

Five Greater Minnesota Counties Appear in National Rankings

New Insights: Bureau of Economic Analysis releases GDP estimates by county



Five counties in Minnesota ranked in national top ten lists when 2018 county Gross Domestic Product (GDP) is allocated across 21 two-digit industries and each industry's percent of county GDP is examined. Roseau (durable goods manufacturing), Pennington (wholesale trade), Rice (education services), Olmstead (health care and

social assistance), and Wilkin (other services) stood out as having economies that are highly concentrated in one industry when compared with roughly 3,100 other counties (Table 1).

In 2018 wholesale trade accounted for 5.9% of U.S. GDP, 6.9% of Minnesota GDP, but a whopping 42.6% of Pennington County GDP. The high

concentration of wholesale trade activity in Pennington County results from one of the nation's largest wholesale electronic component distributors being founded and continuing to expand in the county with a population of just 14,000. The other top ten counties in Minnesota have similar stories explaining their high rankings.

Ranking of counties by GDP-related measurement, along with other insights into local economies, have just become possible with the first-time release of county-level GDP estimates by the Bureau of Economic Analysis (BEA).¹ The BEA, which has provided county-level personal income, wage, and employment data for years, has recently added contributions of GDP by industry estimates in order to provide a more detailed geographic distribution of the nation's economic activity. GDP by county statistics should

¹County-level GDP data is available at: <https://apps.bea.gov/iTable/iTable.cfm?acrdrn=5&isuri=1&reqid=70&step=1#acrdrn=5&isuri=1&reqid=70&step=1>

improve overall understanding of local economic dynamics by showing which industries are growing (contracting) and the industry mix of local areas. GDP comparisons to other counties, metro areas, state economies or the nation can now be carried out.

GDP by county is the sub-state counterpart of the nation's GDP and is based on place of production. The output of a software company in Hennepin County is included in Hennepin GDP even though half of their employees either commute into the county for work or just work

from their homes outside the county. This differs from BEA's personal income measure which tallies up county-level personal income from various sources (most importantly wages and salaries) by where the individuals receiving the income reside.

Table 1. Top Ten Counties Ranked by Percent of County GDP, By Industry

NAICS Code		U.S.	MN	Top Nationwide County		Top Minnesota County		
		Percent of GDP	Percent of GDP		Percent of GDP		Percent of GDP	Overall Rank
11	Agriculture, Forestry, Fishing, and Hunting	0.8	1.4	Wheeler, NE	81.5	Rock	34.6	63rd
21	Mining, Quarrying, and Oil and Gas Extraction	1.7	0.8	Hockley, TX	63.9	Lake	29.0	144th
22	Utilities	1.6	1.5	Surry, VA	82.4	Lincoln	42.6	84th
23	Construction	4.1	3.9	Cameron, LA	52.2	Kanabec	13.0	39th
321, 327-339	Durable Goods Manufacturing	6.3	8.9	Douglas, MO	71.6	Roseau	55.5	8th
311-316, 322-326	Nondurable Goods Manufacturing	5.0	5.2	Hutchinson, TX	87.3	Todd	23.7	136th
42	Wholesale trade	5.9	6.9	Pennington, MN	42.6	Pennington	42.6	1st
44-45	Retail trade	5.5	5.4	Potter, SD	32.2	Crow Wing	10.3	136th
48-49	Transportation and Warehousing	3.2	3.2	Valdez-Cordova, AK	79.8	Lake of the Woods	12.1	58th
51	Information	5.2	3.3	Carbon, PA	28.8	Dakota	6.9	61st
52	Finance and Insurance	7.6	8.9	McLean, IL	47.3	Steele	16.1	30th
53	Real Estate and Rental and Leasing	13.3	11.0	Nantucket, MA	45.6	Aitkin	32.7	13th
54	Professional, Scientific, and Technical Services	7.5	6.9	Butte, ID	74.1	Hennepin	12.8	37th
55	Management of Companies and Enterprises	1.9	3.7	Esmeralda, NV	49.6	Mahnomen	10.3	71st
56	Administrative and Support and Waste Management and Remediation Services	3.1	2.5	Aiken, SC	19.6	Benton	3.9	206th
61	Educational Services	1.2	1.0	Madison, ID	14.1	Rice	8.3	8th
62	Health Care and Social Assistance	7.5	9.7	Montour, PA	49.6	Olmstead	46.3	2nd
71	Arts, Entertainment, and Recreation	1.1	1.0	Gilpin, CO	38.4	Carver	2.7	74th
72	Accommodation and Food Services	3.1	2.5	Gilpin, CO	32.9	Cook	16.0	20th
81	Other Services (except Government and Government Enterprises)	2.1	2.1	Wilkin, MN	14.5	Wilkin	14.5	1st
	Government and Government Enterprises	12.4	9.9	Chattahoochee, GA	83.3	Mahnomen	32.2	74th

Source: Author's calculations using 2018 BEA GDP data.

Neither transfer payments (such as Social Security and Medicare) nor returns from assets (such as dividends and interests) are included in county GDP totals. Those income sources are included in personal income estimates but not in GDP estimates. Corporate income and taxes on production and imports less subsidies are included in GDP estimates but are not included in personal income estimates. Figure 1 shows the

percent in which a county's 2018 GDP is higher (lower) than its 2018 personal income estimate.

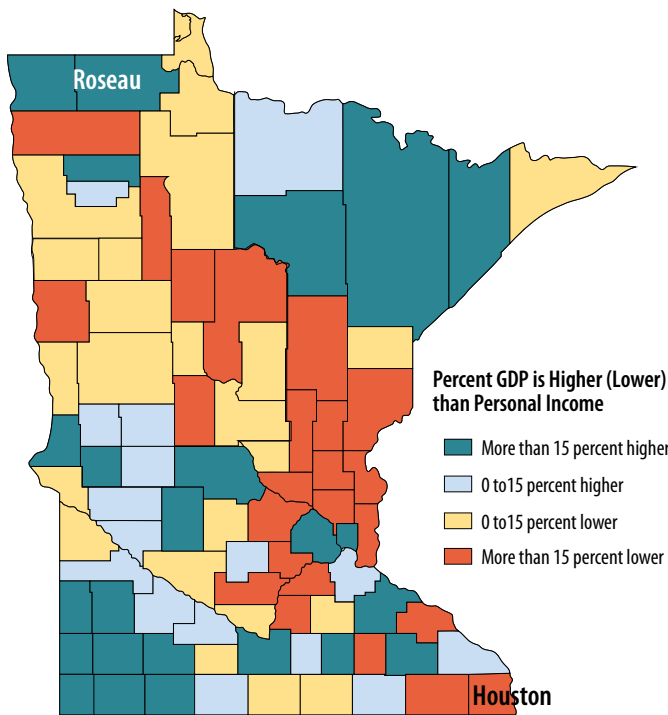
Roseau County's GDP was estimated to be \$1.4 billion in 2018, which was 78% higher than estimated personal income. Houston County is on the other end of the GDP-Personal Income comparison; its GDP was 41% lower than personal income in 2018, \$579 million versus \$973 million. Houston

County is across the Mississippi River from La Crosse, WI so many residents of the county work in La Crosse. The opposite commuting pattern goes on in Roseau as workers from outside of the county drive into the county for work. More detailed analysis for each county is needed to tell the complete story on why GDP differs from personal income, but for many counties the commuting pattern of workers is the key factor. GDP was higher than personal income in 40 counties and lower than personal income in the other 47 counties in 2018. The statewide GDP was 14% higher than personal income in 2018.

Table 2 displays the 10 industries that accounted for the highest percent of GDP in Minnesota's 87 counties in 2018.² Manufacturing was the top GDP contributor in 40 counties, followed by real estate and rental and leasing (14 counties), agriculture, forestry, fishing and hunting (12 counties) and government and government enterprises (11 counties).

The BEA published two GDP series covering 2001 to 2018 for each county. County GDP estimates will be updated annually. One series estimates GDP in current (nominal) dollars while the other series is adjusted for year-to-year price

Figure 1. Percent GDP is Higher (Lower) than Personal Income Estimates in 2018



Source: https://apps.bea.gov/iTable/index_regional.cfm

²2018 GDP estimates for all 20 industries were only published for seven counties. GDP estimates for two to seven industries in the other counties were not published because of confidentiality rules.

swings using a national chain-type price index. The inflation adjusted or real GDP series attempts to ensure that changes from one year to another in county-level GDP estimates are actual changes in goods and service production and not related to price swings. Minnesota’s real GDP expanded by 36% from 2001 to 2018. Half of Minnesota counties experienced real GDP expansion greater than the state’s growth. Real GDP grew half as fast as the state’s rate in 16 counties and declined in two counties (Koochiching and Watonwan). Figure 2 shows the variation in 2001 to 2018 real GDP growth across counties.

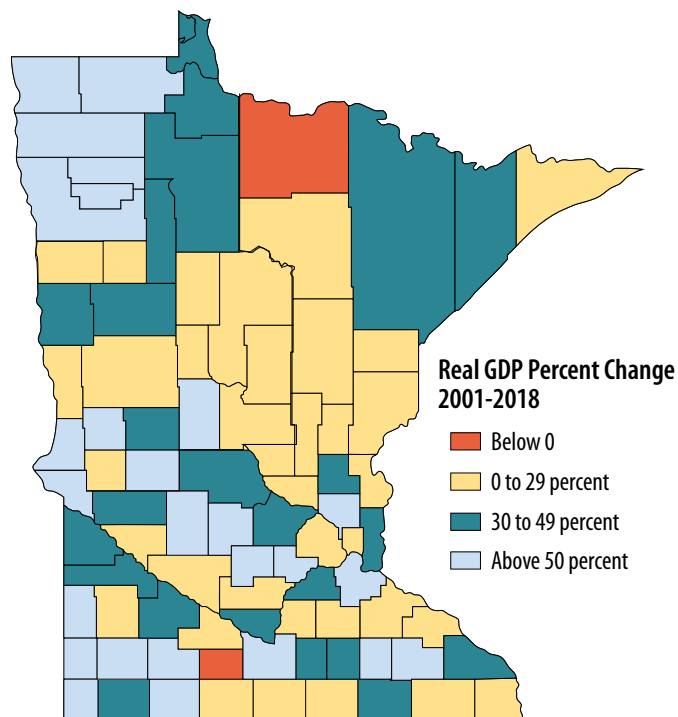
Two Tableau visualizations are available as a guide to the new county-level GDP data. The first visualization ranks counties by total 2018 GDP, displays GDP across industry for each county and lists the top 15 counties with the highest share of GDP for each industry: (<https://public.tableau.com/profile/magda.olson#!/vizhome/2018MinnesotaCountyGDPEstimates/Story1?publish=yes>). The other visualization shows real county-level data for each county across sectors from 2001 to 2018 providing insight into GDP growth by sectors: (<https://public.tableau.com/profile/magda.olson#!/vizhome/RealGDPChanges2000-2018/Dashboard1?publish=yes>). 

Table 2. Top Industry Contributor to County GDP

NAICS Code	Industry	Number of Counties
11	Agriculture, Forestry, Fishing, and Hunting	12
21	Mining, Quarrying, and Oil and Gas Extraction	1
22	Utilities	3
31-33	Manufacturing	40
42	Wholesale trade	1
52	Finance and insurance	1
53	Real Estate and Rental and Leasing	14
55	Management of Companies and Enterprises	1
62	Health Care and Social Assistance	3
	Government and Government Enterprises	11

Source: Author’s calculations using 2018 BEA GDP data.

Figure 2. Real County GDP Growth 2001-2018



Source: https://apps.bea.gov/iTable/index_regional.cfm