

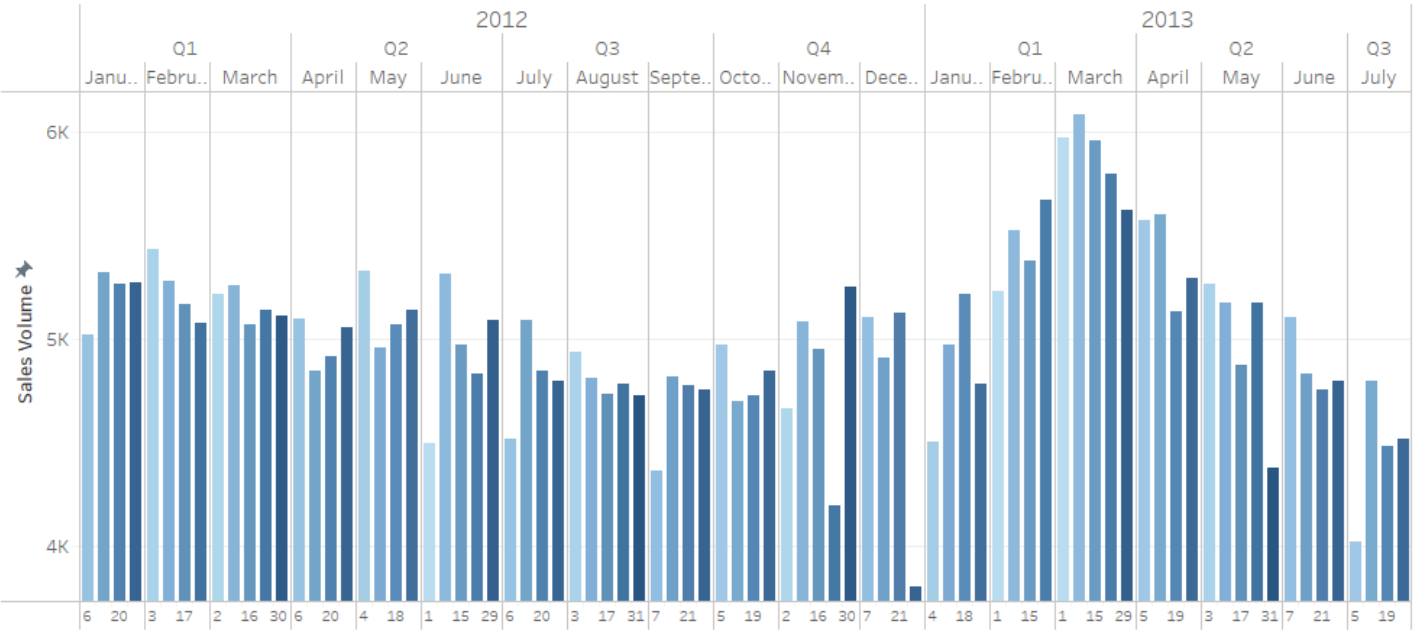
# Pharmaceutical Marketing Assessment

## (Data Analysis Dashboards and KPI's)

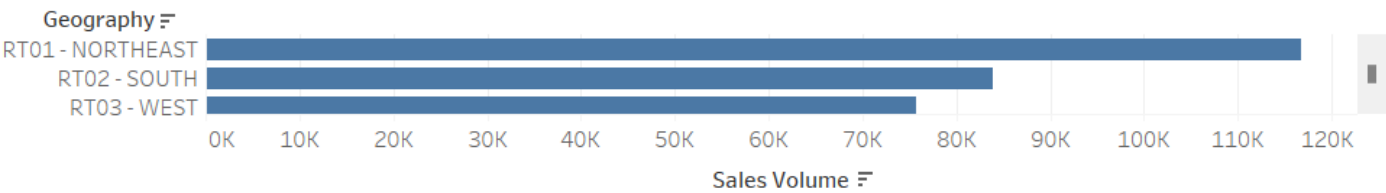
### 1. Sales and data overview

Preciption Sales (Units)	#Physicians	#Sales Rep Details	#Free Samples
411,655	5,000	154,687	550,538

Sales by Week



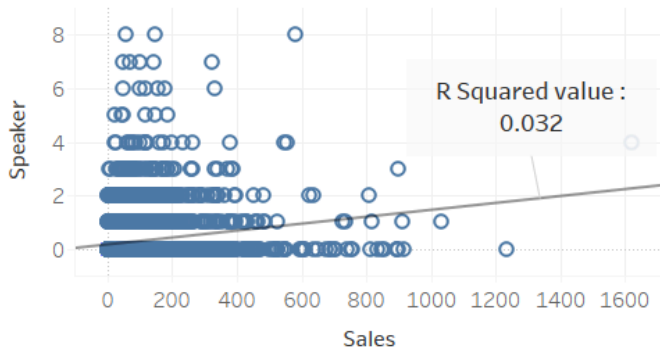
Sales By Region



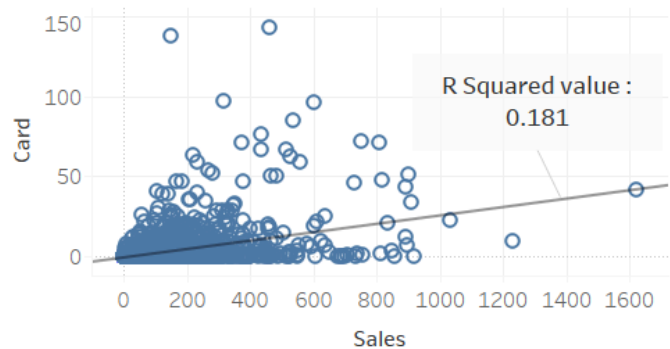
## 2. Correlation of marketing activities

Which Marketing Strategy has the highest correlation with prescription?

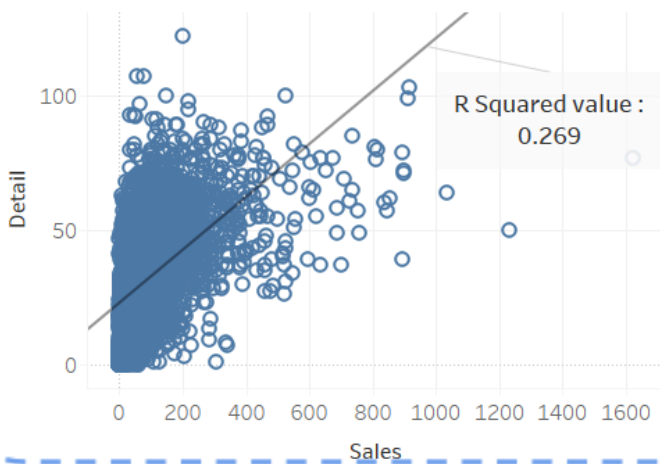
Sales vs Speaker



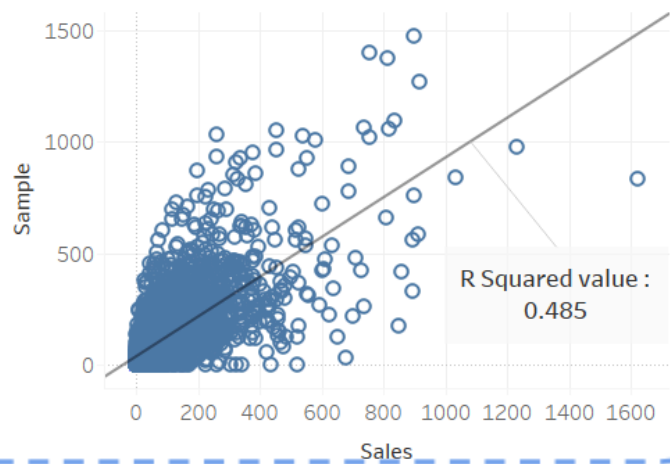
Sales vs Card



Sales vs Detail

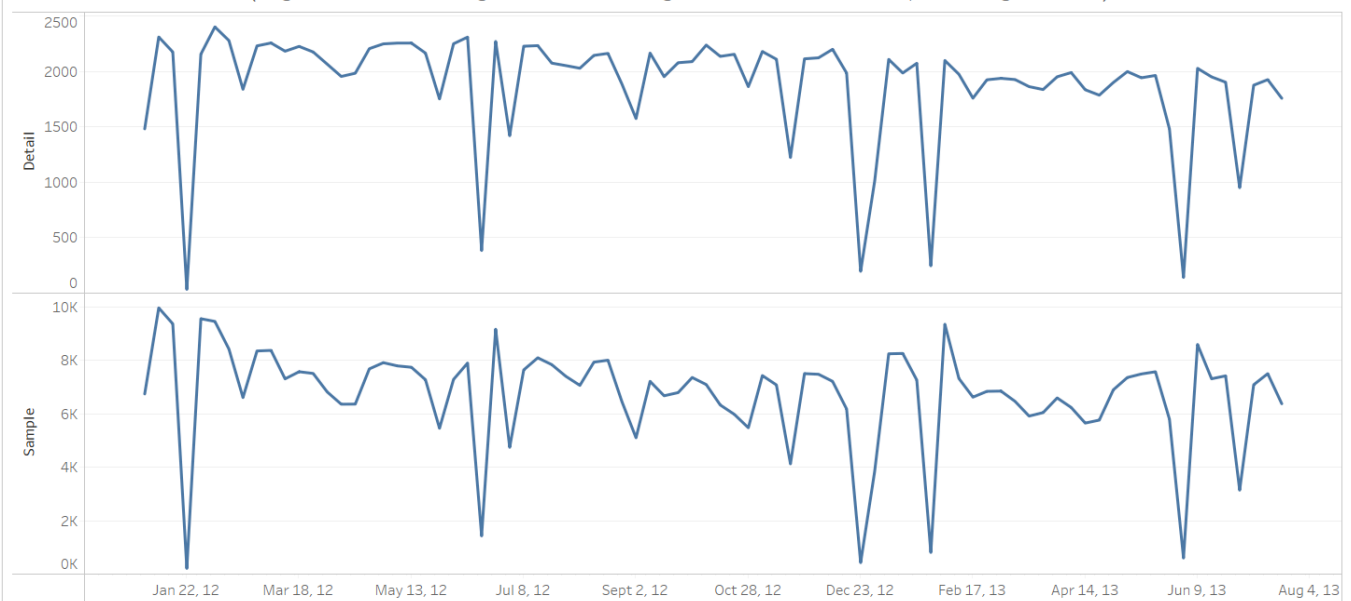


Sales vs Sample



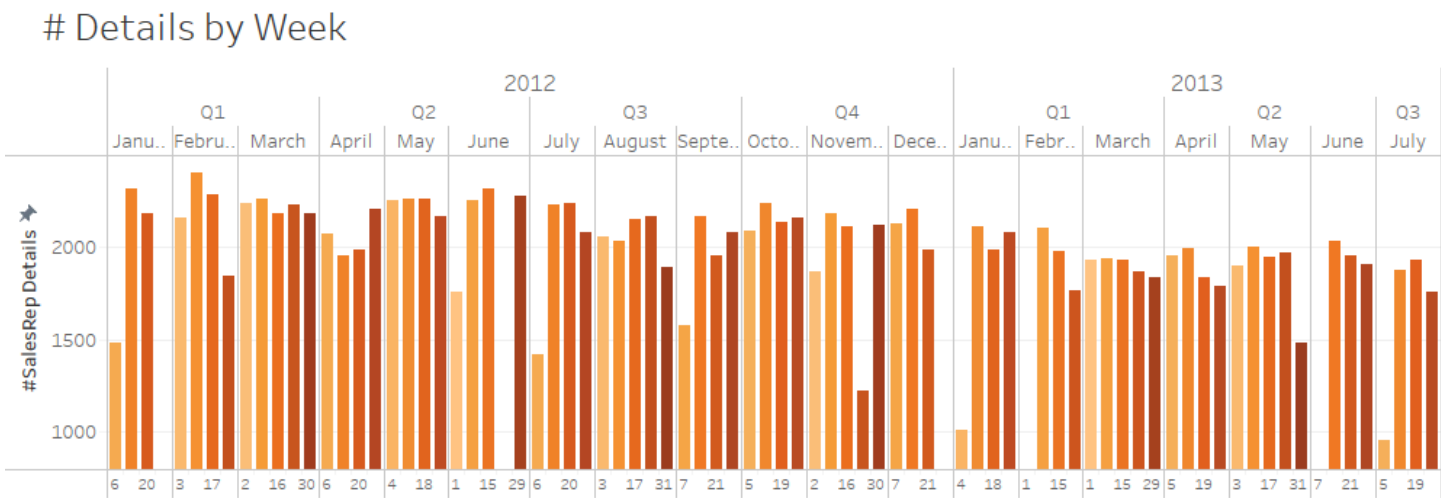
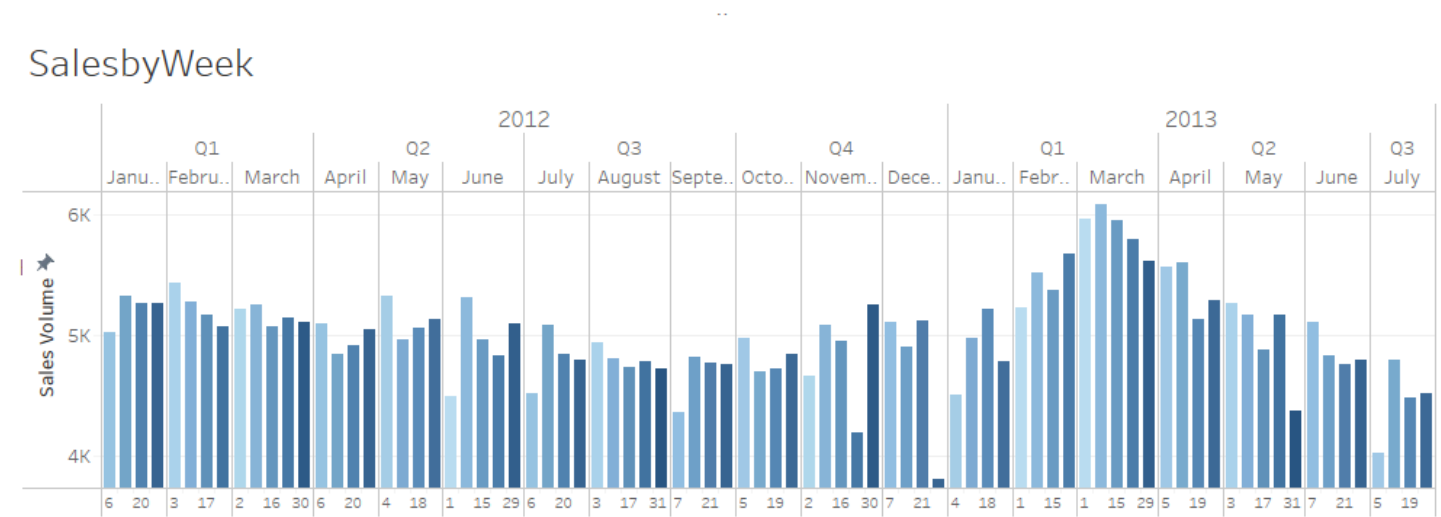
Details and Sample Shows same trend over time

(High correlation- Might be that during each detail, free samples are given out)



3. Analyzing Each Marketing strategy V.S. Sales (Grouped on Region & Industry ranking)

How does Sales Representative Details Impact Sales?



Sales by Region

	Industry Decile Ranking									
Geography	1	2	3	4	5	6	7	8	9	10
na	2									
PR00 - PUERTO RICO				124						515
RT01 - NORTHEAST	180	4,120	11,783	17,004	18,431	18,312	14,623	14,821	12,287	5,215
RT02 - SOUTH	209	2,015	6,586	10,125	12,610	10,459	11,958	11,485	7,398	11,113
RT03 - WEST	134	2,286	7,840	9,053	9,253	11,907	11,030	6,707	9,739	7,719
RT04 - CENTRAL	109	1,634	5,342	8,376	10,231	11,343	9,509	7,979	6,190	4,361
RT05 - GREAT LAKES	127	2,148	7,217	9,668	11,436	10,812	11,225	6,178	7,542	3,188

# KPI: Sales Volume per Detail

Geography	Industry Decile Ranking										Grand T..
	1	2	3	4	5	6	7	8	9	10	
na	0.40										0.10
PR00 - PUERTO RICO				3.66						12.87	8.64
RT01 - NORTHEAST	0.56	1.44	1.74	2.05	2.41	2.94	3.39	4.16	5.08	8.53	2.71
RT02 - SOUTH	0.78	1.43	1.57	1.69	2.31	2.67	3.27	4.69	5.07	7.77	2.78
RT03 - WEST	0.97	1.09	1.61	1.66	1.87	2.48	2.74	3.97	4.88	10.17	2.46
RT04 - CENTRAL	0.99	1.85	1.83	2.07	2.22	2.97	3.26	3.90	4.89	7.34	2.80
RT05 - GREAT LAKES	0.93	1.54	1.66	1.82	2.33	2.52	3.23	3.40	6.62	6.20	2.54
Grand Total	0.78	1.41	1.68	1.87	2.25	2.72	3.17	4.08	5.21	8.13	2.66

## #Details per Physician

Industry..	Geography	Sales Volume	#SalesRep Details	SalesVol_per_Detail	#Detail_per_Physician
1	na	2	5	0.4	1
	RT01 - NORTHEAST	180	321	0.6	6
	RT02 - SOUTH	209	268	0.8	6
	RT03 - WEST	134	138	1.0	3
	RT04 - CENTRAL	109	110	1.0	4
	RT05 - GREAT LAKES	127	137	0.9	3
2	RT01 - NORTHEAST	4,120	2,866	1.4	15
	RT02 - SOUTH	2,015	1,412	1.4	13
	RT03 - WEST	2,286	2,095	1.1	15
	RT04 - CENTRAL	1,634	881	1.9	11
	RT05 - GREAT LAKES	2,148	1,399	1.5	11
3	RT01 - NORTHEAST	11,783	6,789	1.7	24
	RT02 - SOUTH	6,586	4,182	1.6	26
	RT03 - WEST	7,840	4,872	1.6	26
	RT04 - CENTRAL	5,342	2,927	1.8	21
	RT05 - GREAT LAKES	7,217	4,351	1.7	23
4	PR00 - PUERTO RICO	124	34	3.7	17
	RT01 - NORTHEAST	17,004	8,296	2.0	33
	RT02 - SOUTH	10,125	5,993	1.7	33
	RT03 - WEST	9,053	5,457	1.7	36
	RT04 - CENTRAL	8,376	4,051	2.1	28
	RT05 - GREAT LAKES	9,668	5,305	1.8	30
5	RT01 - NORTHEAST	18,431	7,636	2.4	39
	RT02 - SOUTH	12,610	5,459	2.3	37
	RT03 - WEST	9,253	4,939	1.9	41
	RT04 - CENTRAL	10,231	4,599	2.2	34
	RT05 - GREAT LAKES	11,436	4,899	2.3	34
6	RT01 - NORTHEAST	18,312	6,239	2.9	39
	RT02 - SOUTH	10,459	3,921	2.7	41
	RT03 - WEST	11,907	4,796	2.5	42
	RT04 - CENTRAL	11,343	3,820	3.0	37
	RT05 - GREAT LAKES	10,812	4,294	2.5	39
7	RT01 - NORTHEAST	14,623	4,315	3.4	45
	RT02 - SOUTH	11,958	3,662	3.3	42
	RT03 - WEST	11,030	4,021	2.7	50
	RT04 - CENTRAL	9,509	2,920	3.3	38
	RT05 - GREAT LAKES	11,225	3,474	3.2	38
8	RT01 - NORTHEAST	14,821	3,563	4.2	48
	RT02 - SOUTH	11,485	2,448	4.7	47
	RT03 - WEST	6,707	1,691	4.0	41
	RT04 - CENTRAL	7,979	2,045	3.9	44
	RT05 - GREAT LAKES	6,178	1,819	3.4	49
9	RT01 - NORTHEAST	12,287	2,417	5.1	53
	RT02 - SOUTH	7,398	1,458	5.1	49
	RT03 - WEST	9,739	1,996	4.9	55
	RT04 - CENTRAL	6,190	1,266	4.9	47
	RT05 - GREAT LAKES	7,542	1,139	6.6	46
10	PR00 - PUERTO RICO	515	40	12.9	40
	RT01 - NORTHEAST	5,215	611	8.5	61
	RT02 - SOUTH	11,113	1,430	7.8	57
	RT03 - WEST	7,719	759	10.2	54
	RT04 - CENTRAL	4,361	594	7.3	46
	RT05 - GREAT LAKES	3,188	514	6.2	57

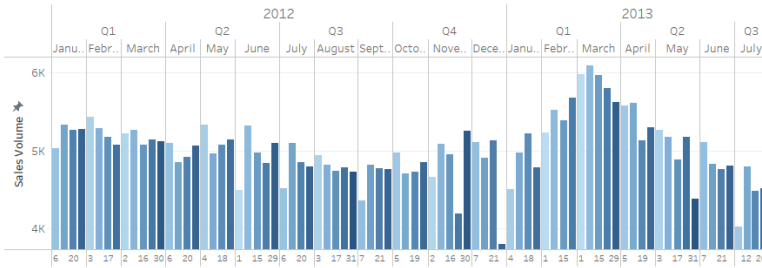
Within the same industry decile ranking, benchmark and compare KPIs, e.g. :

Industry decile 10: West Zone (54 details per physician, makes 10.2 units sold per detail)  
Vs. Great Lakes (57 details per physician, makes 6.2 units sold per detail).

Industry decile 8: West Zone (41 details per physician, makes 4 units sold per detail)  
Vs. Great Lakes (49 details per physician, makes 3.4 units sold per detail)

## How does Speaker Programs Impact Sales? (Indicating a Promotional lift around March 2013)

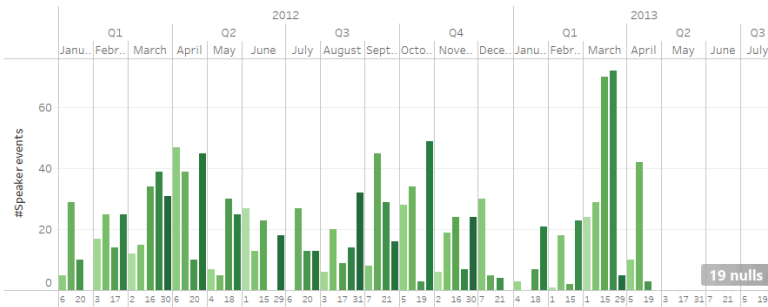
Sales by Week



Sales by Region

Geography	Industry Decile Ranking									
	1	2	3	4	5	6	7	8	9	10
na	2									
PR00 - PUERTO RICO				124						515
RT01 - NORTHEAST	180	4,120	11,783	17,004	18,431	18,312	14,623	14,821	12,287	5,215
RT02 - SOUTH	209	2,015	6,586	10,125	12,610	10,459	11,958	11,485	7,398	11,113
RT03 - WEST	134	2,286	7,840	9,053	9,253	11,907	11,030	6,707	9,739	7,719
RT04 - CENTRAL	109	1,634	5,342	8,376	10,231	11,343	9,509	7,979	6,190	4,361
RT05 - GREAT LAKES	127	2,148	7,217	9,668	11,436	10,812	11,225	6,178	7,542	3,188

Speaker Events

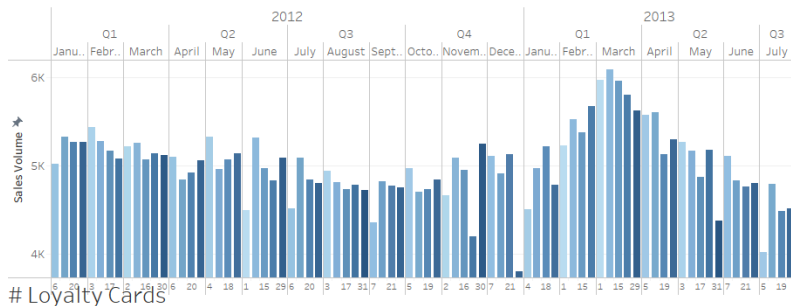


Speaker Events by Region

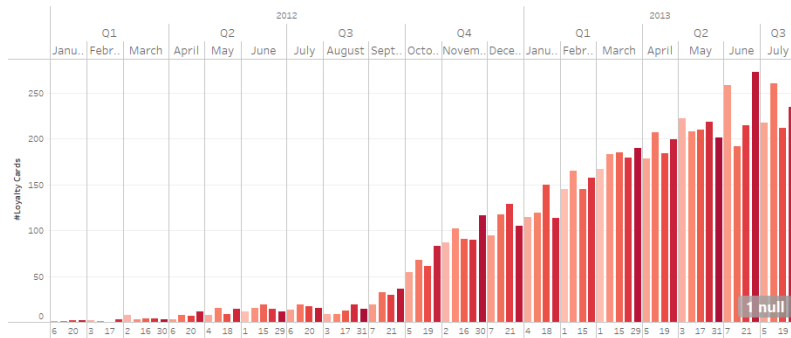
Geography	Industry Decile Ranking										Grand To..
	1	2	3	4	5	6	7	8	9	10	
na											2
PR00 - PUERTO RICO											
RT01 - NORTHEAST	2	60	87	110	63	54	34	27	35	8	480
RT02 - SOUTH	1	6	23	20	19	18	20	14	2	4	127
RT03 - WEST	6	29	38	55	43	44	30	16	10	10	281
RT04 - CENTRAL	6	7	37	26	27	39	24	19	14	4	203
RT05 - GREAT LAKES	7	16	53	30	50	30	36	15	9	1	247
Grand Total	22	118	238	241	202	185	144	91	70	27	1,340

## How does the Loyalty Card Strategy Impact Sales?..

SalesbyWeek



# Loyalty Cards



Sales by Region

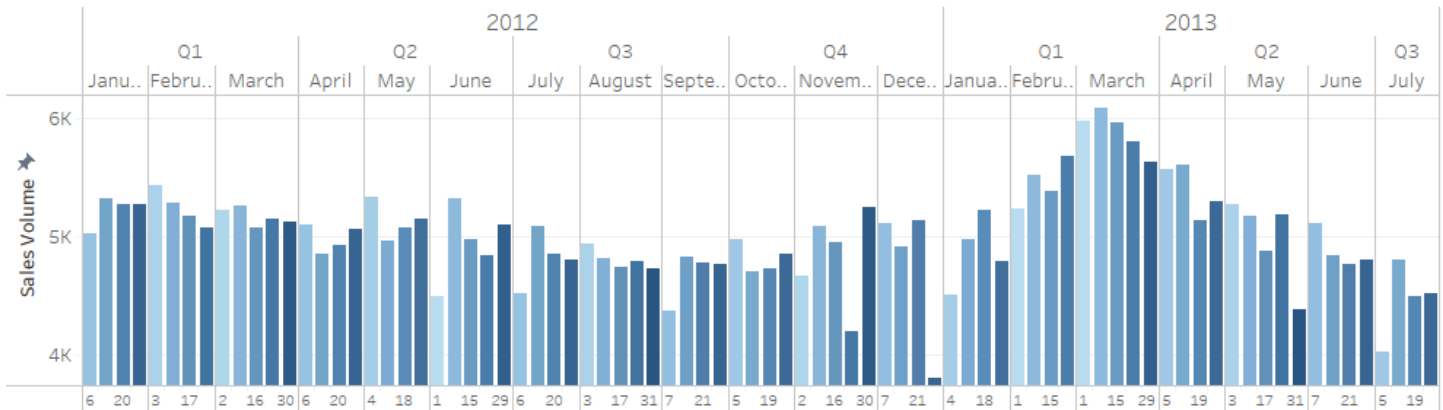
Geography	Industry Decile Ranking									
	1	2	3	4	5	6	7	8	9	10
na	2									
PR00 - PUERTO RICO				124						515
RT01 - NORTHEAST	180	4,120	11,783	17,004	18,431	18,312	14,623	14,821	12,287	5,215
RT02 - SOUTH	209	2,015	6,586	10,125	12,610	10,459	11,958	11,485	7,398	11,113
RT03 - WEST	134	2,286	7,840	9,053	9,253	11,907	11,030	6,707	9,739	7,719
RT04 - CENTRAL	109	1,634	5,342	8,376	10,231	11,343	9,509	7,979	6,190	4,361
RT05 - GREAT LAKES	127	2,148	7,217	9,668	11,436	10,812	11,225	6,178	7,542	3,188

# Loyalty Cards by Region

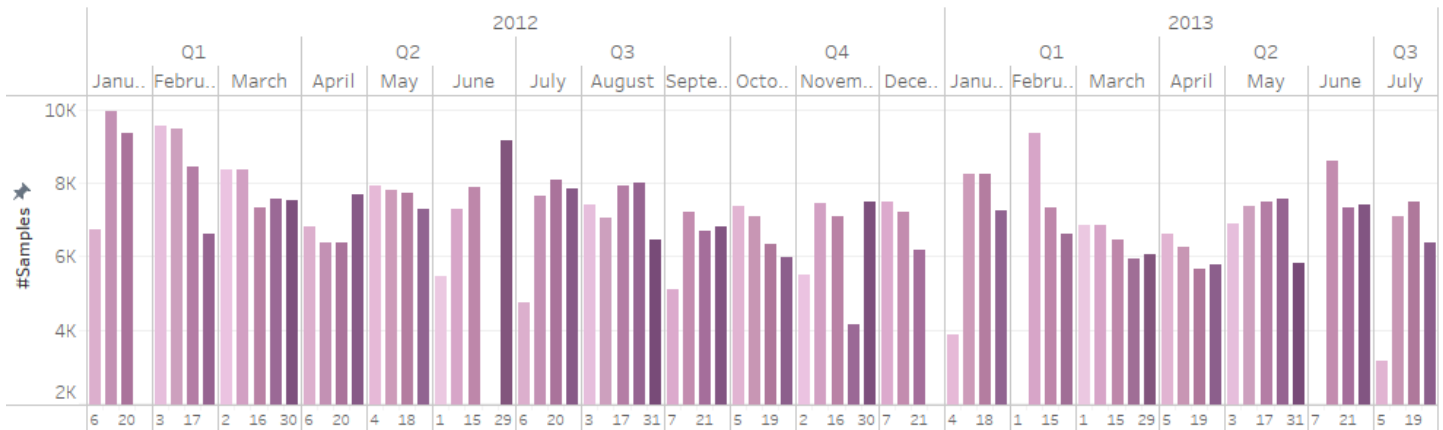
Geography	Industry Decile Ranking										Grand To..
	1	2	3	4	5	6	7	8	9	10	
na											
PR00 - PUERTO RICO											
RT01 - NORTHEAST		46	254	176	294	190	288	377	142	98	1,865
RT02 - SOUTH	1	16	59	157	308	179	338	391	133	187	1,769
RT03 - WEST	8	33	33	86	151	111	71	22	99	221	835
RT04 - CENTRAL		8	75	139	156	247	158	397	74	90	1,344
RT05 - GREAT LAKES	10	8	42	112	231	300	331	146	253	75	1,508
Grand Total	19	111	463	670	1,140	1,027	1,186	1,333	701	671	7,321

## How does the Free Sample strategy Impact Sales? (KPI: #Samples per unit sold)

### SalesbyWeek



### Samples



### Samples by Region & KPI

		Industry Decile Ranking										Grand To..
Geography		1	2	3	4	5	6	7	8	9	10	
#Samples	na	15										15
	PR00 - PUERTO R...	154										756
	RT01 - NORTHEA...	581	6,265	18,524	24,499	27,950	24,167	19,012	17,826	11,537	3,900	154,261
	RT02 - SOUTH	565	3,196	10,229	17,409	17,072	15,068	13,158	12,323	6,247	11,996	107,263
	RT03 - WEST	226	3,784	11,433	15,474	16,344	16,928	15,821	6,653	7,974	5,567	100,204
	RT04 - CENTRAL	294	2,333	6,893	12,566	14,993	14,893	11,339	8,987	7,532	4,205	84,035
	RT05 - GREAT LA...	242	3,737	11,967	15,859	16,633	17,557	15,677	10,115	8,014	4,135	103,936
#Samples/Volume_Sold	na	7.6										7.6
	PR00 - PUERTO R...	1.2										1.2
	RT01 - NORTHEA...	3.2	1.5	1.6	1.4	1.5	1.3	1.3	1.2	0.9	0.7	1.3
	RT02 - SOUTH	2.7	1.6	1.6	1.7	1.4	1.4	1.1	1.1	0.8	1.1	1.3
	RT03 - WEST	1.7	1.7	1.5	1.7	1.8	1.4	1.4	1.0	0.8	0.7	1.3
	RT04 - CENTRAL	2.7	1.4	1.3	1.5	1.5	1.3	1.2	1.1	1.2	1.0	1.3
	RT05 - GREAT LA...	1.9	1.7	1.7	1.6	1.5	1.6	1.4	1.6	1.1	1.3	1.5
#S..#S..	Total	1,923	19,315	59,046	85,961	92,992	88,613	75,007	55,904	41,304	30,405	550,470
#S..#S..	Total	2.5	1.6	1.5	1.6	1.5	1.4	1.3	1.2	1.0	0.9	1.3