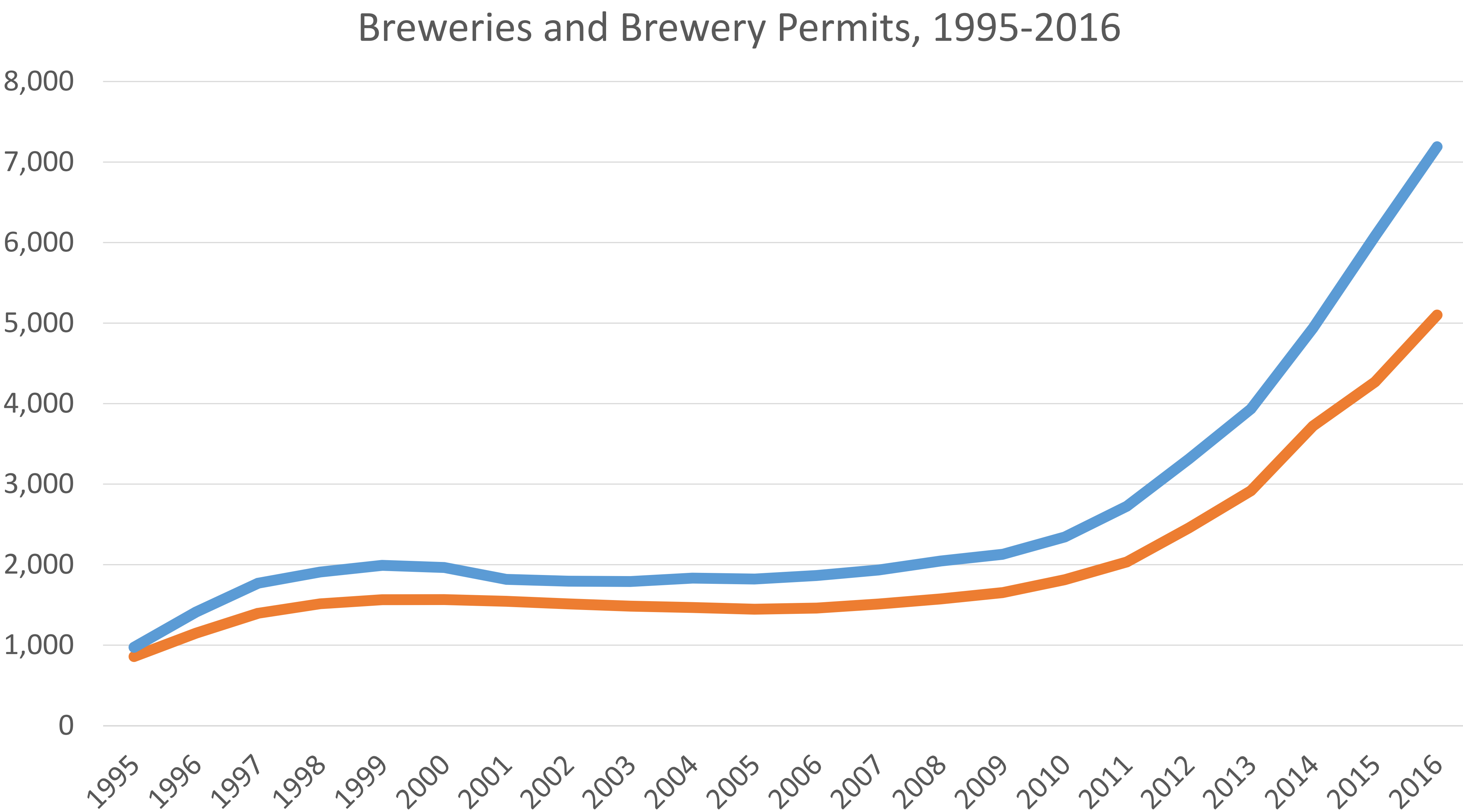
US Brewing: Current Trends

Bart Watson, PhD
Chief Economist
Brewers Association


Breweries and Brewery Permits, 1995-2016
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016

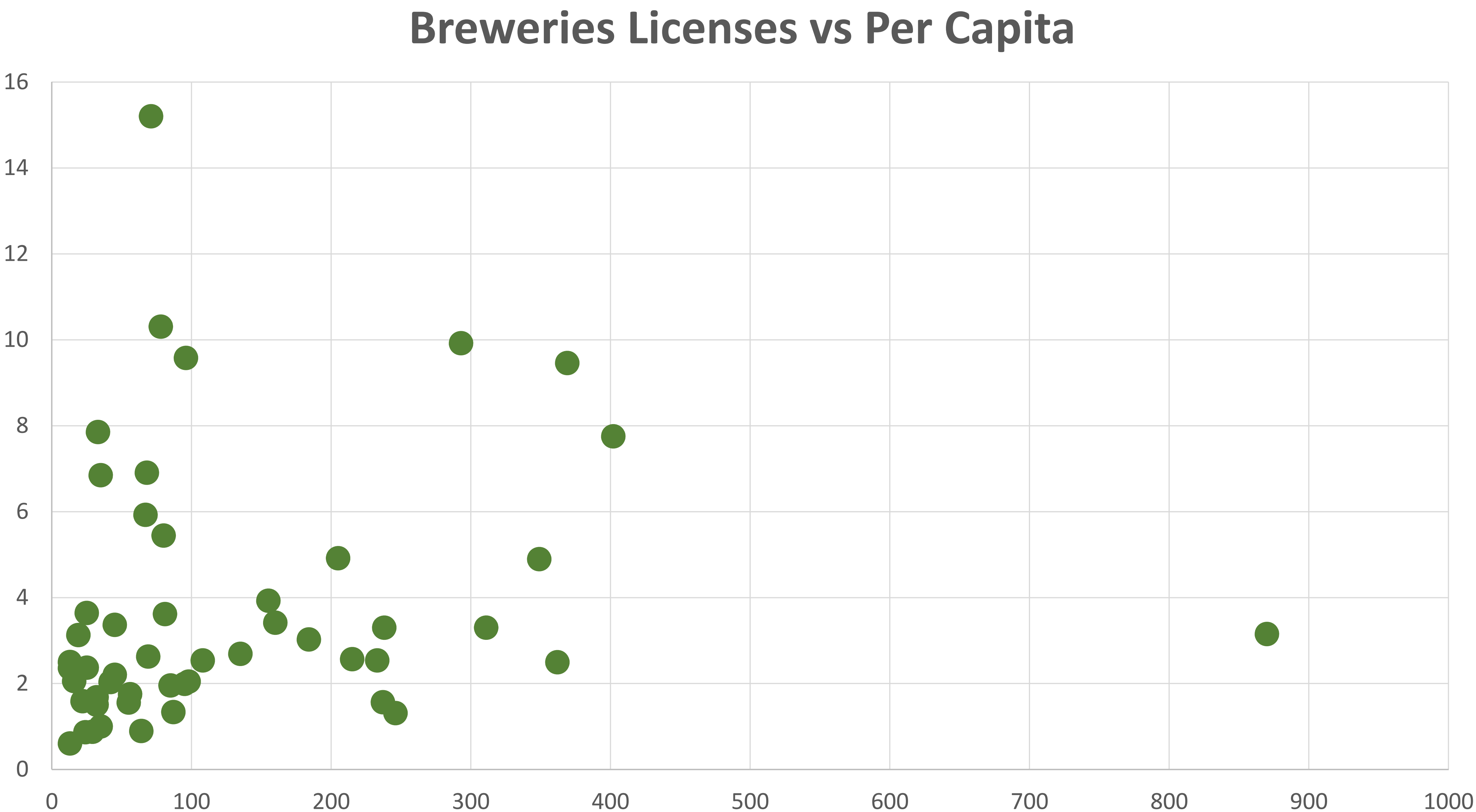
TTB Permitted Brewery Count
7,180 as of 12/31/2016

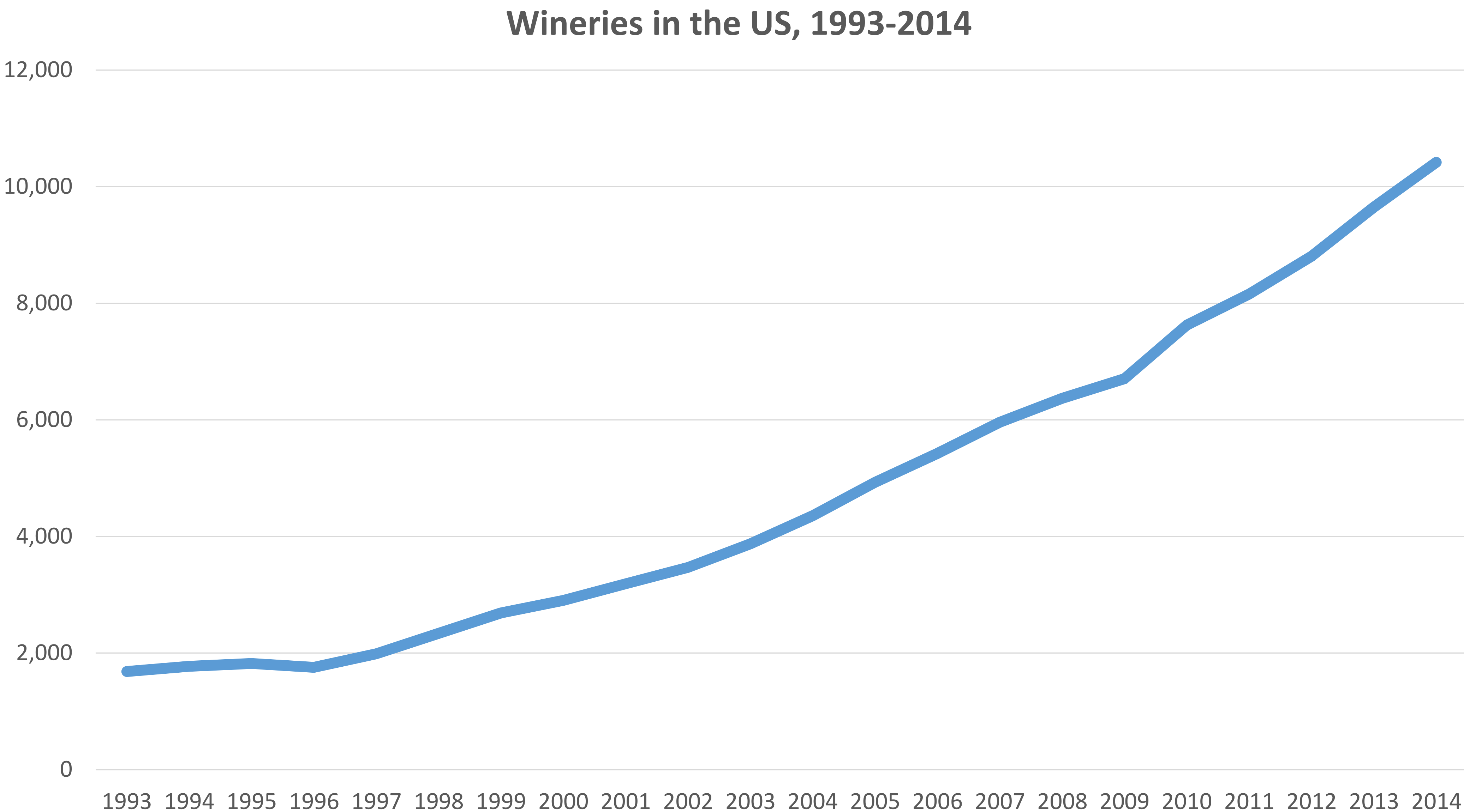
State	Count	State	Count	State	Count
Alabama	37	Kentucky	60	North Dakota	15
Alaska	36	Louisiana	**34**	Ohio	236
Arizona	110	Maine	102	Oklahoma	26
Arkansas	34	Maryland	88	Oregon	**304**
California	927	Massachusetts	146	Pennsylvania	333
Colorado	386	Michigan	379	Rhode Island	17
Connecticut	76	Minnesota	165	South Carolina	59
Delaware	25	Mississippi	**14**	South Dakota	21
DC	13	Missouri	116	Tennessee	101
Florida	264	Montana	79	Texas	266
Georgia	69	Nebraska	47	Utah	**34**
Hawaii	23	Nevada	44	Vermont	73
Idaho	67	New Hampshire	73	Virginia	209
Illinois	244	New Jersey	96	Washington	**424**
Indiana	163	New Mexico	86	West Virginia	**24**
Iowa	94	New York	394	Wisconsin	217
Kansas	47	North Carolina	260	Wyoming	33

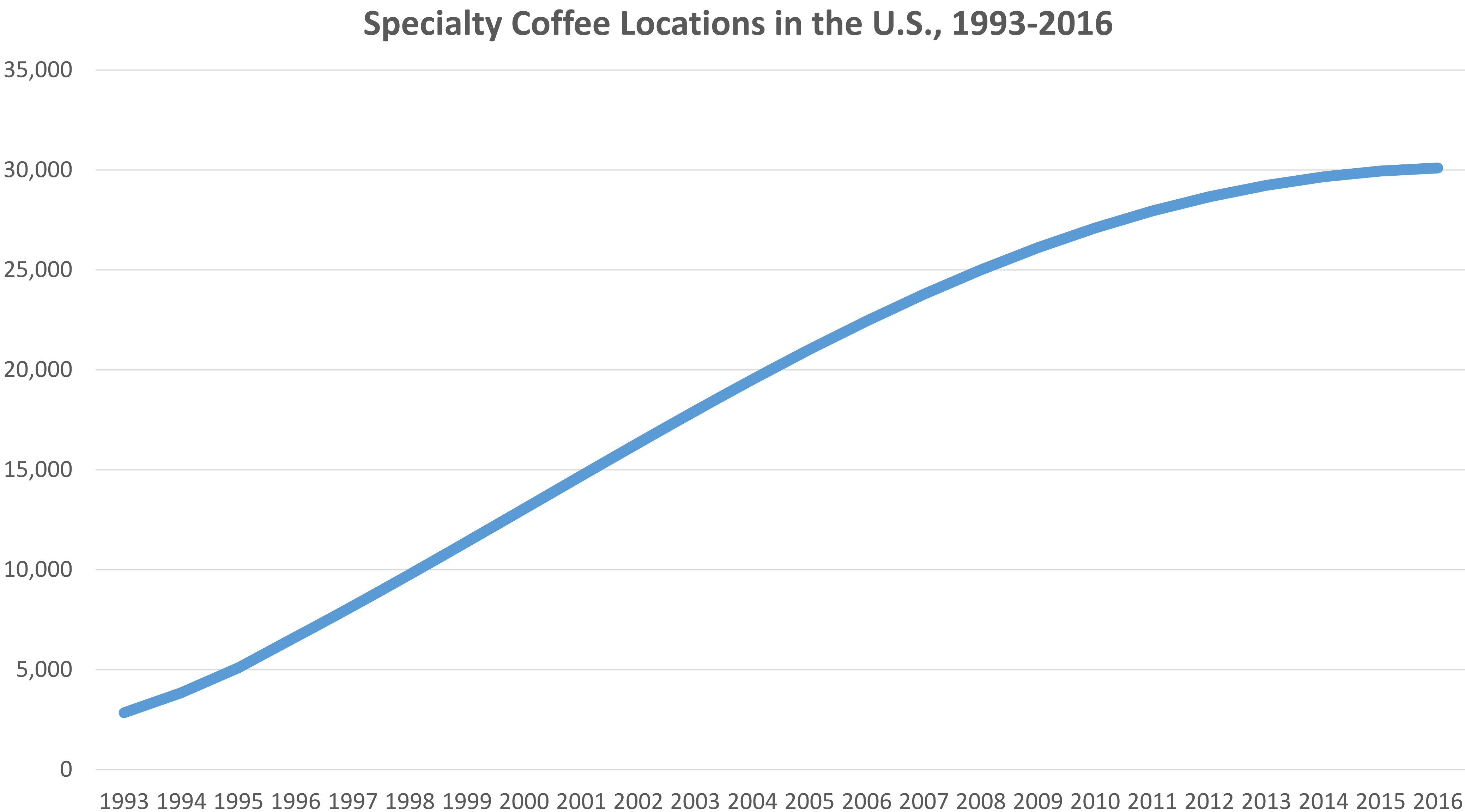
Source: NBWA and TTB, 2017.

Total Industry Volumes By Size
CY 2015

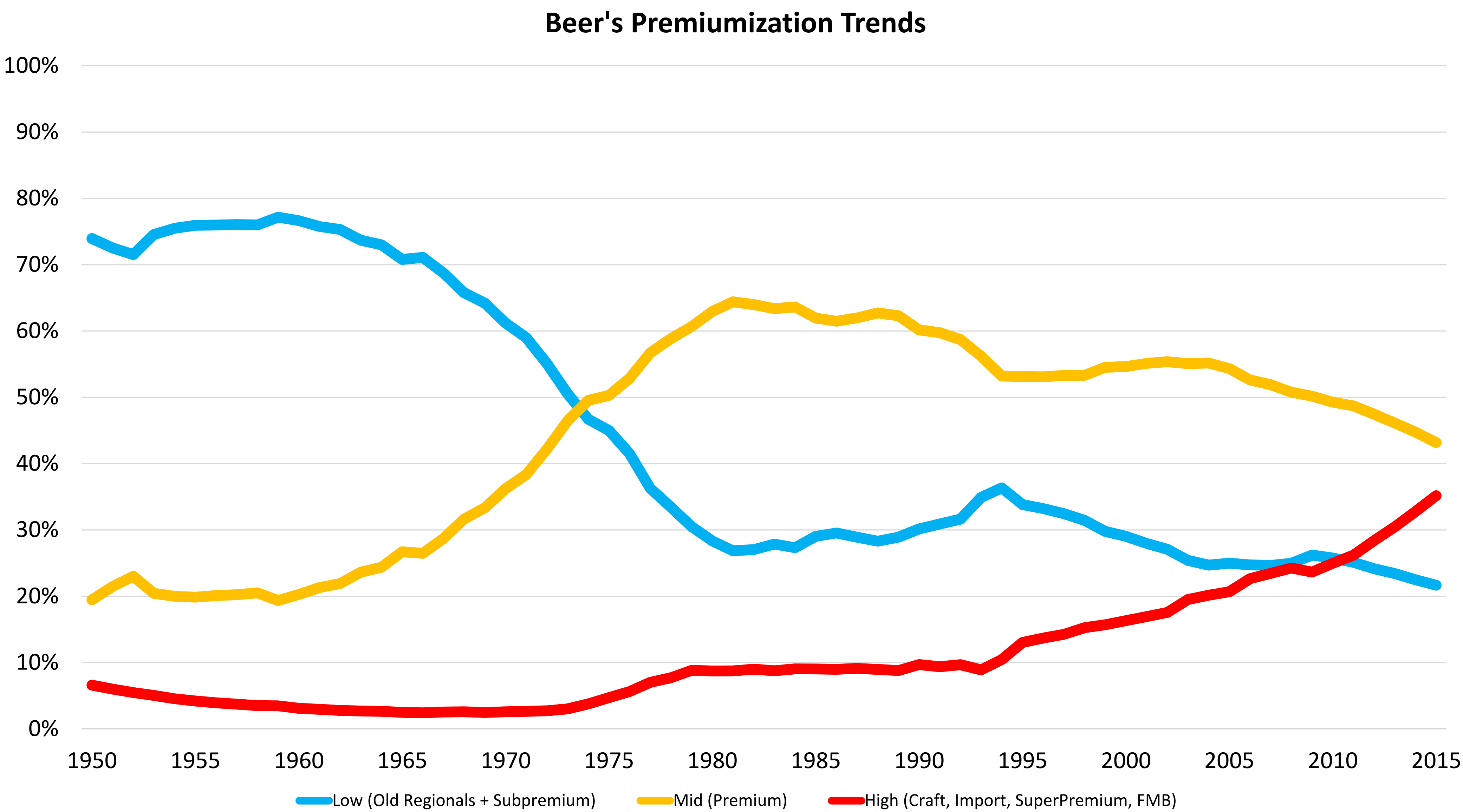
Brewers By Size of Tax Paid Withdraws Volume in Barrels (31 gallons)	2015 Brewery Count	2015 Tax Paid Volume	Share Brewery Count	Share Tax Paid Volume
<1	566	94,127	11.7%	0%
1 - 1,000	3,097	772,833	64.2%	0.4%
1,001 - 7,500	812	1,900,256	16.8%	1.1%
Small Breweries	4,475	2,767,216	92.8%	1.6%
7,501 - 15,000	122	1,095,981	2.5%	0.6%
15,001 - 30,000	70	1,310,825	1.5%	0.7%
30,001 - 60,000	54	2,110,725	1.1%	1.2%
Medium Breweries	246	4,517,531	5.1%	2.6%
60,001 - 100,000	21	1,393,286	0.4%	0.8%
100,001 - 1,999,999	61	18,918,396	1.3%	10.8%
Large Breweies	82	20,311,682	1.7%	11.6%
2,000,000 - 6,000,000	6	23,102,416	0.1%	13.2%
6,000,001 plus	15	124,544,161	0.3%	71.1%
Extra Large Breweries	21	147,646,577	0.4%	84.3%
Total Breweries	4,824	175,243,006	100.0%	100.0%
Source: U.S. TTB, April 2016.				

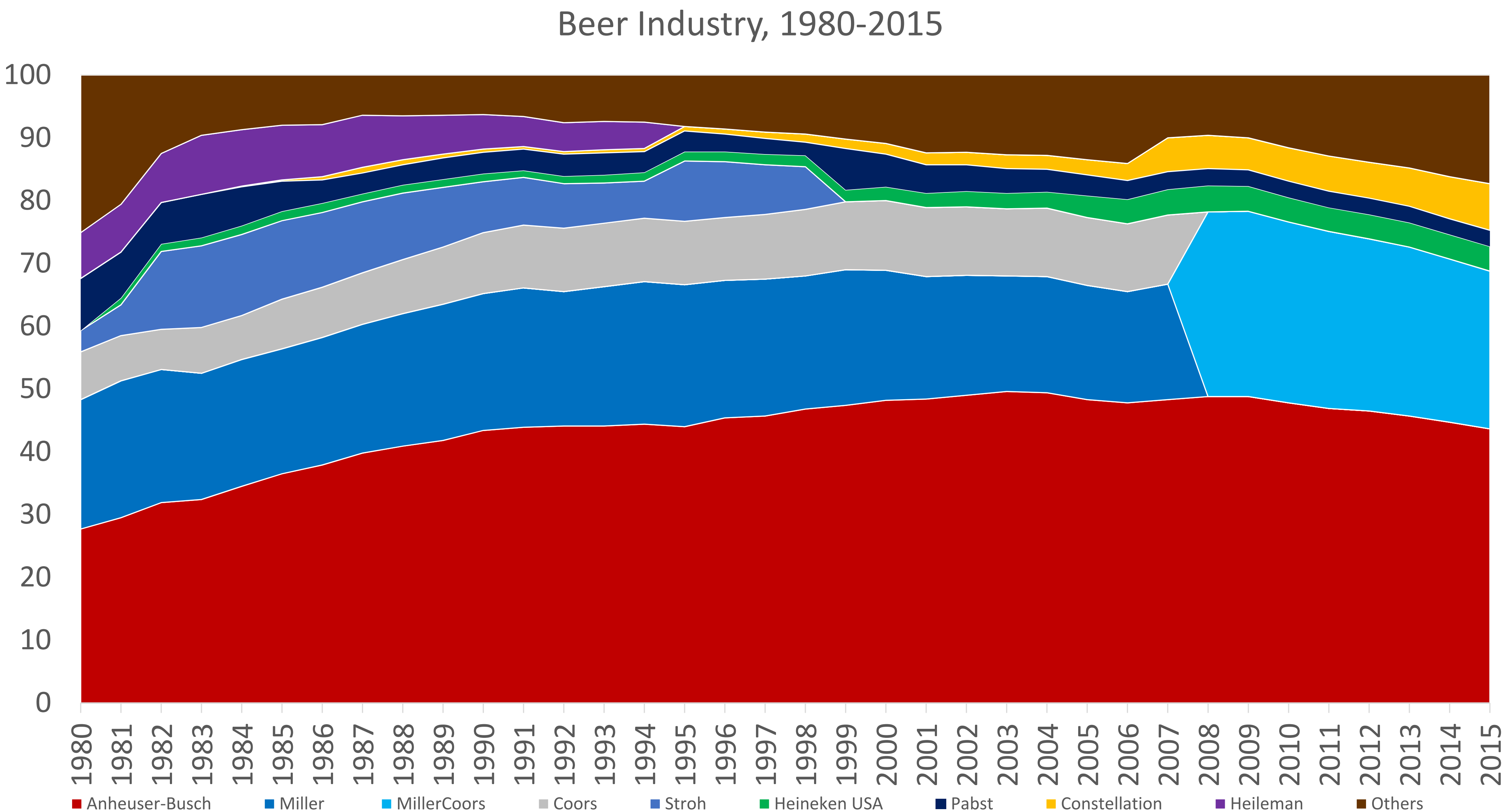

Breweries Licenses vs Per Capita
0
2
4
6
8
10
12
14
16
0
100
200
300
400
500
600
700
800
900
1000


Wineries in the US, 1993-2014
12,000
10,000
8,000
6,000
4,000
2,000
0
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014


Specialty Coffee Locations in the U.S., 1993-2016
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

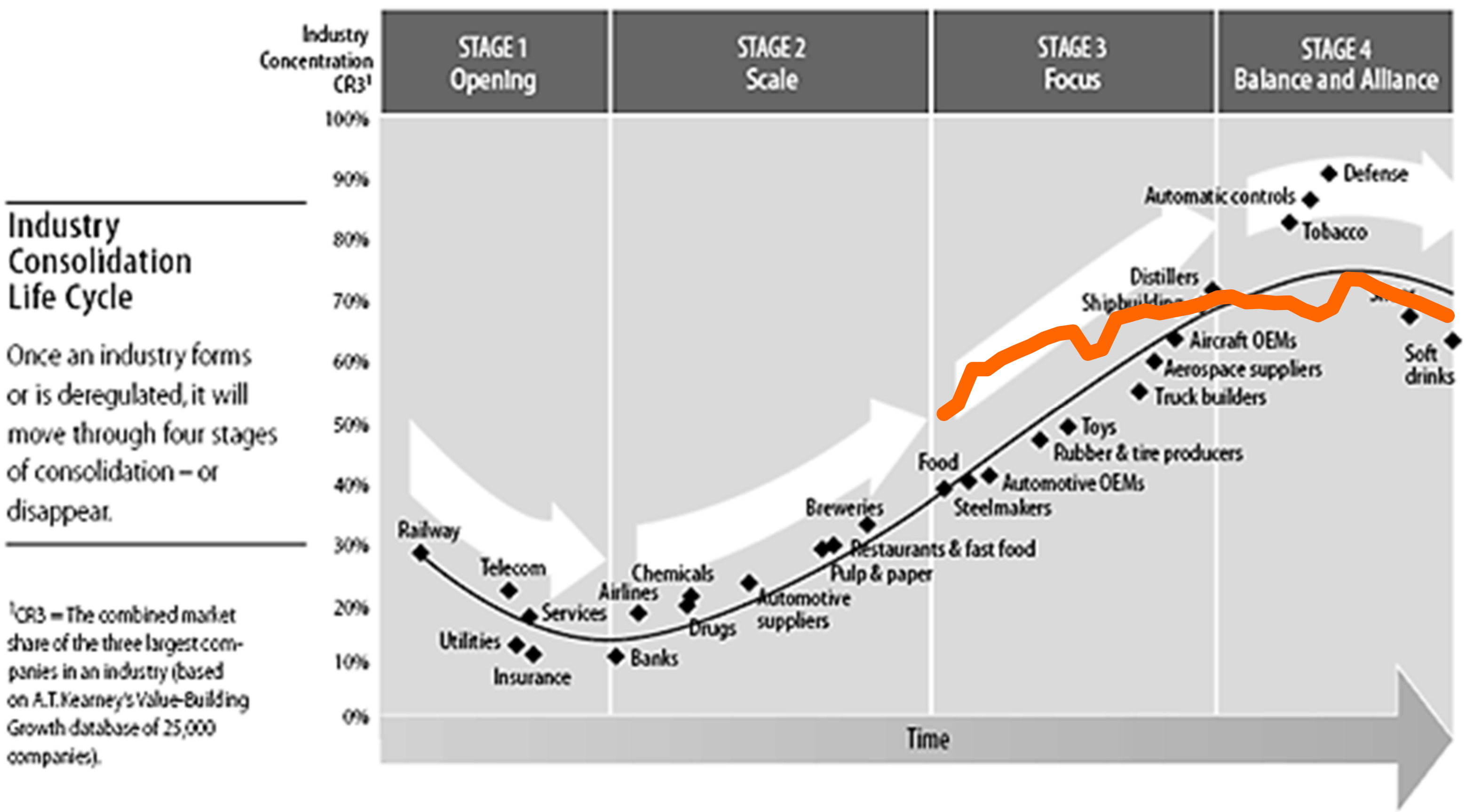
	Low Hop Domestic	Imports	High/Medium Hop Domestic	US Production+ Imports
All figures in '000s of bbls (1 bbl = 31 gallons)				
1981	**177,034**	**5,221**	**35**	**182,290**
2016	**147,400**	**33,400**	**34,700**	**215,500**
Change	**-29,634**	**28,179**	**34,665**	**33,210**

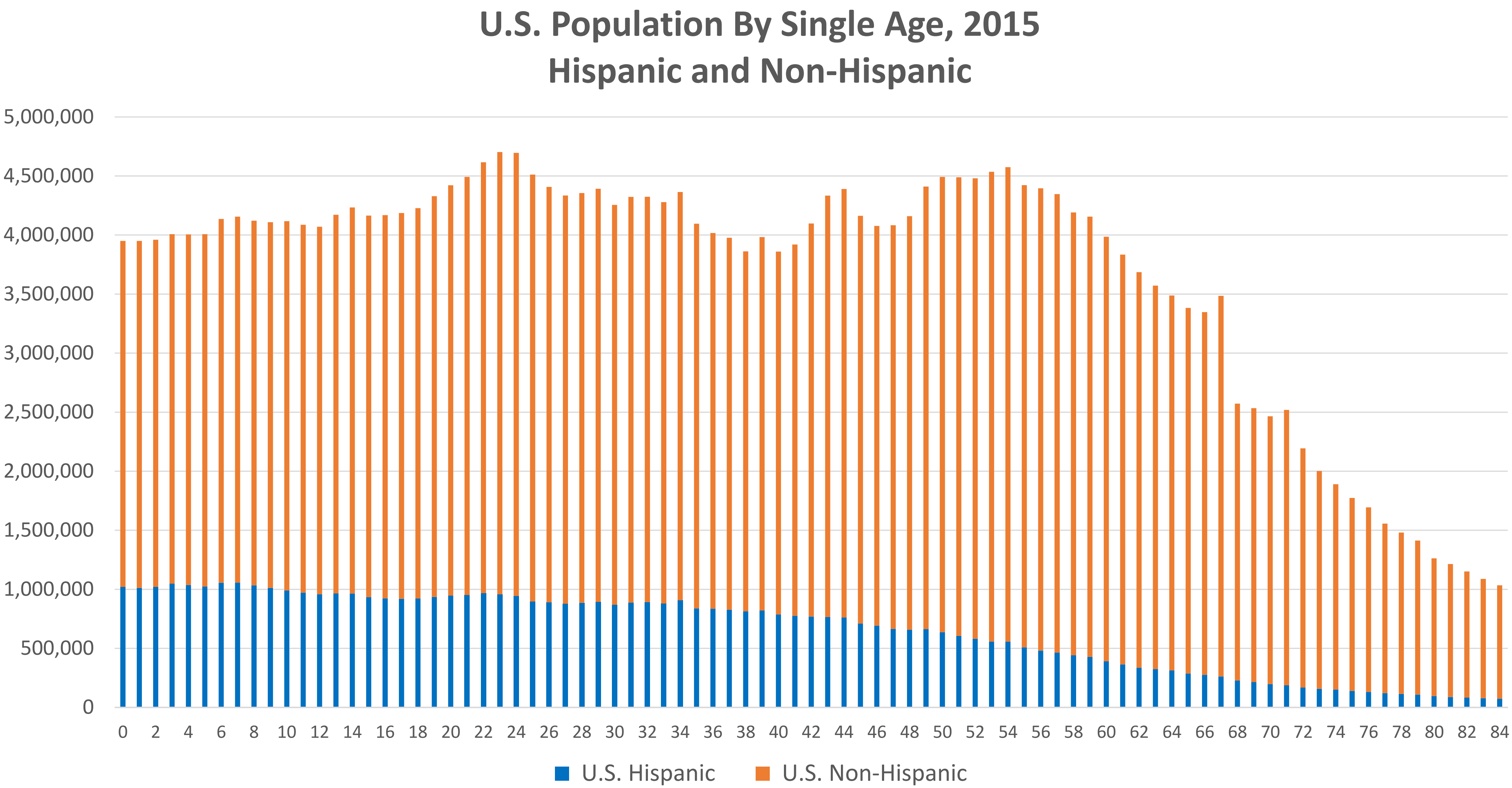

Beer's Premiumization Trends
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
Low (Old Regionals + Subpremium)
Mid (Premium)
High (Craft, Import, SuperPremium, FMB)



Beer Industry, 1980-2015
100
90
80
70
60
50
40
30
20
10
0
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Anheuser-Busch
Miller
MillerCoors
Coors
Stroh
Heineken USA
Pabst
Constellation
Heileman
Others

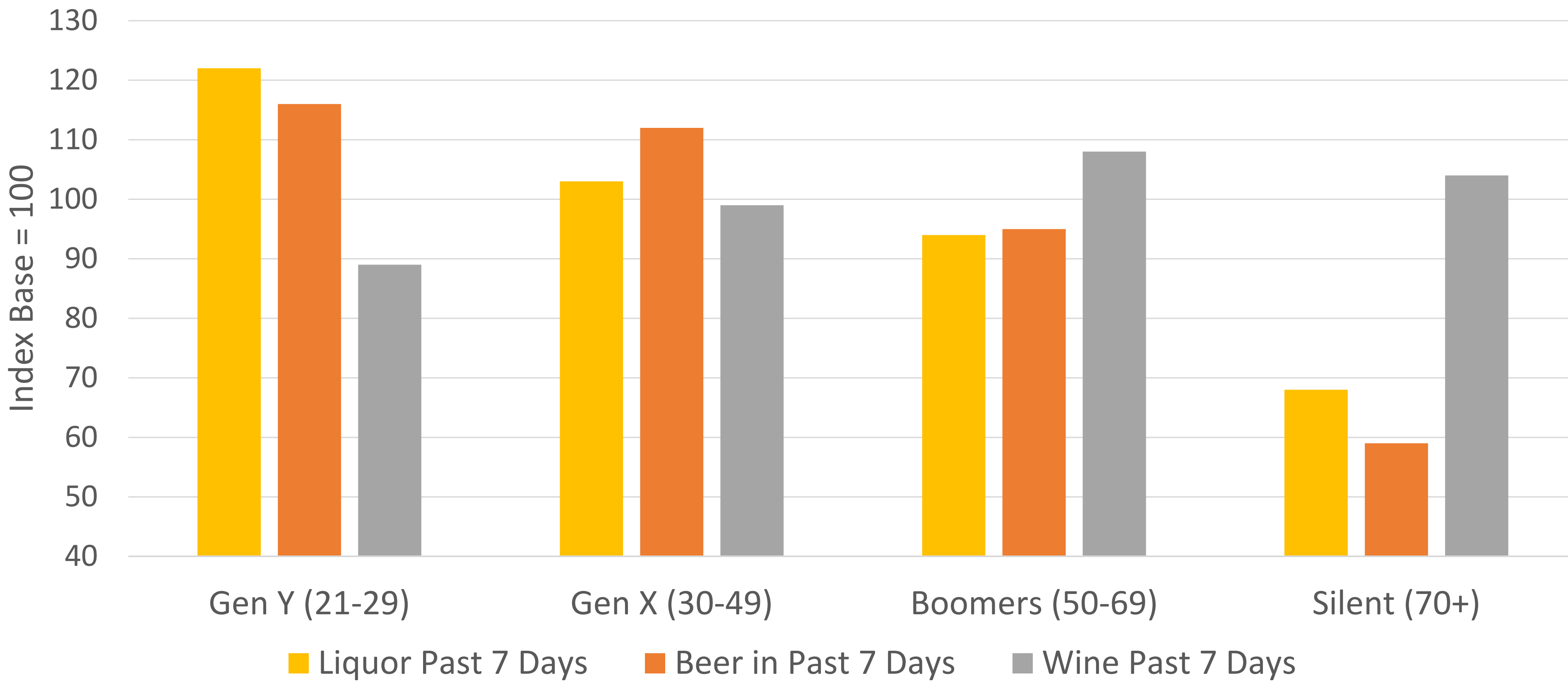
Beer 1980-2015



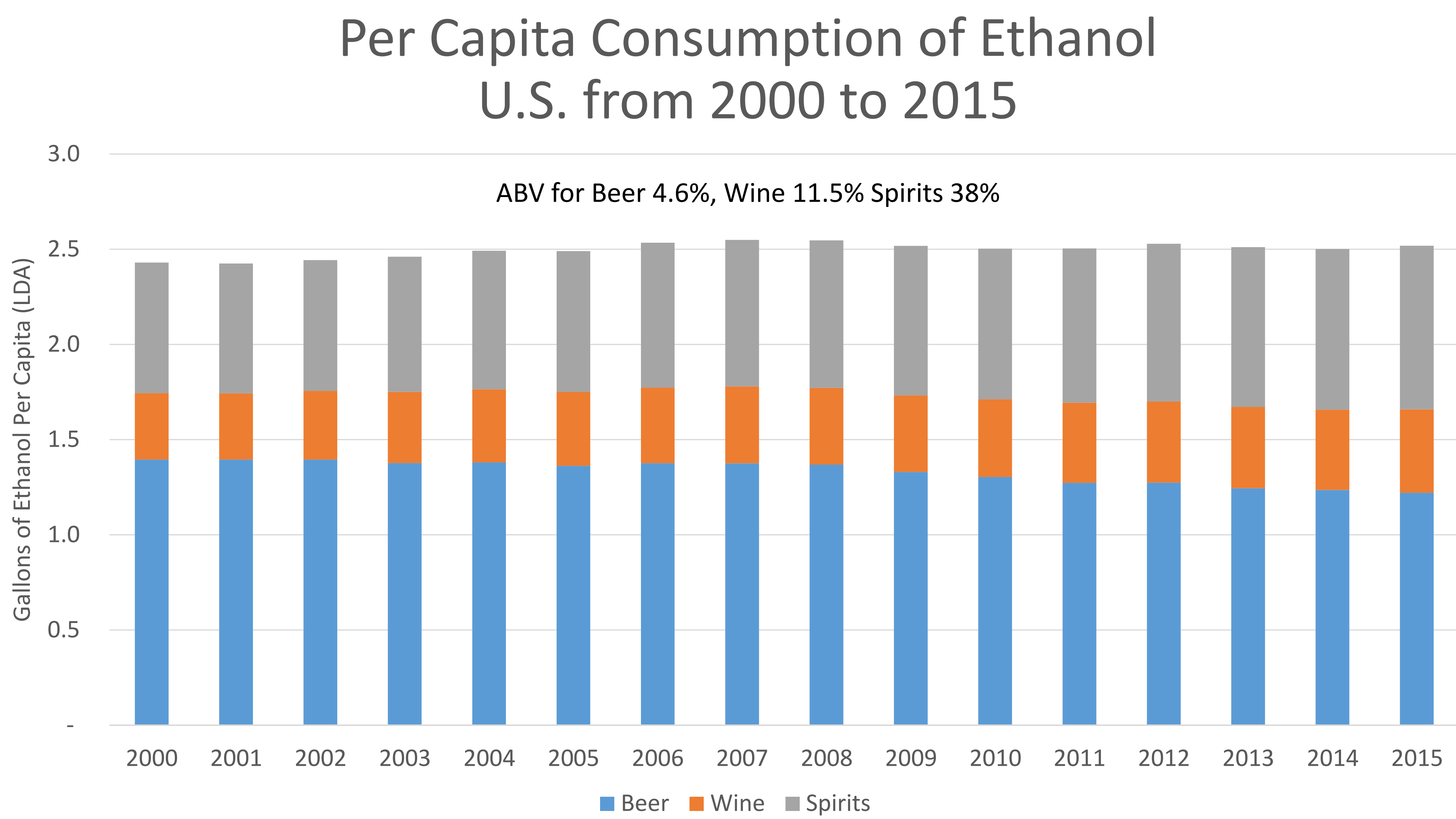


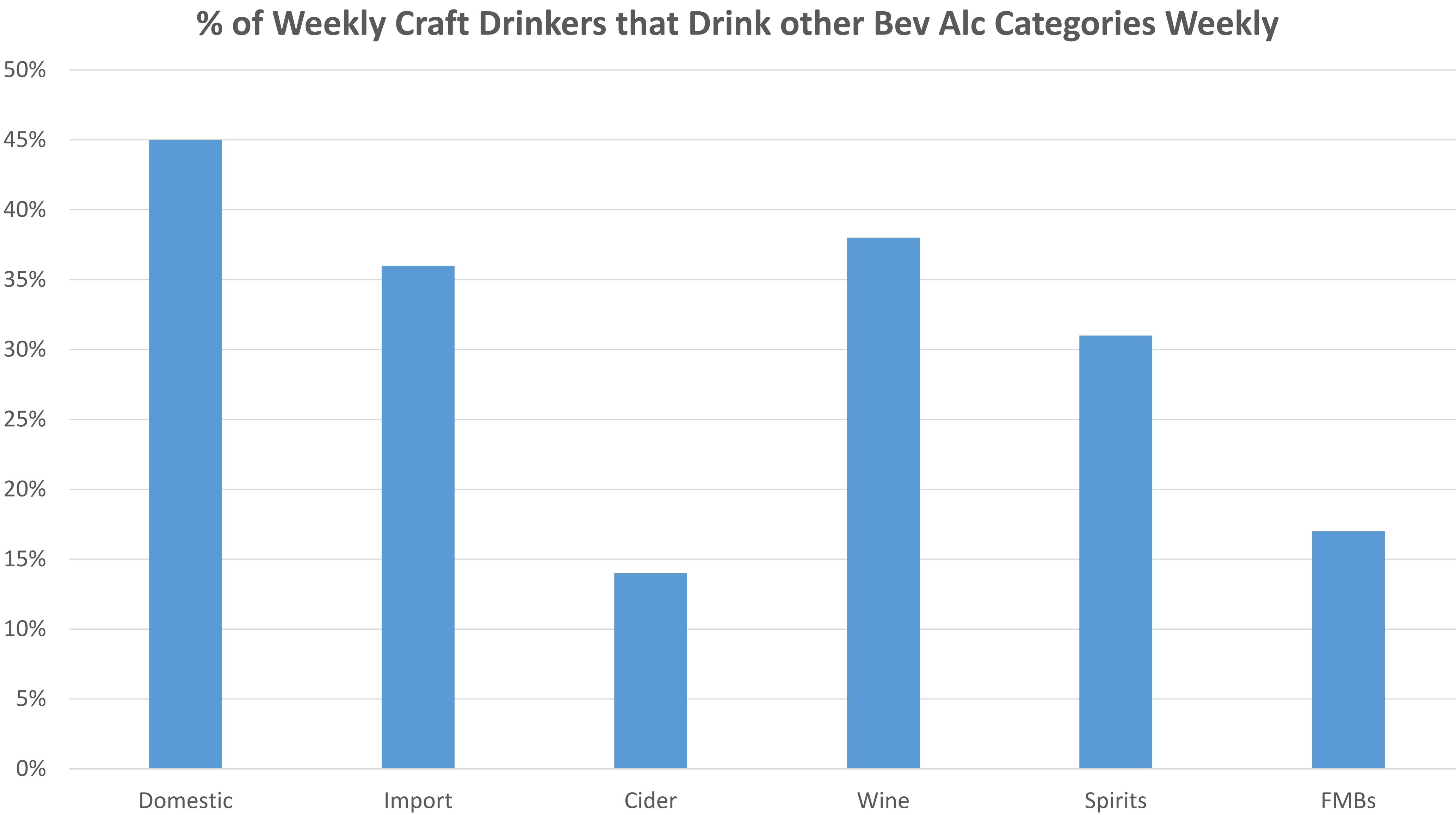
Source: U.S. Census

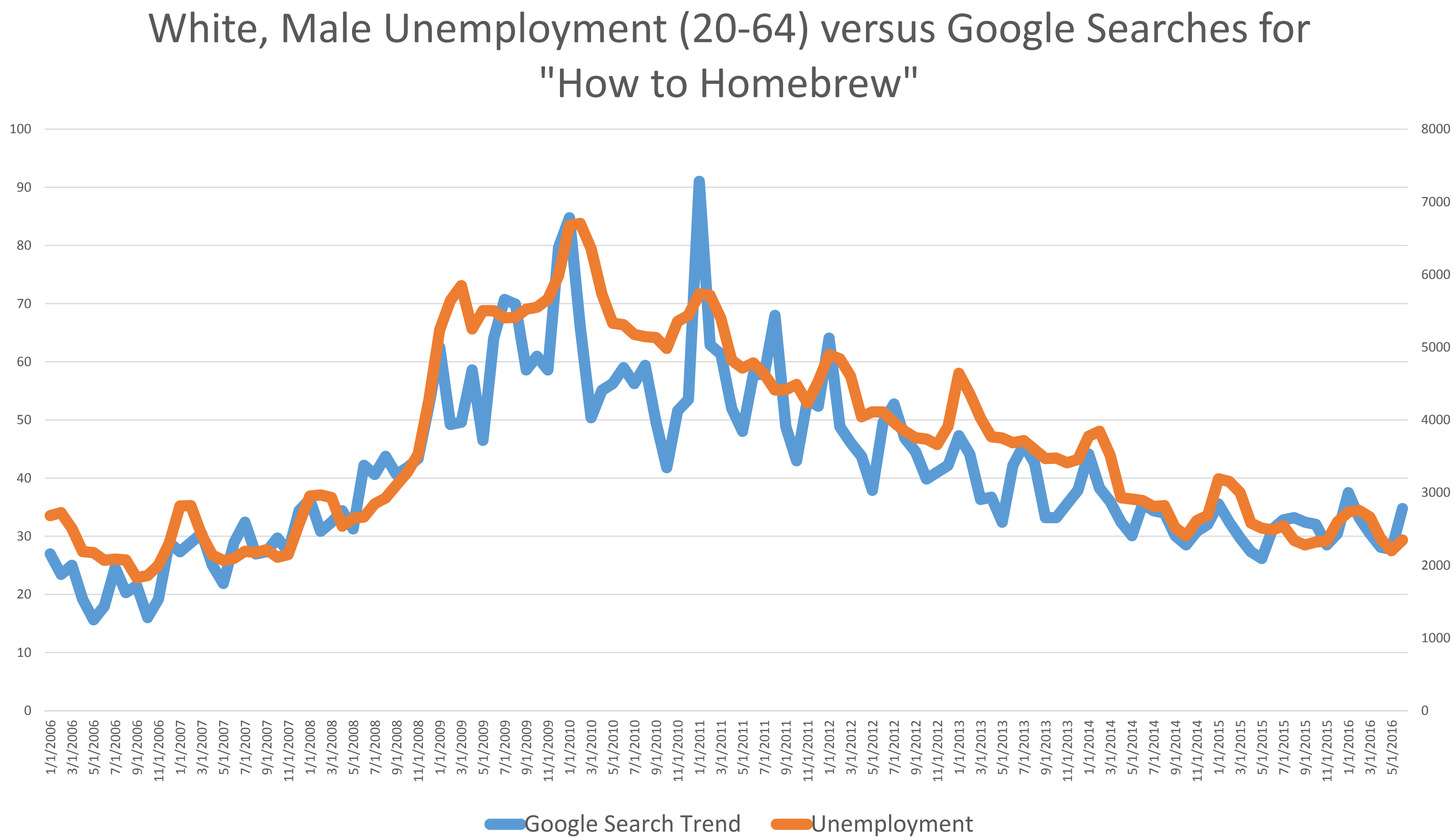
Differences in Alcohol Consumption Across Generations in 2015



Source: Scarborough Research, 2015


Per Capita Consumption of Ethanol
U.S. from 2000 to 2015
ABV for Beer 4.6%, Wine 11.5% Spirits 38%
Gallons of Ethanol Per Capita (LDA)
3.0
2.5
2.0
1.5
1.0
0.5
-
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Beer
Wine
Spirits


% of Weekly Craft Drinkers that Drink other Bev Alc Categories Weekly
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
Domestic
Import
Cider
Wine
Spirits
FMBs


White, Male Unemployment (20-64) versus Google Searches for "How to Homebrew"
100
90
80
70
60
50
40
30
20
10
0
8000
7000
6000
5000
4000
3000
2000
1000
0
1/1/2006
3/1/2006
5/1/2006
7/1/2006
9/1/2006
11/1/2006
1/1/2007
3/1/2007
5/1/2007
7/1/2007
9/1/2007
11/1/2007
1/1/2008
3/1/2008
5/1/2008
7/1/2008
9/1/2008
11/1/2008
1/1/2009
3/1/2009
5/1/2009
7/1/2009
9/1/2009
11/1/2009
1/1/2010
3/1/2010
5/1/2010
7/1/2010
9/1/2010
11/1/2010
1/1/2011
3/1/2011
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
Google Search Trend
Unemployment

The Craft Industry

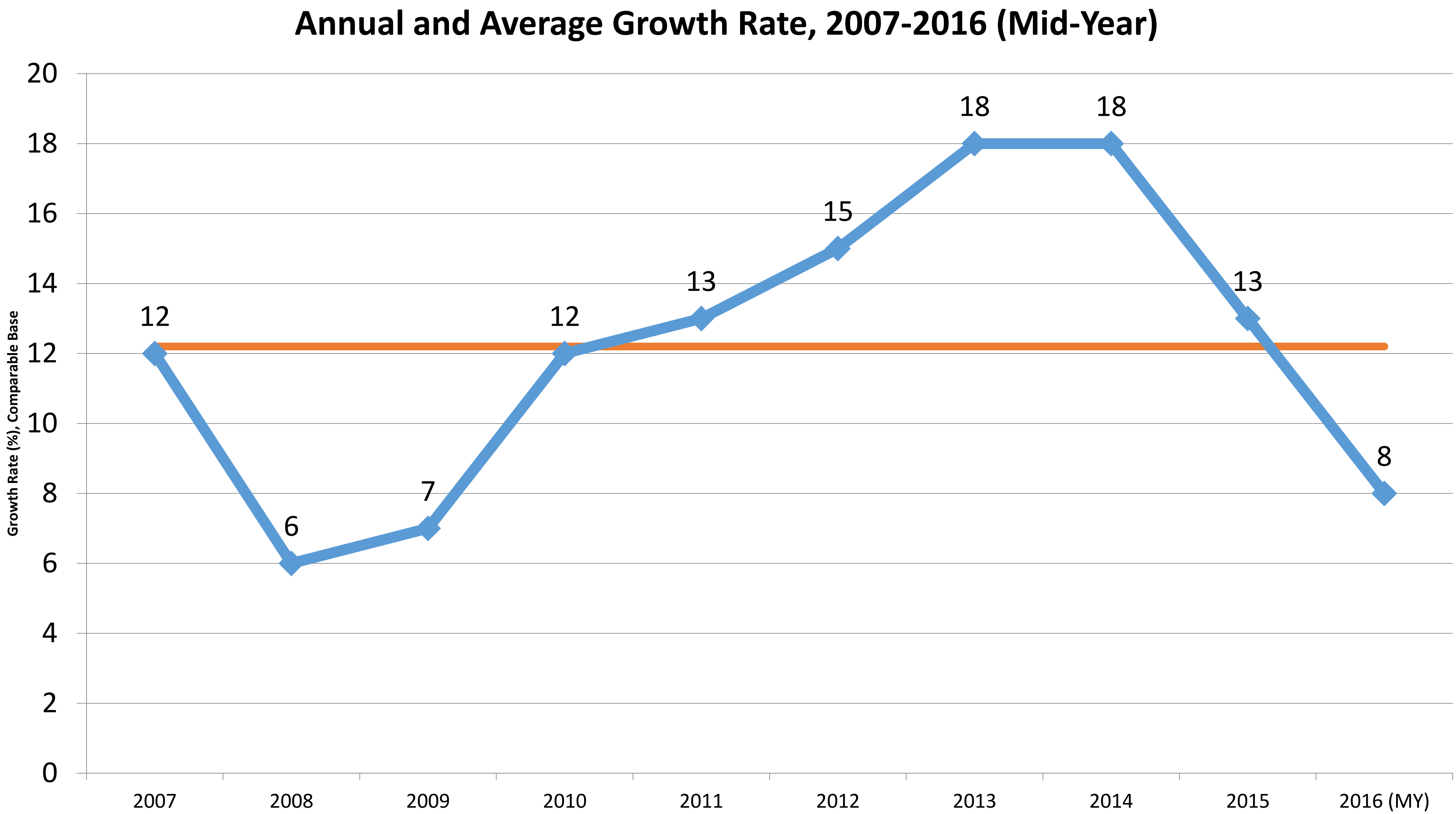
What Affects Hop Usage?

Size of Market

- Slowing, but still strong growth

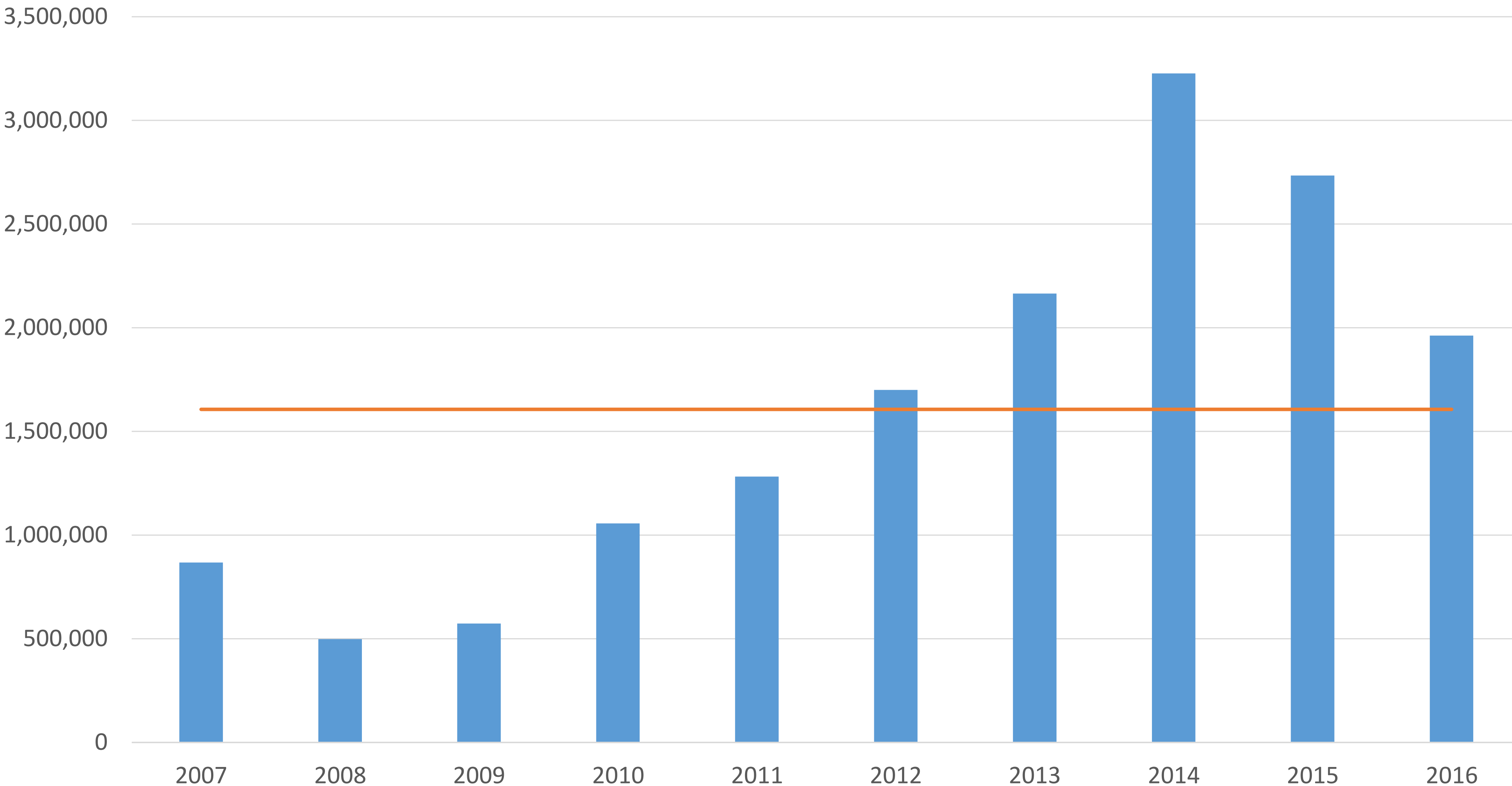
Per Barrel Rate

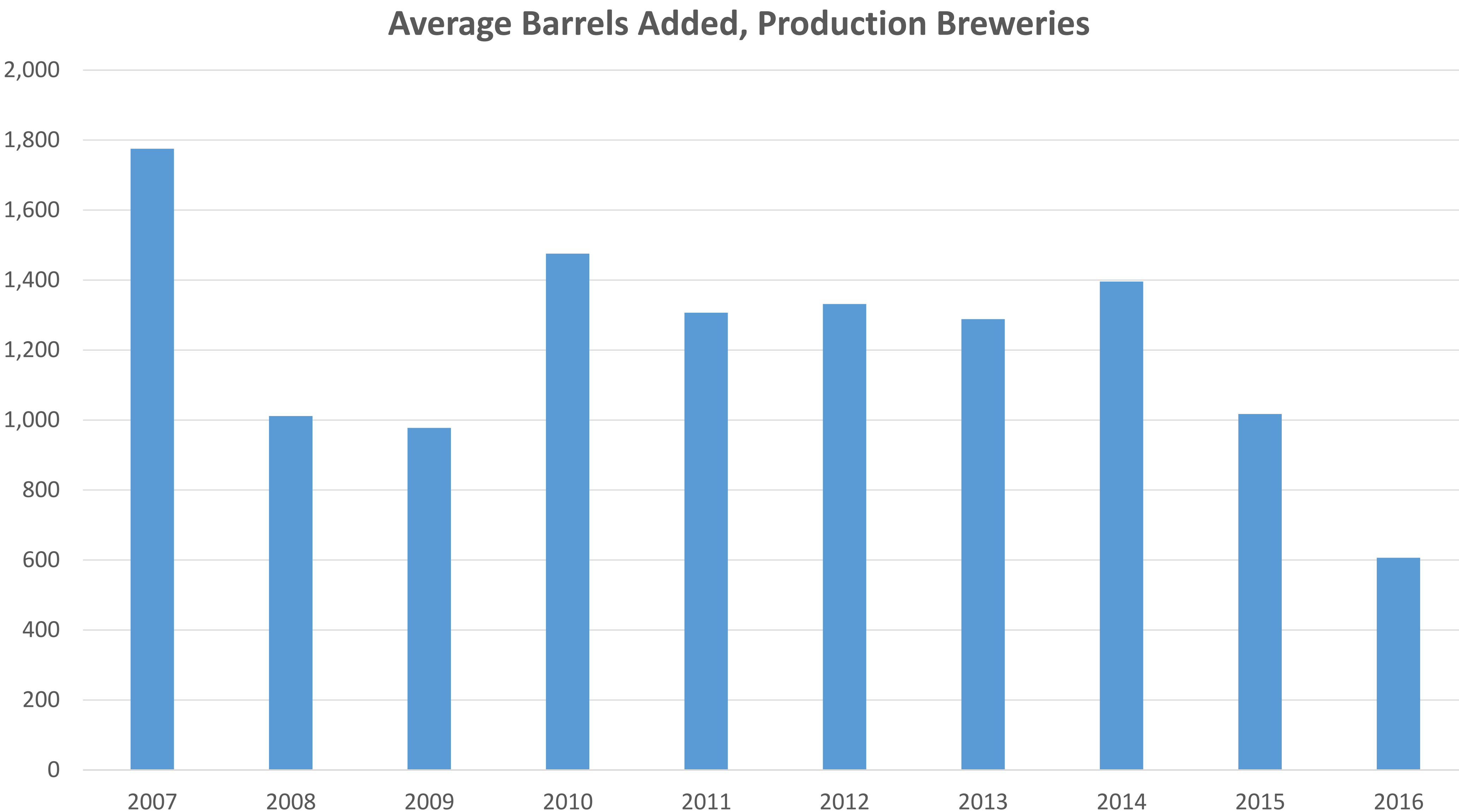
- Style
- Share/mix/size within craft



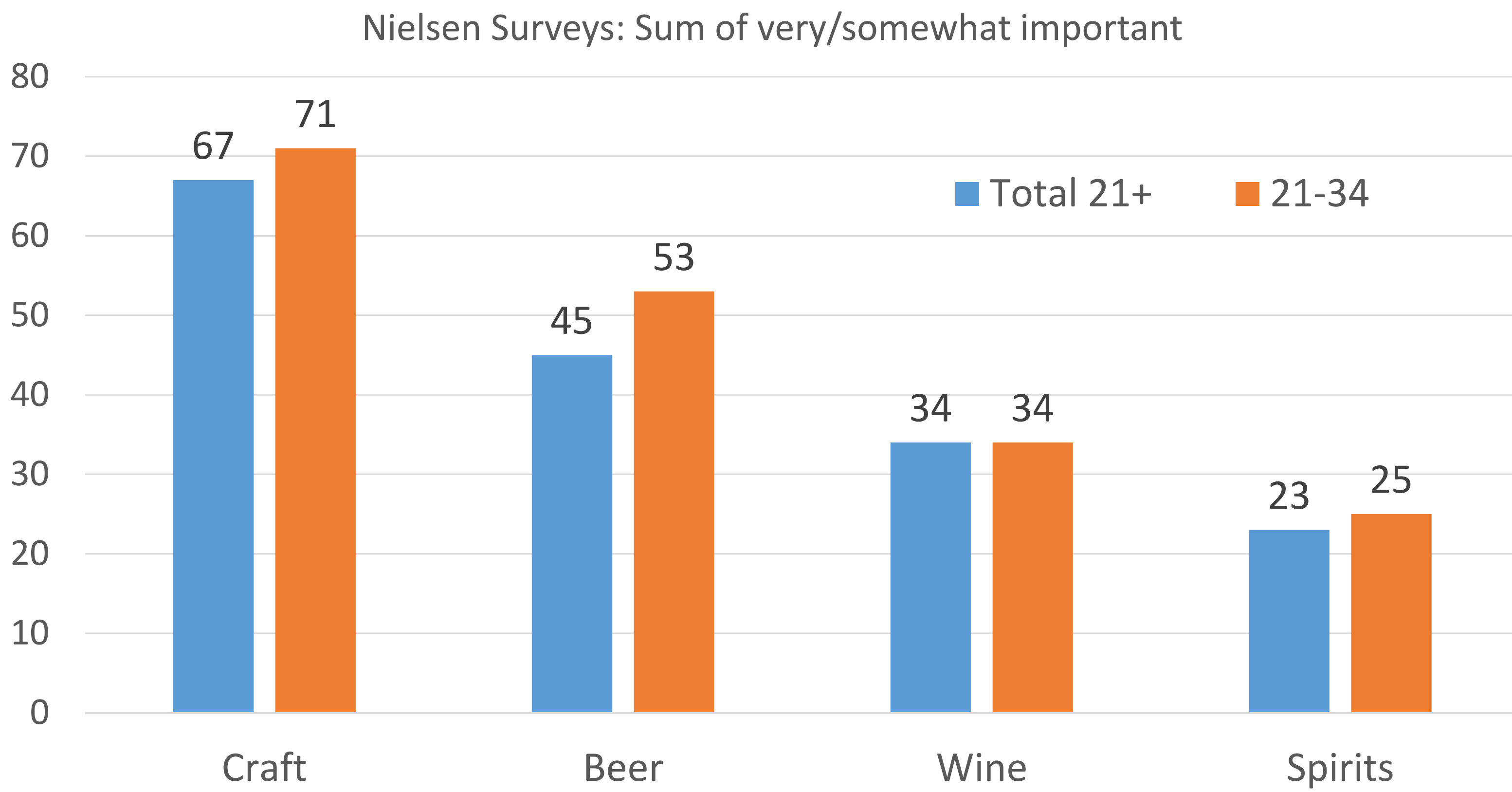
Annual and Average Growth Rate, 2007-2016 (Mid-Year)
Growth Rate (%), Comparable Base
20
18
16
14
12
10
8
6
4
2
0
12
6
7
12
13
15
18
18
13
8
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016 (MY)

Craft Barrel Domestic Barrel Additions, 2007-2016



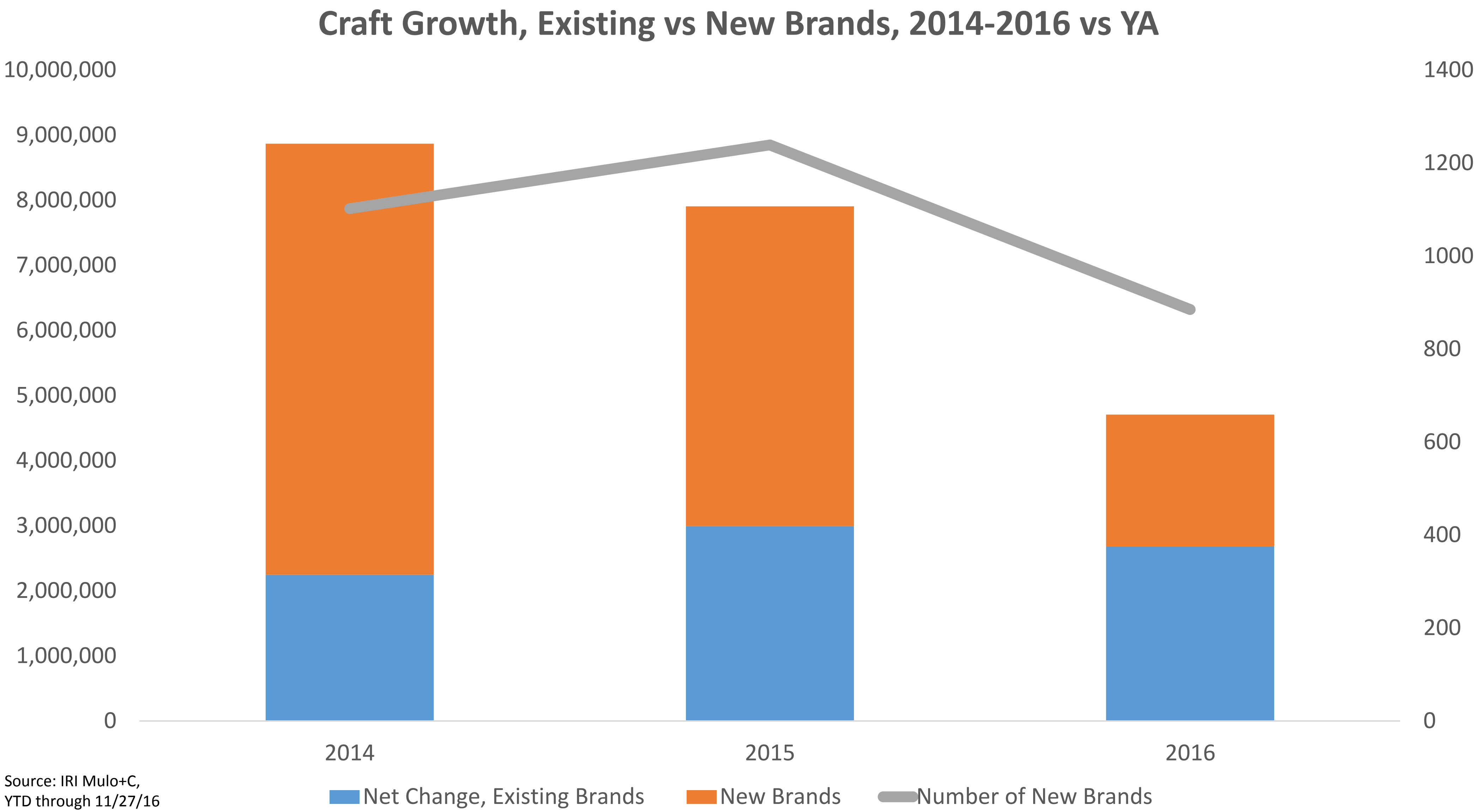

Average Barrels Added, Production Breweries
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016

How important is “local” in purchase decisions?

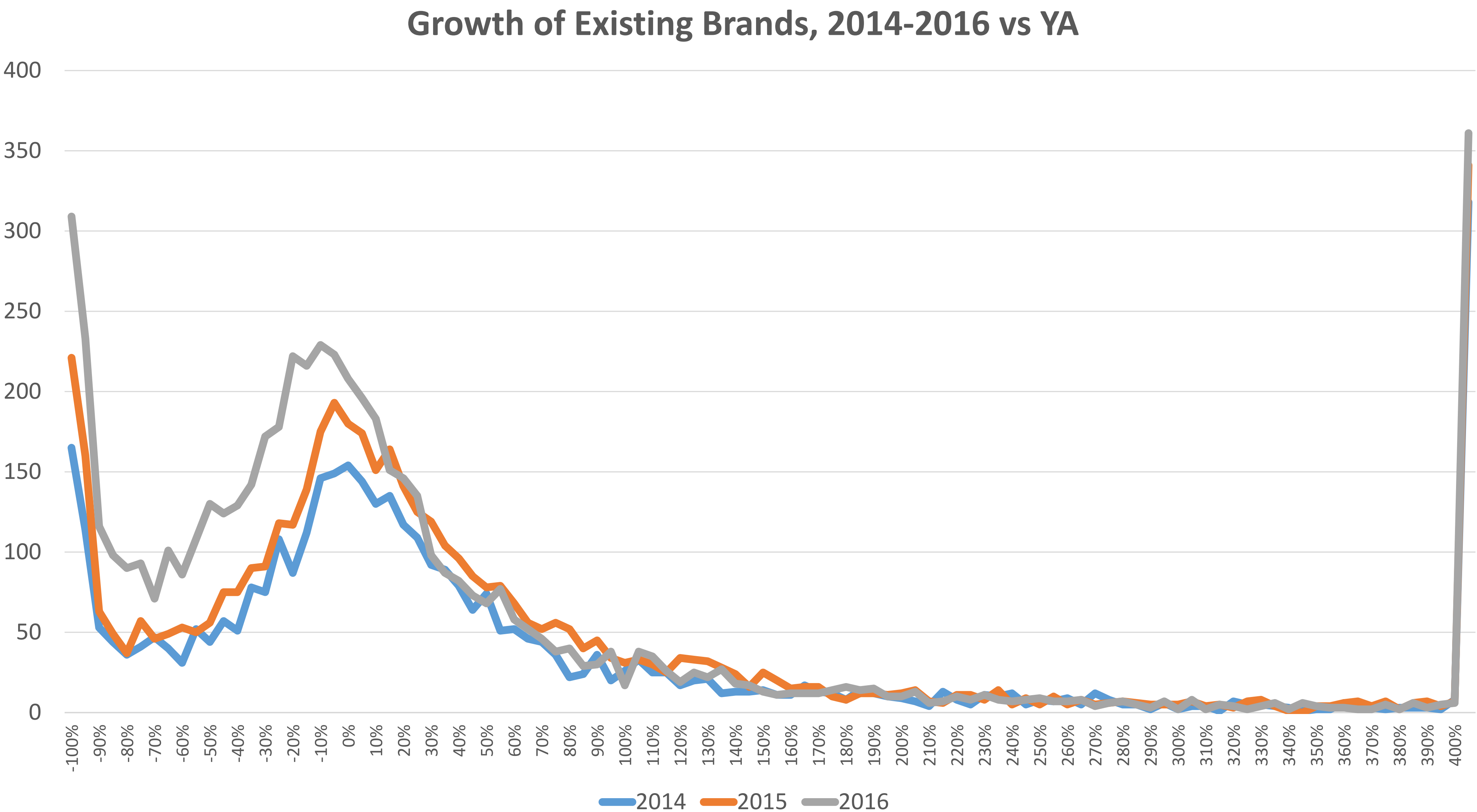


Source: Nielsen Quick Query Omnibus Survey, 12-17, 2015. (Base: LDA consumers who drink at least several times per year)

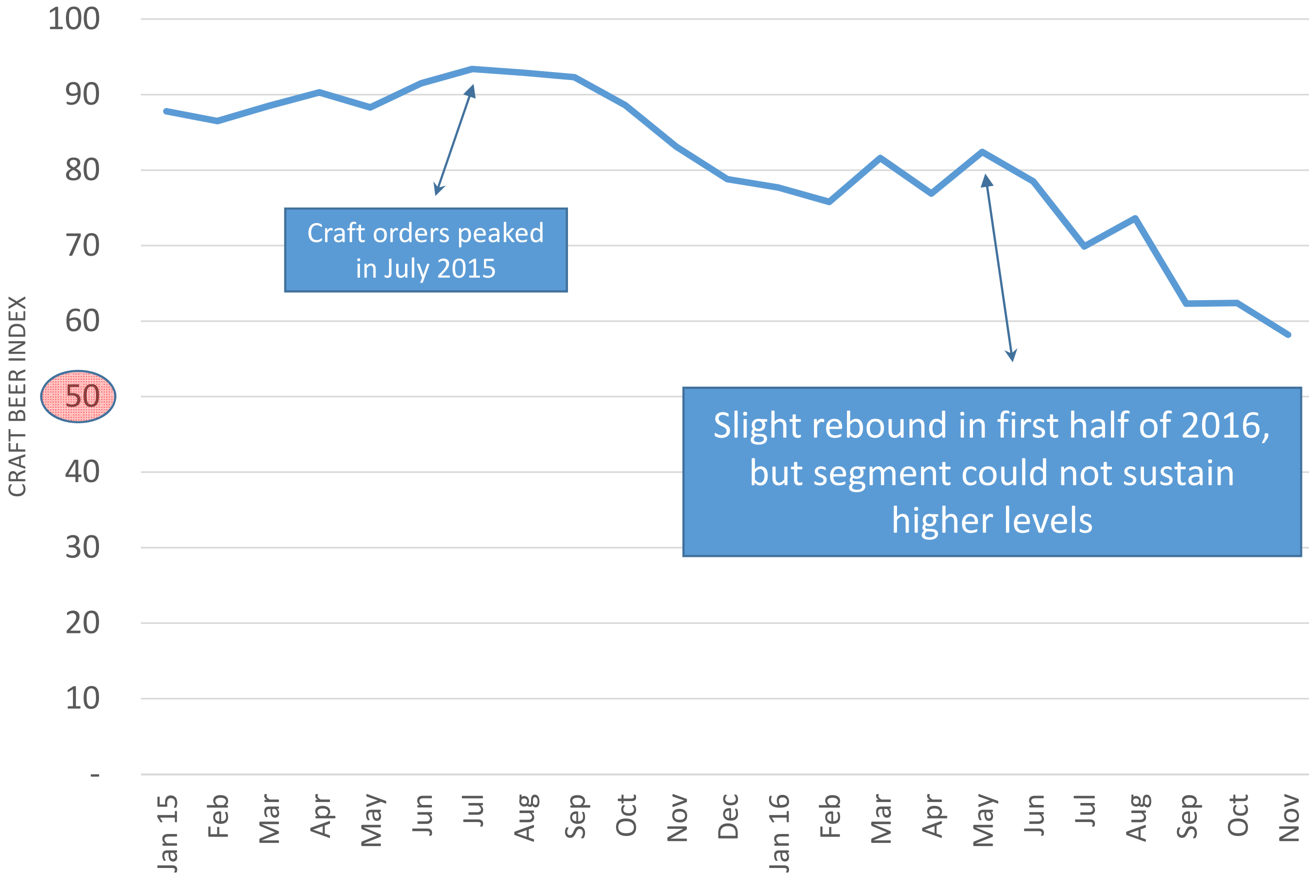
Source: IRI MULO+C (12/25/16)	US		
National Size (CEs)	Growth %	% Volume	% of Growth
1000000+	2.4%	63.0%	26.6%
100k to 1M	7.9%	23.1%	30.1%
10K to 100K	22.9%	11.9%	39.5%
Less than 10K	11.3%	2.1%	3.8%
Total	5.9%	100%	100%



Source: IRI Mulo+C,
YTD through 11/27/16


Growth of Existing Brands, 2014-2016 vs YA
400
350
300
250
200
150
100
50
0
-100%
-90%
-80%
-70%
-60%
-50%
-40%
-30%
-20%
-10%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
110%
120%
130%
140%
150%
160%
170%
180%
190%
200%
210%
220%
230%
240%
250%
260%
270%
280%
290%
300%
310%
320%
330%
340%
350%
360%
370%
380%
390%
400%
2014
2015
2016

Beer Purchasers Index: Craft Beer Segment
January 2015 to November 2016



Source NBWA, Nov 2016.

BPI based on survey of NBWA member companies. Each month, BPI asks if beer orders are higher, lower or about the same.

An index > 50 in a segment means beer order volumes in that segment are expanding and an index < 50 indicates that beer order volumes in that segment are contracting.

At home remains key location for craft beer drinkers, with increases outside the home

Which of the following describe when you typically drink craft beer? Please select all that apply.

87% of TOTAL Craft Beers Drinkers

AT HOME/AT A FRIEND'S HOME

93% of WEEKLY Craft Beers Drinkers

GROWING OCCASIONS

At an OUTDOOR recreational activity

During a craft brewing FESTIVAL/EVENT

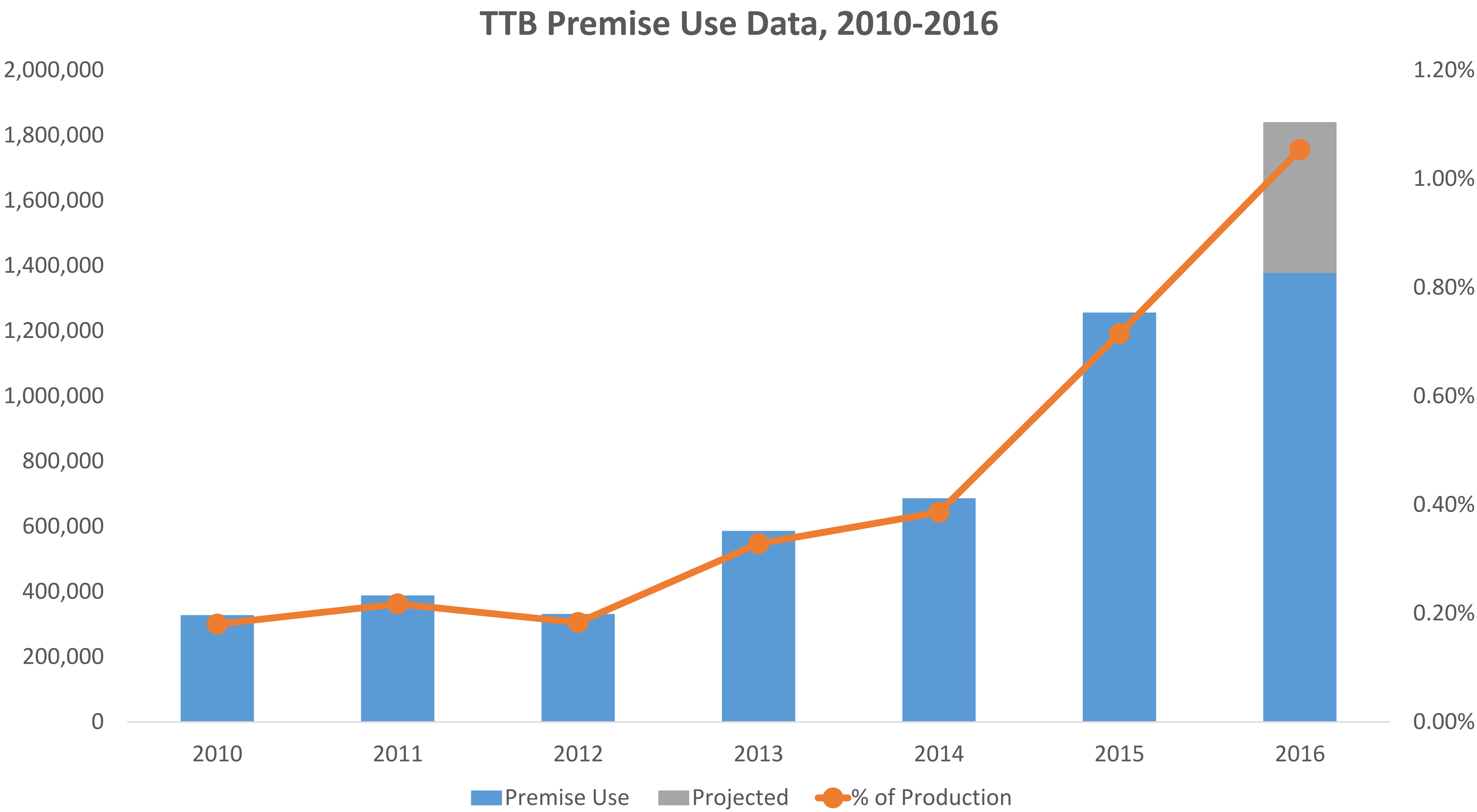
While visiting a CRAFT BREWERY

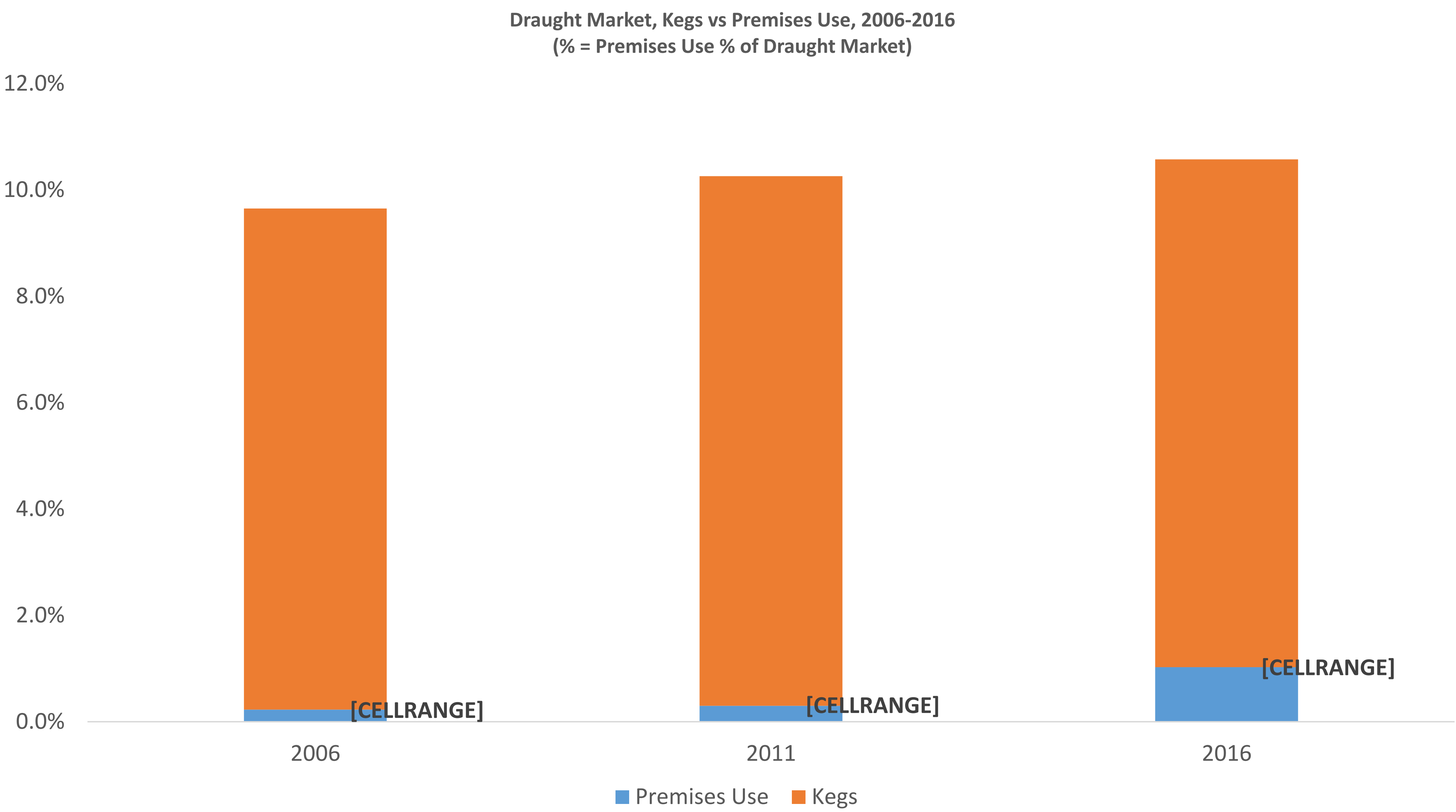
DOWN VS. YEAR AGO

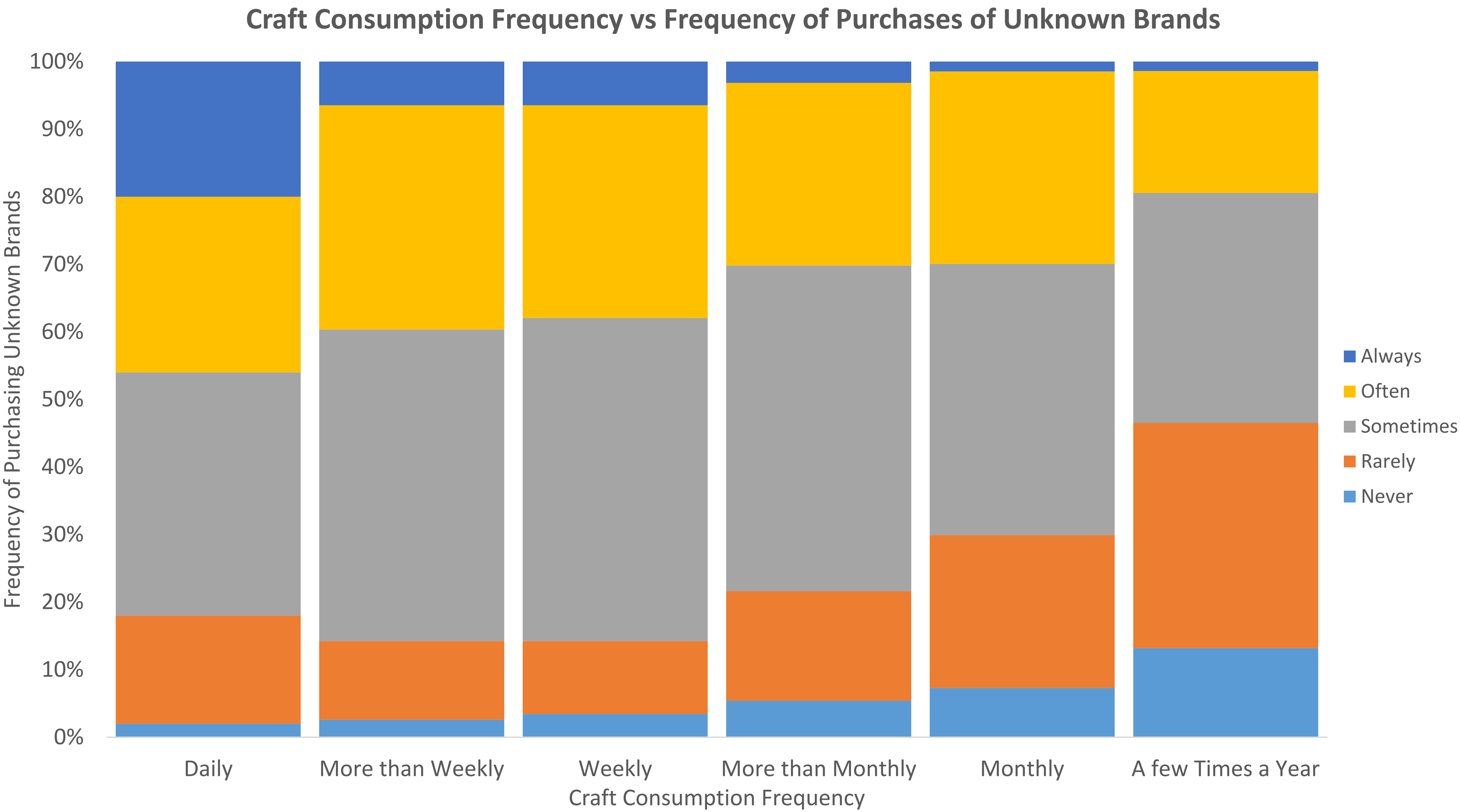
While eating out at a RESTAURANT

While out with my friends at a BAR/CLUB

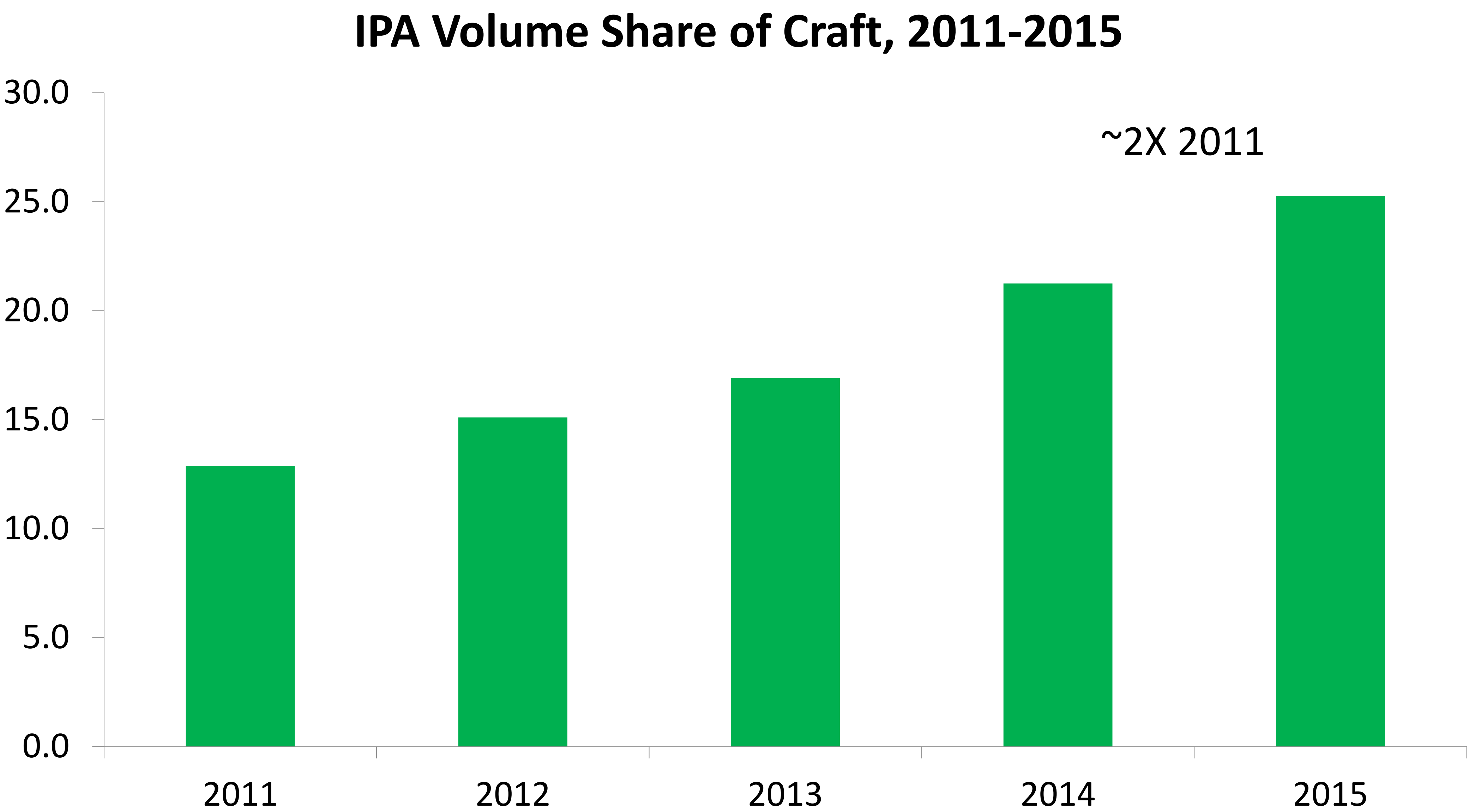
Source: Nielsen's Craft Beer Insights Poll (CIP) conducted June 2016 by Harris Poll (n=1,018 Craft Drinkers; n=555 weekly craft drinkers)

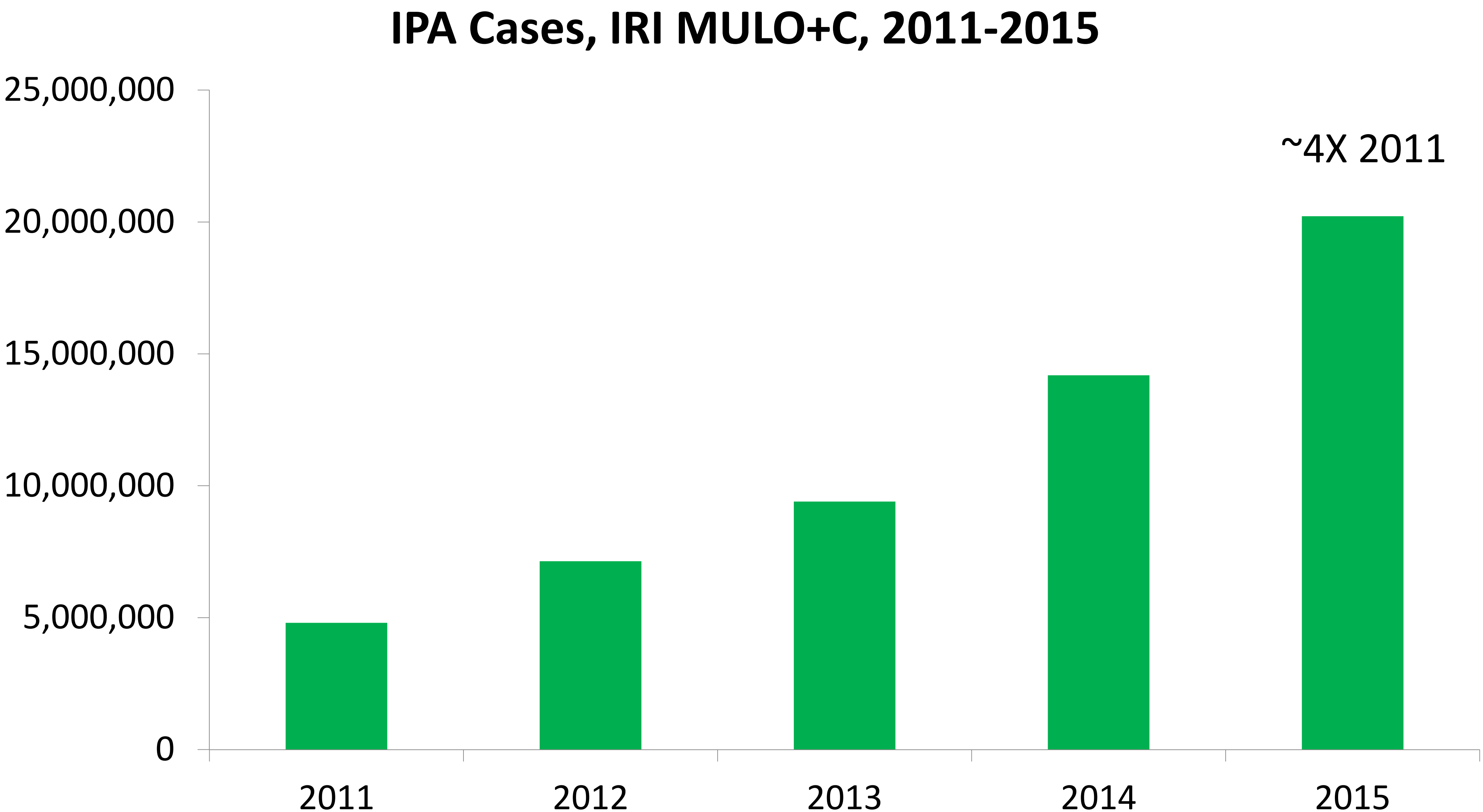

TTB Premise Use Data, 2010-2016
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
1.20%
1.00%
0.80%
0.60%
0.40%
0.20%
0.00%
2010
2011
2012
2013
2014
2015
2016
Premise Use
Projected
% of Production

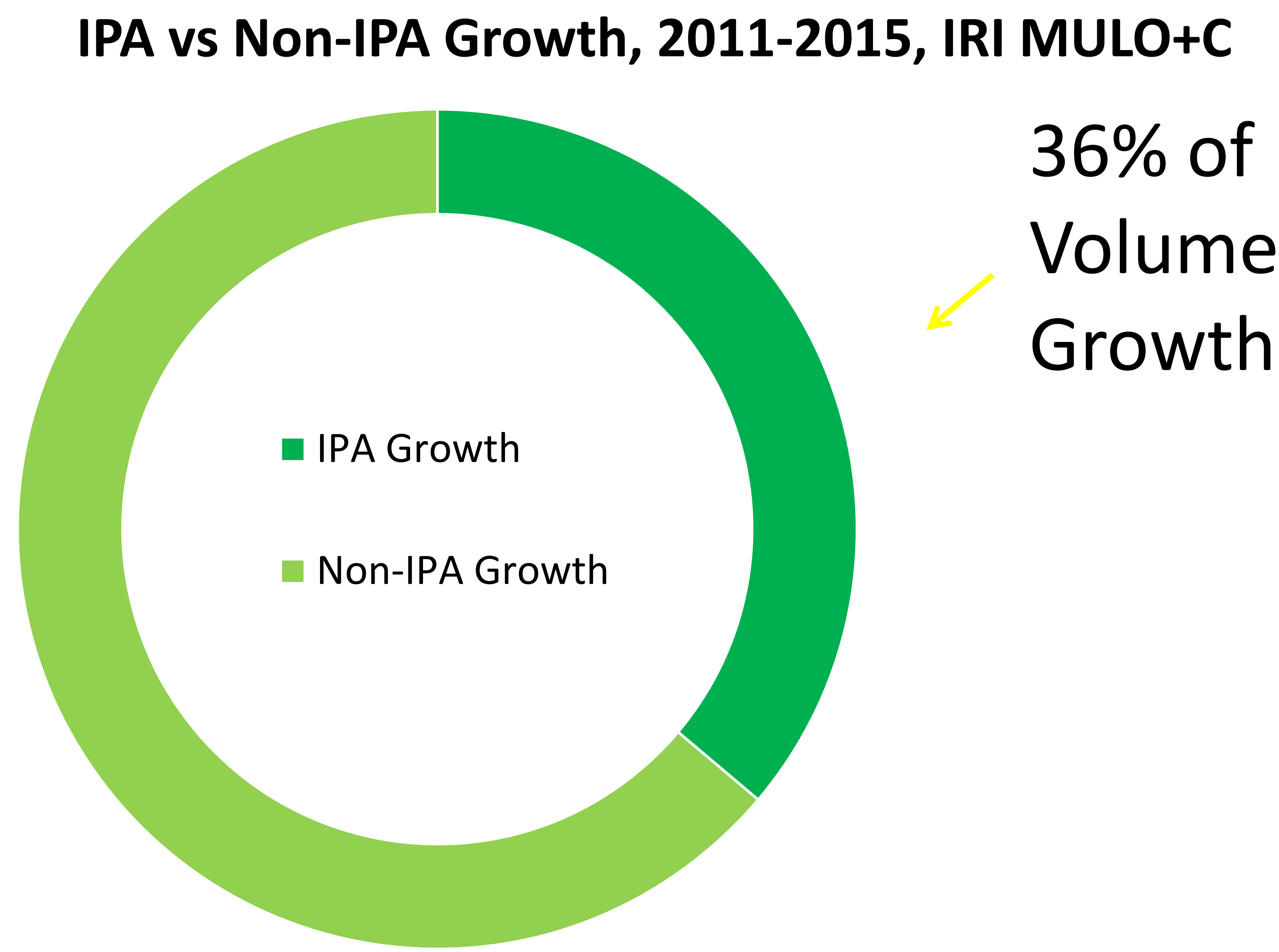

Draught Market, Kegs vs Premises Use, 2006-2016
(% = Premises Use % of Draught Market)
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
[CELLRANGE]
[CELLRANGE]
[CELLRANGE]
2006
2011
2016
Premises Use
Kegs


Craft Consumption Frequency vs Frequency of Purchases of Unknown Brands
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Frequency of Purchasing Unknown Brands
Always
Often
Sometimes
Rarely
Never
Daily
More than Weekly
Weekly
More than Monthly
Monthly
A few Times a Year
Craft Consumption Frequency

More Hops Please!
What Else?


IPA Volume Share of Craft, 2011-2015
30.0
25.0
20.0
15.0
10.0
5.0
0.0
~2X 2011
2011
2012
2013
2014
2015


IPA Cases, IRI MULO+C, 2011-2015
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
0
~4X 2011
2011
2012
2013
2014
2015


IPA vs Non-IPA Growth, 2011-2015, IRI MULO+C
IPA Growth
Non-IPA Growth
36% of Volume Growth

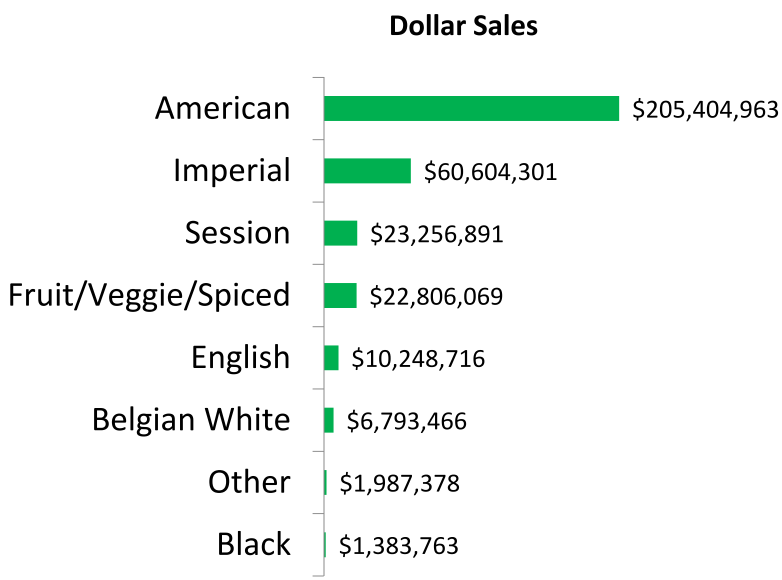
% Of Craft Volume Growth, YTD

Source: IRI Group, MULO+C, MI & US, YTD through 12/25/2016	**BA Craft**		**IRI Craft**
Top 5 Craft Growth Styles	US	Top 5 Craft Growth Styles	US
IPA	63.9%	IPA	116.6%
GOLDEN ALES	16.8%	GOLDEN ALES	19.3%
OTHER PALE LAGERS	16.2%	FRUIT/VEGGIE/SPICED	7.8%
VARIETY	4.0%	STOUT	4.3%
STOUT	3.9%	SPEC RELSE/SPECLTY/COLL	3.8%

Craft IPA Sub-Styles Overview

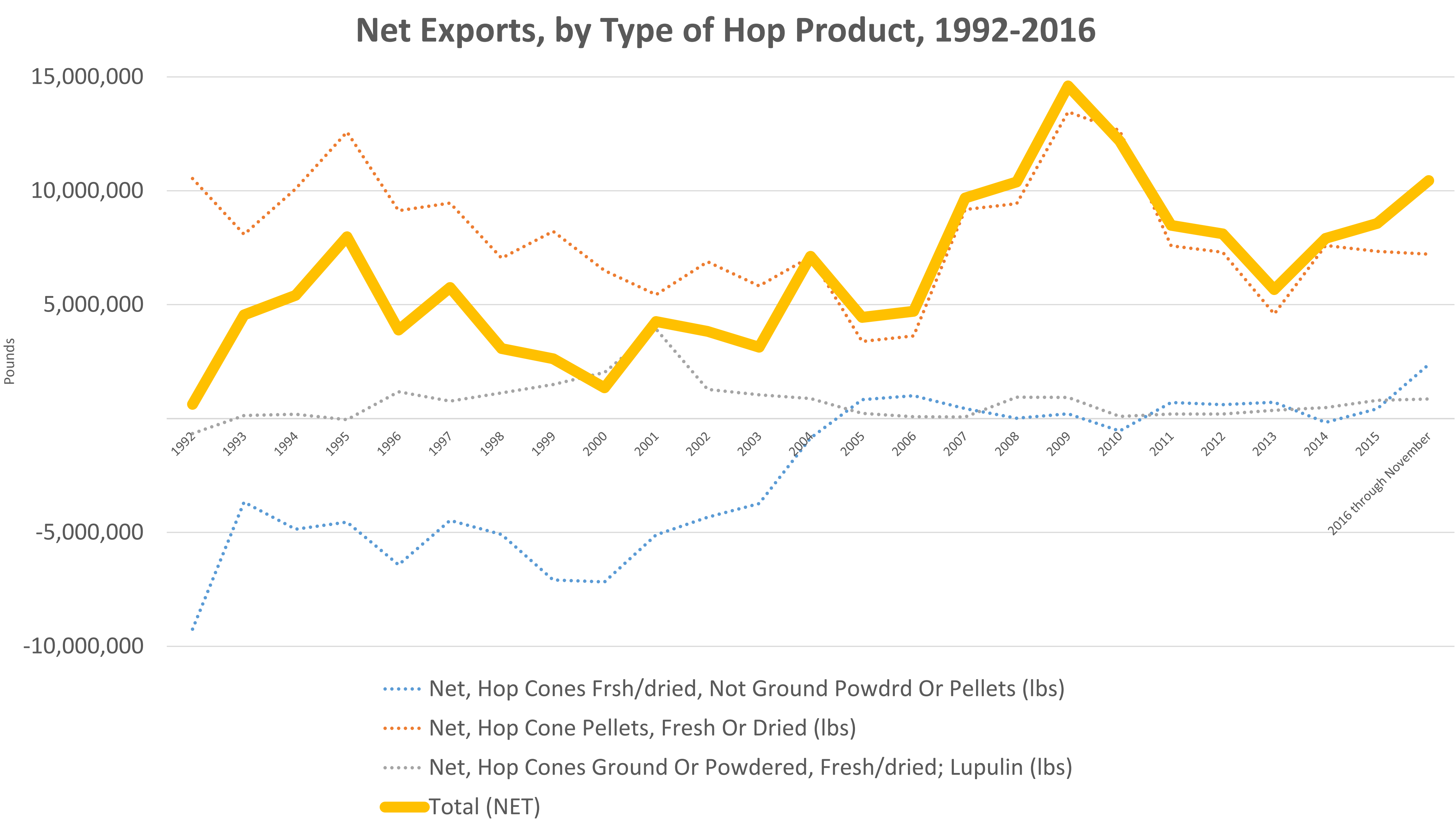
Total US Food Channel

- Fruit/Veggie/Spiced IPA's remain the fastest growing IPA Sub-Style.

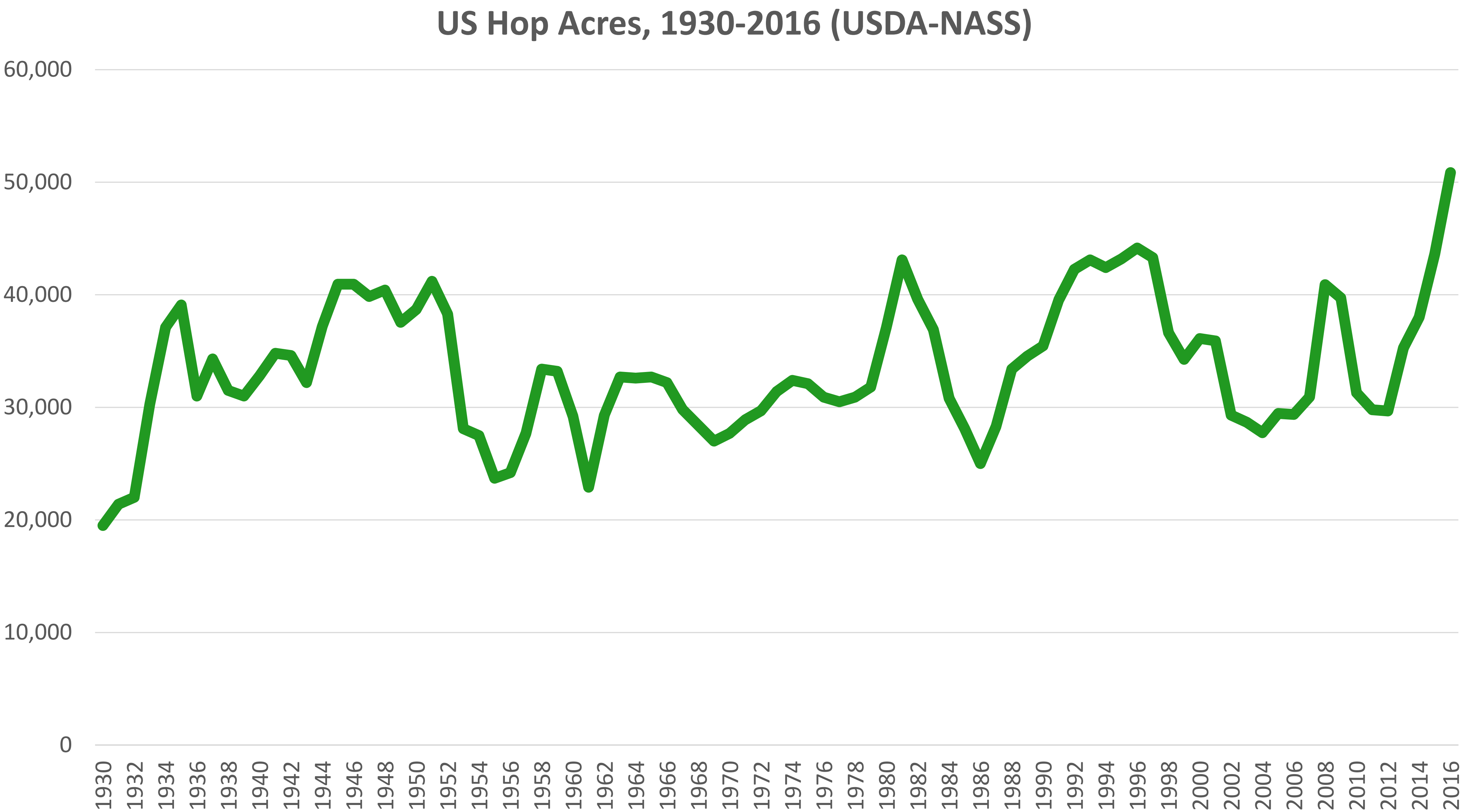


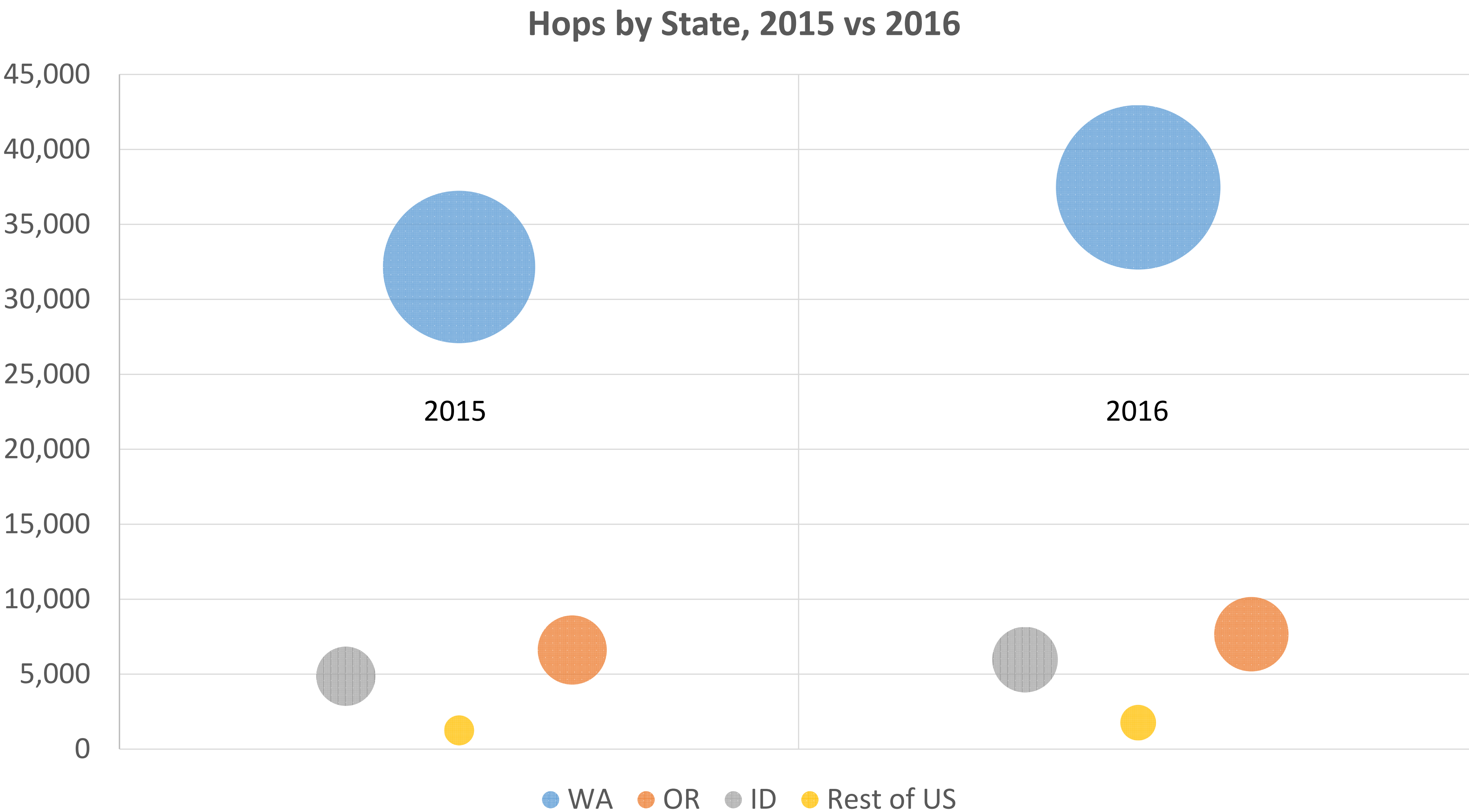
Dollar Sales % Chg YA	Dollar Share of Craft IPA	Dollar Share Chg YA
15.8%	61.8%	-3.7%
6.9%	18.2%	-2.7%
32.4%	7.0%	0.5%
662.8%	6.9%	5.8%
55.3%	3.1%	0.6%
6.7%	2.0%	-0.3%
33.3%	0.6%	0.0%
-15.6%	0.4%	-0.2%

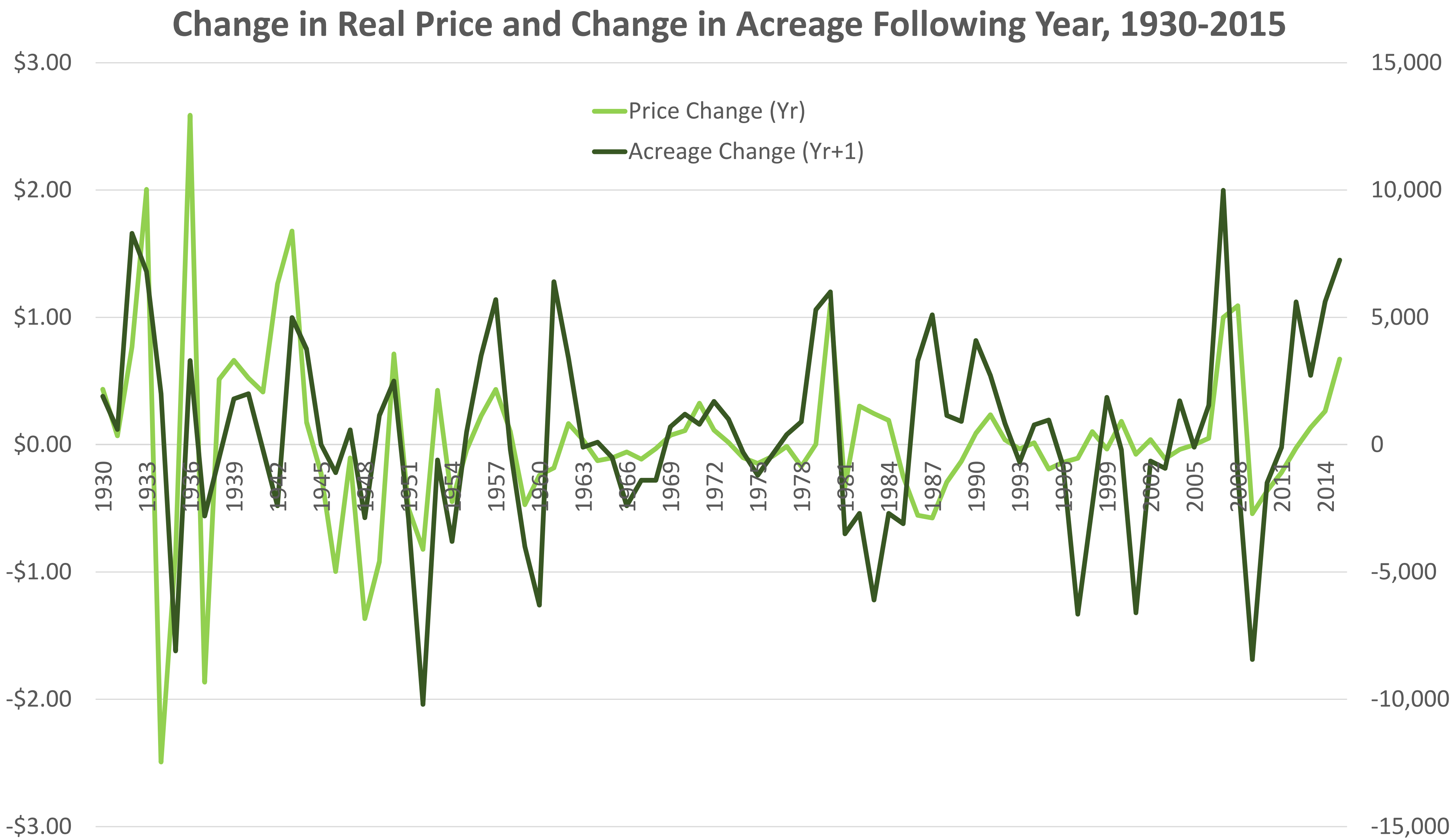
Source: IRI InfoScan Total US FOOD, YTD ending July 10, 2016



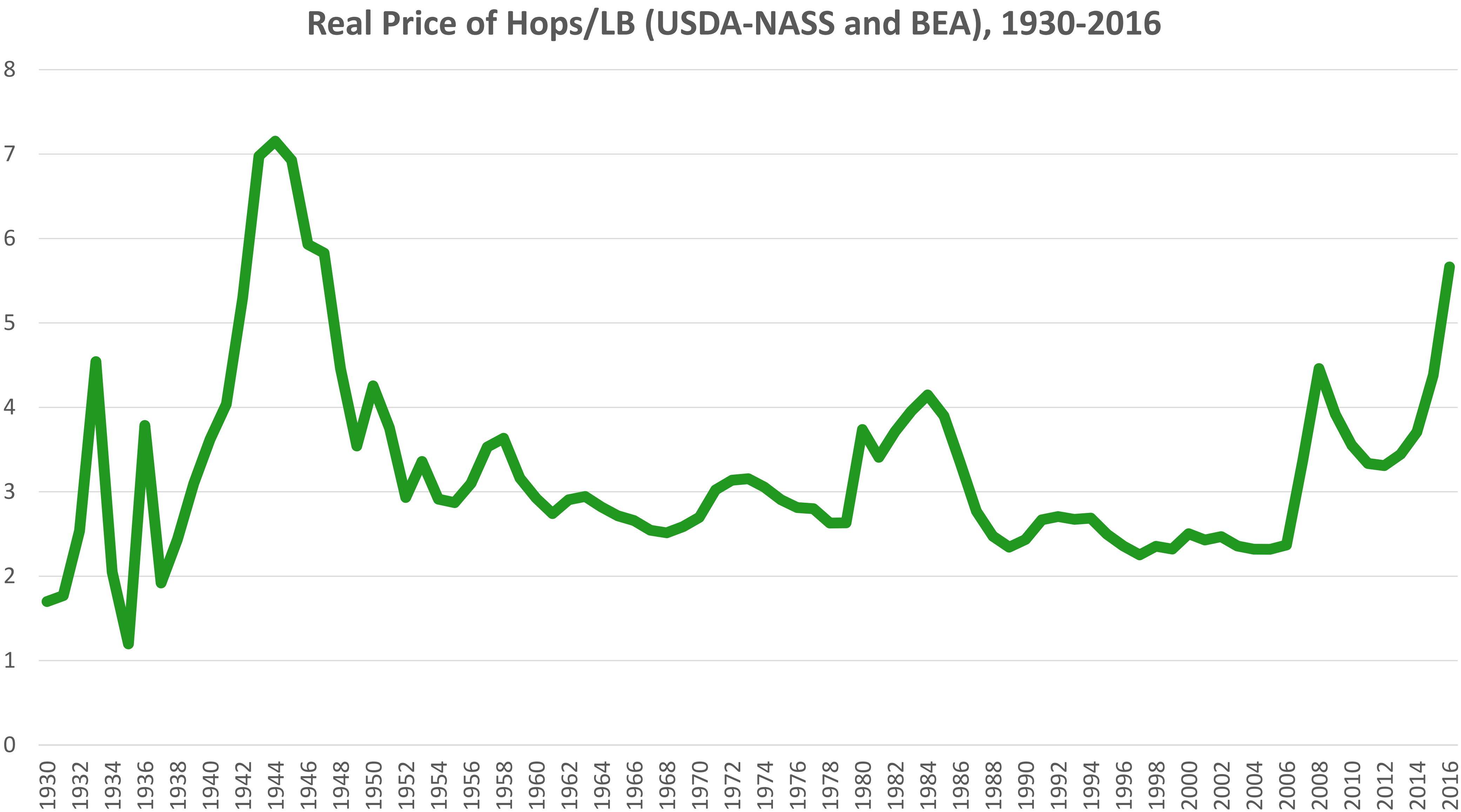
Net Exports, by Type of Hop Product, 1992-2016
15,000,000
10,000,000
5,000,000
-5,000,000
-10,000,000
Pounds
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016 through November
Net, Hop Cones Frsh/dried, Not Ground Powdrd Or Pellets (lbs)
Net, Hop Cone Pellets, Fresh Or Dried (lbs)
Net, Hop Cones Ground Or Powdered, Fresh/dried; Lupulin (lbs)
Total (NET)


US Hop Acres, 1930-2016 (USDA-NASS)
60,000
50,000
40,000
30,000
20,000
10,000
0
1930
1932
1934
1936
1938
1940
1942
1944
1946
1948
1950
1952
1954
1956
1958
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016


Hops by State, 2015 vs 2016
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
2015
2016
WA
OR
ID
Rest of US



Change in Real Price and Change in Acreage Following Year, 1930-2015
Price Change (Yr)
Acreage Change (Yr+1)
$3.00
$2.00
$1.00
$0.00
-$1.00
-$2.00
-$3.00
15,000
10,000
5,000
0
-5,000
-10,000
-15,000
1930
1933
1936
1939
1942
1945
1948
1951
1954
1957
1960
1963
1966
1969
1972
1975
1978
1981
1984
1987
1990
1993
1996
1999
2002
2005
2008
2011
2014


Real Price of Hops/LB (USDA-NASS and BEA), 1930-2016
8
7
6
5
4
3
2
1
0
1930
1932
1934
1936
1938
1940
1942
1944
1946
1948
1950
1952
1954
1956
1958
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016

Questions?