3-9-2006

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Abstract

Albuquerque, New Mexico qualifies as a city in which technology in the form of research and development conducted in public and private laboratories has played a major role in the development of its economy. This paper profiles Albuquerque through the historical factors that contributed to the city's development as a technological center despite its isolation from other metropolitan areas, low population density, few manufacturing facilities or transportation resources and challenging cross-cultural issues.

Introduction

Technology has been a significant driver in the US economy since World War II and it is generally claimed that it remains as the only sustainable business advantage. (Thurow, 1999) Hence, in the face of global competition and a recent substantial loss of manufacturing jobs, recent attention has been drawn to those metropolitan areas in which technology or knowledge creation is a dominant industry. In normalized measures associated with knowledge work – percent of workers with college degrees, dollars per capita spent on R&D, percent of workers involved in technology-related work – Albuquerque ranks among the top US cities.(AEA, 2000) The city, located in the geographic center of the fifth largest US state, has demonstrated prodigious population growth (Table 1) in the last half century with few adverse effects on its environment or its citizens such as traffic congestion, high housing costs or persistent pollution problems. It ranks as 45th among the 330 most populous cities in the US as a desirable place to live. (Sperling & Sanders, 2004) However, there have been and continue to exist issues of a social and economic nature that the city will have to address if it is to remain a premier city of technology. These issues serve to portray Albuquerque as a city of contrasts – in education, in economic status and social services for the individual.

City's History 1706-1942

Settlement and Dominion[2]

Founded in 1706 on the banks of the Rio Grande as a Spanish settlement on the 1500 mile "Camino Real" between Mexico City and the colonial capital of Santa Fe, Albuquerque soon became a trading post for Spanish settlers and several Indian pueblos in close proximity – Isleta, San Felipe, Cochiti and Santo Domingo. Settlers took advantage of the fertile valley of the Rio Grande River for ranching and growing native corn, squash and a pepper crop called chile. The valley is reportedly the oldest continuously settled part of North America. What is now New Mexico became part of Mexico after that country's independence from Spain in 1821 until 1848 when The Treaty of Guadalupe Hildalgo ceded the territory to the US. The settlement grew slowly through the territorial period which ended in January 1912 when New Mexico became a state. Throughout this period the population of what is now New Mexico was predominantly Hispanic and Native American and today these ethnic groups still constitute 42% and 9% of the state's population. The heritage of early Spanish settlement

[1] Invited submission to *Canadian Journal of Regional Science* for publication in 2006.

[2] Unless otherwise specified, all demographic, employment and business specific data in this paper are extracted from US Bureau of the Census (USBOC).

of Albuquerque remains visible in the "Old Town" section of the city where pueblo Indians still offer artisan ware of hand-made jewelry, beadwork and pottery.[3] The pueblo and Spanish cultural heritage as well as the picturesque landscape of the state and the city encouraged an "arts" community since the 1920's and tourism remains an economic driver for the state today representing 6% of the SGP.

Transportation infrastructure contributed to the growth of the city in the first half of the 20th century. The railway line connecting Chicago with Los Angeles used Albuquerque as a major rail center for repair and storage. The advent of the automobile brought additional growth to the city as it became the major stopping point on the fabled transcontinental highway "Route 66." In 1940, at the pre-atomic age, the population of the city stood at just shy of 50,000.

The Atomic Boom 1942-1970

But when Robert Oppenheimer visited a boy's ranch in Los Alamos in November 1942, approximately 70 miles due north from the city, and chose it to become the site of an atomic research laboratory, the future of Albuquerque was cast in becoming a technology center. As the work at Los Alamos progressed in the design of nuclear weaponry, Albuquerque became important as a site for manufacturing and testing such ordnance components as well as a site for developing and testing airborne vehicles for transporting and deploying the atomic arsenal. Federal dollars poured into New Mexico in the 1940's and decades after for research, development and testing of atomic weapons. National research laboratories were developed in Los Alamos and Albuquerque and military bases (Manzano, Sandia and Kirtland) were built to protect the defense work being conducted. Thousands of knowledge workers from out of state were brought in to conduct the top secret work. The University of New Mexico also grew in response to the need for additional knowledge workers. Albuquerque experienced a housing boom and most of the sprawling northeast heights sector of the city was built out during this period. By 1950 the population of Albuquerque had mushroomed to 109,000 and reached 225,000 in 1970.

Transition and Second Stage Growth 1970-2000

During the late 1960's and into the seventies, the cold war with Russia, nuclear disarmament and military budget cuts adversely affected the city's economy that had come to depend greatly on armament research and military bases. Although the US Department of Energy did assist urban areas following "reduction in force" or RIF events, metropolitan areas such as Albuquerque's with narrow economies were challenged to find jobs for laid-off employees. The state and the city did install economic development policies and incentives for attracting other industries. Among these incentives are tax credits for technology jobs, manufacturing investment and job training. Industrial Revenue Bonds formed another type of incentive. Apparel factories, call centers and semi-conductor manufacturing were attracted to Albuquerque through some of these policies and incentives. Such policies and incentives are common in the "arms race" between cities in attracting new industry (Fleiock & Cable, 1992) (Fleischman et al,

[3] For a history of the city see Albuquerque Dept. of Planning, 1969, (Oppenheimer Report).

1992) Due to the disproportionate number of educated workers in the metro area, the city also encouraged new business creation through "knowledge spillover" as described in Jacobs (1969), Glaeser et al (1995) and Jovanovic and Rob (1989). The city's population surged again to 333,000 in 1980 and reached 449,000 in 2000 within its boundaries encompassing 181 square miles. Its land area ranks the 30th largest among all cities in the US. New suburban growth in neighboring Valencia County to the south and in Sandoval County to the north accommodated some of this population surge. The metro area's population in 2000 stood at over 700,000 spread out over 5943 square miles and includes over a third of the state's entire population. The flight from the inner city to the suburbs was typical in American cities during this era as foretold in (Kingley, 1957).

Infrastructure

The city is several hundred miles from any other sizable metro area (>250K pop.) and this isolation has contributed to challenges in pacing its infrastructure growth to the needs of industry and its residents. This isolation had been considered an advantage back in 1942 during the early stages of the top secret research work of atomic scientists in the state. Compared to other cities of similar size[4], Albuquerque has not had to contend with those infrastructure problems created by "smokestack" industries that demand high volumes of material transport, energy and water and at times create air, sight, noise and water pollution. The city's Planned Growth Strategy has been cited in Colombo (2003) as one that follows "carefully considered principles" instead of being reactive. The research laboratories, associated military installations and the subsequent "recruited" industries have been relatively "clean" businesses. Perhaps the only exception has been the extra care that the state has taken in assuring itself of safe disposal of relatively small amounts of radioactive material waste created by the defense installations resident in the state.

Transportation

I-25 and I-40 are two major interstate highways that meet at the geographic center of the city. I-25 bisects the state as it carries traffic from El Paso to the Colorado border along most of the Rio Grande valley. Possibly the heaviest traffic flow along I-25 is seen between Albuquerque and the state's capital – Santa Fe – some fifty miles to the north. I-40 is the successor artery to US 66 and connects the Texas panhandle to the mid-section of Arizona. It is the only major east-west interstate in the state except for I-10 which follows an extreme southern route along the Mexican border from El Paso to the southern section of Arizona.

The railroad never fully developed in the state partly because of its low population density and lack of manufacturing output.[5] Mining output and forest products in the nineteenth century and the first half of the twentieth were extracted from mountainous regions where rail was either briefly available or not available at all. Single track rail infrastructure is still prevalent even in the venerable east-west "Atchison, Topeka and Santa Fe" line that started in Chicago and terminated in Los Angeles.

[4] See Table 2 for a listing of cities of similar size to Albuquerque.
[5] For a treatment of the state's railroad history see Myrick (1990).

The Albuquerque airport known as the “Sunport” is located in the southern end of the city adjacent to Kirtland Air Force Base. The airport is not a hub to any major airline but it still handles over 6 million passengers per year with 600 flights scheduled on the average day. Half of the passenger traffic is handled by Southwest Airlines, five times more than any other airline. Unlike many major US cities the airport has relatively few air terminal warehouses or heavy industrial parks in its immediate vicinity. Several major airlines offer several flights/day service to their respective major hubs located in Houston, Dallas, Salt Lake City, Phoenix and Denver. Hence, passengers bound for the eastern or western coasts of the US often have to change planes at the carrier hub cities before reaching their destinations. To date there is no regularly scheduled flights to Mexico despite the fact that the state has many Mexican or Latin American nationals in its workforce.

City Utility Infrastructure

New Mexico ranks second in the nation as a natural gas producer so the fuel is relatively cheap in Albuquerque despite having to be shipped long distances from gas fields in the northwest corner of the state.

Electric power available in the city is produced by the state’s major utility – PNM – using gas or coal-fired plants. The utility is experimenting with alternative energy generation from wind turbine farms located in the eastern part of the state. To date there has been no significant investment in solar generated power despite the fact that the entire state enjoys cloudless sunshine for most of the year. PNM reports that it generates excess power for the state and actually exports some of its power to neighboring states.

Telecommunications services has been supplied in major cities and towns in New Mexico including Albuquerque by the old Bell System operating company – Mountain Bell – then by the RBOC, US West, formed after divestiture of the Bell System in 1984. After its merger with Global Crossing, US West became Qwest which is headquartered in Denver. Comcast offers cable television services and broadband internet connectivity in major cities like Albuquerque and Santa Fe.

Water is possibly the greatest infrastructure concern of the city. Albuquerque sits atop a huge aquifer that has been charged by the natural flow of the 1900 mile long Rio Grande River with headwaters in the Colorado mountains. The city operates over 200 wells that tap the aquifer and supplies the residents with potable water. Recent scientific findings have shown that the river is not replenishing the aquifer at the same rate that it is being tapped. The city had the foresight to purchase 49,000 acre feet/year of water supplied to the Rio Grande from the San Juan basin in compliance with the San Juan/Chama River Compact signed in 1960. The agreement allows water to be redirected to the Rio Grande basin from the San Juan River that would normally flow into the Colorado basin. The city uses this water to recharge the aquifer. However, the city’s growth has motivated city planners to look at using surface water as another supply for future needs. Recent droughts have caused city officials to institute conservation measures and water remains a critical issue in accommodating future city growth.

Demographics, Education & Social Services

According to the 2000 US census New Mexico's population is partitioned into the major groups of 41.6% of Hispanic descent, 9.5% Native American and 48.3% White/non-Hispanic. The City of Albuquerque has a slightly lower percentage of Hispanic (40%) because it attracted a significant proportion of its current population from out of state during the growth decades of the 1950's, 60's and 70's. In general, Albuquerque's population is older, better educated and enjoys a higher income than the rest of the state .

Geography & Climate

Approximately 5000 feet above sea level, the metropolitan area of over 5943 square miles is spread out over the Rio Grande river valley in the entire county of Bernalillo and small portions of the much larger counties of Valencia to the south of the city and Sandoval to the north. The river's west bank area of the city sits over ancient lava flows while the opposite bank rises to the foothills of the Sandia and Manzano mountains that hem the city in from the east and their rugged 10,000 foot high terrain prevent further expansion in that direction. Indian reservation lands border the city on the northeast and southeast quadrants and prevent expansion in either direction. Hence, newer growth has occurred on the west bank of the Rio Grande mostly in a northerly direction that encompasses sections of Sandoval county. The older, southwest section of the city borders the downtown area and consists of semi-rural neighborhoods with some farming and ranching households. This section has a higher percentage of Hispanic households with lower per capita income.

Albuquerque enjoys a temperate, semi-arid climate with precipitation averaging about 8 inches per year. The city basks in sunshine for most of the year with few high winds and almost no tornado or earthquake activity. Mild temperature highs in the 60's and 70's are normal for the fall and spring seasons. A world famous "Balloon Festival" is hosted during late autumn within the city limits partly due to the mild, tranquil weather experienced during that time.

Poverty & Per Capita Income

While the US average poverty rate was just over 11% the state had a poverty rate (17.9%) second only to Arkansas's 18% in 2002. The state's Hispanic population traditionally has suffered from a high poverty rate (25% or more in 2000) as has the Native American population[6]. These two large ethnic groups, constituting in aggregate about half of the state's population, have not closed the gap with their White counterparts in education, training, employment and income. As a result the state ranks last or nearly last annually in per capita income in the nation. This economic status of this segment of the state's residents is in sharp contrast to the high wages paid to knowledge workers.

Crime

[6] The latest available USBOC figures for Native Americans in New Mexico of 1995 report figures as high as 40% for some tribes.

According to the latest crime statistics listed in Table 2 Albuquerque experiences higher rates in felony crimes and robberies than cities of similar size in other states. The state continues to be plagued with a high poverty rate and Albuquerque has not been immune to the effects often associated with a significant disparity in income among its residents. According to Michael E. Porter (1997) "Crime, with its associated fears and costs, is one of the greatest barriers to inner-city economic revitalization."

Education

The state has been lagging in primary and secondary education performance. Fourth graders rank no better than 42th in the country in reading (NCES, 2002) and no better than 49nd in math (NBES, 2000). High school dropout rate for the state (5.3%), although improving in percentage over the last 10 years, is still among the highest in the nation.(NBES, 2001) Public schools in the city of Albuquerque, with a 50% Hispanic population, have fourth graders performing somewhat better but its dropout rate is disappointingly high. This educational gap between Hispanics and whites has been noted by education scholars and is symptomatic of the racial and ethnic educational divide prevalent in the US (Thernstrom & Thernstrom, 2003). This gap constitutes another contrast in that the state has one of the highest concentration of PhD's in the country but the children in the state are among the poorest performers in standardized tests.

Founded in 1889 as the flagship institution of higher learning of the state, the University of New Mexico (UNM) has supplied the state with a professional workforce in education, engineering, law and architecture. In 1960 UNM's enrollment was 8000 students and today it provides instruction to 33,000 students over the main campus and four branch campuses. It remains as the second largest employer in the city. The UNM medical school was founded in 1963 and was located at the site of Bernalillo County Indian Hospital.

Today the UNM Health Center which includes the hospital and the university's medical, pharmacy and nursing schools accounts for about half of UNM's $1.8B budget, employs almost half of the university's workforce of 16,000 and brings in about half of the university's research budget of nearly $400M.

Another large employer in the higher education sector is the Technical and Vocational Institute (TVI), a city sponsored community college that serves about 22,000 students and employs about 12,000. TVI has provided the technician level workforce for the region's research laboratories and technology based companies.

Medical Facilities

Major medical facilities in the state are concentrated in the City of Albuquerque. Presbyterian, St. Joseph's and Lovelace Clinic are large private hospitals while UNM Hospital is the largest hospital that receives public funds. Many small clinics, medical testing facilities and doctor's offices are clustered around the University of New Mexico main campus in the heights section near downtown.

Major Employers & Trade

Of the ten largest city employers in 2000 nine are either funded by governmental sources or constitute government divisions at the city, state or federal level. The top ten employers employ 22% of the metro area's workforce while 94% of those workers are largely supported by tax dollars. Only those positions that are supported by federal tax dollars can be considered as "export" generated since that is the only revenue external to the state. These statistics illustrate the major economic challenge that the city and perhaps the state faces – the need for diversification of its economy and lessened dependency on tax dollars to support its workforce. It is true that a large segment of the remaining workforce in the city belongs to the commercial sector but that sector consists mostly of service establishments that merely cater to the needs of the city's residents and do not generate income from sources outside the state. The exception, of course, is tourism and it is estimated that tourist expenditures constitute about 6% of the Gross State Product, estimated to be $55B in 2003. An expectation in technology-based economies is that private businesses can be created from the intellectual property being funded in the region. With notably small commercial and industrial sectors in its economy New Mexico is seen as not having exploited the knowledge to create new jobs. Among the eight "Rocky Mountain" states New Mexico has one of the lowest business starts index and highest business termination rate. The contrast is evident – high investment in R&D but little output in commercial ventures from that R&D. According to the 2000 AEA Report "Cybercities" Albuquerque was 56th among the top 60 US technology cities in venture capital investments in 1999 and 54th in percent change in such investments since 1993.

Military Installations

Kirtland Air Force Base (KAFB) is the largest single employer in the city with over 18,000 civilian employees. Its operations include Kirtland Air Force Research Lab which conducts research and development for two (Space Vehicles and Directed Energy) of the thirteen Air Force Directorates in the country. In addition, KAFB has over 6,000 military personnel associated with its operations. Aircraft assigned to KAFB share some airport facilities with the City of Albuquerque.

Science and Engineering Laboratories

Sandia National Laboratories (SNL), currently managed by Lockheed Martin Corporation, conducts technology-related functions for the Department of Energy primarily in the areas of ordnance development, testing and monitoring. Due to reductions in defense spending and international nuclear disarmament agreements, SNL has increasingly devoted more of its budget to non-ordnance technology areas but that are still pertinent to national defense. Recently it has become a global center for Microsystems research and development having invested several hundred million dollars in facilities that are considered world class in that discipline. Microsystems, an outgrowth of semiconductor process technology, includes the miniaturization of actuators, sensors, pumps and control devices. SNL currently employs about 7700 and ranks as the fifth largest employer in the city.

Government Work

The City of Albuquerque is the largest governmental employer in the city with 11,600 employees in its public school system and an additional 8,000 employees in its various service departments.
The State of New Mexico has 6500 employees and is one of the top ten employers in the city in its own right.
As of 2002 nearly 13,000 civilian workers were employed by the Federal government in Albuquerque.

Intel
The largest employer not associated with government work is Intel Corporation with 5400 employees. Its plant is located in the newer section of the metro area on the west river bank. Although Intel has nearly 20 manufacturing plants throughout the globe, the one in the Albuquerque metro area is reportedly the largest in semiconductor production value. Shipments from this plant, although high in value, do not really constitute exports for the state since the headquarters of Intel is located in California. The true value of exports for the state is more accurately the budget of the Albuquerque Intel plant for servicing its payroll, employee benefits and the supplies and materials purchased in the state.

Trade
The decline in several extraction industries – lumber, minerals and coal - of the state has diminished its exports. The exception is petroleum and natural gas, whose production has led to lucrative income from license fees for the extraction on state and federal lands. The state has maintained a trust fund valued over $10 billion in cumulative income from these fees. Nearly a quarter of the state's annual budget is funded from such fees or interest income from the trust fund. New Mexico was only one of two states in the union that experienced a budget surplus in 2003 and the only one that approved a tax cut. Due to its small manufacturing sector (4.5% of the workforce compared to the US's 17%) there has been little to export from that sector. Also, the state's isolated geographic location is not conducive to developing trade relations with Asian or European countries. Of the states that border Mexico, New Mexico is last in exports to that country.

Conclusions

Albuquerque has experienced substantial growth in the last sixty years primarily due to continued federal investment in nearby national laboratories and associated military installations. A number of state and city economic incentives have successfully attracted other industries in the last twenty years to supplement job creating opportunities. Care must be exercised as outlined in Bartik (1994) and Bartik (1996) so that incentives do pay off and they do provide jobs for residents at reasonable recurring cost. The city's aggressive marketing campaign, such a policy cited as a critical component in urban economic development in Porter (1997), speaks of its strengths and has evidently been successful in attracting companies to the area. In the same citation, the city could consider supporting minority owned businesses and facilitating entrepreneurship since Porter (1997) considers them equally important for urban viability. The city has enviable advantages of an educated workforce, affordable housing, a temperate climate, scenic

beauty and an arts-oriented culture. Its challenges include its small market, relative geographic isolation, and limited transportation infrastructure. In addition, the city faces issues about its water supply, an inordinately high crime rate, ethnic groups with significant gaps in education and economic level, and a solid plan for continuing to diversify its economy.

REFERENCES

Albuquerque Dept. of Planning. "Historical Background of Albuquerque," A report by Alan J. Oppenheirmer to the Department of Planning, 1969.

AEA (American Electronics Association), (2000). *Cybercities*. Washington, D.C.: AEA,

Audretsch, D.B., (2002). "The Dynamic Role of Small Firms: Evidence from the US," *Small Business Economics*. 18 (Feb-May), p13.

Bartik, T.J., 1994. "Jobs, Productivity, and Local Economic Development: What Implications Does Economic Research Have for the Role of the Government?", *National Tax Journal*, 47 (Dec.) p847.

Bartik, T.J., 1996. "Eight Issues for Policy Toward Economic Development Incentives," *The Region*, 10 (June) p43.

Colombo, L.J. 2003. "Implementing the Vision: Impact Fees and the Albuquerque Metropolitan Planned Growth Strategy." National Resource Journal 43(No. 3), p887.

Feiock, R and Cable, G. 1992. "Need, Institutional Arrangements and Economic development Policy. *Journal of Public administration Research and Theory*. 2 (No. 4): 307-398.

Fleischman, Arnold, Green, G.P. and Kwong, T.M. 1992. "What's a City to Do? Explaining Difference in Local development Policies." *Western Political Quarterly*. 45 (No.3): 677-699.Fritsch, M., 1997, "New Firms and Regional Employment Change", *Small Business Economics* 9(5), 437-447.

Glaeser, E.L., J.A. Scheinkman and A. Shleifer, 1995, "Economic Growth in a Cross-section of Cities", *Journal of Monetary Economics* 36, 117-143.

Grady, dennis. 1987. "State Economic Development Incentives. Why do States Compete?" *State and Local Government Review* 19 (Fall): 86-94

Jacobs, J., 1969, *The Economy of Citie*s, New York: Vintage.

Jovanovic, B. and R. Rob, 1989, 'The Growth and Diffusion of Knowledge', *Review of Economic Studies* 5**6,** 569-582.

Kingley, J. Donald. 1957. "The Problems of Tomorrow's City." *Journal of Educational Sociology*. 31 (No. 1): 4-7.

Myrick, D.F. (1990). *New Mexico Railroads – A Historical Survey*. Albuquerque: New Mexico Press.

NCES (National Center for Education Statistics) 2000-2002, US Dept. of Education. http://www.nces.ed.gov

Porter, Michael E. (1997). "New Strategies for Inner-city Economic Development," *Economic Development Quarterly*. 11(No. 1), p11.

Sperling, B & Sander, P. (2004). Cities: Ranked and Rated, Hoboken, NJ: Wiley Publishing.

Thernstrom, A & Thernstrom, S (2003). *No Excuses – Closing the Racial Gap in Learning*. NY: Simon and Shuster.

USBOC (US Bureau of the Census), 2000. http://www.census.gov/

Table 1
Albuquerque Population Growth

		1940	1950	1960	1970	1980	1990	2000
Albuquerque	Population In thousands	49	97	109	225	333	385	449
	Growth Rate% per decade		98	12	106	48	16	17
New Mexico	Population In thousands	532	681	951	1,020	1,300	1,500	1.800
	Growth Rate% per decade		28	40	1	27	15	20
US	Population In millions	132.2	151.3	179..3	203.3	226.5	248.7	281.4
	Growth Rate% per decade		14	19	13	11	10	13

Table 2 – Cities of the comparable population to Albuquerque, NM

***Data from US Bureau of the Census (2000)**
****Data from National Center for Education Statistics**
*****Data from American College Testing Service**
******Data from FBI Uniform Crime Reports**

City	Pop. Metro Area *	%Change 1990-2000 *	State Pop. *	% Of state Pop. *	% Pop Hispanic*	% White*	Med. Age*	Per Cap. Income*	Exp. Pupil **	SAT Score ***	%taking SAT in State ***	Violent Crime ****	Property Crime ****
Albany, NY	875,583	1.6	18,976,457	4.61%	2.5	92.3	37.8	$25,085	8386	1006	79	289.7	2737.2
Tucson, AZ	843,748	28.5	5,456,453	15.46%	27.3	81.3	36.0	$22,341	4632	1049	36	671.6	6927.4
Tulsa, OK	803,235	13.3	3,493,714	22.99%	3.0	78.8	35.4	$24,323	4635	1131	8	692.8	4357.3
Syracuse, NY	732,117	-1.4	18,976,457	3.86%	1.9	92.4	36.5	$22,343	8011	1006	79	329.0	2878.4
Omaha, NB	716,998	12.1	1,729,180	41.46%	3.5	92.6	34.0	$26,188	5382	1151	8	476.0	5224.4
Albuquerque, NM	**712,738**	**21**	**1,855,059**	**38.42%**	**40.0**	**73.4**	**35.2**	**$23,392**	**4869**	**1088**	**14**	**1022.1**	**5992.2**
Knoxville, TN	687,249	17.3	5,797,289	11.85%	0.7	91.8	37.8	$23,163	5334	1128	14	553.8	3695.2
El Paso, TX	679,622	14.9	21,779,893	3.12%	72.6	76.9	30.1	$13,867	5293	993	55	698.7	4153.7
Bakersfield, CA	661,645	21.7	35,116,033	1.88%	31.3	73.2	30.8	$15,901	5319	1018	52	485.9	3549.3
Allentown, PA	637,958	7.2	12,335,091	5.17%	3.3	94.9	39.1	$24,171	6369	1002	72	297.8	2674.1
Harrisburg, PA	629,401	7	12,335,091	5.10%	1.7	92.1	38.6	$24,287	6189	1002	72	319.2	2383.6
US Average					**12.5**	**75.1**	**35.5**	**$23.420**	**5894**	**1020**	**46**	**456.0**	**3950.0**