

## THE ROLE OF PSYCHOLOGY 100 IN THE ASSOCIATE OF ARTS DIRECT TRANSFER DEGREE AND ASSOCIATE'S DEGREE IN NURSING AND IMPLICATIONS FOR PLANNING GUIDED PATHWAYS

### Background

The focus of this paper is a course that may be helpful to consider for its overall role in guiding students to degree completion: Introductory Psychology or Psychology 100. Our reason for focusing on Introductory Psychology is its commonality in both the Associate of Arts Direct Transfer Agreement (AA-DTA) degree and the Associate of Nursing Degree (ADN). The former is the largest degree that colleges award. The latter is the largest professional technical degree awarded and the third largest degree awarded overall.

For the Psychology 100 courses, we analyze the average grade decimal earned and the grade distribution. We also look at when students enroll in Psychology 100, both for total college credits earned along with it and quarter of students enrolled in the course.

We begin the analysis with the AA-DTA. Students can transfer this degree to any public university in Washington State and begin with junior standing, with virtually all general education credits fulfilled. While AA-DTA graduates can transfer into a variety of disciplines, the large majority will pursue majors in arts and letters or the social sciences.

Our subjects<sup>1</sup> are first-time in college students (FTIC). First we look backwards at students who earned their Bachelor's degree after having transferred with an AA-DTA. Next we follow FTIC students as they start in community and technical colleges and progress towards their AA-DTA. These students are also the subject of our Guided Pathways Initiative. We disaggregate students who are awarded the degree and students who exit college with no award after four years.

We also disaggregate the Guided Pathway cohort results by student's precollege English status. Often times completion of the highest level of precollege English or eligibility for English 101 are prerequisites for

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<sup>1</sup> We use two different data sources for this paper. First we used the Mutual Research and Data Exchange (MRTE+) for looking backwards at Bachelor's degree graduates. This data source links CTC and public 4-year student transcripts. MRTE+ is made possible through a partnership with the Education Research and Data Center (ERDC)

Our main data source is SBCTC's Guided Pathways new student cohorts that follows FTIC students through early college milestones in college credits earned to completions and post CTC employment and further education.

Psychology 100 in college course catalogs.

Next we extend our analysis by looking at another group- FTIC students interested in the ADN. We look at students who completed their two-year degree and program applicants who left college with no admission to the nursing program after four years.

Finally, we conclude the paper with a discussion of the potential importance of Psychology 100 for helping students select and follow pathways, supporting them along the way and, in some cases, suggesting alternatives.

## Psychology 100 in transfer and bachelor degree attainment

### Students who earn their AA-DTA and transfer to a bachelor's degree show different grades in Psychology 100 than students who exit college before completion

In Washington State, the AA-DTA degree is already is a well-articulated pathway for transfer students. It is the largest degree awarded with nearly 15,000 degrees in 2016-17. In our Guided Pathways cohorts, we see that six in ten FTIC students who earn their transfer degree will transfer to a four-year institution within two years. This compares to just one in seven (14 percent) transfer students who leave college without their degree. A periodic study that has been repeated several times shows that CTC transfer students comprise 40 percent of every bachelor's degree graduating class in Washington's public colleges (<https://www.sbctc.edu/resources/documents/colleges-staff/research/transfer-research/18-3-role-of-transfer-2018.pdf>). Students who transferred with their associate's degree are 80 percent of these transfer bachelor's graduates. Thus, the transfer degree is significant to both transfer and eventual bachelor's degree attainment.

The analysis starts with 4,900 FTIC students who earned an AA-DTA and graduated with a bachelor's degree from 2011 to 2016. The vast majority earned bachelor's degrees in the social sciences, followed by degrees in arts and letters. Psychology was the most common major.

Community and technical college transcripts of these students were reviewed to determine what course or courses other than college math and English (required for all students in the distribution) could potentially be helpful for guiding students and structuring pathways. The course identified is Psychology 100. While not the majority, far more (46 percent) earned credit in Psychology 100 than any other individual course selected from the required distributions. Student's average grade decimal in Psychology 100 was 3.2.

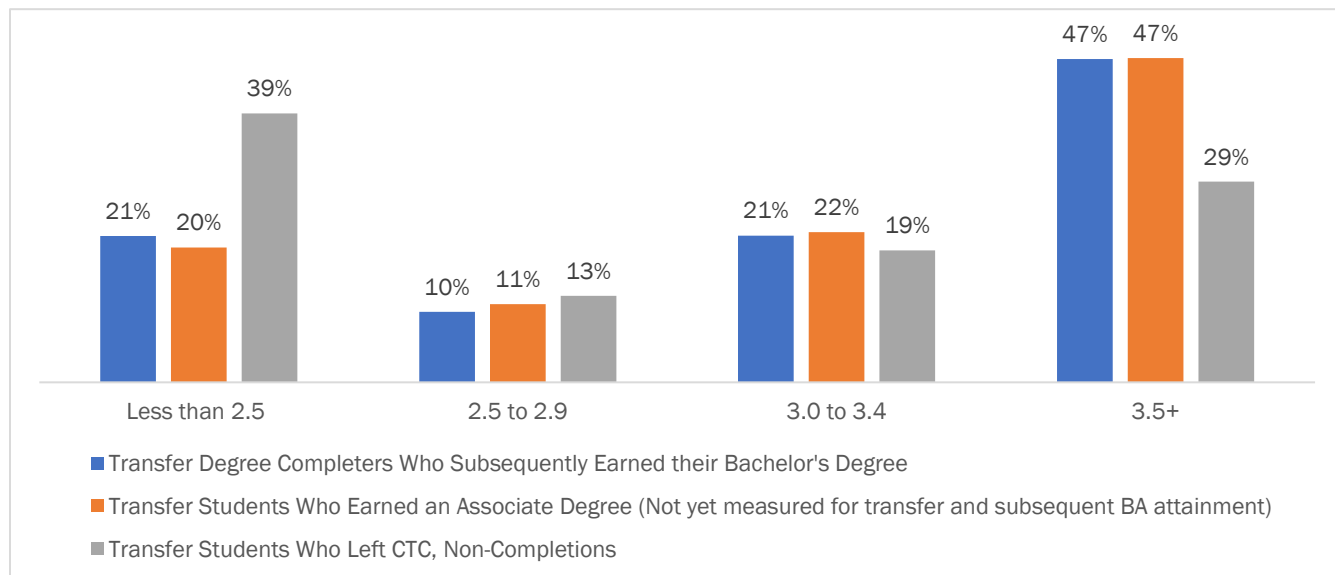
We then analyzed performance in this course from the viewpoint of starting cohorts. The Guided Pathways cohorts were selected to measure progress and results for raising college completion and closing equity gaps. They measure progress for FTIC students. For the first part of this analysis we include 26,500 transfer degree-seeking students who began college from 2010 to 2012. We followed them all for up to four years and at the end of this period, 24 percent (6,300) earned an AA-DTA. Of these, 4,000 (63 percent) transferred within two years to a four-year institution.

Overall, about one-third of Guided Pathway FTIC transfer students earned credits in Psychology 100. The average grade decimal was 3.0. However, disaggregating for students who earned their degree and those who left with no degree showed that two-thirds of degree earners (67 percent) received credits in Psychology 100. The average grade decimal was 3.2. On the other hand, just one in five (21 percent) of the exiters/no degree earned credit. Their average grade decimal was 2.7.

Figure 1 displays the Psychology 100 grade distribution for FTIC students based upon their status four years after they began college. The data suggest that completion of Psychology 100 with a grade decimal 3.5+ is strongly associated with both transfer degree completion and subsequent bachelor's degree attainment.

Conversely, a grade decimal less than 2.5 is nearly twice as likely to be associated with non-completion as transfer degree and eventual bachelor’s degree attainment.

**Figure 1**  
**Psychology 100 Grade Distribution for Transfer Students**  
**at Given Completion Points**

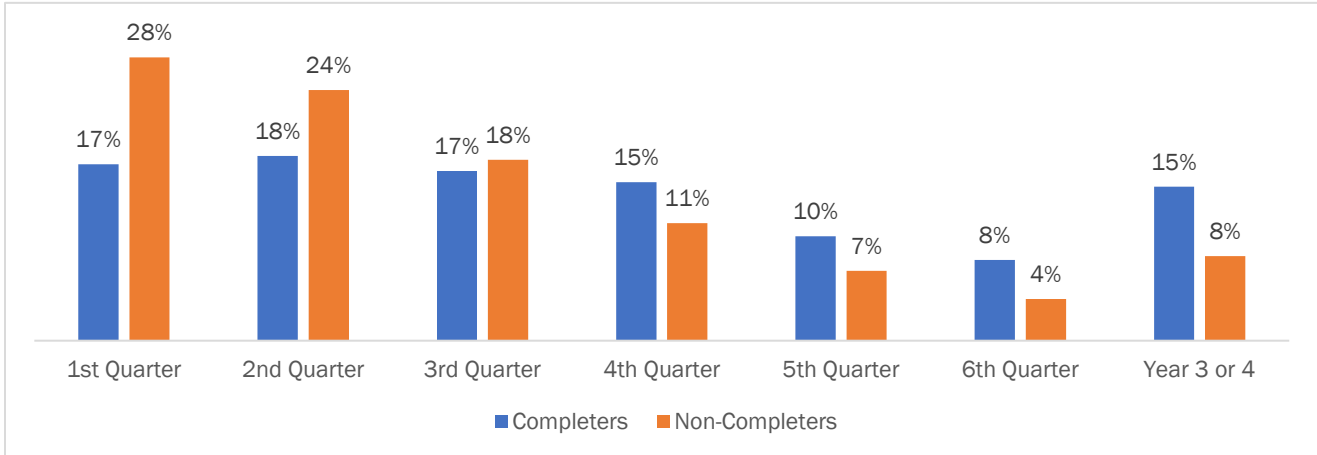


### Psychology 100 in milestone achievement

The Guided Pathways cohorts are measured for college credit attainment at three milestones- 15 college credits, 30 college credits and 45 college credits. Milestone attainment is measured in both the student’s first and second years after their start as indicators of momentum towards completion. Sixty-one (61) percent of students who earned least 45 college credits within the first two years after starting college earned credit in Psychology 100. Of these students, their average grade decimal was 3.1. Forty-five (45) percent of students who earned 30-44 college credits completed Psychology 100 with an average grade decimal 2.7. Twenty-seven (27) percent of students earning 15-29 college credits included Psychology 100, with an average grade decimal of 2.5. Finally, just five percent of students who left college with less than 15 college credits earned included Psychology 100, with an average grade decimal of 2.4. Note that in Figure 1, three-fourths of non-completers who earned a 3.5 or higher typically reached at least the 30 credit milestone.

We next look at the year and quarter in which a student earned credits in Psychology 100. The course taken earlier in a student’s college experience could indicate greater usefulness for the course in helping guide students to successful outcomes. Figure 2 shows that Psychology 100 is a college-level course commonly taken in the first 3 quarters. Over half (52 percent) of students who earned their AA-DTA degree completed Psychology 100 in that period. Interestingly, 70 percent of non-completers completed Psychology 100 in their first year. Psychology 100 may be used as an exploratory course for students who still have a level of uncertainty even though they have declared a transfer intent and students decide shortly thereafter whether or not to stay or leave college.

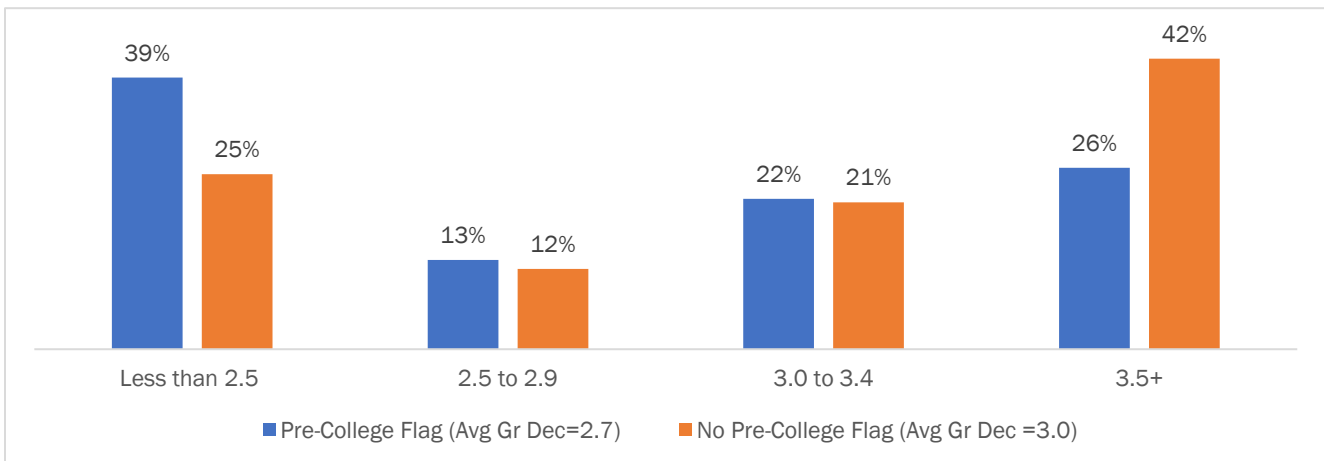
**Figure 2**  
**Quarter After Start for Psychology 100**



**More support may be necessary for students with pre-college English**

Typically completion of precollege or eligibility for college-level English is required to enroll in Psychology 100. In this section we analyze the decimal grade in Psychology 100 by a student’s status for these requirements. We only include the Guided Pathways cohort. Nearly three in ten students (28 percent, 2,400 of 8,470 FTIC in the cohort) had precollege English. Average grade decimals in Psychology 100 were lower for these students. In Figure 3, we see the grade distribution shows a higher percent of students with pre-college English, compared to those without, may have additional risk for completion based upon the higher percent in the lowest grade distribution range.

**Figure 3**  
**Psychology 100 Grade Decimal Distribution by Pre-College English Status Flag**



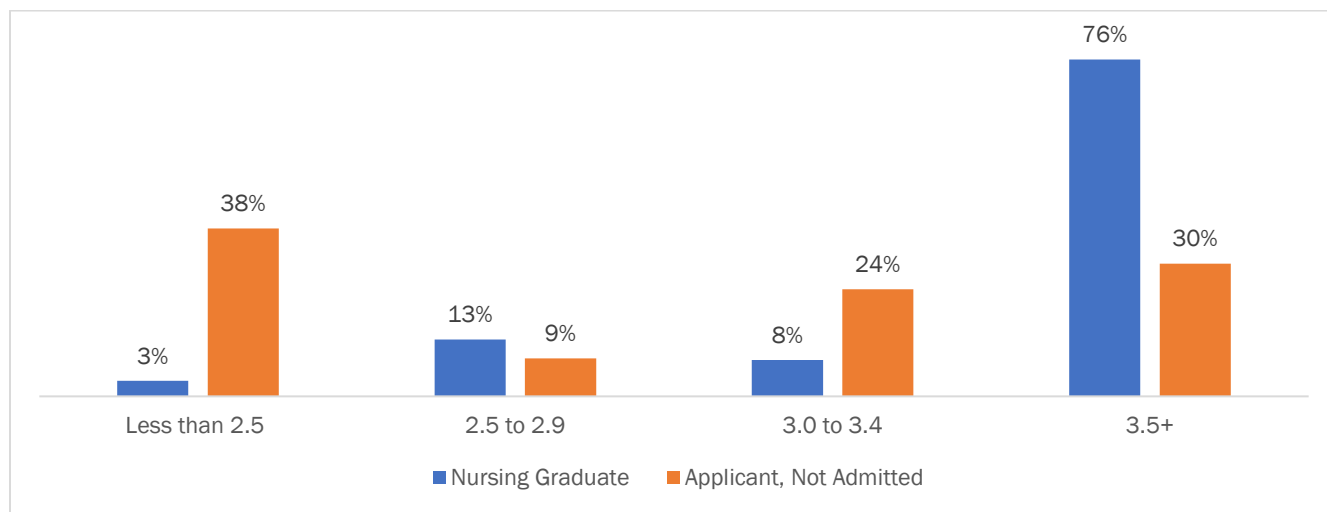
**Role of Psychology 100 in nursing program admission**

We first wrote about nursing programs in Research Report 17-1, <https://www.sbctc.edu/resources/documents/colleges-staff/research/workforce-research/17-1-producing-nursing-grads-and-rethinking-pipeline-for-guided-pathways.pdf> Nursing is the third largest overall degree awarded after the AA-DTA and the more specifically focused Associate of Arts Business DTA/MRP. The ADN is the largest professional technical program for degrees awarded, and the largest program for women (particularly when all applicants are included). Admission to the nursing program is highly

competitive and once admitted, degree completion is extremely likely (90 to 100 percent completion rates are common). However, as shown in the referenced earlier report, only one in ten FTIC applicants will eventually be admitted and just one in sixteen for underserved groups (low-income and students of color). The attrition rate from the college is very high for this population as three in four interested students will simply be gone within four years after they first enroll. Prerequisite courses play an important role in admission and Psychology 100 is a course that helps determine who will be admitted to the program.

In this analysis, we use our FTIC Guided Pathways cohort to analyze grade decimal and grade distribution for nursing graduates and students in the applicant stage who left college after not being admitted to the nursing program. The average grade decimal in Psychology 100 for nursing graduates is 3.7. This compares to a 2.8 average grade decimal for applicants not admitted and no longer enrolled. Figure 4 describes the grade decimal distribution. Applicants with Psychology 100 grade decimals below 3.0 are at the greatest risk for not eventually being admitted to the program.

**Figure 4**  
**Psychology 100 Grade Distributions for Nursing Graduates and Non-Enrolled Applicants to Program**



## Discussion

External research describes evidence that many students who earn a bachelor’s degree are not fully satisfied with their choice of major<sup>i</sup>. Other research shows that students who earn an AA-DTA degree and go to work rather than transfer find little labor market value for their two-year academic transfer degree<sup>ii</sup>. We see additional evidence for this research within the State Board for Community and Technical College research and data dashboards<sup>iii</sup>. One-third of transfer degree completers do not immediately transfer but rather go into the workforce where earnings are low, as the transfer credential does not have job-specific skills attached. How should these students be guided towards degree completion and more immediate labor market value for their two-year degree?

We hope this brief can spark discussion to the vexing issues raised. This report describes Psychology 100 in two popular degree paths. The grade decimal distributions in Psychology 100 that indicate a student is at risk are also found in other introductory and college courses, such as Sociology 101. However, there are important concepts illustrated by Psychology 100 that should be part of our technical thinking for how we map programs and offer courses. First, we see evidence that using these courses to help uncertain students get used to college may be counterproductive. This brings to mind the concept that even general education requirements in a transfer path may need to be chosen more carefully for their connection to a specific

career goal or at minimum to helping a student choose one. Further, we see evidence that precollege needs to be instructed not only for the next step college level course, but equally important applied to content courses. We wrestle with what to do for employers who describe poor soft and foundational skills in their workers. Contextualizing these skills into content courses and assessing students for their growth may be one of the lessons that can emerge and should be further discussed. Both of these concepts undeniably may provoke further discussion about how to use the AA-DTA within meta-majors.

Applicants to the nursing program essentially need a high grade in all of the prerequisites to be accepted into the program. We have previously identified the high attrition rate among these students. In many female dominant fields at minimum a professional technical degree, and in many cases outcomes would suggest a bachelor's or applied bachelor's educational path is necessary to provide alternatives with comparable career and earnings outcomes. What does that mean for how nursing should be placed in a meta-major and the broader applicability of prerequisite courses?

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<sup>i</sup> <https://cew.georgetown.edu/wp-content/uploads/hill-testimony.pdf>

<sup>ii</sup> <http://www.aei.org/publication/saving-the-associate-of-arts-degree-how-an-a-a-degree-can-become-a-better-path-to-labor-market-success/>

<sup>iii</sup> <https://www.sbctc.edu/colleges-staff/collegeaccess/research-data/guided-pathways-dashboard.aspx>



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