

# To Drink or Not to Drink?

## That is the question:

# Analyzing Alcohol Data with JMP 15

- Mandy Chambers, Principal Test Engineer
- Melanie Drake, Principal Systems Engineer

True confession ...

Drink Choice: Wine ... After water of course!

What does “Top shelf “ mean?  
- of a high quality; excellent.



Photo of The Grape and Ale in Oak Island, NC

Alcohol information



Is "top shelf" alcohol healthier?

In other words is [the same amount of consumed]  
top shelf alcohol healthier than the cheap stuff?

Answer: Any consumed amount of X% Ethanol will have the  
same effect on your body, regardless of brand.

## Why this subject?

- Social House Vodka – Kinston, NC (2017)
- Connection with Board Members
- “Hey, they need JMP to evaluate their data”
- North Carolina – evaluate sales per county
- Explore possibilities for marketing enhancements
- Compare to Titos, Greygoose, etc. & other spirits – look at overall vodka trends
- JMP 15 Features



# Social House Vodka Distillery



Some of the story ...

- started at NC State
- tour in Kinston in the future



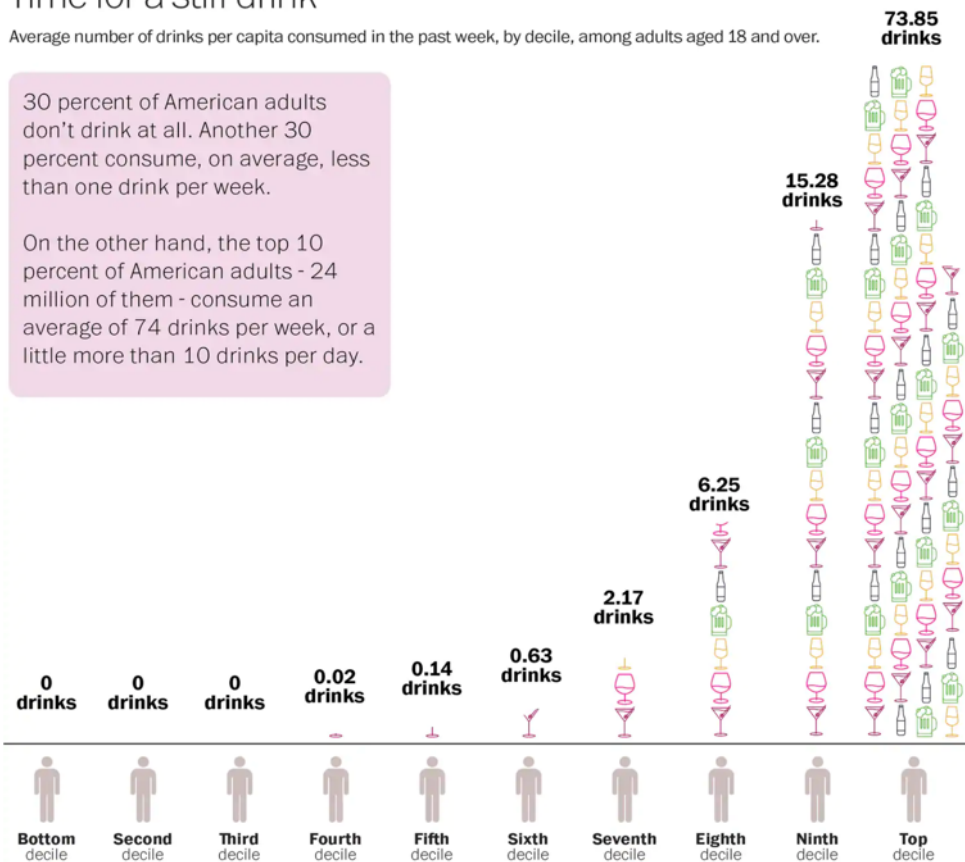
Alcohol information

## Time for a stiff drink

Average number of drinks per capita consumed in the past week, by decile, among adults aged 18 and over.

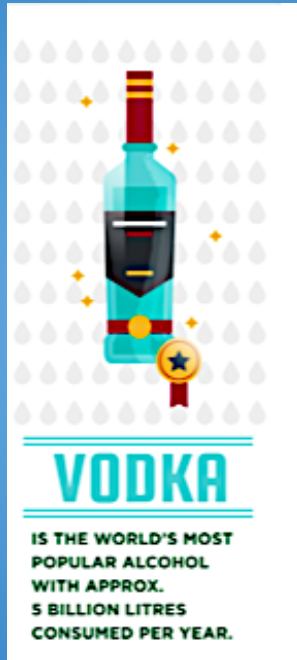
30 percent of American adults don't drink at all. Another 30 percent consume, on average, less than one drink per week.

On the other hand, the top 10 percent of American adults - 24 million of them - consume an average of 74 drinks per week, or a little more than 10 drinks per day.



# Fun facts about Alcohol

- Although “The quick brown fox jumps over the lazy dog” is considered to be the shortest sentence that includes all the letters of the alphabet, alcohol lovers came up with one of their own “Pack my box with five dozen liquor jugs.”
- Distilled spirits such as brandy, gin, rum, vodka, etc. contain no carbohydrates, no fats and no cholesterol of any kind.
- Spraying your clothes with Vodka can eliminate odors...just be careful not to overdo it as it might stain.
- Vodka is the world’s most popular alcohol with approximately 5 billion liters consumed per year.



# JMP 15 New Features



## New Favorite things ...

- Import Data
  - Google Sheets – importing data
  - PDF file import
- Value Order – column property enhanced to allow for customizing sort order name change from “Value Ordering”
- Rows > Row Selection > Select Where provides Save Script red triangle option
- Data table
  - Copy Table Script (No Data)
  - Histograms in column headers (Preferences setting)
  - Colored cells in data table – borders of selected cells bolded & formatted gray – Columns > Clear Cell Colors
- Data visualization – hover label graphlet images
- Virtual Join
  - Auto Open option
  - New Hover tip to reference virtually joined table name



# JMP 15 New Features



## .. And a few more!

- Recode – Extract Segment
  - Preferences – Recode, new recode selections and settings
  - Select rows in recode window, selects rows in data table
- Columns – Utilities → Recode Column Names
- Save Script to Source Table option – Tables Summary, Subset, Sort, Join, Transpose, Split and Stack
- **\*\*JMP LIVE \*\***
- Preferences – Show Histograms and Bars, Recode, Data Filter

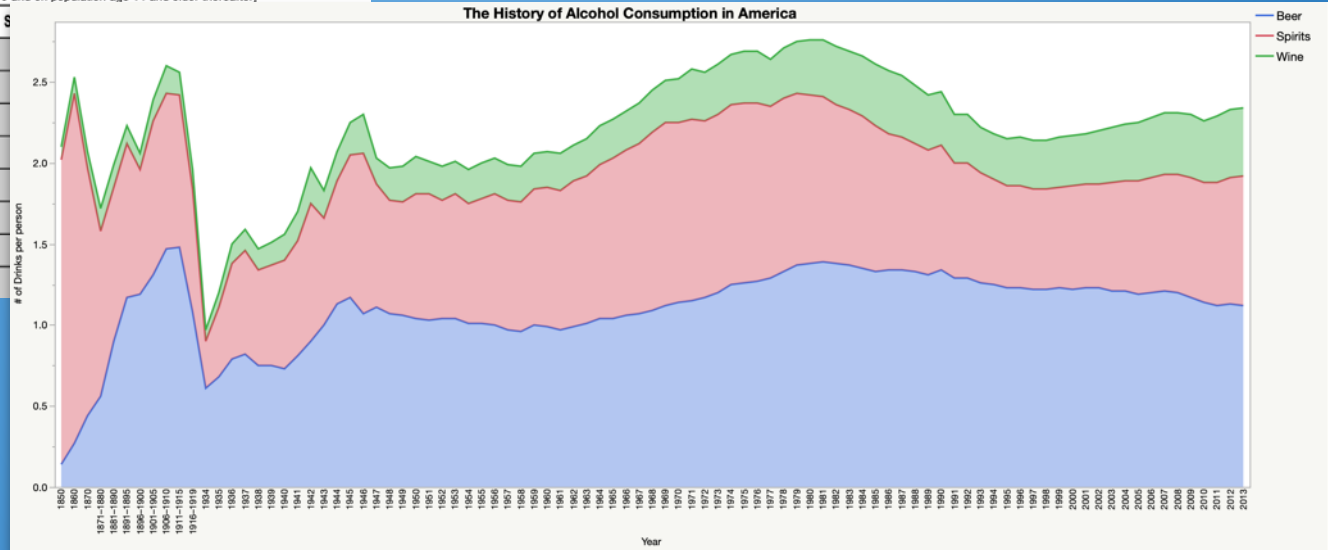
Note: Prohibition period, 1919-1934

Home » Publications » Surveillance Reports » Surveillance Report #102

**Table 1. Apparent per capita ethanol consumption, United States, 1850-2013.**

(Gallons of ethanol, based on population age 15 and older prior to 1970 and on population age 14 and older thereafter)

Year	Beer	Wine	Spirits
2013	1.12	0.42	0.86
2012	1.13	0.42	0.85
2011	1.12	0.41	0.85
2010	1.14	0.38	0.86
2009	1.17	0.39	0.85
2008	1.20	0.38	0.84
2007	1.21	0.38	0.83
2006	1.20	0.37	0.83



PubMed Central, Table 1: BMJ | x +

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5701978/table/T1?report=objectonly

**Table 1**  
Overall reported emotions by individual type of alcoholic drink (%)

	n	Drink type								
		Spirits	95% CI	Red wine	95% CI	White wine	95% CI	Beer	95% CI	Cochran
<b>Positive emotions</b>										
Energised	29 836	58.36	57.80 to 58.92	7.14	6.84 to 7.43	15.07	14.66 to 15.47	24.76	24.27 to 25.24	23 610.4
Confident	29 836	59.08	58.52 to 59.63	27.88	27.37 to 28.39	28.27	27.76 to 28.78	44.54	43.97 to 45.10	11 885.0
Relaxed	29 836	20.15	19.70 to 20.61	52.80	52.23 to 53.37	32.67	32.14 to 33.20	49.87	49.30 to 50.43	9578.23
Sexy	29 836	42.42	41.85 to 42.98	25.20	24.71 to 25.70	23.73	23.24 to 24.21	18.86	18.41 to 19.31	6261.86
<b>Negative emotions</b>										
Tired	29 836	15.33	14.92 to 15.74	60.08	59.52 to 60.63	18.44	18.00 to 18.88	38.92	38.36 to 39.47	17 024.2
Aggressive	29 836	29.83	29.31 to 30.35	2.57	2.39 to 2.75	2.74	2.55 to 2.92	6.73	6.44 to 7.01	17 467.3
Ill	29 836	47.82	47.26 to 48.39	19.29	18.84 to 19.74	14.50	14.10 to 14.90	16.71	16.28 to 17.13	13 032.6
Restless	29 836	27.81	27.30 to 28.32	5.18	4.93 to 5.43	6.43	6.15 to 6.71	9.34	9.01 to 9.67	11 329.9
Tearful	29 836	22.24	21.77 to 22.71	17.10	16.67 to 17.52	9.96	9.62 to 10.30	9.88	9.54 to 10.22	3551.28

Feelings

'Feelings' in table 'Alcohol Feelings'

Column Name: Feelings

Lock

Data Type: Character

Modeling Type: Nominal

Column Properties

Value Order

Remove

Value Order

Specify the order of data items and/or pick rules that determine the order.

Custom Order

**Custom Order**

Tired  
Relaxed  
Tearful  
Confident  
Energised  
Sexy  
Aggressive  
Ill  
Restless

**Sorted Order**

Enter value +

Use Locale Comparisons for Characters

OK

Cancel

Apply

Help

Custom Order(9)

Reverse

Sorted Order(0)

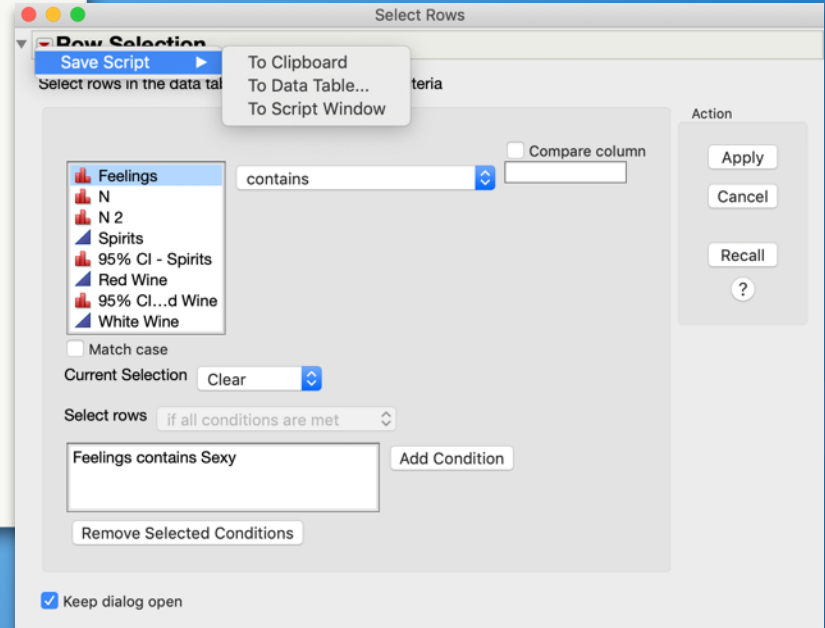
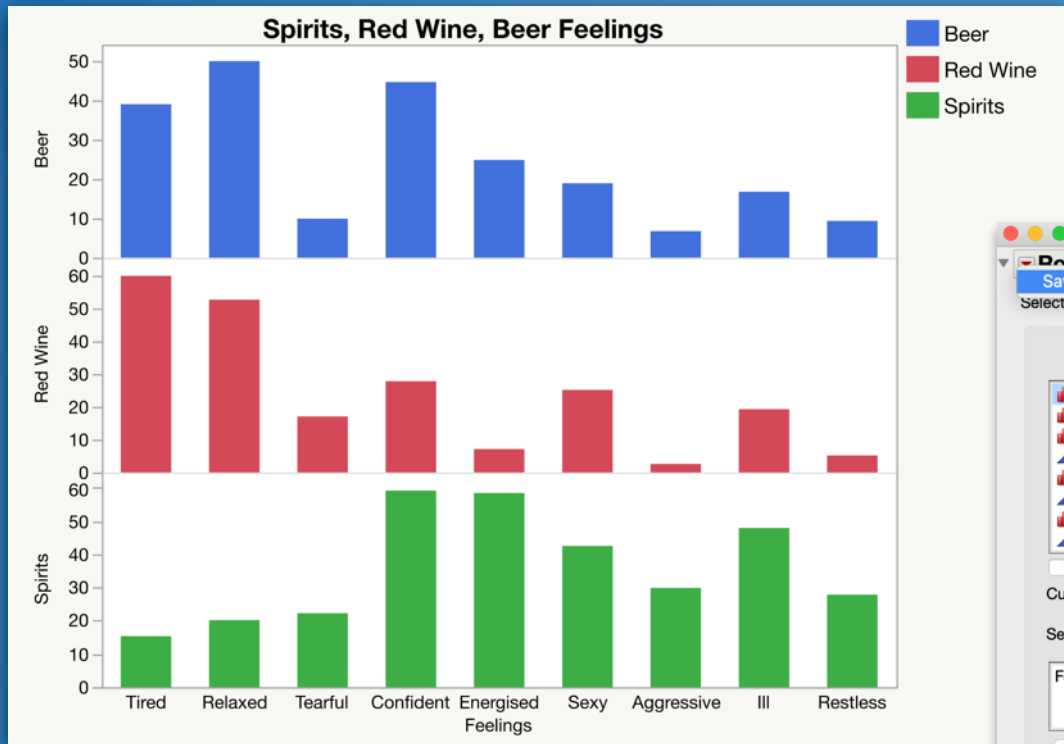
Rules for sorted items

Row Order Levels

Common Order

Numerical Order

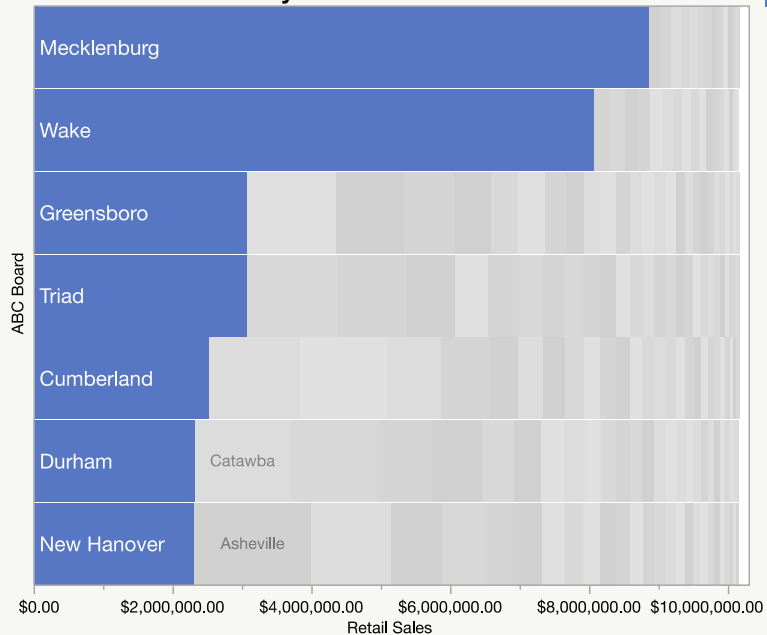
How does Alcohol make us feel?



Value order Feelings, Rows > Select where script

Board	County	Retail Sales	Mixed Bev Sales	Total Sales	% Change	Previous Year Retail Sales	Previous Year Mixed Bev
Alamance Municipal ABC Board	Alamance	\$8,850,451.90	6.3M	15.2M	45.7	7.68M	
Albemarle ABC Board	Albemarle	\$982,679.89	185205.75	1167885.64	8.9378215397	903280.02	1687
Andrews ABC Board	Andrews	\$224,979.20	33869.7	258848.9	10.902295953	205890.75	27
Angier ABC Board	Angier	\$50,484.85	2401.9	52886.75	-5.552966094	52904.65	30
Asheboro ABC Board	Asheboro	\$170,265.00	815	171080	11.229544537	153430	
Asheboro	Asheboro	\$233,314.05	30446.95	263761	8.1296228867	215910.46	280
Asheville	Asheville	\$1,691,474.00	972440.11	2663914.21	8.3039953134	1574150.4	8855
Beaufort	Beaufort	\$406,877.15	29364.01	436241.16	8.5007851169	377777	242
Belmont	Belmont	\$165,028.30	47792.99	212821.29	45.716217709	116738.19	29
Belville	Belville	\$331,779.50	1499.65	333279.15	17.238867767	282203.97	20
Bertie	Bertie	\$61,077.80	0	61077.8	-0.492748075	61050.15	
Bessemer City	Bessemer City	\$43,324.35	4067.9	47392.25	18.99306865	36250.49	35
Black Mountain	Black Mountain	\$168,347.04	20616.9	188963.94	12.203603492	150325	180
Blowing Rock	Blowing Rock	\$60,829.53	45697	106526.53	7.4413826289	59294.36	398
Boiling Spring Lakes	Boiling Spring Lakes	\$62,556.70	742.5	63299.2	9.8124663879	57643	
Boone	Boone	\$389,706.55	119906.75	509613.3	6.8018714569	366976.95	110
Brevard	Brevard	\$228,526.40	31069.55	259595.95	10.714772673	205714.65	287
Brunswick	Brunswick	\$44,634.00	0	44634	22.720167828	36370.55	
Brunswick County	Brunswick County	\$176,532.95	35438.75	211971.7	9.7879550988	153961.6	391
Bryson City	Bryson City	\$127,145.63	8755.9	135901.53	7.0361327548	116865.4	10
Bunn	Bunn	\$66,475.90	0	66475.9	6.4427622704	62452.25	

Retail Sales by ABC Board for North Carolina



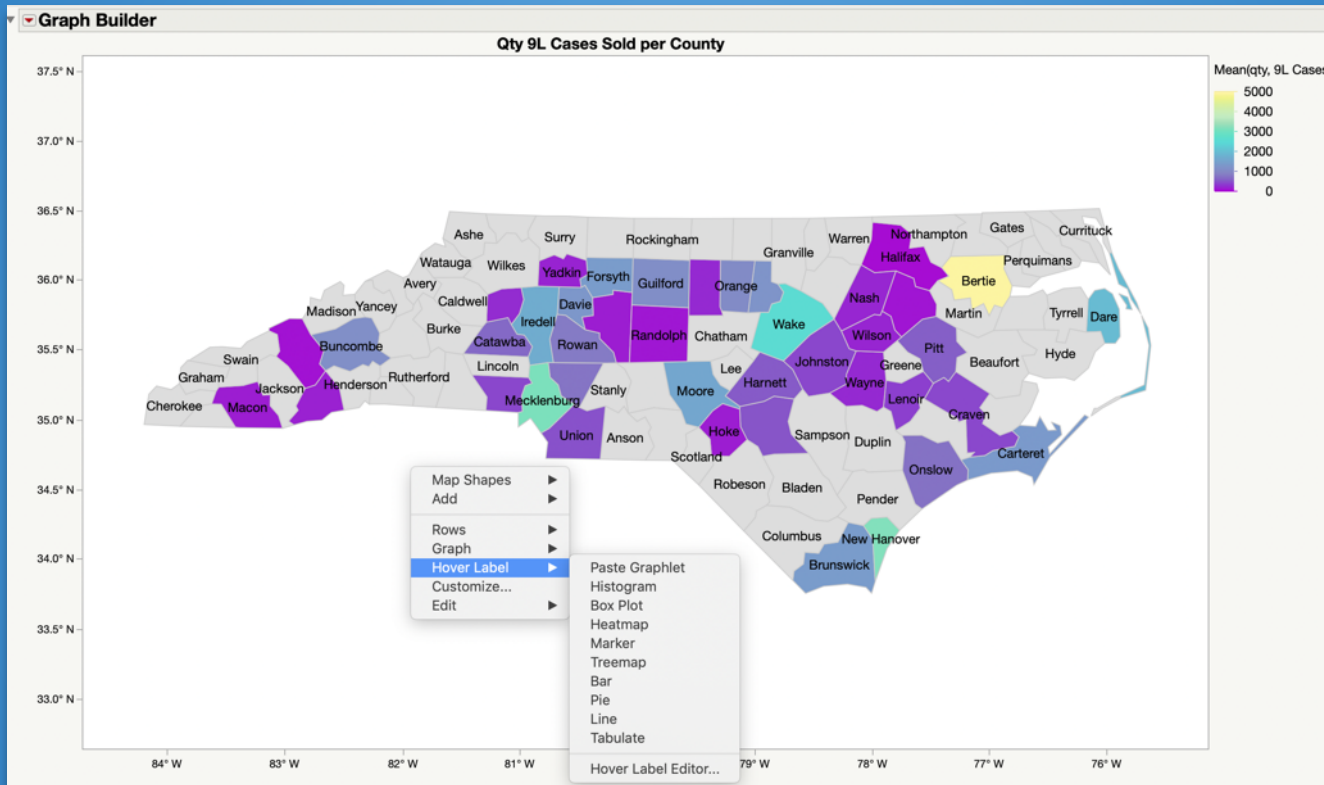
Histograms in column headers

Colored cells in table

Columns > Clear Cell Colors

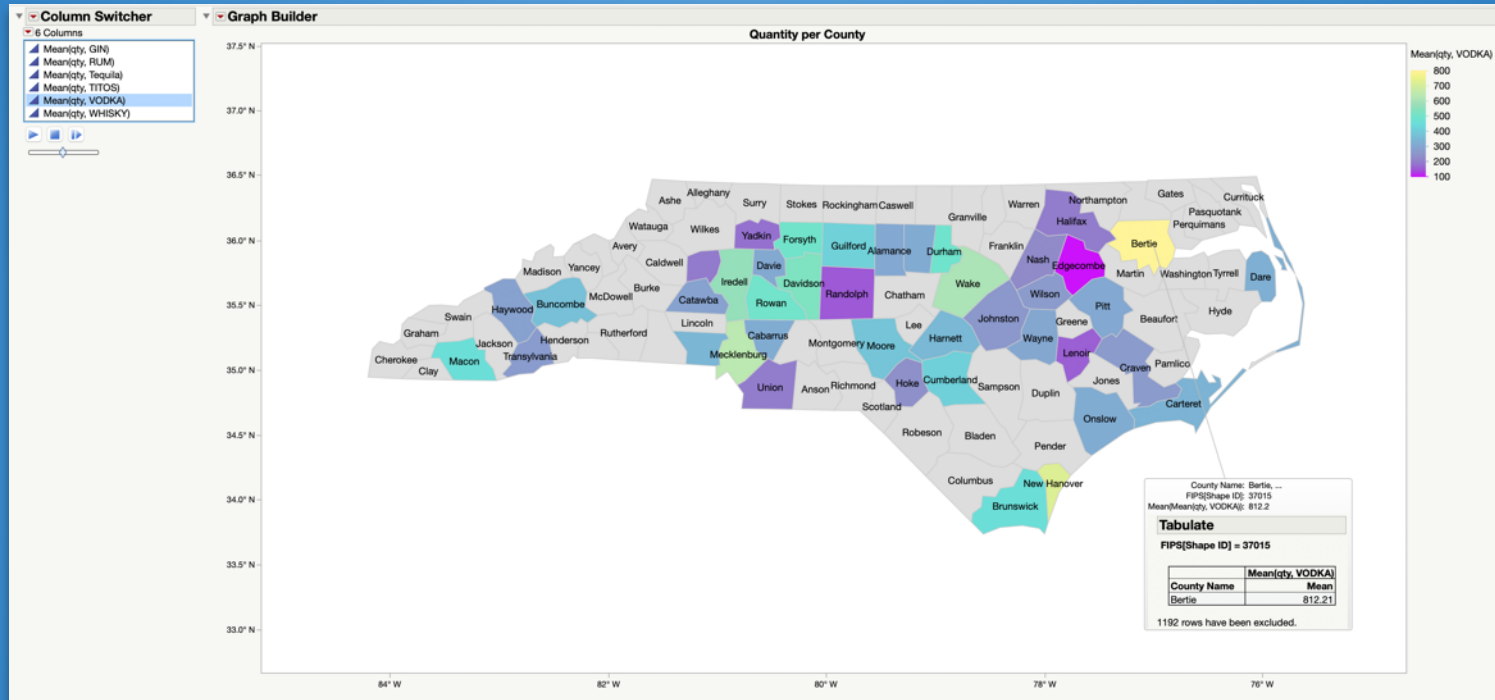
From NC ABC Board- Revenue

# Social House Vodka Trends, Forecast



## Graphlet, Hover label

# Qty per County, Vodka, Whiskey, GIN, etc.



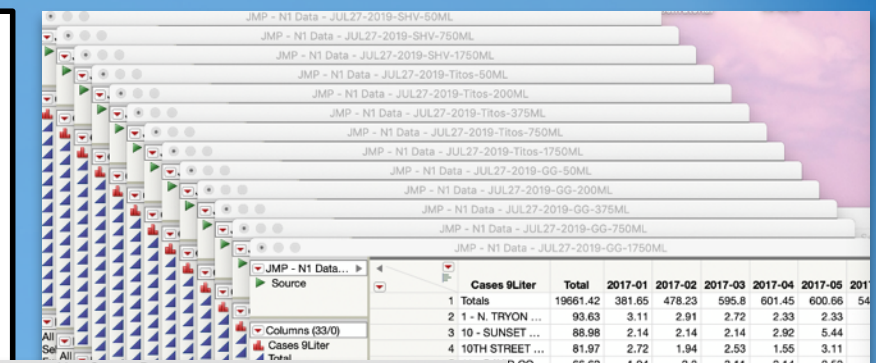
## Virtual Join

- Column switcher
- Pasted Graphlet

```

email = "mandy1chambers@gmail.com"; //Replace this with your email
spreadsheet =
"https://docs.google.com/spreadsheets/d/1AXv8aTWIVa0qa7...";
Google Sheet Import(
  Email( email ),
  Spreadsheet( spreadsheet ),
  // Sheets( "Sheet1", "Sheet2" ),
  Sheet Settings(
    Has Column Headers( 1 ),
    Data Starts on Row( 2 ),
    //Cell Range( "A1:C2" ),
    Import Cell Colors( 0 ),
    //Suppress Empty Columns( 1 )
  )
);

```



NewConcatData

Source Table	Cases 9Liter	Total	2017-01	2017-02	2017-03
1 JMP - N1 Data... 1 - N. TRYON ...	0.47				
2 JMP - N1 Data... 10 - SUNSET ...	7.77	0.17	0.15	0.33	
3 JMP - N1 Data... 10TH STREET ...	5.2	0.06	0.14	0.1	
4 JMP - N1 Data... 11 - DAVID CO...	7.52	0.19	0.33	0.18	
5 JMP - N1 Data... 12 - MOROCR...	13.51	0.24	0.35	0.12	
6 JMP - N1 Data... 13 - BROOKS...	5.75	0.15	0.26	0.22	
7 JMP - N1 Data... 14 - CENTRAL ...	2.32				
8 JMP - N1 Data... 15 - SOUTH B...	7.59	0.33	0.11	0.24	
9 JMP - N1 Data... 16 - PINEVILL...	12.61	0.48	0.55	0.55	
10 JMP - N1 Data... 17 - STATESVI...	8.12	0.1	0.21	0.17	
11 JMP - N1 Data... 18 - ROCKY RI...	2.69				
12 JMP - N1 Data... 2 - WEDDINGT...	7.1	0.32	0.25	0.31	
13 JMP - N1 Data... 20 - UNIVERSI...	8.88	0.17	0.37	0.23	
14 JMP - N1 Data... 21 - BALLANT...	8.97	0.22	0.16	0.37	
15 JMP - N1 Data... 22 - GILEAD R...	9.87	0.08	0.29	0.16	
16 JMP - N1 Data... 23 - WHITEHA...	8.91	0.19	0.57	0.3	
17 JMP - N1 Data... 24 - EASTFIEL...	5.84	0.14	0.2	0.09	
18 JMP - N1 Data... 25 - COTSWO...	7.02	0.16	0.07	0.26	
19 JMP - N1 Data... 26 - CALLABRI...	4.9	0.12	0.34	0.16	
20 JMP - N1 Data... 27 - SOUTHEN...	8.75	0.27	0.3	0.21	
21 JMP - N1 Data... 28 - PROVIDE...	0.66				

## Google Sheets – Import data



The screenshot shows a SAS window titled 'NewConcatData'. The main window displays a table with columns: Source Table, Cases 9Liter, Total, 2017-01, 2017-02, 2017-03, and 2017-04. The 'Advanced' menu is open, and 'Extract Segment...' is highlighted. A secondary window titled 'New Values (13)' is also visible, listing various data entries.

The 'Extract Segment' dialog box is shown with the following settings:

- Delimiters:**
  - Include Whitespace
  - Include Punctuation
  - Characters: -
- Text to Capture:**
  - Specify the start and stop words for the segment: JMP - N1 Data - JUL27-2019-GG-50ML
  - Start: 6, Stop: 7
  - Start Anchor:  From Start,  From End
  - End Anchor:  From Start,  From End
- Options:**
  - Keep text if no match
  - Report empty words between consecutive delimiters
  - Include Ends as Delimiters
  - Replace delimiters with text: \_\_\_\_\_
- Preview:**

Current Value	Replacement Value
JMP - N1 Data - JUL27-2019-GG-50ML	* GG-50ML
JMP - N1 Data - JUL27-2019-GG-200ML	* GG-200ML
JMP - N1 Data - JUL27-2019-GG-375ML	* GG-375ML
JMP - N1 Data - JUL27-2019-GG-750ML	* GG-750ML
JMP - N1 Data - JUL27-2019-GG-1750ML	* GG-1750ML
JMP - N1 Data - JUL27-2019-SHV-50ML	* SHV-50ML
JMP - N1 Data - JUL27-2019-SHV-750ML	* SHV-750ML
JMP - N1 Data - JUL27-2019-SHV-1750ML	* SHV-1750ML
JMP - N1 Data - JUL27-2019-Titos-50ML	* Titos-50ML
JMP - N1 Data - JUL27-2019-Titos-200ML	* Titos-200ML
JMP - N1 Data - JUL27-2019-Titos-375ML	* Titos-375ML
JMP - N1 Data - JUL27-2019-Titos-750ML	* Titos-750ML

Hyphen separator

Select segments

Desired results

## Recode – Extract Segment

The screenshot shows the JMP software interface with the 'Cols' menu open. The 'Utilities' submenu is selected, and 'Recode Column Names...' is highlighted. The background shows a data table with columns for years (2017-01 to 2017-03) and a 'Total' column.

The 'Recode - Column Names' dialog box is shown. It features a table with columns for 'Count', 'Old Values (34)', and 'New Values (34)'. The 'Old Values' column lists years from 2017-10 to 2019-07. The 'New Values' column lists years from 2017-10 to 2019-07. The 'Count' column shows '1' for each year. The 'Source Table 2' and 'Total' rows are highlighted. On the right side, there are 'Group controls' (View Groups, Show Only Grouped, Show Only Ungrouped), 'Changes' (All, Only Modified, Only Unmodified), and 'Scripting' (Script sequence of actions, Compress sequence) options. Buttons for 'Help', 'Close', and 'Recode' are at the bottom.

Count	Old Values (34)	New Values (34)
1	2017-10	2017-10
1	2017-11	2017-11
1	2017-12	2017-12
1	2018-01	2018-01
1	2018-02	2018-02
1	2018-03	2018-03
1	2018-04	2018-04
1	2018-05	2018-05
1	2018-06	2018-06
1	2018-07	2018-07
1	2018-08	2018-08
1	2018-09	2018-09
1	2018-10	2018-10
1	2018-11	2018-11
1	2018-12	2018-12
1	2019-01	2019-01
1	2019-02	2019-02
1	2019-03	2019-03
1	2019-04	2019-04
1	2019-05	2019-05
1	2019-06	2019-06
1	2019-07	2019-07
1	Cases 9Liter	Cases 9Liter
1	Source Table 2	Source Table
1	Total	Total

Columns > Utilities > Recode Column Names

**Split**

Unstacks multiple rows for each 'Split Column' into multiple columns as identified by a 'Split By' column.

Select Columns

31 Columns

Match Flag  
 year  
 month  
 dp 50  
 dp 750  
 dp 1750ml  
 dp 375ml  
 New 1750ML  
 New 200ML  
 New 375ML  
 New 50ML  
 New 750ML  
 OFF GIN  
 OFF RUM  
 OFF Tequila  
 OFF TITOS  
 OFF VODKA  
 OFF WHISKY  
 SHV 1750ML  
 SHV 50ML  
 SHV 750ML  
 Titos 1750ML  
 Titos 200ML  
 Titos 375ML  
 Titos 50ML  
 Titos 750ML  
 GG 50ML  
 GG 200ML  
 GG 375ML  
 GG 750ML

Split By: Match Flag (optional)

Split Columns: Titos 1750ML, Titos 750ML, SHV 1750ML, SHV 750ML

Group: year, month (optional)

Sort by Column Property:

Output table name: New Split table

Remaining columns

- Keep All
- Drop All
- Select

Keep dialog open

Save Script to Source Table

**JoinComparativeTrends**

- Source
- Comparative...rends Vodka
- Comparative...rends Vodka
- Join Script
- Comparative... Amsterdam

Columns (31/0)

Match Flag \*

Name: Join Script

Script:

```
Data Table( "Split_Vendor",
  With( Data Table( "Spl",
    Merge Same Name Columns(
      By Matching Columns( :
    Drop multiples( 0, 0 )
    Include Nonmatches( 1,
    Preserve main table or
    Output Table( "JoinCom
```

**Stack**

Stack values from multiple columns into a single column.

Select Columns

65 Columns

2015-01  
2015-02  
2015-03  
2015-04  
2015-05  
2015-06  
2015-07  
2015-08  
2015-09  
2015-10  
2015-11  
2015-12  
2016-01  
2016-02  
2016-03  
2016-04  
2016-05  
2016-06  
2016-07  
2016-08  
2016-09  
2016-10  
2016-11  
2016-12  
2017-01  
2017-02  
2017-03  
2017-04  
2017-05  
2017-06

Stack Columns: 2017-11, 2017-12, 2018-01, 2018-02

Output table name: NewSTACKOff

New Column Names

Stacked Data Column: qty

Source Label Column: Date

Copy formula

Suppress formula evaluation

Multiple series stack:

Stack By Row:

Eliminate missing rows:

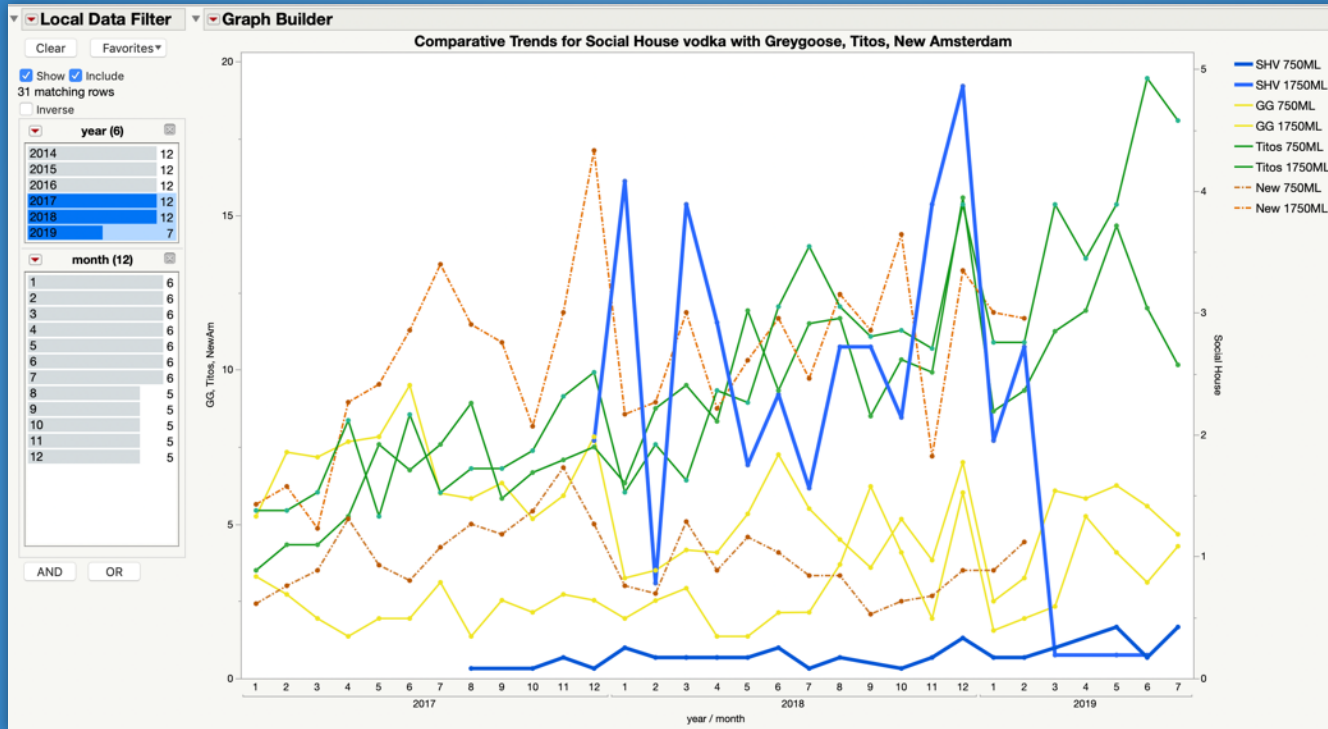
Non-stacked columns

- Keep All
- Drop All
- Select

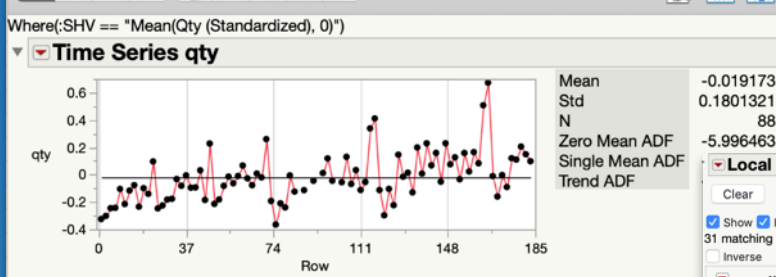
Keep dialog open

Save Script to Source Table

Tables > Split/Join/Stack, etc. > Save Script to Source Table

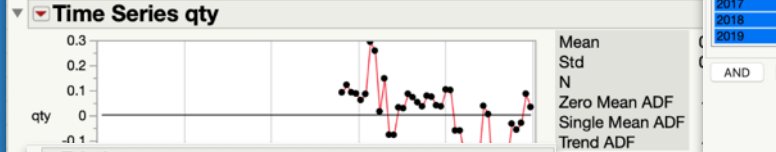


## Comparative Trends



**Time Series Basic Diagnostics**

Where(:SHV == "Mean(Qty (Standardized), 1)")



**Tabulate**

		year						
		2014	2015	2016	2017	2018	2019	All
GG 50ML	Mean	.	.	.	0.13	0.12	0.12	0.12
GG 200ML	Mean	.	.	.	0.59	0.72	0.90	0.71
GG 375ML	Mean	.	.	.	2.34	2.37	1.88	2.25
GG 750ML	Mean	.	.	.	6.82	4.76	4.88	5.59
GG 1750ML	Mean	.	.	.	2.30	3.03	3.22	2.79
New 1750ML	Mean	9.97	8.09	7.75	9.95	10.70	11.77	9.37
New 200ML	Mean	.	.	0.28	0.64	0.63	0.42	0.54
New 375ML	Mean	0.95	1.64	1.31	1.62	1.84	2.30	1.58
New 50ML	Mean	0.30	0.44	0.56	0.53	1.03	1.71	0.61
New 750ML	Mean	2.80	3.68	3.01	4.34	3.37	3.96	3.46
SHV 1750ML	Mean	.	.	.	1.95	2.80	1.05	2.27
SHV 50ML	Mean	.	.	.	0.02	0.16	0.12	0.14
SHV 750ML	Mean	.	.	.	0.10	0.18	0.27	0.19
Titos 1750ML	Mean	2.58	3.27	4.80	7.09	10.40	14.81	6.59
Titos 200ML	Mean	.	0.10	0.11	0.14	0.29	0.49	0.20
Titos 375ML	Mean	.	.	0.88	1.56	2.13	2.99	1.85
Titos 50ML	Mean	4.04	5.84	9.16	0.19	0.22	0.34	3.52
Titos 750ML	Mean	1.47	2.48	3.63	6.28	10.14	11.14	5.46
OFF GIN	Mean	44.45	41.50	45.73	48.07	47.07	47.24	45.42
OFF RUM	Mean	207.87	199.02	218.24	238.34	247.96	211.13	221.92
OFF Tequila	Mean	51.38	50.82	59.58	64.47	78.34	70.29	61.22
OFF TITOS	Mean	4.04	5.84	9.16	15.19	23.17	23.31	11.86
OFF VODKA	Mean	446.64	439.54	453.65	475.86	489.18	473.75	461.39
OFF WHISKY	Mean	228.86	230.82	236.03	255.79	291.59	296.22	250.15

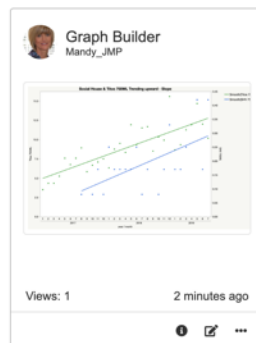
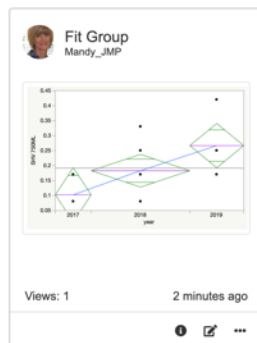
# More Trends shared with Social House



### Alcohol Trends



Mandy\_JMP Published: 2 minutes ago Updated: 2 minutes ago Views: 2 Shared with: Everyone



**NEW\_VendorVolumeJoin - Tabulate**  
Mandy\_JMP

Vendor	2017	2018	2019	2020	2021
Vendor A	100	120	150	180	200
Vendor B	200	250	300	350	400
Vendor C	300	350	400	450	500
Vendor D	400	450	500	550	600
Vendor E	500	550	600	650	700
Vendor F	600	650	700	750	800
Vendor G	700	750	800	850	900
Vendor H	800	850	900	950	1000
Vendor I	900	950	1000	1050	1100
Vendor J	1000	1050	1100	1150	1200

Views: 1 2 minutes ago

# Publishing to JMP Live

Filter

Preference Group

- General
- Reports
- Graphs
- Styles
- Tables
- DataFilter
- Platforms
- Print
- Text Data Files
- Third Party Data
- Mac OS Settings
- Fonts
- Internet Options
- Script Editor
- SAS Integration
- JMP Updates
- JSL Debugger
- Menu
- Query Builder
- Recode

Commit style **New Column**

Scripting

- Script sequence of actions
- Compress sequence

Multiple Response

- Remove empty items
- Remove duplicate items
- Sort items

Apply Reset to Defaults

Filter

Preference Group

- General
- Reports
- Graphs
- Styles
- Tables
- DataFilter
- Platforms
- Print
- Text Data Files
- Third Party Data
- Mac OS Settings
- Fonts
- Internet Options
- Script Editor
- SAS Integration
- JMP Updates
- JSL Debugger
- Menu
- Query Builder
- Recode

Modes

- Select
- Show
- Include

Options

- Auto clear
- Grouped by AND
- Conditional
- Use Floating Window
- Select Missing

Display

- Check Box Display
- Show Histograms and Bars

Apply Reset to Defaults

Filter

Preference Group

- General
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Evaluate OnOpen Scripts **Prompt**

- Prompt to save when closing summary tables
- Allow short numeric data format
- Print Data Grid as is
- Preserve SAS variable names when exporting to SAS
- Preserve SAS formats when exporting to SAS
- Show Alternate Column Name
- Use Thousands Separator

Default Field Width

- Suppress Formula Eval on Open (Not recommended)
- ODBC Hide Connection String
- Show summary graphs below column names
- Warn when referenced table name has changed

Apply Reset to Defaults

Cancel OK

# Preferences

DEMO





## Social House Vodka ...

- Inventory low, supply issue
- Seasonality plays a big role
- January – people NOT drinking nationally
- New hires, marketing strategy for 2020

## Next ...

- Survey data that JMP can analyze
- Additional data, next year




JMP 15 is full of great New Features!

- Data Table
- Recode
- Importing data – google sheets, PDF
- Value order
- Tables > Save scripts with Join, Split, Stack, etc.  
.. And much more!



New confession ...

New favorite drink is a “Salty Dog”  
Recipe cards on the way out! 

Stay safe out there and ...  
... Don't drink too much!

Questions?

[Jmp.com](http://Jmp.com)

