

# ECONOMY OF MARANA

(ZIP CODES 85652, 85653, 85654, 85743 and 85752)

June 2004



ARIZONA DEPARTMENT OF COMMERCE  
*Our Job is JOBS!*

Prepared by

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## **ECONOMY OF MARANA (ZIP CODES 85652, 85653, 85654, 85743 AND 85752)**

A variety of activities drive the Marana economy, including the Evergreen Air Center, the Army National Guard, various manufacturing operations, copper mining, the prison, and some tourism. Government provides the most employment of any sector in Marana.

The availability of economic data by city and industrial sector is severely limited (see the “Data Sources” section on page 9). Zip codes 85652, 85653, 85654, 85743 and 85752 are used as an approximation for Marana and include the Avra Valley and Picture Rocks Census Designated Places (CDPs). The zip code area is more extensive and has a population greater than within the Town of Marana and the CDPs. The 692-square-mile land area of the zip codes compares to the combined 150 square miles of the Town of Marana (73 square miles) and the two CDPs. The 2000 decennial census count of 29,791 residents in these zip codes was 11 percent more than the 26,733 combined population of the Town of Marana (13,556 residents), Avra Valley and Picture Rocks.

This report presents the results of an “economic base study” for Marana, using employment by industry as the primary measure of the economy. The purpose of this analysis is to identify the area's leading economic activities and to provide useful information for decision-making. Comparing the sectoral distribution of employment in the community to state or national averages helps determine how different or similar the local economy is to the norm, giving some insight into how dependent the community is on certain economic sectors for employment or income. When the economic forces that mold the local economy are understood, strategic decisions for the area's economic future can begin to be made.

### **BACKGROUND**

An economic base study is a description of an economy's structure and composition. Regional economic theory states that a local economy is driven by economic activities that import money into the local area through the sales of goods and services to customers who do not live in the area. Marana's leading economic activities are identified in the economic base study, which compares economic activity (as measured by employment) in the local area to that in broader areas: Arizona and the nation.

Because of the vast differences in size between Marana, Arizona and the United States, employment is divided by the 2000 census population count for each area. This “**per capita employment**” is expressed as employment per 1,000 residents.

To create a comparative measure, per capita employment in the local area is divided by the national average per capita employment. The result is called a “**location quotient**” — a figure greater than 1 indicates that per capita employment in the local area is greater than the national average. For example, a location quotient of 1.32 indicates that per capita employment in the local area is 32 percent *higher* than the national average, while a location quotient of 0.68 shows that per capita employment is 32 percent *less* than the national average. The location quotient calculated relative to the Arizona average typically is similar to the location quotient calculated against the national average, but in some industries it can be considerably different.

When a location quotient is greater than 1, “extra” jobs are present in the local area. This “**excess employment**” is the difference between actual employment and the employment that would exist if employment per capita had equaled the national average. Excess employment is of particular significance in industries that sell their goods and services to companies located

outside the city or to individuals who are not residents of the city (nonresidents include tourists and seasonal residents).

“**Basic**” or “**export**” activities are those involving sales to nonlocal businesses and individuals. Such activities drive the local economy by bringing money into the community. Basic industries with excess employment are the primary forces driving the local economy. Mining, most types of manufacturing, most agriculture, and tourism are classic examples of basic activities.

In contrast, some economic activities primarily serve local residents. Retail trade and services such as health care, finance, and real estate are examples of largely nonbasic, local-support activities, since most sales are to local residents. Similarly, most construction work is purchased by local residents and local businesses. While important components of a local economy, such largely nonbasic activities do not directly bring much money into the community and thus do not drive the local economy.

Excess employment can exist in local-support activities. In some cases, the excess results from local purchasing preferences. For example, per capita sales of air conditioning units are above the national average in much of Arizona because of climatic conditions. In other cases, an excess exists because some cities function as regional trade and service centers. While sales to residents of neighboring communities might be considered to be basic in a particular city, such sales are not basic in the broader area and are not considered to be a driving economic activity in the same way as mining, for example.

Many economic activities, such as wholesale trade and transportation, are a mixture of basic and nonbasic components. If a community has a substantial number of tourists and/or seasonal residents, even retail trade and such services as health care have a basic component. A portion of the construction industry is basic if purchases are made by companies that sell to an external market and/or by individuals migrating to the area to take a job at a basic employer or to retire. Some federal government activities and certain other government activities can be considered to be basic in a city, but most state and local government employment supports the local community primarily with funds raised locally and thus do not qualify as basic activities.

## **RESULTS**

Total employment in Marana is estimated to have been approximately 6,750 in 2001. This is the sum of nonagriculture private-sector employment in 2001 (the latest data available) reported by the U.S. Census Bureau, an estimate of agriculture employment in 2001, and an estimate of government employment in 2001-02. Total employment was only 226 per 1,000 residents — 50-to-55 percent less than the national and state averages, and considerably less than the median value of 82 Arizona cities. The low per capita figure resulted from the large number of Marana residents who commuted into Tucson or other communities to work. The number of jobs located in Marana was not quite half of the 13,800 employed Marana residents counted in the 2000 census.

### **Agriculture and Government**

Employment data by community are not available for the agriculture and government sectors. Thus, the data discussed in this section are estimates with less reliability than the data in the following section on the nonagriculture private sector. See the “Data Sources” section for details on how agriculture and government employment were estimated.

Agriculture largely is a basic activity that includes agricultural support activities as well as farming and ranching. Agriculture employment in the Marana zip codes in 2001 is estimated to have been between 200 and 225. With employment per 1,000 residents of 7, agriculture's location quotient was approximately 0.5 relative to the national average and just less than 1 versus the state average.

The government sector represents a mix of basic and nonbasic activities. Government employment in Marana in 2001-02 was approximately 1,550, the most of any sector. Government employment per 1,000 residents was only 52 in Marana — approximately 35 percent less than the state and national averages.

Federal government employment was around 400, with most of it associated with the Army National Guard. This basic activity employed a little more than 100 military and 225 civilian personnel, according to the May 2002 report "Economic Impact of Arizona's Principal Military Operations," prepared by the Maguire Company. Combined state and county government employment was about 25 (the prison is included in the private-sector statistics). The City of Marana employed more than 200 and three special districts had a combined workforce of 75. The portion of the Marana Unified School District within Marana employed 850. The school district was the largest employer in Marana and the national guard and the city were among the larger employers.

### **Nonagriculture Private-Sector Economy**

Nonagriculture private-sector employment in Marana was nearly 5,000 in 2001. Employment was only 167 per 1,000 residents — 55-to-60 percent less than the national and state averages, and less than the median of Arizona cities.

Employment estimates for 2001 for the broad sectors of the Marana economy are shown in Table 1. Other than government, the manufacturing and transportation and warehousing sectors employed the most. Per capita employment was above the national average in four of 20 sectors: mining, transportation and warehousing, utilities, and arts, entertainment and recreation (see the "location quotient relative to nation" column of the table). In contrast, the location quotient was less than 0.5 in 10 of the 20 sectors. Transportation and warehousing employed considerably more than if the sector's per capita employment had been equal to the national per capita average (see the "excess employment relative to nation" column of the table). Lesser amounts of excess employment existed in the mining, utilities, and arts, entertainment and recreation sectors. Compared to the per capita Arizona average, location quotients and excess employment were similar to those calculated against the national average.

Marana had excess employment in the largely basic sectors of mining and transportation and warehousing, but per capita employment in manufacturing and wholesale trade was considerably below the national average. Tourism also did not have a large presence in Marana. Per capita employment was 30 percent less than the U.S. average in the accommodation subsector and 50 percent less in the food services subsector.

More sectorally detailed data show that 16 industries provided excess employment of at least 50 in Marana in 2001, most of which have at least a moderate basic component (see Table 2). Providing by far the most excess employment was the air transportation support industry, which included an establishment of between 500 and 999 employees in 2001 according to the Census Bureau — by far the town's largest private-sector employer. Local sources indicate that the Evergreen Air Center currently employs about 400. Another transportation industry, long-distance specialized freight trucking, also is listed in Table 2. It consisted of one establishment

**TABLE 1**  
**EMPLOYMENT BY SECTOR**  
**Marana (Zip Codes 85652, 85653, 85654, 85743 and 85752), 2001**

Sector	Number of		Relative to Nation		Relative to Arizona	
	Establishments	Employment	Location Quotient	Excess Employment	Location Quotient	Excess Employment
<b>TOTAL</b>	404	6,744	0.45	0	0.49	0
AGRICULTURE	36	215	0.51	0	0.96	0
GOVERNMENT	7	1,544	0.63	0	0.67	0
TOTAL, NONAGRICULTURE PRIVATE SECTOR	361	4,985	0.41	0	0.44	0
Mining	1	129	2.52	78	2.23	71
Utilities	4	108	1.55	38	1.84	49
Construction	61	398	0.58	0	0.41	0
Manufacturing	21	972	0.58	0	0.86	0
Wholesale Trade	18	269	0.41	0	0.53	0
Retail Trade	38	420	0.27	0	0.27	0
Transportation and Warehousing	24	813	2.05	416	1.90	386
Information	3	223	0.56	0	0.66	0
Finance and Insurance	7	31	0.05	0	0.05	0
Real Estate and Rental and Leasing	13	58	0.27	0	0.24	0
Professional, Scientific and Technical Services	33	98	0.13	0	0.14	0
Management of Companies and Enterprises	0	0	0.00	0	0.00	0
Administrative, Support, Waste Management, Remediation Services	36	312	0.33	0	0.28	0
Educational Services	10	61	0.22	0	0.39	0
Health Care and Social Assistance	14	88	0.06	0	0.08	0
Arts, Entertainment and Recreation	5	211	1.12	23	1.04	8
Accommodation and Food Services	28	542	0.51	0	0.45	0
Other Services (except public administration)	38	198	0.35	0	0.42	0
Auxiliaries (except corporate, subsidiary and regional management)	1	31	0.29	0	0.30	0
Unclassified Establishments	6	22	2.01	11	2.36	13

Source: Nonagriculture private sector estimated from U.S. Department of Commerce, Census Bureau, *Zip Business Patterns 2001*. Agricultural production employees, most government employees, railroad employees, self-employed individuals and employees of private households are not included in this data source. Government employment estimated from government agencies and local sources and may understate actual figures. Agriculture employment is a rough estimate — see the "Data Sources" section for details. The concept of establishment for government and agriculture differs from that used for the nonagriculture private sector.

**TABLE 2**  
**INDUSTRIES WITH EXCESS EMPLOYMENT OF AT LEAST 50\***  
**Marana (Zip Codes 85652, 85653, 85654, 85743 and 85752), 2001**

Industry	Number of Establishments Employment		Relative to Nation		Relative to Arizona	
			Location Quotient	Excess Employment	Location Quotient	Excess Employment
<b>Other air transportation support activities</b>	<b>2</b>	<b>605</b>	<b>92.65</b>	<b>599</b>	<b>76.53</b>	<b>597</b>
<b>Ready-mix concrete manufacturing</b>	<b>2</b>	<b>168</b>	<b>15.61</b>	<b>157</b>	<b>9.40</b>	<b>150</b>
<b>Mining machinery &amp; equipment manufacturing</b>	<b>1</b>	<b>156</b>	<b>126.82</b>	<b>155</b>	<b>112.81</b>	<b>155</b>
<b>Electronic capacitor manufacturing</b>	<b>1</b>	<b>156</b>	<b>80.76</b>	<b>154</b>	<b>114.25</b>	<b>155</b>
<b>Cement manufacturing</b>	<b>1</b>	<b>154</b>	<b>84.56</b>	<b>152</b>	<b>79.99</b>	<b>152</b>
<b>Fluid power valve &amp; hose fitting manufacturing</b>	<b>1</b>	<b>156</b>	<b>38.40</b>	<b>152</b>	<b>12.15</b>	<b>143</b>
Museums	1	148	18.21	140	25.15	142
Cable & other program distribution	1	151	6.96	129	9.58	135
<b>Copper ore &amp; nickel ore mining</b>	<b>1</b>	<b>129</b>	<b>140.75</b>	<b>128</b>	<b>3.63</b>	<b>94</b>
<b>Facilities support services</b>	<b>1</b>	<b>133</b>	<b>10.87</b>	<b>121</b>	<b>9.71</b>	<b>119</b>
Other grocery & related products wholesale	1	148	4.62	116	6.28	124
Concrete contractors	5	105	3.35	73	1.48	34
<b>Recreational, vacation camps (except campgrounds)</b>	<b>2</b>	<b>61</b>	<b>27.56</b>	<b>59</b>	<b>7.05</b>	<b>53</b>
Television broadcasting	1	71	5.25	57	6.07	59
Specialized freight (except used) trucking, long distance	1	68	4.05	51	6.01	57
Electric power distribution	1	82	2.09	43	10.31	74

\* Relative to either the national or Arizona average

Note: Those entries in bold with a gray background have a high proportion of sales to customers outside the region and are considered basic (export) economic activities. Those not in bold with a gray background have a moderate proportion of sales to non-residents. Other industries largely serve local residents.

Source: Estimated from U.S. Department of Commerce, Census Bureau, *Zip Business Patterns 2001*. Agricultural production employees, most government employees, railroad employees, self-employed individuals and employees of private households are not included in this data source.

with between 50 and 99 employees in 2001. Local sources indicate that CTI Trucking currently employs more than 200. A few other transportation industries, including chartered air service and airport operations, provided small amounts of excess employment.

Five manufacturing industries combined to account for more excess employment than the air transportation support industry. Each of the five provided about the same amount of excess employment and each had an establishment of between 100 and 249 workers in 2001, among the 12 private-sector establishments of this size in Marana reported by the Census Bureau. Four of the five manufacturing industries consisted of just one establishment. Arizona Portland Cement is the cement manufacturer, and had employment of a little more than 150, according to the 2001 and 2002 annual reports of the Arizona State Mine Inspector and the 2001-02 Directory of Active Mines in Arizona produced by the Arizona Department of Mines and Mineral Resources. The ready-mix concrete industry had two employers.

Two of the manufacturing industries produce high-technology products: electronic capacitors and fluid power valves, which are an aircraft component. In addition, the semiconductor industry (which included an employer of between 50 and 99) provided a small amount (less than 50) of excess employment.

The Census Bureau reported that the only establishment in the mining sector was a copper mine that had between 100 and 249 employees in 2001, nearly all of whom represent excess basic employment. The Silver Bell Mine employed around 125 in 2001, but employment was less than 100 in 2002, according to the annual reports of the Arizona State Mine Inspector. The Directory of Active Mines placed employment at just more than 100 in 2001-02.

Tourism is represented in Table 2 by the museums industry, which consisted of one establishment of between 100 and 249 employees in 2001 (the Arizona Desert Sonoran Museum), and the recreational and vacation camps industry. In addition, the golf courses industry (with an employer of 50 to 99) provided a small amount of excess employment. The museums and golf courses industries are in the arts, entertainment and recreation sector. Two restaurants were large employers, one with a workforce of 100 to 249 and the other of 50 to 99.

Table 2 includes the wholesale trade industry of grocery and related products, consisting of one establishment having between 100 and 249 workers in 2001. Other wholesale trade industries provided small amounts of excess employment. The other basic industry in Table 2 was facilities support (part of the administrative support sector), which consisted of one establishment with 100-to-249 workers in 2001: the Marana Community Correctional Treatment Facility operated by the Management and Training Corporation under contract to the Arizona Department of Corrections.

The excess employment in the utilities sector resulted mostly from electric power distribution, though the water supply and irrigation industry had some excess employment. The construction sector also largely serves the local population. In addition to concrete contractors (listed in Table 2), other special trade industries provided lesser excess employment. Other large employers in Marana in 2001 included a grocery store and a cable program distributor, each with between 100 and 249 employees.

A variety of activities drive the Marana economy, including the Evergreen Air Center, the Army National Guard, various manufacturing operations, copper mining, the prison, and some tourism. Despite the number of basic activities, the mismatch between the number of jobs located in Marana and the number of employed Marana residents reveals a dependence on the economy of the broader Tucson area.

### Marana v. Comparison Cities

Marana is one of four incorporated cities in the southern region of Arizona (Pima County). Per capita employment in Marana in 2001, overall and in the nonagriculture private sector, was the third highest in the region, considerably less than in Tucson-South Tucson and also less than in Sahuarita (see Chart 1). Per capita government employment was the second highest to Tucson-South Tucson.

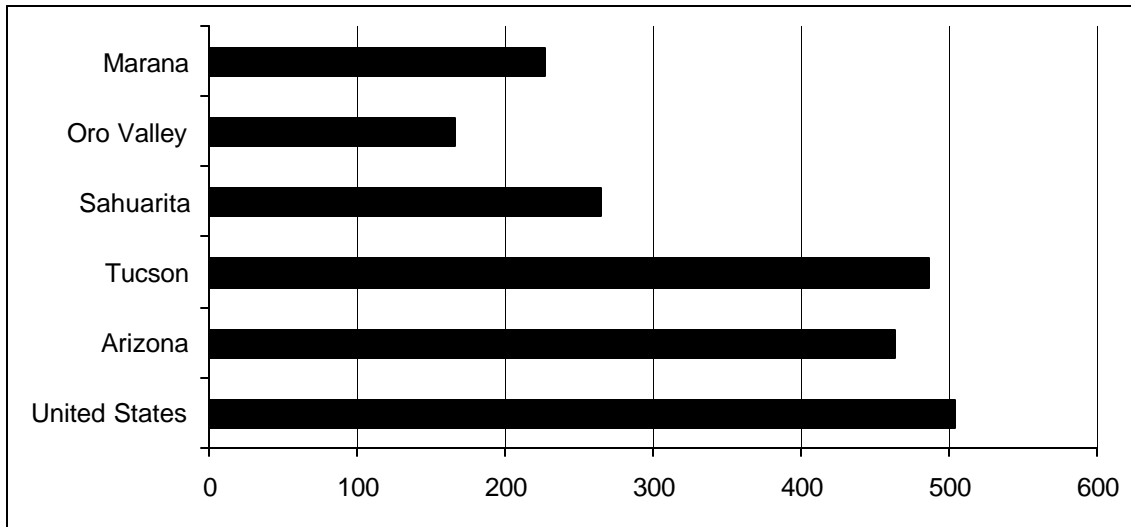
Average nonfarm private-sector payroll per employee in Marana in 2001 had to be estimated because the data were withheld by the Census Bureau to maintain employer confidentiality in the 85654 zip code, which had only a few establishments. The estimate of \$29,200 was 17 percent less than the national average and only 5 percent less than the Arizona average, and the tenth-highest figure among Arizona cities. Marana's figure was the highest in the region, though barely more than in Oro Valley (see Chart 2).

By sector, location quotients in Marana ranged from the highest to the lowest in the region. Marana had the highest location quotient in utilities and transportation and warehousing. Looking specifically at basic activities at the industry level, Marana had high location quotients in most of the basic industries listed in Table 2.

Comparison cities were selected in four categories, based largely on population size and proximity though industrial mix also was considered:

- Nearby city (within 50 miles) of similar size (a resident count between 50 and 150 percent of Marana's population): Casa Grande.
- Nearby larger city (a population two-to-five times as large): No city meets these criteria.
- Other proximate cities: Neighboring Tucson is more than 20 times as large. Oro Valley, another city bordering Tucson on the north, is somewhat larger than Marana. Sahuarita, to Tucson's south, is smaller. Eloy, about 30 miles away in Pinal County, also was selected.

**CHART 1**  
**TOTAL EMPLOYMENT PER 1,000 RESIDENTS**  
**Cities in Southern Region**

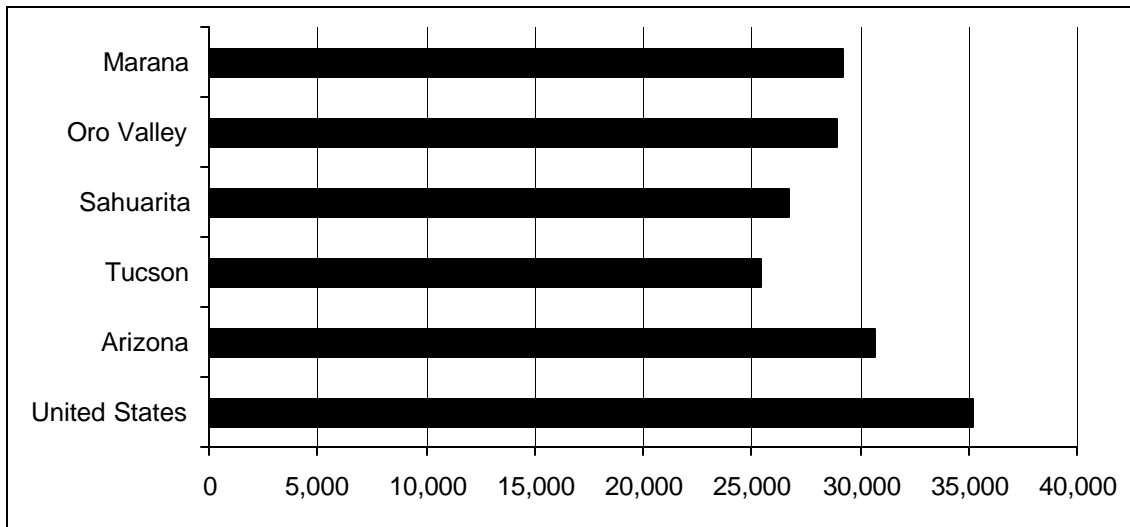


Source: Estimated from U.S. Department of Commerce, Census Bureau, *Zip Business Patterns 2001* and 2000 census, and estimates of agriculture and government employment.

- Similarly sized city farther away: Avondale is near the fringe of the Phoenix urbanized area.

Per capita employment in Marana, overall and in the nonfarm private sector, was in the middle of the seven cities in this comparison group, higher than in Eloy, Oro Valley and Avondale. Marana’s location quotient was the highest of the group in transportation and warehousing and second highest in mining, but average or below average in government and the other major sectors shown in Chart 3. Average nonfarm private-sector payroll per employee in Marana was the highest of this group, much higher than in Eloy and Avondale.

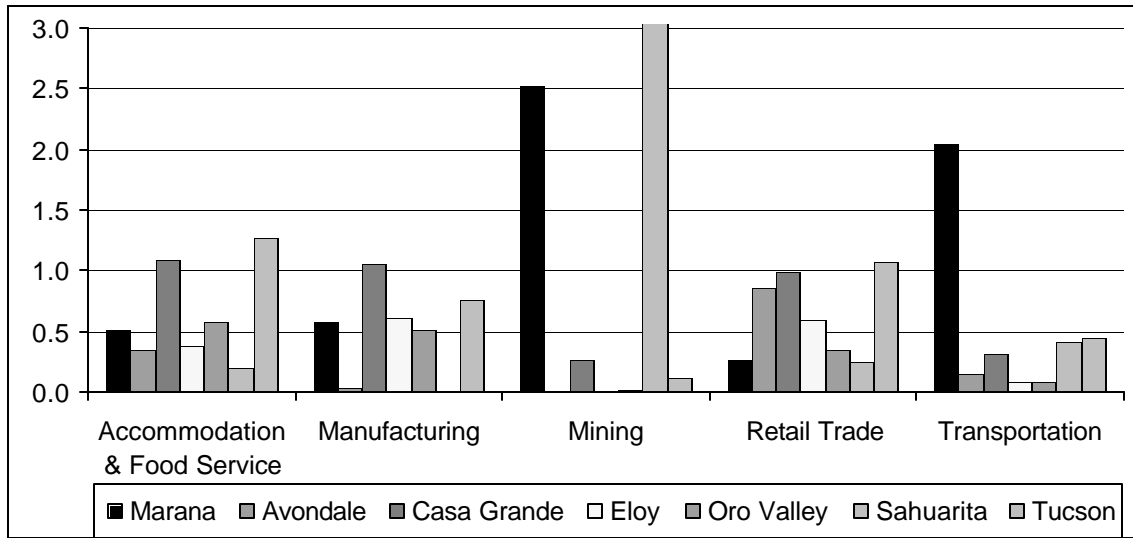
**CHART 2**  
**AVERAGE NONFARM PRIVATE-SECTOR PAYROLL PER EMPLOYEE (\$) IN 2001**  
**Cities in Southern Region**



Note: The figures for Marana and Tucson-South Tucson are estimated.

Source: Estimated from U.S. Department of Commerce, Census Bureau, *Zip Business Patterns 2001*.

**CHART 3  
LOCATION QUOTIENTS IN 2001  
Selected Sectors in Comparison Cities**



Note: The location quotient for mining was 52.3 in Sahuarita.

Source: Estimated from U.S. Department of Commerce, Census Bureau, *Zip Business Patterns 2001* and 2000 census, and estimates of agriculture employment.

### DATA SOURCES

National and state economic data were obtained from the latest edition (2001 data released in 2003) of *County Business Patterns*, which is produced annually by the U.S. Department of Commerce's Census Bureau. Data for Marana came from a companion product of the Census Bureau, *Zip Business Patterns*; five zip codes (85652, 85653, 85654, 85743 and 85752) were combined to approximate the town.

*County Business Patterns* and *Zip Business Patterns* use the hierarchical North American Industry Classification System to provide data by industrial category: broad sectors, subsectors, industry groups, and specific industries. Agricultural production employees, most government employees, railroad employees, self-employed individuals, and employees of private households are not included in either Census Bureau report.

The number of establishments (by employment size: 1 to 4, 5 to 9, 10 to 19, etc.), employment, and payroll are reported in *County Business Patterns* by industrial category. An establishment is a physical location at which business is conducted; a company may consist of one or more establishments. When only a small number of establishments are present in an industrial category (particularly if one establishment within the category is dominant), the Census Bureau withholds the employment and payroll data to protect company confidentiality. Undisclosed data are most frequent at the industry level, but in less populous areas even sectoral data may be withheld. Unlike *County Business Patterns*, employment and payroll data are released *only* for the zip code total in *Zip Business Patterns*.

For industrial categories for which data were not disclosed (including all categories at the city level), employment by sector, subsector, industry group, and industry had to be estimated. For Marana, these estimates were made using the establishment by employment-size class data for each industrial category for each zip code and average employment per establishment by

employment-size class by sector for the state. The estimates by industrial category for Marana's zip codes then were forced to add to the total employment of the zip code.

The data from *Zip Business Patterns* were supplemented by *estimates* of employment in the agriculture and government sectors. No source of either agriculture or government employment by zip code or city exists.

The agriculture sector has two major parts: agricultural production (farms and ranches), and agricultural support, which consists of such activities as cotton ginning and crop harvesting. Forestry, logging, fishing, hunting and trapping activities also are included in the agriculture sector. *Zip Business Patterns* includes only a portion of the agricultural support category.

Agriculture employment at the county level is available for 2001 from the U.S. Bureau of Economic Analysis (BEA), divided into the categories of farm proprietors, farm workers, and agricultural support and other agricultural employment. Some figures had to be estimated in some counties because of the federal government's disclosure restrictions. The county totals were allocated to cities and unincorporated areas within each county by a combination of methods.

To estimate farm and ranch employment in cities and unincorporated areas, the number of farms and ranches by zip code from the 1997 agricultural census (the 2002 census data are not yet available) of the U.S. Department of Agriculture were used. The zip code data were found to be incomplete, with some farms assigned to incorrect zip codes, when the sum of the zip code data by county was compared to the county total provided separately by the Department of Agriculture. Thus the zip code data were adjusted to sum to the county total. Only those farms and ranches with agricultural sales of at least \$10,000 in 1997 were included, but even some of these farming operations likely do not provide the main source of income for their owners, much less employ others. Thus, average employment (proprietors and farm laborers) per farm and ranch was only 6.6 in Arizona (calculated as 2001 employment divided by the number of farms and ranches in 1997). In each county, average employment per farm and ranch was multiplied by the number of farms and ranches in each city or unincorporated area. The city and unincorporated county estimates were adjusted in some counties if farming operations with significant employment were reported by local sources in particular communities.

County employment in agricultural support and other agricultural activities reported by the BEA were allocated to cities and unincorporated areas using the ratio of BEA agricultural support employment to the agricultural support employment included in *Zip Business Patterns*.

For this report, the government sector was divided into several levels of government: federal (including civilian and military), state, county, municipal or tribal government, school district, and special district (such as an irrigation or fire district). Universities and community colleges are shown as a separate category; depending on the source of government data, they may be included either in state government or as a school district. The inclusion of all or a portion of tribal operations in government varies by source of data.

Several methods had to be used to estimate government employment by city and unincorporated area. The 2002 Census of Governments provides employment by level of government, but does not allocate that employment by community if the government entity crosses jurisdictional boundaries. For example, it provides no indication of federal government employment in Arizona and provides only the overall state government figure (which includes universities). Community colleges are included as a school district and tribal government is not included.

The census figures were used as the starting point for school district employment, special district employment, municipal employment, and county employment. If a school district extends across city boundaries, Arizona Department of Education employment data by individual school were used to allocate the overall school district employment by city. Most of the community colleges have multiple campuses. Data on employment at each campus was collected from the community college district office, and used to allocate the overall community college employment by community.

While most county government employment is located within the boundaries of the county seat, county offices commonly are found in other communities as well. Generally, county governments in Arizona could not provide employment by location, so county offices outside the county seat were individually contacted to obtain employment. In most counties, employment in the county seat was calculated as the difference between the county total from the 2002 census and the number tallied in other locations. This process probably understates county government employment outside the county seat and overstates it at the seat.

State government employment figures by city also are not available. County totals for 2001 were obtained from the Arizona Department of Administration (DOA). State offices were contacted across the state to obtain employment, but in most counties it was not possible to identify all of the county employment reported by the DOA. In these counties, each community's estimate was increased so that the sum of state employment by community equaled the DOA county total.

Military employment figures at each of the major facilities were obtained from the May 2002 report "Economic Impact of Arizona's Principal Military Operations," prepared by the Maguire Company. Smaller military facilities were contacted directly. Similarly, federal civilian employment was collected directly from local federal offices. Like state government, it was not possible to identify all federal workers by this process. The community estimates were increased to sum to the 2001 BEA county totals.

Complete economic data for Marana are available in an EXCEL file consisting of two spreadsheets. The first sheet provides the number of establishments by employment-size class for those sectors, subsectors, industry groups, and industries with at least one establishment in Marana. Estimated employment also is shown.

The second spreadsheet compares employment in Marana to that in Arizona and the nation. All sectors, subsectors, industry groups, and industries are included. For the United States, Arizona, and Marana, per capita employment (expressed as employment per 1,000 residents) is calculated for each industrial category. The per capita figures for Marana (and Arizona) are divided by the national average for each industrial category to create the location quotient. For industrial categories with location quotients greater than 1, excess employment in Marana (and Arizona) is calculated from employment and the location quotient. For Marana, the location quotient and excess employment by industrial category also is calculated relative to the Arizona average.