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The Economic and Regulatory Analysis of Virginia's Distilled Spirits Industry

Prepared for the
Virginia Distillers Association

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I. INTRODUCTION

Virginia is the birthplace of American distilled spirits. The Virginia distilling industry's rich history began with the first batch of corn whiskey produced in 1620 by English settler George Thorpe at Berkeley Plantation, near Jamestown. Prohibition negatively impacted this industry; however, there is new life and excitement surrounding the modern Virginia spirits industry. A team of MBA students from the College of William & Mary recently conducted an economic impact study of the Virginia spirits industry in concert with the Virginia Distillers Association. This report puts a quantitative face on the industry.

To assess the economic impact of the distilled spirits industry in the Commonwealth, the William & Mary Field Consultancy team conducted an in-depth case study of all aspects of the industry. Primary research for the study included the development of a survey which was distributed to all licensed distilleries in the Commonwealth, as well as secondary research focused on local and national quantitative and qualitative assessments of comparable organizations, industries, and trends. The survey collected the following information to assess overall economic contribution and identify best practices within the industry:

- Job Creation
- Capital Investments
- Agriculture
- Tourism
- Spirits Sales Revenue
- Taxes Paid & Revenue Generated
- Sustainability Efforts
- Impact on Local Communities

To better understand barriers facing Virginia's distilled spirits industry the team researched taxation and regulation of the industry. This research was compared to a number of states across the US to determine Virginia's standing in regard to the regulation of spirits, while also identifying practices that render positive and fair economic impact to both the Commonwealth and the industry. Research was also conducted on the Virginia wine and craft beer industries. This provides a comparative analysis of the regulatory framework for the different sectors of the alcohol industry and how it impacts all beverage industries in Virginia. This report highlights discrepancies between the three industries to provide insight into how the distilled spirits industry is placed at a direct disadvantage. This report also identifies national trends in the distilled spirits industry to understand potential growth opportunities for Virginia distilleries and the resulting growth in Commonwealth tax revenue.

II. EXECUTIVE SUMMARY

This is the first statewide economic impact study of the Virginia distilled spirits industry. Performed by the William & Mary Consultancy team, it is a research initiative that provides a solid, reliable, and fact-based analysis of Virginia's distilled spirits industry in order to evaluate its recent performance. This report analyzes the entire scope of the Virginia distilled spirits industry. It describes the industry's size and impact by examining the direct, indirect, and induced impacts of the industry on local employment, tourism, agriculture, tax and revenue.

Key Findings

1. **The Virginia distilled spirits industry's impact on the Virginia economy in 2017 is valued at \$163,045,778**
2. **Virginia distilleries will spend \$85,755,333 in capital investment in the next three years.** This represents a 27% increase in spending over the past three years.
3. **Virginia distilleries supports 1,477 full-time equivalent jobs, paying wages of \$60,349,535, as of 2017.** This represents a 51% increase in employment and a 69% increase in wages from 2016.
4. **The biggest challenges facing distilleries are the high Virginia ABC (Alcohol Beverage Control) markups and general state regulations.** Virginia distillery stores are considered Virginia ABC stores, and as a result, incur the same markup structure as traditional ABC stores while also shouldering additional overhead costs for operations and employees.
5. **Virginia's distilled spirits industry generated \$16,529,207 in federal taxes and \$17,447,894 in state and local taxes in 2017 (including property, income, sales, excise taxes, etc.).**
6. **Virginia distilleries attracted 296,741 unique visitors in 2017, resulting in \$46,885,039 worth of expenditures.** This includes both direct expenditures at distilleries and indirect expenditures by tourists on food, transportation, shopping, entertainment, rooming, etc.
7. **Virginia distilleries purchased \$5,240,333 worth of grain and agricultural products in 2017.** Nearly 70% of all grain and agricultural products purchased were sourced from Virginia farms. Also, nearly 70% of all grain and agricultural products used during production were then recycled for use by Virginia farms.
8. **Virginia distilleries sold spirits valued at \$14,572,381 in 2017.** This includes both in-state and out of state sales.
9. **Virginia ABC keep 51% of the retail price for every bottle sold in Virginia, leaving distilleries with only 49% of the retail sales price.**
10. **Virginia has the 2nd highest state excise tax on spirits in the country, making local distilled spirits very expensive for consumers.** In addition, Virginia is one of a few states that implements a food-beverage ratio, causing Virginia spirits to be price prohibitive for many restaurants and bars in the Commonwealth, as Virginia spirits are priced higher.
11. **Virginia wine and beer have no limit on the amount of alcohol they can pour for, or sell to customers on-site; however, distilleries can only provide up to 3 oz.**
12. **Virginia wineries and breweries can sell their products in grocery stores, supermarkets, gas stations and numerous other retail locations in the Commonwealth while distilleries' spirits are sold only in ABC stores.**

- 13. Virginia is currently home to 57 active distilleries with seven new distilleries waiting for state license approval (as of Dec. 2017).** Including the pending distilleries this is a staggering 433% increase since 2012.
- 14. Most Virginia distilleries are labeled as small producers, providing the industry with a great opportunity for economic growth once these distilleries mature.** Currently there are 45 small distilleries; there are 52 including those with pending licenses. Industry growth will be driven by these distilleries.
- 15. Ninety-one percent of sales from small distilleries occur at distillery stores or Virginia ABC stores; whereas the majority of sales from medium and large distilleries are conducted out-of-state.** In-store sales are very important for small distilleries, but as these businesses mature they tend to shift operations to focus on out-of-state sales.
- 16. Seventy percent of all Virginia distilleries practice sustainability measures; either recycling spent grain, barrels, boxes, water, bottles, or heat.**
- 17. Seventy-four percent of all Virginia distilleries give back to local communities in terms of donations or volunteer hours.**
- 18. The US craft spirits industry currently consists of 1,589 distilleries.** On a national level this industry is in the beginning stages of booming growth; many analysts believe it will mimic that of the craft beer industry in the coming years.

III. SWOT ANALYSIS

STRENGTHS:

- **Employment** – Virginia's distilled spirits industry supports *1,477 employees across numerous industries, with 474 direct employees. Distilleries paid \$60.3M in wages in 2017.
- **Rich Virginia History** – Virginia's rich history of distilling goes back to Berkeley Plantation, near the Jamestown settlement; and includes President George Washington owning the largest whiskey distillery in the country. The history and authenticity of craft spirits is an important factor for customers evaluating purchasing options.
- **Virginia Spirits Month** - The Virginia Distillers Association (VDA) ran a statewide promotional campaign in September 2017 that led to a year-over-year sales increase in September of 70%.

**includes indirect employees as well*

WEAKNESSES:

- **Product Aging** – Dark spirits generally must be fermented for several years before being ready for sale. This puts tremendous stress on distilleries to acquire funds through clear spirits that can be sold to the customer immediately.
- **Cash Flow** - Distilleries must turn over all revenue from spirits sales to Virginia ABC, receiving their share 30-60 days later. This adds excessive cash flow pressures for an industry comprised mostly of small businesses.
- **Lack of Promotional Support** – The Virginia Distillers Association (VDA), founded in 2016 with the objective to improve regulatory, legislative, and promotional environments for distillers, is the only advocacy or promotional group for Virginia distillers.

OPPORTUNITIES:

- **Forty-Five Small Distilleries** – Of the 57 current distilleries in Virginia, 45 produce less than 5,000 gallons annually. There are seven pending distillery licenses. This presents tremendous opportunity to grow the industry as small distilleries mature.
- **National Craft Spirits Movement** – As of August 2017 there were 1,589 craft distilleries in the United States. This is a 21% increase from August 2016. In 2016 almost six million cases of craft spirits worth \$3 billion were sold. This is a 25% increase from 2015 and resembles growth seen in the craft beer movement.
- **Rapid Growth** – In addition to being the fastest growing sector in the beverage industry, the categories of premium spirits and craft spirits are almost exclusively driving the growth for the spirits sector. Virginia spirits are both premium and craft.

THREATS:

- **Limited Market Access** – Smaller distilleries struggle to promote and sell products in Virginia ABC stores (the sole wholesaler / retailer of spirits in the Commonwealth).
- **High Taxes and Thin Margins** – Distilleries face high taxes including a 69% markup, 20% state excise tax, and a 5.3% sales tax before reaching the customer. Assuming a Virginia distillery sells a case (12 bottles) to ABC at \$180.00, the customer will pay \$388.66 after taxes.
- **Competition from Bordering States** - Virginia is at a regulatory disadvantage to bordering states, which could lead to distilleries moving operations out of state or discouraging entrepreneurs from opening operations in Virginia.

IV. SURVEY ANALYTICS

Highlights

Total Economic Impact of the Virginia Distilled Spirits Industry on the Virginia Economy - 2017

\$163,045,778

Virginia Distilled Spirits Industry Economic Impacts

	2017	2016	Percentage Change
Economic Impact	\$163,045,778	\$104,090,762	57%
Distilleries	57	48	19%
Full-Time Equivalent Jobs	1,477	975	51%
Wages Paid	\$60,349,535	\$35,777,024	69%
Total Spirits Sales (Retail Value)	\$14,572,381	\$11,183,377	30%
Total Non-Spirits Sales	\$2,021,388	\$1,422,939	42%
Number of Distillery-Related Tourists	296,741	191,123	55%
Total Tourism Expenditures	\$46,885,039	\$30,197,434	55%
Grain & Agriculture Purchases	\$5,240,333	\$3,830,633	37%
Federal Taxes Paid	\$16,529,207	\$10,135,394	63%
State & Local Taxes Paid	\$17,447,894	\$11,543,961	51%

Industry Size

The distilled spirits industry in Virginia achieved significant growth in its economic footprint and number of distilleries in recent years. This industry contributed \$163,045,778 to Virginia's economy in 2017, representing a 59% increase since 2016. Currently, there are 57 active distilleries operating in the state, nearly a fourfold increase since 2012 when there were only 12 active distilleries. The seven pending licenses for new distilleries will move the industry to 64 total distilleries in the near-term. This short-term growth is unprecedented, especially in an industry where it requires up to two and sometimes four years before select products are mature enough to sell. This industry will continue to grow, especially as it starts to garner more excitement from local communities and consumer acceptance.

The Virginia spirits industry, like most others, is licensed based on the size of the distillery in terms of production volumes.

- Large - Volume over 36,000 proof gallons annually
- Medium - Production range from 5,000 to 36,000 proof gallons annually
- Small - Less than 5,000 proof gallons annually.

There currently are 45 small, seven medium, and five large distilleries. This important distinction demonstrates a great opportunity for this industry and the Commonwealth of Virginia. Once this industry matures and the small distilleries begin to grow and develop into medium and large distilleries, this will create unique opportunities that further expand the economic reach of the industry.

The Virginia distilled spirits industry spans the state, from the mountains to the shores. Its unique layout, given Virginia's diverse topography, adds to the geographic footprint of the industry. In addition, Virginia's climate (warm, humid) is like the contiguous established markets of Kentucky and Tennessee, especially in the central and western parts of the Commonwealth, lending itself to similar approaches for barrel matured spirits.

Sales & Production

Virginia distilleries sell a wide range of spirits throughout the Commonwealth. Most start out producing clear spirits, as it circumvents the aging process. They shift towards darker spirits once they have honed their craft. The most widely produced spirit in the state is whiskey, produced by roughly 75% of distilleries, this includes single malt, rye, bourbon, and moonshine. The chart below provides information on what percentage of distilleries produce which categories of spirits.



Distilleries have three options for how to sell their spirits: distillery stores, Virginia ABC stores, or out-of-state retail locations. The total Virginia spirits sales in Virginia were \$7,353,996 in 2017, representing a 287% increase since 2012.



Nearly 50% of all sales are out-of-state. Upon analysis, it is evident that large and medium sized distilleries represent the majority of out-of-state sales, with some of these distilleries operating strictly out-of-state, thereby tipping the scale in favor of out-of-state sales. However, nearly 90% of sales by small distilleries are conducted at a distillery store or Virginia ABC store. Virginia distillery out-of-state sales were \$7,218,385 in 2017. Sales at distillery stores were valued at \$3,866,430, while the retail value of sales at Virginia ABC stores were \$3,487,566. Total 2017 fiscal sales for Virginia distilleries were \$14,572,381.

It is important to further emphasize out-of-state sales. As distilleries mature and scale, they shift their sights to out-of-state markets as opposed to Virginia. As distilleries reach economies of scale, they find it more

lucrative to venture into other states rather than selling the majority of their products in state due to the restrictive margins and excessive regulatory landscape. This will result in a significant loss of potential commerce, tourism, and resulting tax dollars for the Commonwealth from a burgeoning growth sector nationally. Legislative support is vital to ensure the industry continues to grow at this pace. Local spirits currently face many barriers and are severely disadvantaged when competing with the wine and beer industry and out-of-state spirits.

In addition to spirits, distilleries sell merchandise and non-alcoholic beverages. It is estimated that 2017 sales were approximately \$2,021,388, a 42% increase since 2016.

Employment, Wages & Benefits

The Virginia spirits industry employs 215 full-time and 259 part-time employees, totaling 474 direct employees. This is an increase of 37% and 45%, respectively, since 2016. Adding the impact pending distilleries will create once they are up and running, it is estimated that the industry will have 233 full-time employees and 280 part-time employees, totaling 513 direct employees in 2018. Virginia distilleries paid direct employees' wages totaling \$11,845,511 in 2017, an increase from \$5,722,909 in 2016. These large year over year increases stem from new distilleries opening in the state but also current distilleries continuing to grow and mature. With more tourism and tastings being offered, distilleries need more employees to help with the increased demand.

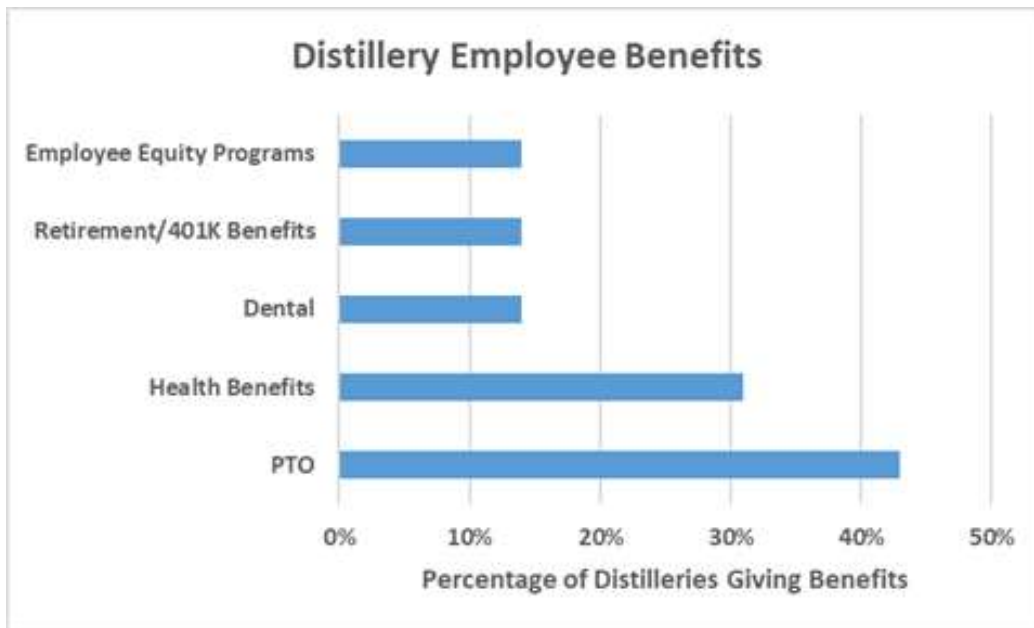
Direct Employees & Wages						
	Total Employees	FTE	PTE	Total Wages	FTE Wages	PTE Wages
2017	474	215	259	\$11,845,511	\$9,755,583	\$2,089,927
2016	335	157	178	\$5,722,909	\$4,684,595	\$1,038,314

The output and expenditures of this industry also supports jobs and wages in other local industries. The true number of full-time-equivalent jobs this industry created is 1,477, while paying \$60,349,535 in wages in 2017, an increase of 51% and 69%, respectively since 2016. Growth in the Virginia distilled spirits industry has an indirect growth on other industries such as Virginia agriculture, hotels, restaurants, tourism, and more. The Virginia distilled spirits industry brings tourists into the state that spend money in multiple industries and indirectly create jobs in other aspects.

Total Employment Impact		
	Full-Time Equivalent Jobs	Wages
2017	1477	\$ 60,349,535
2016	975	\$ 35,777,024

Virginia distilleries also provide numerous benefits to their employees, such as retirement, dental, health, and paid-time off.

The distilled spirits industry provides highly-skilled manufacturing jobs. Additionally, distilleries provide dozens of skilled jobs that pay livable wages and invest in local employees from nearby/rural communities as



often as they can. Many distilleries responded stating they would immediately hire multiple full-time employees if Virginia ABC's pricing structure provided more flexibility for Virginia producers.

State Revenue and Taxes Generated

The tax discussion with the distilled spirits industry is a complex one. The industry paid approximately \$16,529,207 in federal taxes, including excise taxes, income etc., and \$17,447,894 in state taxes, including property, payroll, sales etc., in 2017. Not only do distilleries pay normal business taxes; they also generate revenue for the state through excise taxes on spirits. In 2017 alone, sales of Virginia distilled spirits supplied Virginia ABC with \$1,450,977 worth of excise taxes. With Virginia being a control state, the distribution and retailing of spirits is entirely controlled by Virginia ABC, therefore, the state has full control of the markup on a bottle of spirits. This gives Virginia ABC the ability to pass the markup directly onto the consumer, along with an excise tax.

The Virginia ABC price structure raises the price per case from the distilleries to consumers by 116%. Assuming a distillery sells a case (12 bottles) of spirits to Virginia ABC for \$180.00 (\$15.00 per bottle), the price structure increases the final price to consumer to \$388.66 per case (\$32.39 per bottle) for product sold at Virginia ABC stores.

To break this price structure down on each case, Virginia ABC adds a Warehouse Handling Fee of \$2.00 per case. Furthermore, Virginia ABC marks up the case at 69% of the original case price and handling fee. This comes to a markup of \$125.58, raising the case (12 bottles) price to \$307.58. From there, ABC applies a 20% excise tax to the case price after the markup. The 20% excise tax adds \$61.52, bringing the case price to \$369.10. Then an average 5.30% sales tax is applied, increasing the case price by \$19.56 to \$388.66 a case, or \$32.39 per bottle.

PRICE STRUCTURE				
	Per Case	Per Bottle	Calculation	Case Equation
Case From Distiller to ABC	\$ 180.00	\$ 15.00		
ABC Warehouse Handling	\$ 2.00	\$ 0.17	\$ 2.00	\$180 + \$2
New Price	\$ 182.00	\$ 15.17		
ABC Markup	\$ 125.58	\$ 10.47	69%	\$182 * 69%
New Price	\$ 307.58	\$ 25.63		
VA Excise Tax	\$ 61.52	\$ 5.13	20%	\$307.58 * 20%
New Price	\$ 369.10	\$ 30.76		
Sales Tax at Checkout	\$ 19.56	\$ 1.63	5.3%	\$369.10 * 5.3%
Final Price to Consumer	\$ 388.66	\$ 32.39		

For every spirit sold out of a distillery store (which is considered a Virginia ABC store), Virginia ABC makes a profit of 40.52% because the distillery bears the costs of overhead and employees. Virginia ABC makes a 35.03% return on all Virginia spirits sold out of traditional Virginia ABC stores. In 2017 Virginia ABC received \$7.35 million in sales revenue from Virginia spirits, equating to roughly \$1.5 million in adjusted net profit, \$818,166 of the profit coming from Virginia distillery stores and \$681,834 coming from Virginia ABC stores.¹

Tourism

The Virginia distilled spirits industry is a significant tourism driver for the Commonwealth. In 2017, 296,741 people visited Virginia distilleries: a 55% increase from 191,124 in 2016. Visitors were mainly from Virginia as opposed to from surrounding states. Seventy percent of all distillery visitors are Virginia residents, whereas 30% reside out-of-state. With further promotional support for the industry, the state will uniquely benefit from an industry that has the potential to increase out-of-state visitation.

Tourism				
	In-State Visitors	Out-of-State Visitors	Direct Expenditures	Total Expenditures
2017	206,463	90,728	\$13,860,388	\$46,885,039
2016	132,978	58,146	\$8,951,314	\$30,197,434

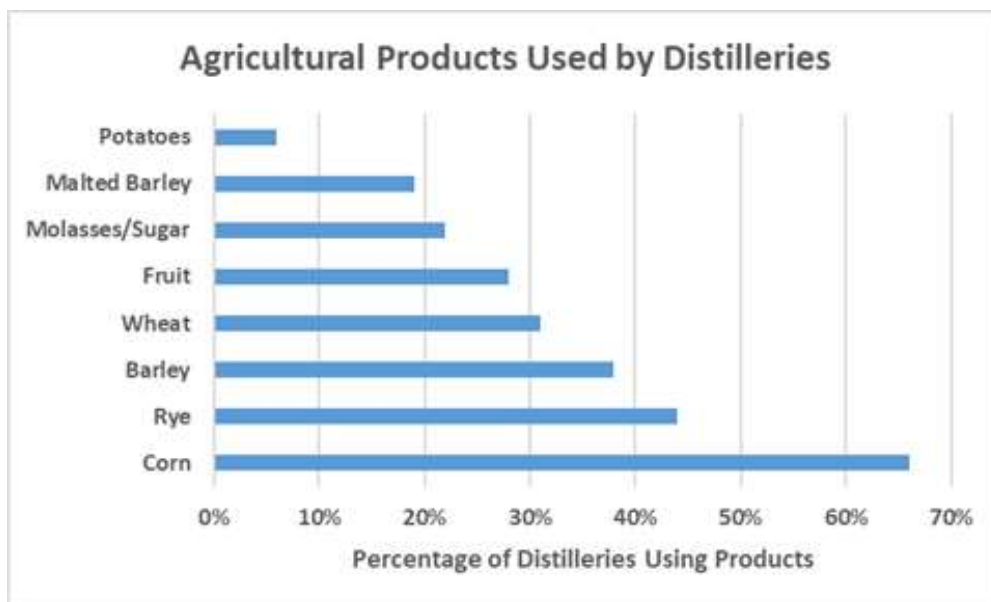
Visitors spend directly \$47 on average at the distillery, in the form of bottle purchases, samples, cocktails, tours or merchandise. Direct tourism expenditures accounted for roughly \$13,860,388 in 2017, a 52% increase from 2016. Distillery-related tourism also impacts many other business such as restaurants,

¹ Virginia Department of Alcohol Beverage Control. Retrieved January 14, 2018 from Virginia ABC Website: <https://www.abc.virginia.gov/library/about/pdfs/2017ar.pdf?la=en>

hotels, shopping centers, museums, etc. Therefore, to fully assess the true impact the craft spirits industry on tourism in the Commonwealth, it is important to quantify the indirect effects. The Virginia Tourism Corporation estimated that people visiting Virginia wineries, breweries, or distilleries, typically spend an average of \$110 per day² in Virginia (e.g., lodging, restaurants, cultural destinations) in addition to any expenditures at wineries, breweries, or distilleries. This indirect effect, coupled with direct expenditures at distilleries, gives the distillery industry a total tourism impact valued at \$46,885,039 in 2017, a 55% increase from 2016.

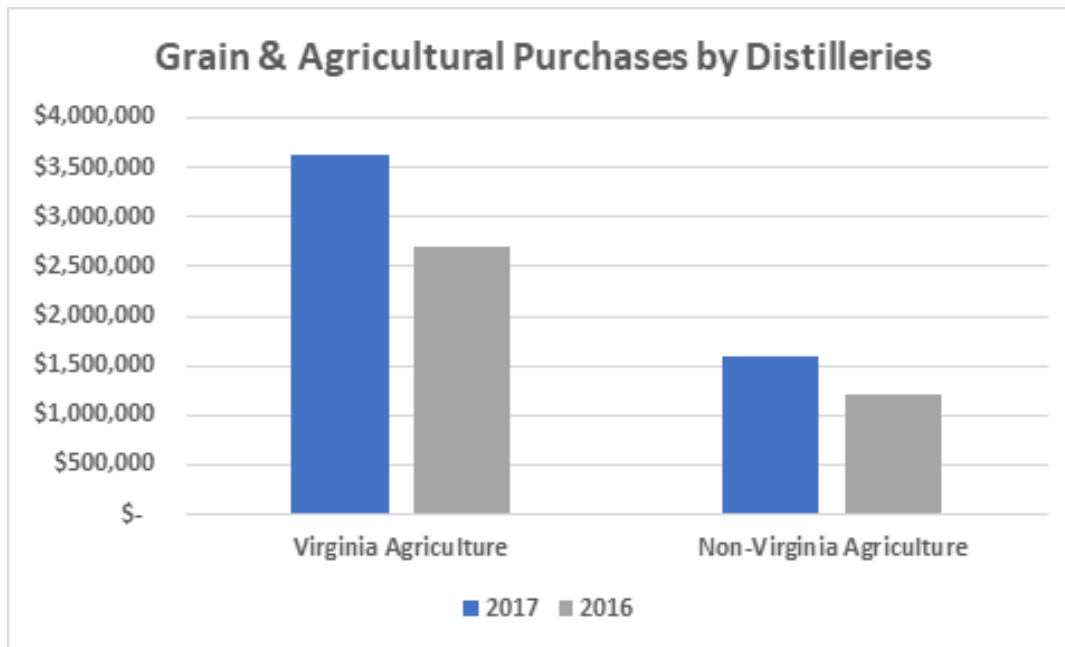
Agriculture Impact

Distilleries utilize a significant, and diverse types of agriculture in their distillation process to create Virginia spirits, with more and more using primarily Virginia agriculture. The chart below lists each agricultural product and the percentage of distilleries that use it in production.



Distilleries purchased roughly \$5,240,333 worth of grain and agricultural products in 2017, which is a 33% increase from 2016. Seventy percent of all grain and agricultural products used in production are sourced from Virginia farms. In 2017, Virginia distilleries purchased \$3,636,544 worth of grain and agricultural products from Virginia farmers, a 34% increase from 2016. As Virginia spirits sales continue to grow, the indirect effect on Virginia agriculture will undoubtedly increase as well. This has the potential to benefit Virginia farmers in ways such as increasing the demand, and thus, prices of Virginia grains.

² Calvert, E. (n.d.). Virginia Winery/Distillery/Brewery Tour Visitor Profile (Rep.). Retrieved December 02, 2017, from Virginia Tourism Corporation website: file:///C:/Users/emsta/Downloads/Virginia%20Winery-Distillery-Brewery%20Tour%20Visitor%20Profile%20(3).pdf



Not only do distilleries try to buy raw materials locally, they recycle the spent grain (grain used in the production process) by selling or donating it to Virginia farmers for use in their agriculture or livestock operation. It is estimated that 70% of all grain used in production is recycled back to local Virginia farms.

Capital Investment

The distillation business is capital intensive due to costs of production facilities, equipment, warehousing, and the aging periods for certain categories of spirits. These necessary expenses can be a strain for spirits entrepreneurs, who must also have the technical knowledge needed to effectively produce a spirit worth consuming.

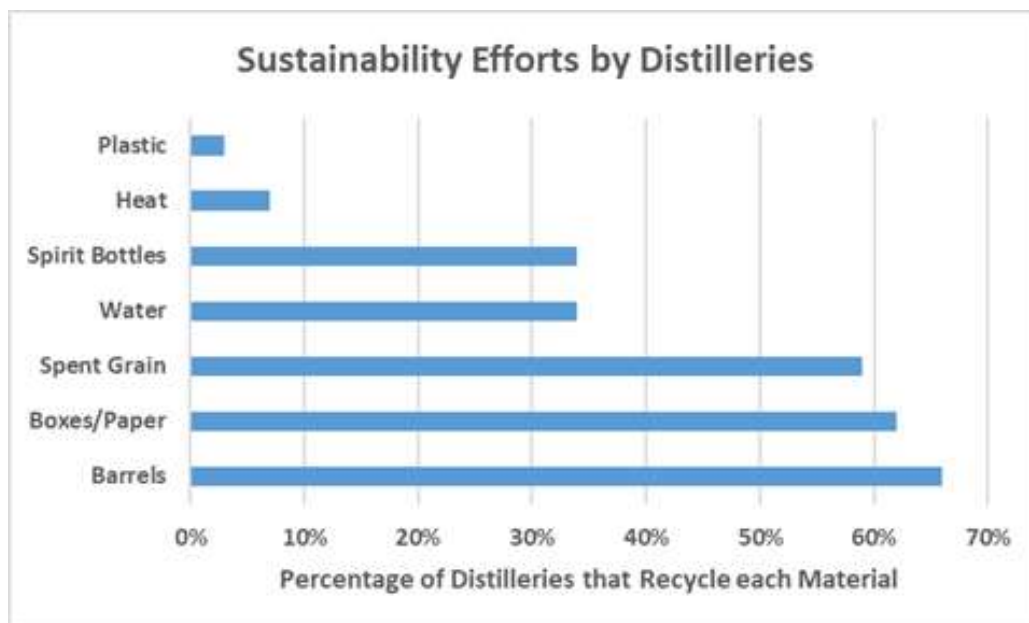
Over the past three years, Virginia distilleries invested \$67,268,409 into their businesses: \$5.6 million for land, \$16 million for production facilities, \$24.5 million for equipment, and \$24.5 million for various other investments such as warehousing, tasting rooms, and administration. For future investment, the industry plans to spend roughly \$85,755,333 over the next 3 years. This will include everything from establishing new distillery stores, buying larger stills, bottling equipment, new fermenters, boilers, and any other general plant upgrades. These are important numbers because they quantify distilleries' willingness to invest in Virginia.

Capital Investment - Past 3 Years				
Total Investment	Land Investment	Production Facilities	Equipment	Other
\$ 67,268,409	\$ 5,662,348	\$ 16,001,515	\$ 24,542,803	\$ 24,578,409

Capital Investment - Next 3 Years
\$85,755,333

Sustainability Metrics

Distilleries make a conscious effort to dispose of production materials in an environmentally friendly manner. Distilleries recycle to local farms 70% of all agricultural products used in production. This is important because it completes the lifecycle of these agricultural products, so they are managed in a sustainable way. Sixty-six percent of distilleries recycle barrels used for aging. Many distilleries give/sell the barrels to local wineries or breweries who repurpose them for use in their own production.



Community Engagement

The pride Virginia distillers felt towards their local communities was a repeated theme in the survey responses. There is enthusiasm within the industry in leveraging their operations to support local businesses as much as feasible. Seventy-four percent of all distilleries give back to the community in the form of donations or volunteer hours. Many distilleries host events with the proceeds solely dedicated to local charities. One farm distillery gives away 50% of the farm produce to local food banks.

Qualitative Insights

The final part of the survey was intended to allow for open-ended feedback and input from the distilleries, both in terms of how they additionally impact Virginia in ways not captured by the standard analysis questions, and what creates challenges for them.

Impediments to Success

For qualitative analysis, we asked Virginia distilleries “*What creates the biggest impediments to your success?*” This was essential for better understanding the impacts of taxation, the Virginia ABC pricing structure / markups, general Virginia ABC regulations, limited market access, lack of marketing support and more. Through our qualitative analysis, the biggest impediment to distilleries’ success in Virginia is Virginia ABC’s pricing structure (including the 69% markup and 20% excise tax), as it is viewed as suffocating to the industry.

The second greatest impediment expressed by Virginia distillers is the general regulatory environment under the Virginia ABC. There is a clear sense that the industry feels disenfranchised, and that Virginia ABC lacks sensible support for Virginia distilleries as it relates to internal policy measures. An example expressed by numerous distilleries is that they would benefit greatly from differential pricing at their distilleries versus Virginia ABC stores, so they can obtain reasonable profit margins to offset the costs of distillery store operations. Another example given was that Virginia ABC has dedicated Virginia wine sections in all of their stores. This is despite the fact Virginia wines are also readily sold through the free market in Virginia (wholesalers, retail shops, grocery stores, etc.). Surprisingly, only one-third of Virginia ABC stores have dedicated Virginia spirits sections.

The third greatest impediment to Virginia distillers is limited market access within the Commonwealth. Virginia ABC is the sole wholesaler / retailer for distilleries in the Commonwealth. If a product is unable to be listed through Virginia ABC, it's highly likely they will be rejected by other control markets, since a common prerequisite for selling in other markets is sales performance in Virginia. The Commonwealth directly and indirectly limits market access for Virginia distilleries both in state and out of state when they option not to list a Virginia spirit.

Additional Contributions to Virginia's Economy

The survey also gave distilleries the opportunity to highlight any areas in which they contribute to the Virginia economy that were not captured in the quantitative analysis. One interesting takeaway from this section was responses concerning tourism impacts on local communities. Many distilleries were adamant about how their distillery provides a significant tourist destination that is vital to spurring local, sometimes depressed, economies. Distilleries also partake in numerous educational endeavors by teaching consumers the history and art behind distilling spirits, especially as it relates to Virginia's heritage as the birthplace of American spirits.

V. STATE REGULATORY ANALYSIS

This section analyzes other states' craft spirits industries to understand both the regulatory framework and economic impact created for their respective state. The objective is to identify best regulatory practices that permit the industry to prosper, which could be applied to Virginia's industry.

Seven states were analyzed, plus the District of Columbia. They include: Kentucky, Tennessee, California, Oregon, Washington (state), Pennsylvania, New York and the District of Columbia. California and New York are the two biggest states in terms of the number of active distilleries. Kentucky and Tennessee have a deep history in the spirits industry, specifically whiskey and bourbon. Oregon and Pennsylvania are control states, and DC is significant in terms of regional location to Virginia.

This analysis includes research of the entire regulatory framework of the craft spirits industry in each state. General permitting requirements throughout the supply chain, excise taxes, bottle markups, market and consumer access, and any notable changes in the last five years were analyzed. Examining the growth in number of distilleries, employee and wage data, and sales and production metrics was imperative. Below are some takeaways from each state and how they compare to Virginia.

State	Control	No. of Distilleries	State Excise Tax/Gallon	Retail Opportunity	Tasting Limits	On-Site Sales
Virginia	Yes	57 active, seven pending	\$30.88	Virginia ABC store	3 oz.	Bottles, merch, and cocktails
Kentucky	No	52 (27 craft)	\$7.74	County-by-county basis	1.75 oz.	Bottles & merch, no cocktails
Tennessee	No	55	\$4.46	Licensed liquor Store	Unknown	Bottles, merch, and cocktails
California	No	148	\$3.30	Drug / grocery store, gas station, liquor store etc.	1.5 oz.	Bottles, merch, and cocktails
Oregon	Yes	53 in 2016	\$22.78	State agency store	2.5 oz.	Bottles, merch, and cocktails
Washington	No	110	\$31.48	Drug / grocery store, gas station, liquor store etc.	2 oz.	Bottles & merch, no cocktails
Pennsylvania	Yes	82 active, 16 pending	\$7.27	State liquor store	1.5 oz.	Bottles, merch, cocktails, and other alcohols
New York	No	123	\$6.44	Licensed liquor store	No tastings	No bottles, merch or cocktails
District of Columbia	No	10	\$5.69	Licensed liquor store	3 oz.	Bottles, merch, and cocktails

Virginia

Virginia is a control state, meaning the entire spirits supply chain is directly controlled by the state government. The governing body is called the Virginia ABC (Department of Alcohol Beverage Control) and it assumes the role of distributor or wholesaler, and retailer for all spirits. This is a very lucrative practice for the state as Virginia ABC sets markup prices and receives a high rate of return on the retail sales of spirits. The state marks up each bottle by 69%, while also charging an excise tax of 20%; the second highest excise tax in the US. This is a recipe for success in terms of tax revenue generation for the Commonwealth, but stifles Virginia distilleries, which operate in a capital intensive, low margin environment.

This price structure also makes it difficult for distilleries to promote and sell products. Every sale goes directly through Virginia ABC, whether the product is sold at the distillery store or at a local Virginia ABC store. All spirits must be sold through Virginia ABC before they can be sold to a consumer. This relationship permits distilleries to sell their product only at a Virginia ABC store, as opposed to supermarkets, specialty retailers or gas stations, severely limiting their access to consumers. Distilleries are allowed to sell directly to restaurants, thanks to regulatory changes that went into effect in 2017. However, there are additional challenges presented when selling direct. When a distillery sells directly to a restaurant or bar in the Commonwealth, that sale is

counted as a sale at their distillery store – which then downplays their performance when it comes time for Virginia ABC to review products for delisting in their stores.

Distilleries are permitted to sell their product directly to consumers if they have a tasting room. This provides a boost to the business as they can sell drinks, bottles, merchandise, while also providing tours and tastings, limited to 3 oz. per customer for on-site consumption. Although distilleries can offer tastings, they must purchase their own bottles for sampling from Virginia ABC at retail price, instead of offering a bottle at production cost, thereby forcing some distilleries to charge for samples. Distilleries can host social events on-site at the distillery and participate in off-site social events or festivals where they can offer tastings and sell drinks and bottles³⁴.

Another challenge facing distilleries is the enforcement of the food-beverage ratio in Virginia. Currently, Virginia ABC regulations stipulate that a business with a mixed beverage license, i.e. restaurants, bars etc., must receive at least 45% of its sales from food and non-alcoholic beverages. Therefore, allowing alcohol sales to comprise no more than 55% of total sales. It is imperative to note that these alcohol sales are only comprised of spirits, not wine or beer. This ruling discourages restaurants from selling spirits. Restaurants have additional hurdles to supporting Virginia spirits due to their price points. Being craft, or local, means that cost of goods sold are higher; and after the state imposed pricing structure is added, local spirits often mean “premium price points.” This indirectly encourages Virginia restaurants to purchase less expensive, commercial spirits, versus Virginia craft spirits.

Although the control, outlined above, creates barriers to success, the craft spirits industry has seen a boom in growth in recent years. The industry has grown from 12 distilleries in 2012 to 57 distilleries in 2017, with seven pending applications for new distilleries. As stated above, the spirits industry has grown its economic footprint exponentially in the past few years. This growth has created excitement around the industry that will lead to greater success. Most recently, sales increased 70% at distilleries year-over-year in September 2017, driven by the statewide promotional campaign for September Virginia Spirits Month⁵.

Kentucky

Kentucky has a deep and rich history in the spirits industry, most notably whiskey and bourbon. However, the industry is dominated by heritage distilleries including Jim Beam, Maker’s Mark, and Wild Turkey, leaving little room for craft distillers to thrive and prosper. This is an important distinction to make, as Virginia’s industry consists entirely of craft distilleries. Kentucky is a non-control state with private wholesalers and retailers, creating a more competitive marketplace in which a high mark-up is typically not involved. Kentucky charges an excise tax of \$7.74 per gallon, the 17th highest in the US, along with an 11% wholesale tax.⁶

Kentucky takes a localized approach to where alcohol can be sold. It is generally decided on a county-by-county basis whether the local population believes alcohol should be sold there, typically by a ballot vote. This has created a unique situation where approximately 35 counties throughout the state are wet, with 20 being completely dry, not allowing the sale of alcohol. While this situation has not hindered the well-established heritage distilleries, it certainly limits the smaller craft distilleries access to the marketplace, creating potential barriers to entry. Distilleries are only allowed to sell direct to licensed wholesalers or consumers in the tasting room. They can charge for tours, tastings, cocktails, merchandise, and sell up to six bottles daily to a customer.

³ Virginia ABC Handout (Rep.). (n.d.). Retrieved November 12, 2017, from NABCA website: [file:///C:/Users/emsta/Downloads/VA%20ABC%201%20Pager%20\(1\).pdf](file:///C:/Users/emsta/Downloads/VA%20ABC%201%20Pager%20(1).pdf)

⁴ Distillery Regulatory Analysis (Rep.). (n.d.). Retrieved October 13, 2017, from American Craft Spirits Association website: [file:///C:/Users/emsta/Downloads/ACSA%20Reg%20Sheet%20-%20MI%20-%20WY%20\(2\).pdf](file:///C:/Users/emsta/Downloads/ACSA%20Reg%20Sheet%20-%20MI%20-%20WY%20(2).pdf)

⁵ Trail, D. (2017, October 20). 2nd Annual Virginia Spirits Month Crushes It – Craft Spirits Sales Up 70%. Retrieved November 14, 2017, from http://www.distillerytrail.com/blog/2nd-annual-virginia-spirits-month-crushes-craft-spirits-sales-70/#.Weo_kyVBjw4.facebook

⁶ Summary of State Laws & Regulations Relating to Distilled Spirits (Rep.). (2014, September). Retrieved November 9, 2017, from Distilled Spirits Council of the US website: [file:///C:/Users/emsta/Downloads/37th%20Edition%20of%20the%20Summary%20\(1\)%20\(3\).pdf](file:///C:/Users/emsta/Downloads/37th%20Edition%20of%20the%20Summary%20(1)%20(3).pdf)

Distilleries are also allowed to host events on-site and can host events or festivals off-site where they can provide tastings but not sell the product.⁷

The heritage distilleries hugely impact Kentucky's economy, creating more than 4,300 direct jobs, 11,000 indirect jobs, annual payroll of \$800 million, resulting in a total economic impact of \$8.5 billion. The number of distilleries in Kentucky has grown from 19 distilleries in 2009 to 52 in 2016, with 27 of those being craft distilleries. These craft distilleries employ 200 people while paying wages of \$5.5 million and producing 9,500 barrels in 2015 valued at \$8 million with 64,400 barrels in inventory. They generated 153,513 tourism visits, tour sales of \$325,000, and gift shop sales of \$1.7 million. Craft distilleries support local farmers by purchasing 15 to 20 million bushels of corn⁸.

Kentucky excels at promotion and organization of its Bourbon Trail winding throughout the state, taking visitors to a wide variety of distilleries. In 2016, approximately 2.5 million visitors stopped along the Bourbon Trail, creating a major tourism driver to the state.⁹

Kentucky is a big player in the entire spirits industry given the size of its heritage distilleries, however, most current regulations seem to be more generous to the heritage players as opposed to supporting the local craft distilleries.

Tennessee

Like Kentucky, Tennessee is a state with deep tradition in the whiskey industry. Prior to prohibition, Tennessee had several hundred distilleries, with nearly 60 surrounding Nashville alone. However, like most states, the industry hasn't been the same since prohibition. Tennessee is a unique state because until 2009, there were only three distilleries in the state. There was an arcane law that only allowed distilling to take place in three counties in the state, all but eliminating any competition in the industry. This of course benefited only the three distilleries which happened to be large players, one being Jack Daniels. In 2009 a law was enacted legalizing distilling in a total of 41 counties, instantly creating excitement around the industry while spurring growth. There are approximately 55 distilleries throughout the state in 2017, with most being craft distilleries. The state's spirits exports were valued at \$651 million in 2015, largely from Jack Daniels.¹⁰¹¹

Tennessee is also a non-control state with private wholesalers and retailers. Tennessee has one of the lowest excise taxes on spirits at \$4.40 per gallon. Tennessee distilleries can sell direct to licensed wholesalers or consumers in the tasting room. Distilleries can charge for tours, tastings, cocktails, merchandise and sell no more than five gallons (25 750 mL bottles) to a customer daily. Distilleries can hold festivals and events on-site, while also attending off-site festivals where they can give tastings and sell bottles and cocktails. Tennessee allows distilleries to participate in 15 festivals or events a year. Retail establishments in Tennessee are generally alcohol stores, as opposed to grocery stores or gas stations. Distillery licenses are \$1,000.¹²

⁷ Este, B. (2016, July 4). Legal alcohol sales spread in Kentucky as economy, laws and attitudes change. Retrieved November 11, 2017, from <http://www.kentucky.com/news/state/article87501707.html>

⁸ Kelly, J. (2017, January). The Economic and Fiscal Impacts of the Distilling Industry in Kentucky (Rep.). Retrieved November 10, 2017, from Kentucky Distillers' Association website: [file:///C:/Users/emsta/Downloads/Kentucky-Bourbon-Economic-Impact-Study-2017-Final%20\(4\).pdf](file:///C:/Users/emsta/Downloads/Kentucky-Bourbon-Economic-Impact-Study-2017-Final%20(4).pdf)

⁹ Kentucky bourbon trail sees record 1 million visitors. (2017, January 26). Retrieved November 30, 2017, from <http://www.foxnews.com/food-drink/2017/01/26/kentucky-bourbon-trail-sees-record-1-million-visitors.html>

¹⁰ Yeldell, C. (n.d.). Ground zero for whiskey: Law allows production of distilled spirits in state. Retrieved November 20, 2017, from <http://archive.knoxnews.com/business/ground-zero-for-whiskey-law-allows-production-of-distilled-spirits-in-state-ep-409860713-359327571.html>

¹¹ The Rise Of The Tennessee Craft Whiskey Industry. (2016, March 04). Retrieved November 16, 2017, from <https://thewhiskeywash.com/whiskey-styles/american-whiskey/the-rise-of-the-tennessee-craft-whiskey-industry/>

¹² Distillery Regulatory Analysis (Rep.). (n.d.). Retrieved October 13, 2017, from American Craft Spirits Association website: [file:///C:/Users/emsta/Downloads/ACSA%20Reg%20Sheet%20-%20MI%20-%20WY%20\(2\).pdf](file:///C:/Users/emsta/Downloads/ACSA%20Reg%20Sheet%20-%20MI%20-%20WY%20(2).pdf)

While Tennessee failed to support this industry until 2009 with outdated prohibition-style regulations, the current regulatory framework has quickly brought this industry up to speed with other states and will take advantage of a thriving US craft spirits industry.

California

California is also a non-control state. This means distillers are required to sell to wholesalers who then sell to the retailer. This system prevents the direct distribution of spirits from the distiller to the retailer and requires a middleman. Smaller distillers often find it difficult to market products through wholesalers, which creates another barrier to entry. Aside from creating barriers to the distilling industry, wholesaling - moving and transporting alcohol products - is a highly labor-intensive business. For every \$1.00 spent on labor, wholesalers spend an additional \$0.07 on capital investment.¹³

The state imposes an excise tax of \$3.30 per gallon on liquor, compared to the \$0.20 tax per gallon on wine, beer, and cider. California currently has 148 active distilleries, and that number is expected to grow substantially in the coming years, especially due to the California Craft Distillers Act of 2015¹⁴.

As of 2016, the California Craft Distillers Act of 2015 came into effect allowing tastings, tours, and merchandise sales on-site at distilleries during open hours and private events. Furthermore, during private events, distillers can sell spirits on-site, which is a major departure from the previous regulatory environment. The law also increased the size of tastings from six servings of quarter ounce drinks, to a single 1.5 ounce tasting. These tastings can either be pure spirits or mixed drinks. This range of choices aids in attracting a wider range of customers¹⁵.

These looser regulations have increased on-site distillery customer traffic between 30% and 40%, which has helped transform distilleries into a more social environment. More customer visitation leads to more tastings, tours, bottle and merchandise sales¹⁶.

Oregon

Oregon has a rich and continuing history in the brewing industry. Its largest city, Portland, is known as the 'Nation's Microbrew Capital,' and the craft beer industry has flourished over the past few decades. In contrast, the sale and distribution of spirits in the state is far more suppressed.

Like Virginia, Oregon is a control state, regulated under the Oregon Liquor Control Commission (OLCC). The OLCC is responsible for the sale and service of alcoholic beverages through the administration of Oregon's Liquor Control Act. Five citizen commissioners appointed by the governor for four-year terms set policy for the OLCC.¹⁷

¹³ Alcohol Problems and Solutions. (n.d.) *Three-Tier System of Alcohol in U.S. Causes Competing Interest of Producers, Distributors & Retailers*. Retrieved December 13, 2017, from

<https://www.alcoholproblemsandsolutions.org/three-tier-system-of-alcohol/>

¹⁴ California Department of Alcoholic Beverage Control. (n.d.) Retrieved December 13, 2017, from <http://www.abc.ca.gov/>

¹⁵ California Artisanal Distillers Guild. (n.d.) Retrieved December 13, 2017, from <https://www.cadistillers.org/>

¹⁶ California State Board of Equalization. (n.d.). *Alcoholic Beverage Tax Program*. Retrieved December 13, 2017, from <https://www.boe.ca.gov/sptaxprog/alcoholfaq.htm>

¹⁷ Oregon NABCA. (n.d.). Retrieved from <http://www.nabca.org/sites/default/files/assets/files/Oregon.pdf>

As a control state, spirits are sold exclusively through retailers operated by state appointed liquor agents, who act as private independent contractors. There are 248 retail liquor stores in Oregon, which employ over 1,000 people across the state. These independent retailers are paid commissions for sales. Sales can include tastings, drinks, bottles, and merchandise that are sold with a Special Events Distillery Permit (\$25 day).

When it comes to the OLCC impacting distilleries, Oregon has the third highest excise tax in the United States: \$22.72 per gallon. In contrast, Oregon's excise per gallon of beer is \$0.08, and \$0.07 per gallon of wine.¹⁸ In addition to the excise tax, there is the state markup per bottle of distilled spirits. Overall, there is 51% markup from a distiller's manufacturing cost: 8.88% Liquor Store Operating Commission, 5% OLCC operating expense, and 37% profit for state, cities, and counties.¹⁹

In 2010 there were only 10 distilleries in the state, compared with 53 distilleries in 2016. During this six-year period, employment rose by 123%. Analysts believe the growth in popularity of craft distilleries is mirroring the craft beer revolution of the 1980s.²⁰ Oregonians are now getting a taste for these local spirits, and are expanding their horizons to include more and more local distilleries.

Washington

Washington State has experienced significant changes in the craft spirits industry during the last decade. To be considered a craft distiller in WA, you must produce less than 150,000 gallons of spirits annually. The state was open to embracing distilleries, as both microbreweries and wineries had already been very popular. Until 2008 there were no craft distilleries in the state. In 2008 the initial 'friendly' legislation for craft distilling passed and the state's first craft distillery, Spokane's Dry Fly Distillery, opened. However, Washington was still restricted by regulations on tastings. Customers who wanted to sample the vodka or whiskey produced at a distillery would have to be directed to a bar nearby that carries their product.²¹

To aid in jump-starting the local distilling industry, Washington legislators passed legislation that not only benefited Washington distillers, but incentivized them to utilize local agriculture in the production of their spirits. In 2008, distilleries received tax breaks based on product sourcing. For example, craft distilleries producing a spirit consisting of at least 51% of local agricultural products could obtain a \$2,000 license for only \$100.

Washington State is regulated by the Washington State Liquor and Cannabis Board. The tax rate is \$31.48 per gallon, the highest in the nation, with 20.5% sales tax and spirit tax of \$3.77 per liter. In contrast, there is an excise tax of \$0.26 per gallon of beer, and \$0.87 per gallon of wine. Craft distilleries are permitted to give tastings, tours, sell bottles and merchandise. Though no alcohol can be consumed at the distillery, producers can have a tasting room physically separate from the production site.²²

¹⁸ Tax-Rates.org – The 2017 Tax Resource. (n.d.). Retrieved December 13, 2017, from <http://www.tax-rates.org/oregon/excise-tax#LiquorTax>

¹⁹ Oregon Liquor Control Commission Agency Overview. (n.d.). Retrieved December 13, 2017, from http://www.oregon.gov/olcc/docs/communications/retail_innovation.pdf

²⁰ Quality Information, Informed Choices. (n.d.). Retrieved December 13, 2017, from <https://www.qualityinfo.org/-/distilling-in-oregon-a-small-yet-growing-component-of-the-state-s-craft-beverage-industry>

²¹ Vinh, T. (2015). The boutique booze boom in Washington. Retrieved from <https://www.seattletimes.com/entertainment/the-boutique-booze-boom-in-washington-3/>

²² Camden, J. (2014). Washington leads growing industry of craft distilleries. Retrieved from <http://www.spokesman.com/stories/2014/apr/13/washington-leads-growing-industry-of-craft/#/0>

In 2012, Washington voted to privatize, and was no longer one of the 18 control states/markets in the nation. The number of locations where alcohol is available for purchase increased significantly because of the regulation change. Locations where alcohol is sold increased from 329 to over 1,400 in 2014.²³ The number of micro-distilleries grew from zero to 110 from 2009 to 2015. The state capitol, Seattle, has more microbreweries than anywhere in the country.²⁴

Pennsylvania

Pennsylvania is a control state regulated under the state's Liquor Control Board. Currently there are 82 active distilleries in Pennsylvania and 16 distilleries with pending licenses. At these distilleries, the state permits owners to have spirit tastings, tours, and sell merchandise. Additionally, distilleries can hold events on site, where they can sell spirits, wine, and beer.

For distillers to obtain a license to manufacture and sell their products, they must first go through a few steps with the Liquor Control Board. The vendor's license required to sell liquor to the Liquor Control Board entails a \$700 application fee, plus a \$30 initial fee. To renew this license, distillers must pay a \$295 annual fee to the state. In addition to the vendor license, there are two types of distillery licenses available for sales in the state. If a distillery is producing over 100,000 gallons of spirits per year, the company must purchase the 'full' distillery license, which is \$4,500 per year. For smaller distilleries, those producing less than 100,000 gallons annually, the state requires they purchase a limited distillery license for \$1,500.²⁵

Each gallon of distilled spirits produced is subject to a markup by the state's Liquor Control Board. The state adds an 18% markup to the manufacturing cost, as well as a 6% general sales tax. Pennsylvania's excise tax per gallon of spirits is \$7.27, \$0.08 per gallon of beer, and \$2.50 per gallon of wine.

Lastly, recent regulatory changes in the liquor code were signed into law by Governor Tom Wolf in 2016. One of the major changes is that distilleries can now cross-market spirit products in both breweries and wineries²⁶. Additionally, distilleries can now have up to five locations, up from the previous two. Finally, distilleries can now obtain permits to conduct tastings at farmers' markets and events qualifying as "alcoholic cider, liquor, and food expositions."²⁷

New York

New York is not a control state, but does have the regulatory body of the State Liquor Authority (SLA) that oversees sales and manufacturing of distilled spirits. The SLA's operations are broken down into three offices: New York City (Zone 1), Albany which serves as the agency headquarters (Zone 2), and Buffalo (Zone 3). There are also three divisions in the regulatory body which oversee their respective domains: Licensing, Enforcement, and Wholesale.²⁸

²³ Wilson, R. (2014, June 30). Two years after liquor privatization, booze in Washington state costs more. Retrieved from: https://www.washingtonpost.com/blogs/govbeat/wp/2014/06/30/two-years-after-liquor-privatization-booze-in-washington-state-costs-more/?utm_term=.adbcde4a98c4

²⁴ Vinh, T. (2015). The boutique booze boom in Washington. Retrieved from <https://www.seattletimes.com/entertainment/the-boutique-booze-boom-in-washington-3/>

²⁵ The Tax Compendium. (2017, March). Retrieved December 13, from http://www.revenue.pa.gov/GeneralTaxInformation/News%20and%20Statistics/Documents/Tax%20Compendium/2017_tax_compendium.pdf

²⁶ Norris McLaughlin Marcus, P.A. (2016, June 09). Retrieved December 13, 2017, from <https://www.nmmlaw.com/nmmliquorlawblog/2016/06/09/new-pennsylvania-liquor-code-changes-hb-1690-about-choices/>

²⁷ New Liberty Distillery. (n.d.). *Philly Distillers' Partnership to Bring Changes to Art in the Age, new Liberty Distillery*. Retrieved December 13, from <https://newlibertydistillery.com/>

²⁸ Agency Mission Statement. (n.d.). Retrieved December 13, 2017, from <https://www.sla.ny.gov/agency-mission-statement>

New York Distilleries need either a Class A or Class A-1 license to manufacture and sell products. For Class A, there is no minimum or maximum production volume, while for Class A-1 the maximum production volume is 75,000 gallons per year.²⁹

Because New York is not a control-state, retailers can purchase liquor directly from the distilleries, or through a state-licensed wholesaler. In the state, to obtain a three-year wholesalers' license, companies must pay a \$27,280 one-time fee, as well as post a penal bond in the amount of \$20,000. The license must be renewed every three years in perpetuity.³⁰

Lastly, New York's alcohol taxes are \$0.14 cents/gallon for beer (with an additional \$0.12 cents in NYC), wine and sparkling wine \$0.30 cents/gallon, spirits that are less than 24% alcohol percentage are \$1.70 per liter, and spirits greater than 24% alcohol percentage are \$0.67 cents per liter.³¹

District of Columbia

The District of Columbia is a non-control market regulated by the Alcoholic Beverage Regulation Administration (ABRA). The tax rate is \$1.50 per gallon for spirits. In comparison to other sectors of the industry, the 'light' wine tax rate is \$0.30 per gallon, heavy wine is \$0.40, and the beer tax rate is \$0.09 per gallon. Distilleries can allow customers to sample up to three ounces, and D.C. allows distilleries to hold tasting events at their production sites.

In the last few years, the district has passed regulations which build in more flexibility for distillers. Due to the Manufacturer's Tasting Permit Act of 2013, distillers can conduct product tastings seven days per week, an increase from the previous three days per week limitation. In 2014, D.C. passed the Distillery Pub Licensure Act. This regulation allowed licensees to sell their spirits to patrons for on or off-site consumption.³²

Washington, D.C. stands out because its distilleries can self-distribute. It is the only place in the country where bars/restaurants can purchase alcohol directly from breweries/distilleries. In comparison, other states, like Virginia, require a third-party wholesaler (i.e. Virginia ABC). This is a profitable practice because it gives distilleries and consumers more value out of the product, by effectively reducing the retail sales price.³³

VI. VIRGINIA ALCOHOL INDUSTRY ANALYSIS

In addition to an analysis of the distilled spirits industry in other states, the William and Mary team analyzed the craft beer and wine industries in Virginia to provide similarities and differences between the three. This section is intended to highlight discrepancies in the way these three sectors of alcohol are regulated in the Commonwealth.

There are several factors that needed exploring in these industries, most notably, how differently they are treated under Virginia ABC. As stated above, spirits are completely controlled by Virginia ABC in the 3-tier

²⁹ Distiller's licenses. (2017, December 05). Retrieved December 13, 2017, from <https://www.nysenate.gov/legislation/laws/ABC/61>

³⁰ Distiller's licenses, 2017.

³¹ New York Consumer Tax Laws. (n.d.). Retrieved December 13, 2017, from <http://statelaws.findlaw.com/new-york-law/new-york-consumer-tax-laws.html>

³² SalesTaxHandbook. (2017). District of Columbia: Alcohol Excise Tax. Retrieved from <https://www.salestaxhandbook.com/district-of-columbia/alcohol>

³³ Cornelius, J., Hager, B. (2014). Permit to Distill Liquor Now Available to District ABC Establishments. Retrieved from <https://abra.dc.gov/release/permit-distill-liquor-now-available-district-abc-establishments>

distribution system, however, this is not the case for wine and beer. It is also important to identify the different taxation rates as well as market access for the three sectors. Finally, the team analyzed the economic impact these industries provide the Commonwealth and identified regulations that help support the industries.

Although Virginia is a control state for alcohol, wine and beer are treated differently than spirits. The entire supply chain for wine and beer is completely free of control from Virginia ABC. Unlike spirits, wine and beer can use private distributors or wholesalers to transport the product from the production facility to private retail establishments. This is an enormous difference because it allows for competition between wholesalers and retailers, therefore eliminating the practice of unreasonably high markups on the goods. Consequently, beer and wine operational costs are lower, a plus for consumers, and beer and wine industries are more competitive for out-of-state consumers looking to buy Virginia products. Many consumers in Northern Virginia drive into Washington, D.C. to buy lower cost spirits rather than incurring the ABC markup.

Not only are the wholesalers private, but the retailers are too. Beer and wine are not subjected to selling product only at Virginia ABC stores; they have the freedom to sell at gas stations, grocery stores, supermarkets, specialty boutiques and more. This is an important aspect of this entire system because it gives these producers unlimited access to sell and market to any consumer in Virginia, even someone who has no intentions of purchasing alcohol at that time. It creates awareness around a product.

Though interestingly, Virginia ABC provides dedicated Virginia wine sections in all 360+ of their stores, while choosing to retail no other wines aside from those manufactured in Virginia. Approximately one third of Virginia ABC stores have dedicated Virginia spirits sections, with little support for increasing beyond that. This gives the direct appearance of state favoritism for one beverage industry over another; while providing support for an industry that is flourishing, and stifling an industry that is burgeoning and more highly regulated.

Another important aspect of concern to distilleries is the fact that wineries and breweries can sell as much wine and beer for consumption on-site to customers as they want, whereas distilleries can only provide a total of 3 oz. to customers.

Furthermore, Virginia regulation forces distilleries to pay the markup and excise tax on sample bottles used for tastings on-site. Distilleries pay operational costs to make the sample bottles then must sell them to ABC and buy them back at full retail price. For these sample bottles used at on-site tastings, ABC covers the case handling fee and pays an 8% commission back to distilleries.

In 2017, Virginia distilleries spent \$795,000 on sample bottles resulting in \$358,000 in revenue for ABC. In 2017, the average small distillery in Virginia spent \$12,200 on bottle samples, while the average medium size distillery spent \$45,400. Lastly, the average large distillery spent \$70,000 on sample bottles in 2017. This regulation is specific to the spirits industry. Comparatively, the beer and wine industry pay only the cost to create the product before offering samples on-site.

Industry	Private Distributors	Retail Opportunities	State Excise Tax/Bottle	Revenue Transfers	No. of Event Licenses	Samples	Limitations for On-Site Consumption	Industry Organizations
Distilled Spirits	No	Virginia ABC	\$6.12	30-60 days	4	Retail price	3 oz.	Virginia Distillers Association
Wine	Yes	Grocery stores, supermarkets, gas stations, etc.	\$0.30	No	8	Cost of goods	No	VA Wine Board, VA Wine Board Marketing Office, VA Wineries Association, etc.
Craft Beer	Yes	Grocery stores, supermarkets, gas stations, etc.	\$0.02 / 12 oz. can	No	8	Cost of goods	No	Virginia Craft Brewers Guild
Footnote: The spirits excise tax is an estimate based on an 80 proof spirit bottle that retails for an average price of \$30.59.								
Footnote: Revenue transfers - in the Virginia ABC control system, when a spirit is sold at a distillery store, the distillery must transfer all revenue to the agency for collection, then after 30-60 days VABC will transfer back the distillery's cut on the sale.								
Footnote: When offering samples, distilleries must purchase sample bottles from Virginia ABC at full retail price, as opposed to offering at production cost, like wineries and breweries do. This is one of the most costly expenses distilleries are faced with.								

Wine

Virginia wine is slowly becoming one of the biggest wine industries in the country due to tremendous growth over the past few years. Virginia had several wineries mid-1970s but has grown to levels that put it on par with the top 10 states on the national stage. This industry has greatly benefited from regulations that allow it to thrive and prosper. Virginia wine has always had a loud voice in the legislative process. It is the benefactor of six different non-profit organizations or state boards that advocate on its behalf. This industry has the Virginia Wine Board, the Virginia Wine Board Marketing Office, the Virginia Wineries Association, the Virginia Vineyards Association, the Virginia Wineries Council and the Virginia Distribution Company, all performing different and influential tasks that give this industry a powerful voice. This lobbying and organizational strength has provided the Virginia wine industry with a regulatory framework that supports and promotes it.³⁴

Virginia levies a \$1.50 per gallon excise tax on wine, the 7th highest in the US. Unlike spirits, wineries receive a significant portion of their revenue from direct sales at their wineries. Wineries can charge for tours, tastings, glasses of wine, and sell bottles and merchandise. Virginia wineries can also sell and ship up to two cases of wine, 24 bottles, to either an in-state or out-of-state consumer per month (after receiving the appropriate licensing for shipping out of state). Wineries can hold social events and festivals on-site, and attend numerous events off-site where they can provide tastings and sell product. Due to recently enacted legislation, wineries can now hold up to eight banquet licenses for events and festivals in any one-year period.³⁵ Additionally, Virginia farm wineries have the ability to activate up to five remote licenses in tandem, continually throughout the year. This fosters new and exciting opportunities for market access to consumers (i.e. remote tasting rooms, special events, farmers markets, etc.)

This support, from both the non-profit organizations and the regulatory framework, has benefited this industry greatly. In 2010 Virginia had 163 wineries, as of 2016 there is a total of 261 wineries. This industry contributed more than \$1.37 billion in total economic impact to the Virginia economy in 2015, an 82% increase since 2010. The industry employed 8,212 full-time equivalent employees in 2015, a 73% increase from 2010. Wages rose by 87% over that period, increasing to \$291 million. The number of people visiting wineries grew

³⁴ Reed, S. (2017, January 19). Virginia Wine Industry Contributes Nearly \$1.4B Annually. Retrieved November 23, 2017, from <https://patch.com/virginia/ashburn/virginia-wine-industry-contributes-nearly-1-4b-annually>

³⁵ About. (n.d.). Retrieved November 28, 2017, from [http://wineamerica.org/legis-state/virginiaWine industry regulations](http://wineamerica.org/legis-state/virginiaWine%20industry%20regulations)

by 39%, from 1.6 million to 2.3 million, providing a significant boost to the overall tourism of the state. Wine production grew by approximately 60% from 2010 to 1.7 million gallons.³⁶

Craft Beer

The Virginia craft beer industry has realized staggering growth in recent years, like that of the wine industry. It is evident that this industry tapped into changing consumer preferences that has provided a boom to the craft beer industry throughout the US. What started as a small venture by a group of brewers in the 1980s has developed into an industry with great significance to the economic well-being of Virginia. It appears the craft beer industry is poised to enjoy the same success as the wine industry, as it matures to become competitive on the national stage. This feat has been aided by the sweeping shift in consumer preferences from well-established breweries to local craft breweries; however, the most notable reason is legislative changes that have dramatically allowed this industry to capitalize on the demand seen nationally.³⁷

One important change that accelerated growth in the industry was the passage of Senate Bill 604 in 2012, allowing breweries to sell beer for consumption at the brewery in their tasting rooms. This common-sense law made it more enticing and profitable to open a brewery, fueling growth in the industry. Since the passage of this legislation, there have been numerous changes to the regulatory framework that continue to support the craft beer movement. Along with SB 604, House Bill 359 provides manufacturers the opportunity to lease space in their brew-houses to small-scale brewers, creating unique opportunities for investors with little capital or facilities. Like wineries, breweries are now allowed to hold eight banquet licenses throughout a one-year period.³⁸

Beer in Virginia incurs \$0.26 excise tax per gallon, ranking it in the middle of the pack nationally. Breweries can charge for tours, tastings, and sell beer, growlers and merchandise. Breweries cannot ship direct to consumers or restaurants, as they can only distribute beer to registered wholesalers. Like wineries, breweries can hold events and festivals on-site, while participating in off-site events where they can sell and distribute their product.

This industry has a large economic impact on Virginia, like that of the wine industry. The industry provided \$1.37 billion in economic impact to the state in 2016, up from \$623 million in 2012. The industry is made up of 206 breweries, a 486% increase since 2012, making Virginia the 13th most populous state in terms of number of breweries. Currently the industry employs 10,260 workers with \$486 million wages paid, compared to 8,163 with wages of \$273 million in 2012.³⁹⁴⁰

The craft beer movement in Virginia is very robust; softened legislation is driving entrepreneurs to the state to venture into this industry. Notably, Governor McAuliffe has been courting brewers from Maryland to relocate operations to Virginia, providing them the legislative support they are being denied in Maryland.⁴¹

³⁶ THE ECONOMIC IMPACT OF WINE AND WINE GRAPES ON THE STATE OF VIRGINIA – 2015 (Rep.). (2017, January). Retrieved October 15, 2017, from Virginia Wine Board website: file:///C:/Users/emsta/Downloads/VA%20Wine%20Eco%20Impact%202015%20(3).pdf

³⁷ Thompson, M. (2014, December 15). Making an Impact. Retrieved November 12, 2017, from <http://virginiacraftbeer.com/making-an-impact/>

³⁸ Gibson, S. (n.d.). THE CRAFT BEER CRAZE IS HERE TO STAY. (pp. 1-8, Rep.). doi:http://www.colliers.com/-/media/files/united%20states/markets/richmond/market%20reports/va%20brewery%20report_02.pdf

³⁹ Craft Beer Sales by State. (n.d.). Retrieved December 2, 2017, from <https://www.brewersassociation.org/statistics/by-state/?state=VA>

⁴⁰ Clabaugh, J. (2017, June 16). Va. toasts 200 licensed craft brewers, and growing. Retrieved November 8, 2017, from <https://wtop.com/business-finance/2017/06/14263561/>

⁴¹ Virginia Craft Brewers Guild News. (2017, June 27). Retrieved December 1, 2017, from <http://virginiacraftbrewers.org/news.aspx>

VII. US CRAFT SPIRITS INDUSTRY ANALYSIS

The focal point for this section is to determine how the growth in the distilled spirits industry have changed in the United States. It is important to understand how changes have impacted the economy, as well as to discern in which direction the craft spirits industry is heading. Ideally, Virginia's craft spirits regulations would be either aligned, or more progressive, than that of the overall industry, to attract potential distilleries and encourage the growth of existing distilleries.

In 2013, 23 distilleries founded the American Craft Spirits Association (ACSA). The ACSA represents the entire US craft spirits industry. The ACSA advocates for the overall craft spirits industry, similar to what the VDA does for Virginia. All voting members of the ACSA are independent licensed craft distilleries.

The growth within the US distilled spirits industry can be assessed through the increasing number of craft distilleries. As of August 2017, there are 1,589 craft distilleries in the United States. This is an increase of 21% from August 2016. Based on this growth trend, there could be upwards of 2,800 distilleries in the United States in 2020. Ranked by number of distilleries, the top ten states constitute over half of the US craft distilleries. The top three states are California, New York, and Washington; each maintain over 100 craft distilleries. With 57 distilleries, Virginia has about 4% of total distilleries in the nation. As distilleries grow nationwide, the number of distilleries in Virginia also has potential to grow.⁴²

From 2010 to 2015, US distilled spirits grew at a compound annual growth rate of 27.5% in volume and 27.9% in value. This is reflected in the 24.9 million cases of distilled spirits sold, totaling \$2.4 billion in retail sales, in 2015. Also, 523,000 cases were exported in 2015, demonstrating 10% of additional volume in US distilled spirit sales. In 2016, almost six million cases of spirits were sold, yielding \$3 billion in sales. This demonstrates a 25% sales increase between 2015 and 2016.⁴³ Sales of Virginia distilled spirits in Virginia grew by 287% since 2012.

In the United States, the number of distilleries and the number of cases sold by small, medium and large distillers are increasing. The sections below highlight the distinctions between the different sized distilleries, stemming from the 2016 Craft Spirits Data Project, in conjunction with the American Craft Spirits Association.

In the US distilled spirits industry, small distilleries produce no more than 10,000 gallons annually and tend to only distribute locally. Over 91% of distilleries are labeled as small or craft producers. They are responsible for about 12% of cases sold annually. For these distilleries, direct sales at the distillery store are crucial, as they make up one-fourth of total sales. Nationally, small craft distillers without an on-premise business usually experience a negative cash flow.⁴⁴ From 2010 to 2015, the number of small distilleries grew from hundreds to thousands. In addition, the number of 9-liter cases produced by these small distilleries increased by a factor of four.

Medium distilleries produce between 10,000 and 100,000 gallons of spirits annually. These distilleries mainly distribute regionally, within state or in the surrounding areas. About 60% of the business conducted by

⁴² Schug, D. (2017). Craft spirits market poised to boom. Retrieved from <https://www.foodengineeringmag.com/articles/96987-the-craft-spirits-market-poised-to-boom>

⁴³ Schug, D. (2017). Craft spirits market poised to boom. Retrieved from <https://www.foodengineeringmag.com/articles/96987-the-craft-spirits-market-poised-to-boom>

⁴⁴ Craft Spirits Data Project (Rep.). (2016, October 26). Retrieved October 10, 2017, from American Craft Spirits Association website: <https://www.dropbox.com/s/xlb3ydmx22tfg/Craft%20Spirits%20Data%20Project%20Oct%202016%20102516a%20Final.pdf?dl=0>

medium producers occurs in their home state. The total number of U.S. distilleries grew six fold between 2010 and 2015. The number of cases has also steadily increased.

Large producers are those that produce between 100,000 and 750,000 gallons. These large distilleries only make up 2% of all producers, but they are responsible for 60% of total cases sold. For these producers, out-of-state business is important, as it accounts for 61% of their total sales.⁴⁵ Both the number of large distilleries and the cases they produce are growing rapidly. Large distillers are responsible for the production of millions of 9-liter cases each year, producing over three million cases in 2015.

In addition to contributing to the economy via sales, the growing distilled spirits industry has become a significant source of employment. Between 2014 and 2016 there were almost 50% more full-time jobs in the industry. As the employment numbers continued increasing in 2017, the industry spent \$800 million in wages this year. In 2016, 12,000 individuals were employed full-time in the industry. About two-thirds of this employment is in production facilities and tasting rooms while one-third is in the field. Like Virginia, employee benefits include health insurance, retirement plans, and annual bonuses.⁴⁶ In Virginia, it's important to note the state represents about 1.8% of the full-time national jobs related to the industry, while representing 3.6% of the distilleries nationwide. Greater regulatory support for the local industry will likely result in an increased number of full-time jobs to support the growth of the industry

The nationwide spirits industry is growing and thriving as the number of distilleries and volume sold continues to increase. In addition, the distilled spirits industry is beginning to look increasingly similar to the craft beer industry five years ago. In 2012, the craft beer industry was 6.5% of the market; five years later the market is saturated at 12.3%. Before the distilled spirits industry similarly saturates, it is important that regulations are passed which will keep Virginia distilleries on a strong footing. If Virginia positions itself well it can tap into this boom on the nationwide level. Improving Virginia's current regulations will be key to taking advantage of these inclining trends.⁴⁷

VIII. RECOMMENDATIONS

- 1. Develop and improve a Distillery Tasting Trail to attract more tourists** (i.e., similar to how Kentucky and Tennessee market and operate their respective trails). Both the Kentucky and Tennessee tasting trails attract millions of out-of-state visitors each year, and aid in promoting local spirits. Furthermore, a formal Virginia trail can entice other local businesses to advertise throughout it, driving revenue for both local distilleries and the Commonwealth.
- 2. Lobby the Virginia ABC to provide more support in advertising dollars.** September Spirits Month benefited both Virginia ABC and Virginia distilleries, and served as an important campaign to promote awareness of the Virginia spirits industry. During the month of September, there was a 70% increase in on-site sales for distilleries, as well as a 53% increase at ABC stores throughout the state. Most smaller distilleries are not able to reach a large portion of their potential customers, and their products do not have major brand recognition yet. ABC partnering with the Virginia Distillers Association and the

⁴⁵ Craft Spirits Data Project (Rep.). (2016, October 26). Retrieved October 10, 2017, from American Craft Spirits Association website:
<https://www.dropbox.com/s/xb3ydmxmu22tf/Craft%20Spirits%20Data%20Project%20Oct%202016%20102516a%20Final.pdf?dl=0>

⁴⁶ Craft Spirits Data Project (Rep.). (2016, October 26). Retrieved October 10, 2017, from American Craft Spirits Association website:
<https://www.dropbox.com/s/xb3ydmxmu22tf/Craft%20Spirits%20Data%20Project%20Oct%202016%20102516a%20Final.pdf?dl=0>

⁴⁷ Shoup, M. (2017). *US craft spirit industry on the rise as producers double on-premise investments*. Retrieved from <https://www.beveragedaily.com/Article/2017/10/27/US-craft-spirit-industry-on-the-rise-as-producers-double-on-premise-investments>

Virginia Tourism Corporation to establish further advertising campaigns would help boost overall sales volume and tourism tax dollars not only for smaller distilleries, but the industry at large.

3. **Lobby Virginia ABC to defer a portion of the markup / excise tax** imposed on bottles of spirits towards the industry's marketing and educational efforts. A great example of this can be seen when looking at Virginia's wine industry. Virginia ABC re-allocates money from the Wine Liter Tax for the Virginia Wine Promotion Fund, which then goes directly to the Virginia Wine Board. The Virginia Wine Board's goal is to promote the interests of vineyards and wineries in the Commonwealth through research, education, and marketing.⁴⁸ Two-thirds of the board's budget goes towards education and marketing, while one third is spent on wine-related research.⁴⁹ For spirit distillers, funding could be taken from the allocation of the General & Administrative Expenses which Virginia ABC charges for each distillery store sale, which grossed \$187,517. State support for the Virginia Wine Promotion Fund has directly resulted in a boost in growth since the Wine Board's establishment in 1984 (formerly referred to as the Virginia Wine Growers Advisory Board). If Virginia ABC would create a comparable program for the spirits industry, there is little doubt this investment would spur similar growth for distilleries and the Commonwealth.
4. **Lobby Virginia ABC to allow Distillery Stores to send only their sales dollars owed to Virginia ABC**, and keep their share of the sale in the distillery store immediately. Currently, when Virginia distillers sell a bottle of liquor out of their distillery store, they must send all of the revenue to Virginia ABC's headquarters in Richmond. From there, Virginia ABC will divide up the revenue based on various factors (markup, excise tax, commission, etc.) and then send back the distillery's portion, 30 - 60 days later. This delay in receiving revenues puts excessive strain on smaller distilleries' cash flow. Instead of using the revenue from their sales to immediately reinvest in their own businesses, these smaller distilleries are forced to rely on their delayed Account Receivables to survive. Allowing distilleries to keep their share of revenues in house immediately, would spur further reinvestment in small distilleries and growth in the industry overall.
5. **The Virginia Distillers Association or the Virginia Department of Agriculture and Consumer Services could provide distilleries with better outreach to Virginia farms.** This improved connection would promote the use of local grains, as well as the recycling of spent grains back to local farmers. Distillers have voiced concern about sourcing their raw material and grains locally, and an improved connection to Virginia farmers would be beneficial for both parties.
6. **Develop partnerships with sporting events** in the Commonwealth. Events such as NASCAR, horse racing, golf tournaments, and football games could be utilized to support local products. There is a potential to establish Virginia spirits partnerships with these sporting organizations that could both promote the local spirits market and potentially increase sales.
7. **Create a craft spirits caucus to create a legislative coalition behind the industry** to inform and educate members of the legislature. Focus on a few Representatives/Senators that are ardent supporters of the industry to lead and develop a coalition in Richmond. This could be used as an avenue to further the reach of the Virginia Distillers Association, while simultaneously promoting Virginia craft spirits.

⁴⁸ Virginia Wine Board. (n.d.). Retrieved December 21, 2017, from <https://www.virginiawine.org/industry/wine-board>

⁴⁹ Virginia Wine Board, 2017.

8. **Work with legislators and Virginia ABC to repeal the limitation** on the amount distilleries are allowed to sell to consumers for on-site consumption. The current limitation is 3 ounces per customer. In 2012, the state of Virginia made impactful changes to the craft beer industry in this same regard, leading to a boom in growth that incentivized entrepreneurs to invest in breweries. SB 604 allowed breweries to sell products to consumers on-site without any limitations. If these same changes were made in the craft spirits industry, it could propel this industry to great significance on the national scene.
9. **Work with Virginia ABC to get a larger revenue cut** for distilleries when sold at distillery stores. Currently, Virginia ABC makes a 40.95% rate of return on sales at the distillery store, which is an impressive margin in any industry. It would be advantageous for both parties if distilleries could keep a bigger portion of their sales, allowing them to reinvest in the business, driving future expansion and sales.
10. **Open Virginia ABC stores in regional airports**, such as Norfolk and Richmond, specifically to promote Virginia spirits. These would be placed in high traffic areas, in broad view of both local and out of state/country commuters. Placing local spirits in the Virginia ABC stores can help create awareness of Virginia's local spirits, and increase outreach to many potential customers who are not aware of Virginia's historic craft spirits industry.

IX. METHODOLOGY

Survey Administration & Forecasting Techniques

In the Fall of 2017, the William & Mary Field Consultancy team partnered with the Virginia Distillers Association (VDA) to release a survey to all Virginia distilleries to gather data to better understand the economic impact of the Virginia distilled spirits industry. The survey was administered via Qualtrics, an online survey platform used to collect and easily visualize data.

Prior to the survey, distilleries were categorized by size according to Virginia licensing information to help accurately forecast non-respondents:

- Small – 5,000 gallons or less annually
- Medium – between 5,000 and 36,000 gallons annually
- Large – 36,000 gallons or more annually

The majority of licensed Virginia distilleries responded to surveying. At a more granular level, 52% of small distilleries, 86% of medium distilleries, and 71% of large distilleries responded. Non-responses were partly due to not wanting to share proprietary information.

Question responses were summed to analyze the total value of responses. These totals were then divided by the number of responses for each question based on distillery size. Not all distilleries answered all questions and in order to properly average the data, each total was divided by the number of responses for each question rather than the total number of distilleries that completed the survey as a whole.

To ensure accuracy in the averages, outliers were excluded from totals when averaging responses. If these outliers were included, that would have created inaccuracies when averaging these responses, which then would have created an incorrect forecast. Averaged responses were then used to create further calculations to help quantify the industry:

- The average percentage of in-state customers multiplied by the number of customers per distillery in 2016 calculated the number of in-state customers in 2016 per distillery. This was calculated for 2016 and 2017, for in-state and out-of-state customers.
- The average dollar amount spent by customer per distillery, multiplied by the customers in 2016 was used to calculate the total dollar amount spent by all customers in 2016 per distillery. This was calculated for 2016 and 2017.
- The average percent of Virginia grains purchased in 2016 per distillery multiplied by the average dollar amount spent on grains in 2016 per distillery was used to calculate the total dollar amount spent on Virginia grains in 2016 per distillery. This was calculated for 2016 and 2017.

The average response rate for each question was calculated for small, medium, and large distilleries in Virginia. The total industry was then calculated by multiplying the average response by distillery size for each question and the number of distilleries by size in the industry. Further, these size averages were applied to each distillery in the state based on their size category to fully quantify the spirits industry.

There are currently seven pending distillery licenses that are awaiting approval. Using their listed size, the average response rate was then multiplied by seven and added to the 2017 total industry number. This quantifies the total value of the industry in 2018. However, this does not include any growth in customer traffic or annual sales and creates assumptions based on 2017 responses.

IMPLAN Modeling

Upon conclusion of forecasting using the survey data it was imperative to devise a method to accurately quantify the unforeseen impacts, or the ripple effects, this industry creates. This is important when attempting to assess the economic impacts of any industry because the direct effects, i.e., those discovered in the survey, are only a portion of the entire story.

IMPLAN is a leading provider of economic impact data and analytical software. Their software is used by many organizations, including universities, government agencies, trade associations etc., to identify all economic factors that impact an industry. For example, the Forest Service uses the IMPLAN database and modeling system to assess the economic consequences of Agency decisions⁵⁰. This software traces and quantifies changes in consumption, new business investments, and unique economic events as they move through an economy.

IMPLAN quantifies the true economic impacts of an industry by observing not only the direct effects, but also what the model categorizes as “indirect and induced effects.” Direct effects are simple to understand, they are series of production changes or expenditures made by the craft spirits industry that have an impact on the product’s final demand. For instance, this could be the direct employment or any spending by the industry. Indirect effects are the impacts the industry creates when buying goods or services from other local industries. Specifically, when a distillery purchases grains from a Virginia farmer, that expenditure goes to support that farmer by allowing he/her to hire an employee, pay for utilities etc. Induced effects are the circulation of income, created by the craft spirits industry, through local economies. When a distillery creates a new job, either directly or indirectly, wages they pay the employee will then be spent throughout the local economy. This money could be spent on groceries, housing, car repairs etc. which magnifies the impact this industry creates.

⁵⁰ WHO WE ARE. (n.d.). Retrieved January 05, 2018, from <http://www.implan.com/company/>

With the use of the survey data in conjunction with the IMPLAN modeling software, we were able to accurately project the entire impact Virginia's craft spirits industry creates for the Virginia economy throughout this report.

X. CONCLUSION

The William & Mary Consultancy Team thanks the Virginia Distillers Association for the opportunity to conduct this Economic Impact Study. The team has learned a tremendous amount about the alcohol industry in the Commonwealth of Virginia and the entire country. We also would like to thank distillers for taking the time to fill out and return the survey in a timely manner. Your answers significantly improved the accuracy and confidence in this report. We hope this analysis and insights about the industry lead to efforts that lessen the financial and regulatory burden on Virginia distilleries.

XI. APPENDIX

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