SONOMA COUNTY EDB ECONOMIC DEVELOPMENT BOARD

TECHNOLOGY, MANUFACTURING & LIFESTYLE PRODUCTS

INDUSTRY REPORT

2022

ECONOMIC DEVELOPMENT BOARD

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EXECUTIVE SUMMARY

September 2022

The Sonoma County Economic Development Board (EDB), in partnership with the Sonoma County Workforce Investment Board (WIB), is pleased to present the *2022 Technology, Manufacturing and Lifestyle Products Industry Insider* report. Our research partner, Moody's Analytics, provided the research for this report.

HIGHLIGHTS

Tech firms nationwide are proceeding with caution as interest rates rise. Sonoma County firms are less affected by economic volatility as many of them are more established firms. However, a decrease in business investment will slow hiring in the Sonoma County tech industry. Efforts to increase internet accessibility and high demand for broadband, internet infrastructure, and smart-home and household devices that rely on mobile connectivity will benefit local electronic testing and broadband equipment makers. High costs of business and living as well as a shortage of new engineering graduates will dampen tech business growth in Sonoma County. However, increasing costs in Marin country could push biotech industries into Sonoma.

Manufacturing payrolls faired better at the onset of the pandemic than other industries, dropping only 11% compared to the broader job market's 20%. Manufacturing payrolls are now down only 2% from pre-pandemic levels. Sellers of food and necessities held up well during the pandemic and will continue to be protected from economic uncertainty. Other manufacturers, including apparel stores, restaurants, and appliance and electronic stores, benefited from the release of excess savings as the pandemic fears diminished, but they will likely be affected by inflation and slowed consumer spending. Sonoma County will continue to benefit from its early entry into the increasingly popular organic food and beverage market.

Leisure economies should continue to recover, causing an increase in recreation spending in Sonoma County. Producers of outdoor equipment and apparel should benefit from this trend in the coming few quarters. Direct spending on outdoor recreation has increased over 40% in the last five years. However, excess consumer spending shows a trend towards services and away from goods. Apparel prices have been increasing rapidly but will likely slow as excess savings move away from goods and towards services. Real consumer spending will increase approximately 3% this year, compared to 8% in 2021. Consumer spending will continue to slow as excess savings are depleted and real incomes stagnate.

Thank you for your interest in the Economic Development Board's research. For additional information, questions, comments, or suggestions please contact us at (707) 565-7170 or visit www.sonomaedb.org.

Recent Performance. Sonoma County's high-tech and specialty manufacturing cluster has made significant strides over the past year, though there is still room for improvement. Manufacturing payrolls initially held up far more strongly than the rest of Sonoma's labor market, with a markedly smaller 11% drop in payrolls at the onset of the pandemic, compared with 20% for the total job market. While manufacturers have struggled to recoup all their pandemic-related job losses, stronger job growth over the past year has them down just 2% compared with early 2020.

Food and beverage manufacturers, which play a larger-than-average role in the county, forming more than half of total manufacturing payrolls, have been key growth drivers for the county in recent years. Annual benchmark revisions revealed much stronger growth than had preliminary estimates. Robust growth over the last year to the tune of 3% has payrolls just 4% below pre-pandemic levels. Greater spending on outdoor recreation has spurred sales of sports equipment and Sonoma-designed accessories.

Although the cluster of once-dominant medical device, electronic testing and telecommunications industries is a shadow of its former self, employment had begun to drift higher before the pandemic. Two large players, Keysight Technologies and Medtronic, anchor what remains a preeminent destination for medical device manufacturers.

High-tech payrolls mounted a strong recovery over the past year, partially on the back of robust growth in high-tech services, though there has been some backtracking as the equity and venture capital market cool. Still, payrolls have surpassed their pre-pandemic level and the county is less exposed to these trends than its Bay Area neighbors.

Macro drivers. Despite surging inflation and dwindling consumer confidence, the outlook for the labor market has changed little in recent months and remains bright. Subsequent waves of the pandemic are weighing less heavily on hiring, and the Russian invasion of Ukraine has had little impact to date. Nonfarm employment is now only about 800,000 jobs short of pre-pandemic highs—a gap that will close before the end of the year. Leisure/hospitality and government account for most of the deficit and it will take several more years for these sectors to fully recover.

The unemployment rate will eclipse pre-pandemic lows by year's end. This improvement is a bit misleading given the hole in labor force participation. There are still about 900,000 more people than in 2019 who are out of the labor force but want a job.

Consumer spending growth has gathered momentum, but it will struggle to maintain it. On the plus side, drags from supply constraints will gradually lessen. However, consumers are increasingly drawing down their excess savings as real incomes stagnate, and there is a limit to the excess savings. Excess savings are being reduced and Moody's Analytics thinks that will continue, but not all of the savings will be spent.The composition of consumer spending will continue to shift away from goods and toward services. There is spent-up demand for some consumer goods as the pandemic and fiscal stimulus pulled forward some consumer spending on goods. By contrast, there is pent-up demand for consumer services. All told, real consumer spending is forecast to increase more than 3% this year, down from about 8% in 2021, and will slow further next year.

The rising interest rate environment has caused a swift pullback in equity and venture capital markets. Lower valuations for tech firms have already led to some sizable layoffs at mid-stage companies. Investors are growing more cautious in light of the tremendous uncertainty, and this will hold back hiring across the tech industry.

Industry drivers. Consumers' growing preference for organically and locally sourced artisanal food products will play to the advantage of Sonoma-based food and beverage producers, but the widespread damage felt by county producers since the pandemic began will take some time to heal. Producers were stung by a pullback in restaurant spending, but some of this was offset by increased demand at grocery stores. This trend is rapidly unwinding as consumers become more comfortable dining out. Data from OpenTable show a vast improvement in the number of seated diners statewide, down just 2% in June compared with the same month in 2019.

Sonoma's organic producers are reaping the benefits from its early entry into the organic food and beverage market. Despite the cost advantage that conventional offerings hold relative to organic products, consumers are demonstrating a willingness to pay a price premium for organic produce, meat, dairy and snack foods. U.S. organic sales continue to grow at a robust pace and once again reached new highs in 2021, increasing by 2%. Sales grew far below the pace of 2020, however, as some effects from the pandemic began to abate and pent-up demand was satiated.

The near-term outlook for Sonoma's specialty manufacturing cluster is on shakier ground than a year ago. Sellers of food and other necessities—grocery stores, other general merchandise stores, and building supply stores—held up well during the pandemic and are by and large more insulated from the cyclical swings in the economy. These industries will be in for another solid if unspectacular year despite economic uncertainty; Moody's Analytics expects the U.S. to avoid a recession. Other segments, including apparel stores, restaurants, and appliance and electronics stores, benefited more from the buildup and release in excess savings. These segments will likely be more affected by inflationary costs and a slowdown in consumer spending.

The recovery of the national and regional leisure economies will also boost recreation spending in the coming quarters, which in turn will lift demand for Sonoma's outdoor equipment and apparel producers. Transportation Security Administration traveler throughput volumes are just 10% below 2019 figures but increased fivefold compared with 2020. Outdoor recreation spending is improving as consumers take long-delayed vacations. Outdoor recreation had been among the fastest-growing industries in the U.S., and direct spending grew by more than 40% in the last five years, according to the Outdoor Industry Association. Meanwhile, rising demand for ethically sourced clothing will bolster organic apparel producers such as Indigenous and Farm Fresh Clothing.

Sonoma County's technology firms are facing some near-term economic headwinds. While consumers are pessimistic, they are still spending at a robust pace, but the same cannot be said of tech firms nationwide. A significant equity market correction and rising interest rates have tech firms acting with significant caution, and a slew of tech firms are implementing cost-cutting measures as valuations decrease. This will have a smaller effect in Sonoma given its skew toward more established firms, but decreased business investment will hold back hiring in the county's tech base. On a positive note, persistent remote work will benefit local electronic testing and broadband equipment makers, along with ongoing modification efforts of the internet infrastructure and demand for smart-home and other household devices that rely on mobile connectivity. For example, sales at Sonoma-based Keysight and broadband equipment maker Calix are surging.

Rising smartphone penetration globally as well as the incorporation of additional computer and electronic components into automobiles, airplanes, and other transport vehicles will amplify sales of Keysight's next-generation signal analyzers and oscilloscopes. Yet automation will limit the need for new labor, holding back employment growth compared with the pre-COVID-19 years.

The aging global population and older workers who remain in the workforce for longer than previous generations will sustain demand for advanced medical procedures and medical equipment, including those produced by Medtronic, Claret Medical and Endologix.

Pricing. Increasing crop prices in light of the Russian invasion of Ukraine will keep prices elevated, though growing competition in the organic market will apply some restraint. More market offerings, especially as store brands by large supermarkets flood an increasingly saturated market, will force producers to either cut costs or double down on premium offerings. Inflationary pressures have raised prices across the board and may give consumers additional pause in choosing more expensive organic products. However, consumers have demonstrated a desire for ethically sourced materials that should help Sonoma producers retain some pricing power.

Apparel prices have likewise rapidly increased but will likely decelerate somewhat as supply chains untangle and consumers shift the remaining portions of their excess savings toward services rather than goods.

Tech firms, on the other hand, will mostly hold on to their pricing power. The global semiconductor shortage has garnered headlines in recent months. Supply-chain bottlenecks are holding back supply as demand has surged. The global smart-home and cloud-computing markets continue to grow rapidly, and future catalysts, including the rollout of 5G technology and autonomous vehicles, will ensure sufficient demand for more-advanced chips.

Operating expenses. Sonoma's high-tech and specialty manufacturing cluster will see some respite from moderating labor costs, though they are still far higher than they were a year ago. The good news is that the labor market appears to be cooling in response to the Federal Reserve's rate hike. Labor costs are the highest share of operating expenses across the county's various high-tech, food and beverage, and specialty manufacturing firms, pressuring operating expenses higher.

While labor costs will slow from their breakneck pace seen over the past year, the future of commodity prices looks less optimistic. Already much higher than a year ago as the global recovery took hold last year, the prolonged invasion of Ukraine will have lasting effects on crops and erodes the energy outlook, increasing expectations of higher food and energy prices in the short run. Increases in metal and semiconductor prices, which are important components for high-tech manufacturers, have slowed but remain elevated. Global supply is expected to ramp up with the construction of 39 new fabs, including four in the U.S. However, the construction of new fabs requires 18 to 24 months, so it will be some time before supply reaches the market.

Industrial vacancy rates have stabilized but are a full percentage point below their 2020 high. Industrial rents will modestly rise, as available inventory has been gobbled up and higher interest rates will dissuade more development in the near term. Local research and development facilities have avoided most cost-cutting efforts, but the trend toward lower-cost tech spaces in the South and Mountain West will provide another avenue for firms looking to trim costs.

Long-term outlook. The mainstreaming of the organic food movement will create new opportunities for county producers, especially as consumers prioritize environmental and ethical practices in the production of the food and clothing they purchase. The county's reputation as a haven for sustainable and organic farming practices will help burnish its advantage as organic food sales grow as a share of total food sales, but mass-market organic brands at large food stores will require that Sonoma brands remain ahead of the curve.

Greater automation, and in general a push toward labor-saving technologies, will slow the pace of job additions even as county producers grow their operations. Thus, manufacturing's contribution to countywide job and income growth will be contingent on entrepreneurs' ability to innovate across product lines and to pioneer new product segments.

Robust growth of food and beverage manufacturing facilities within the county itself has also cleared some of the inventory of industrial space, and it is imperative that county stakeholders develop new facilities to slow the rise in rents and enable further expansions.

Land and labor constraints that are rearing their heads throughout the state are becoming even more apparent in coastal areas, and Sonoma is already experiencing waning housing affordability. In-migration has slowed for three years as rising home values price out more would-be residents. The housing shortages have only grown more severe in the wake of the recent fires. The housing market will rebalance, but it is crucial that it does so quickly to ensure that the supply of workers continues to grow and outruns labor supply shortages.

Although Sonoma County will remain a regional hub for high-tech R&D, high-tech services face considerable barriers to growth. High business and living costs relative to those in emerging tech hubs and a shortage of new engineering graduates are structural challenges that outweigh advantages such as proximity to Bay Area tech centers and a high quality of life. As a result, county-based tech firms will staff up at lower-cost destinations in the U.S. and in other countries.

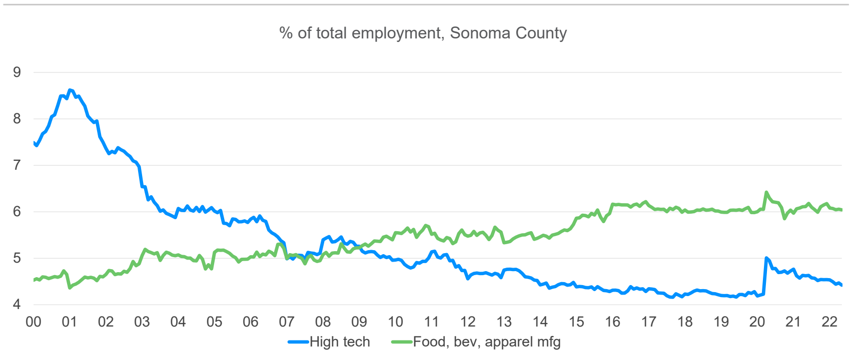
Upside risks. Comparatively high rents in neighboring Marin County could persuade more biotech firms to join the ranks of Sonoma's medical manufacturing cluster, driving growth in high-paying life-sciences research jobs. Rents are jumping in Marin County as vacancy rates dwindle. Biotech firms looking to cut costs while continuing to benefit from much of the same strategic advantages, such as proximity to the Bay Area, a talented local workforce, and a high quality of life, may expand in Sonoma. An improvement in the county's demographic trends, either from abating cost pressures or more in-migration due to telework, would provide the necessary high-skill labor.

Consumer spending could exceed expectations and drive faster growth. While inflation is eating away at real wage growth, wage rates are rising rapidly and should remain strong as the labor market tightens. The combination could push household income up faster than expected. More flush consumers would benefit Sonoma's cluster of food and beverage and apparel manufacturers.

Downside risks. The odds of a policy error have increased as the Fed has taken more dramatic measures to signal its commitment to stamping out inflation. If the Fed is too aggressive in normalizing policy, it could ignite a panic in financial markets, causing asset prices to plummet even further than they have. Higher interest rates could also cut off the flow of credit, slowing growth. If the Fed moves too slowly amid a possible wage-price spiral, it risks a further rise in inflation pressures that would also cause economic growth to slow. This would hamstring the recovery for Sonoma's tech and manufacturing cluster, which is sensitive to fluctuations in credit flows.

Colin Seitz
June 2022

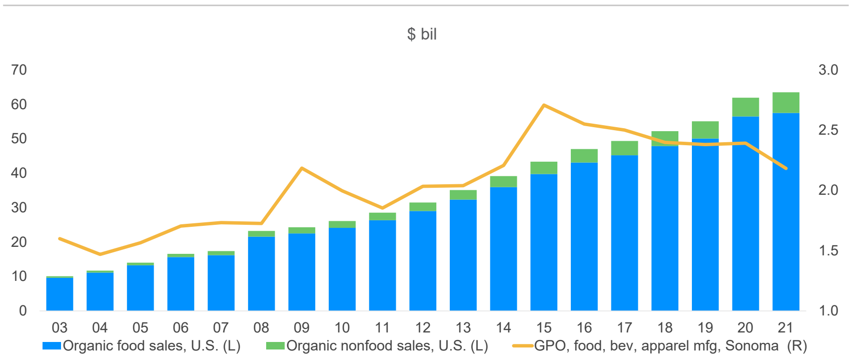
High-Tech and Manufacturing Employment Recovery Stalls



Sources: BLS, Moody's Analytics

Sonoma County's manufacturing base shifted away from high tech toward nondurable goods manufacturing in the early 2000s, and growth prospects are tilted toward food and beverage manufacturing. High-tech employment has held steady in recent years and will increase only modestly, holding on to its current share of the overall labor market. The county's proximity to agriculture hubs in the Central Valley and early entry into the organic market position food and beverage manufacturers to command a growing share of manufacturing employment.

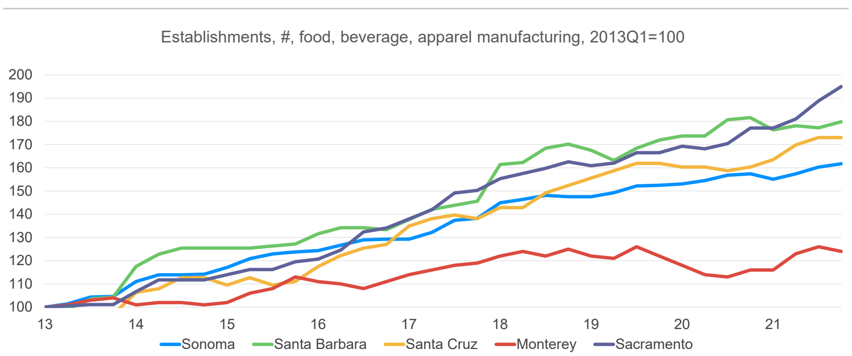
Organic Sales Climb, but Output Takes a Step Back



Sources: U.S. Organic Trade Assn., Moody's Analytics

Sales of organic food and nonfood products are rapidly outpacing those of their nonorganic counterparts. The COVID-19 pandemic accelerated the shift to organic products as consumers grew more health conscious, but this trend slowed last year as cost pressures built and consumers began to chip away at their excess savings. Nonetheless, Sonoma's early adoption of organic and ethically sourced products has proven valuable in developing a renowned brand, has been crucial to the success of food and beverage producers, and augurs well for local producers.

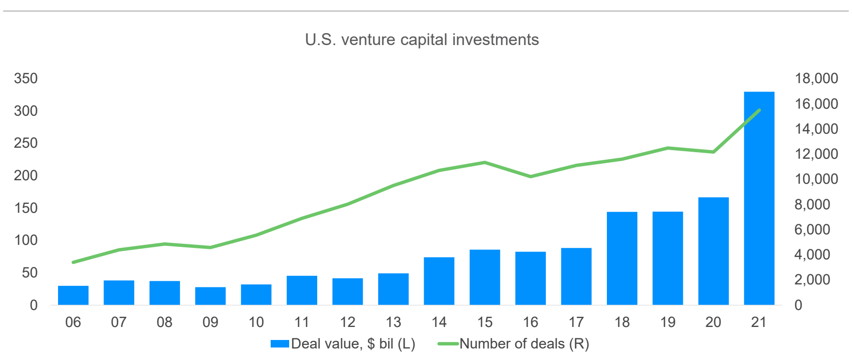
Sonoma Falls Slightly Behind Regional Peers



Sources: BLS, Moody's Analytics

Food and beverage makers have been a key source of growth in Sonoma's manufacturing base, but the pace of growth in new establishments is beginning to slow as the market matures. Apparel and other specialty lifestyle products have grown less vigorously, but the number of establishments is still ticking higher. By contrast, growth in high-tech firms has stagnated as county tech giants shift manufacturing and research and development to lower-cost centers in the U.S. and overseas.

Venture Capital Had a Record-Setting Year



Sources: Pitchbook, Moody's Analytics

Venture capital funding surged in 2021 to a record-setting pace in terms of both value and number of deals. Given the recent stock market correction and rising interest rate environment, investors are likely to pull back sharply this year. As financial markets digest interest rate normalization, it will take another year for the venture capital spigot to flow freely again. Sonoma will be less exposed than its Bay Area counterparts, but less spillover from San Francisco tech companies will apply restraint to the county's tech economy.

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