

Gross State Product

Overview

Gross state product (GSP) is the market value of final goods and services produced by the labor and property located in a state. It is the regional counterpart to the national gross domestic product (GDP). Conceptually, GSP is gross output less intermediate inputs. The Bureau of Economic Analysis (BEA) has recently released its estimates of GSP for 1999.

Estimates of Real and Nominal GSP

GSP is a measure of production, as distinguished from income or spending. It is the sum of the value added by each industry in the state's economy and is expressed in dollars. Changes in nominal (current dollar) GSP from one year to the next result from quantity changes in production and product price changes. BEA attempts to separate these by calculating real (constant dollar) GSP, which theoretically holds prices constant.

Changes in real gross product for an industry reflect changes in the quantity of output, not the price of the product in the market. In order to calculate real GSP, price indices are constructed to account for inflation or deflation. There are alternative approaches to the construction of price indices, and these have significant implications for the measurement of prices and quantity over time. When price indices are used to adjust current dollar GSP, the result is real GSP.

BEA has historically used a fixed weight approach to calculate real GSP. Observed relative prices in a base year are assumed constant over time. This introduces what is called "substitution bias," and tends to understate real growth in rapidly growing industries and overstate it in slower growth industries.

An alternative is a chain-type index that reduces substitution bias but introduces additional complexities in interpretation and use.¹ The most recent BEA estimates include current dollar GSP, and real GSP measured in chained 1996 dollars. But because of the problems mentioned earlier, real GSP measured in fixed weight 1996 dollars has not been included in the measurement.

Current Dollar GSP

Utah's current dollar GSP is estimated by BEA to be \$59.624 billion in 1998 and \$62.641 billion in 1999.

Real GSP

Utah's real GSP (measured in chain-weighted 1996 dollars) has been increasing since 1986. BEA estimates real GSP for Utah to be \$58.076 billion in 1998 and \$59.663 billion in 1999.

GSP Trends

For years, the growth in Utah's GSP has surpassed that of the nation. In fact, Utah experienced the fastest GSP growth rate of any State in the nation from 1994 to 1998. Utah ranked number one in the nation with a four-year growth rate of 28.2%, as compared to the national average of 14.7%. This trend continues when considering a longer time span. In the period from 1979 to 1998 Utah ranked 7th in the nation in GSP

growth. In that twenty-year period Utah experienced a 91.6% change in GSP, compared to 55.6% growth nationally.²

Significant Issues

In June of 1999 the Bureau of Economic Analysis made several major improvements to the way it estimates GSP. The revisions were centered in the manufacturing and financial service industries. As a result, 1996 manufacturing gross product was revised upward 13% for Utah, and the state as a whole is more productive than previously estimated.

Another important change in GSP has to do with a 1999 reclassification of how GDP, or gross domestic product is calculated. Before the reclassification software purchases were counted as an expense; they are now classified as an investment. Expenses are not included in the figuring of GDP, but investments are. Consequently, software sales, which are growing much faster than the economy as a whole, are now factored into the GDP figures.

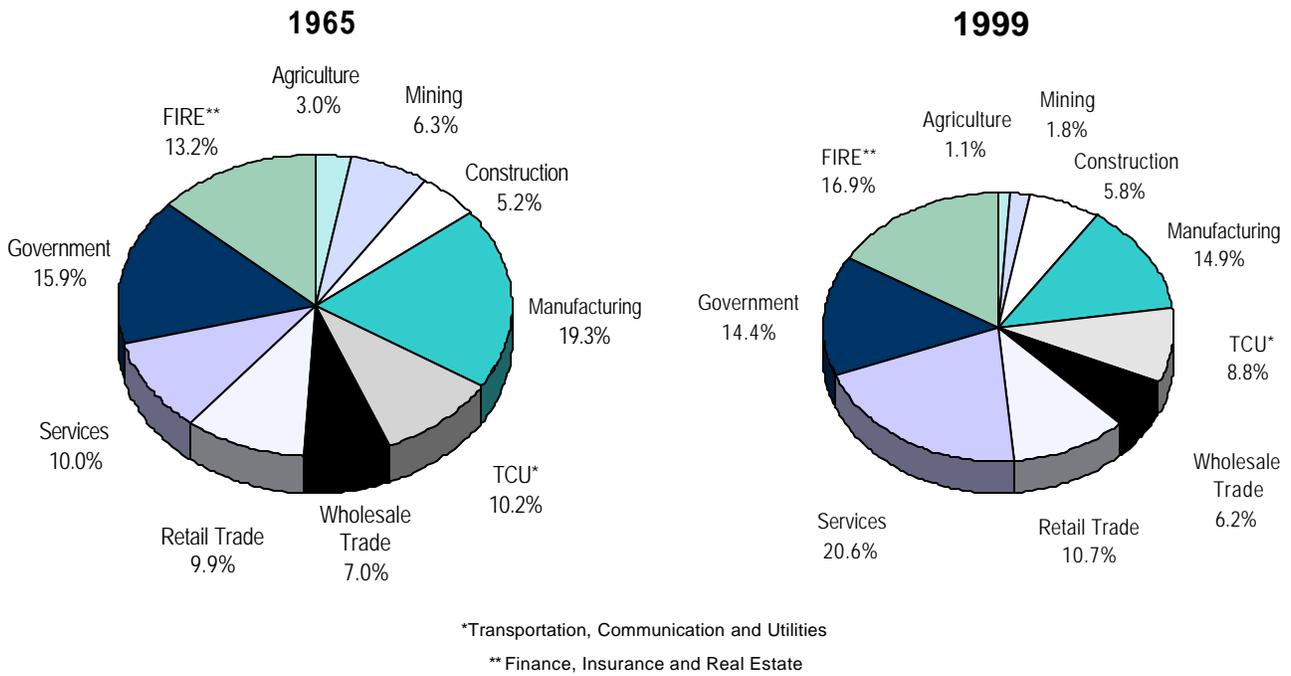
Conclusion

Gross state product can be used to measure aggregate production in a state. For Utah this aggregate production has shown solid increases for more than ten years. This growth should continue at a somewhat slower pace in the future. GSP can also be utilized to show the change in industry composition over time and as such can prove useful in monitoring the diversity in the economic structure of Utah.

¹ J. Stephen Landefeld and Robert P. Perker, "BEA's Chain Indexes, Times Series, and Measures of Long-Term Economic Growth," *Survey of Current Business* 77 (May 1997): 58-68; and Howard L. Friedenberg and Richard M. Beemiller, "Comprehensive Revision of Gross State Product by Industry, 1977-94," *Survey of Current Business* 77 (June 1997): 15-41.

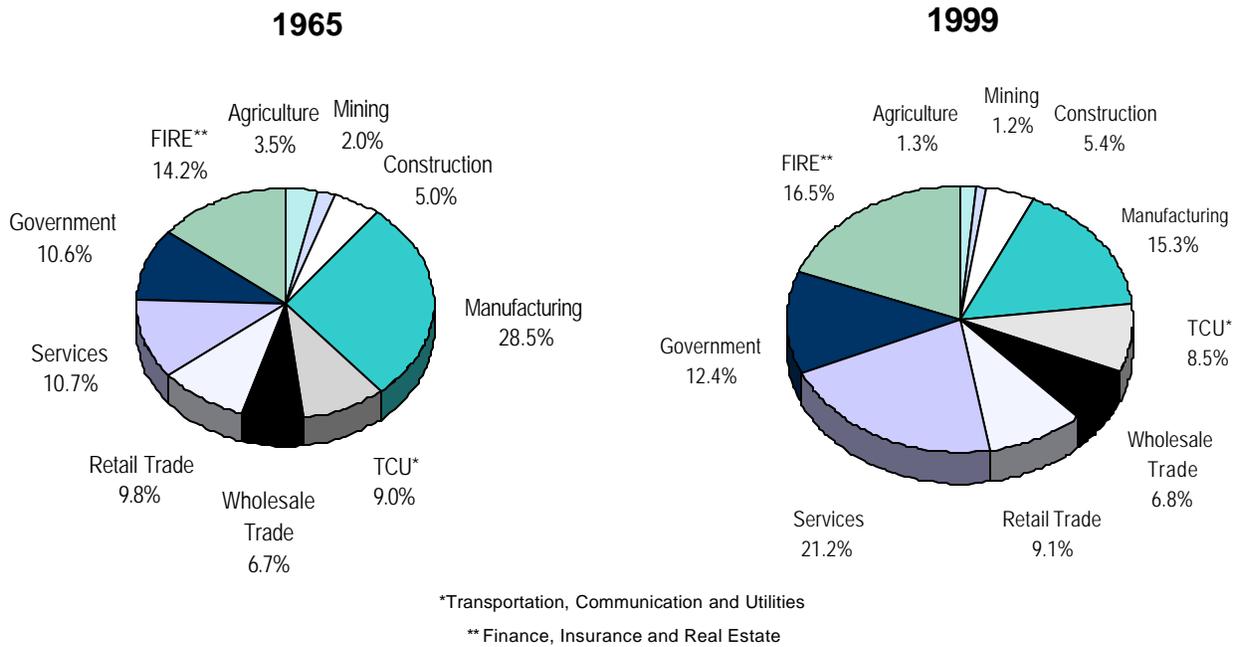
² Kathleen O'Leary Morgan and Scott E. Morgan, "Gross State Product," *State Statistical Trends*, Volume 3, Number 4 (October 2000): 13-17.

Figure 27
Utah Gross State Product--Percent Share by Industry



Source: U.S. Department of Commerce, Bureau of Economic Analysis

Figure 28
U.S. Gross Domestic Product--Percent Share by Industry



Source: U.S. Department of Commerce, Bureau of Economic Analysis

Table 37

Utah Gross State Product by Industry (Millions of Current Dollars): Selected Years

Industry	1986	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total Gross State Product	24,453	31,325	33,626	35,632	38,407	42,295	46,424	51,631	56,062	59,624	62,641
Private Industries	20,214	25,750	27,615	29,333	31,820	35,445	39,141	43,998	47,992	51,139	53,595
Agriculture, forestry, and fisheries	336	469	442	504	539	497	478	525	558	585	697
Farms	278	394	358	407	427	380	346	372	390	404	494
Agricultural services, forestry and fisheries	58	75	84	97	112	117	132	153	168	180	203
Mining	1,001	1,534	1,363	1,211	1,362	1,414	1,544	1,599	1,584	1,352	1,143
Metal mining	142	382	382	370	500	541	694	611	537	289	255
Coal mining	255	210	256	247	245	255	256	326	254	273	352
Oil and Gas	583	858	639	536	598	588	559	627	748	722	449
Nonmetallic minerals	22	84	86	59	19	30	36	35	45	68	87
Construction	1,271	1,268	1,429	1,560	1,775	2,237	2,579	2,911	3,200	3,436	4,092
Manufacturing	3,472	4,638	5,050	5,114	5,247	5,915	6,681	8,115	8,610	8,863	8,311
Durable goods	2,382	3,216	3,413	3,350	3,327	3,826	4,434	5,186	5,495	5,660	5,349
Lumber and wood	73	146	149	107	134	173	176	186	195	192	205
Furniture and fixtures	73	80	98	97	105	126	133	152	173	195	198
Stone, clay, and glass products	199	129	115	141	148	190	226	234	267	311	313
Primary metals	95	508	570	428	525	616	720	661	663	655	619
Fabricated metals	210	294	291	325	345	408	425	478	521	568	527
Industrial machinery	749	446	419	444	418	399	570	1,306	1,379	1,483	688
Electronic equipment	287	400	418	436	279	385	341	348	363	333	562
Motor vehicles	47	129	151	214	318	425	639	495	527	529	609
Other transportation equipment	500	696	730	698	577	594	586	591	652	629	560
Instruments and related	59	199	257	263	232	222	312	362	355	372	415
Misc. manufacturing services	91	188	215	197	247	287	305	374	401	393	653
Electronic equipment + instruments	345	599	675	699	510	607	653	709	717	704	976
Nondurable goods	1,090	1,423	1,637	1,764	1,920	2,089	2,247	2,929	3,114	3,202	2,962
Food & kindred products	381	384	477	525	516	490	576	597	666	649	682
Tobacco products	0	0	0	0	0	0	0	0	0	0	0
Textile mill products	3	25	24	15	16	16	20	16	14	20	22
Apparel and other textile products	81	66	71	94	88	88	74	79	70	67	63
Paper products	62	91	89	83	156	212	228	301	296	322	277
Printing and publishing	264	300	299	341	358	430	413	505	545	576	580
Chemicals	118	207	294	255	260	351	448	891	946	990	669
Petroleum products	137	253	285	358	426	388	346	359	381	368	469
Rubber & plastics	43	95	97	92	98	111	138	176	192	206	196
Leather products	1	1	2	2	3	2	5	4	4	4	4
Transportation, communications, and utilities	2,735	3,123	3,203	3,247	3,639	4,012	4,363	4,578	5,001	5,257	5,514
Transportation	1,047	1,393	1,434	1,530	1,711	1,880	2,036	2,139	2,389	2,544	2,735
Railroad transportation	277	216	241	263	236	256	272	266	273	240	250
Local and interurban	26	21	23	26	27	28	31	35	40	44	48
Trucking and warehousing	436	589	611	650	700	782	839	905	996	1,068	1,126
Water transportation	2	1	1	1	1	1	2	2	4	5	6
Transportation by air	233	479	464	484	621	707	784	812	953	1,049	1,153
Pipelines, except natural gas	29	17	17	19	23	23	20	19	18	22	19
Transportation services	45	70	77	86	103	82	89	101	107	116	133
Communications	612	689	714	744	826	904	995	1,064	1,188	1,275	1,335
Electric, gas, and sanitary	1,075	1,042	1,055	973	1,102	1,229	1,332	1,375	1,423	1,438	1,444
Wholesale trade	1,607	1,878	2,092	2,121	2,310	2,640	2,890	3,191	3,439	3,734	3,894
Retail trade	2,538	2,919	3,139	3,548	3,822	4,399	4,870	5,249	5,808	6,103	6,708
Finance, insurance, and real estate	3,395	4,111	4,520	4,989	5,437	5,906	6,660	7,941	9,007	10,062	10,299
Depository institutions	498	845	971	1,081	1,014	1,065	1,262	2,113	2,638	2,990	3,061
Nondepository institution	131	119	140	185	294	309	358	428	588	901	545
Security brokers	70	83	82	81	104	117	127	194	205	204	278
Insurance carriers	150	227	277	303	411	431	523	555	636	650	730
Insurance agents	103	175	201	207	238	281	306	335	344	339	350
Real estate	2,341	2,647	2,841	3,095	3,280	3,662	4,050	4,331	4,591	4,898	5,196
Holding and investment	103	15	8	37	97	41	34	(16)	5	80	139
Depository + Nondepository	629	964	1,111	1,266	1,308	1,373	1,620	2,541	3,226	3,891	3,606
Services	3,859	5,809	6,375	7,039	7,689	8,426	9,075	9,888	10,786	11,747	12,935
Hotels and lodging	190	240	268	284	311	334	357	397	453	503	562
Personal services	158	205	211	232	266	304	279	291	308	322	364
Business services	690	1,103	1,287	1,565	1,739	1,961	2,158	2,448	2,775	3,146	3,738
Auto repair and parking	253	315	326	352	385	445	506	546	592	652	738
Misc. repair services	99	124	115	116	128	141	156	168	174	192	188
Motion pictures	86	70	68	85	115	110	160	174	165	164	194
Amusement and recreation	134	185	208	250	239	268	303	348	393	429	500
Health services	1,007	1,623	1,800	1,996	2,149	2,268	2,380	2,587	2,746	2,902	2,986
Legal services	207	284	308	311	336	359	398	369	414	469	492
Educational services	224	328	355	352	378	422	434	449	476	496	548
Social services	56	99	115	131	157	174	192	220	250	275	293
Other services	276	614	652	700	777	879	986	1,088	1,209	1,334	1,429
Membership organizations	460	591	635	633	676	728	729	765	792	819	866
Private households	21	28	27	30	33	34	37	38	39	45	37
Business services + Other services	965	1,717	1,939	2,265	2,516	2,840	3,144	3,537	3,984	4,479	5,167
Government	4,239	5,575	6,011	6,299	6,587	6,849	7,283	7,634	8,070	8,485	9,047
Federal civilian	1,491	1,771	1,905	1,997	1,997	1,942	2,039	2,009	2,066	2,142	2,315
Federal military	368	439	466	485	476	473	476	502	503	510	537
State and local	2,380	3,365	3,639	3,817	4,113	4,434	4,769	5,123	5,500	5,833	6,195

Source: U.S. Bureau of Economic Analysis

Table 38

Utah Real Gross State Product by Industry (Millions of Chained 1996 Dollars): Selected Years

Industry	1986	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total Gross State Product	32,384	36,293	37,742	39,006	40,976	44,040	47,105	51,631	55,137	58,076	59,663
Private Industries	26,023	29,297	30,653	31,846	33,757	36,765	39,623	43,998	47,255	50,025	51,340
Agriculture, forestry, and fisheries	421	502	515	587	610	572	538	525	617	671	868
Farms	342	417	419	484	498	456	405	372	457	508	708
Agricultural services, forestry and fisheries	85	90	101	110	118	121	135	153	162	168	176
Mining	943	1,338	1,324	1,236	1,509	1,531	1,563	1,599	1,640	1,701	1,365
Metal mining	154	323	380	392	603	551	587	611	597	413	404
Coal mining	123	134	171	173	197	218	240	326	266	300	409
Oil and Gas	697	862	720	632	725	764	715	627	728	886	483
Nonmetallic minerals	25	87	88	61	20	31	35	35	43	66	81
Construction	1,681	1,482	1,651	1,808	1,991	2,415	2,662	2,911	3,071	3,157	3,549
Manufacturing	4,042	4,997	5,281	5,268	5,321	5,911	6,691	8,115	8,613	8,878	8,449
Durable goods	2,626	3,430	3,561	3,432	3,371	3,812	4,410	5,186	5,604	5,941	5,585
Lumber and wood	119	204	203	131	138	169	173	186	187	184	189
Furniture and fixtures	97	93	110	108	117	135	141	152	169	184	181
Stone, clay, and glass products	222	150	129	159	162	200	230	234	263	293	281
Primary metals	120	513	612	472	592	654	674	661	661	664	685
Fabricated metals	255	322	306	338	356	424	443	478	513	539	479
Industrial machinery	536	353	330	361	356	352	535	1,306	1,526	1,872	942
Electronic equipment	172	259	274	297	196	285	299	348	398	439	834
Motor vehicles	70	187	195	250	347	443	671	495	530	529	587
Other transportation equipment	656	871	859	772	620	625	607	591	644	609	529
Instruments and related	94	279	337	324	274	255	348	362	328	313	337
Misc. manufacturing services	114	217	234	207	252	292	314	374	394	375	616
Electronic equipment + instruments	307	541	600	621	454	551	645	709	723	740	1,091
Nondurable goods	1,425	1,565	1,719	1,835	1,950	2,099	2,279	2,929	3,012	2,953	2,868
Food & kindred products	506	437	513	552	549	501	633	597	639	604	607
Tobacco products	0	0	0	0	0	0	0	0	0	0	0
Textile mill products	3	25	24	15	16	17	21	16	14	19	20
Apparel and other textile products	91	71	73	95	87	88	76	79	70	65	58
Paper products	88	106	108	100	202	260	202	301	322	325	272
Printing and publishing	455	423	390	417	412	478	455	505	517	518	494
Chemicals	174	247	333	284	280	368	440	891	944	933	640
Petroleum products	126	183	198	267	296	291	321	359	312	294	573
Rubber & plastics	42	95	95	90	97	111	141	176	196	201	191
Leather products	1	1	2	2	3	3	5	4	4	4	4
Transportation, communications, and utilities	2,802	3,292	3,316	3,325	3,620	3,954	4,276	4,578	4,892	4,957	5,221
Transportation	1,005	1,389	1,414	1,520	1,650	1,825	1,948	2,139	2,322	2,313	2,428
Railroad transportation	205	198	229	254	225	243	262	266	270	225	243
Local and interurban	41	30	28	29	30	31	33	35	40	42	48
Trucking and warehousing	442	578	618	661	699	772	817	905	976	969	924
Water transportation	2	1	1	1	1	1	1	2	4	5	6
Transportation by air	228	495	444	474	571	675	729	812	908	934	1,062
Pipelines, except natural gas	29	18	19	21	25	24	18	19	19	23	20
Transportation services	62	75	78	84	101	80	88	101	104	115	133
Communications	632	722	743	768	843	904	995	1,064	1,174	1,265	1,358
Electric, gas, and sanitary	1,209	1,196	1,171	1,038	1,129	1,224	1,334	1,375	1,396	1,381	1,446
Wholesale trade	1,935	1,972	2,203	2,276	2,417	2,653	2,789	3,191	3,541	4,039	4,294
Retail trade	3,233	3,217	3,324	3,664	3,847	4,375	4,830	5,249	5,849	6,211	6,637
Finance, insurance, and real estate	5,071	5,148	5,403	5,711	6,038	6,369	6,901	7,941	8,630	9,557	9,488
Depository institutions	873	1,203	1,235	1,236	1,180	1,209	1,346	2,113	2,352	2,662	2,556
Nondepository institution	196	134	152	199	311	314	350	428	634	1,005	631
Security brokers	63	82	81	76	97	114	125	194	217	237	380
Insurance carriers	399	394	456	454	542	528	565	555	589	589	631
Insurance agents	242	286	326	297	289	320	324	335	328	311	311
Real estate	3,131	3,036	3,167	3,411	3,515	3,830	4,148	4,331	4,509	4,719	4,892
Holding and investment	203	28	15	54	138	59	42	(16)	4	54	90
Depository + Nondepository	1,079	1,325	1,377	1,430	1,495	1,525	1,699	2,541	2,974	3,609	3,184
Services	5,982	7,334	7,639	8,017	8,463	9,017	9,384	9,888	10,408	10,878	11,537
Hotels and lodging	279	286	300	311	329	344	363	397	425	420	452
Personal services	235	251	245	261	288	319	287	291	297	303	332
Business services	902	1,305	1,477	1,737	1,895	2,118	2,244	2,448	2,688	2,919	3,392
Auto repair and parking	377	387	382	396	416	466	512	546	570	604	665
Misc. repair services	162	179	157	143	145	156	169	168	165	169	150
Motion pictures	126	84	77	96	129	119	169	174	161	158	177
Amusement and recreation	196	228	243	285	264	286	314	348	381	402	449
Health services	1,827	2,185	2,256	2,338	2,383	2,401	2,441	2,587	2,672	2,735	2,691
Legal services	358	373	381	363	374	386	414	369	396	431	440
Educational services	358	418	427	405	422	455	456	449	457	455	472
Social services	88	125	136	147	172	186	200	220	240	249	254
Other services	432	787	794	788	860	945	1,013	1,088	1,167	1,251	1,267
Membership organizations	636	716	747	718	751	801	764	765	752	740	767
Private households	28	34	31	34	36	37	39	38	38	43	34
Business services + Other services	1,343	2,086	2,268	2,525	2,755	3,063	3,257	3,537	3,855	4,170	4,657
Government	6,425	7,054	7,133	7,195	7,241	7,285	7,487	7,634	7,883	8,057	8,333
Federal civilian	2,424	2,391	2,326	2,365	2,257	2,117	2,098	2,009	2,029	2,063	2,152
Federal military	492	534	546	529	519	512	505	502	493	492	502
State and local	3,546	4,147	4,272	4,314	4,473	4,660	4,884	5,123	5,361	5,501	5,678

Note: Real GSP data by industry for Utah is not available from the Bureau of Economic Analysis before 1986.

Source: U.S. Bureau of Economic Analysis