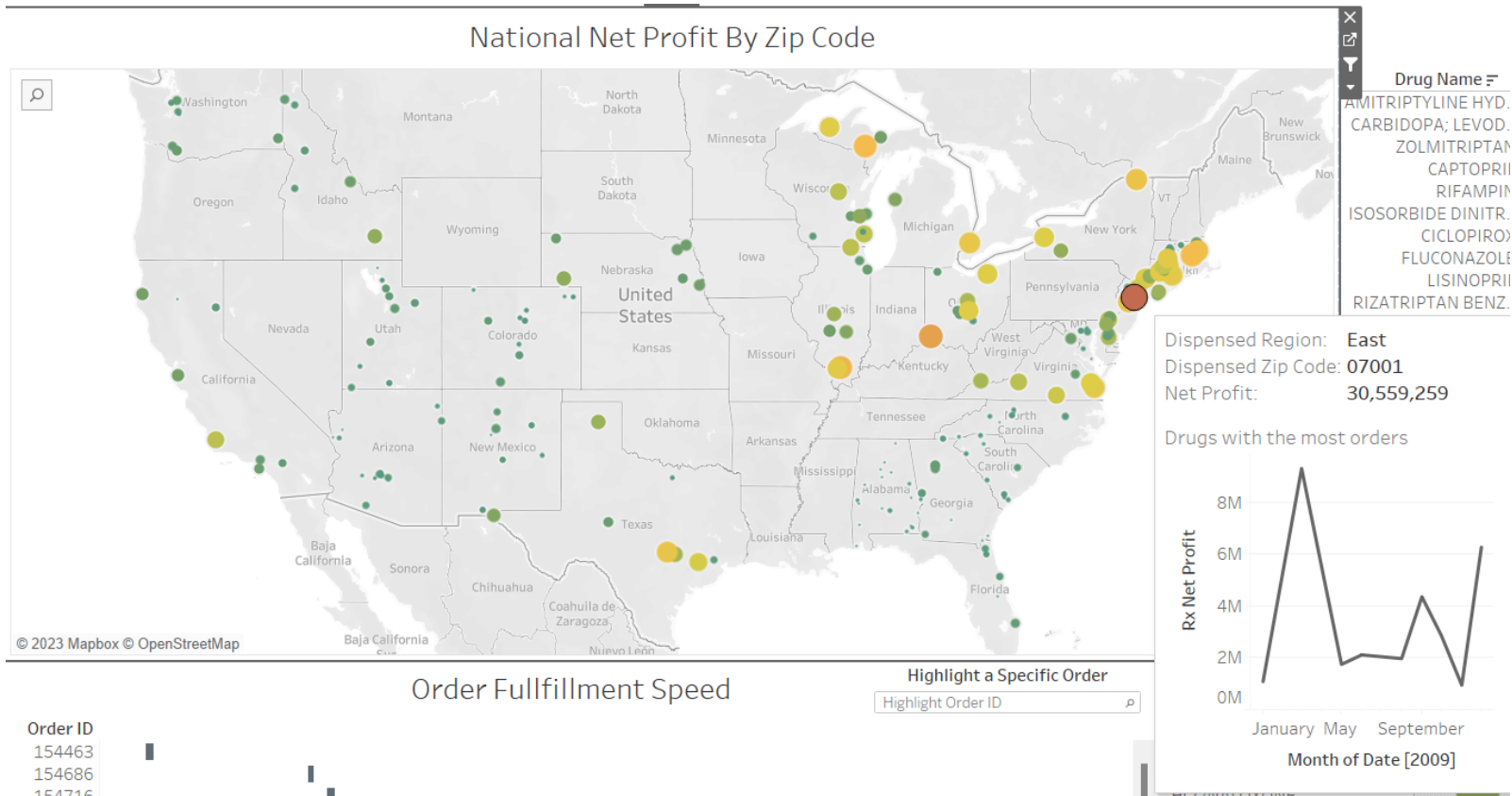


2. **The delivery schedule for most zip codes is very efficient and on time.** The Gannt chart on the bottom left of the dashboard showcases the order dates for

each order within the zipcode selected on the map and within the filtered time period (by the year the order is made). The majority of the orders are shipped within **seven days**. If the company is interested in the logistics of the company delivery system, this panel will be a good resource. The section also allows highlights of a specific order for detailed tracking purposes.
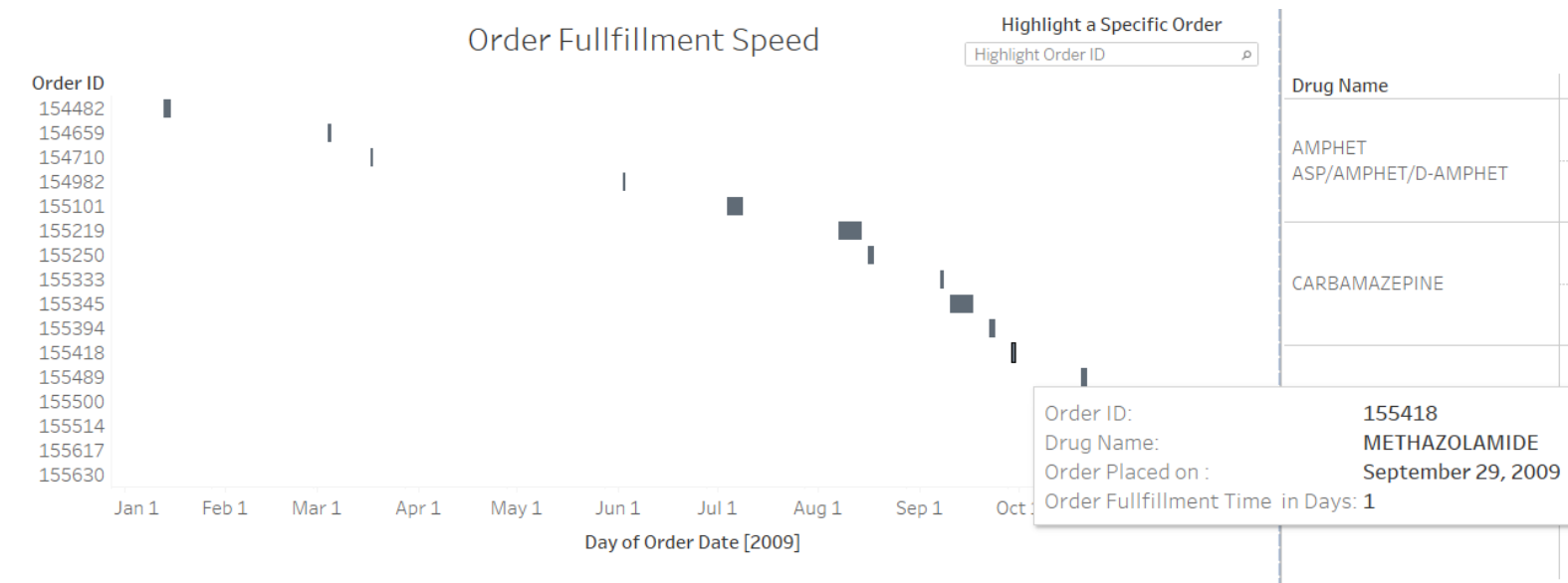


3. **Net profit and net sales of a specific drug across different zip codes are correlated, but high net sales don't always translate into high net profit at a regional level.**

   In the side-by-side bar graph showcasing drug net profit and sales, the relationship between the sales and profit of a drug is revealed to be correlated. However, the margin of a drug is dependent on many other factors, and prioritizing sales over every other metric doesn't guarantee high profit. In this example, we see that the most profitable drug in zipcode 07001 doesn't have about the same profitability as the second most profitable drug but with only about ⅔ of the total sales number. As a result, the executive needs to distinguish between the different strategies to maximize sales or profit and realize the potential ramifications of either.

   (Graph in the following page)

# Sales of Individual Drugs in the Selected Zip Code

| Drug Name ☰ | Net Profit ☰ | Net Sales |
|---|---|---|
| AMITRIPTYLINE HYD.. | | |
| CARBIDOPA; LEVOD.. | | |
| ZOLMITRIPTAN | | |
| CAPTOPRIL | | |
| RIFAMPIN | | |
| ISOSORBIDE DINITR.. | | |
| CICLOPIROX | | |
| FLUCONAZOLE | | |
| LISINOPRIL | | |
| RIZATRIPTAN BENZ.. | | |
| DOXAZOSIN MESYLA.. | | |
| DICLOFENAC POTAS.. | | |
| BUPRENORPHINE H.. | | |
| BUPRENORPHINE H.. | | |
| ETHINYL ESTRADIOL.. | | |
| CARBAMAZEPINE | | |
| AMILORIDE HYDROC.. | | |
| ADAPALENE | | |
| TINIDAZOLE | | |
| MOXIFLOXACIN HYD.. | | |
| SIROLIMUS | | |
| NIFEDIPINE | | |

Drug Name:	CARBIDOPA; LEVODOPA
Drug Supplier:	Competitor A
Order Count:	1

Net Profit: 0K  500K  1000K  1500K  2000K

Net Sales: 0M  1M  2M  3M  4M  5M  6M  7M  8M

**Drug Supplier**
- TableauCeutical
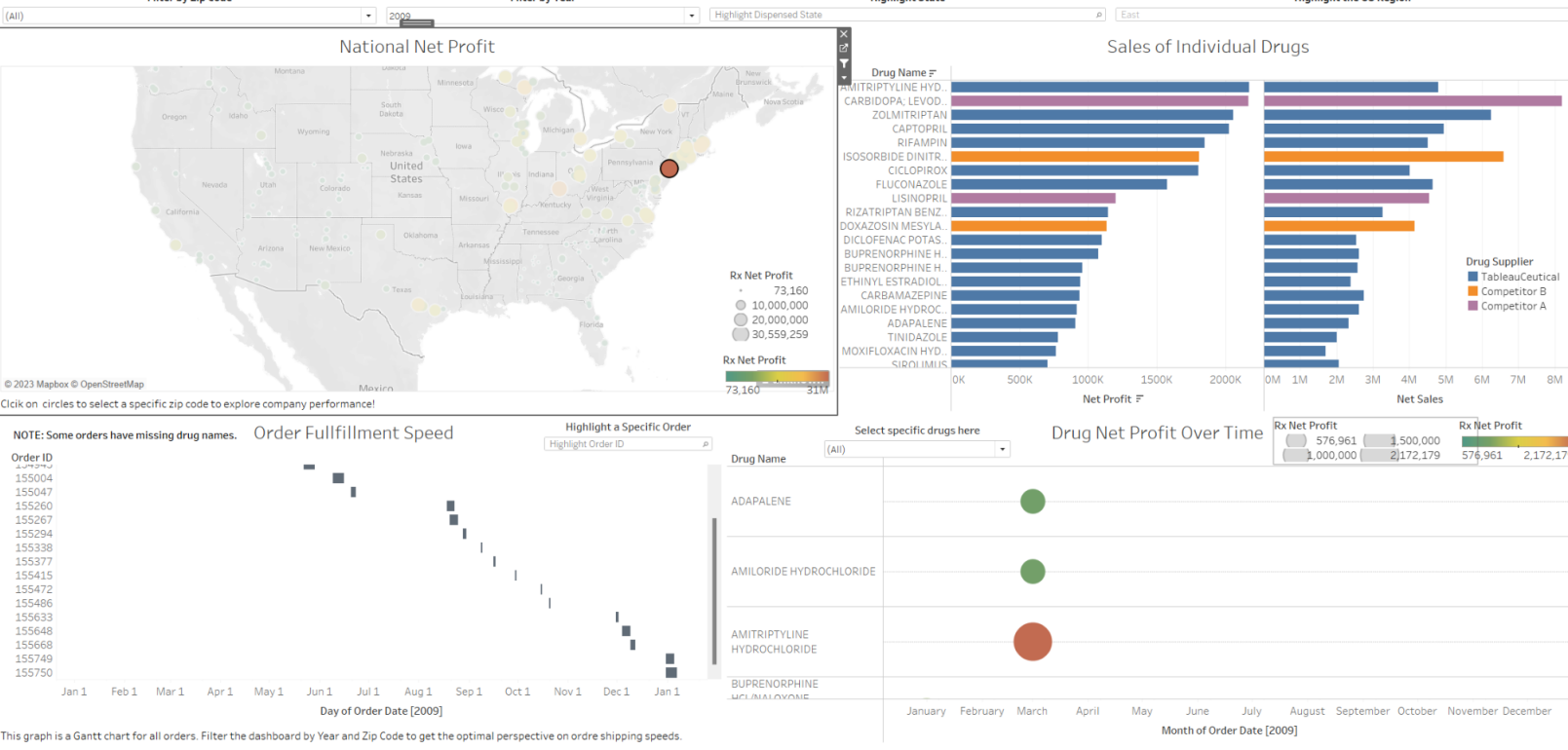- Competitor B
- Competitor A

**Whole Dashboard screenshot:**

Zip code value selected in the map will be used to filter entire dashboard. If no area is selected, then the national information will be shown on dashboard.

# Management Regional Behavior Tracking Dashboard

All stats tracked on this dashboard is defined by the zip code selection on the map

| Filter by Zip Code | Filter by Year | Highlight State | Highlight the US Region |
|---|---|---|---|
| (All) | 2009 | Highlight Dispensed State | East |

## National Net Profit



Rx Net Profit
- 73,160
- 10,000,000
- 20,000,000
- 30,559,259

Rx Net Profit
73,160 — 31M

© 2023 Mapbox © OpenStreetMap

Click on circles to select a specific zip code to explore company performance!

## Sales of Individual Drugs

Drug Name
- AMITRIPTYLINE HYD..
- CARBIDOPA; LEVOD..
- ZOLMITRIPTAN
- CAPTOPRIL
- RIFAMPIN
- ISOSORBIDE DINITR..
- CICLOPIROX
- FLUCONAZOLE
- LISINOPRIL
- RIZATRIPTAN BENZ.
- DOXAZOSIN MESYLA..
- DICLOFENAC POTAS..
- BUPRENORPHINE H..
- BUPRENORPHINE H..
- ETHINYL ESTRADIOL..
- CARBAMAZEPINE
- AMILORIDE HYDROC..
- ADAPALENE
- TINIDAZOLE
- MOXIFLOXACIN HYD..
- SIROLIMUS

Net Profit: 0K, 500K, 1000K, 1500K, 2000K

Net Sales: 0M, 1M, 2M, 3M, 4M, 5M, 6M, 7M, 8M

Drug Supplier
- TableauCeutical
- Competitor B
- Competitor A

## Order Fullfillment Speed

NOTE: Some orders have missing drug names.

Order ID
- 155004
- 155047
- 155260
- 155267
- 155294
- 155338
- 155377
- 155415
- 155472
- 155486
- 155633
- 155648
- 155668
- 155749
- 155750

Day of Order Date [2009]: Jan 1, Feb 1, Mar 1, Apr 1, May 1, Jun 1, Jul 1, Aug 1, Sep 1, Oct 1, Nov 1, Dec 1, Jan 1

Highlight a Specific Order
Highlight Order ID

This graph is a Gantt chart for all orders. Filter the dashboard by Year and Zip Code to get the optimal perspective on ordre shipping speeds.

Select specific drugs here
(All)

## Drug Net Profit Over Time

Drug Name
- ADAPALENE
- AMILORIDE HYDROCHLORIDE
- AMITRIPTYLINE HYDROCHLORIDE
- BUPRENORPHINE HCL/NALOXONE

Month of Order Date [2009]: January, February, March, April, May, June, July, August, September, October, November, December

Rx Net Profit
- 576,961
- 1,000,000
- 1,500,000
- 2,172,179

Rx Net Profit
576,961 — 2,172,179

**Dashboard sketch:**

corporate sales performance of drugs.

National sales level by zip code

Sales performances of drug in zip code

color and size are both correlated with drug net profit

highest sale
mild sale
low sale

company1  company2
company3

Drug Name
drug 1
drug 2
drug 3
drug 4
:

sales profit

color coded & stacked bars to distinguish between different companies

Gantt graph for order delivery time in zip code

1
2
3
4
5
6

time

Sales trend in a zip code

Sales $

This is changed into an embedded tooltip for the map.

Replaced by a timeline circle.

The advanced visualization →

drug1
drug2
drug3
drug4

time

Size and color are all correlated with net profit