

An Overview of Economic Census Data in New Mexico

Recently released data from the 1997 Economic Census now provide statistics for all sectors covered in this canvass of American businesses. Valuable insights into New Mexico's economy follow in the wake of these new data.

The U.S. Bureau of the Census conducts the Economic Census every five years, those ending in 2 and 7, generating a variety of data. The most commonly used data are the number of establishments and employees, the amount of annual payroll, and a measure of output (depending on the industry this is measured as sales, receipts, revenue, value of shipments, or value of construction work done). This wide range of information allows for the analysis of an economic sector or an entire economy from a number of different perspectives. Additionally, an important feature of the 1997 Economic Census is that its data are published according to the new North American Industry Classification System (NAICS), which will be discussed later in the article. Summary data are also now shown in accordance with the Standard Industrial Classification (SIC) system, which was used in previous censuses. In the Census Bureau publication, *Comparative Statistics: Core Business Statistics Series*, comparisons based on SIC codes can now be made between 1992 and 1997. In addition, the Census Bureau presents a section on its Internet site titled *Bridge Between NAICS and SIC* showing documentation and data tables that describe the correspondence between these two classification systems and provide matches of NAICS and SIC grouped data sets.

The Economic Census covers the majority of the economy, excluding agriculture and most of the government sectors (which are reported separately), and provides a portrait of the national economy, state economies and local economies down to the county, MSA and often city levels. The data presented in this article include all NAICS sectors covered in the Economic Census and therefore give a relatively complete picture of New Mexico's economy. Although only data for establishments with a payroll are included here; proprietorships with no payroll are excluded. The Economic Census provides statistics primarily by "establishment," which is generally a single physical location where business is conducted or where services or industrial operations are performed. Because of this, the Economic Census differentiates between establishments, which—though owned by one company—are located in different geographic areas or are engaged in different kinds of business. Portions of the Economic Census also differentiate between industries subject to and exempt from federal tax.

Table 1 presents the results of the 1997 Economic Census for New Mexico by major SIC sector and shows percentage changes from 1992 levels. With the exception of mining, the number of establishments in each industry increased, with an economy-wide growth rate of 12.6%. In terms of output, the 28.3% increase in the value of mining shipments was the low among the state's sectors for which data were available, though this is still much stronger than the nationwide increase in mining shipments, 7.7%. The 113.8% growth in the value of manufacturing shipments was highest among all sectors in the state. This rate was also the largest increase in manufacturing shipments among the 50 states and was well over three times the national growth rate of 31.7%. However, the state's high growth rate is partly due to the relatively low levels of manufacturing in New Mexico in 1992. There was an across the board increase of 38.9% in New Mexico's annual payroll, led by a 161.2% advance in the auxiliaries category. (Auxiliaries are establishments that primarily serve establishments of the same company, such as a company's accounting operations.) Following auxiliaries, there was a 64.2% increase in construction sector payroll. The services payroll, which grew by 40.8%, comprised 38% of the state's total annual payroll in 1997. In addition to the New Mexico construction sector's strong showing in output and payroll growth, there was a 26.2% increase

in paid construction employees—second after the nearly 40% advance in auxiliaries employment. By comparison, the manufacturing sector's 113.8% increase in shipments was accompanied by a 28.7% gain in payroll and only a 9.4% increase in paid employees.

The presentation of 1997 Economic Census data according to NAICS provides additional insights into the economy. The NAICS system, developed jointly by the U.S., Canada and Mexico, replaces the 60 year-old SIC system and attempts to better describe the current economy. Economic Census data reported according to NAICS cannot be used to derive growth rates, since 1997 is the first year for NAICS-style data. However, NAICS does provide an opportunity to describe and analyze the national, state and local economies according to a scheme that gives special attention to "new and emerging industries, service industries in general, and industries engaged in the production of advanced technologies."¹ The NAICS system accomplishes this by identifying nine new sectors, including accommodation and foodservices, professional/scientific and technical services, and health care and social services, as well as more than 350 new individual industries across the major sectors.

Table 2 uses the Economic Census data organized by NAICS sectors to paint a portrait of New Mexico's economy. Excluding auxiliaries (NAICS sector 95), the data show a range in the number of establishments from 206 in both utilities and management of companies/enterprises to 7,421 in retail trade. Employment by major NAICS sector ranged from 1,785 in educational services to 86,300 in retail trade. The largest annual payroll was attributed to the health care and social assistance sector, almost \$2 billion, while the \$17.9 billion in manufacturing shipments was the largest single output measure among the state's major NAICS categories. (The output measures for manufacturing and for other sectors represent gross sales, receipts or shipments and include duplication because these sales/receipts/shipments incorporate the costs of goods purchased after earlier stages of production.)

These data can also be combined to derive various ratios that provide additional information regarding characteristics of the state's economy. Across all sectors, the average number of employees per establishment was 12.8, led by management of companies and enterprises (34.0 employees per establishment) and utilities (28.5). Annual payroll per employee in New Mexico ranged from \$8,900 in accommodation and foodservices (compared to \$10,300 for the U.S.) to \$53,300 in management of companies and enterprises (\$58,900 in the U.S.), with the manufacturing sector at \$28,600 (compared to \$33,900 in the U.S.). Mining led the state in shipments per establishment with (\$12 million), which almost doubled the U.S. average (\$7 million). This was followed by manufacturing with a value of shipments per establishment of \$11.2 million compared to \$10.6 million for the U.S.

Comparing the proportions (or shares) of total establishments, employment, payroll or output attributed to each New Mexico sector, to the corresponding U.S. figures helps further define the composition of the state's economy. As shown in Table 3, 18.7% of establishments in New Mexico was in the retail trade sector (the highest proportion in the state), compared to 17.4% nationally. The retail sector also captured a higher proportion the state's employees (which also ranked first in the state with 17.0 %), annual payroll and sales than it did nationally. Similarly, the state's construction, accommodation and foodservices, utilities, and mining sectors had larger proportions of the state's totals in these four variables (establishments, employees, payroll and output) than the sectors had nationally. Health care and social assistance was responsible for the largest portion of the state's payroll (16.6%) and exceeded national proportions in payroll, employees and receipts, though it was slightly behind the U.S. in the relative share of establishments. The value of manufacturing shipments accounted for 23.1% of the state's total sales/receipts/shipments and, as noted above, the largest share among New Mexico's major NAICS sectors. This compares to 21.6% nationally. However, the

manufacturing sector's shares of New Mexico payroll (9.6%), employees (7.8%) and establishments (4%) were well below the corresponding national proportions. In the U.S., manufacturing accounted for 19.7% of total payroll, 16.7% of employees and 5.7% of establishments. The professional, scientific and technical services sector had a slightly smaller proportion of establishments in the state than nationally, though the New Mexico sector's proportions for employees, annual payroll and receipts were higher than the corresponding national shares. While the sector held an equal proportion of establishments in the state and nation, finance and insurance had lower proportions of employees and annual payroll in New Mexico. Because New Mexico data for the insurance carriers subsector of finance and insurance was not available, the sector's total revenue was estimated for New Mexico by applying the national revenue per employee ratio to the subsector's employment. Using this calculation, finance and insurance revenue comprised 7.9% of the state's revenue, compared to 12.3% nationally.

As shown in Figure A, each NAICS sector is broken down into smaller categories—first subsectors, then industry groups, followed by NAICS industries and finally the six digit U.S. industry. This additional detail provides a good view of major sector composition. As an example, Table 4 displays New Mexico and U.S. Economic Census data for the NAICS manufacturing sector and its subsectors, examining the same four variables already discussed for the major NAICS sectors. (Additional data on manufacturing that is published in the Economic Census includes a number of other variables, such as value added by manufacture, cost of materials and data on “production” workers, as opposed to all workers). Analysis at this more detailed level clearly shows that New Mexico's manufacturing sector is dominated by the computer and electronic products subsector. This subsector's workforce comprised 27.6% of the state's manufacturing employees (compared to 10.1% in the U.S.), had an annual payroll of \$404 million (35.6% of the New Mexico manufacturing payroll) and \$11.9 billion of shipments (66.7% of the state's total manufacturing shipments). Generally, the distribution of shipments among manufacturing industries was less lopsided nationally, with four subsectors each accounting for more than 10% of all U.S. manufacturing shipments—transportation equipment (14.9%), computer and electronic products (11.4%), food manufacturing (11.0%), and chemical manufacturing (10.9%). Miscellaneous manufacturing had the largest number of establishments among New Mexico's manufacturing subsectors (largely because of the jewelry and silverware industry), 18.1% of the total, and provided 11.1% of the state's manufacturing employment. Computer/electronics products and miscellaneous manufacturing were the only New Mexico manufacturing subsectors that had higher proportions of total shipments than the corresponding national industries. Miscellaneous manufacturing accounted for 3% of all New Mexico manufacturing shipments, while the corresponding U.S. figure was 2.6 %.

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1. Executive Office of the President, Office of Management and Budget, **North American Industry Classification System** (manual), **United States 1997**, p.20.

Table 1
New Mexico Establishments¹, Paid Employees, Annual Payroll and Output by SIC Sector
1997 and Percent Changes 1992 to 1997

SIC Sector	Establishments		Paid Employees ²		Annual Payroll		Output ³	
	1997	% Change 1992 -97	1997	% Change 1992 -97	1997 (\$ mil.)	% Change 1992 -97	1997 (\$ mil.)	% Change 1992 -97
Mining	608	-17.5	14,616	0.3	\$574	17.7	\$7,300	28.3
Construction	4,556	13.9	38,990	26.2	1,002	64.2	4,635	64.1
Manufacturing	1,655	4.9	42,254	9.4	1,203	28.7	18,147	113.8
TCU ⁴	1,861	20.5	26,543	-1.0	821	11.9	5,245	36.6
Wholesale Trade	2,640	5.0	26,259	16.2	726	41.4	8,409	34.2
Retail Trade ⁵	10,176	9.3	135,164	20.3	1,787	38.1	15,586	38.2
Finance, Insurance & Real Estate	4,055	23.0	30,150	16.8	818	38.3	N	N
Services ⁶	13,959	15.0	184,967	19.8	4,480	40.8	11,393	40.8
Auxiliaries ⁷	225	33.1	8,054	39.9	386	161.2	11	N
Total	39,735	12.6	506,997	17.4	\$11,797	38.9	N	N

N Not available or not comparable. **1** Includes only establishments with a payroll. **2** Paid employees are full- and part-time employees who (for all sectors except Construction and Manufacturing) were on the payroll during the pay period including March 12. In Construction and Manufacturing they include employees who worked or received pay for any part of the period, including the 12th of March, May, August and November divided by 4. Included are employees on paid sick leave, paid holidays and paid vacations. **3** Includes sales, shipments, receipts or revenues. Measures vary by industry. **4** Transportation, Communications and Utilities. Data do not include large certified passenger carriers that report to the Office of Airline Statistics, U.S. Dept. of Transportation. Also, railroad transportation and the U.S. Postal Service are out of scope for the 1997 Economic Census. **5** In 1992, department store sales data included sales from catalog order desks. The 1997 sales data exclude sales from catalog order desks. **6** Includes firms subject to and exempt from Federal income tax. **7** Establishments primarily serving other establishments of the same company. Note: Data are subject to revision.

Source: U.S. Dept. of Commerce, Bureau of the Census, 1997 Economic Census.

Figure A
The NAICS Numerical Hierarchy: An Example

NAICS Code	Description	Position in the Hierarchy
72	Accommodation & Foodservices	Sector
721	Accommodation	Subsector
7211	Traveler Accommodation	Industry Group
72119	Other Traveler Accommodations	NAICS Industry
721191	Bed-and-Breakfast Inns	U.S. Industry

Source: U.S. Office of Management and Budget, NAICS Manual, U.S. 1997.

Table 2
New Mexico Establishments¹, Paid Employees, Annual Payroll and Output
by NAICS Sector: 1997

NAICS Code	Sector	Establishments	Paid Employees²	Annual Payroll (\$ mil.)	Output³ (\$ mil.)
21	Mining	606	14,600	\$574	\$7,299
22	Utilities	206	5,868	251	2,169
23	Construction	4,673	39,671	1,027	4,785
31-33	Manufacturing	1,593	39,664	1,136	17,906
42	Wholesale trade	2,182	21,344	601	7,398
44-45	Retail trade	7,421	86,300	1,455	14,984
48-49	Transportation & warehousing ⁴	1,009	11,841	294	1,392
51	Information	767	11,265	320	1,905
52	Finance & insurance	2,453	22,936	662	N
53	Real estate & rental & leasing	1,887	8,844	165	894
54	Professional, scientific & technical services ⁵	3,763	32,601	1,346	3,323
55	Management of companies & enterprises	206	6,997	373	36
56	Administrative & support & waste management & remediation services	1,557	31,357	548	1,120
61	Educational services ⁵	283	1,785	32	87
62	Health care & social assistance ⁵	3,701	76,325	1,954	4,470
71	Arts, entertainment & recreation ⁵	565	9,855	138	586
72	Accommodation & foodservices	3,827	67,203	600	2,147
81	Other services (except public administration) ⁵	2,967	17,262	290	1,072
95	Auxiliaries ⁶	50	1,262	31	1

N Not available or not comparable. 1 Includes only establishments with a payroll. 2 Paid employees are full- and part-time employees who (for all sectors except Construction and Manufacturing) were on the payroll during the pay period including March 12. In Construction and Manufacturing they include employees who worked or received pay for any part of the pay period, including the 12th of March, May, August and November divided by 4. Included are employees on paid sick leave, paid holidays and paid vacations. 3 Includes sales, shipments, receipts or revenues. Measures vary by industry. 4 Data do not include large certified passenger carriers that report to the Office of Airline Statistics, U.S. Dept. of Transportation. Also, railroad transportation and the U.S. Postal Service are out of scope for the 1997 Economic Census. 5 Includes firms subject to and exempt from Federal income tax. 6 Establishments primarily serving other establishments of the same company. Note: Data are subject to revision.
Source: U.S. Dept. of Commerce, Bureau of the Census, 1997 Economic Census.

Table 3
New Mexico and U.S. Establishments¹, Paid Employees, Annual Payroll and Output by NAICS Sector
As a Percent of New Mexico and U.S. Totals: 1997

NAICS Code	Sector	Establishments		Paid Employees ²		Annual Payroll		Output ³	
		NM	U.S.	NM	U.S.	NM	U.S.	NM	U.S.
21	Mining	1.5	0.4	2.9	0.5	4.9	0.7	9.4	1.0
22	Utilities	0.5	0.2	1.2	0.7	2.1	1.3	2.8	2.3
23	Construction	11.8	10.2	7.8	5.6	8.7	6.0	6.2	4.8
31-33	Manufacturing	4.0	5.7	7.8	16.7	9.6	19.7	23.1	21.6
42	Wholesale trade	5.5	7.1	4.2	5.7	5.1	7.4	9.5	22.8
44-45	Retail trade	18.7	17.4	17.0	13.8	12.3	8.2	19.3	13.8
48-49	Transportation & warehousing ⁴	2.5	2.8	2.3	2.9	2.5	2.8	1.8	1.8
51	Information	1.9	1.8	2.2	3.0	2.7	4.5	2.5	3.5
52	Finance & insurance*	6.2	6.2	4.5	5.8	5.6	9.1	7.9	12.3
53	Real estate & rental & leasing	4.8	4.5	1.7	1.7	1.4	1.4	1.2	1.4
54	Professional, scientific & technical services ⁵	9.5	9.7	6.4	5.3	11.4	8.0	4.3	3.3
55	Management of companies & enterprises	0.5	0.7	1.4	2.6	3.2	5.3	0.0	0.5
56	Admin. & support & waste mgt. & remediation serv.	3.9	4.3	6.2	7.2	4.6	4.7	1.4	1.7
61	Educational services ⁵	0.7	0.6	0.4	0.3	0.3	0.2	0.1	0.1
62	Health care & social assistance ⁵	9.3	10.1	15.1	13.4	16.6	13.0	5.8	5.0
71	Arts, entertainment & recreation ⁵	1.4	1.5	1.9	1.6	1.2	1.1	0.8	0.6
72	Accommodation & foodservices	9.6	8.5	13.3	9.3	5.1	3.3	2.8	2.0
81	Other services (except public administration) ⁵	7.5	8.1	3.4	3.2	2.5	2.3	1.4	1.5
95	Auxiliaries ⁶	0.1	0.2	0.2	0.8	0.3	1.1	0.0	0.1
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* The New Mexico output proportion for the finance & insurance sector is estimated based on national data. **1** Includes only establishments with a payroll. **2** Paid employees are full- and part-time employees who (for all sectors except Construction and Manufacturing) were on the payroll during the pay period including March 12. In Construction and Manufacturing they include employees who worked or received pay for any part of the pay period, including the 12th of March, May, August and November divided by 4. Included are employees on paid sick leave, paid holidays and paid vacations. **3** Includes sales, shipments, receipts or revenues. Measures vary by industry. **4** Data do not include large certified passenger carriers that report to the Office of Airline Statistics, U.S. Dept. of Transportation. Also, railroad transportation and the U.S. Postal Service are out of scope for the 1997 Economic Census. **5** Includes firms subject to and exempt from Federal income tax. **6** Establishments primarily serving other establishments of the same company. **Note:** Data are subject to revision.

Source: U.S. Dept. of Commerce, Bureau of the Census, 1997 Economic Census.

Table 4
New Mexico and U.S. Manufacturing Establishments¹, Paid Employees, Annual Payroll and Value of Shipments
by NAICS Subsector
As a Percent of New Mexico and U.S. Manufacturing Totals: 1997

NAICS Code	Subsector	Establishments			Paid Employees ²			Annual Payroll			Value of Shipments		
		New Mexico		U.S.	New Mexico		U.S.	New Mexico		U.S.	New Mexico		U.S.
		Number	% of Total	% of Total	Number	% of Total	% of Total	Mil. of \$	% of Total	% of Total	Mil. of \$	% of Total	% of Total
31-33	Manufacturing	1,593	100.0	100.0	39,664	100.0	100.0	\$1,136	100.0	100.0	\$17,906	100.0	100.0
311	Food mfg.	136	8.5	7.2	4,084	10.3	8.7	85	7.5	6.7	977	5.5	11.0
312	Beverage & tobacco prod.	21	1.3	0.8	223	0.6	1.0	5	0.4	1.2	99	0.6	2.5
313	Textile mills	na	na	1.3	na	na	2.3	na	na	1.8	na	na	1.5
314	Textile mill products	na	na	2.2	na	na	1.4	na	na	0.9	na	na	0.8
315	Apparel mfg.	31	1.9	4.7	1,816	4.6	4.3	37	3.3	2.2	292	1.6	1.8
316	Leather & allied products	na	na	0.5	na	na	0.5	na	na	0.3	na	na	0.3
321	Wood product mfg.	81	5.1	4.8	1,502	3.8	3.4	33	2.9	2.5	193	1.1	2.3
322	Paper mfg.	12	0.8	1.6	517	1.3	3.4	16	1.4	3.9	80	0.4	3.9
323	Printing & related activities	183	11.5	11.8	1,420	3.6	5.0	30	2.7	4.6	120	0.7	2.5
324	Petroleum & coal products	13	0.8	0.6	f	D	0.6	D	D	1.0	D	D	4.6
325	Chemical mfg.	41	2.6	3.7	1,038	2.6	5.2	33	2.9	7.0	198	1.1	10.9
326	Plastics & rubber products	31	1.9	4.6	624	1.6	6.1	16	1.4	5.2	82	0.5	4.2
327	Nonmetallic mineral prod.	136	8.5	4.5	2,529	6.4	3.0	72	6.3	2.8	378	2.1	2.3
331	Primary metal mfg.	24	1.5	1.4	1,314	3.3	3.6	45	4.0	4.2	695	3.9	4.4
332	Fabricated metal products	234	14.7	17.2	2,924	7.4	10.5	79	7.0	10.0	262	1.5	6.3
333	Machinery mfg.	59	3.7	8.4	1,050	2.6	8.4	31	2.7	9.3	136	0.8	7.0
334	Computer & electronic prod.	70	4.4	4.8	10,961	27.6	10.1	404	35.6	12.7	11,949	66.7	11.4
335	Electrical equip., appliance & component mfg.	26	1.6	1.9	1,035	2.6	3.5	30	2.6	3.3	178	1.0	2.9
336	Transportation equipment	37	2.3	3.6	2,286	5.8	10.9	63	5.6	13.9	402	2.2	14.9
337	Furniture & related prod.	129	8.1	5.7	g	D	3.6	D	D	2.6	D	D	1.7
339	Miscellaneous mfg.	289	18.1	8.7	4,404	11.1	4.4	96	8.4	3.8	539	3.0	2.6

na Not available. Sector falls below the size threshold for publication. D Withheld to avoid disclosing data for individual producers.
f 500 to 999 employees. g 1,000 to 2,499 employees. 1 Includes only establishments with a payroll. 2 Paid employees include full- and part-time non-production employees who worked or received pay for any part of the pay period including the March 12th. Also included are the number of production workers who worked or received pay for any part of the pay period including the 12th of March, May, August and November divided by 4. Included are employees on paid sick leave, paid holidays and paid vacations. **Note:** Data are subject to revision.
Source: U.S. Dept. of Commerce, Bureau of the Census, 1997 Economic Census.