



Federal Reserve
Bank of Dallas
**San Antonio
Branch**

Spring 2009



Affordability and Education: Keys to San Antonio's Long-Term Growth

San Antonio remains very economically competitive and likely will continue to enjoy above-average growth in the long run.

San Antonio has benefited historically from a healthy job growth rate and a stable business cycle. Since 1970, jobs in the San Antonio metropolitan statistical area (MSA) have increased at a slightly faster pace than in Texas and moderately faster than in the nation.

San Antonio also has experienced net positive in-migration, reflecting a satisfying living and working environment. Industries such as the military, tourism and health care have insulated the area from large cyclical swings. And despite a growing share of jobs in more cyclically sensitive sectors—high tech, biotech and professional and business services—since the 1990s, San Antonio's economy has remained less volatile than other major Texas metros.¹

This article analyzes San Antonio's competitiveness compared with a group of peer MSAs defined by similar attributes of location, industry composition, demographics, tourism and population size. Our analysis finds that San Antonio remains very economically competitive and likely will continue to enjoy above-average growth in the long run, although the Alamo City does face long-term challenges due to a less-educated population.

Economic Comparison

While national and state data give a broad perspective on a

region's economic health, substate areas can differ in growth depending on attributes such as population size, weather, cost of living, education and industry structure. We selected 10 peer MSAs that have at least one of these attributes in common with San Antonio to provide an interesting perspective on the city's economic growth. Many of these MSAs and San Antonio have similar industry structure in at least one of the following sectors: military, aerospace, tourism, trade and health care.

On the list are Atlanta, Indianapolis, Orlando, Phoenix, Sacramento, San Diego, San Jose and Virginia Beach.² In addition, Austin and Dallas–Fort Worth were added because of their regional proximity to San Antonio.

Per Capita Income. To assess how San Antonio's income and wages compare with the 10 peer cities, we analyze per capita income and wages and benefits per worker based on data from the Bureau of Economic Analysis' most recent income series in 2006. Per capita income is useful because it is a broad, comprehensive measure of household well-being and a function of many variables: wages and salaries, dividends, interest, rent, transfers to individuals, and proprietors' income. For a better understanding of workers' total compensa-

tion in an area, we also evaluate wages and benefits per worker, which includes employer contributions to employee pension and insurance funds and government social insurance.

Table 1 shows that San Antonio ranks at the bottom of the list in nominal per capita income at \$32,810. California cities San Jose (\$55,020) and San Diego (\$42,801) occupy the top two positions. Dallas–Fort Worth is third with a per capita income of \$39,924, while Austin lands in the middle at \$36,328.

The spread between San Antonio and No. 2 San Diego is only \$9,991. However, the difference between San Antonio and top-ranked San Jose increases drastically to \$22,210. San Antonio’s per capita income is about 77 percent of San Diego’s but only about 60 percent of San Jose’s.

While nominal per capita income is a good gauge of income per person in a specific area, the measure is somewhat misleading because it doesn’t account for regional cost-of-living differences. To determine the purchasing power of per capita income, we adjust the measures using the American Chamber of

Commerce Research Association (ACCRA) cost-of-living index for 2006 (Table 2). The ACCRA index has a national base of 100. An MSA with a reading of 148 has a cost of living 48 percent higher than the national average. Similarly, an index of 90 indicates a cost of living 10 percent lower than the national average. The adjusted number is called the real wage level and gives us a better idea of how wages compare across metros. The results of this adjustment and the metros’ new rankings are shown in Table 1.

San Antonio rises from the bottom to the sixth spot with a real per capita income of \$35,394. Dallas–Fort Worth and Austin also improve their positions as their real per capita incomes rise to \$42,427 and \$37,743, respectively. San Jose drops from first to fifth place, and San Diego from second place to last.

Not only are the rankings reshuffled after adjusting for the cost of living, but the spread between San Jose and San Antonio—ranked first and last in nominal per capita income—shrinks from the original \$22,210 to only \$520. These results suggest that San Antonio performs

quite competitively in terms of real per capita income.

Income growth, much like job growth, is a good measure of economic vitality. Using the four regional consumer price indexes from the Bureau of Labor Statistics, we account for inflation from 1999 through 2006 (Table 1). Again, San Antonio performs remarkably better in terms of real income growth, ranking third out of 11 and growing at an annualized rate of 1.26 percent. San Diego also posts strong growth and finishes first at a rate of 2.03 percent. Virginia Beach, known for its tourism and military presence, places second at a 1.97 percent growth rate. Eighth-ranked Dallas–Fort Worth falls well below San Antonio, growing at a rate of 0.66 percent.

Somewhat surprisingly, the fast-growing Austin and San Jose metros don’t perform as well with this measure. San Jose ranks ninth with a growth rate of 0.50 percent, and Austin finishes 10th with a rate of –0.59 percent. This is likely because the high-tech sector, which had propelled income growth in Austin and San Jose in the second half of the 1990s, experienced a significant downturn during much of

Table 1
2006 Per Capita Income, Adjusted for Cost of Living

MSA	Nominal		Adjusted			
	Per capita income (dollars)	Rank	Per capita income* (dollars)	Rank	Change 1999–2006 (percent annual)	Rank
San Jose–Sunnyvale–Santa Clara	55,020	1	35,914	5	0.50	9
San Diego–Carlsbad–San Marcos	42,801	2	29,973	11	2.03	1
Dallas–Fort Worth–Arlington	39,924	3	42,427	1	0.66	8
Indianapolis–Carmel	37,735	4	39,307	2	0.93	5
Sacramento–Arden–Arcade–Roseville	37,078	5	30,567	10	0.99	4
Austin–Round Rock	36,328	6	37,743	3	–0.59	10
Atlanta–Sandy Springs–Marietta	36,060	7	37,080	4	–0.68	11
Virginia Beach–Norfolk–Newport News	34,858	8	32,854	8	1.97	2
Phoenix–Mesa–Scottsdale	34,215	9	33,511	7	0.87	6
Orlando–Kissimmee	33,092	10	31,789	9	0.81	7
San Antonio	32,810	11	35,394	6	1.26	3

* ACCRA data are an average of the quarterly composite index.

SOURCES: Bureau of Economic Analysis; Bureau of Labor Statistics; American Chamber of Commerce Research Association (ACCRA) cost-of-living indexes, Council for Community and Economic Research; authors’ calculations.

Table 2
San Antonio Enjoys Low Cost of Living

MSA	ACCRA cost-of-living index
San Jose–Sunnyvale–Santa Clara	153.2
San Diego–Carlsbad–San Marcos	142.8
Sacramento–Arden–Arcade–Roseville	121.3
Virginia Beach–Norfolk–Newport News	106.1
Orlando–Kissimmee	104.1
Phoenix–Mesa–Scottsdale	102.1
Atlanta–Sandy Springs–Marietta	97.2
Austin–Round Rock	96.2
Indianapolis–Carmel	96.0
Dallas–Fort Worth–Arlington	94.1
San Antonio	92.7

NOTE: ACCRA data are 2006 average composite index.

SOURCE: Council for Community and Economic Research.

the period represented here.

San Antonio's above-average income growth rate suggests healthy future income growth for the city and the potential for narrowing the per capita income level gap between it and the peer metros.

Wages and Benefits. As with nominal per capita income, San Antonio again falls near the bottom of the list in nominal wages and benefits per worker at \$46,510 (*Table 3*). The Dallas–Fort Worth metro performs well, ranking third with a nominal wages and benefits level of \$57,525. Austin ranks in the

middle of the pack at \$54,776. Again, California metros occupy the top spots, taking three of the top four. At \$92,037, San Jose's wage level is more than double that of 11th-ranked Orlando at \$45,937.

Using the same calculations as before, adjusting wages and benefits per worker reveals that while San Antonio may have a low nominal wage, it has a close-to-average real wage, as shown in *Table 3*.

San Jose's extremely high nominal wage has been deflated to \$60,076, dropping it to the second position. Dallas–Fort

Worth moves to No. 1 at \$61,132, while Atlanta (\$57,271) and Austin (\$56,910) move up two spots, passing the other California metros and occupying third and fourth place, respectively. San Antonio jumps four positions in this measure, moving from 10th to sixth, with a competitive adjusted wage level of \$50,172, which is \$3,662 higher than its nominal wage level.

Table 3 also lists the results and rankings of the annualized growth rate for each metro, calculated the same way as the per capita income growth rate. San Antonio performs strongly here as well, ranking fourth with a growth rate of 1.69 percent. Four of the top six metros in nominal wages—San Jose, Dallas, Atlanta and Austin—occupy the bottom four spots in terms of real wage growth. This suggests that income levels across all peer cities are converging during this period.

Income by Occupation. While per capita income levels and wages and benefits per worker provide information about the wealth of the region and are good indicators of economic performance, they don't tell us about job numbers or wage lev-

Table 3
2006 Wages and Benefits Per Worker, Adjusted for Cost of Living

MSA	Nominal		Adjusted			
	Per worker wage (dollars)	Rank	Per worker wage* (dollars)	Rank	Change 1999–2006 (percent annual)	Rank
San Jose–Sunnyvale–Santa Clara	92,037	1	60,076	2	0.89	9
San Diego–Carlsbad–San Marcos	58,089	2	40,679	11	1.92	2
Dallas–Fort Worth–Arlington	57,525	3	61,132	1	1.01	8
Sacramento–Arden–Arcade–Roseville	55,872	4	46,061	9	1.84	3
Atlanta–Sandy Springs–Marietta	55,696	5	57,271	3	0.65	10
Austin–Round Rock	54,776	6	56,910	4	–0.08	11
Indianapolis–Carmel	50,639	7	52,748	5	1.07	7
Phoenix–Mesa–Scottsdale	50,621	8	49,579	7	1.29	6
Virginia Beach–Norfolk–Newport News	50,197	9	47,311	8	2.17	1
San Antonio	46,510	10	50,172	6	1.69	4
Orlando–Kissimmee	45,937	11	44,128	10	1.40	5

* ACCRA data are an average of the quarterly composite index.

SOURCES: Bureau of Economic Analysis; Bureau of Labor Statistics; ACCRA cost-of-living indexes, Council for Community and Economic Research; authors' calculations.

els in specific occupations. To better understand San Antonio's wage structure compared with the peer cities, we look at wage levels and job shares in high-, middle- and low-wage occupations.

San Antonio wages are below the peer city average in all occupations in the high-, middle- and low-wage categories (*Table 4*). This suggests that the cost of labor in San Antonio is less than for most peer cities. Although industry wages tend to be lower in San Antonio, we need to consider the relatively inexpensive cost of living. To calculate the average cost-of-living-adjusted wage for the peer MSAs, we divide the average nominal wage rate by the average ACCRA cost-of-living index for the MSAs.

The adjusted wages paint a different picture than nomi-

nal wages. San Antonio provides above-average wages for all high-wage occupations, excluding architecture and engineering. San Antonio also pays above-average wages in approximately half the middle-wage jobs. Conversely, real wages for low-wage occupations fall short of peer metros' for all except office and administrative support and food preparation and serving. This suggests an abundance of low-skilled, low-educated workers relative to jobs available at this skill level, which is keeping wages relatively low. It also implies less abundance of high-skilled workers relative to jobs available at the high skill level, which is keeping those wages relatively high.

Pull Factor

What matters to firms selling

in international and national markets is nominal wage, and what matters to workers living in an area is real wage. For San Antonio, per capita income, wages and benefits, and the high-wage and middle-wage occupations all show a consistent pattern of low unadjusted and high adjusted worker compensation. These data point to the San Antonio MSA as a win-win situation for employers and employees. Below-average nominal wages usually attract companies, and above-average real wages attract workers. This scenario is what we call a pull factor for growth.

Amenities also play a role in attracting businesses and workers to an area. Since it isn't easy to measure amenities, we use net domestic migration. If an area lacks amenities, net domestic migration will likely be weak.

Table 4
2006 Wages by Occupation for San Antonio and 10 Peer Cities

	Average wages (dollars)			Adjusted average wages (dollars)		
	San Antonio	Peer cities	Difference	San Antonio	Peer cities	Difference
High-wage						
Management	81,180	94,698	-13,518	87,573	87,487	86
Legal	73,900	85,863	-11,963	79,720	78,930	789
Computers and math	59,560	68,627	-9,067	64,250	63,406	845
Architecture and engineering	56,280	66,778	-10,498	60,712	61,511	-799
Business and finance	52,850	59,306	-6,456	57,012	55,020	1,992
Life, physical and social science	53,520	60,082	-6,562	57,735	55,480	2,254
Health care practitioners	55,790	64,716	-8,926	60,183	59,621	562
Middle-wage						
Arts, entertainment and media	38,840	45,934	-7,094	41,899	42,452	-554
Education, training and library	40,820	43,971	-3,151	44,035	40,328	3,707
Community and social services	35,540	40,489	-4,949	38,339	36,981	1,357
Construction and extraction	28,360	37,371	-9,011	30,593	34,129	-3,536
Installation, maintenance and repair	33,080	39,433	-6,353	35,685	36,508	-823
Protective services	33,850	36,705	-2,855	36,516	33,912	2,603
Sales and related	29,330	36,245	-6,915	31,640	33,445	-1,805
Low-wage						
Office and administrative support	27,210	31,179	-3,969	29,353	28,863	490
Production	25,430	30,118	-4,688	27,433	27,936	-503
Transportation and material moving	24,900	28,788	-3,888	26,861	26,923	-62
Health care support	21,830	24,949	-3,119	23,549	23,807	-258
Personal care and services	15,850	23,211	-7,361	17,098	21,517	-4,419
Building and grounds	18,380	21,495	-3,115	19,827	19,887	-60
Farming, fishing and forestry	17,750	21,426	-3,676	19,148	20,074	-927
Food preparation and serving	16,580	18,268	-1,688	17,886	16,989	897

NOTE: Differences may not add up due to rounding.

SOURCES: Metropolitan Area Occupational Employment and Wage Estimates, May 2006, Bureau of Labor Statistics; authors' calculations.

On the other hand, if an area has quality amenities, migration will probably be positive. San Antonio's net domestic migration pattern shows the city attracting more people each year (*Chart 1*). This is a sign of a strong economy.

Long-Run Challenges

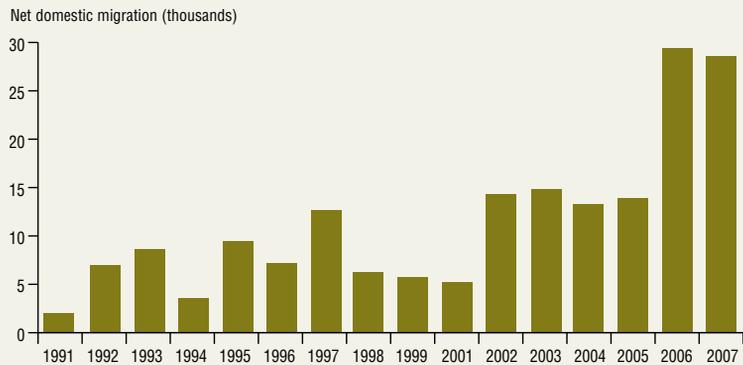
San Antonio is ripe for growth in high-wage occupations, but to grow, these industries also need a high-skilled workforce.

Looking at the share of total jobs in these high-wage occupations, we see that San Antonio generally has lower-than-average shares compared with the peer cities (*Chart 2*). Since its job growth is relatively steady, San Antonio will need a higher share of high-wage occupations for real incomes to continue to grow.

One of the main challenges suppressing the city's income growth is the education of its workforce. With only 24 percent of the population over age 25 holding a bachelor's degree or higher, San Antonio has the lowest educational attainment rate of all the peer metros (*Table 5*). It also trails the state (24.7 percent) and the nation (27 percent). The Austin MSA, only about an hour away from San Antonio, has the second-highest rate on the list (38.8 percent), just under San Jose (43.4 percent).

We can show the correlation of education and income levels through a simple linear regression of wages and benefits and educational attainment levels for the peer metros (*Chart 3*). It shows that education and income are positively correlated for both nominal and real wages. Although many other variables also impact an area's income levels, this simple regression highlights that education plays an important role. If San Antonio can increase educational attainment rates, the Alamo City's income levels should also increase over time.

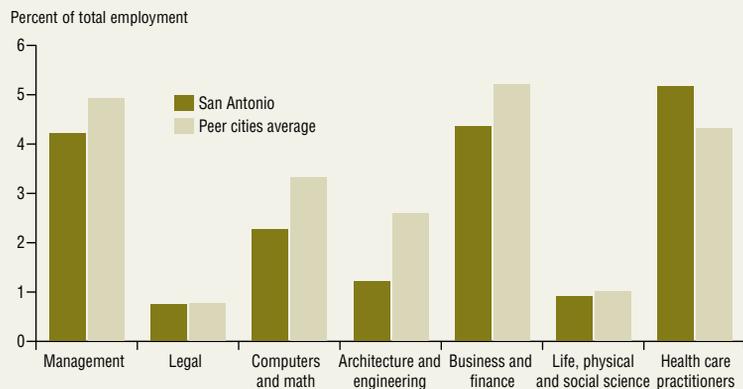
Chart 1
San Antonio's Net Migration Reflects a Strong Economy



NOTES: 2000 data not available. 2006 increase is likely due to job growth in manufacturing, aerospace, high tech, telecommunications and military.

SOURCES: Texas A&M Real Estate Center; Census Bureau; authors' calculations.

Chart 2
San Antonio Generally Has Below-Average Share of High-Wage Jobs



SOURCE: 2006 Occupational Employment Statistics, Bureau of Labor Statistics.

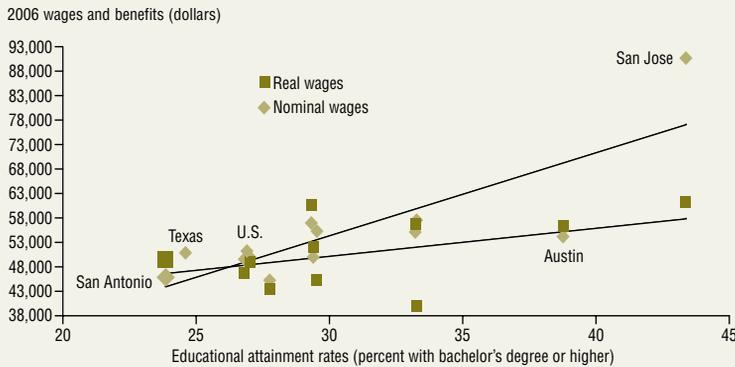
Table 5
Education Is a Challenge for San Antonio

MSA	Adults age 25 and over with a college degree (percent)
San Jose–Sunnyvale–Santa Clara	43.4
Austin–Round Rock	38.8
San Diego–Carlsbad–San Marcos	33.4
Atlanta–Sandy Springs–Marietta	33.3
Sacramento–Arden–Arcade–Roseville	29.6
Indianapolis–Carmel	29.5
Dallas–Fort Worth–Arlington	29.4
Orlando–Kissimmee	27.9
Phoenix–Mesa–Scottsdale	27.1
Virginia Beach–Norfolk–Newport News	26.9
San Antonio	24.0
Texas	24.7
United States	27.0

SOURCE: 2006 American Community Survey, Census Bureau.

Chart 3

Correlation Revealed Between Education and Income Level



SOURCES: Bureau of Economic Analysis; Census Bureau; authors' calculations.

Outlook

In recent months, San Antonio's economy has weakened along with the state's. Jobs declined at an annual rate of 1 percent in the first three months of this year. San Antonio will likely continue to decline in 2009, but not to the extent of Texas or the nation because of the city's high concentration in noncyclical industries: health, leisure and government. The area should continue to see gains in research and medical jobs through the Defense Department's Base Realignment and Closure projects. Construction jobs to support these new research and medical training facilities should increase as well.³ San Antonio currently is one of the least weak MSAs in the United States.

San Antonio has many positive attributes leading to long-term growth: above-average income growth rates, strong net domestic migration, steady job growth, and low nominal wages along with mid-level real wages.

However, education is key to San Antonio's future. For example, a recent publication by the Texas Comptroller of Public Accounts titled "Texas Works 2008" details the importance of educational attainment to the

growth of the economy.⁴ Not only is higher education crucial to increasing San Antonio's growth, but improved school districts can also help attract residents. According to the National Association of Realtors, one of the top reasons people cite for relocating is better school districts. In fact, 28 percent of homebuyers listed schools as their deciding factor in a move.⁵

If San Antonio can increase educational attainment rates and decrease high school dropout rates, the metro could see continued income growth relative to the national average and the peer cities. Overall, San Antonio's long-term outlook is strong.

—Michelle Hahn
Keith Phillips
Michelle Olivier

Hahn is a student intern from Trinity University, and Phillips is a senior economist and policy advisor at the San Antonio Branch of the Federal Reserve Bank of Dallas. Olivier, currently a research assistant at the Federal Reserve Board of Governors, was a student intern at the San Antonio Branch.

Notes

- ¹ "Steady-as-She-Goes? An Analysis of the San Antonio Business Cycle," by Keith R. Phillips and Kristen T. Hamden, Federal Reserve Bank of Dallas *Vista*, Winter 2004.
- ² Phoenix, Atlanta and San Diego are also included in the San Antonio Economic Development Department's list of competitor cities.
- ³ For more information, see "Three new BRAC construction contracts approved in San Antonio," *San Antonio Business Journal*, March 23, 2009, www.bizjournals.com/sanantonio/stories/2009/03/23/daily1.html.
- ⁴ "Texas Works 2008: Training and Education for All Texans," Texas Comptroller of Public Accounts, December 2008, www.window.state.tx.us/specialrpt/workforce/.
- ⁵ "Field Guide to Schools and the Home Buying Decision," National Association of Realtors, May 2008, www.realtor.org/library/library/fg307.

For more information, contact Keith Phillips at (210) 978-1409 or e-mail keith.r.phillips@dal.frb.org.

For a copy of this publication, write to Rachel Peña, San Antonio Branch, Federal Reserve Bank of Dallas, 126 E. Nueva St., San Antonio, TX 78204.

The views expressed are those of the authors and do not necessarily reflect the positions of the Federal Reserve Bank of Dallas or the Federal Reserve System.

Editor: Keith Phillips
Copy Editor: Jennifer Afflerbach
Design: Gene Autry
Layout & Production: Ellah Piña, Samantha Copen

This publication is available on the Internet at www.dallasfed.org.