



VOICE OF BUSINESS

Region's economy relies on Brent Spence Bridge



Chris Kershner
President and CEO
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of Commerce

After years of collective advocating and Dayton-area logistics, distribution and manufacturing companies working side-by-side with partners in Ohio and Cincinnati, the fruits of our labor are here just in time for spring.

Dayton area logistics companies have an economic impact of well over \$2.5 billion annually and employ over 25,000 people directly in our region. This impact and continued economic investment is contingent on a key need - efficient and convenient movement of goods on I-75 and I-70. The competitive advantage of I-75/I-70 has been key to our economic attractiveness and key for private sector growth that values being able to get to 60% of the nation's population in one day's drive.

For decades, Dayton

area logistics and manufacturing companies delivering goods to, and receiving goods from the south, have had to deal with the uncertainty of the Brent Spence Bridge over the Ohio River. The bridge has been repaired, painted and stabilized. We know these fixes have solved the safety issues and structurally stabilized this critical corridor, but the fact still remains that a bridge built for 80,000 vehicles a day in 1960 is now transporting 160,000 vehicles daily in 2022. To solve this problem, we need real investment. We need a new bridge. Realizing over \$417 billion in annual freight, this bridge isn't only important to Dayton and Cincinnati, it's important to the entire world's economy. The time is now, and we have a real opportunity to solve this problem, protect our supply chain and ensure the Dayton region remains one of top locations in the country for logistics and distribution companies.

Six weeks ago, Ohio Gov. Mike DeWine and Kentucky Gov. Andy Beshear took unprecedented action and committed to jointly pursuing \$2 billion in federal

Residential Home Sales

	January 2022	January 2021	%Change	YTD '22	YTD '21	%Change
Number of Homes Sold	1027	1020	0.69%	1027	1020	0.69%
Total Home Sales	\$217,508,530	\$196,978,619	10.42%	\$217,508,530	\$196,978,619	10.42%
Average Sale Price (\$)	\$211,790	\$193,116	9.67%	\$211,790	\$193,116	9.67%

Source: Dayton Area Board of Realtors, Dayton Area Home Sales

Sales Tax Collections

County	Current Rate	January 2022	January 2021	12 Mos Change	YTD 2022	YTD 2021	YTD Change
Butler	0.75	\$5,154,834	\$4,761,473	8.26%	\$5,154,834	\$4,761,473	18.92%
Clark	1.50	\$2,912,518	\$2,881,329	1.08%	\$2,912,518	\$2,881,329	11.90%
Darke	1.50	\$1,030,821	\$966,909	6.61%	\$1,030,821	\$966,909	14.68%
Greene	1.00	\$3,478,923	\$3,097,593	12.31%	\$3,478,923	\$3,097,593	16.18%
Miami	1.25	\$2,251,282	\$2,091,383	7.65%	\$2,251,282	\$2,091,383	11.71%
Montgomery	1.25	\$11,564,953	\$10,017,280	15.45%	\$11,564,953	\$10,017,280	12.47%
Preble	1.50	\$653,277	\$638,445	2.32%	\$653,277	\$638,445	15.53%
Warren	1.25	\$6,373,575	\$5,979,960	6.58%	\$6,373,575	\$5,979,960	14.61%
Region Total		\$33,420,183	\$30,434,372	9.81%	\$33,420,183	\$30,434,372	14.24%

Source: https://tax.ohio.gov/wps/portal/gov/tax/researcher/tax-analysis/tax-data-series/publications_tds_sales

funds for construction of a new companion bridge to the west of the Brent Spence Bridge. Funding will also continue the work to structurally stabilize the Brent Spence Bridge so that local traffic and through traffic can be separated, relieving congestion and solving significant back-up issues. This type of partnership has never existed before and represents a major milestone in moving this project forward.

The Dayton Area Chamber of Commerce and infrastructure advocates have worked for years to advance Ohio's public policy efforts for this project to acquire property, identify funding and conduct a number of feasibility studies. With the passage of a federal bipartisan infrastructure bill in November 2021, there is \$39 billion set aside for major bridges in the United States. Gov-

ernor DeWine has opened the door for his Administration and the Ohio Department of Transportation to get this done for Ohio. The Dayton Area Chamber of Commerce is committed to working with Gov. DeWine and our partners to ensure that at least \$2 billion of your tax dollars will be coming back to Ohio/Kentucky for this critical corridor.

There is no other project for the U.S. Depart-

ment of Transportation to support with such significant global and national economic significance than this new bridge. The funding is there, Ohio and Kentucky are at the table, and our businesses are asking for it. We've waited long enough, let's get it done and keep moving forward.

Chris Kershner is the Dayton Area Chamber of Commerce CEO and President.

Applications accepted for Empower program

Dayton Area Chamber of Commerce

The Dayton Area Chamber of Commerce is now accepting applications for its next Empower cohort. This women's professional leadership development program was designed for female business leaders in mid- to upper-level management.

This 10-month intensive cohort program blends pro-

fessional business coaching with innovative curriculum and problem solving.

Empower was created in 2018 to excel women business leaders in the Dayton region. It uses in-depth leadership workshops, business coaching and an extensive network of training support to help women business leaders identify individual leadership strengths, values and goals, develop a personal brand and eliminate

barriers to advancement.

Through a strategic partnership with Aileron, the region's world class leadership and training development center, Empower provides participants with a unique blend of hands-on business coaching and group support with peers.

Interested candidates can find more information and an application at Dayton-Chamber.org. Applications are due June 1, 2022.

DAYTON AREA CHAMBER OF COMMERCE CALENDAR OF EVENTS

■ Digital Inclusion Summit, April 27, 11:30 a.m. to 1 p.m. Topic — Examining the Digital Divide. Speaker — Bill Callahan, Connect Your Community Institute. Location — Dayton Metro Library — West Branch, 300 Abbey Ave., Dayton

■ Good Neighbor House Ribbon Cutting, April 27, 2-3 p.m. Location — 627 E. First St.

■ Executive Women's Council: The Erma Bombeck Collection Preview, May 3, 11 a.m. to noon. Location — University of Dayton,

Roesch Library, 300 College Park, Dayton

■ Chamber Night at the Dayton Dragons, May 4, 6-9 p.m. Location — Day Air Ballpark, 220 N. Patterson Blvd., Dayton

■ Breakfast Briefing, May 13, 8-9:15 a.m. Speaker — Jacqueline Gamblin, Founder & CEO, JYG Innovations. Location — NCR Country Club, 4435 Dogwood Trail, Kettering

■ Retaining Talent: Employer Best Practice Series, May 17, 7:30-9:30 a.m. Topic — Creating Your Culture: Values and

Engaging in the Workplace. Location — Montgomery County Employment Opportunity Center, 4303 W. Third Street, Dayton

■ Safety Breakfast with the Experts, May 19, 8-9 a.m. Topic — Injury Investigation. Speaker — Jennifer Harrison, Taft, Stettinius & Hollister. Location — The Mandalay, 2700 E. River Road, Dayton

■ Legislative Day in Columbus, May 24, 8:30 a.m. to 1:30 p.m. Location — The Athletic Club of Columbus, 136 E. Broad St., Columbus

Microchip

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big? A look inside Intel production plants in Chandler and Hillsboro, Oregon, provides some answers.

What chips do

Chips, or integrated circuits, began to replace bulky individual transistors in the late 1950s. Many of those tiny components are produced on a piece of silicon and connected to work together. The resulting chips store data, amplify radio signals and perform other operations; Intel is famous for a variety called microprocessors, which perform most of the calculating functions of a computer.

Intel has managed to shrink transistors on its microprocessors to mind-bending sizes. But rival Taiwan Semiconductor Manufacturing Co. can make even tinier components, a key reason Apple chose it to make the chips for its latest iPhones.

Such wins by a company based in Taiwan, an island that China claims as its own, add to signs of a growing technology gap that could put advances in computing, consumer devices and military hardware at risk from both China's ambitions and natural threats in Taiwan such as earthquakes and drought. And it has put a spotlight on Intel's efforts to recapture the technology lead.

How chips are made

Chipmakers are packing more and more transistors onto each piece of silicon, which is why technology does more each year. It's

also the reason that new chip factories cost billions and fewer companies can afford to build them.

In addition to paying for buildings and machinery, companies must spend heavily to develop the complex processing steps used to fabricate chips from plate-size silicon wafers — which is why the factories are called "fabs."

Enormous machines project designs for chips across each wafer, and then deposit and etch away layers of materials to create their transistors and connect them. Up to 25 wafers at a time move among those systems in special pods on automated overhead tracks.

Processing a wafer takes thousands of steps and up to two months. TSMC has set the pace for output in recent years, operating "gigafabs," sites with four or more production lines. Dan Hutcheson, vice chair of market-research firm TechInsights, estimated that each site can process more than 100,000 wafers a month. He estimated the capacity of Intel's two planned \$10 billion facilities in Arizona at roughly 40,000 wafers a month each.

How chips are packaged

After processing, the wafer is sliced into individual chips. These are tested and wrapped in plastic packages to connect them to circuit boards or parts of a system.

That step has become a new battleground, because it is more difficult to make transistors even smaller. Companies are now stacking multiple chips or laying

them side by side in a package, connecting them to act as a single piece of silicon.

Where packaging a handful of chips together is now routine, Intel has developed one advanced product that uses new technology to bundle a remarkable 47 individual chips, including some made by TSMC and other companies as well those produced in Intel fabs.

What makes chip factories different

Intel chips typically sell for hundreds to thousands of dollars each. Intel in March released its fastest microprocessor for desktop computers, for example, at a starting price of \$739. A piece of dust invisible to the human eye can ruin one. So fabs have to be cleaner than a hospital operating room and need complex systems to filter air and regulate temperature and humidity.

Fabs must also be impervious to just about any vibration, which can cause costly equipment to malfunction. So fab clean rooms are built on enormous concrete slabs on special shock absorbers.

Also critical is the ability to move vast amounts of liquids and gases. The top level of Intel's factories, which are about 70 feet tall, have giant fans to help circulate air to the clean room directly below. Below the clean room are thousands of pumps, transformers, power cabinets, utility pipes and chillers that connect to production machines.

The need for water

Fabs are water-intensive operations. That's because water is needed to clean wafers at many stages of the

production process.

Intel's two sites in Chandler collectively draw about 11 million gallons of water a day from the local utility. Intel's future expansion will require considerably more, a seeming challenge for a drought-plagued state like Arizona, which has cut water allocations to farmers. But farming actually consumes much more water than a chip plant.

Intel says its Chandler sites, which rely on supplies from three rivers and a system of wells, reclaim about 82% of the freshwater they use through filtration systems, settling ponds and other equipment. That water is sent back to the city, which operates treatment facilities that Intel funded, and which redistributes it for irrigation and other nonpotable uses.

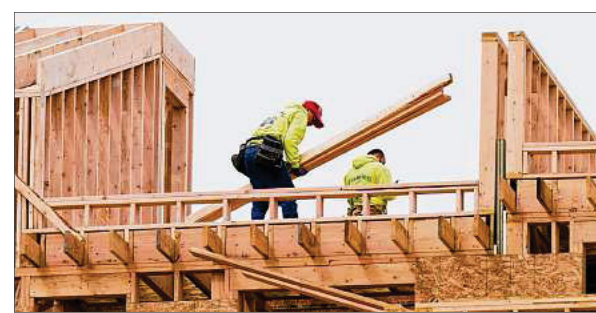
Intel hopes to help boost the water supply in Arizona and other states by 2030, by working with environmental groups and others on projects that save and restore water for local communities.

How fabs are built

To build its future factories, Intel will need roughly 5,000 skilled construction workers for three years.

They have a lot to do. Excavating the foundations is expected to remove 890,000 cubic yards of dirt, said Dan Doron, Intel's construction chief.

The company expects to pour more than 445,000 cubic yards of concrete and use 100,000 tons of reinforcement steel for the foundations — more than in constructing the world's tallest building, the Burj Khalifa in Dubai, United Arab Emirates.



Construction workers build a new home in Philadelphia on April 5. MATT ROURKE / AP

Home

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The number of homes sold throughout Ohio in March fell from the pace set during the month a year ago, posting a 4.8% decrease, according to Ohio Realtors.

Homes sales in March 2022 reached 11,832, a 4.8% decline from the 12,429 sales recorded during the month a year ago. The average sales price across Ohio in March reached \$247,123, an 11.1% increase from the \$222,421 mark posted during the month in 2021.

"Ohio's housing market experienced cooling sales in March, while average prices posted double-digit gains," said Ohio REALTORS President John Mangas. "Overall, conditions in the marketplace are extremely competitive. Would-be buyers continue to face the challenges presented by historic low levels of homes listed for sale, combined with slight increases in interest rates.

"It is worth noting that sales in March 2022 did surpass the 11,551 sales reached during the month in 2019,

a possible indication that market activity is returning to pre-pandemic levels," Mangas added.

While higher rates could translate into less frenzied competition for homes, most homeowners with a mortgage have locked in ultra-low rates over the years and will have less financial incentive to sell, which could lead to fewer homes up for sale, economists say.

Consider, out of the roughly 62% of U.S. homes that have a mortgage, some 92% of them have home loan rates at or below 5%, according to CoreLogic. And 57% of those homes have mortgages with rates at or below 3.5%.

"We're already in record-low inventory," said Molly Boesel, principal economist at CoreLogic. "So that could make the crunch even bigger."

Mortgage rates been declining for decades, from 18% in the early 1980s to below 3% last year.

Sales of previously occupied U.S. homes slowed last month to the lowest pace in nearly two years, the National Association of Realtors said Wednesday.