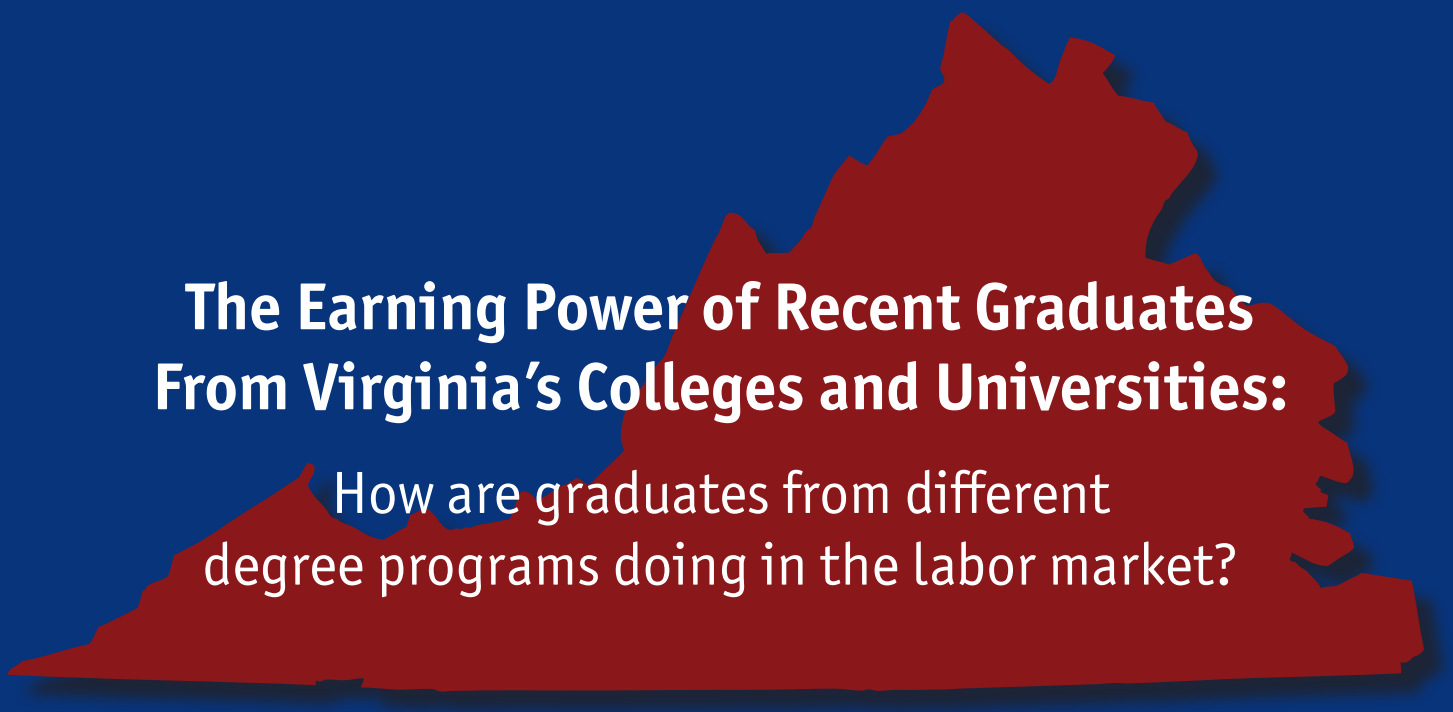

The Earning Power of Recent Graduates From Virginia's Colleges and Universities:

How are graduates from different degree programs doing in the labor market?

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Executive Summary

This report, the result of a partnership between the State Council on Higher Education in Virginia (SCHEV) and College Measures, draws upon data previously not publicly available to compare the average first-year earnings of recent graduates from two-year and four-year institutions across Virginia. With this dataset, we explore the variation in first-year earnings for graduates from individual degree programs at individual colleges. The results show that the degrees students earn, and where they earn them, matter.

Among the findings in this report:

- Substantial variation exists in the early-career earnings of students from different programs and different degree levels across the Commonwealth. Graduates of occupational/technical associate's degree programs, with an average salary of just under $40,000, out-earned not just nonoccupational associate's degree graduates (by about $6,000) but even bachelor's degree graduates by almost $2,500 statewide.

- At the bachelor's degree level, the highest earning graduates came from two career-oriented programs at the University of Richmond, where graduates in information sciences and in human resources management averaged more than $69,000 per year. Meanwhile, graduates from sixteen programs across the Commonwealth earned on average less than $24,000. Most of these are traditional liberal arts programs, such as Philosophy or fine arts related.

- Across Virginia, setting aside nursing, graduates with degrees in business-related programs (including finance, accounting, and economics) earned more than other graduates. But students from different business programs could earn quite different amounts. For example, graduates from University of Richmond's business administration program earned between $2,500 and $19,000 more than graduates in the same program from other universities across Virginia.

- Although differences in other popular bachelor's degree majors were not as wide, recent graduates from Emory and Henry College's psychology program earned around $22,000, whereas psychology graduates from University of Virginia and George Mason University averaged more than $32,000.

- Among many of Virginia's community colleges, earnings of graduates with a technical associate's degree could exceed $10,000 more than those with a bachelor's credit–oriented associate's degree; in three community colleges (John Tyler, Germanna, and Lord Fairfax), the difference was greater than $12,000.

More findings are available at the College Measures website: http://esm.collegemeasures.org/esm/virginia/

Introduction

Over two million freshmen entered America's colleges and universities this fall. From a financial perspective, many of them made bad decisions about which college to attend, and many more will choose the wrong degrees and majors over the next few years. By the time this year's entering class graduates, many will have borrowed tens of thousands of dollars pursuing degrees that may not give them immediate access to high-paying jobs, and they may struggle for years or even decades to retire those loans. The debts these students accumulate will add to the nearly one trillion dollar debt earlier classes already owe.

Although concern about college debt has grown, it is easy to lose sight of the fact that college students incur debt to pay for a college education, an investment in human capital that leads, on average, to significantly higher earnings over the course of a person's work life. From this perspective, some level of debt is acceptable and becomes a problem only if graduates do not earn enough to pay it off. One of the best ways to ensure that students understand the impact of borrowing for college is for them to know more about the earnings of their predecessors after they graduated: Borrowing $25,000 when the first-year earnings of graduates with a similar degree is $50,000 makes more financial sense than borrowing $50,000 when those first-year earnings are $25,000. This report and the accompanying website were designed to help Virginians learn more precisely what recent graduates have earned while working in the Commonwealth and thereby help students make better informed decisions about their degrees and how much to borrow.

Our findings build on work that the State Council of Higher Education for Virginia (SCHEV) has pursued since 2005 to create the legal, political, and technical environment to make the use of these data possible. Virginia has some of the most stringent privacy laws in the nation, and it has taken sustained effort working with multiple agencies and the Office of the Attorney General to develop a working data-sharing model and subsequent legislation. The release of these data represents a significant policy achievement for the Commonwealth. The public display of these data also represents one of the first significant outcomes of the State Longitudinal Data Systems grants from the U.S. Department of Education funded through the American Recovery and Reinvestment Act of 2009.

This report is the result of a partnership between SCHEV and College Measures to make publicly available the average first-year wages of recent graduates from programs across the Commonwealth of Virginia, with the long-term goal of providing a single location for reviewing wage outcomes data from multiple states. With the support of the Lumina Foundation, College Measures is working with SCHEV and similar agencies in other states to make data about the wages of graduates from higher education programs publicly accessible.[1] By linking higher education student unit records (SURs) with unemployment insurance (UI) wage data, states will be able to

1 Working with the Tennessee Higher Education Commission, College Measures released similar data in September. This followed a data release for the state of Arkansas, produced in conjunction with the Arkansas Department of Education. College Measures will be releasing data for three more states, Texas, Colorado, and Nevada, in the near future. See www.collegemeasures.org for updated information.

make public graduates' wages at the state, institutional, and program levels, helping to inform consumer choice.

It is important to note that the wages[2] earned by graduates of any higher education program or institution are not the only measure of how well a program or institution is performing. In fact, SCHEV has determined that these data are not appropriate for evaluating the quality of an institution or program; instead, they are measures of early outcomes of graduates. Given differences in who attends different colleges and universities, early-career wages may be more reflective of the abilities and skills of the individuals who enroll in different programs and institutions rather than program performance. We know, too, that individual student success reflects a variety of factors that may not be affected by his or her educational experience, such as the strength of the local and national job markets. Finally, we know that average wages across an institution represent the programmatic mix of an institution—that is, an institution with more and/or larger high-paying programs will have a higher average than one whose programs are predominately in the liberal arts.

Further, students take many different paths after graduation that will affect their wages. For some institutions and degree levels, such as community college "transfer" associate's degrees or bachelor's-level programs focused on preparation for graduate study, wages earned 18 months postcompletion may be less important than for terminal degree programs. For example, in Virginia, one year after graduation, 36% of bachelor's degree graduates are earning a full-time wage and another 13% are enrolled in other higher education programs in Virginia institutions. Likewise, of the graduates of the associate's degree programs designed for transfer to four-year institutions, just about half are enrolled in a Virginia bachelor's degree program the following year but more than 20% are earning full-time wages. Graduates with associate's degrees in occupational and technical programs provide a sharp contrast: Almost 60% are earning a full-time wage equivalent, whereas only about 8% have transferred into bachelor-level programs.[3] In short, students who go into the job market within one year of completion represent an important segment of every school's graduating class, but the percentage of students covered by the wage data we report varies across programs.

2 In this report, we are using the term *wages* to cover the data reported by the state's unemployment insurance records system. Virginia's Employment Commission, which is in charge of the Commonwealth's UI system, frequently uses the term *wages*. See http://www.vec.virginia.gov/unemployed/benefits-information/benefits-eligibility. We also focus on what we call "first-year wages." In our definition, we give students six months (two quarters) to find work before we start their "first" year. See the technical appendix for more specific information about this and the other measures we use.

3 When information on students who are registered in a Virginia postgraduate program appears in the UI data system, we do not report them in the full-time worker category. Hence the linked data system covers more students than we are using in this report.

A final caution: Because UI wage data are limited to workers within a state,[4] the wages of graduates who work outside their home state do not appear in the UI data. Thus, the data represent a somewhat limited picture of the total contribution colleges make to the success of their graduates. However, from the perspective of any individual state, this limitation is less severe than it may seem. For example, by measuring the percentage of graduates who remain to work in the state after graduation, a state can see which campuses and programs are contributing most to the stock of human capital within the state.

With these limitations in mind, the data in this report show that wages of graduates vary considerably across programs and across institutions in the Commonwealth. Because students study a specific subject in a specific college, the detailed information we are reporting matters—students graduating with a psychology degree from one campus may earn substantially more than students graduating with the same degree from another.

Program-level data are important

Previous work (for example, by the Bureau of Labor Statistics[5] and Georgetown University's Center on Education and the Workforce[6]) has identified the nation's highest paying professions. For the last several years, PayScale[7] has reported the early- and mid-career salaries of graduates for nearly 1,000 bachelor's degree–granting institutions. More recently, with the support of College Measures, PayScale expanded its reporting to include salary data from graduates from approximately 600 two-year institutions, available at www.collegemeasures.org.

4 The wage data included here represent only the following: (a) graduates successfully matched to the unemployment insurance wage records collected by the Virginia Employment Commission (VEC) and (b) graduates employed in Virginia by an entity that reports to the VEC. This excludes federal employees, including those within the Department of Defense. Also excluded are individuals hired as independent contractors, aquaculture employees, and other types of nonwage employee. There are some new attempts to transcend state boundaries by allowing states to track students who earned a degree in a state but work in another one. The Wage Record Interchange System (WRIS 2) is perhaps the most ambitious; more than 20 states have agreed to share their unemployment insurance data with one another. See http://www.doleta.gov/performance/wris2.cfm. However, at present, most data are available only on a state-by-state basis.

5 http://www.bls.gov/bls/blswage.htm

6 http://cew.georgetown.edu/collegepayoff/

7 http://www.payscale.com/college-education-value

Each of these studies provides information on the average payoff of a field of study or the average payoff of graduating from a specific college. With the dataset we are now making public, the variation in wages for graduates from individual programs from individual colleges can be explored with rigorous definitions of field of study, wages, and time after completion. These latter factors set this dataset apart from the others, such as PayScale and NerdWallet.

Our data show that the variation across programs and institutions is substantial. As shown in Table 1, average first-year wages for recent graduates from some programs in Virginia exceed $60,000, whereas average first-year wages for graduates from other programs are less than $24,000 per year. Many factors can contribute to this variation, including geographic location, school mission, student choice of majors, student enrollment in postgraduate work, and the graduate's occupation. Explaining this variation is for future work; nonetheless, this type of information should be useful to students and their families as they consider their enrollment choices and their choice of majors.

Table 1: Highest and Lowest Average First-Year Wages, by Bachelor's Degree Program

Bachelor's Programs With the Highest First-Year Earnings

Institution	Program of Study	First-Year Wages	Number of Students With Wage Data	Percent Matched
University of Richmond	Information Science/Studies	$82,622	58	79%
University of Richmond	Human Resources Management/Personnel Administration, General	$69,104	134	72%
Jefferson College of Health Sciences	Physician Assistant	$67,223	147	50%
University of Mary Washington	Multi-/Interdisciplinary Studies, Other	$61,737	294	46%
University of Virginia	Systems Engineering	$60,300	440	45%
University of Virginia	Computer and Information Sciences, General	$59,739	243	49%
George Mason University	Computer Engineering, General	$58,924	90	44%
George Mason University	Liberal Arts and Sciences/Liberal Studies	$58,919	394	40%
George Mason University	Electrical and Electronics Engineering	$57,239	296	38%
College of William and Mary	Computer and Information Sciences, General	$56,809	89	44%

Bachelor's Programs With the Lowest First-Year Earnings

Institution	Program of Study	First-Year Wages	Number of Students With Wage Data	Percent Matched
Christopher Newport University	Visual and Performing Arts, General	$23,322	239	35%
Virginia Commonwealth University	Painting	$23,295	220	33%
Radford University	Anthropology	$23,222	40	38%
Virginia Commonwealth University	Sculpture	$23,137	149	32%
Bluefield College	Kinesiology and Exercise Science	$22,964	51	31%
Longwood University	Anthropology	$22,255	48	44%
Emory and Henry College	Psychology, General	$21,858	68	35%
Hollins University	Sociology	$21,499	38	37%
Radford University	Philosophy and Religious Studies, Other	$20,949	34	38%
Bridgewater College	Fine/Studio Arts, General	$20,612	40	35%

In the following pages, we explore further some of the patterns in the average first-year wages of college graduates in Virginia.

Bachelor's Degrees

Nationwide, bachelor's degrees, the most common degree awarded by America's colleges and universities[8], remain an excellent investment for most students. According to Bureau of Labor Statistics data, bachelor's degree holders earn on average about 65% more per year than high school graduates and about 37% more than graduates who end their postsecondary education with an associate's degree.[9] Census data show slightly higher returns in Virginia, where bachelor's degree holders earn on average 67% more than high school graduates and 40% more than those who end their postsecondary education with some college experience but no degree.[10] However, considerable variation exists between the average first-year wages of bachelor's degree recipients both in terms of the institution from which they graduated and the area of study in which they hold their degree.

Variation by Institution

Bachelor's degree recipients from Jefferson College of Health Sciences have the highest average first-year wages of all of the Commonwealth's campuses, at $56,400. Jefferson College has about 1,000 students enrolled with a special focus on the health professions, which tend to generate higher first year earnings.[11] Two other private not-for-profit campuses, Bluefield College and University of Richmond, lag behind Jefferson College but also grant a wider range of degrees beyond the high paying health professions. George Mason University falls behind these two other private schools, and the University of Virginia rounds out the top five. In contrast, graduates from a number of campuses, including both public and private not-for-profit ones, have average starting wages below $30,000 per year.

Keep in mind that comparisons across institutions should be informed by many factors, such as differences in urban or rural location and the selectivity of the admissions process. In addition, institutional focus may also help explain low wage outcomes. Some students in schools where graduates earn low wages may value the public service orientation of many of the programs offered at these institutions. Or, more broadly, the bulk of the graduates from some of these institutions are enrolled in programs that tend toward lower early career wages. Finally, in case we sound critical of wages less than $30,000 or suggest that these institutions are somehow underperforming, we should note that according to the criteria established by Virginia's Higher Education Advisory Committee, for a single individual with no dependents, an annual income of $25,000 would place him or her in the "middle income" category.

8 http://nces.ed.gov/programs/digest/d10/tables/dt10_195.asp

9 http://www.bls.gov/emp/ep_chart_001.htm

10 http://www.census.gov/hhes/www/income/data/earnings/call1vaboth.html

11 http://www.jchs.edu/page.php/prmID/43

Variation by Program

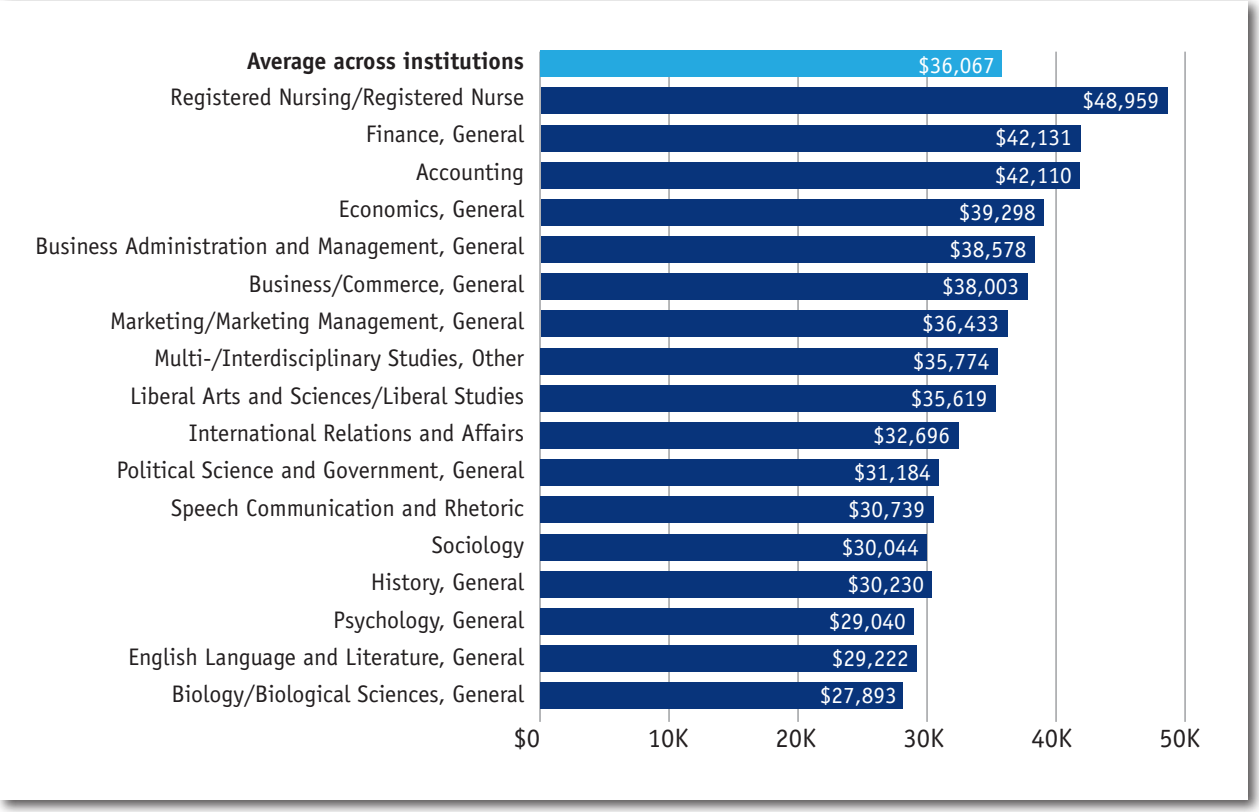
Just as average first-year wages vary for graduates from different campuses, they also vary by field of study, as seen in Figure 1. Here we define *field of study* by the standard federal Classification of Instructional Programs (CIP).[12]

Graduates of the 17 most popular bachelor's-level programs have average first-year wages that range from $27,893 (biology/biological sciences, general) to $48,959 (registered nursing). After registered nursing, the next six highest paying fields of study are related to aspects of business: finance, accounting, economics, business administration, business/commerce, and marketing—all above the $36,067 average first-year wages across all fields of study in Virginia.

Average first-year wages for graduates from other large liberal arts programs fall below the state average, ranging from $35,774 for multi-/interdisciplinary studies and $35,619 for liberal studies down through $27,893 for biology. It is important to remember that these are the average first-year wages of students in the labor market for whom the bachelor's degree is *currently their* terminal degree. Some of these students might someday choose to pursue further studies with implications for their lifetime wages. Additionally, wage growth in each of these degrees can vary, so extrapolating to calculate lifetime wages is not advisable. That said, our data show the first-year wages across the state for graduates entering the job market with a bachelor's degree in one of these programs of study.

12 See the technical appendix for a definition of CIP codes.

Figure 1: Average First-Year Wages for Most Popular Bachelor's Degree Programs



Variation by Program and Institution

The data underlying this report allow the examination of patterns in the average first-year wages of graduates from different institutions who have earned their degree in the same field of study. This is important because students enroll in *specific programs in specific institutions* and variation in labor market success at the program level is potentially what is most informative regarding the *initial* outcomes of programs. [13]

13 Note that the relationship between field of study and a graduate's occupation is not available because UI systems do not report occupational data.

Figure 2: Average First-Year Wages of Graduates of the Three Largest Programs of Study, by Institution

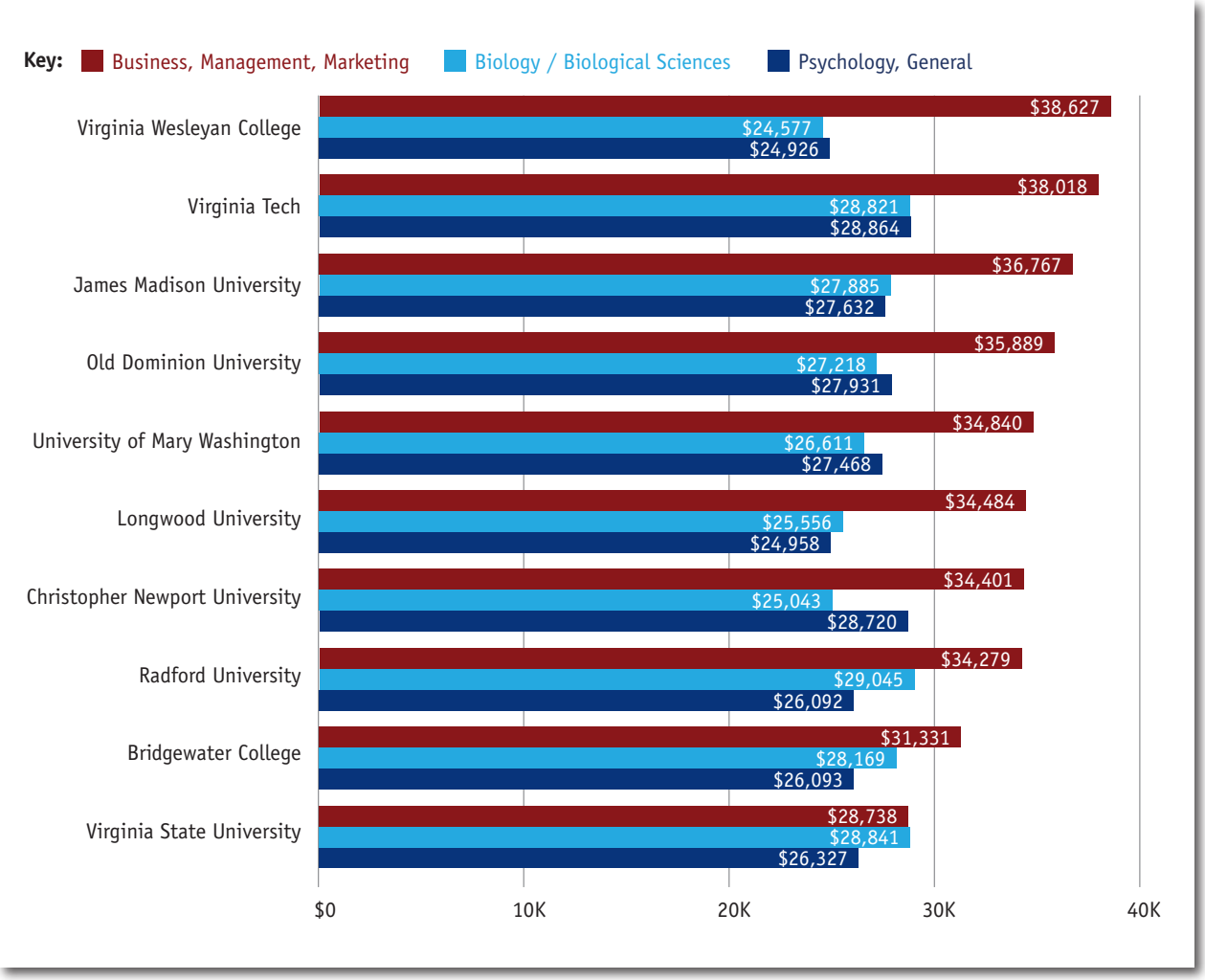


Figure 2 displays first-year wages of graduates from the three largest programs of study in the Commonwealth. The findings are from the four-year institutions in Virginia that had a sufficient number of graduates in all three programs to report data. (The institutions are listed in order of the wages of their business program's graduates.)[14] The data show why this level of detail matters.

As noted in the previous section, of the most popular programs in Virginia, graduates from business-related programs are among the highest paid one year after completion. These data show

14 The Economic Success Measures website (http://esm.collegemeasures.org/esm/virginia/) allows the comparison of many more programs of study across institutions in Virginia.

the wide range of salaries from graduates of specific business administration and management programs. Average first-year wages for bachelor's degree recipients from the business program at Virginia Wesleyan College are around $600 higher than for business graduates from Virginia Tech, the second ranked program, and almost $10,000 higher than for business graduates from Virginia State University. In all but one case, business graduates have higher first-year wages than psychology or biology majors. However, keep in mind that in Virginia psychology is the second most popular major for students seeking licensure as an elementary school teacher, an occupation traditionally with low wages. Similarly, biology majors at many Virginia institutions are prepared to go into higher levels of study.

Variation in the starting wages of business graduates is far greater than among graduates of other programs, but variation still is found across other programs of study. Bachelor's degree recipients completing psychology programs from Virginia Tech have average first-year wages up to $4,000 more than graduates from the other programs, as displayed in Figure 2.

Note, too, that graduates from different programs at the same institution usually have different average first-year wages. For example, graduates from Virginia Wesleyan have below-average overall first-year wages as compared with the rest of the Commonwealth, but graduates of its business administration program do quite well. Similarly, Radford and Virginia State's graduates have below-average first-year wages overall, but its biology graduates do well compared with others in the Commonwealth.

Associate's Degrees

Public two-year community colleges now enroll more than one-third of the nation's postsecondary students[15] and have become an increasingly important part of the nation's system of higher education. The Obama Administration has emphasized the role of community colleges as key to achieving its goal of the United States having the highest proportion of college graduates in the world by 2020.[16]

Students enroll in community colleges to pursue a variety of aims that may include learning specific skills to obtain an industry-recognized certificate, pursuing an associate's degree, taking a few courses to improve professional credentials, taking remedial courses to prepare for further postsecondary education, and taking courses to prepare for transfer to a four-year college or university.

Because of the different goals of associate's degree programs, Virginia separates them into two classifications: "career/technical oriented programs" and "bachelor's credit programs." We recognize that the ultimate goal for many associate's degree students, especially those pursuing bachelor's credits, is not a terminal associate's degree and that they will seek a four-year degree. Nonetheless, the graduates in our database are currently in the workforce, and it is important to see the relationship between their associate's degree and their wages.[17]

Table 2 shows some of the differences between the two types of associate's degrees.

15 *Digest of Education Statistics: 2010,* Table 201. Available at: http://nces.ed.gov/pubs2011/2011015.pdf

16 http://www.whitehouse.gov/issues/education/higher-education/building-american-skills-through-community-colleges

17 Data on the returns for certificates are on the accompanying website. We do not have any data on the large number of students who may enroll in a community college for courses that are not part of a degree- or certificate-oriented course of study and who may need one or two courses to learn a particular skill. Nor do we have data on the wages of students who enroll but drop out.

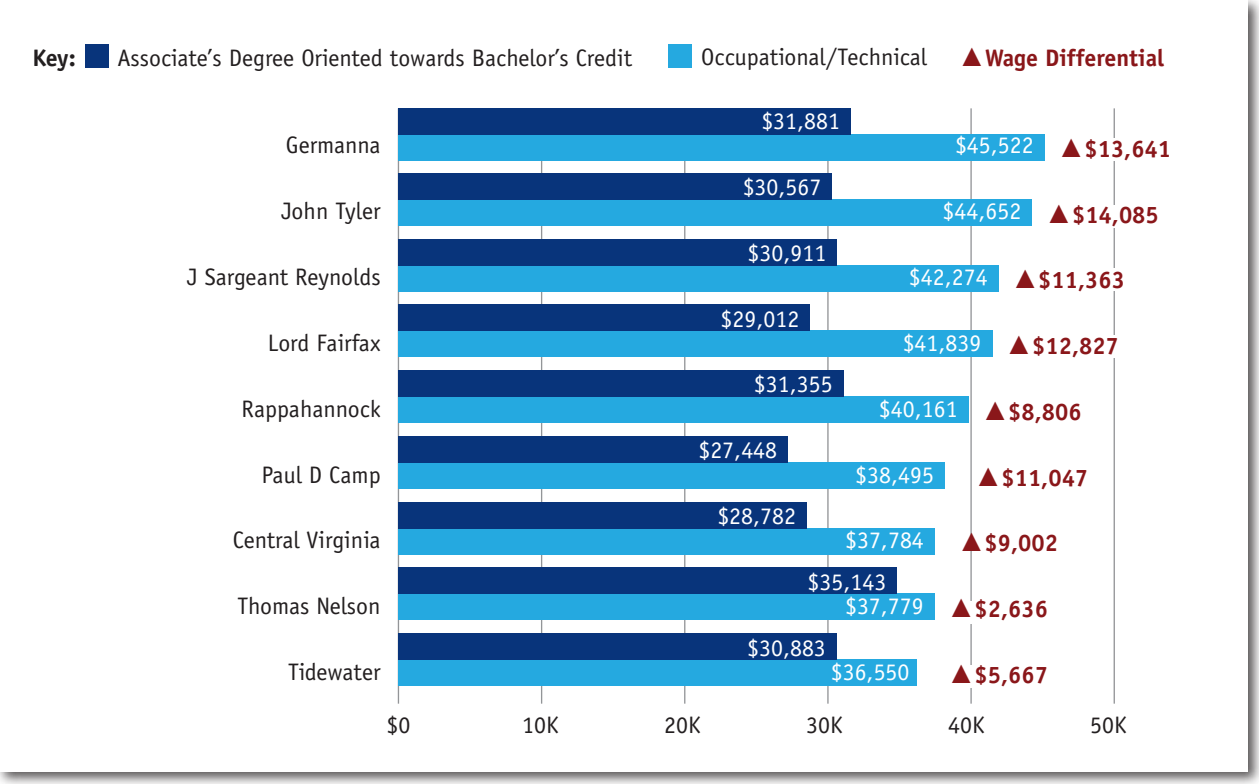
Table 2: Differences Between the Two Types of Associate's Degrees

	Associate's Degrees (Bachelor's credit)	Associate's Degrees (Occupational / Technical)
Number of Graduates	38,589	26,892
Percentage of Graduates With Wage Data	20%	60%
Average First-Year Wages	$32,831	$38,551
Most Popular Degree Programs	General Studies	Registered Nursing/ Registered Nurse
	Business Administration and Management, General	Business Administration, Management and Operations, Other
	Physical Sciences	Computer and Information Sciences, General
	Family Practice Nurse/Nursing	Criminal Justice/ Law Enforcement Administration
	Registered Nursing/Registered Nurse	Business Operations Support and Secretarial Services, Other

Variation by Institution

Figure 3 shows the variation in the first-year wages of graduates from the 10 community colleges in Virginia that have reported wages for both types of associate's degree program. In Figure 3, the dark blue lines indicate the average starting wages of students who graduated from associate's degree programs oriented toward attaining bachelor's credit, whereas the light blue lines indicate the average starting wages earned by graduates of occupational or technical associate's degree programs. The dark red number shows the difference in earnings between the two types of graduates.

Figure 3: Average First-Year Wages for Occupational vs. Bachelor's-Credit Associate's Degree Programs, by Institution



We found substantial variation among the community colleges in average first-year wages of graduates from associate's degree programs oriented toward obtaining bachelor's credit, with graduates from two community colleges (Paul D Camp and Central Virginia) earning less than $29,000 and graduates from two other community colleges (Thomas Nelson and Jefferson) with average first-year wages exceeding $35,000.

Average first-year wages for graduates from only two occupational/technical programs fell below $30,000 (Eastern Shore and Danville), whereas graduates from eight occupational/technical associate's degree programs averaged more than $40,000 (Rappahannock, Piedmont Virginia, Lord Fairfax, J Sargeant Reynolds, John Tyler, Germanna, Northern Virginia, and Norfolk State).

Note that the difference in first-year wages between the technical versus bachelor's-credit associate's degrees ranges from approximately $2,500 at Thomas Nelson to more than $12,000 at Lord Fairfax, Germanna, and John Tyler. A key to understanding these variations in wages is to keep in mind the local nature of community colleges and that wages of graduates are likely driven by the strength of the local economy as much as any other factor.

SCHEV's data indicate that approximately half of graduates from the academically oriented programs transfer to four-year institutions within Virginia the year following graduation. Additional students transfer one year after that. Thus, although these programs may not generate wage outcomes comparable to those of the occupational/technical programs, they should not be expected to do so as they represent a different pathway for individuals to follow.

Variation by Program

Figure 4 displays the average first-year wages of graduates from associate's degree programs oriented toward earning bachelor's degree credit. Even in this category of associate's degree, students who focused on nursing, or business earned more than students with degrees in the other programs.

Figure 4: Average First-Year Wages for Bachelor's-Credit Associate's Degrees, by Program

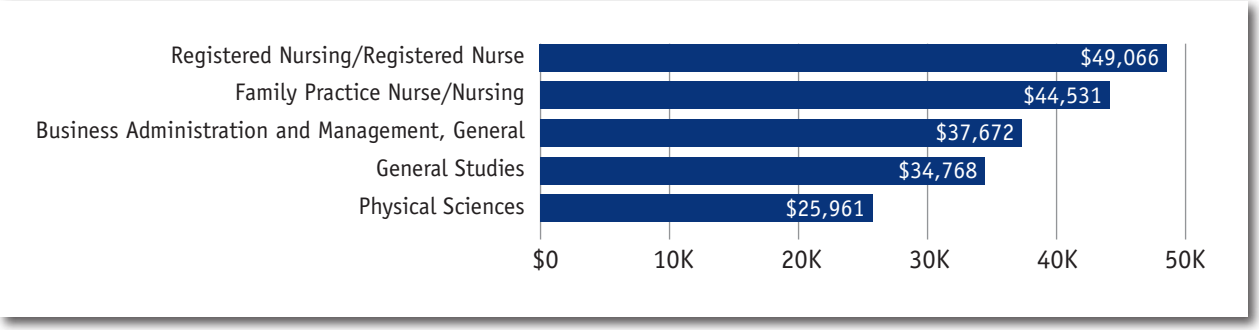
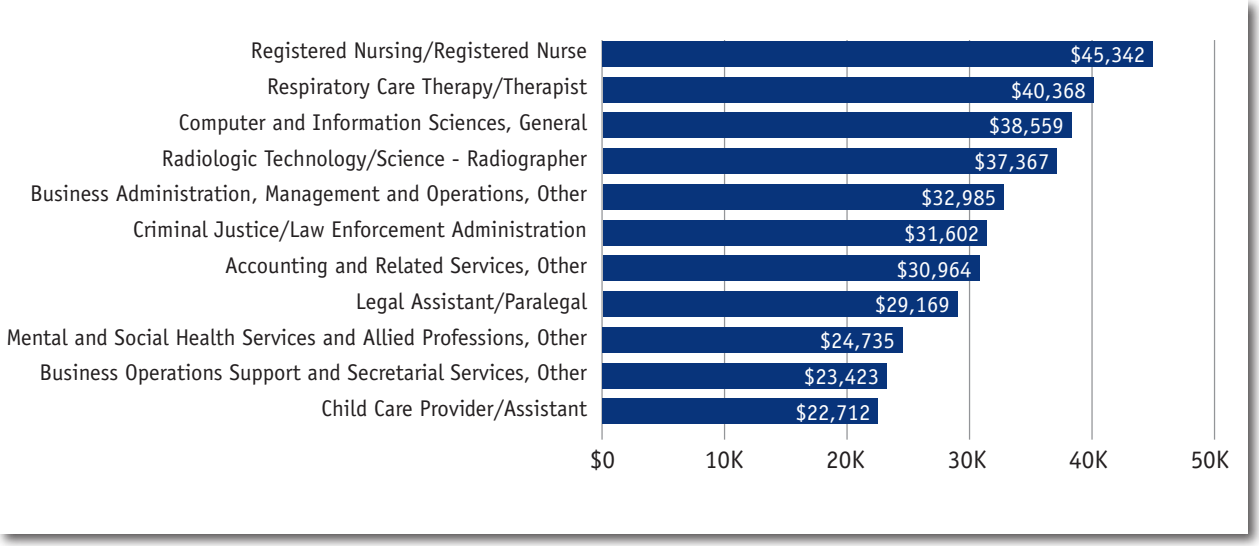


Figure 5 shows the average first-year wages for larger career-oriented associate degree programs of study. Graduates from four programs of study (registered nursing, respiratory care therapy, computer and information sciences, and radiological technology) averaged more than $35,000, whereas graduates from three programs (Mental and social health services, business operations support/secretarial, and child care provider) had average starting wages of less than $25,000.

In short, although graduates with career and technical degrees average higher wages in their first year than do students with bachelor's-credit degrees who are in the job market, the range in wages across these degrees is substantial.

Figure 5: Average First-Year Wages for Occupational/Technical Associate's Degrees, by Program



Variation by Program and Institution

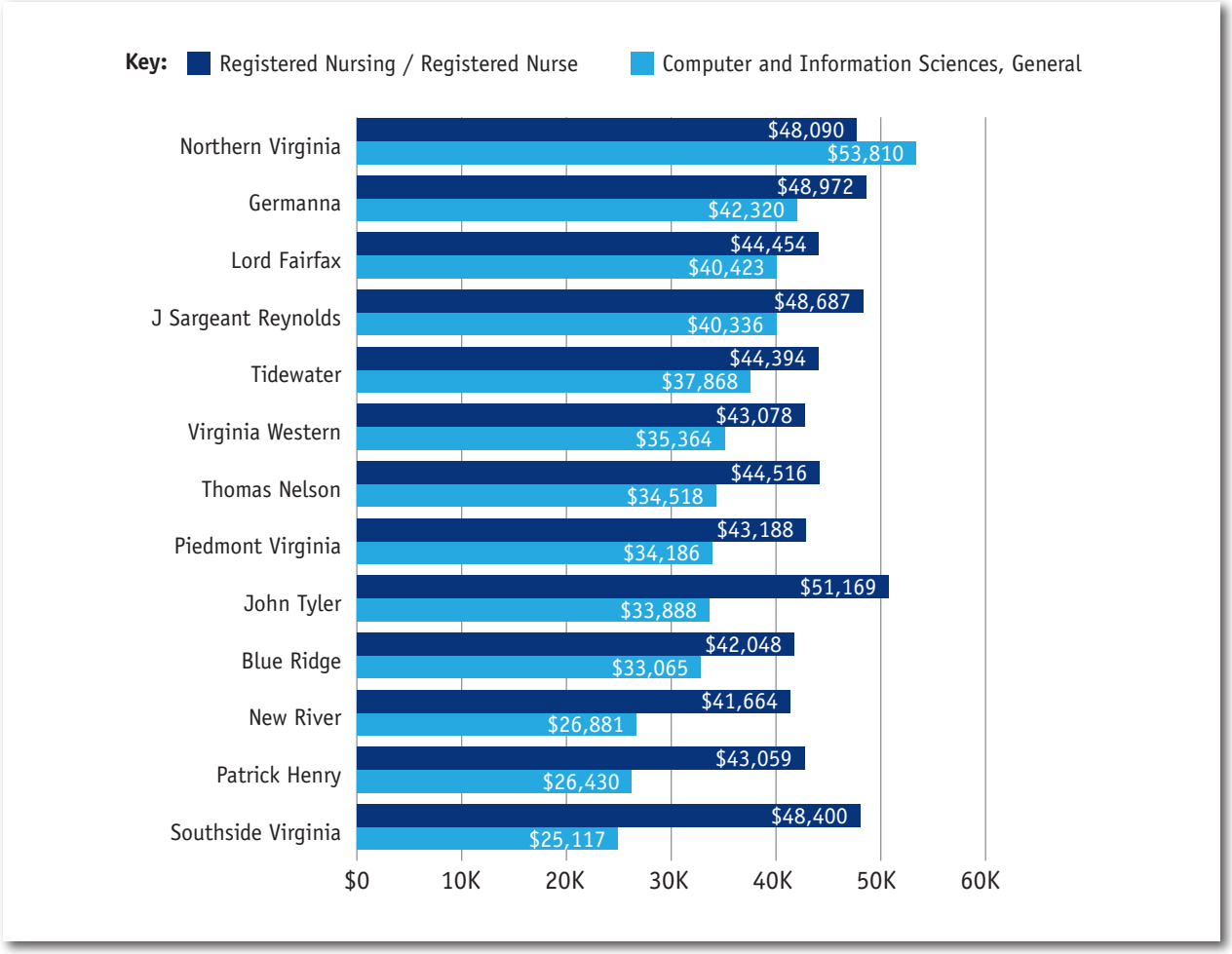
Among the most popular occupational/technical oriented associate's degree programs in Virginia are registered nursing and computer and information sciences. Thirteen community colleges across the state offer both degrees, and the first-year wages of graduates from both programs are displayed in Figure 6.

There is substantial range in starting wages. Nursing graduates from John Tyler Community College show average first-year wages of approximately $51,000, whereas graduates from New River Community College have average first-year wages of under $42,000.

Turning to computer and information sciences, we again find a large range in average first-year wages for associate's degree holders. Northern Virginia Community College is clearly producing graduates with the highest average first-year wages, at $53,810, which is approximately $11,500 more than graduates from the same program at Germanna Community College, which has the second highest earning graduates. Indeed, graduates from Southside Virginia Community College and Patrick Henry Community College have average first-year wages that are close to half the first-year wages of graduates from the same program at Northern Virginia Community College. This is clearly indicative of differences in the economic strength of the region served by a community college.

Note that registered nursing graduates from 12 of these colleges have higher average first-year wages than graduates with computer and information sciences degrees—the exception is Northern Virginia Community College. Also note that the size of the gap in the average first-year wages of graduates from these two programs varies widely, from a negative $5,720 at Northern Virginia Community College (where the salary for graduates of the computer and information sciences program earn higher average first-year wages than graduates from the registered nursing program) to $23,283 at Southside Virginia Community College.

Figure 6: Average First-Year Wages of Associate's Degree Graduates From Two Large Programs, by Institution



Conclusions

Higher Education Pays: But Far More for Some Programs Than Others

Research has shown that the average wages for graduates in different fields of study vary considerably nationwide. The Bureau of Labor Statistics and the Census Bureau have documented the "big payoff" of higher education, but our work shows that the payoff varies considerably from program to program and from institution to institution. We have also confirmed an observation made by Georgetown University's Center for Education and the Workforce: An associate's degree can have a payoff that exceeds that of a bachelor's degree (at least in the short term that we can measure with our current dataset). For early postgraduation outcomes, the degree a student earns, and where he or she earns it, matters. But for many students, and perhaps especially for community college graduates, the local and the regional economy likely affects wages.

In this report, we have not tried to "explain" this variation. We know that the credentials of incoming students vary across institutions, that missions vary across institutions, and that many schools serve regional labor markets across which wages vary. We also know that individuals often make choices based on goals other than maximization of wages. We believe that for institutional accountability purposes, policymakers must take these variables into consideration. For students, however, the data we report are among the factors to consider when making choices across institutions and programs. Students should know what, if any, wage differentials exist in the near term following graduation. Although there are many rewards to postsecondary education besides the boost in wages, students who borrow too much in relation to their early-career wages may not have the opportunity to fully appreciate these other rewards.

To repeat, we believe that government officials and political leaders should know about the variation in the economic payoff of degrees and programs of study—but they need to be careful about using them in any program of institutional accountability. That said, we think the data we report should be made widely accessible to the public and be a central component of consumer choice.

Technical Appendix

Defining Measures

Cohort

In this report we combine five years of data into one cohort, and label the cohort with the most recent year of data. For example, the 2009–10 cohort, which is the most recent cohort with complete unemployment insurance data and which we use as the primary cohort in our report, includes students graduating from 2005–06 through 2009–10.

Average First-Year Earnings (Last Five Years)

The average of the earnings from Quarters 3 through 6 after graduation of students in the cohort. Note that earnings for the graduates from each earlier year (2005–06, 2006–07, 2007–08, 2008–09) are not adjusted for inflation to the earnings of the 2009–10 academic year graduates.

Number of Completers

The total number of students who graduated from the program in the cohort.

Percentage of Completers With Wage Data

This is the number of completers in the cohort with earnings data, divided by the total number completers in the cohort.

Five-Year Trend

The increase, decrease, or no change in earnings between the primary cohort's average first-year earnings (2009–10) and the average first-year wages from the cohort five years prior (2005–06).

Percentage of Above-Average Earners

The number of completers in the cohort for a given program with first-year wages above the statewide median wage of the cohort for that program, divided by the total number of program completers in the cohort across the entire state.

Percentage of Students In-State

The number of completers in the cohort whose residence status was "in-state" during their postsecondary education.

Percentage of Students Out-of-State

The number of completers in the cohort whose residence status was "out-of-state" during their postsecondary education.

Area of Study, Area of Study (CIP) Code, Program

The Area of Study, Area of Study (CIP) Code, and Program refer to the Classification of Instructional Program developed and maintained by the U.S. Department of Education's National Center for Education Statistics (NCES). According to NCES, "The Classification of Instructional Programs (CIP) provides a taxonomic scheme that supports the accurate tracking and reporting of fields of study and program completions activity. CIP was originally developed by the U.S. Department of Education's National Center for Education Statistics (NCES) in 1980, with revisions occurring in 1985, 1990, 2000, and 2010." For more information about CIP codes, please visit NCES's website: http://nces.ed.gov/ipeds/cipcode/

Data Limitations and Disclosure Rules

To protect confidentiality and accommodate both the many small programs in the Commonwealth and the limits of the available data, these reports display program-level data only under the following conditions:

- Single-year data are not to be reported, only rolling five-year aggregates. For example, graduates of 2009–10 are reported with those of 2005–06, 2006–07, 2007–08, and 2008–09.
- Cell sizes of wage-reported graduates must be equal to 10 or greater with full-time wage equivalent (FTWE) reported wages.
- The current definition of FTWE is $13,195/year, which represents 52 weeks of employment at 35 hours per week at $7.25/hour.
- At least 30% of the cohort of graduates must have been matched and reported with full-time wage equivalent (FTWE) reported wages, or 20% with a minimum cell size of 200.
- The program must have produced a minimum of three graduates in each of the five successive years.

The wage data included in these reports represent only the following:

- Graduates successfully matched to the unemployment insurance wage records collected by the Virginia Employment Commission (VEC).
- Graduates employed in Virginia by an entity that reports to the VEC. This excludes federal employees, including those within the Department of Defense.

An employer subject to the unemployment tax must be registered and file with the Virginia Employment Commission if it meets one of the following criteria:

- Has one or more employees (10 employees if the business is agricultural) for some portion of a day during any 20 different weeks in a calendar year.
- Has a $1,500 or more total gross quarterly payroll ($20,000 if the business is agricultural; $1,000 if domestic labor).
- Acquired a business subject to this tax.
- Has been subject to the federal unemployment tax.
- Is a governmental operation or political subdivision.
- Is a nonprofit organization under Section 501(c)(3) of the Internal Revenue Code and had four or more employees for some portion of a day during any 20 different weeks in a calendar year.

Source: (http://www.tax.virginia.gov/site.cfm?alias=onlineservicesfaq#vec)

These criteria mean that individuals working as consultants or independent contractors (including many psychologists, counselors, barbers, and cosmetologists) may be excluded along with those in other occupations. See list at http://lis.virginia.gov/cgi-bin/legp604.exe?000+cod+60.2-219)

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