



The Economic Impact of Virginia Wesleyan College in Hampton Roads

June 2013

By

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EXECUTIVE SUMMARY

Virginia Wesleyan College (VWC), founded in 1961 and located propitiously on the border between Norfolk and Virginia Beach, is one of the region's more important economic engines. During a time period when the Hampton Roads economy has been in danger of stagnating, VWC's economic impact has been expanding.

A senior executive of one of the region's largest companies put it this way: *"Virginia Wesleyan is a gem. It provides students with a rich intellectual experience and highly personalized education. And in the process, it also provides students with what it takes to be productive in their future jobs."* Added an important elected official, *"Wesleyan graduates occupy many very important positions in this city; they are excellent citizens."*

Virginia Wesleyan is a large economic enterprise; in 2012, the College employed 290 full-time and 96 part-time individuals. They earned salaries and fringe benefits totaling \$22.3 million. Further, Wesleyan is a good place to work. In 2012, the average salary per full-time employee at Wesleyan (\$51,724) exceeded the regional average by 20.8 percent and the national average by 13.0 percent. The College also is generous in terms of the fringe benefits it offers its employees---31 percent of all salaries in 2012---about ten percent above the regional average.

In addition, Wesleyan spent almost \$13 million in 2012 on items ranging from postage, food and insurance to utilities, furniture and telecommunications. These expenditures are important to the cities in region. Chesapeake provides a ready illustration; in 2012, the College spent more than \$1.5 million on goods and services in that city.

Add to this the tremendous economic impact of the College's approximately 4,000 alumni in the region. They constitute a well-educated, active, higher than average income group of individuals. Some 88 occupy managerial roles in the City of Virginia Beach alone, while another 51 have earned the title of director in the jobs. Additionally, more than 250 Wesleyan alumni are teachers in the City of Virginia Beach. Collectively, the 2012 direct expenditures of Virginia Wesleyan's alumni in Hampton Roads were an estimated \$254.5 million. The College's alumni represent an economic annuity for the region that continues to pay dividends, year after year.

All of Virginia Wesleyan's economic activities create a ripple effect throughout Hampton Roads. The direct expenditures of the College and its alumni totaled \$300.9 million in 2012. However, these dollars reverberated around the region and were spent and re-spent; this created another \$75.2 million of economic activity in the region. Thus, Virginia Wesleyan College's total 2012 economic impact in Hampton Roads (including its alumni) was \$376.1 million. The City of Virginia Beach enjoys approximately 54 percent of this economic impact.

The College's economic dynamism translates into jobs. Wesleyan (338 full-time equivalent jobs) and its alumni (4,000 jobs) together were directly responsible for 4,338 jobs in Hampton Roads in 2012. The economic ripple effect of their activities created an additional 642 jobs throughout the region.

I. VIRGINIA WESLEYAN COLLEGE AS AN EMPLOYER

Virginia Wesleyan College employed 290 full-time and 96 part-time individuals in 2012-2013. Together, they constituted 338 full-time equivalent employees.

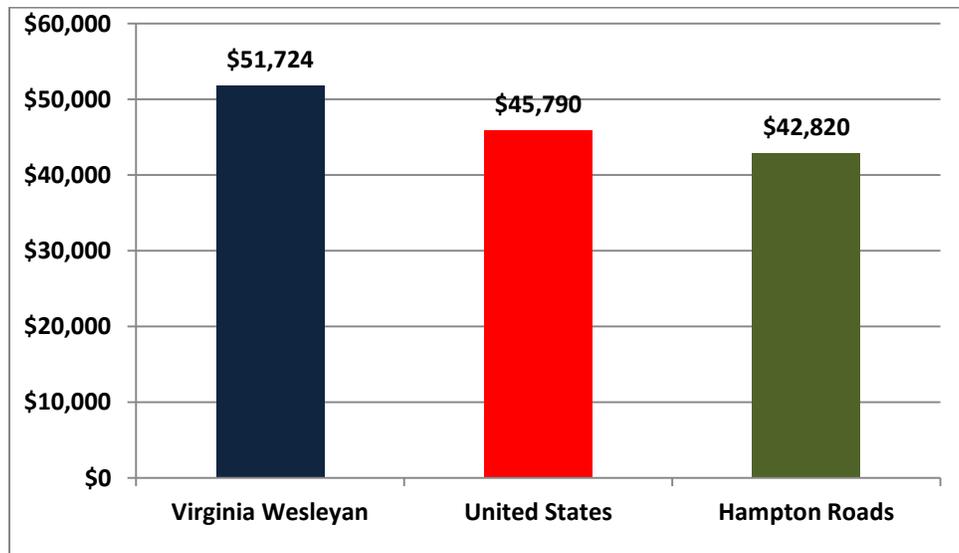
The College is known to be an attractive place to work. As Figure 1 reveals, the average salary of a Virginia Wesleyan employee is \$51,724. This is 20.8 percent higher than the regional average of \$42,820 and 13.0 percent higher than the national average of \$45,790.

In addition, the College provides a fringe benefit package for its employees averaging 31 percent of their salaries. This is approximately ten percent above the value of the average fringe benefit package in Hampton Roads.

The College paid \$22.7 million in wages and fringe benefits to its employees in 2012-2013.

FIGURE 1

**AVERAGE SALARY OF A VIRGINIA WESLEYAN COLLEGE EMPLOYEE
VERSUS THE AVERAGE SALARY OF EMPLOYEES
IN HAMPTON ROADS AND THE U.S., MAY 2012**



II. COMPUTING THE OVERAL ECONOMIC IMPACT OF VIRGINIA WESLEYAN COLLEGE IN HAMPTON ROADS

Virginia Wesleyan College's economic impact can be usefully subdivided into fifteen distinct parts:

- Salaries and Wages
- Fringe Benefits
- Supplies
- Telecommunications
- Utilities
- Insurance
- Furniture and Equipment
- Entertainment and Travel
- Cost of Sales
- Interest Paid
- Maintenance and Grounds
- Other Operational Expenditures, NEC
- Capital Projects
- Student Expenditures (full-time resident, full-time commuter, part-time)
- Alumni Expenditures

The analysis presented here in Table 1 is based upon estimates that rely upon several different "input-output" models of the economy, including the U.S. Department of Commerce's RIMS II economic model. These models supply regional input-output multipliers that show how economic activity is distributed in industries across a geographic area and how those industries are interrelated, economically speaking. "Everything is related to everything else" in our regional economy when one utilizes an input-output model. Thus, when a Virginia Wesleyan professor purchases an automobile in Virginia Beach, the impact of that expenditure on every other industry in the region is measured by the input-output model. But, so also is the economic impact of other activities (for example, defense expenditures) on the College.

The vast majority of the data used in this estimation have been provided by Virginia Wesleyan College.

Leakages Outside the Region

When Virginia Wesleyan College compensates its employees, or purchases any item, some of those expenditures are made to hire temporary employees and experts, or to patronize companies, located outside of the region. Since the focus of this study is upon the College's economic impact on Hampton Roads, column (3) in Table 1 reduces Wesleyan's expenditures by these "leakages." Some of the College's activities have higher rates of leakage than others. For example, larger proportion of expenditures on travel end up being made with vendors outside the

TABLE 1

**ECONOMIC IMPACT OF VIRGINIA WESLEYAN COLLEGE
IN HAMPTON ROADS, 2013**

| (1) | (2) | (3) | (4) |
|--|--|---|---|
| <u>Expenditure Category</u> | <u>Estimated Expenditures</u> | <u>Net of Leakages Outside Hampton Roads</u> | <u>Economic Impact Including Ripple Effect</u> |
| 1) Salaries and Wages | \$ 17,000,000 | \$ 13,430,000 | \$ 20,413,600 |
| 2) Fringe Benefits | \$ 5,270,000 | \$ 3,162,000 | \$ 4,806,240 |
| 3) Supplies | \$ 936,543 | \$ 590,022 | \$ 896,834 |
| 4) Telecommunications | \$ 77,340 | \$ 47,951 | \$ 72,885 |
| 5) Utilities | \$ 1,124,141 | \$ 1,000,485 | \$ 1,520,738 |
| 6) Insurance | \$ 289,669 | \$ 179,595 | \$ 272,984 |
| 7) Furniture and Equipment | \$ 378,506 | \$ 234,674 | \$ 356,704 |
| 8) Entertainment and Travel | \$ 382,636 | \$ 133,923 | \$ 203,562 |
| 9) Cost of Sales | \$ 2,218,080 | \$ 1,375,210 | \$ 1,942,036 |
| 10) Interest | \$ 1,597,069 | \$ 1,277,655 | \$ 2,028,278 |
| 11) Maintenance and Grounds | \$ 940,027 | \$ 864,825 | \$ 1,314,534 |
| 12) Other, NEC | \$ 3,507,602 | \$ 2,174,713 | \$ 3,305,564 |
| 13) Capital Expenditures | \$ 1,411,182 | \$ 1,298,287 | \$ 1,973,397 |
| 14) Students FT Resident | \$ 10,104,000 | \$ 9,497,760 | \$ 15,358,080 |
| 15) Students FT Commuter | \$ 1,381,280 | \$ 1,004,774 | \$ 1,558,426 |
| 16) Students PT | \$ 223,680 | \$ 219,206 | \$ 339,994 |
| Student Subtotals | \$ 11,352,260 | \$ 10,721,741 | \$ 17,256,499 |
| Subtotals, 1) through 16) | \$ 46,385,755 | \$ 36,491,081 | \$ 56,425,896 |
| Alumni in Hampton Roads | \$254,520,000 | \$201,070,800 | \$319,702,572 |
| Totals | \$300,905,755 | \$237,561,881 | \$376,128,468 |



region compared to expenditures made on the College's buildings and grounds. **The College's direct 2012 gross expenditures of \$46,485,755 are reduced to \$36,491,081 once one takes all leakages outside the region into account.**

Economic Ripple ("Multiplier") Effects

When the College purchases necessary items for its operation such as food, furniture, gasoline and computers, and does so within Hampton Roads, the dollars spent on these educational inputs initiate an economic ripple process across the region as the dollars are spent and re-spent. This process gradually diminishes to zero as additional leakages occur, or recipients decide to delay own spending, or they save the dollars instead. Column (4) of Table 1 applies a variety of multipliers to the estimated 2012-2013 expenditures of the College found in column (3).

It is well to bear in mind that these multipliers represent averages based upon input-output models and several national studies; therefore, the economic impact of a specific Virginia Wesleyan College expenditure may differ somewhat from what the models predict. This underlines the reality that all economic impact studies represent estimates and the multipliers are not written on tablets descended from on high. Even so, there is no reason to believe that the College's circumstances differ substantially from those outlined by the models.

The economic impact of the College's direct annual expenditures, after adjustment for expenditure leakages outside the region, increases to \$56,425,896 after the ripple ("multiplier") effects of its expenditures are taken into account. If the College had no educational purpose and were only an economic development engine, then this \$56,425,896 in economic impact would already be an impressive performance. Of course, Virginia Wesleyan College is much more than this and Hampton Roads is fortunate to be able to claim its presence.

Focus: The Economic Impact of Virginia Wesleyan's Students

Virginia Wesleyan College's 2012-2013 headcount enrolment was 1,431. These included 842 full-time students who were resident and resided on campus plus another 356 full-time commuter ("day") students. A total of 231 students were part-time. All of these students together generated 1,375 full-time equivalent students.

The computations of the economic impact of Wesleyan's students do not include their tuition and fee payments. It would be double-counting to include them here since presumably the College's expenditures track these tuition and fee payments on virtually a one-to-one basis. That is, every tuition and fee dollar is spent for salaries and wages, supplies, etc., and therefore the impact of the tuition and fee dollars already has been included in the analysis because they provide partial support for the College's expenditures.

The assumption here is that, net of tuition and fees, each full-time resident Wesleyan student spent an average of \$12,000 for room and board, books, incidentals, etc., in the 2012-2013 academic year. Full-time commuter students are assumed to make four trips per week for sixteen weeks for two semesters (144 trips to campus total). Each trip is assumed to result in \$20 of expenditures for gasoline, food, etc. In addition, each commuter student is assumed to expend \$1,000 annually on books and educational materials. Finally, each part-time student is assumed to make 64 trips per year to campus at an average cost of \$15 and further to spend \$100 annually on books and educational materials.



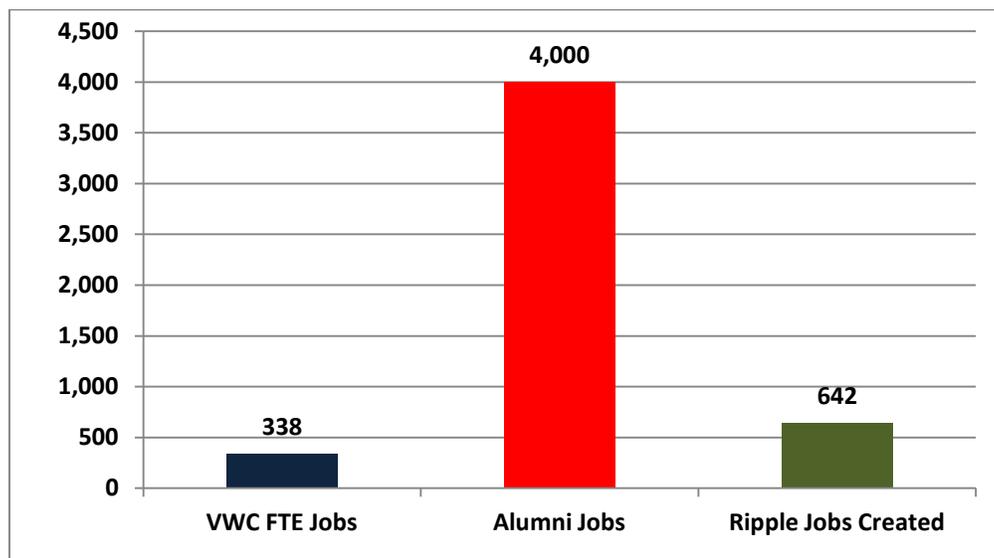
The economic impact of Wesleyan's students is impressive---\$11,352,260 in direct expenditures (\$10.1 million coming from the College's full-time, residential students) that increases to \$17,833,035 after leakages and the economic ripple effects are taken into account. Regional economic development authorities would be very pleased to attract a new business with an economic impact of more than \$17 million annually. Wesleyan's students contribute this on an annual basis.

The College’s “Big Three” in Terms of Economic Impact

If we ignore the economic impact of the Wesleyan’s alumni and focus only on the campus itself, then the “Big Three” in terms of their contribution to the economic impact of the College are: (1) salaries and wages paid to employees; (2) expenditures by students; and, (3) fringe benefits paid to employees. Figure 2 illustrates the Big Three.

Figure 2

The College’s “Big Three” in Terms of Their Contribution to Its Economic Impact in Hampton Roads, 2012 (Alumni Not Included)



Focus: The Tremendous Economic Impact of Virginia Wesleyan’s Alumni in Hampton Roads

The College knows that more than 4,000 of its alumni reside in Hampton Roads, including more than 2,100 in Virginia Beach alone. These alumni are well-educated, active and typically earn higher than the regional average income. One can estimate their economic impact by utilizing Bureau of Labor Statistics data (www.bls.gov) on average incomes earned by individuals in various occupations in the Hampton Roads metropolitan statistical area (which is formally referred to as the Virginia Beach-Norfolk-Newport News region by the Bureau and also includes several counties in North Carolina). For example, Bureau reports that the average full-time worker in Hampton Roads earned \$42,820 in May 2012, while the average accountant/auditor earned \$66,050 and the average attorney earned \$126,490.

The College knows the occupations of more than one-half of its graduates and hence an average income can be imputed for each of them. The assumption is that the remainder of the graduates earn the average annual income of a worker in the region; this may be conservative, but also allows for the possibility that some of the graduates may not be in the labor force. The relatively youthful nature of Wesleyan's graduates works in two directions here. First, it means that a smaller proportion is likely to be retired, or not in the labor force. Second, however, it also means that many will not yet have progressed to the higher rungs of their professions in terms of their incomes.



No allowance is made in this analysis for the value of fringe benefits received by VWC alumni; the regional fringe benefit average for all workers is slightly above twenty percent of gross salaries, but highly variable and difficult to estimate. Further, significant proportions of fringe benefit packages tend to be spent outside Hampton Roads because many pension and social security payments leave the region. Thus, the actual economic impact of fringe benefit payments is reduced.

One can see the results of these estimations in Table 1. **Virginia Wesleyan College alumni in Hampton Roads earned an estimated \$254,520,000 in 2012. After taking the leakage effects and ripple effects into account, this translates to an annual economic impact of \$319,702,572. This is more than six times as large as the College's more narrowly defined annual economic impact.**

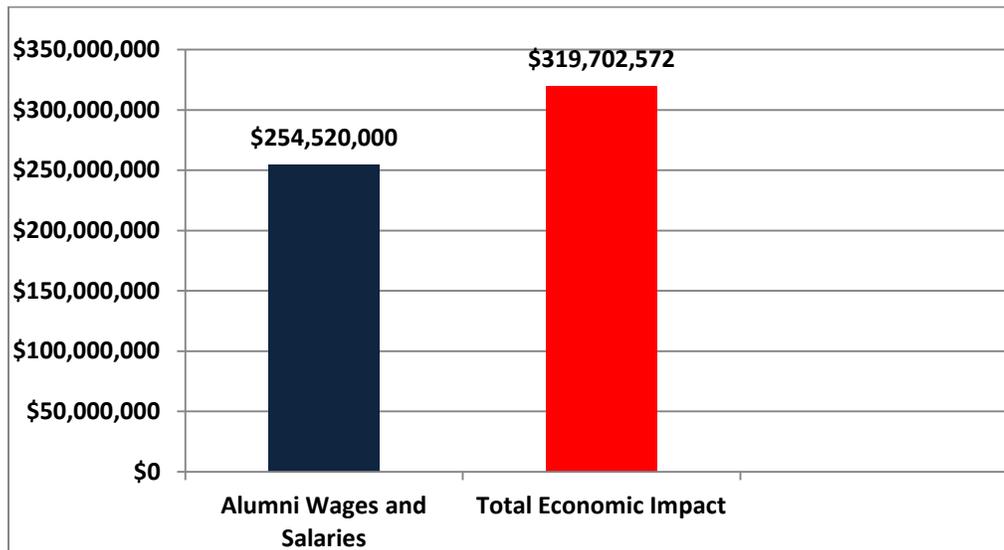
Thus, the economic impact of the College is not limited to the campus; Virginia Wesleyan's contribution to the region's economy continues as long as its graduates are in the labor force. Put simply---Virginia Wesleyan College is a gift to the region that continues to give, rather in the fashion of an annuity. The College is an impressive and continuously running economic engine that stimulates the Hampton Roads economy.

Job Creation

As we have already seen, Virginia Wesleyan employs 290 full-time and 96 part-time individuals. The College's activities, however, stimulate the creation of jobs throughout Hampton Roads. In May 2010, each job in Hampton Roads was associated with \$117,310 of output (www.bls.gov and www.bea.gov). In Table 1, we found that the College and its alumni generated an estimated \$75,319,949 in additional output annually over and above their own jobs and salaries. Thus, the College and its alumni are responsible for an estimated $\$75,319,949/\$117,310 = 642$ additional jobs in Hampton Roads. Figure 2 illustrates these job relationships.

Figure 3

The Economic Impact of Virginia Wesleyan's Alumni in Hampton Roads, 2012



Clearly, 642 additional jobs on an annual basis is a rough and ready estimate of the impact of the College on employment in Hampton Roads. The fundamental lesson, however, is unmistakable. The activities of Virginia Wesleyan College and its alumni benefit nearly everyone else in Hampton Roads. Incomes are higher as a result of the College and its alumni and jobs are created.

III. VIRGINIA WESLEYAN COLLEGE'S ECONOMIC IMPACT ON THE MAJOR CITIES OF HAMPTON ROADS

Based upon the residence locations of its employees, the residence locations of its alumni, and aggregated data on where the College makes its expenditures, it is possible to make

rough estimates of the economic impact the College has upon the seven largest cities in Hampton Roads.

Figure 2

**EMPLOYMENT AT VIRGINIA WESLEYAN COLLEGE, ALUMNI EMPLOMENT,
AND ADDITIONAL JOBS GENERATED IN HAMPTON ROADS, 2012**

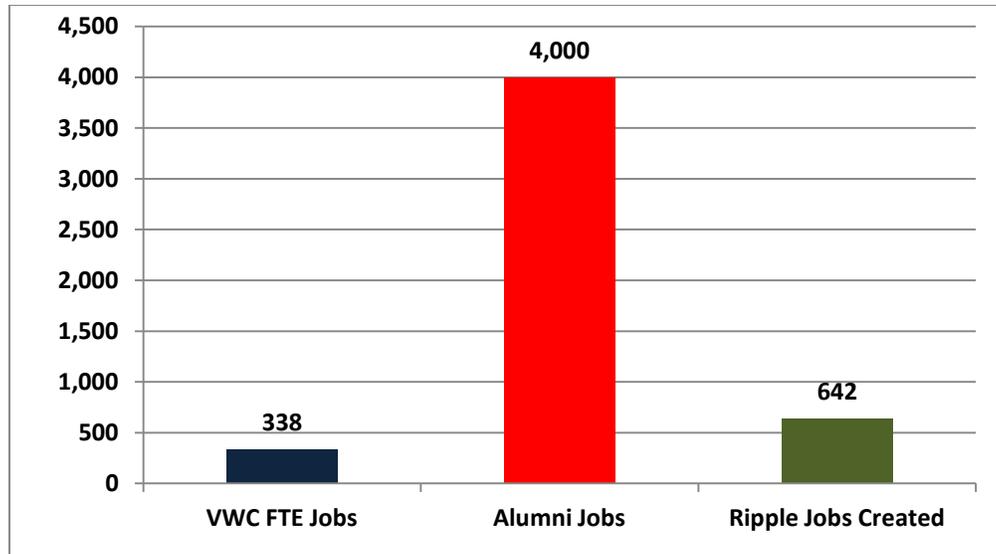
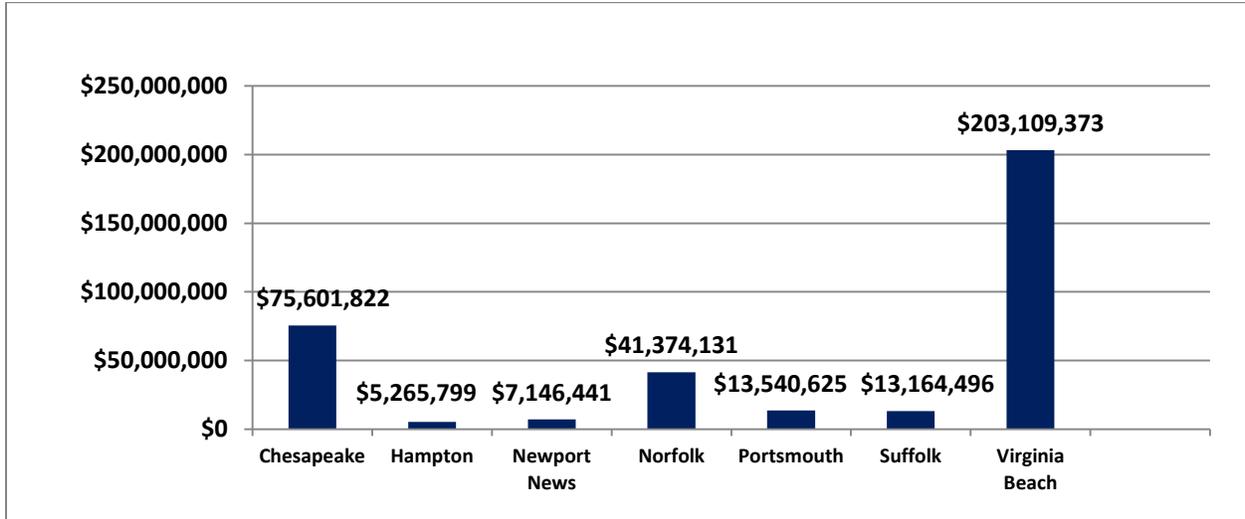


Figure 5

**Distribution of Virginia Wesleyan College's Economic Impact
Among the Seven Largest Cities of Hampton Roads, 2012**



IV. METHODOLOGICAL COMMENTS