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MBA Salary

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Abstract

Base salary has always captured the attention of job seekers, and starting salary of graduates has become one of the indicators of how well degrees or schools perform. The average salary is rising, but has it kept up with inflation? If someone earns more, does it mean his quality of life is better? Does $5 in the wallets of MBA graduates who work the South go further than $10 in the wallets of those who work in the North? A quantitative analysis of data provided by the U.S. corporate recruiters surveyed during 2002-2006 was used to explore these questions.

Looking at graduates employed by the same companies, the study confirms that the starting salary of MBAs is higher compared with the starting salaries of other graduates and measures up well against inflation. In the regions where the average base salaries are low, e.g., in the South, earnings grow steadily and have stronger buying power compared with the regions where the average salaries are high, e.g., in the North, but susceptible to stronger fluctuations and higher inflation. The findings imply that a simplistic approach to reviewing the base salaries of graduates when "A>B" that leads to conclusion that A is better than B may not always reflect the complex reality; therefore, a more in-depth approach is required.

Since the early days of the division of labor, employers have competed to attract and retain the most productive and talented pool of workers while potential employees have competed to receive the best compensation for their labor. Adam Smith, one of the founders of classical economic thought, wrote in 1776, "A man must always live by his work, and his wages must at least be sufficient to maintain him" (p. 77). In *The Wealth of Nations*, Smith distinguished five principles of the inequalities of wages—the difficulty of the work, the cost and difficulty of obtaining the skills necessary to perform the work, the consistency of the employment, the trust necessary to perform the work, and the likelihood of success in the profession. The core of these principles has survived today, more than 200 years later. Thus, salary is often used as a composite measure of one's abilities, trustworthiness, and monetary and non-monetary investments in education, etc. The starting salary of graduates, for example, is a substantial component often included in calculating college rankings, including the rankings of business schools and MBA programs.

This paper examines MBA salary through year-to-year comparisons of the average expected starting salaries for new professional hires from MBA programs reported by corporate recruiters. The starting salaries of new hires from MBA programs are compared with the starting salaries of new hires from other graduate programs. Regional breakdowns and changes to the Consumer Price Index are also examined to compare salary against potential variations in the cost of living over time.

The findings are based on primary research data collected by the Graduate Management Admission Council® (GMAC®) through its series of Corporate Recruiters Surveys conducted from 2002 to 2006.[1] The main purpose of the Corporate Recruiters Survey is to understand the hiring and recruitment decisions of MBA employers. The sample selection is drawn from contact lists provided by graduate business schools.

[1] The methodology for the Corporate Recruiters Surveys is published at http://www.gmac.com/surveys.

For consistency, only data reported by recruiters who worked for companies located in the United States were analyzed. Although this approach significantly reduces the number of observations (Table 1), it facilitates comparisons in the context of the overall state of the U.S. economy.

Table 1: Data Scope		
Year	Total number of U.S. recruiters	U.S. recruiters that reported salaries for new hires from MBA programs
2002	457	193
2003	811	477
2004	1,157	299
2005	1,569	498
2006	1,057	392

The survey question, "What is your best estimate of the average expected starting annual salary for new professional hires in [YEAR] (in $US)?" remained unchanged since the first Corporate Recruiters Survey in 2002. This consistency provides a good basis for sequential comparisons. To explore the data relationships, t-tests, analysis of variance, and nonparametric tests were used where appropriate.

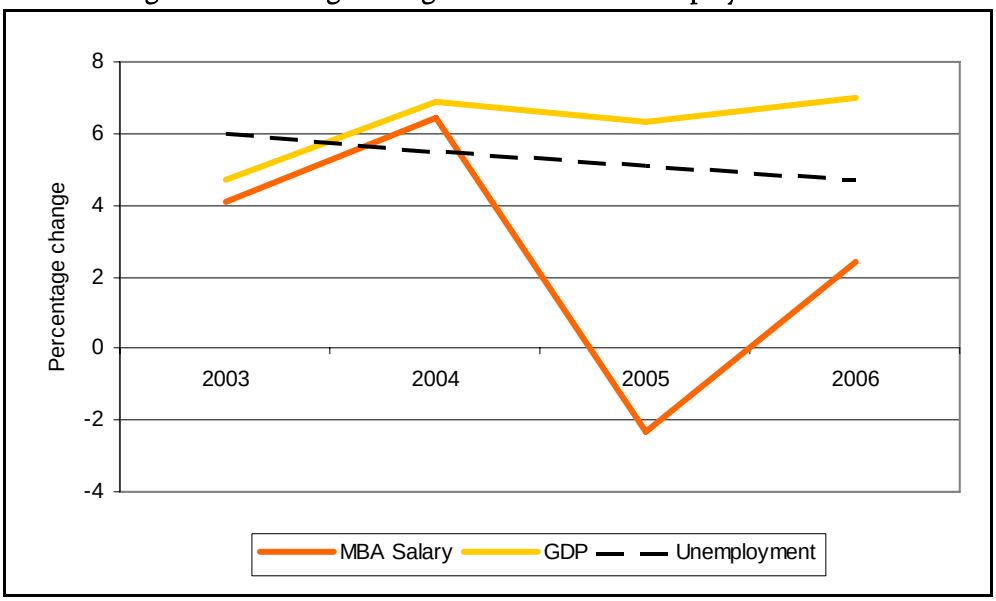
Results

In 2006, U.S. recruiters estimated that the average annual salary for new professional hires from MBA programs would be $80,292 (Table 2). This is almost an 11% increase compared with 2002. The interquartile range of about $20,000—a more stable statistic—shows that generally there was not a lot of dispersion between the top 25% of the highest-paid MBAs and bottom 25% of the lowest-paid MBAs.

Table 2: Average Expected Starting Annual Salary for New Professional Hires from MBA Programs, 2002–2006					
	2002	2003	2004	2005	2006
Mean	$72,459	$75,418	$80,266	$78,385	$80,292
25th percentile	65,000	65,000	70,000	70,000	70,000
Median (50th percentile)	75,000	80,000	80,000	80,000	82,000
75th percentile	84,500	85,000	85,000	90,000	90,000

Variations in the mean salary can be partially explained by the overall state of the economy (Figure 1). Notably, in 2005, when the mean starting salary for MBAs as reported by recruiters decreased by 2%, the GDP growth also slowed down though the unemployment rate continued to decrease. This suggests that in 2005, MBA graduates entered a more competitive labor market with somewhat limited resources for rewards.

Figure 1: Percentage Change in Average Expected Salary for New Professional Hires from MBA Programs, Percentage Change in GDP*, and Unemployment Rate**, 2003–2006



* **Source:** Bureau of Economic Analysis; GDP percent change is based on current dollars; 2006 data are based on the second quarter.
** **Source:** Bureau of Labor Statistics; 2006 data are based on the second quarter.

So how well have MBA compensation dollars compared with the average change in prices? The comparison can be calculated by dividing the average salary by the Consumer Price Index (CPI) value to control for inflation. The new indicator—dollars earned per index point—will remain flat if the change in salary is proportional to the change in price of consumer goods and services; will increase if the salary growth rate exceeds the market basket's price growth rate; and will decrease if the salary growth rate is not in keeping with the price changes.

As shown in Table 3, the purchasing power of dollars earned by newly hired MBAs grew rapidly from 2002 to 2004, but significantly declined in 2005 back to the level seen in 2002. Although a minor decline was observed in the average dollars earned by MBAs per CPI point from 2005 to June 2006, the purchasing power of MBA salaries may remain unchanged compared with 2005 by the end of 2006 and also be similar to 2002.

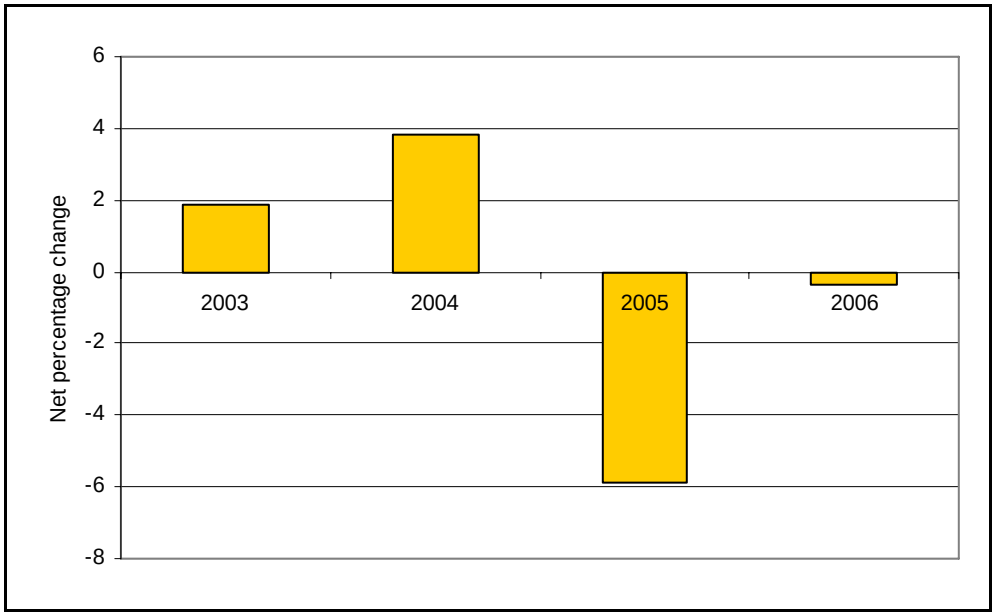
Table 3: Average Expected Starting Annual Salary for New Professional Hires from MBA Programs and Consumer Price Index (CPI)*, 2002–2006

	2002	2003	2004	2005	2006
Mean salary ($)	72,459	75,418	80,266	78,385	80,292
CPI	175.9	179.8	184.5	191.0	196.3
Dollars earned per index point ($)	411.9	419.5	435.0	410.4	409.0

* Source: Bureau of Labor Statistics; CPI-U; 2006 data are based on 1st half of the year.

Another way to look at the relative change in average salary compared with changes in prices is to calculate the "net percentage change" by subtracting the percentage change in CPI from the percentage change in MBA average starting salary. For example, compared with 2002, the MBA's average salary increased by 4.1% in 2003. At the same time, the CPI increased by 2.2%. In this case, the net percentage change equals 1.9 (4.1–2.2) (shown in Figure 2). A net percentage change equal to "0" would indicate that the average salary grows at the same rate as prices for consumer goods and services. Application of this approach confirms the previous finding that, with the exception of 2005, the MBAs' starting salary held up well against inflation.

Figure 2: Net Percentage Change in the Average Expected Salary for New Professional Hires from MBA Programs, 2003–2006*



* Net percentage change is calculated as percentage change in the average salary minus percentage change in the CPI.
CPI source: Bureau of Labor Statistics; CPI-U; 2006 CPI data are based on 1st half of the year.

MBAs Compared with Other Graduates

In addition to estimating the starting salary for MBA graduates, the corporate recruiters surveyed by GMAC® from 2002 to 2006 were asked to estimate the starting annual salary for their new professional hires from other graduate programs. Although fewer recruiters reported starting salaries for both types of graduates, the analysis based on responses from those who reported both to some extent will control for the effect of other variants (Table 4).

Consistent during the five-year period, MBA average starting annual salary has been $11,000 more, on average, than the average starting salary of other graduates. In her article "Why Do Companies Prefer MBAs?" Monster.com's contributing writer Jennifer deJong (2006) suggests that, "MBAs are sought after for their ability to think critically, deal with ambiguity and solve complex problems." GMAC® research shows that the skills recruiters seek in MBA graduates and consistently find in low need of additional strengthening upon employment are their proven ability to perform, strong communication (soft) skills, and strong technical (hard) skills (Schoenfeld, 2006), which match well with deJong's assessment. Further analysis suggests that companies are not only looking for such qualities, but are willing to compensate well the new hires who possess these qualities.

Table 4: Average Expected Starting Salary for New Professional Hires from MBA Programs versus Other Graduate Programs Based on Respondents Who Reported Both, 2002–2006					
	2002[a]	2003[b]	2004[c]	2005[d]	2006[e]
From MBA programs ($)	66,381	71,682	76,520	75,634	77,166
From other graduate programs ($)	53,553	59,621	65,578	63,920	66,430
Mean difference ($)	12,828	12,061	10,942	11,714	10,736
Number of respondents	76	147	51	112	172
a. t=9.198; df=75; p<.05	b. t=11.385; df=146; p<.05		c. t=5.999; df=50; p<.05		
d. t=8.939; df=111; p<.05	e. t=5.345; df=171; p<.05				

Regional Analysis

Although no one would be surprised that economic opportunities and economic barriers in Africa are different from those in Europe, or those in South America are different from those in the United States, it appears that in some way, the regional differences within each country, which certainly may be of a lesser magnitude than inter-country differences, tend not to be accounted for in some economic comparisons. For example, if Belgium, which is approximately the size of Maryland, may be considered homogeneous in terms of the natural resources, population growth, business mix, etc., the United States, which is the third largest country in the world and covers a vast territory between the Atlantic and the Pacific Oceans, may not. Therefore, it is very important to take regional differences into consideration, particularly for salary comparisons.

Table 5 presents regional expected starting salary data for new MBA graduates. Although some of the cell sizes are relatively small, markedly different trends were observed for each region, and, as expected, regional variations were also observed in the average expected starting salary. Salaries for new MBA hires in the Northeast were significantly higher than salaries for those in the South or in the Southwest. In addition, during two of the five observed periods, salaries in the West were significantly higher than salaries in the South or in the Southwest.

Although in the South the starting salary for a new MBA graduate hire as reported by corporate recruiters appeared to be lower than in other regions, salary in the South increased steadily at the average rate of 3.5% from 2002 to 2006. In the Middle Atlantic region, the MBA starting salary grew progressively at an even higher average rate of 5.0%. In other regions, however, the average salary fluctuated to higher or lower levels depending on the year.

Table 5: Average Expected Starting Annual Salary for New Professional Hires from MBA Programs, by Region, 2002–2006						
	2002[a]	2003[b]	2004[c]	2005[d]	2006[e]	Average % change
Northeast	$78,208	$80,655	$82,418	$87,837	$84,352	2.0%
Middle Atlantic	68,609	70,118	77,191	79,630	83,407	5.0
Midwest	75,200	75,257	89,847	79,167	81,902	2.8
South	63,635	65,293	69,024	69,029	73,043	3.5
Southwest	71,436	69,270	72,390	72,376	72,963	0.6
West	80,047	80,063	76,561	78,337	83,700	1.2

a. $F=4.881$; $df_1=5$; $df_2=187$; $p<.05$. Bonferroni test showed statistically significant differences, $\alpha=0.05$, between average salaries in the regions of the South and the Northeast, as well as the South and the West.

b. $F=12.179$; $df_1=5$; $df_2=471$; $p<.05$. Bonferroni test showed statistically significant differences, $\alpha=0.05$, between average salaries in the regions of the Northeast and the Middle Atlantic, the Northeast and the South, the Northeast and the Southwest, the Middle Atlantic and the West, the Midwest and the South, the South and the West, and the Southwest and the West.

c. $F=1.147$; $df_1=5$; $df_2=293$; $p>.05$.

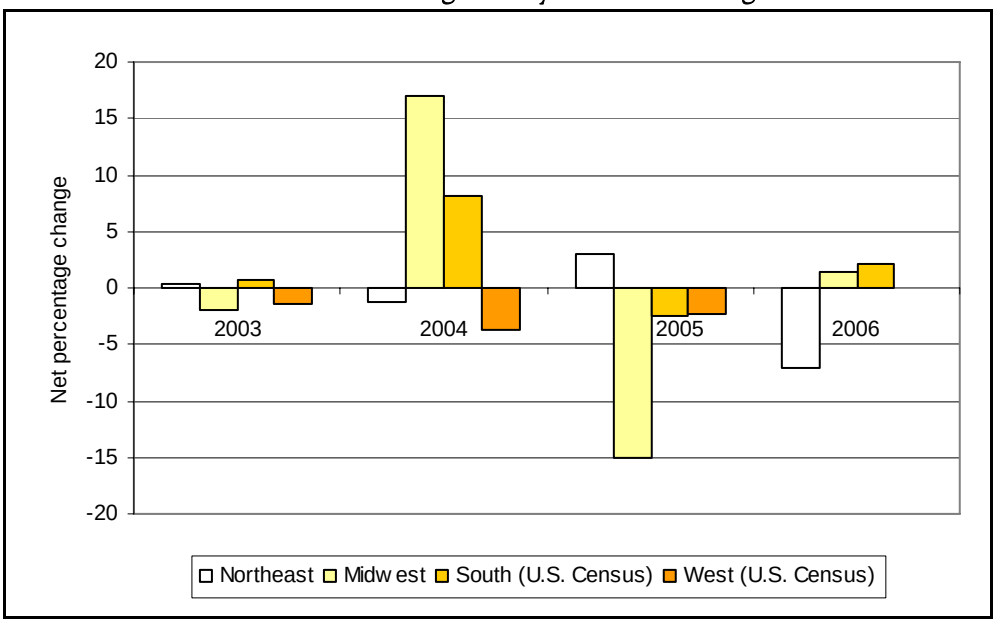
d. $F=9.206$; $df_1=5$; $df_2=492$; $p<.05$. Bonferroni test showed statistically significant differences, $\alpha=0.05$, between average salaries in the regions of the Northeast and the Midwest, the Northeast and the South, the Northeast and the Southwest, as well as the Northeast and the West.

e. $F=5.345$; $df_1=5$; $df_2=386$; $p=.05$. Bonferroni test showed statistically significant differences, $\alpha=0.05$, between average salaries in the regions of the Northeast and the South, the Northeast and the Southwest, the Middle Atlantic and the Southwest, the Midwest and the Southwest, and the Southwest and the West.

As mentioned earlier, salary is only as good as the purchasing power afforded by it, and regional differences do impact the price of good and services. For instance, the prices paid for the same goods or services in New York City will be different from those paid in Sioux Falls. Thus, comparing the regional price index with the average salary will provide a better understanding of how far MBA graduate dollars go in each region.

The Bureau of Labor Statistics publishes CPI for the four major regions—Northeast, Midwest, South, and West—using the U.S. Census Bureau's regional classification. To facilitate the analysis, GMAC® regions for the Middle Atlantic and South were combined to be comparable to the U.S. Census South region, though not a perfect match; and GMAC® Southwest and West regions were grouped to be comparable to the U.S. Census West region. The net percentage change in the average expected salary for new hires from MBA programs was calculated for each of the four regions using the previously described methodology (results shown in Figure 3).

Figure 3: Net Percentage Change in the Average Expected Salary for New Professional Hires from MBA Programs, by U.S. Census Region, 2003–2006*



* Net percentage change for each region is calculated as percentage change in the average salary minus percentage change in the CPI for this region. CPI source: Bureau of Labor Statistics; CPI-U Northeast; CPI-U Midwest; CPI-U South; CPI-U West; 2006 CPI data are based on 1st half of the year. Please note that with the exception of the Midwest, the U.S. Census regions do not perfectly coincide with the GMAC® regions.

The data show that in 2006 the MBA new hires' salary had a strong buying power in all regions but the Northeast. During the examined four-year period, it appeared that in the South the rate of salary increase was more likely to exceed the rate of increase in prices; and in the West, the rate of price increase was more likely to surpass the rate of salary increase compared with other regions. The magnitude of the net salary fluctuations was most notable in the Midwest.

Not surprisingly, the average starting salary for a newly hired MBA was significantly higher compared with the average starting salary for graduates of other programs in every region (Table 6). The largest salary difference during the five-year period was observed in the Northeast, whereas the smallest was observed in the Middle Atlantic region (an average of $13,993 and $11,083, respectively).

Table 6: Average Expected Starting Annual Salary for New Professional Hires from MBA Programs versus Other Graduate Programs Based on Respondents Who Reported Both, by Region, 2002–2006*

Regional Breakdown		2002	2003	2004	2005	2006
Northeast	From MBA programs ($)	79,167	75,600	73,600	85,500	77,438
	From other graduate programs ($)	65,000	62,520	55,800	72,550	65,469
	Mean difference ($)	14,167	13,080	17,800	12,950	11,969
	Number of respondents	6	25	10	20	32
Middle Atlantic	From MBA programs ($)	64,800	66,190	77,917	79,412	77,667
	From other graduate programs ($)	54,400	56,286	68,000	65,353	66,533
	Mean difference ($)	10,400	9,904	9,917	14,059	11,134
	Number of respondents	10	21	12	17	30

Table 6: Average Expected Starting Annual Salary for New Professional Hires from MBA Programs versus Other Graduate Programs Based on Respondents Who Reported Both, by Region, 2002–2006*

Regional Breakdown		2002	2003	2004	2005	2006
Midwest	From MBA programs ($)	70,000	73,832	84,000	77,083	80,643
	From other graduate programs ($)	52,166	60,511	75,500	64,875	70,357
	Mean difference ($)	17,834	13,321	8,500	12,208	10,286
	Number of respondents	12	31	10	24	28
South	From MBA programs ($)	55,250	65,125	—	70,625	70,767
	From other graduate programs ($)	48,000	56,875	—	51,500	60,000
	Mean difference ($)	7,250	8,250	—	19,125	10,767
	Number of respondents	18	8	3	8	15
Southwest	From MBA programs ($)	67,891	70,357	67,000	66,333	71,951
	From other graduate programs ($)	53,696	57,143	56,000	58,042	62,000
	Mean difference ($)	14,195	13,214	11,000	8,291	9,951
	Number of respondents	23	28	5	24	41
West	From MBA programs ($)	75,143	72,868	78,091	73,895	84,423
	From other graduate programs ($)	58,714	61,426	66,182	65,000	73,962
	Mean difference ($)	16,429	11,442	11,909	8,895	10,461
	Number of respondents	7	34	11	19	26

* The data are not displayed when the number of observations is less than five.

Conclusion

The data collected by GMAC® from 2002 to 2006 suggest that in terms of starting salaries, MBA graduates are strongly positioned when joining the labor force. The percentage increase in starting salary of MBAs depends on the local market but, overall, measures up well against inflation. Furthermore, across the United States, the average starting salaries for new professional hires from MBA programs are significantly higher than the salaries of those from other graduate programs. These findings are promising for current and prospective MBA students. And those who agree with Smith that, "No society can surely be flourishing and happy, of which the far greater part of the members are poor and miserable" (1776, p. 90), might find the continuous introduction of new MBA graduates, with their well-compensated salaries, to be of positive influence to society as well.

Contact Information

For questions or comments regarding study findings, methodology, or data, please contact the GMAC® Research and Development department at research@gmac.com.

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References

deJong, J. (2006). Why do Companies Prefer MBAs? *Monster.com*. Retrieved September 19, 2006 from the World Wide Web: http://featuredreports.monster.com/mba/mbapreferred/

Schoenfeld, G. (2006). *Corporate Recruiters Survey 2006 Survey Report*. McLean, VA: Graduate Management Admission Council®.

Smith, A. (1994). *The Wealth of Nations.* (E. Cannon, Ed.) New York: Random House, Inc. (Original work published 1776.)