Sources for Wine Economics Data

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Abstract

This paper is an updated attempt to assemble a comprehensive guide to data and data sources for researching wine economics topics. Often, data on the economic aspects of wine are proprietary, expensive and/or difficult to obtain, especially for those curious about the possibilities but who have limited resources to explore ideas in this emerging field. This annotated compilation provides brief descriptions of a wide range of data feasible for research and policy purposes, emphasizing data sources which are free or inexpensive. Most data discussed are publically available in print, online or can be derived from tools available on government websites, although major private data sources are also noted. Data sources range from those that are national and international in scope to those that are regional or state specific. Both aggregate and more micro level data are included, as are cross-sectional and time-series sources. All sources are hyperlinked in this paper and a summary of the URLs for these sources is provided at the paper’s conclusion. One expectation is this paper will encourage contributions of additional extant wine economic data sources that can be included in future and continuous updates.

Introduction

Because wine economics covers a wide range of research topics, one would expect data used in such research to similarly reflect this diversity. Those who are interested in studying wine economics at a level beyond the use of summary statistics will find that data are available to support research interests. Reviewing the wine economic literature, of course, will indicate various extant data sources. However, data utilized in much of the research often are assembled in a piecemeal way from disjoint and sometimes obtuse sources, or are proprietary, costly or unavailable to those outside the wine trade. This note will suggest data sources for those interested in pursuing wine economics research, describing several proprietary data sources and more readily publicly available alternatives for those who might not have private access or sufficient funding for data acquisition. Because of the diversity of data, data sources and methodologies used, many of the series described below may not match or be strictly consistent with each other. They do, however, allow researchers and practitioners to gain a sense of the wine industry and provide a basis to test relationships in wine economics.

The focus of this monograph is on data and data sets which are available and can be useful for wine economics research. Additional sources for data can be gleaned from publications and working papers available from organizations specializing in wine economics research and knowledge. Prominent organizations in the field of wine economics include the American Association of Wine Economics and its Journal of Wine Economics, the Robert Mondavi Institute Center for Wine Economics at the University of California at Davis, the Wine Economics Research Centre at the University of Adelaide, Wine Business Institute Research Database at Sonoma State University, the University of California Agricultural Issues Center, the European Association of Wine Economics, the Bordeaux Wine Economics research group as well as the new Wine Economics and Policy journal, among others. An
International Wine Research Database has been set up by a consortium of wine libraries, including the Sonoma County Wine Library and the V. E. Petrucci Library at California State University, Fresno. This website provides a one-stop resource indexing the literature covering a range of journals that regularly publish academic research about wine, including wine economics. Specific library collections at various universities that have viticulture and enology departments, such as the collection at the UC Davis library, also are good places to start a data search. We note these organizations here; they are listed below to the extent of their more specific data availability.

For ease of reading, all references are hyperlinked within the text and all URLs are summarized at the end of this note.

Basic Overview Sources

It is often useful to when starting a data search to take a look at several summary compilations of information that can give a very general sense of what data are available. One useful tool is the Statistical Abstract of the United States, including volumes showing historical background material from previous years. Searching these and other summary documents will sometimes provide data, but are more often useful for their references to the original data sources, allowing for more detailed data collection. The 2012 Statistical Abstract is, unfortunately, the final edition of this reference; however, its links to primary data sources should remain useful for several years. In addition, the current Statistical Abstract website contains guides to detailed United States Federal data sources and links to statistical sources for each U. S. state.

A broad and extremely comprehensive collection of international wine data and data sources appears in Global Wine Markets, 1961 to 2009: A Statistical Compendium compiled by the Wine Economics Research Centre at the University of Adelaide. Detailed current and historical data for 45 countries across 8 regions in the world is presented, along with the data sources, covering information from 1961 through 2009. These data are discussed in greater detail below.

Proprietary and Other Non-Government Data

The Nielsen Company

The Nielsen Company is a provider of detailed data to the wine trade. Their data are compiled largely from surveys of retail businesses which sell wine, and show trends in wine consumption by various consumer characteristics. Surveys of U. S. wine retailers provide information, for example, on point of purchase dollar value of sales, sales of wine on promotions and with temporary price reductions, and average unit prices and cases sold, distinguished by brand, varietal, bottle size and so on. These data are proprietary and costly, but can sometimes be gleaned from secondary sources. Nielsen also distributes brief summary reports of what their data indicate (search for “wine” or “beverage”), including results of specialized surveys such as consumer buying habits. Nielsen’s corporate structure has a range of divisions, including one for academic affairs, which may yield information on obtaining additional data for research purposes. Summary Nielsen data are also published monthly in, and can be compiled from, the Wine Business Monthly trade journal (see below).

Liv-ex

Liv-ex, short for London International Vintners Exchange, is a “stock exchange” for wine. They provide current and historical series of the Liv-ex fine wine 100 price index, as well as other indexes and financial information for wine. The Liv-ex 100 index, for example, shows trends in 100 wines with a robust secondary market. It is possible to obtain monthly index values for the most recent five year period from data on their interactive chart of this index (and for ten years for an index of investable...
wines). The website also has a ticker for recent wine sales. As usual with firms that also want to sell services, they have free and paid venues, including ways to keep track of one’s own wine portfolio.

**Wine Mutual Funds**

As wine is often viewed as an investment good, a number of mutual funds have been created that invest in wine. Care must be taken when looking at these funds—some have had financial or other difficulties in the past. In fact, several of these funds have closed recently or are currently being liquidated. Many of these funds are based in Britain, which has been an important center for wine trade for approximately 500 years. Several funds provide time series data on their performance which can be useful in research. See, for example, the [Wine Investment Fund](#) and [Wine Asset Managers](#). Others exist as well. Noting these funds is not in any way an endorsement of them, but rather, they are listed as additional places to find data.

**Wine Business Monthly**

[Wine Business Monthly](#) is a trade journal that regularly summarizes results of a range of surveys and data related to the wine industry. Their regular *Sales & Marketing* section in the print edition summarizes Nielsen data (see above) for the previous month for table wine sales from U. S. grocery, drugstore and major market liquor stores by bottle size, varietal and origin. Select data are available free on-line; to assemble other trend data one must obtain hard copies of the magazine, subscribe or request the tables from the publisher. As other examples of data possibilities, the journal publishes the results of an annual *survey of compensation* for various positions in the wine industry, and an annual *top 30 list of wine businesses*; it may be possible to assemble these data as well by retrieving past editions and survey results. Additional data trends available include those for barrels, tasting rooms and other aspects of the wine business. (Note: Sources hyperlinked here are examples of the types of data available: a subscription is required to obtain the most recent data online.)

**Decanter**

[Decanter](#), a British wine magazine, publishes a monthly list of auction prices for fine the top Bordeaux and California wines in conjunction with Liv-ex. The printed data appear monthly, summarizing case prices from select vintages, while additional detail and investment analysis are available on their website on [Wine Investment](#). A useful tool allowing the construction of wine price time-series, called the Fine Wine Tracker, has been removed from this site however.

**Wines & Vines**

[Wines & Vines](#), is another wine magazine that publishes data. They have a “Wine Metrics” tool that allows a quick look at trends in off-premises and direct to consumer sales by month for several years, as well as data for winery jobs, average bottle price among other data. These data are summarized in an annual report, [Direct to Consumer: Wine Shipping Report](#). The site also has a search engine and directory of all wineries in the United States and Canada. These wineries’ location and contacts are provided; additional data on production, vineyards, distribution and sales, for example, require a paid subscription.

**Wine and Spirits Wholesalers of America**

The [Wine and Spirits Wholesalers of America](#) is a trade association representing distributors and others in the wine industry’s United States wholesale sector. In addition to presenting policy issues affecting this sector, they have a series of *economic* and *legal* databases with state-by-state information. These data are further broken down by Congressional district and statewide House and Senate district levels. Economic impact reports, for example, show the effects of the wine trade on jobs, wages, value and tax
revenues directly attributable to wineries, distillers, distributors and retailers within each of these
disaggregate regions, as well as direct and induced effects on suppliers in related industries. Another
series of reports shows the tax burdens by state affecting the retail value of wine.

*Silicon Valley Bank*

*Silicon Valley Bank* provides economic analysis for the wine industry with an emphasis on the
California. They provide detailed annual reports, entitled *State of the Wine Industry* showing a wide
range of data, including information on production, sales, industry growth, demographics and
consumption, ecommerce and more. Their full reports are available from 2013 online.

*Wine Market Council*

The *Wine Market Council* is a trade association of wine growers, producers, importers and others in the
wine business. In their research function, they commission an annual survey detailing the attitudes and
behaviors of wine consumers by different market segments. The full survey is available to members of
the association; however, *current trends* can be gleaned from summary data presented on their
website.

*Liquid Asset*

*Liquidasset.com* is one of the original websites for wine economics, managed by Orley Ashenfelter of
Princeton University, the current founding President of the American Association of Wine Economists
(AAWE) and past President of the American Economic Association (AEA). This site has sample data
for the most popular wines sold at auction, with additional data series available, as well as several
interesting articles. These sample data provide an idea of the types of information available for more in-
depth research. In addition, statistical analyses are shown for a range of wine tastings, providing
methodological approaches for wine economic research.

*National Museum of American History Wine Oral History Project*

A new unique source of information and in-depth context for many wine economic issues is available
through the *National Museum of American History's* wine oral histories and other archives (search
wine). In particular, the *American Wine Documentation Project*, started by the Smithsonian Institution in
1996 and continuing on an ongoing basis since then, preserves recorded interviews with individuals
who contributed to the founding of the modern American wine industry. These interviews focus on
topics germane to wine economics study, its historical basis and changes over time, including those
related to the development of grape and wine production methodologies, financial aspects of the wine
industry, entrepreneurship, sales and management of the vineyard and winery.

*Additional Proprietary Data Sources*

Wine critics, such as Robert Parker, Jr. and his Wine Advocate newsletter, the *Wine Spectator*
magazine, *Vinous, Jancis Robinson, Decanter magazine* (the latter two British sources) and *others* rate
wines. Once subscribed to their newsletters or online sites (paid), one can assemble a database of
ratings of various wines that may comprise a component of research and analysis.

*Wine-Searcher* is a database of national and international retailers listing their wines in stock along with
prices by bottle size and vintage, as well as select auction information. Compiling data from this source
allows comparisons of the range of prices for specific wines across and within regions. A free version
provides partial data for a number of merchants, while a for-pay version gives all results for a particular
wine by state or country.
The Gallup organization surveys stratified random samples of adults to determine trends in various attitudes, opinions, life status, and consumption habits, among others. They regularly query about the drinking propensity of Americans, and occasionally provide trend data on the percentage of Americans who prefer wine and other alcoholic beverages. Data available to the public occasionally disaggregate wine consumption by selected demographic characteristics, such as age, gender or region. Raw data are likely to exist on wine preferences by these and other characteristics, but it is not clear whether the organization will release these data nor if sample sizes over time were large enough to provide statistically significant results when disaggregated into smaller groups.

A number of private firms provide select data useful for wine economics research, albeit these data can be costly. For example, Gomberg, Fredrikson & Associates is a research/consulting firm that issues reports looking at wine shipments and pricing useful for management decision making. One now defunct firm, MKF Research LLC, provided research and consulting services focusing on the wine industry, issuing a range of still useful reports on economic impacts of the wine business nationally and in individual states for the United States. Several of their reports can still be accessed on the internet, such as a 2007 report on Virginia’s wine industry and a national wine economic impact report. The firm has been affiliated with Global Wine Partners US, LLC and Frank, Rimerman + Co. LLP, CPAs. The former firm provides investment bank information and business topics such as wine industry mergers and acquisitions, while the latter firm occasionally provides data series, such as California wine grape tonnage and prices by major varietal and region, with data from 1991 through estimates to 2018.

The Beverage Information Group supplies data on wine and other alcohol consumption and sales. Their data are cited by some in the media but are costly and proprietary.

**United States Government Sources**

**United States Department of Agriculture**

The U. S. Department of Agriculture (USDA) has several sites that allow data mining on various aspects of wine and grape production. USDA’s National Agricultural Statistics Service allows assembly of custom data on grape production filtered by state or other geographic area. (One might want to see examples of what can be produced as shown by the Wine Institute’s link for California data, as noted below). USDA’s Foreign Agricultural Service provides information on the world wine market. Trade data queries can be developed from their Global Agricultural Trade System (GATS) page, and reports from its Global Agriculture Information Network (GAIN), among other sources. Food and crop data are also provided by USDA’s Economic Research Service.

**United States Alcohol and Tobacco Tax and Trade Bureau**

The Alcohol and Tobacco Tax and Trade Bureau (TTB), a division of the U. S. Treasury Department, has several important responsibilities in regulating wine in the United States. It determines U. S. American Viticulture Areas (AVA), sets the rules on wine labels both domestic and international, collects taxes on wine sales, and provides various historical data by month since 1984 on wine production, stocks of wine, taxes and other information within their realm (and for beer and other alcoholic beverages as well). These data also summarize production and revenues for each state in the United States.

**The United States International Trade Commission**

An online tool from the United States International Trade Commission, the USITC Interactive Tariff and Trade DataWeb, allows users to compile a range of United States import, export and tariff data across countries in aggregate and to/from different regions in the United States. Annual data are available from
1997, with historical data going to 1989. Queries can be made by various measures, such as FAS Export Value (free alongside ship), CIF Import Value (cost, insurance, and freight) and Customs Value. Data can be accessed using a variety of codes, including HTS (Harmonized Tariff Schedule), SIC (Standard Industrial Classification), SITC (Standard International Trade Classification) and NAICS (North American Industry Classification System) codes at different levels of aggregation. Summary trade data reports have also been prepared and are available, as is an extensive tariff data base. Data are free; registration is required.

*The United States Bureau of Economic Analysis*

The Department of Commerce has wide responsibility for U. S. GDP data, personal consumption expenditures (PCE), national accounts on trade and international investment and so on. Included in many of their reports from the **Bureau of Economic Analysis (BEA)** are data on various aspects of wine; a search for “wine” can yield some interesting (and likely infrequently used) data. For example, you might find the **wine price index component of the PCE deflator** (go to section 2, table 2.4.4U, line 99), or **real manufacturing and trade inventories for beer, wine and distilled alcoholic beverage wholesalers** (section 0, table 1BU, line 49). These and additional information can be gleaned from their **underlying data series** for the various statistics assembled by BEA.

*The United States Census Bureau*

The **U. S. Census Bureau** has a number of surveys and databases that provide information on wine and wineries. The **Economic Census** (search “wine”), for example, can yield data on **employment in wineries**. (The next Economic Census is scheduled for 2017.) The Census Bureau’s data on **foreign trade** will also yield various indicators for wine, albeit often intermingled with beer and other spirits.

*The United States Bureau of Labor Statistics*

The **U. S. Bureau of Labor Statistics (BLS)**, part of the Department of Labor, compiles various statistics concerning industry specific price, employment, wage and expenditure data. Through a set of **interactive calculators**, data such as the historical change in the wine price component of the CPI, average hours worked, or earnings of those in the industry, for example, can be obtained. Not all degrees of aggregation are available, so searching through various combinations will obtain desired results.

*Additional United States Based Wine Data Sources*

**California Wine Institute**

The **California Wine Institute** is an advocacy and policy group for California wineries. The Wine Institute’s **statistics page** has several useful data series, including summary data for California and world wine consumption and production. Links are also shown for relevant U. S. Department of Agriculture National Agricultural Statistics Service data on **grape acreage** and **grape crush reports** generated for California. These can serve as guides for similar reports that might be generated for other states.

Affiliated with the Wine Institute is the **California Wine Export Program**, which has additional data, including a **statistics and research** page and links to the USDA Foreign Agricultural Service’s comprehensive series of international **trade market reports** providing relevant data for individual countries’ wine markets and their underlying economic and demographic parameters. They also publish an annual **International Trade Barriers Report** for the U. S. wine industry.
State Specific Wine Resources

Wine is now produced in every state in the United States. Within each state are opportunities to obtain state specific data and information on wine. These resources include those in both educational institutions and industry supported statewide associations. For example, many universities and colleges, especially state universities, have departments, centers and programs established to assist the local wine industry. These programs conduct research in many aspects of viticulture and enology and some have detailed state data on production, revenues and employment, among other information, often listed in the research or publications sections of their websites. One good summary reference to extant state centers for wine research is at the Texas Winegrape Network, which has a long, albeit still partial, list of state institutions conducting wine related research and providing local assistance (this site also has good links to many other wine related resources). New centers are being added frequently in other states than those shown as well. Further, Wine America (the National Association of American Wineries), a national lobby for wine growers in the United States based in Washington, D. C. is another source of leads for state specific data. While Wine America is primarily involved with public policy issues for their clients, they have a useful set of direct links (or contacts when links are not available) to sources that may enable state specific data on their State Association Council listing page.

Congressional Wine Caucus

The Congressional Wine Caucus is a group of Congressmen from wine producing areas. Their website provides current policy information pertaining to the U.S. and (formerly) provided information, such as a link to a study of the impact of wine on the American economy (alternative source linked here). Contact with the leaders or members of the Caucus may further open data opportunities.

International Data Sources

Wine Economics Research Centre, University of Adelaide

The Wine Economics Research Centre at the University of Adelaide undertakes wine economics research and data presentations in support of Australia’s wine industry. As part of this process, they periodically publish a detailed collection of global wine statistics. The current edition, Global Wine Markets, 1961 to 2009: A Statistical Compendium is available free on their website. This report provides very detailed information on wine trade and production for 44 countries across 8 regions in the world. These raw data are also available in Excel file spreadsheet format. These raw data cover the entire period of available information from 1961 through 2009, as updated, and provide an especially rich source of data to test a range of wine economic hypotheses. Data assembled in this report utilize a number of the sources noted below as well. A subsequent database by the Centre (Kym Anderson and Nanda Aryal), Database of Regional, National and Global Winegrape Bearing Areas by Variety, 2000 and 2010 provides further detail on wine production and prevalence.

Eurostat

The managing organization of the European Union (EU), the European Commission, has comprehensive statistics on its member countries at a website called Eurostat. Entering “wine” into their search engine produces databases that allow the user to specify parameters for EU member countries over many years. For example, time series data on various aspects of wine production, trade, and a “wine balance sheet” are obtainable using interactive queries, as are other customizable data (customizable since once several of these links are followed, users must first specify parameters to call up the data). The site has some very good graphing and comparative analysis tools.
**International Organisation of Vine and Wine (OIV)**

The International Organisation of Vine and Wine (OIV) is an organization currently comprising 46 member countries. Its goal is to promote, clarify and provide a forum for resolving issues relating to vines, grapes, wine, and other vine-based products. In addition to a series of statistical reports and analyses on the state of the wine sector, they have an interactive database and statistics tool that allows information mining on member countries, variously from 1995. OIV also has an extensive set of resources with additional technical research and guidance on grape growing, winemaking and general good practices, among other topics.

**United Nations Data**

The Food and Agriculture Organization of the United Nations has established a website, FAOSTAT, which allows free access to data for 245 countries and 35 regional areas. Data on production, trade, pricing and other variables can be obtained sorted by country, product, rank or other measures. Historical series go back whenever practical to 1961. Some data require registration. This is a key source for much data in Global Wine Markets, 1961 to 2009: A Statistical Compendium by the Wine Economics Research Centre at the University of Adelaide, discussed above.

**Additional International Data Sources**

Most wine producing countries maintain their own databases. Many of these can be found on their relevant websites. Searches for “country or region name” wine statistics” will usually provide good links to the relevant data. For example, this approach for Australia led to the Australian government’s Wine Australia website, with a further link to their Research and Statistics Winefacts page; there, both domestic and international data can be found. For countries with robust wine trade, doing the same for each region will reveal relevant data.

The California Wine Export Program, mentioned above, presents summary wine data for individual countries prepared by the USDA Foreign Agricultural Service’s Global Agricultural Information Network (GAIN) in their Market Reports section, often with time series data in each individual country report. The Foreign Agricultural Service also provides a long list of search engines that are useful in developing international wine data.

**Conclusion**

This monograph provides an annotated compilation of data and data sets useful for research into wine economic issues. The sources noted here are in a continuous state of flux. The intention is that this document will be a living one, periodically updated as new data sources become known and available, updated or otherwise revised or terminated. Contributions to this compilation are welcome.
Summary of URLs

Below is an alphabetical listing of the sites hyperlinked above along with their URL’s. The sites mentioned here are largely well-know sources of data. However, as usual, caveat emptor: users should make a judgment on the validity and reliability of the data on each site and use these data accordingly. Some sites require additional digging to learn precise definitions of the data presented, as well as continued research to find complementary and possibly more relevant data. Following links and sources from and among various sites may also yield useful data.

American Association of Wine Economics
www.wine-economics.org

The Beverage Information Group

Bordeaux Wine Economics
http://bordeaux-wine-economics.org

California Wine Export Program
www.calwinexport.com

California Wine Export Program International Market Reports
www.calwinexport.commarket-information/market-reports

California Wine Export Program International Trade Barriers Report
http://www.calwinexport.com/node/2367

California Wine Export Program statistics and research page
www.calwinexport.com/statistics-and-research

Congressional Wine Caucus
http://winecaucus-mikethompson.house.gov/about

Congressional Wine Caucus report link

Database of Regional, National and Global Winegrape Bearing Areas by Variety, 2000 and 2010
www.adelaide.edu.au/wine-econ/databases/winegrapes

Decanter
http://www.decanter.com

Decanter Wine Investment Pages
http://www.decanter.com/learn/wine-investment

European Association of Wine Economics
http://www.euawe.org/?langue=en

Eurostat
http://ec.europa.eu/eurostat

Eurostat External Trade Example
http://ec.europa.eu/eurostat/web/international-trade/data/database

Eurostat “Wine Balance Sheet” Example

Eurostat Wine Production Example

Frank, Rimerman + Co, LLP, CPAs
http://www.frankrimerman.com
Frank, Rimerman + Co., LLP, CPAs California wine grape tonnage and prices

Gallup Surveys
www.gallup.com

Gallup Trend Summary

or www.adelaide.edu.au/press/titles/global-wine for online access

www.adelaide.edu.au/wine-econ/databases/GWM

Global Wine Partners US, LLC
www.globalwinebank.com/index.html

Global Wine Partners US, LLC wine industry mergers and acquisitions

Gomberg, Fredrikson & Associates
http://www.gfawine.com

International Organisation of Vine and Wine (OIV)
http://www.oiv.int/en/international-organisation-vine-and-wine

International Organisation of Vine and Wine (OIV) Reports and Statistics Page

International Organisation of Vine and Wine (OIV) Database and Statistics Tool
http://www.oiv.int/en/databases-and-statistics

International Organisation of Vine and Wine (OIV) Technical Research and Guidance

International Wine Research Database
http://iwrdb.org/cgi-bin/koha/opac-main.pl

Jancis Robinson
www.jancisrobinson.com

Journal of Wine Economics
www.wine-economics.org/journal

Liquid Asset
www.Liquidasset.com

Liv-ex
www.liv-ex.com
Liv-ex 100
http://www.liv-ex.com/staticPageContent.do?pageKey=Fine_Wine_100

MKF Research LLC Research Reports
https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=8&ved=0ahUKEwiQ35eess8XKAhWJ2T4KHTfhCUwQFgHRMAC&url=http%3A%2F%2Fleqv2.state.va.us%2Fds%2Fh%26sdocs.nsf%2FBByZBYear%2FHD372007%2F%24file%2FHD37.pdf&usg=AFQjCNHxsC4I4knTnbRx22_zT_dGYEBSww&sig2=hnSA9qWeLZCGfs4rsXCqPQ (on Virginia's wine economics)


National Museum of American History
http://americanhistory.si.edu

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National Museum of American History Archives
http://sova.si.edu

http://sova.si.edu/record/NMAH.AC.0817

The Nielsen Company
en-us.nielsen.com

The Nielsen Company Academic Affairs

Robert Mondavi Institute Center for Wine Economics
http://vinecon.ucdavis.edu

Robert Parker and the Wine Advocate
www.robertparker.com

Silicon Valley Bank
www.svb.com

Silicon Valley Bank State of the Wine Industry
www.svb.com/wine-report

Sonoma County Wine Library
http://www.sonomalibrary.org/wine

Texas Winegrape Network list of state wine research and assistance centers
http://winegrapes.tamu.edu/research/other-research-programs/viticulture-and-enology-research-in-other-states

UC Davis Viticulture and Enology Library Collection

United Nations Food and Agriculture Organization (FAO)
http://faostat3.fao.org/home/E

U. S. Alcohol and Tobacco Tax and Trade Bureau (TTB)
www.ttb.gov

U. S. Alcohol and Tobacco Tax and Trade Bureau (TTB) historical data
www.ttb.gov/wine/wine-stats.shtml

U. S. Alcohol and Tobacco Tax and Trade Bureau (TTB) wine page
www.ttb.gov/wine

U. S. Bureau of Economic Analysis
www.bea.gov

U. S. Bureau of Economic Analysis Inventory Data
www.bea.gov/iTable/iTable.cfm?ReqID=12&step=1 (section 0, table 1BU, line 49)

U. S. Bureau of Economic Analysis Wine Price Index Component of PCE Deflator
www.bea.gov/iTable/iTable.cfm?ReqID=12&step=1 (section 2, table 2.4.4U, line 99)

U. S. Bureau of Labor Statistics
http://www.bls.gov

U. S. Bureau of Labor Statistics Interactive Calculators
http://www.bls.gov/data

U. S. Census Bureau
www.census.gov

U. S. Census Bureau Economic Census
www.census.gov/econ/census
U. S. Census Bureau Foreign Trade Data
www.census.gov/foreign-trade/data/index.html

U. S. Census Bureau Statistical Abstract of the United States

U. S. Census Bureau Winery Employment
http://www2.census.gov/econ/susb/data/2010/us_6digitnaics_2010.xls

U. S. International Trade Commission USITC Interactive Tariff and Trade DataWeb
http://dataweb.usitc.gov

U. S. Department of Agriculture (USDA) Economic Research Service
www.ers.usda.gov

U. S. Department of Agriculture (USDA) Foreign Agricultural Service
www.fas.usda.gov/commodities/wine-beer-and-spirits

U. S. Department of Agriculture (USDA) Foreign Agriculture Service's Global Agricultural Trade System (GATS)
www.fas.usda.gov/gats/default.aspx

U. S. Department of Agriculture (USDA) Foreign Agriculture Service's Global Agriculture Information Network (GAIN)
http://gain.fas.usda.gov/Pages/Default.aspx

U. S. Department of Agriculture (USDA) Foreign Agriculture Service's search engine
www.fas.usda.gov/fassearch.asp

U. S. Department of Agriculture (USDA) National Agricultural Statistics Service
www.nass.usda.gov

University of California Agricultural Issues Center
http://aic.ucdavis.edu

V. E. Petrucci Library at California State University, Fresno
https://library.fresnostate.edu/find/ve-petrucci

Vinous
http://www.vinous.com

Wine America
www.wineamerica.org

Wine America State Association Council
http://wineamerica.org/sac/list-of-members

Wine and Spirits Wholesalers of America
http://www.wswa.org

Wine and Spirits Wholesalers of America Economic Database
http://www.wswa.org/facts-data/state-economics

Wine and Spirits Wholesalers of America State Law Database

Wine Asset Managers
http://www.wamllp.com/the-fine-wine-fund/#rep

Wine Australia
www.wineaustralia.com/australia

Wine Australia Research and Statistics Winefacts

Wine Business Institute Research Database at Sonoma State University
http://www.sonoma.edu/sbe/wine-business-institute/research