

The Future of the Washington Area Economy: Alternative Forecast, Employment and Housing Implications

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Summary of Findings and Conclusions

The Washington metropolitan area is projected to experience substantial growth in population, employment and output over the next twenty years. However, the Atlanta and Dallas-Fort Worth metropolitan areas will grow faster with Dallas' economy surpassing the Washington area's economy by 2015. However, the Washington area economy's projected growth has considerable potential beyond current forecasts if it was able to achieve gains in business-centered sectors to the same magnitude as is projected to occur in its peer metropolitan areas; that is, if the Washington area economy's business base performed as well as those in Atlanta, Dallas-Fort Worth, New York, Chicago and Los Angeles.

However, irrespective of the Washington area's future economic growth path, a growing share of its earnings (disposable personal income) will be lost to jurisdictions outside of its metropolitan boundaries due to its increasing dependence on non-resident commuters to satisfy its growing employment requirements. None of the Washington area's peer metropolitan areas is currently experiencing as great a percentage of economic loss attributable to net commuting patterns and, in all cases except for the Washington metropolitan area, the relative magnitudes of these income losses are projected to decline over the next twenty years. In contrast, this percentage of economic loss to jurisdictions beyond the metropolitan area boundaries is projected to grow for the Washington metropolitan area over the next 20 years.

The metropolitan area's "under-performance" and increasing loss of economic value due to a growing dependence on a non-resident work force (commuters) raises a multitude of issues. The key issues among these are:

- Can the Washington area attract sufficient labor resources of the quality required to achieve its economic growth potentials or, more simply, who is going to fill the 1.6 million new jobs projected for the Washington metropolitan area over the next twenty years?
- How can the Washington area's current and future work force be more efficiently deployed, retrained, and retained to better fulfill the increasing demands for technology-intensive and knowledge-based workers?

- With only 60% of the population associated with this net new job growth projected to be housed within the metropolitan area, what are the transportation implications of moving an additional 600,000 workers in and out of the Washington metropolitan area two times a day?
- With upward towards 50% of the workforce retiring over the next twenty years, who is going to fill their jobs and where are these new workers going to live given that many of the retirees will remain residents of the Washington metropolitan area?
- What are the fiscal implications of this growing share of the metropolitan economy being exported to jurisdictions beyond its boundaries? How can local governments continue to provide high quality services and meet growing urban service demands with a growing share of their local job base being filled by non-local workers taking their taxable earnings and spending potential home to jurisdictions outside the metropolitan area?

Going forward, the Washington metropolitan area will be confronted by a major housing shortage that is linked directly to its growing labor force requirements upon which the future economic vitality of the region is dependent. There is a major pre-existing housing shortage in the metropolitan area as evidenced by the large percentage of the local workforce that commutes into the metropolitan area each day; this leakage from the area's economy will cost it \$15.0 billion in 2010 and will increase each year due to the growing dependence on non-local resident workers, reaching a projected \$59.8 billion by 2030. Beyond these direct income losses their associated economic impacts that would have been realized had these dollars been spent locally raise the full measure of these losses to \$27.8 billion in 2010, or 7.9% of GRP, and \$111.2 billion in 2030, or 16.3% of GRP.

Housing more workers within the metropolitan area would address the transportation issues associated with long-distance commuting as well as the fiscal costs of this growing dependence on a non-resident work force. More housing located closer to local employment centers could also help alleviate the housing constraints (high housing prices and lack of housing choices) that will increasingly discourage new workers from migrating to the Washington area from elsewhere in the United States to fill local labor force requirements.

The Washington area cannot achieve its economic potentials without importing more than 3 million new workers (1.6 million to fill the net new jobs and as many as 2.0 million to back fill jobs vacated by retiring workers) over the next twenty years and will not be able to afford to support the urban services these workers will demand without retaining the taxable income these workers will generate. To date, the magnitude and interdependency of these work force and housing requirements has not been recognized (and therefore is not being addressed) by any public official or any public agency.

The Outlook for the Washington Metropolitan Area Economy

The “standard” forecast for Washington metropolitan area economy projects it to almost double in size by 2030 increasing by 94.2% between 2010 and 2030. Compared to its peer metropolitan areas (see Table 1), its projected growth rate is more than double those projected for the New York and Chicago metropolitan areas for this same period and almost double the growth rate expected for the Los Angeles metropolitan area. However, the Washington metropolitan area economy is not projected to grow as fast as the economies of Dallas-Fort Worth or Atlanta metropolitan areas. The projections for these six metropolitan economies are presented graphically for the 2010-2030 period in Figure 1.

As a result of these differential growth rates, the ranking of these metropolitan area economies will change. Chicago, which in 2010 will still be the third largest metropolitan area economy and a ranking it has held for many decades, will slip to fifth by 2030 being passed by the Dallas-Fort Worth economy that will move up in order to third, also surpassing the Washington metropolitan area that will remain in fourth position. The Atlanta metropolitan area economy, which currently ranks 10th, will likely surpass Miami (9th), Boston (8th), and Philadelphia (6th) to rank seventh behind Houston’s economy that will move up to sixth place. By 2030, the Houston and Chicago metropolitan area economies might have switched places, too, with Houston ranking 5th and Chicago dropping to 6th.

Table 1

Gross Regional Product Forecasts: 2010-2030
Washington Metropolitan Area and Five Peer Metropolitan Areas
(in billions of 2000\$s)

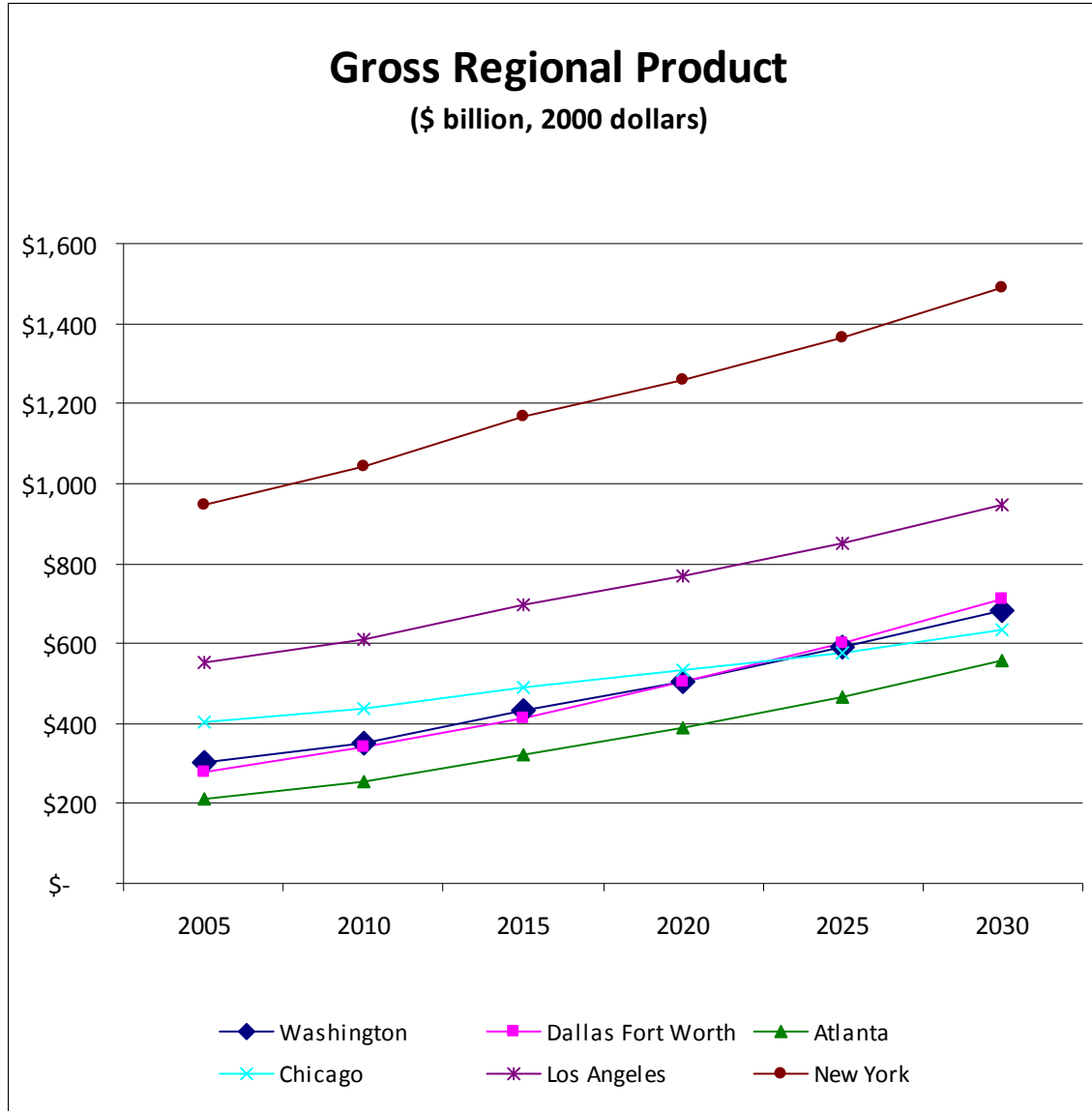
Metro Area	2010	2030	Change	% Change
New York	\$1,045.0	\$1,489.2	\$444.2	42.5
Los Angeles	611.4	947.9	336.5	55.0
Chicago	438.1	633.7	195.6	44.6
Washington	352.1	683.7	331.6	94.2
Dallas-Ft Worth	339.2	709.9	370.7	109.3
Atlanta	253.7	556.9	303.2	119.5

Sources: NPA Data Services, GMU Center for Regional Analysis

While each of these economies differs in important ways, the Washington metropolitan area economy is the most different in both sectoral structure and value-added per jobs. These characteristics, as seen in job mix and earnings, are

well known and help explain the economy's projected long-term performance as well as its counter-cyclical performance during the downside of business cycles.

Figure 1



What is less well understood and will have a major impact on achieving the Washington metropolitan area's economic growth potentials and financing the public services and infrastructure required to retain the area's competitive position and support the demands of future growth is the Washington metropolitan area's growing dependency on non-resident workers to fill the local economy's job requirements. This is not a new problem and it is projected to worsen over the next twenty years. This problem is unique to the Washington metropolitan area as revealed in Table 2.

Very simply, the Washington metropolitan area has the highest jobs-to-population ratio of the five peer metropolitan areas analyzed here. On average these five metropolitan areas have 6 jobs for every 10 residents while the Washington metropolitan area has 7.3 jobs for every ten residents. By 2030, these ratios are projected to be 6.5 jobs per 10 residents on average for the five peer metropolitan areas and 7.8 jobs for every 10 residents in the Washington metropolitan area.

Table 2

Job-to-Population Ratios and GRP Losses to Commuters, 2010 and 2030
 Washington Metropolitan Area and Five Peer Metropolitan Areas
 (GRP in percent total GRP and billions of 2000\$)

Metro Area	2010		2030		
	Jobs/Pop	%GRP	Jobs/Pop	%GRP	\$GRP
New York	.57	-1.41	.61	-0.22	-\$3.2
Los Angeles	.60	-2.85	.66	-2.88	-\$27.3
Chicago	.60	-0.61	.64	-0.46	-\$2.9
Washington	.73	-4.25	.78	-8.75	-\$59.8
Dallas-Ft Worth	.62	-0.15	.66	+2.87	+\$20.4
Atlanta	.63	-0.65	.66	-1.21	-\$3.7

Sources: NPA Data Services, GMU Center for Regional Analysis

What this means is that the Washington metropolitan area is more dependent than other metropolitan areas on non-resident workers to fill its job requirements. These non-resident workers generate longer average commutes than do resident workers helping to explain the growing commuter traffic congestion in the Washington metropolitan area. Beyond this very visible and growing problem, these workers take their earnings with them when they leave the metropolitan area each day for their home jurisdictions and spend it there in support of retail and consumer services to the benefit of these non-Washington metropolitan area economies. This loss of personal earnings and related residential-serving economic activity has important employment as well as fiscal implications. Washington area jurisdictions are supplying the employment base and related public services for these non-resident workers but losing their spending effects and related tax revenues to jurisdictions outside of the metropolitan area.

How big a problem is this? In 2010, the Washington economy is projected to lose 4.25% of its total value of output (GRP) to locations beyond the metropolitan boundaries. This represents a loss of approximately \$15 billion (in 2000\$). If these dollars had been re-spent within the Washington metropolitan area instead of leaking out to non-local jurisdictions this spending would have generated another

\$12.9 billion in indirect and induced economic benefits for a total loss of \$27.8 billion (in 2000\$s) or 7.9% of projected GRP. By 2030, this loss is projected to increase to 8.75% or \$59.8 billion (in 2000\$s). The total direct and indirect and induced value of this loss of personal earnings would be \$111.2 billion (in 2000\$s) or 16.3% of projected GRP.

This leakage of earnings and its impact on the Washington metropolitan area economy represents a significant opportunity cost. As can be seen in Table 2, the other five metropolitan area economies retain a much greater share of their respective earnings and this share is increasing over time, with one metropolitan area—Dallas-Fort Worth—actually importing net earnings; that is, its economy is enlarged as a result of net commuting. In contrast, the Washington metropolitan area economy is diminished significantly by its inability to house its workforce to the extent common in competing metropolitan areas.

An Alternative Economic Future for the Washington Area

The “standard” forecast presented above reflects an extension of the Washington area economy building from its federal government base and related core industries given the relative strengths of this economic structure as these sectors are projected to grow nationally over the next twenty years. To develop an alternative projection for the Washington area’s economic growth potential beyond its national capital functions, an analysis of the private sector structure was undertaken to distinguish those sectors in which the Washington area economy is specialized (has a greater proportion of jobs than is true for the national economy) and that are also characterized by above-average salaries (high value added).

This analysis identified 52 high growth sectors, sectors that were disproportionately strong in the Washington area as well as having above-average salaries at the regional level. While these 52 sectors accounted for 17 percent of the economy’s total private sector they represented 27 percent of Washington area’s total private employment base. However, some of these 52 high growth sectors were too small to accommodate future gains of sufficient magnitude to become independent drivers of the metropolitan area economy and others were substantially local serving and whose future growth depended on the area’s population growth and thereby were not “export” based.

Further inspection identified 14 sectors whose markets were predominantly non-local (export oriented) and that had a sufficiently large employment base and had also experienced a large enough job growth over the past five years to offer a realistic capacity to support sufficient job growth over the next twenty years to drive the output of the metropolitan area economy beyond the magnitude projected in the “standard” forecast. These 14 sectors included: electronic markets and agents and brokers, other financial investment activities, legal services, accounting and booking services, architectural and engineering services, specialized design

services, computer systems design and related services, management and technical consulting services, scientific research and development services, advertising and related services, other professional and technical services, management of companies and enterprises, colleges, universities, and professional schools, and social advocacy organizations.

These 14 private sectors accounted for 557,022 jobs in the Washington metropolitan area in 2003 and added a total of 136,165 net new jobs during the next five years, for a growth rate of 24.4 percent. For seven of these 14 high growth sectors, the Washington metropolitan area economy had the highest location quotients in comparison to its five peer metropolitan areas; that is, the Washington area economy already had a competitive advantage in these 7 sectors. These seven high-growth sectors are: legal services, architectural and engineering services, computer systems design and related services, management and technical consulting services, scientific research and development services, other professional and technical services, and social advocacy organizations.

For the remaining seven high-growth sectors, the Washington metropolitan area economy has been underperforming its peer metropolitan areas; that is, even though these are high-growth sectors in the Washington area economy, these sectors have been growing even faster and are more concentrated in some or all of the other peer metropolitan areas.

The question that was answered in this alternative forecast was: if the Washington metropolitan area economy continued to maintain its competitive advantage in the seven high-growth sectors over the next twenty years it has maintained over the recent past and accelerates its performance in the other seven high-growth sectors where it has lagged its peer metropolitan areas to achieve comparable location quotients by 2030 (the same proportion of jobs in these sectors as is currently found in its peer metro areas), how much larger would the Washington metropolitan area economy be in 2030 than currently forecast (the standard forecast) and how many more jobs would this additional economic growth support?

The answer to this question is presented in Table 3 and shown on Figure 2. If the Washington metropolitan area economy evolved beyond its current forecast, that builds on its competitive advantages linked to the federal and other national capital functions, to become more like its peer metropolitan areas—business-centered growth—reflecting faster growth in seven key business sectors while maintaining its competitive advantages in those sectors where it currently exist, the Washington area economy could add \$33 billion additional dollars to its projected 2030 base (standard forecast), increase the personal earnings of local residents by \$23 billion and add 481,225 new jobs beyond the current forecast. This additional growth, building from the economy's under-performing strength (strong sectors that would be expected to grow at even a faster pace in a more business-centered metropolitan economy) would increase the Washington area's economy from \$683.7 billion in

2030 to \$716.8 billion and from a growth rate of 94.2% to 103.6% over this 20-year period.

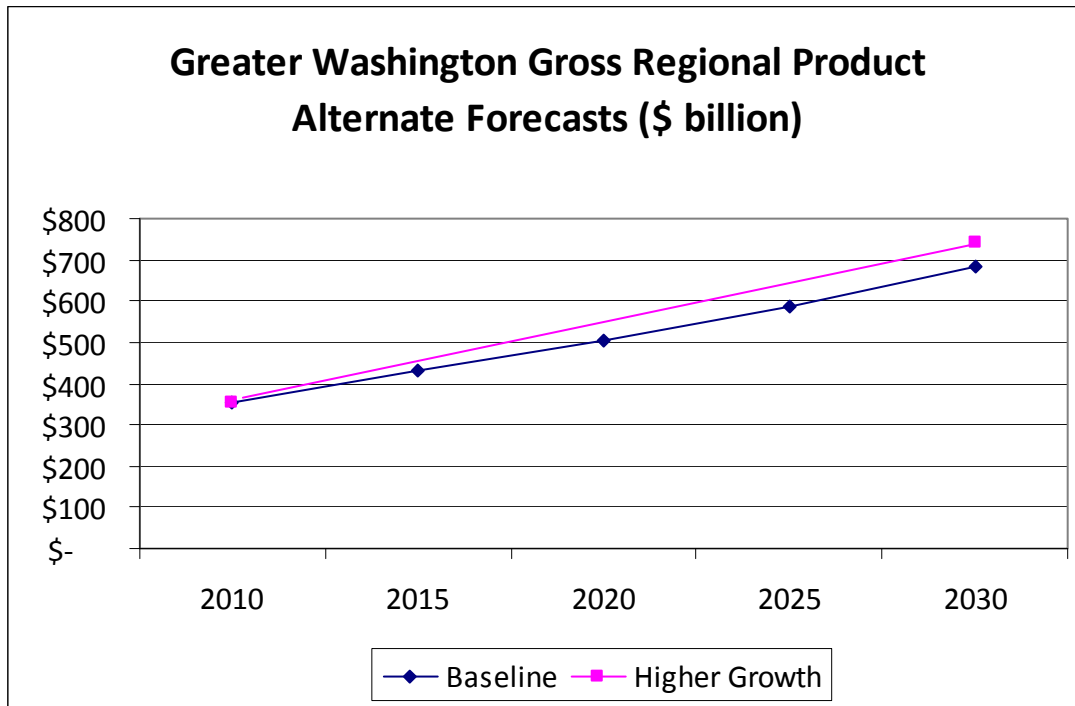
Table 3

Washington Metropolitan Area Alternative Economic Forecast
2010-2030
(in billions of 2000 \$s)

Sources	Total Output (1)	Personal Earnings (2)	Jobs Supported (3)
Direct	\$18.531	\$14.620	226,274
Indirect	12.609	8.411	254,951
Totals	\$33.140	\$23.031	481,225

Sources: EMSI, Inc, GMU Center for Regional Analysis

Figure 2



Labor Force and Housing Implications of Alternative Economic Forecasts

The job and population requirements of the “standard” forecast, holding the Washington metropolitan area’s job-to-population ratio at its currently projected 7.8 to 10, would increase the 2010 population of the metropolitan area from 4.1 million to 5.7 million people for a gain of 1.674 million. This projected population increase translates into 644,900 net new households (2.595 persons per household). In order to house these net new workers in the Washington metropolitan area, the current housing stock would have to grow by 32,244 units per year on average (excluding requirements for replacement of existing housing or for vacancy).

While this magnitude of new housing construction substantially exceeds current residential construction levels, this projected population does not come close to satisfying the labor force requirements of the “standard” forecast. In order for the Washington metropolitan area to grow by 94.2 percent to \$683.7 billion (2000\$s) by 2030 it would generate 1.6 million net new jobs. The projected population growth for the Washington metropolitan area of 1.7 million over this 20-year period could yield as many as 967,350 net new workers (assuming 1.5 workers per housing unit). Clearly, some of this new population will not be of labor force age and some adults will not be in the work force.

Table 4

The Washington Metropolitan Area:
Jobs and Population Implications of Projected Growth, 2010-2030
(in thousands)

Sources	2010	2030	Change
Jobs	4,073.64	5,649.60	1,576.0
Population*	5,559.94	7,233.42	1,673.5
Households			644.9
Population**	6,741.09	8,736.04	1,994.7
Differential	1,181.15	1,502.62	3,176.1***
Households	444.88	579.04	1,223.9***

Sources, NPA Data Services, Inc., GMU Center for Regional Analysis

*standard forecast; **based on ratio of jobs to population in peer MSAs

***added population and households in the WMSA to achieve the same jobs-to-population ratio of peer metropolitan areas by 2030.

Non-resident workers would have to be imported to fill these remaining unfilled jobs continuing a pattern that already exists with its attendant traffic, economic and

fiscal consequences. If new resident workers filled as many as 967,350 jobs of the projected net new jobs over the next 20 years, then 608,650 jobs would be left to be filled by non-resident workers. These imported workers would account for the projected direct loss of \$59.8 billion or 8.75% of the Washington area's GRP in 2030 and, adding in the indirect and induced effects of this diverted spending, as much as \$111.3 billion or 16.3% of projected GRP.

If these workers were to be housed within the Washington metropolitan area in the same proportion as found in the five peer metropolitan areas, residents of the Washington metropolitan area would fill 98.8% of these new jobs. To house, 98.8% of the projected 1.6 million new workers would require more than 1 million new housing units over 20 years or approximately 60,000 per year on average. This magnitude of growth would translate into a gain of more than 3 million new residents rather than the 1.7 million projected as part of the "standard" forecast.

If the Washington metropolitan area was able to house an equivalent workforce as is found in the five peer metropolitan areas, its total GRP in 2030 would total \$779.7 billion (in 2000\$s) and the Washington metropolitan area economy would rank third behind New York and Los Angeles and ahead of Dallas-Fort Worth with Chicago fifth and Atlanta sixth in size of GRP (the Houston metropolitan area would likely rank in size ahead of Chicago and Atlanta).

Conclusions

Pursuing policies to retain a greater share of the Washington area's GRP would appear to be more productive than attempting to grow the Washington metropolitan area economy faster than projected, as reflected in the "standard" forecast, by accelerating its evolution as a business-centered regional economy.

Still, the key question is where are the workers going to come from to fill the 1.6 million net new jobs projected to be added locally between 2010 and 2030 as well as the 1.5 to 2.0 million job vacancies that will occur as a result of retirements and separation within the current work force over this same period? And, how will the quality (skills and knowledge) of the area's indigenous work force be advanced to remain competitive within the changing employment structure projected for the Washington area economy?

The Washington area economy has substantial growth potential reflecting the addition of new high value-added jobs. Satisfying the quantitative and qualitative demands of this growing job potential and housing these workers will be the major challenges of the next twenty years. How successful the Washington metropolitan area is in addressing these challenges—housing its work force and labor force development—will determine the future growth path of the Washington metropolitan area economy and determine the its local jurisdictions' capacities to finance the public services and infrastructure required to realize their economic growth potentials.

Table 5

Washington Metropolitan Area:
 Summary of Economic Growth Alternatives, 2010-2030
 (in billions of 2000\$ and millions of jobs and population)

Sources	2010	2030	Change	% Change
GRP				
Standard	\$352.1	\$683.7	\$331.6	94.2
Business Center		714.5	362.5	103.0
Peers' Jobs/Pop		779.7	427.6	121.4
Jobs				
Standard	4.07	5.65	1.58	38.8
Business Center		6.13	2.06	50.6
Peers' Job/Pop			1.58	38.8
Population				
Standard	5.56	7.23	1.67	30.0
Peers' Jobs/Pop	6.74	8.74	2.00	30.0

Sources: EMSI, Inc., GMU Center for Regional Analysis