

VININTELL

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A map of the southeastern United States highlighting three states: Virginia (top, olive green), North Carolina (middle, tan), and South Carolina (bottom, light green). The states are labeled with their names in bold black text.

Virginia

North Carolina

South Carolina

COUNTRY PROFILES
US States of North Carolina,
South Carolina & Virginia





COUNTRY PROFILES USA

Country Profiles is an integral part of the South African wine industry's business intelligence. Based on this, SAWIS has decided to compile, in collaboration with WOSA, a number of country profiles to assist exporters. These profiles cover a wide range of topics, including background to marketing thoughts and topics for strategic, tactical and operational decisionmaking. The comprehensive profile is available on the SAWIS website.

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1. INTRODUCTION



North Carolina is a state in the south-eastern US. The state borders South Carolina and Georgia to the south, Tennessee to the west, Virginia to the north, and the Atlantic Ocean to the east. North Carolina is the 28th most extensive and the 9th most populous of the 50 USA States. North Carolina is known as the Tar Heel State and the Old North State.

North Carolina is composed of 100 counties. North Carolina's two largest metropolitan areas are among the top ten fastest-growing in the country: its capital, Raleigh, and its largest city, Charlotte. In the past five decades, North Carolina's economy has undergone a transition from reliance upon tobacco, textiles, and furniture-making to a more diversified economy with engineering, energy, biotechnology, and finance sectors. North Carolina has a wide range of elevations and climate of the coastal plains is strongly influenced by the Atlantic Ocean. Most of the state falls in the humid subtropical climate zone. More than 500 km from the coast, the western mountainous part of the state has a subtropical highland climate.

Wine has been produced in the area since the early days of European colonisation in the 17th century. Wine growers in North Carolina

were the first to cultivate a native American grape variety, the Scuppernong, which produces a sweet wine, examples of which are still being made in the state. Most wine produced in North Carolina since the year 2000 is made from *Vitis vinifera* grape varieties, although French hybrid and *Vitis labrusca* varieties remain common. North Carolina ranks 10th in both grape and wine production in the US. The state's wine industry continues to expand, and today is one of the US' five most visited state destinations for wine and culinary tourism. In 2007, North Carolina contained 55 wineries and 350 vineyards. By 2015, this had grown to more than 140 wineries and more than 400 vineyards in the following sub regions (designated American Wine Viticultural Areas (AVAs): Haw River Valley AVA, Swan Creek AVA, Upper Hiwassee Highlands AVA, Yadkin Valley AVA. The grape and wine industry in North Carolina is now worth in excess of \$30 million dollars.



South Carolina is a state in the south-eastern US, bordered to the north by North Carolina, to the south and west by Georgia across the Savannah River, and to the east by the Atlantic Ocean. The Province of South Carolina became a slave society after rice and indigo became established as commodity crops. From 1708, a majority of the population were slaves, many born in Africa. South Carolina



was the first state to ratify the Articles of Confederation and the eighth state to ratify the US Constitution in May 1788. South Carolina became the first state to vote to secede from the Union on December 20, 1860. South Carolina is the 40th most extensive and the 24th most populous US state. South Carolina comprises 46 counties. The capital and largest city is Columbia with a 2013 population of 133,358; the Greenville-Anderson-Mauldin metropolitan area had a 2013 population of 850,965.

Three geographic land areas define South Carolina; the Atlantic Coastal Plain, the Piedmont, and the Blue Ridge region. Two thirds of South Carolina is covered by the Atlantic Coastal Plain, from the Atlantic Ocean extending to the west. The land rises gradually from the southeast to the northwest.

The Outer Coastal Plain area is quite flat. Many rivers can be found in the Outer Coastal Plain with swamps near the coast that extend inland along the rivers. An area called the Inner Coastal Plain consists of rolling hills. This is where South Carolina's most fertile soils are found. In the central Atlantic Coastal Plain is an area of forested land called the Pine Barrens. On the western edge of the Atlantic Coastal Plain, running from the southwest to the northeast, is a line of sand hills. These sand hills may have once marked the eastern coast of South Carolina suggesting that the entire Atlantic Coastal Plain may have once been under water. To the northwest of the Atlantic Coastal Plain is the Piedmont. The Piedmont is marked by higher elevations, from 120m to 365 feet above sea level and reaching 1,210 feet above sea level on its western edge. The landscape consists of

rolling hills; gentler in the east and more hilly to the west and northwest. The border between the Piedmont region and the Atlantic Coastal Plain is called the Fall Line to mark the line where the upland rivers "fall" to the lower Atlantic Coastal Plain. The Blue Ridge covers the north western corner of South Carolina. Part of the larger Blue Ridge that extends from southern Pennsylvania south to Georgia, the South Carolina Blue Ridge Mountains are lower and less rugged than the mountains in North Carolina. The climate of South Carolina is challenging for the production of wine grapes. Hot and humid summers require viticulturists to adapt their canopy management to minimize direct sunlight on the grapes, which are often harvested early in the summer. There are no designated AVAs.



Virginia, a southern state on the Atlantic Ocean, can be divided into five geographical regions; the Atlantic Coastal Plain, the Piedmont, the Blue Ridge, the Appalachian Ridge and Valley Region, and the Appalachian Plateau. The Atlantic Coastal Plain runs from north to south along the Atlantic Ocean. This area of lowlands and is covered with salt marshes and swamps. The Atlantic Coastal Plain is divided into a mainland in the west and a peninsula, called the East Shore, by Chesapeake Bay. To the west of the Atlantic



Coastal Plain is the Piedmont, Virginia's largest geographical land region. The rolling plain of the Virginia Piedmont covers most of central Virginia. The rivers and streams of the Piedmont generally flow in a south-easterly direction, breaking into low waterfalls at the "fall line" where the Piedmont meets the Atlantic Coastal Plain. To the west of the Piedmont, lies the Blue Ridge. Northeast of Roanoke, Virginia, the Blue Ridge rises steeply from the Piedmont in the east and the Appalachian Ridge and Valley Region in the west. It is the main eastern mountain range of the Appalachian Mountains. South of Roanoke, the Blue Ridge expands into a plateau with valleys, deep ravines, and the highest peaks in Virginia. Mount Rogers, the highest point in Virginia, is located in the Blue Ridge south of Roanoke.

Extending southwest to northeast along Virginia's western border is the Appalachian Ridge and Valley Region. The Great Valley, sometimes called the Valley of Virginia, lies against the Blue Ridge in the east. Actually, the Great Valley is a series of valleys divided by mountains. The largest and most well-known of these valleys is the Shenandoah Valley. The Appalachian Ridge and Valley Region are riddled with caverns carved into the abundant limestone. In the far south-western portion of Virginia lies the Appalachia Plateau. This plateau extends into Kentucky as the Cumberland Plateau.

Wine has been produced in the area since the early days of European colonization in the 17th century. Virginia has hot humid summers that can be challenging to viticulture, and only within the last twenty years has the industry developed beyond novelty status. In the

early 1900s, Charlottesville's Monticello Wine Company and its Virginia Claret Wine were so well-regarded that the city declared itself to be "the Capital of the Wine Belt in Virginia." The rebirth was led in part by the investment of the Zonin family of Italy in a new vineyard in Barbourville in 1976. Barbourville Vineyards served as a catalyst in the 1970s, alongside the now defunct Oakencroft Vineyards. Throughout the 1980s and 1990s, many other vineyards and wineries joined the mix and by 2012 there were over 230 wineries. Almost all of these are small, family-owned vineyards and wineries, and only the very largest have developed distribution networks. As a result, the wineries rely on wine tourism and direct sales for most of their revenue. As Virginia wines sold in Virginia have the requirement that the majority of the grapes used must be grown in Virginia, and since Virginia is not growing enough grapes to support the number of wineries, one Floyd County winery has expanded its operation in a five-year contract to export its wines to China. Chateau Morrisette will be exporting its Merlot to China, and plans to add other wines later. Wine regions are Middleburg AVA, Monticello AVA, North Fork of Roanoke AVA, Northern Neck George Washington Birthplace AVA, Rocky Knob AVA, Shenandoah AVA and Virginia's Eastern Shore AVA.

2. DEMOGRAPHICS

2.1 Geography

Area

North Carolina	139,390 km ²
South Carolina	82,931 km ²
Virginia	110,785.67 km ²



Cimate

North Carolina	<p>The climate of the coastal plain is influenced by the Atlantic Ocean, which keeps conditions mild in winter and moderate, although humid, in summer. The highest coastal, daytime temperature averages less than 32°C during summer months. The coast has mild temperatures in winter, with daytime highs rarely below 4°C. The average daytime temperature in the coastal plain is usually 11-14°C in winter. Temperatures in the coastal plain only occasionally drop below the freezing point at night. The Atlantic Ocean has less influence on the climate of the Piedmont region, which has hotter summers and colder winters than in the coast. Daytime highs in the Piedmont often reach over 32°C in the summer. While it is not common for the temperature to reach over 38°C in the state, such temperatures, when they occur, typically are found only in the lower-elevation areas of the Piedmont and far-inland areas of the coastal plain. The weaker influence of the Atlantic Ocean also means that temperatures in the Piedmont often fluctuate more widely than in the coast. In winter, the Piedmont is colder than the coast, with temperatures usually averaging 8-12°C during the day and often dropping below the freezing point at night. The region averages around 8-13 cm of snowfall annually in the Charlotte area. The Appalachian Mountains are the coolest area of the state, with temperatures averaging 6-3°C for highs in the winter and falling into -5°C or lower on winter nights. Relatively cool summers have temperatures rarely rising above 27°C.</p>
South Carolina	<p>South Carolina has a humid subtropical climate although high-elevation areas in the upstate area have fewer subtropical characteristics than areas on the Atlantic coastline. In the summer, South Carolina is hot and humid, with daytime temperatures averaging 30-34°C in most of the state and overnight lows averaging 21-24°C on the coast and 19-23°C inland. Winter temperatures are much less uniform in South Carolina. Coastal areas of the state have very mild winters, with high temperatures approaching an average of 16°C and overnight lows 5-8°C. Inland, the average January overnight low is around 0°C in Columbia and temperatures well below freezing in the Upstate. The highest recorded temperature is 45°C in Johnston and Columbia on June 29, 2012, and the lowest recorded temperature is -28°C at Caesars Head on January 21, 1985.</p>
Virginia	<p>The climate of Virginia becomes increasingly warmer and more humid farther south and east. Seasonal extremes vary from average lows of -3°C in January to average highs of 30°C in July. The Atlantic ocean has a strong effect on eastern and south-eastern coastal areas of the state. Influenced by the Gulf Stream, coastal weather is subject to hurricanes, most pronouncedly near the mouth of Chesapeake Bay. Despite its position adjacent to the Atlantic Ocean, even the coastal areas have a significant continental influence with quite large temperature differences between summer and winter, particularly given the state climate's subtropical classification.</p>

Natural resources

North Carolina	Forests, wetlands, water, wildlife, fish
South Carolina	Forests, wetlands, water, wildlife, fish
Virginia	Forests, urban forests. water, wildlife, fish



2.2 People and Society

Languages

North Carolina	About 89.66% (7,750,904) of North Carolina residents aged 5 and older speak English at home as a primary language, while 6.93% (598,756) speak Spanish, 0.32% (27,310) French, 0.27% (23,204) German, and Chinese (which includes Mandarin) was spoken as a main language by 0.27% (23,072) of the population over the age of five. In total, 10.34% (893,735) of North Carolina's population age 5 and older speak a mother language other than English.
South Carolina	English is the dominant language followed by French, German Chinese, Tagalog, Vietnamese, Korean, Italian, Japanese, Greek, Arabic, Gujarati and Russian
Virginia	85.87% (6,299,127) of Virginia residents age 5 and older speak English at home as a primary language, while 6.41% (470,058) speak Spanish, 0.77% (56,518) Korean, 0.63% (45,881) Vietnamese, 0.57% (42,418) Chinese (which includes Mandarin), and Tagalog is spoken as a main language by 0.56% (40,724) of the population over the age of five. In total, 14.13% (1,036,442) of Virginia's population aged 5 and older speak a mother language other than English. English was passed as the Commonwealth's official language by statutes in 1981 and again in 1996, though the status is not mandated by the Constitution of Virginia.

Religions

North Carolina	Nearly 80% are Christian, followed by Roman Catholic (10%), other Christian such as non-denominational, Pentecostal, and the LDS Church: 12%, Judaism 1%, other religions: 3% and non-religious: 10%.
South Carolina	52.18% of the people in South Carolina are religious, meaning they affiliate with a religion. 4.05% is Catholic, 0.82% is LDS, 6.47% are another Christian faith, 0.14% in South Carolina is Jewish, 0.16% is an eastern faith, 0.13% affiliates with Islam.
Virginia	Virginia is predominantly Christian and Protestant; Baptists are the largest single group with 27% of the population. Roman Catholics are the second-largest religious group. Presbyterians, Pentecostals, Congregationalists and Episcopalians each composed 1-3% of the population. Among other religions, adherents of The Church of Jesus Christ of Latter-day Saints constitute 1.1% of the population, with 188 congregations in Virginia as of 2008.

Population: Total

North Carolina	9,943,964 (2014 est)
South Carolina	4,832,482 (2014 est)
Virginia	8,326,289 (2014 est)



Age structure

	Persons under 5 years	Persons under 18 years	Persons 65 years / over
North Carolina	6.1%	23.0%	14.7%
South Carolina	6.0%	22.0%	15.8%
Virginia	6.2%	23.2%	13.0%

Urbanisation

North Carolina	<p>60.6% urbanized. North Carolina is composed of 100 counties. North Carolina's two largest metropolitan areas are among the top ten fastest-growing in the country: its capital, Raleigh, and its largest city, Charlotte. North Carolina has three major Combined Statistical Areas with populations of more than 1.6 million (U.S. Census Bureau 2012 estimates):</p> <ul style="list-style-type: none"> • Metrolina: Charlotte, Gastonia, Salisbury, North Carolina, South Carolina – population 2,452,619. • The Triangle: Raleigh, Durham, Chapel Hill – population of 2,037,430. • The Triad: Greensboro, Winston, Salem, High Point – population of 1,611,243.
South Carolina	<p>66.3% urbanized. In 2014, the US Census Bureau released 2013 population estimates for South Carolina's most populous cities. Greenville, ranking sixth in city size, is the largest urban area.</p>
Virginia	<p>Virginia is divided into 95 counties and 38 independent cities, which both operate the same way since independent cities are considered to be county-equivalent. Virginia has 11 Metropolitan Statistical Areas. Northern Virginia, Hampton Roads, and Richmond-Petersburg are the three most populous. Richmond is the capital of Virginia, and its metropolitan area has a population of over 1.2 million. As of 2010, Virginia Beach is the most populous city, with Norfolk and Chesapeake second and third, respectively.</p>

Per capita income

12 months, 2013, US\$	
North Carolina	\$25,610
South Carolina	\$23,443
Virginia	\$33,671 (6th highest in the US)

Ethnic groups

White	68.5%
Black	21.5%
Asian	2.2%

Native	1.3%
Native Hawaiian / other Pacific Islander	0.1%
Other race	4.3%
Two or more races	2.2%



North Carolina

White	68.3%
Black	27.9%
Asian	1.5%

Native	0.5%
Native Hawaiian / other Pacific Islander	0.1%
Other race	1.7%

South Carolina

White	63.1%
Black	19.7%
Asian	8.9%

Native	6.3%
Native Hawaiian / other Pacific Islander	0.5%
Other race	1.7%

Virginia

2.3 Infrastructure

Internet users

North Carolina	<ul style="list-style-type: none"> • 17th most connected state • 22.4% have access to broadband 100mbps or faster • 6.1% have access to 1 gigabit broadband • 97.0% have access to wire line service • 9.5% have access to fibre-optic service • 91.5% have access to cable service • 88.0% have access to DSL service • 98.9% have access to mobile broadband service • 8.8% have access to fixed wireless service • In total there are 88 broadband providers in North Carolina • There are 895,000 people without access to a wired connection capable of 25mbps download speeds • There are 1.1 million people that have access to only one wired provider, leaving them no options to switch • Another 235,000 people do not have any wired internet providers available where they live
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South Carolina	<ul style="list-style-type: none">• 30th most connected state• 42.0% have access to broadband 100mbps or faster• 5.4% have access to 1 gigabit broadband• 97.0% have access to wire line service• 20.0% have access to fibre-optic service• 87.8% have access to cable service• 89.4% have access to DSL service• 99.7% have access to mobile broadband service• 8.5% have access to fixed wireless service• In total there are 57 broadband providers in South Carolina• There are 736,000 people without access to a wired connection capable of 25mbps download speeds• There are 959,000 people that have access to only one wired provider, leaving them no options to switch• Another 125,000 people do not have any wired internet providers available where they live
Virginia	<ul style="list-style-type: none">• 31st most connected state• 84.4% have access to wired broadband 25mbps or faster• 81.1% have access to broadband 100mbps or faster• 4.3% have access to 1 gigabit broadband• 94.4% have access to wire line service• 47.8% have access to fibre-optic service• 79.5% have access to cable service• 83.9% have access to DSL service• 99.2% have access to mobile broadband service• 19.8% have access to fixed wireless service• In total there are 64 broadband providers in Virginia• There are 1.3 million people without access to a wired connection capable of 25mbps download speeds• There are 1.0 million people that have access to only one wired provider, leaving them no options to switch• Another 307,000 people do not have any wired internet providers available where they live



Airports

<p>North Carolina</p>	<ul style="list-style-type: none"> • Albert J Ellis Airport (Jacksonville) • Asheville Regional Airport (Asheville) • Charlotte/Douglas International Airport (Charlotte), 30th busiest in terms of passengers • Coastal Carolina Regional Airport (New Bern) • Fayetteville Regional Airport (Fayetteville) • Hickory Regional Airport (Hickory) • Kinston Regional Jetport (Kinston) • Piedmont Triad International Airport (Greensboro/Winston-Salem/High Point) • Pitt-Greenville Airport (Greenville) • Raleigh-Durham International Airport (Raleigh/Durham) • Wilmington International Airport (Wilmington)
<p>South Carolina</p>	<p>There are seven significant airports in South Carolina, all of which act as regional airport hubs. The busiest by passenger volume is Charleston International Airport.</p> <ul style="list-style-type: none"> • Columbia Metropolitan Airport (Columbia) • Charleston International Airport (North Charleston) • Greenville-Spartanburg International Airport (Greenville/Spartanburg) • Florence Regional Airport (Florence) • Myrtle Beach International Airport (Myrtle Beach) • Hilton Head Airport (Hilton Head Island/Beaufort) • Rock Hill/York County Airport (Rock Hill)
<p>Virginia</p>	<p>Virginia has five major airports: Washington Dulles International and Reagan Washington National in Northern Virginia, both of which handle over 20 million passengers a year; Richmond, and Newport News/Williamsburg International Airport and Norfolk International serving the Hampton Roads area. Several other airports offer limited commercial passenger service, and 65 public airports serve the state's aviation needs.</p>





Railways

North Carolina	Amtrak operates several passenger rail lines in North Carolina. Each train is daily except the Piedmont which is twice-daily. The state subsidises both the Piedmont and Carolinian intercity rail serving the Research Triangle. Amtrak has announced a third subsidized train that will run between Raleigh and Charlotte. The planned Southeast High Speed Rail Corridor includes service along the old Seaboard Air Line Railroad mainline, which is now CSX's underutilized "S" line, north of Raleigh and the North Carolina Railroad lines south of Raleigh currently used by the Carolinian and Piedmont services.
South Carolina	Amtrak operates four passenger routes in South Carolina: the Crescent, the Palmetto, the Silver Meteor, and the Silver Star. The Crescent route serves the Upstate cities, the Silver Star serves the Midlands cities, and the Palmetto and Silver Meteor routes serve the Low country cities.
Virginia	Virginia has Amtrak passenger rail service along several corridors, and Virginia Railway Express (VRE) maintains two commuter lines into Washington DC from Fredericksburg and Manassas. VRE is one of the nation's fastest growing commuter rail services, handling nearly 20,000 passengers a day.

Roadways

North Carolina	The North Carolina Highway System consists of a vast network of Interstate Highways, US Highways and state highways. North Carolina has the largest state-maintained highway network in the US, with 124,600 km of roadway.
South Carolina	Major interstate highways passing through include: I-20 which runs from Florence in the east through Columbia to the south-western border near Aiken; I-26 which runs from Charleston in the southeast through Columbia to Spartanburg and the northern border in Spartanburg County; I-77 which runs from York County in the north to Columbia; I-85 which runs from Cherokee County in the north through Spartanburg and Greenville to the south-western border in Oconee County; I-385 which runs from Greenville and intersects with I-26 near Clinton; and I-95 which runs from the north-eastern border in Dillon County to Florence and on to the southern border in Jasper County.
Virginia	The state government controls most of Virginia's roads, instead of a local county authority as is usual in other states. As of 2011, the Virginia Department of Transportation owns and operates 93,128 km of the total 112,823 km of roads in the state, making it the third largest state highway system in the US. Although the Washington Metropolitan Area, which includes Northern Virginia, has the second worst traffic in the nation, Virginia as a whole has the 21 st lowest congestion and the average commute time is 26.9 minutes.

Waterways

North Carolina	Black River, Broad River, Cape Fear River, Catawba River, Chowan River, Deep River, Don River, French Broad River, Haw River, Lumber River, Neuse River, Northeast Cape Fear River, Pee Dee River, Roanoke River, Rocky River, South River, Tar River and Yadkin River
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South Carolina	Black River, Brood River, Catawba River, Edisto River, Enoree River, Great Pee Dee River, Little Pee Dee River, Lynches River, North Fork Edisto River, Pacolet River, Salkahatchie River, Saluda River, Santee River, Savannah River, South Fork Edisto River and Waccamaw River.
Virginia	Virginia has 4 major river systems that flow into the Chesapeake Bay and then toward the Atlantic Ocean. They are, from north to south: the Potomac-Shenandoah River system, the Rappahannock River, the York River, and the James River.

Ports and terminals

North Carolina	Port of Wilmington, Port of Morehead City, Charlotte Inland Terminal, Piedmont Triad Inland Terminal, Southport Marina.
South Carolina	Public port facilities in Charleston, Georgetown and Greer. Diverse cargo: containerized, break bulk and rolling stock, and cruise.
Virginia	Seaports Hampton Roads; Eastern Shore of Virginia is the site of Wallops Flight Facility, a rocket testing centre owned by NASA, and the Mid-Atlantic Regional Spaceport, a commercial spaceport.

3. GOVERNMENT

Capital

North Carolina	Raleigh
South Carolina	Columbia
Virginia	Richmond

4. ECONOMIC SITUATION

Gross State Product (GSP)

North Carolina	\$483.1 billion (2014)
South Carolina	\$190.3 billion (2014)
Virginia	\$463,613 billion (2014)

GSP – real growth rate %

North Carolina	1.4 (2014)
South Carolina	2.2 (2014)
Virginia	0.0 (2014)

GSP – per capita (PPP)

North Carolina	\$40,289
South Carolina	\$31,881
Virginia	\$47,127





Industries

North Carolina	From reliance upon tobacco, textiles, and furniture-making to a more diversified economy with engineering, energy, biotechnology, and finance sectors.
South Carolina	Aerospace and aviation, automotive manufacturing, biotechnology and life sciences, transportation, recycling
Virginia	Virginia has the highest concentration of technology workers of any state, and the fourth-highest number of technology workers after California, Texas, and New York. Virginia now hosts software, communication technology, defence contracting companies, particularly in the Dulles Technology Corridor. Virginia has 20 Fortune 500 companies, ranking the state 8 th nationwide. Tourism in Virginia supported an estimated 210,000 jobs and generated \$21.2 billion in 2012. Arlington County is the top tourist destination in the state by domestic spending, followed by Fairfax County, Loudoun County, and Virginia Beach. Tysons Corner is one of the largest business districts in the nation. Additionally, in 2014 a survey of 12,000 small business owners found Virginia to be one of the friendliest states for small businesses.

Imports

Imports – commodities

North Carolina	Laptops are the biggest imported commodity followed by pharmaceuticals. Turbojet and propeller parts, apparel. Automotive parts, plutonium
South Carolina	Parts for airplanes and helicopters, Uranium / plutonium, piston engines, gear boxes, tyres, automotive parts, radio navigational systems, hand tools
Virginia	Parts and accessories, printers, copiers, faxes, automotive parts, office electronic equipment, scooters, coffee not roasted laptops, soybeans, codeine, data processors

Imports – partners

North Carolina	China, Mexico, Canada, Germany, Japan, United Kingdom, France, Italy, Switzerland, India
South Carolina	China, Mexico, Canada, Japan, Austria, Italy, France, United Kingdom, India
Virginia	Canada, Germany, Japan, United Kingdom, Malaysia, Italy, Austria, Mexico, India

Commercial bank prime lending rate

North Carolina	3.25%
South Carolina	3.25%
Virginia	3.50%

Inflation rate (consumer prices)

North Carolina	-0.2%
South Carolina	-0.2%
Virginia	-0.2%



5. AGRICULTURE

Land use

North Carolina	North Carolina's agricultural industry, including food, fibre and forestry, contributes \$78 billion to the state's economy, accounts for more than 17% of the state's income, and employs 16% of the work force. North Carolina is one of the most diversified agriculture states in the nation. The state's 52,200 farmers grow over 80 different commodities, utilising 8.4 million of the state's 12,545,254.9 ha to furnish consumers a dependable and affordable supply of food and fibre. North Carolina produces more tobacco and sweet potatoes than any other state and ranks second in Christmas tree cash receipts and the production of hogs and turkeys. The state ranks seventh nationally in farm profits with a net farm income of over \$3.3 billion. Net income per farm in the state is over \$63,000. There are 52,218 farms in North Carolina.
South Carolina	South Carolina has more than 25,200 farms spread across its landscape, with an average size of 80 ha. In total, they encompass about 2,023,000 ha (5 million acres) of land. Farmers grow and raise the state's many agricultural products including the top commodities – broilers, turkeys, greenhouse and nursery products, cotton, and corn. As one of the state's busiest ports, the Port of Charleston sees an impressive number of agricultural goods pass through each month, including paper and paperboard, wood pulp, logs and lumber, raw cotton, poultry, and lawn and garden equipment. All of these products fall within the list of South Carolina's top 20 agricultural exports.
Virginia	Agriculture occupies 32% of the land in Virginia. As of 2012, about 357,000 Virginian jobs were in agriculture, with over 47,000 farms. Though agriculture has declined significantly since 1960 when there were twice as many farms, it remains the largest single industry in Virginia. Tomatoes surpassed soy as the most profitable crop in Virginia in 2006, with peanuts and hay as other agricultural products. Although it is no longer the primary crop, Virginia is still the fifth-largest producer of tobacco nationwide. Eastern oyster harvests are an important part of the Chesapeake Bay economy, but declining oyster populations from disease, pollution, and overfishing have diminished catches. Wineries and vineyards in the Northern Neck and along the Blue Ridge Mountains also have begun to generate income and attract tourists.

Total renewable water resources

North Carolina	The major aquifers in North Carolina can be divided into two regions related to the physiographic provinces of the State. The Piedmont and Blue Ridge Provinces extend across the western 60% of the State and are, for the most part, underlain by fractured, igneous and metamorphic rocks. The Coastal Plain Province covers the eastern 40% of North Carolina, where aquifers are within a wedge of sedimentary rock layers that dip and thicken to the southeast. In general, depth to groundwater in shallow unconfined aquifers follows topography, being shallower near streams and deeper on hilltops. However, in the deeper confined aquifers, such as the Black Creek and Upper Cape Fear aquifers, the water level (potentiometric head) is under pressure, and is affected by both local and regional pumping.
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<p>South Carolina</p>	<p>South Carolina has 2,800 km² of inland or coastal waterways, and 350 km of coastline. The state is comprised of three major physiographic regions, distinct for their topography, geology, hydrology, and vegetation all of which affect the quantity and quality of water resources. They include the Blue Ridge, Piedmont, and Coastal Plain. The Blue Ridge is located in the north-western part of the state in Pickens and Oconee Counties where surface water is found in creeks and streams. Area rainfall makes groundwater plentiful. In Piedmont rainfall replenishes the area lakes, reservoirs, and major river systems which make up the primary surface water sources. The Coastal Plain includes all counties, or portions of counties from the Fall Line to the Atlantic Ocean. Groundwater is the primary water source in this region. More than 50% of South Carolinians rely on groundwater as their primary drinking water source through public utilities and private wells. Major Groundwater Sources are: Crystalline Rock Aquifer System of the Blue Ridge and Piedmont Found in the Upstate; Surficial Aquifer System Found in the lower coastal plain. Tertiary Limestone/Sand Aquifer System (Floridan Aquifer System) Black Mingo Aquifer; Pee Dee Aquifer are mostly used in northeast part of the state especially between Florence and Horry Counties. Black Creek Aquifer, Middendorf Aquifer, Cape Fear Aquifer are mostly unused because of poor water quality.</p>
<p>Virginia</p>	<p>Ground water levels in parts of the coastal plain are declining to the point that they are nearing aquifer tops, in a number of localities along the fall line, and generally throughout the rest of the coastal plain. As a result, many existing permitted users are unable to renew their withdrawal permits at permitted amounts when they exceed current use.</p>

6. WINE INDUSTRY

6.1 Area under vines

<p>North Carolina</p>	<p>More than 400 individually owned grape vineyards are spread across the state, covering 730 ha. North Carolina ranks 9th in the nation in grape production.</p>
<p>South Carolina</p>	<p>Information not available, but the wine industry is still in its infancy albeit growing.</p>
<p>Virginia</p>	<p>As of 2012, the state has approximately 1 200 ha under cultivation, with a total harvest of over 7,500 tons. The state ranks 5th in the nation for both bearing acreage and grape production.</p>

6.2 Production

Varietals produced:

<p>North Carolina</p>	<p>Cabernet Franc, Cabernet Sauvignon, Carlos, Cayuga, Chambourcin, Chancellor, Chardonel, Chardonnay, Concord, De Chaunac, Gewürztraminer, Leon Millot, Malbec, Merlot, Mourvèdre, Muscadine, Muscat Canelli, Nebbiolo Niagra, Noble, Norton, Petit Verdot, Pinot Gris, Pinot Noir, Riesling, Sangiovese, Sauvignon blanc, Scuppermong, Seyval blanc, St. Vincent, Symphony, Syrah, Tempranillo, Traminette, Vidal Blanc, Vignoles, Viognier</p>
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South Carolina	Growers have been trying to find the right fit for South Carolina's temperamental climate, and along with grapes, the state's wines are often made with fruits such as cranberries, strawberries and peaches: Muscadine, Gewürztraminer, Chardonnay, Cabernet Sauvignon, Merlot, Syrah, Pinot Grigio
Virginia	By tonnage, <i>Vitis vinifera</i> varieties represent 75% of total production. French hybrids varieties account for nearly 20% of total wine grape production in the state, while American varieties make up only about 5% of the total. As of 2012, the varieties include. Aglianico, Albariño, Barbera, Black Muscat, Cabernet Franc, Cabernet Sauvignon, Cayuga, Chambourcin, Chancellor, Chardonal, Chardonnay, Colombard, Concord, Corot noir, De Chaunac, Fer, Gewürztraminer, Graciano, Grüner Veltliner, Malbec, Malvasia, Marechal Foch, Merlot, Munson, Muscat Canelli, Muscat Ottonel, Nebbiolo, Niagara, Norton, Petit Manseng, Petit Verdot, Pinot blanc, Pinot Gris, Pinot Noir, Pinotage, Primitivo, Riesling, Rkatziteli, Roussane, Ruby Cabernet, Sangiovese, Sauvignon Blanc, Scheurebe, Semillon, Seyval blanc, Steuben, Syrah, Tannat, Tempranillo, Tinta Cão, Touriga Nacional, Traminette, Trebbiano, Verdelho, Vidal Blanc, Vignoles, Villard Blanc, Viognier, Zinfandel.

6.3 Wine industry structure

6.3.1 North Carolina

Wineries

North Carolina is home to more than 140 wineries. The industry has two focuses – native muscadine grapes and European-style *vinifera* grapes. Commonly planted *vinifera* grape varieties include Cabernet Sauvignon, Cabernet Franc, Merlot, Syrah, Chardonnay and Viognier. They are planted in the western and Piedmont regions of the state. Scuppernongs and other native muscadine grapes are relatively pest resistant and thrive in the hot sandy conditions of the coastal region. Muscadines contain high levels of Resveratrol and other health-enhancing antioxidants. Some wineries even sell grape skins to nutritional companies. Scuppernong is the first grape cultivated in the US and is the official fruit of North Carolina. The Mother Vine in Manteo on Roanoke Island, a 400-year-old scuppernong vine, is the oldest known cultivated grapevine in the nation.

North Carolina ranks 10th in US wine production and third in wine tourism. According to a recent study, the annual economic impact of the North Carolina wine and grape industry is \$1.28 billion with nearly 7,600 jobs supported. The Yadkin Valley is North Carolina's first federally recognized AVA. It is located in north-western North Carolina, and there are nearly 40 wineries and about 160 ha devoted to vineyards in the Yadkin Valley. Swan Creek AVA, a sub-region of the Yadkin Valley wine area, was established in 2008. It includes five wineries. Haw River Valley AVA is North Carolina's third, established in 2009. It is located in central North Carolina and is home to six wineries. A fourth AVA, the Upper Hiwassee Highlands, was established in 2014. It includes two counties and six wineries in southwestern North Carolina. Medoc Vineyard in the town of Brinkleyville in Halifax County was the first commercial winery established in North Carolina and led the country's wine production in 1835. Duplin Winery, the largest and oldest winery in the state, is the world's largest producer of



Muscadine wine. Asheville is home to the Biltmore Estate Winery, which receives more than 1 million visitors annually and is the most visited winery in the US.

Industry bodies

The North Carolina Winegrower's Association is the largest organisation in the state dedicated to supporting North Carolina's growing number of vineyards and wineries. Incorporated in the state of North Carolina as a non-profit, the goal of the North Carolina Winegrower's Association is to help our members grow better grapes, make better wine and market the final product more effectively. Current membership of the NCWA is more than 350.

Legislation

There is a 15% ABV cap on beer, a 16% cap on unfortified wine and a 24% cap on fortified wine. There is no "happy hour," "buy one get one free" or "ladies night" style specials are allowed. North Carolina law prohibits direct shipping from wine retailers, but it allows direct shipping from in-state and out-of-state wineries. Consumers also have access to wine in grocery stores and wine shops.

6.3.2 South Carolina

Wineries

While there are three wineries located in the southern part of the state between Charleston and Savannah, most of South Carolina's wineries are located in the northern part of the state. South Carolina wineries, regardless of their location, must contend with the state's difficult growing conditions to include high temperatures, high humidity, and fall hurri-

canes. Fruit wine as well as Muscadine, French-American hybrids, and vinifera are all being experimented with in an effort to find the varieties best suited for South Carolina's climate. In total there are 14 wineries:

- Boardwalk Winery
- Carolina Vineyards
- City Scape Winery
- Enoree River Winery
- Hyman Vineyards
- Hyman Vineyards at Pee Dee State Farmers Market
- Irvin-House Vineyards
- Island Winery (SC)
- La Belle Amie Vineyard
- Lighthouse Winery and Vineyards
- Mercer House Estate Winery
- Mira Napa Valley Education Center and Tasting Room
- September Oaks Vineyards
- Victoria Valley Vineyards

Industry bodies

Wine & Spirits Wholesalers of South Carolina (WSWA-SC) is a non-profit trade association that provides a collaborative forum and a collective voice for South Carolina's wine and spirits wholesalers.

The Carolina Agri-Solutions Growers Association (CASGA) is designed to bring together efforts in the areas of purchasing and marketing for traditional and non-traditional botanicals for South Carolina Agriculture. Tourism and agriculture are the top two industries in South Carolina.



Legislation

While there are no dry counties in South Carolina, and retail liquor sales are uniform state-wide, certain counties may enforce time restrictions for beer and wine sales in stores (e.g. no sales after 2 am in Pickens County) while others do not (in-store beer and wine sales are allowed 24 hours a day, 7 days a week in Charleston). Columbia, home of the University of South Carolina, took one of the more relaxed stances on alcohol sales in bars compared to other cities in the state. Many bars, especially those catering to younger crowds in the busy Five Points district, served alcohol until sunrise, and it was not unheard of for bars and clubs to serve alcohol until 7 or 8 am, although the legality of this practice is questionable. In 2011, however, Columbia City Council voted to force bars to close at 2 am, requiring a special permit to stay open further. Requirements for the permit involved having trained security staff and no events that violate “the public peace” (wet T-shirt contests, etc.). In Greenville city limits, it is illegal to serve alcohol after 2 am at bars and restaurants. There is a 14% ABW cap on beer and for wine it is 16% ABV on wine sold in liquor stores. No hard liquor sales are permitted after 7 pm and none on Sundays. No off-premises alcohol sales after midnight Saturday until 7 am Monday, except in Aiken, Greenville, Pendleton, Spartanburg, Horry County, Colleton County, Richland County, Charleston County/city, Beaufort County, York County, and Newberry County.

6.3.3 Virginia

Wineries

There are 249 wineries in Virginia State (2015). For a full winery list, follow this link: <https://www.virginiawine.org/wineries/all>.

Seven AVAs are in Virginia. These grape-growing regions are defined by geographic features that influence the wines they produce. The Northern Neck George Washington Birthplace AVA includes Westmoreland, King George, Northumberland, Lancaster and Richmond counties. Among its wines: Cabernet Franc, Chardonnay, Vidal Blanc and Chambourcin. The Middleburg Virginia AVA is located 80km west of Washington, DC, and encompasses the Town of Middleburg. The AVA is bounded by the Potomac River to the north and mountains to the east, south and west. The viticultural area covers approximately 492km² and contains 92 ha of commercial vineyards, 24 wineries and 8 vineyards. The Monticello AVA is in the central Piedmont area. The area is nestled along the eastern slopes of the Blue Ridge Mountains and encompasses the small ridge known as Southwest Mountain. It is historic in that it is home to Thomas Jefferson’s Monticello, where Jefferson spent years trying to grow European grape varieties. The North Fork of Roanoke AVA is on the eastern slopes of the Allegheny Mountains in Roanoke and Montgomery counties. Its wines include Cabernet Franc, Merlot, Cabernet Sauvignon, Norton and many others. The Rocky Knob AVA is located in Floyd and Patrick counties on the eastern slopes of the Blue Ridge Mountains. The area is located on the eastern slopes of the Blue Ridge Mountains in southwestern Virginia near the towns of Woolwine and Meadows of Dan and astride the Blue Ridge Parkway. The soil is primarily loam and gravel and is well drained. The Shenandoah Valley AVA is Frederick, Clarke, Warren, Shenandoah, Page, Rockingham, Augusta, Rockbridge, Botetourt and Amherst counties in Virginia, and Berkeley and



Jefferson counties in West Virginia. It is bounded by the Blue Ridge Mountains to the east and the Appalachian and Allegheny Plateaus to the west. It is located within the Ridge and Valley region and is a portion of the Great Appalachian Valley. Virginia's Eastern Shore AVA is located on the southern end of the Delmarva Peninsula. The area is defined by the Chesapeake Bay on one side and the ocean on the other. It benefits from breezes from the bay and the sandy soil of the area.

Industry bodies¹

Virginia Wine Board: Created by the Virginia General Assembly in 1984 as part of Virginia's Department of Agriculture and Consumer Services, the Virginia Wine Board promotes the interests of vineyards and wineries in the Commonwealth through research, education and marketing.

Virginia Wine Board Marketing Office: Funded through the Virginia Wine Board, the Virginia Wine Board Marketing Office handles the board's education and marketing efforts on behalf of all Virginia wineries. The office manages the development and execution of a continuous and integrated marketing program, which focuses on advertising, public relations and promotions. Collectively the efforts communicate a clear and positive message on Virginia wines, encourage visits to the state wineries and help increase sales of Virginia wine.

Virginia Wineries Association: Formed in 1983, the Virginia Wineries Association (VWA) grew out of the desire by owners of Virginia wineries to create a wine community that shared ideas and resources to the benefit of everyone in the Virginia wine industry. As a non-profit trade organization, the VWA

advocates on behalf of the industry in a number of areas.

The Virginia Vineyards Association: The Virginia Vineyards Association began in 1979 as a joint effort among Virginia viticulturists, wineries and Virginia Polytechnic Institute and State University to oversee and promote the following areas of mutual interest.

Virginia Winery Distribution Company: Established in 2008, the Virginia Winery Distribution Company (VWDC) is a non-profit, non-stock corporation created by the Virginia Department of Agriculture and Consumer Services (VDACS) to provide wholesale wine distribution services for Virginia farm wineries. Many wineries in the Commonwealth use VWDC to distribute and personally deliver their wines to local retailers.

Legislation

Licensed supermarkets, convenience stores, and gas stations may sell beer and wine. Off-premises sales are not allowed later than 12 midnight. Numerous dry counties exist. Liquor stores are generally open 10 am - 9 pm Monday - Saturday and from 1 pm - 6 pm on Sunday. As Virginia wines have gained recognition and won accolades, the state has gradually passed legislation to ease the restrictions placed on the wine industry. Wine can now be purchased on Sundays in most counties in Virginia, and legislation has been passed to reduce the limitations on sales and shipment. However, certain remaining regulations can still complicate wine sales, shipment and licensing in the state. For example, advertising for happy hour specials is restricted, and sales on happy hour specials are limited to the hours before 9 pm. Retail establishments are not allowed to display



advertisements for alcoholic beverages in their windows or other exterior areas. Recent legislation has restricted wine wholesalers and distributors from making presentations, including wine tastings and wine dinners, at retail establishments. Because this limitation has reduced wine sales by as much as 6% for many wine producers, several lawmakers are working to draft legislation to ease the restriction. The governor also believes that these restrictions are damaging to the growth of Virginia's wine industry. The policies of Governor Wilson and other current officials have been favourable to the growth of Virginia's wine industry. As Virginia's wine country continues to establish itself as one of the premiere wine producing areas in the US, winemakers hope that the legislation of government officials will continue to promote the Virginia wine industry. In 2013, The Virginia Department of Alcoholic Beverage Control stepped up enforcement of a law that limits wine tastings and wine dinners at restaurants that serve wine on site, surprising many restaurateurs who have been offering them for years. The law prohibits wine wholesalers and distributors from participating in tasting events held in restaurants. Winemakers or winery representatives are allowed to participate in these types of events, and the law does not prevent wholesalers from offering tastings at shops that do not serve on premises. Only wine produced at fully qualified bonded wine premises may be sold or offered for sale. Wine produced off the bonded premises by amateur winemakers under home-winemaker conditions should be stored away from bonded wine premises. Federal law requires that anyone wishing to conduct wine operations (other than as a home winemaker) must first establish premises, obtain a bond and receive

permission from the Alcohol and Tobacco Tax and Trade Bureau (TTB). In addition, law requires that anyone wishing to produce or blend wine in the US must first obtain a Federal Basic Permit from TTB.

6.4 Consumers

6.4.1 North Carolina

There is a blossoming wine culture in North Carolina and it is entwined with the region's fascination with food. For many in the Triangle, wine is not a matter of ratings on the 100-point scale, status labels, hushed tastings of benchmark wines and other trappings associated with connoisseurship. Instead, the area shows a rare comfort that belies its relatively recent embrace of wine's pleasures. Right alongside food is a first-rate selection of wines at restaurants and at shops like Cave Taureau and Wine Authorities, many from small vigneron, demonstrating a clear understanding that wine is just one more ingredient on the table, subject to the same standards of production and purity as the food eaten. There are far more young people drinking wine because of the Internet and social media but a fair amount of anxiety still clouds wine drinking, and many here are content with the mass-market bottles they can find in supermarkets. Still, the affinity for farmers, grape growers and vigneron is palpable. Approximately 65% of the wine volume produced in North Carolina is distributed through the three-tier distribution system. This is primarily driven by North Carolina's largest wineries, which sell a significant share of their wines through this channel, specifically Duplin Winery and Biltmore Estate Winery. The vast majority of North Carolina wineries by number, however, sell their wine direct to consumers



through winery tasting rooms, allowing them to potentially obtain higher margins on their product. These wineries generally have relatively small production, typically less than 5,000 cases annually. The retail value of North Carolina wine sold in 2009 is estimated at \$79 million. Winery sales totalled \$45 million, including an estimated \$16 million (35%) in winery direct sales (sales by wineries direct to consumers or to retail). Winery direct sales include sales to consumers in the winery tasting rooms, wine clubs, winery mailing lists and e-commerce or Internet sales. Excluded from these figures is the additional \$9 million in non-wine revenue associated with wineries hosting special events/weddings and selling various merchandise on-site.

6.4.2 South Carolina

South Carolina is predominantly a beer drinking state. In terms of beer drinking, South Carolina is the only state east of the Mississippi River that ranks among the highest beer drinking states (368,140 ml cans per person per year). Consumers can have wine shipped to them direct from wineries, but not from wine retailers. They also have access to wine in grocery stores and wine stores. Simple wine however is a trend that is sweeping the country including South Carolina, largely due to the fact that Millennials (those born between 1980 and 2000, 70 million strong), are beginning to have a significant influence on the wine market. In an effort to reach this hip behemoth, wine companies have rushed in recent years to set up divisions that will speak to less mature drinkers, showcasing clean, modern labels with unassuming names. Kendall Jackson set up the labels Dog House and Tin Roof. Franzia launched Cupcake Vineyards. Yet the Millennial are

informed. In South Carolina e.g. a company started La Wine Agency, whose mission is to initiate new drinkers to the world of wine with standards they can count on. Their first result is La Bubbly, a sparkling wine that's light, clean, and well balanced, with light floral notes and not too much fruit. Available at Social as well as at Whole Foods throughout South Carolina and Alabama (at a retail price point of \$12.99), it won't hurt the pocketbook, either. The price point was important – providing a better option than some of the other wines out there geared toward inexperienced drinkers. Millennials are significantly more likely than older generations to purchase wines that cost \$20 or more and according to the Wine Market Council, Millennials don't see wine as elitist or unattainable either.²

6.4.3 Virginia

Wine lovers in Virginia have full access to wine. Direct shipping, both from wineries and wine retailers is allowed. Consumers also have access to wine in grocery stores, liquor stores and wine stores. In Virginia wine consumption has increased 3.6% from 2004 to 2005 and 22% since 2000. Wine quality continues to improve in all areas with better access to technology and expertise. In Virginia, the increasing number of wineries is a positive development for the industry, as a growing concentration of wineries tends to attract more visitors and more suppliers to the community. The identification of varietals that perform particularly well in Virginia such as Viognier and Cabernet Franc has helped to carve out a wine identity for the state. Virginia is being recognized in the national media for the quality of its wines. Additionally, many wineries in Virginia are being run very well as businesses. However, there are also reasons



to be concerned. The loss of winery self-distribution to retailers and restaurants was a significant blow to the profitability of smaller wineries in the state. Although there are some ways around this issue, it still has created a large negative effect on the industry. Furthermore, if Virginia wineries also lose the ability to sell direct to consumers, there may be few options to keep small wineries profitable and viable. The American Wine Consumer Coalition (AWCC) has given the state an A+

and ranked it number one for its consumer friendliness when it comes to wine laws. Virginia wines are in more demand now than ever, setting a record for the most recent fiscal year at 511,000 cases sold. The previous record was nearly 485,000 cases sold in fiscal 2012. The state also received the top rating because of its Sunday wine sales and “bring your own bottle” laws. The Virginia Department of Alcoholic Beverage Control lists nearly 60 varieties of Virginia wines.

7. CONCLUSION

7.1 North Carolina

In a short span of time, North Carolina has grown to the 9th largest grape production state. It has a \$1.7 billion impact on the state’s coffers. Wine is proliferating in North Carolina due to the climate which is diverse and suitable for growing the crop. There are six wine regions in the state and more than 500 growers. Harvest time for wine grapes usually occurs from August to October, and winemaking season lasts through December. Wineries in North Carolina use a variety of different grapes to create a multitude of different wines, each selecting the type of grapes that will grow best under mountain, piedmont or coastal conditions. There is much scope for further development on wine in this state.

7.2 South Carolina

South Carolina lags in terms of its wine industry and is traditionally a beer-drinking state. However, there are signs of an awakening wine drinking culture and therefore a growing wine production trend. The climate is a challenge with hot and humid summers. As yet, South Carolina has no designated AVA.

7.3 Virginia

Virginia is a burgeoning wine state. It currently ranks 5th in the number of wineries in the nation with more than 249. Virginia is also the nation’s fifth largest wine grape producer. The Virginia wine industry employs more than 4,700 and contributes almost \$750 million to the Virginia economy on an annual basis. In addition, more than 1.6 million tourists visited Virginia wineries in 2013. It is certainly a market that could be further explored.

ENDNOTES

1 <https://www.virginiawine.org/industry>

2 <http://www.winesandvines.com/template.cfm?section=news&content=145997>

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