Working Paper

Two-year to Four-year Transfer: Macro Trends

Updated: August 6, 2009
Two-year to Four-year Transfer: Macro Trends

Executive Summary

Overview
This is the first in a series of working papers that will seek to examine the most pertinent facets of Virginia’s transfer system. The purpose of this series is to: 1) enable accurate identification of the most serious challenges facing Virginia institutions of higher education as they act to facilitate transfer for students, and 2) foster constructive discussion of how to address those challenges most effectively. The State Council of Higher Education for Virginia (SCHEV) intends these discussions to result in the development of pragmatic and meaningful approaches to even greater success for Virginia students and institutions in the transfer enterprise. The first working paper focuses on macro trends in two- to four-year transfer and is summarized here. Topics for subsequent papers include alternate forms of student transfer and mobility, transfer among underrepresented populations, and current transfer policy and future implications.

Two-year to Four-year Transfer: Macro Trends
Two-year to four-year transfer is the subject of the first working paper because it is the most prevalent form of transfer in Virginia, and because of its potential to support state performance goals in baccalaureate degree completion. The core data discussed here covers the academic years of 2002-03 to 2005-06. This time frame was chosen because both fall and spring semester transfer numbers were available. For certain aspects of transfer, more recent fall headcount numbers are reported to provide a source of comparison and a more current view.

These points concerning two- to four-year transfer emerged as particularly important:

- Total numbers of students transferring from two-year institutions to public and private four-year institutions increased from 2002-03 to 2005-06 with the trend holding through 2008. Transfer from public two-year institutions to private four-year institutions increased 65%, a higher rate than the 8% increase in transfer from two-year publics to four-year publics.

- Growth patterns in transfer differed across various regions of the state. Three two-year colleges located in densely populated regions accounted for 56% of all transfers to public four-year institutions. Transfer grew in urban areas while numbers of transfers to public four-year institutions declined at nine rural two-year colleges. Notably, numbers of two-year transfers from rural areas to private four-year institutions increased during the same period.

- Transfers are older compared to the total undergraduate population, though gender proportions are similar with women outnumbering men. The 25+ age group decreased slightly in both the undergraduate and transfer population.
• Students utilizing the transfer option are predominantly female, 17-21 years of age, and are White non-Hispanic. Transfer activity among some minorities is not proportionate to their representation in the larger undergraduate population, or in the general population of the Commonwealth. As an access issue, this dynamic warrants further examination.

• Two-year students transferring to four-year institutions without the earned associate degree outnumbered by three to one those with the degree. Rates of baccalaureate degree completion for students transferring with the associate degree are significantly higher than for those transferring without the degree. For students transferring with the associate degree, 68% completed the baccalaureate within four years compared to 56% of those transferring without the degree.

Virginia is well-equipped to meet challenges in the transfer system that may be identified in this working paper and in subsequent discussions. Robust transfer policy and legislation are already established. The Virginia Community College System has developed initiatives, such as the Guaranteed Admission Agreements, to support transfer between community colleges and the four-year sector. The State Committee on Transfer exists to review and identify potential modifications in transfer policy and practice. With help from higher education institutions across the state, meaningful approaches can be developed that will enhance transfer in Virginia.
Overview

Systems of higher education in every state carefully consider the rate and quality of student transfer, a cornerstone of social mobility and systemic effectiveness. Virginia promotes the efficacy of its transfer system through state policy and legislation. The State Policy on College Transfer supports access to higher education by emphasizing continuing cooperation between two- and four-year institutions to provide efficient transfer pathways. The 2005 Higher Education Restructuring Act emphasizes improving student retention and increasing transfer enrollment goals for four-year institutions. An intention of this aspect of Restructuring is to maximize the number of students progressing from initial enrollment to a timely graduation and proportionally increase the number of degrees conferred.

This is the first in a series of working papers that will seek to examine the most pertinent facets of Virginia’s transfer system. The purpose of this series is to: 1) enable accurate identification of the most serious challenges facing Virginia institutions of higher education as they act to facilitate transfer for students, and 2) foster constructive discussion of how to address those challenges most effectively. The State Council of Higher Education for Virginia (SCHEV) intends these discussions to result in the development of pragmatic and meaningful approaches to even greater success for Virginia students and institutions in the transfer enterprise.

In 2008 SCHEV compiled a comprehensive set of data related to transfer following consultation with a planning group comprised of two- and four-year institutional representatives (see Appendix A). To capture comprehensive transfer information, the group recommended that the data include the transfer numbers from both fall and spring semesters. This collection of data would be used in place of the more limited convention of collecting only data from the fall headcount. The methodology for gathering fall and spring data requires a more complex process than drawing the data for fall only and is available for a limited number of years.

The spring and fall transfer data available for the study covered a timeframe of 2002-03 to 2005-06. For selected aspects of transfer addressed in the working papers, more recent fall headcount numbers are sometimes reported to provide a source of comparison as well as a more current view. In the Virginia higher education data system, all transfers are identified as such by the receiving institution. For data collection purposes, SCHEV utilizes the Integrated Postsecondary Education Data System (IPEDS) definition of transfer student: A student who transferred from one institution to another institution within the same student level group (undergraduate, graduate and first professional), and reported as such in only the first term of enrollment. Note that all data and text references to “public two-year institutions” include the 23 community colleges in the Virginia Community College System and Richard Bland College.

Following consultations with institutional representatives, and review of the data referred to above, four broad rubrics have been identified for the working papers, which are listed below. This paper constitutes the effort to address the first topic.

- **Two-year to four-year transfer, macro trends**—trends in transfer growth from two- to four-year institutions, demographic characteristics of transfer students, and baccalaureate degree attainment for those transferring with, and without, the associate degree.
• *Alternate paths*—forms of student mobility focusing on lateral four- to four-year transfer, enrollment patterns utilized by transfer students such as “swirl” behavior, and the extent to which these variations on transfer may contribute to or hinder student success.

• *Transfer among underrepresented populations*—the condition of transfer for minority populations in Virginia, including an examination of state demographic trends, minority enrollment in undergraduate education, and access to the transfer option.

• *Current policy and future implications*—review and assess current transfer policies utilizing information highlighted in the working papers and points raised in ensuing statewide discussions; make recommendations for improvements or modifications to transfer policy and practice.

In the following, **Critical Facts** derived from documentary evidence are established. Where possible, conclusions that serve to inform and support the topics of the working papers are drawn from the **Critical Facts**. Where data are insufficient to draw clear conclusions, and further discussion is indicated, heuristic **Knowledge Gaps** are identified.
Two-year to Four-year Transfer: Macro Trends

Two-year to four-year transfer is the subject of this first working paper, in part, because it is the most prevalent form of transfer, but also because of its potential to support state performance goals in baccalaureate degree completion. The Critical Facts below provide information about the two- to four-year pattern of transfer in Virginia.

**Critical Facts 2002-03—2005-06**
- 39,935 students transferred, approximately 9,980 per year (two- to four-year and four-year to four-year)
- 27,156 (68%) transferred from two-year to four-year colleges

From the data collected by SCHEV in 2008, three main points concerning two- to four-year transfer have emerged as particularly important. These will form the focus of this working paper:

- Emerging growth: transfer from public two-year institutions to private four-year institutions is increasing at a faster rate than transfer from two-year publics to four-year publics.
- Demographic trends: transfer activity among some minorities is not proportionate to their representation in the larger undergraduate population, or in the general population of the Commonwealth.
- Baccalaureate attainment: rates of baccalaureate degree completion for students transferring with the associate degree are significantly higher than for those transferring without the degree.

**National Trends**

Student transfer is important in discussions of higher education effectiveness because of its essential role in access, affordability, and baccalaureate degree attainment. Properly implemented, two- to four-year transfer offers a powerful strategy to enhance baccalaureate degree attainment. In the current challenging economic conditions, students are searching for more affordable higher education options. Transfer will undoubtedly become even more attractive as one of those options.

Nationally, postsecondary enrollment has risen steadily since 2000. According to the National Center for Education Statistics’ Digest of Educational Statistics 2007, total enrollment at public four-year institutions increased by 2.2 million between the years of 2000 and 2007, an increase of 24%. During the same timeframe, Virginia’s undergraduate headcount enrollment at public four-year institutions grew by 19,084 from 131,805 to 150,889, a 14% increase. Undergraduate enrollment at Virginia’s 33 independent nonprofit institutions also increased. From 2000 to 2007, enrollment at these institutions grew by 17,850 from 39,516 to 57,366, a 45% increase.

Enrollment at public two-year institutions also increased nationally from 2000 to 2007, growing by 670,000 or 11%. Virginia's public two-year enrollment growth was stronger, increasing 22% from 138,039 to 168,566 a difference of 30,527.

Increased enrollments and a desire to improve access to four-year institutions have compelled states and university systems to examine transfer policies and practices. According to a 2007 report from the
National Articulation and Transfer Network, *State Articulation and Transfer Policy*, 40 states have either passed legislation or developed policies aimed at enhancing transfer and thereby accommodating increasing numbers of students seeking an affordable four-year degree. States that enacted legislation focused on articulation agreements and the transfer of two-year general education courses to four-year institutions.

Virginia has been particularly active with the ongoing review of the State Policy on College Transfer and recent legislation. In 2006 the Virginia General Assembly established the Two-Year College Transfer Grant Program to provide financial assistance to community college transfers to offset the cost of completing the baccalaureate degree. The 2005 Higher Education Restructuring Act requires transfer-related numerical benchmarks for four-year institutions and the establishment of uniform articulation agreements. The relatively recent passage of the Act and revisions enacted in the 2009 General Assembly make it difficult to determine specific effects on the overall system of transfer. Optimally, the numerical benchmarks and new articulation and guaranteed admissions agreements will result in increased use of transfer as a path to successful baccalaureate completion. The effects of the enhanced transfer goals will be monitored as evaluation of Restructuring proceeds.

**Virginia Trends**

From 2002-03—2005-06 total undergraduate public and private headcount increased from 330,861 to 349,142, or 6%. Graph 1 indicates that during this period the number of students transferring from public two-year to public four-year institutions grew steadily from 5,639 to 6,092, a total increase of 8%.

![Graph 1: Transfers from Public Two-year to Public Four-year](image)

**Graph 1**

Transfers from Public Two-year to Public Four-year
2002-03—2005-06
Graph 2 indicates that two-year transfers to private four-year institutions also grew steadily, and more steeply, from 694 to 1,142.

<table>
<thead>
<tr>
<th>Year</th>
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<tr>
<td>2002-2003</td>
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<tr>
<td>2003-2004</td>
<td>970</td>
</tr>
<tr>
<td>2004-2005</td>
<td>1,152</td>
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<tr>
<td>2005-2006</td>
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</table>

Critical Facts 2002-03—2005-06
- Undergraduate public and private headcount increased 6%
- Transfer from public two-year to public four-year increased 8%
- Transfer from public two-year to private four-year increased 65%

Transfer from public two- to four-year institutions grew 8%, outpacing slightly the 6% enrollment growth for the same period. The 65% increase in transfers from two- to four-year private institutions significantly outpaced growth in both total enrollment and transfer to public four-year institutions.

Transfer activity has grown at a slightly higher rate than total undergraduate enrollment at Virginia institutions, an imperfect but clear indicator that interest in transfer as a pathway to the baccalaureate remains strong. Indeed, given the current economic difficulties, it is likely that this interest will continue to increase. In order to sustain current levels and to promote further growth in transfer, it will be essential to identify specific policies or initiatives that promote smooth and efficient transfer. Effective articulation agreements, good advising, and the acceptance of general education credits by four-year
institutions are obvious elements that contribute to efficient transfer. Equally important to identify are less obvious “nuts and bolts” practices utilized by two- and four-year institutions that significantly support the transfer process.

**Knowledge Gap #1:** What are the most effective transfer policies and practices that support students in the two- to four-year transfer pipeline?

**Two-year Enrollment Trends**
As expected, two-year enrollment is concentrated in the more urban centers of Northern and Central Virginia, and the Tidewater region. In 2005-06, total enrollment at Virginia’s two-year colleges was 154,969. Indeed, just three community colleges — Northern Virginia Community College, Tidewater Community College, and J. Sargeant Reynolds Community College — enrolled 73,129 students, 48% of all two-year enrollments. This percentage of the total two-year enrollment for these three colleges has remained steady through fall 2008.

**Two-year Transfers to Public Four-year Institutions**
Graph 3 indicates numbers of transfers from two- to four-year public institutions by two-year college of origin from 2002-03 to 2005-06.

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**Graph 3**
Numbers of Two-year Transfers to Public Four-year Institutions, by College of Origin
2002-03—2005-06

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[Graph showing numbers of transfers from two-year colleges to public four-year institutions from 2002-03 to 2005-06, by college of origin.]
During this period, transfer from the 24 two-year institutions to public four-year institutions grew steadily from 5,693 to 6,092, an increase of 8%. While there was an overall increase in transfer numbers, not all two-year institutions demonstrated growth. A breakdown of transfer numbers by two-year college of origin indicates that transfers to four-year public institutions increased for 58% (14) of the 24 two-year colleges, decreased for 38% (9), and held steady for one.

Among the 24 two-year institutions, 56% of transfers to four-year institutions were from Northern Virginia Community College, Tidewater Community College, and J. Sargeant Reynolds Community College. Though there is some fluctuation for the three largest community colleges over this timeframe, all demonstrate a pattern of increasing transfers to four-year institutions. A comparison of enrollment growth to rates-of-transfer for the three community colleges reveals that enrollment at J. Sargeant Reynolds grew steadily at 8%, while transfers at 14% outpaced that growth. Tidewater Community College experienced a 9% enrollment increase, with transfers growing at a slightly lower rate of 7%. For the same timeframe, enrollment at Northern Virginia Community College declined 4% with an overall 1% increase in transfer during the period. These three colleges produced 56% of all transfer students while accounting for 48% of enrollment at two-year institutions. Their aggregate influence on the system of transfer is therefore inordinate.
Graph 4 indicates numbers of public two-year transfers to receiving public four-year institutions from 2002-03 to 2005-06.

Graph 4
Public Institutions Receiving Transfers from Two-year Colleges
2002-03—2005-06

Two-year transfers to public four-year institutions increased for 13 (87%) of the 15 institutions, with numbers decreasing for one, and holding steady for one. Four-year institutions receiving the highest numbers of transfers include George Mason University, Old Dominion University, and Virginia Commonwealth University. George Mason University received the highest number of transfers, although numbers dropped in 2005-06 after a spike in 2004-05.

Critical Facts 2002-03—2005-06
- Numbers of transfers to four-year public institutions increased for 14 of the 24 two-year colleges, decreased for 9, and held steady for 1.
- All two-year colleges with declining transfer numbers are located in rural areas.
- Transfers from the nine rural two-year colleges declined 10%.
- Numbers of transfers received by the 15 public four-year institutions increased for 13 (87%), decreased for one, and held steady for one.

The Critical Facts indicate that there are nine two-year colleges with declining numbers of transfers to public four-year institutions, and all are located in rural areas. The reverse side of this trend is that two-year transfers increased to private four-year institutions in these same rural areas, as noted in the next
section of this document. Overall, transfer activity among rural two-year students did not decline, but rather exhibited a relative shift toward private institutions.

Ideally, Virginia students should have sustained access to transfer options to public four-year institutions regardless of geographic location. The less robust pattern of transfer in rural areas to public four-year institutions warrants further monitoring and analysis to ensure adequate access to baccalaureate education for these populations.

Knowledge Gap #2: Do students in rural areas face structural obstacles to transfer that can be addressed systematically?

Emerging Growth: Transfer Between Public Two-year and Private Four-year Institutions

During the 2002-03—2005-06 period, there was a total of 27,156 transfers from two- to four-year institutions. Of this total, 23,198 (85%) transferred to public institutions, 3,958 (15%) to privates.

Graph 5 illustrates numbers of transfers from two-year institutions to private four-year institutions, by two-year college of origin, from 2002-03 to 2005-06.

The number of transfers to private four-year institutions increased for 22 (92%) of the 24 two-year institutions with numbers decreasing for one, and holding steady for one. Among the two-year institutions, Northern Virginia Community College, Virginia Western Community College, and Tidewater Community College had the largest numbers of transfers, accounting for 41% of all transfers to private four-year institutions.
As noted earlier, from 2002-03 to 2005-06, transfers to public four-year institutions from nine rural two-year colleges declined from a total of 832 to 749 (-10%). During the same period, numbers of transfers to four-year private institutions from these nine rural colleges increased 93% from 159 to 308.

Reasons for the increase in numbers of transfers to private four-year institutions could include maximized enrollment at public four-year institutions, students’ geographic preferences, or strong marketing campaigns conducted by private institutions. In light of the continuing economic difficulties, it is possible that issues of affordability may arise to diminish the observed trend of a relative shift toward private colleges.

**Private Institutions Receiving Transfers from Public Two-year Institutions**

The number of independent nonprofit colleges operating in Virginia fluctuates from year to year. Thus, the number of institutions reporting transfer data to SCHEV also fluctuates. In 2002-03, 25 nonprofit colleges reported transfer data, while in 2005-06, 18 provided information. Of the nonprofit colleges operating during the 2002-03—2005-06 timeframe, 14 provided consistent and comprehensive transfer data. Graph 6 indicates numbers of public two-year transfers to these 14 degree-granting, four-year private institutions from 2002-03—2005-06.

Two-year transfers increased at 8 of the 14 (58%) private four-year institutions over this time period. The three institutions enrolling the largest numbers of two-year transfers are Liberty University (521),
Averett University (504), and Marymount University (349). These three institutions account for 35% of all two-year transfers to private four-year institutions. Numbers of transfers increased 100% for Liberty, 11% for Marymount, and actually decreased 22% for Averett University following a spike in 2002-03.

For the four academic years from 2002-03—2005-06, the total number of transfers from public two- to private four-year institutions (3,958) is small in comparison to transfers from two- to four-year public institutions (23,198). However, it is not an insignificant number when considering the noticeable increase in numbers of two-year transfers to private four-year institutions. An inspection of fall transfer data through 2008 indicates that the increase in transfer numbers to private four-year institutions endures. This increasing pattern warrants further examination to determine factors that contributed to the growth.

**Knowledge Gap #3: What factors can be identified to explain the growth of transfer from public two-year institutions to private four-year institutions? Is this a long-term trend that could affect future transfer policy?**

**Demographic Trends in Transfer**

The Virginia Employment Commission projects that from 2010 to 2030 ethnic diversity in the Commonwealth will increase, primarily as a result of in-migration. The Commission’s LMI Data Population Projections indicate that Asian and Hispanic population proportions will increase significantly. The Asian proportion will increase from 5% to 8% and the Hispanic from 6% to 10%. The African-American/Black population is expected to increase slightly, from 20% to 21%, and the White non-Hispanic proportion will fall from 67% to 60%. Women will continue to slightly outnumber men at 51%.

**Student Demographics and Transfer 2002-03—2005-06**

This examination of the demographic characteristics of transfers provides information about the degree to which underrepresented groups use the transfer option. It is also useful in determining whether the demographic characteristics of transfers reflect the larger undergraduate population. This is relevant because Virginia transfer policy specifically addresses access to transfer for underrepresented groups. The State Policy on College Transfer emphasizes that “In order to ensure that minority students are being encouraged to pursue the bachelor’s degree, community colleges should determine whether minority students are being counseled into or otherwise enrolled disproportionately in programs that are not designed to transfer.” A rough initial gauge of transfer parity is to compare demographic characteristics of transfer students to those of the overall undergraduate population.

Gender: 56% female; proportion remained steady

Age Range:
- 17-21 proportion increased from 67% to 70%
- 22-24 proportion held steady at 16%
- 25+ proportion decreased from 16% to 14%

Race and Ethnicity:
- White non-Hispanic proportion decreased from 70% to 66%
- African-American/Black proportion remained steady at 16%
- Asian/Pacific Islanders proportion remained steady at 8%
- Hispanic proportion grew from 3% to 4%
- Proportion of unknowns grew from 2% to 6%

Graphs 7, 8, and 9 indicate demographic characteristics for transfer students, 2002-03—2005-06
Graph 7 illustrates gender breakdowns for two-year transfers to public four-year institutions from 2002-03 to 2005-06.

Graph 7
Percentages of Two-year Transfers to Public Four-year Institutions, by Gender
2002-03—2005-06

<table>
<thead>
<tr>
<th>Year</th>
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<tr>
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<td>44%</td>
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<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>2002-03</td>
<td>43%</td>
<td>57%</td>
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Graph 8 illustrates age ranges for two-year transfers to public four-year institutions from 2002-03 to 2005-06.

### Graph 8
Percentages of Two-year Transfers to Public Four-year Institutions, by Age
2002-03—2005-06

- **2005-06**: 55% of transfers were 17-21 years old, 24% were 22-24 years old, and 21% were 25+ years old.
- **2004-05**: 54% of transfers were 17-21 years old, 24% were 22-24 years old, and 22% were 25+ years old.
- **2003-04**: 55% of transfers were 17-21 years old, 23% were 22-24 years old, and 22% were 25+ years old.
- **2002-03**: 55% of transfers were 17-21 years old, 23% were 22-24 years old, and 23% were 25+ years old.

**Fall and Spring Headcount**
Graph 9 illustrates race and ethnicity for two-year transfers to public four-year institutions from 2002-03 to 2005-06.
The Critical Facts below provide demographic detail for gender and age range for two-year transfers.

**Critical Facts: Two-year Transfers to Public Four-year, 2002-03—2005-06**

**Gender:** 56% women; proportion remained steady

**Age Ranges:**
- 17-21 increased from 3,093 to 3,334 (+8%); proportion remained steady at 55%
- 22-24 increased from 1,270 to 1,482 (+17%); proportion remained steady at 24%
- 25+ decreased from 1,273 to 1,253 (-2%); proportion decreased from 23% to 21%

Gender proportions for both transfers and the total undergraduate population are the same, with females comprising 56%. The most notable difference has to do with age: approximately 69% of the total undergraduate population and 55% of transfers are in the 17-21 range. By 2006 the transfer population became slightly younger, but is still older than the larger four-year undergraduate population. This is expected since two-year students are typically older than the traditional four-year undergraduate population. Community colleges are an attractive option for adults because of their affordability and open-door admissions policy. Adult students tend to enroll in postsecondary education during economic downturns. Moreover, the relatively good economic environment from 2002-03 to 2005-06 may explain the slight decrease of the adult population resulting in an overall younger transfer population.

The Critical Facts below provide demographic detail for race and ethnicity for two-year transfers.

**Critical Facts: Two-year Transfers to Public Four-year, 2002-03—2005-06**

**Race and Ethnicity:**
- White non-Hispanic: decreased from 4,060 to 3,869 (-5%); proportion decreased from 72% to 64%
- African-American/Black: increased from 777 to 872 (+12%); proportion remained steady at 14%
- Asian/Pacific Islander: increased from 427 to 459 (+7%); proportion remained steady at 8%
- Hispanics: increased from 234 to 269 (+15%); proportion remained steady at 4%
- Proportion of unknowns grew from 2% to 9%

From 2002-03 to 2005-06, African-American/Blacks comprised 16% of the undergraduate population, and 14% of transfers. Currently, African-American/Blacks comprise 20% of the total Virginia population, indicating a degree of underrepresentation in the undergraduate and transfer populations. Asians made up 8% and Hispanics 4% of both the undergraduate and transfer populations. Currently, Hispanics represent 6% of the Virginia population and are slightly underrepresented in the undergraduate and transfer populations. The proportion of White non-Hispanics in the undergraduate population decreased from 70% to 66%, while the proportion of transfers decreased from 72% to 64%. White non-Hispanics make-up 67% of the Virginia population, similar to the 66% proportion in the undergraduate population, and 64% of transfers.

The data does not break down gender and age within racial and ethnic groups. This poses a slight challenge for assessing the level of access to the transfer option for underrepresented groups.
Recent research from the Virginia Community College System supports the findings of the SCHEV data regarding the prevalence of White non-Hispanics and females in the two- to four-year pipeline. The 2008 report *Student Success Snapshot, Virginia Community Colleges’ Contributions to 2007-08 Virginia Bachelor’s Degree Recipients: A Retrospective Look* states that, “The typical community college student earning a bachelor’s degree in 2007-08 was a white female, under 23 years of age, who attended part-time, took no developmental education courses, was not dual enrolled in high school, and did not take a traditional path through community college to a bachelor’s degree.”

**Transfer Parity**

In recent years a number of studies have shown that successful transfer students are academically prepared for upper division coursework, have expectations to earn a baccalaureate degree, and are from middle or upper-middle class backgrounds. Students less likely to transfer include those who do not enroll in college immediately after high school graduation, interrupt enrollment, have lower GPAs in community college, have children, are lower income, and/or belong to an underrepresented racial or ethnic group.

Transfer parity is achieved through the representation of minority groups in proportion to their representation in the larger student population. In Virginia, some minorities are underrepresented in the general student population and they are transferring at rates similar to, and in some cases, slightly less than their presence in the general undergraduate population. This dynamic poses a system-wide challenge that warrants further examination.

In these difficult economic times transfer will emerge as an even more attractive option for access to the baccalaureate degree. As increasing numbers of minority students enter the community college system in pursuit of a baccalaureate degree, Virginia will need to examine ways to sustain and improve access to the transfer option for underrepresented groups. Indeed, Virginia will need to increase baccalaureate degree attainment rates in order to sustain an educated workforce, and minority groups will be a vital part of this effort.

**Knowledge Gap #4:** Do underrepresented populations have adequate access to the transfer option? Are there structural barriers that hinder them? How can access to the transfer option be supported for underrepresented groups in these challenging economic times?

**Baccalaureate Attainment**

With few exceptions, students transferring from two- to four-year institutions do so with the expectation of earning a baccalaureate degree. To enhance the likelihood of baccalaureate completion, two-year students in Virginia can earn a transfer associate degree before enrolling in a four-year institution. These degrees include the Associate of Arts (A.A.), the Associate of Science (A.S.), and the Associate of Arts and Sciences (A.A.S.). They are designed to provide a smooth transition for two-year students by aligning associate degree curricula with program requirements at four-year institutions. The transfer associate degrees are generally the standard credentials included in statewide transfer and articulation agreements.

National research has established that students completing the associate degree before transferring to a four-year institution are more likely to complete the baccalaureate than those transferring without the degree. This is true in Virginia—in fact, the chances of completing the baccalaureate degree are
significantly higher for students transferring with the associate degree than for those who transfer without a degree. The higher success rate of students transferring with the associate degree can be attributed to better academic preparation by completing more coursework at the community college before transfer, and the momentum students gain by attaining a significant credential on the path to the baccalaureate.

Although transfer research establishes a clear link between having an earned associate degree and baccalaureate completion, nation-wide more two-year students choose to transfer prior to earning the degree. This pattern holds true in Virginia as well—two-year students transferring from 2001-02 to 2004-05 to a four-year institution without the earned associate degree outnumbered three to one those with the degree.

When assessing baccalaureate completion rates for transfers, it is conventional for institutional researchers to capture measures of efficiency, or how long it takes students to complete the baccalaureate degree after transfer. A standard measure to gauge efficiency involves ascertaining whether transfer students complete the baccalaureate degree within 150% (6 years) of the time it would take a native four-year student. Thus, a two-year student transferring to a four-year institution and completing the baccalaureate within four years after transfer would be considered to have experienced a timely and efficient process. A small number of transfer students may complete the baccalaureate after four years, but most will not. The dedicated human and monetary resources required over this extended time frame diminish one of the primary purposes of transfer—to provide a timely and cost-effective path to the baccalaureate degree.

Graphs 10 and 11 provide information about two-year students transferring to four-year institutions with, and without, the associate degree in the fall terms of 2001, 2002, 2003, and 2004. The graphs indicate numbers of transfers attaining the baccalaureate within two, three, and four years after transfer. (Note: the cohort of students transferring in the fall of 2004 and taking four years to complete the baccalaureate will have graduated during the 2007-08 academic year). Numbers of students taking longer than four years after transfer to attain the baccalaureate are not indicated. It is estimated that less than an additional 2% attain the degree between four and eight years after transfer. The graphs also provide numbers of students who did not complete the baccalaureate degree within four years.
For the total 5,373 students transferring with the associate degree in the fall terms of 2001, 2002, 2003 and 2004, 68% (3,684) earned the baccalaureate within four years. More students earned the baccalaureate within three years (33%), than within two years (25%) and four years (10%). Thirty-two percent did not graduate within four years, accounting for a large proportion of the transfer cohort.
For the 16,770 students transferring without the associate degree from 2001-02 to 2004-05, 56% (9,336) earned the baccalaureate within four years. More students earned the baccalaureate within three years (26%) than within 2 years (14%) and four years (16%). A large proportion (44%) did not graduate within four years. As noted earlier, a small number of students will persist beyond four years to attain the baccalaureate; however, national data suggest that the great majority of the 44% will not attain the degree. This represents a large investment in human and monetary resources and must be addressed if Virginia is to increase rates of baccalaureate degree attainment.

When comparing the cohorts of students transferring with, and without, the transfer associate degree, it is noteworthy that those with the degree completed the baccalaureate at a faster rate, with the distribution weighted toward the two- to three year time frame. For those transfers with the associate degree, 58% completed the baccalaureate within three years, while 40% of those without the degree completed in the same time frame.
Earning the transfer associate degree before transferring to a four-year institution is an effective pathway to the baccalaureate degree. This is true, in part, because the transfer associate degree is the standard credential included in statewide transfer and articulation policies. The policies have been effective for students transferring with the associate degree; however, the majority of transfers do not avail themselves of this marker of success. Transferring with the degree clearly enhances the chances for completing the baccalaureate degree, and should be encouraged. On the other hand, the great preponderance of transfers do not receive the associate degree, and these students are not provided for, or even mentioned, in state transfer policy. It is open to question whether it makes sense for a state policy to make no reference at all to 76% of transfers. A potential topic for discussion and examination might be related to policies or practices that would serve to enhance successful outcomes for those transferring without the associate degree. The most effective strategy for increasing degree attainment in Virginia may be supporting these transfers in completing the baccalaureate. Additional research is also needed to determine whether students are aware of the fact that associate degree completion is correlated with greater likelihood of baccalaureate degree attainment.

**Knowledge Gap #5:** Are there structural barriers on the path to baccalaureate attainment for students transferring without the associate degree? What policy measures can be developed to increase the number of transfer students completing the associate degree? Are two-year students aware that their odds for success are greater with the earned associate degree?

**Summary—Two-year to Four-year Transfer: Macro Trends**

Total numbers of students transferring from two-year institutions to public and private four-year institutions increased from 2002-03 to 2005-06, with the trend holding through 2008. Transfer from public two-year to private four-year institutions grew at a higher rate than transfer to public four-year institutions. Although total numbers of transfers increased, growth patterns differed across various regions of the state. Three two-year colleges located in densely populated regions accounted for 56% of all transfers to public four-year institutions. While transfer grew in urban areas, numbers of transfers to public four-year institutions declined at nine rural two-year colleges. Notably, numbers of two-year transfers from rural areas to private four-year institutions increased during the same period.

An examination of the prevalent characteristics of students utilizing the transfer option reveals that they are predominantly female, 17-21 years of age, and are White non-Hispanic. A comparison of the transfer population to the total undergraduate population indicates that transfers are older, though gender proportions are similar with women outnumbering men. The 25+ age group decreased slightly for both transfers and undergraduates. The continuing economic difficulties may affect transfer patterns in ways that are not yet known.

Aspects of transfer parity for minority groups were examined. Some minorities are underrepresented in the undergraduate population and are transferring at rates similar to, and in some cases, slightly less than their presence in the undergraduate population.
Two-year students transferring to four-year institutions without the earned associate degree outnumber by three to one those with the degree. National transfer research establishes a clear link between having an earned associate degree and baccalaureate completion. This is borne out in Virginia, as 68% of students transferring with the associate degree completed the baccalaureate within four years compared to 56% of those transferring without the degree.

**A Note About Two- to Four-year Transfer: 2006-07—2008-09**

This working paper presented macro trends in transfer for the four academic years from 2002-03 to 2005-06. The data collected for the information presented in the working paper included both fall and spring transfer numbers for this time period. Information at this level of detail was not available at the time of data collection for 2006-07 to 2008-09; however, for comparison purposes, it may be useful to recount in broad terms transfer trends that can be identified by examining more recent fall headcount numbers.

**Growth Trends:**
- Parallel growth in transfer (two- to public four-year) to overall enrollment growth continued.
- Transfer from two-year to public four-year institutions continued to grow (11%)
- Transfer from two-year to private four-year institutions continued to grow (16%), but leveled off from the rate of growth during the 2002-03 to 2005-06 time frame.
- Northern Virginia Community College, Tidewater Community College, and J. Sargeant Reynolds Community College continued to represent 48% of enrollments and 56% of transfers to four-year public institutions.
- George Mason University, Old Dominion University, and Virginia Commonwealth University continued to receive the highest numbers of two-year transfers.
- Private four-year institutions receiving the largest numbers of two-year transfers include the Jefferson College of Health Sciences, Liberty University, and Mary Baldwin College. This differs from the 2002-03 to 2005-06 data illustrating that Liberty University, Averett University, and Marymount University enrolled the highest numbers of two-year transfers.

**Demographic Trends**
- Women continued to outnumber men in the two-year to four-year transfer population.
- Age, race, and ethnicity data are currently not available, but will be included in a subsequent working paper.

**Transfer With and Without the Associate Degree**
- The number of two-year students transferring with the earned associate degree increased. In the 2002-03 to 2005-06 timeframe, students transferring without the degree outnumbered by three to one those with the degree. In 2008, students transferring without the degree outnumbered by two to one those with the degree. (Baccalaureate degree attainment rates for these students are not yet available)

Moreover, it appears that major trends in transfer for the 2006-7 to 2007-08 time frame did not change significantly from the earlier data. More detailed information will be provided as it becomes available.
Conclusion
This working paper is a first effort to examine pertinent outcomes of Virginia transfer policy, and to identify challenges facing higher education institutions as they seek to facilitate transfer. The information presented here is intended to foster constructive discussion of how to address challenges in a manner that will result in improvements to the system of transfer. Ideally, this discussion would not address trends and challenges as isolated or disparate parts of a policy or a system, but would recognize and identify relationships among them. Changes and modifications to any one facet of transfer will no doubt affect other aspects of the system. This recognition will be valuable when weighing suggested improvements in transfer policy or strategies.

Certain aspects of transfer in the Commonwealth reflect the dynamics of higher education in general. There are more females than males, and some minority groups are underrepresented. Nationwide, higher education institutions are struggling to improve rates of baccalaureate degree completion while Virginia is particularly challenged with an attainment gap for two-year students transferring without the associate degree. If transfer is to be an effective means for access, and particularly for improving overall baccalaureate attainment, then these challenges in higher education and the transfer system will need to be addressed meaningfully.
APPENDIX A

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