

Equity Scorecard Interim Report on Retention

University of Wisconsin – Superior

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Introduction

This interim report presents key findings on the equity in *retention*, particularly for racial/ethnic minority student groups, at the University of Wisconsin – Superior (UW-S). Retention is one of the major concerns at UW-S. This report reveals patterns of retention not only by race/ethnicity but also at the intersection of gender, age, high school class rank, ACT scores, and GPA at the end of the first year, aiming to offer some discussion points for the campus community. A brief introduction of the conceptual framework of the Equity Scorecard and a definition of the retention perspective will be presented first, followed by the evidence gathered from the UW-S Peoplesoft database, as well as the interpretations and recommendations by the Equity Scorecard evidence team. *We note that no analysis of the statistical significance of data has been performed for the data presented herein.*

The Conceptual Framework of the Equity Scorecard

Higher education decision makers have traditionally favored interventions that look to change the student so that they are better able to adapt to the processes and structures that govern post secondary institutions. The Equity Scorecard, developed by Estela Bensimon at the Center for Urban Education at the University of Southern California, is an evidence-based inquiry process that seeks to reframe the discussion of student outcomes from student responsibility to institutional accountability, and place the processes of higher education center-stage to bring about change at the institutional level (Bensimon, 2005b). This is accomplished through the in-depth examination and analysis of existing institutional data, disaggregated by race and ethnicity. The purpose of such an examination is to investigate individual institutions' effectiveness at promoting equity and excellence in the educational outcomes of historically underrepresented students.

A key principle of the Equity Model is that individuals at all levels of leadership, responsibility, and power can effect lasting changes and bring about equitable educational outcomes (Bensimon, et al., 2004). Participation on the team enables various members of the college community to transform raw data into simple, yet compelling stories that highlight inequities in ways that are accessible to a wider audience (Connell, 2008). Organizational learning occurs when new knowledge constructed by Evidence Team members is used to provoke discussion and effect institutional change for the improvement of educational outcomes and experiences for underprepared and underrepresented student groups (Bensimon, 2005a).

The Equity Scorecard is implemented by the formation of a campus team that convenes regularly to examine existing and routinely-collected data on student outcomes in order to assess the 'state of equity' at their institution (Bensimon, 2006). The Evidence Team is comprised of faculty, administrators and other college personnel who assume the role of researchers to examine and discuss disaggregated data in order to reach an understanding of why inequities persist on their campus (Bensimon, 2007).

Team members analyze data across the four college perspectives of the Equity Scorecard:

Access Perspective: This perspective refers to access to the institution as well as campus-based programs and resources that can significantly improve life opportunities for historically underrepresented students.

Retention Perspective: This perspective refers to continued attendance from one year to the next and/or to completion of degrees. Retention can also refer to continued progress toward degrees in competitive majors.

Excellence Perspective: This perspective includes indicators that reflect students' outstanding academic performance, including: GPA at the point of degree completion, inclusion on the Dean's list or equivalent, time to degree completion, and participation in honors programs or equivalent.

Institutional Receptivity Perspective: This perspective refers to goals and measures of institutional support that have been found to be influential in the creation of affirming campus environments for historically underrepresented students.

The Purpose of the Equity Scorecard

The purpose of the Equity Scorecard data-driven inquiry process is threefold:

- 1. Awareness:** The Equity Scorecard team engages in institutional self-assessment to provide a clear and unambiguous picture of inequities. The team selects its own measures (e.g., GPA, dean's list, remediation enrollment) and uses existing institutional data to assess its performance in providing equity of outcomes to its students of color.
- 2. Interpretation:** By engaging in a systematic and continuous process of self-appraisal, and the analysis and interpretation of the data, the team is able to uncover inequities between students of color and white students. As stated above, central to the Equity Scorecard Project is the disaggregation of routinely collected institutional data on student matriculation, enrollment, pass/fail, and graduation rates. By extracting information based on race, ethnicity, gender or other discrete factors, the Equity Scorecard project provides concrete information on basic indicators of achievement among students.
- 3. Action:** Disaggregation of the data illuminates critical gaps in academic performance, and thereby permits institutions to respond with purposeful actions. The team develops a number of recommended actions to achieve equity in educational outcomes based on data, not assumptions.

The Equity Scorecard in the Institutional Context of the UW-S

In April 2008, UW-Superior volunteered to be part of the Equity Scorecard Pilot sponsored by the UW System Office of Academic Diversity and Development (OADD). Four other UW System institutions, including UW-Eau Claire, UW-Platteville, UW-River Falls, and UW-Stout, were in this Equity Scorecard cohort. The UW-S evidence team plans to complete the Equity Scorecard by Summer 2010.

By the appointment of the UW-Superior Provost, Vice Chancellor of Academic Affairs and the Dean of Faculties Chris Markwood, the following faculty and academic staff have participated in the Equity Scorecard at UW-S. The current members are shown in **bold**.

- **Alvin (Chip) Beal**, Assistant Professor of First Nation Studies, Department of Human Behavior and Diversity, and Diversity Coordinator (since May 2008)
- Marsha Francis, McNair Scholars Program Academic Coordinator (June 2008 through February 2009)
- **Eri Fujieda**, Associate Professor of Sociology, Department of Social Inquiry (since May 2008; Team Leader since July 2009)
- **Vicki Hajewski**, Vice Chancellor for Campus Life and Dean of Students (since August 2009)
- Wendy Kropid, Associate Professor, Department of Educational Leadership (July 2008 through April 2009)
- **Jim Miller**, Institutional Researcher (since May 2008)

- Michael McDonald, Former Assistant to the Chancellor for Affirmative Action and Diversity (Team Leader from May 2008 through June 2009)
- **Steven Rosenberg**, Associate Professor, Department of Mathematics and Computer Science (since August 2009)
- **Gloria Toivola**, Professor of Political Sciences, Department of Social Inquiry (since October 2008)

In addition, by the appointment of the UW-System Office of Equity, Diversity and Inclusion, Greg Lampe (Provost of the UW Colleges) has been serving as the team mentor as well as a participant in team meetings. The team has also received mentorship and support from Elsa Macias (the Center for Urban Education at the University of Southern California) and Vicki Washington (UW-System Vice Associate President for Equity, Diversity and Inclusion). Their site visit to UW-S on January 13, 2010, helped the campus better understand the nature and value of the Equity Scorecard.

The team creates and shares with the campus community interim reports for each of the four perspectives (i.e., access, retention, excellence and institutional receptivity). The team also asks for opportunities to discuss the findings on each perspective with various constituencies across that campus and to generate awareness, conversations over interpretation of the findings, and action among institutional agents who can contribute to the improvement of educational equity for students of color as well as others. This retention interim report is the second of the four, and follows the first interim report on access that was released to the campus in October 2009. Once the team completes the Equity Scorecard for all of the four perspectives, the team will then develop a Final Report and share it with the Chancellor and campus community to inform decisions about strategic actions.

Notes on Data and Terminology

Data Source: The Equity Scorecard utilizes the existing data. Here in UW-Superior the great majority of the data were drawn from the Peoplesoft database by the institutional researcher with assistance of information technology staff.

Definition of the Population: The current analysis covers the fall-entry, degree-seeking full-time undergraduate students (excluding international students). The team acknowledged the significance of examining the gaps for students who enter UW-S at other entry points. First-year students and transfers come in the fall, spring and summer. Some enter the University through the Bridge/Access programs. It would be ideal to examine students' access by diverse entry points. However, we realized it is difficult to come up with adequate measures to assess access at multiple entry points.

Definition of Race/Ethnicity: The statistics on students' race/ethnicity are collected from each student's self-reporting at the initial enrollment to the UW-Superior. This method of data collection presents an issue of weaker validity of the data. However, this set of data is the only data available to capture the macro-level trend over multiple years. The team decided to use it as the best proxy. Another decision that the team has made is to exclude international students from the analysis. The current project is most concerned with the equity gap for "students of color," or historically underrepresented racial/ethnic groups in the United States, whose life chances, including educational opportunities, have most likely been compromised due to the structural and interpersonal impact of racism. International students in contrast have had a choice to live and study in another country, which reflects their privileged position in their own society. While the team acknowledges various challenges that international students may face in the United States due to racism and other issues, the team chose not to address these issues but rather to focus the analysis on the equity gaps in educational outcomes specific to historically underrepresented racial/ethnic groups in the context of the United States. Finally, the team recognizes distinctive experiences among different racial/ethnic groups, and thus, uses data that are disaggregated for such racial/ethnic categories as African Americans, American Indians, Southeast Asian Americans, Asian Americans, Hispanic/Latino(a)s, and Whites. However, "students of color" may be used as a group to be contrasted with "whites" when disaggregating "students of color" by specific race/ethnicity hinders our understanding of equity gaps.

Multi-Year Statistics: The total student population on our campus is relatively small and the annual statistics on the student groups disaggregated by color can become noticeably lower. When these statistics are turned into shares and rates, they may represent incidental patterns rather than systematic patterns. In addition, when the number for each cell becomes less than five, the anonymity of students may be at risk. After some discussion, the team agreed with the recommendation of the institutional researcher that, when appropriate, data for each race/ethnic category would be aggregated over multiple years. In accord with this decision, this report will refer to multiyear data when appropriate. Different spans of years will be used in different charts, reflecting the availability of data.

Vocabulary of “Share,” “Rate,” and “Equity Gap”: This document frequently refers to “shares” and “rates.” “Shares” illustrates the portion of the whole population a given racial or ethnic group comprises. “Rates” represent the percentage of students in a specific racial or ethnic group who persist or succeed. Comparing shares typically leads us to determine equity gaps in representation, while comparing rates helps us determine equity gaps in retention or success, as well as the best or least performing group. By “equity gap,” we mean patterns of inequalities between white students and students of color and within students of color.

Perspective 2: Retention

“Retention” refers to continued attendance from one year to the next and/or to completion of degrees. Retention can also refer to continued progress toward degrees in competitive majors.

To find patterns of retention by race/ethnicity at UW-S, the team looked at data that would answer the following questions.

- What are the overall patterns of equity/inequity in retention by race/ethnicity?
- What difference do sex and age of students make to retention?
- What difference does the first-generation status or Pell Grants eligibility make to retention?
- What difference does high school rank and ACT scores make to retention?
- What difference does GPA at the end of the first year make to retention?
- What difference does living on campus make to first-year entries’ second-year retention?
- **Is there any equity gap in course-level academic performance?**
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In response to the above questions, the institutional researcher compiled various sets of data for the team. More data on first-year entries became available than data on transfers, although attempts were made to compile data on transfer student retention/graduation by their entry GPA. Data on graduation patterns by major were also not readily available. The team recommends that such data should be collected and analyzed, so as to better understand how UW-S as an institution can improve the equity in retention.

The data analyzed and presented in this report include:

1. First-Year Entry Students’ Retention and Graduation
 - a. Overall Retention/Graduation
 - b. Retention-to-Graduation Pattern
 - c. Sex and Retention/Graduation
 - d. Age and Retention
 - e. High School Rank and Retention/Graduation
 - f. ACT scores and Retention
 - g. GPA at the End of the First Academic Year, Core Course Taking Pattern, and Retention/Graduation

- h. Pell Grants Eligibility and Retention/Graduation
 - i. The “First Generation” Status and Retention/Graduation
 - j. First-Year Residence and Retention
2. Transfer Student Retention and Graduation
 - a. Overall Retention/Graduation
 - b. Retention-to-Graduation Pattern
 - c. Sex and Retention/Graduation
 - d. Age and Retention/Graduation
 - e. GPA at the End of the First Academic Year and Retention/Graduation
 3. Retention at the Course Level

Unless noted otherwise, the first-to-second year retention data were derived from 2001-2008 cohorts while the six-year graduation data were from 2001-2003 cohorts. Each cohort consists of fall-entry, full-time on-campus students, and, due prioritization necessitated by the limitations of time and resources, international students, part-time students, distance education students, and those who entered at other semesters than fall were excluded from the analysis.

1. First-Year Entry Student Retention and Graduation

a. Overall Patterns of Retention and Graduation

While retention has been one of the major concerns at UW-S, students of color as a whole are less likely to be retained than white students. This applies to both first-year entries as well as transfers (see B – i). As the result, by the time of graduation, the student body is less diverse. These patterns were found in the statistics on the second-year retention of 2001-2008 first-year cohorts and transfers and the graduation of 2001-2003 first-year and transfer cohorts.

The second-year retention rate for 2001-2008 first-year cohorts was 70.6% (Table 1). When comparing white students and students of color, however, the retention rate for students of color as a whole was lower than white students. Among the 2001-2008 first-year entries, the second-year retention rate for white students was 70.7% while that for students of color was 68.5%. The equity gap in the second year retention for students of color was respectively 2.2%.

Table 1. 2001-2008 Fall First-Year Cohorts: First-to-Second-Year Retention

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall	All students of color
Total Fall 2001-2008 Cohorts (share in the total)	22 (1.0%)	50 (2.3%)	11 (0.5%)	20 (0.9%)	8 (0.4%)	2006 (93.9%)	20 (0.9%)	2137 (100%)	111 (5.2%)
Retained Fall of Year 2 (share in the total)	15 (1.0%)	34 (2.3%)	11 (0.7%)	12 (0.8%)	4 (0.3%)	1419 (94.0%)	13 (0.9%)	1508 (100%)	76 (5.0%)
[Retention Rate]	[68.2%]	[68.0%]	[100.0%]	[60.0%]	[50.0%]	[70.7%]	[65.0%]	[70.6%]	[68.5%]
Missing Students	0	1	0	2	2	0	1	6	5

Note: “Missing students” is calculated to show how many more students would have been retained if there were no equity gap, i.e., all students of color were retained at the same rate as white students.

Not all students of color went missing at the same rate. Asian Americans and Hispanic/Latino(a)s were retained at particularly lower rates (60.0% and 50.0% respectively) than whites (70.7%), although Southeast Asian Americans were 100% retained. These gaps in retention rates were reflected in the representations in the total groups: for both groups, representation in the total population became lower in the second year by 0.1%. The retention rate for African Americans (68.2%) and American Indians (68.0%) was also lower than that for white students (70.7%), although this did not affect the share of these groups in the total in the second year. The first-to-second-year retention data for 2001-2003 cohorts generally follow this pattern. (For Hispanic/Latino(a) students, the second year retention rate

for the 2001-2003 cohort (66.7%) was higher than that for the 2001-2008 cohort (50%, as found in Table 1), but the team considered this statistic as not likely a representative sample of the group, for the cell included only 3 students.)

The equity gap for students of color was also found in the six-year graduation rates. The six-year graduation rate for 2001-2003 first-year cohorts was 43.9% for white students and 32.6% for students of color (Table 2). The equity gap was as great as 11.3%. The share of students of color in the total student population also became notably lower by the time of graduation. For first-year entries, the share of students of color declined from 5.8% at entry to 4.4% at the time of graduation.

Among the above observations, the retention gap between first-year entry Asian Americans and first-year entry Southeast Asian Americans came as a surprise to the team. Asian Americans are typically regarded as a “model minority,” while Southeast Asian Americans are known for their challenging origins as war refugees and subsequent economic and socio-cultural difficulties. At UW-S, these general characteristics simply do not manifest in the retention patterns. It will be worth investigating specific factors that affect their retention.

The team also noted that, with the total number of students in each racial/ethnic minority group being relatively small, it would not be so difficult to close the first-year retention gap between these and white students and to increase racial/ethnic diversity of students at UW-S. If one more student in any of these groups was retained, the gap would disappear, as shown in the “equity” retention row in Table 1. To achieve this, however, UW-S must acknowledge that affiliation to a particular race/ethnicity has distinctive impact on their experience prior to and at UW-S as it offers support that is sensitive to the specific needs of each race/ethnicity group.

Table 2. 2001-2003 Fall First-Year Cohorts: Retention to Graduation

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Overall	All Students of color
Total Fall 2001-2003 Cohorts (share in the total)	5 (0.6%)	23 (2.9%)	6 (0.8%)	9 (1.1%)	3 (0.4%)	741 (94.2%)	787 (100%)	46 (5.8%)
Retained Fall of Year 2 (share in the total)	3 (0.5%)	16 (2.9%)	6 (1.1%)	4 (0.7%)	2 (0.4%)	524 (94.4%)	555 (100%)	31 (5.6%)
[Retention Rate]	[60.0%]	[69.6%]	[100.0%]	[44.4%]	[66.7%]	[70.7%]	[70.5%]	[67.4%]
Retained Fall of Year 3 (share in the total)	4 (0.9%)	11 (2.5%)	4 (0.9%)	3 (0.7%)	2 (0.5%)	420 (94.6%)	444 (100%)	24 (5.4%)
[Retention Rate]	[80.0%]	[47.8%]	[66.7%]	[33.3%]	[66.7%]	[56.7%]	[56.4%]	[52.2%]
Retained Fall of Year 4 (share in the total)	2 (0.6%)	8 (2.1%)	4 (1.1%)	1 (0.3%)	2 (0.5%)	356 (95.4%)	373 (100%)	17 (4.6%)
[Retention Rate]	[40.0%]	[34.8%]	[66.7%]	[11.1%]	[66.7%]	[48.0%]	[47.4%]	[37.0%]
Graduated w/in 6 Years (share in the total)	2 (0.6%)	6 (1.8%)	4 (1.2%)	1 (0.3%)	2 (0.6%)	325 (95.6%)	340 (100%)	15 (4.4%)
[Graduation Rate]	[40.0%]	[26.1%]	[66.7%]	[11.1%]	[66.7%]	[43.9%]	[43.2%]	[32.6%]

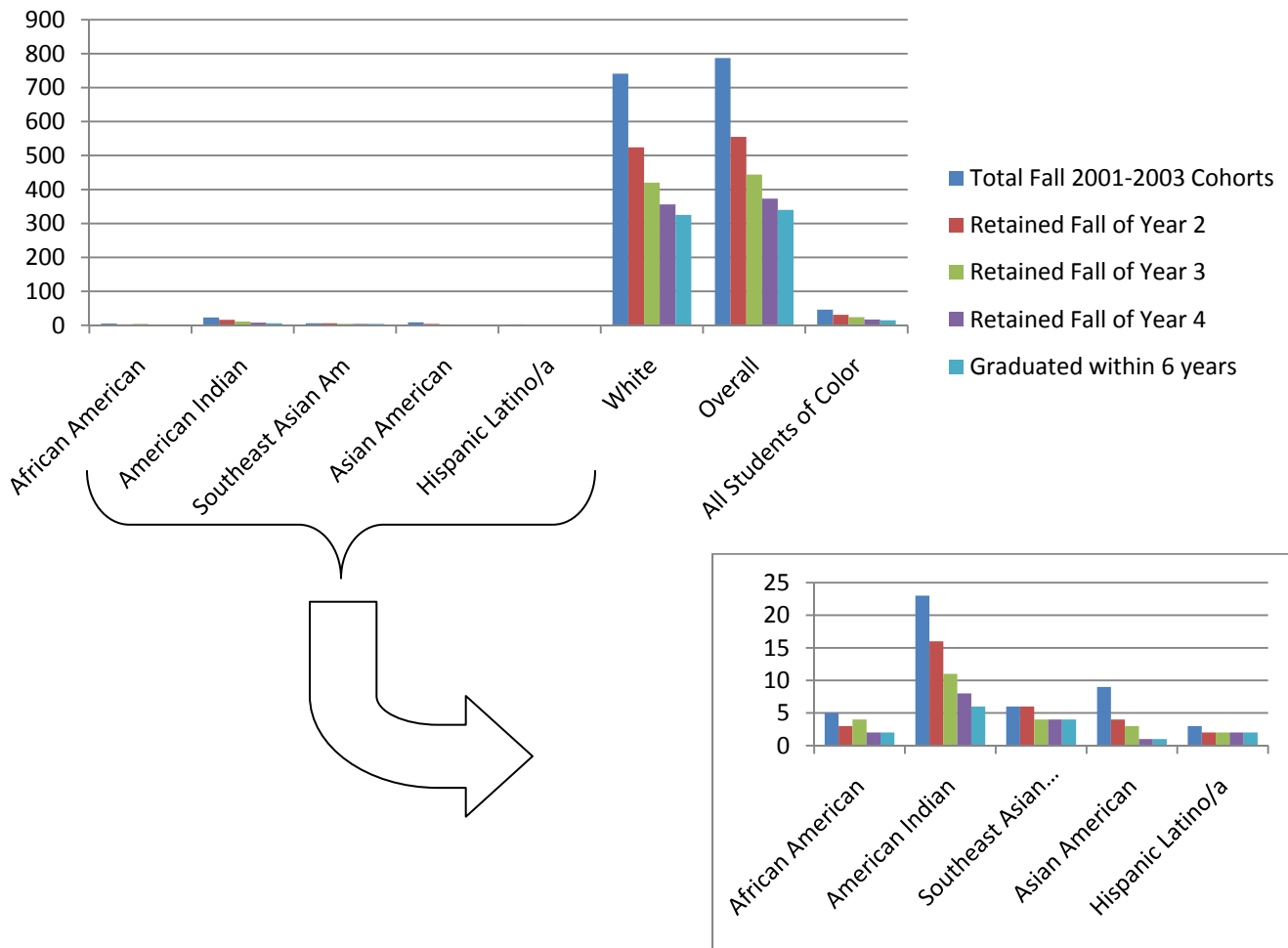
b. Retention-to-Graduation Pattern

While the first-to-second-year retention is very critical, retention after the second year also significantly affects the ultimate likelihood of degree completion. Table 2 and Chart 1 show the retention to graduation pattern for 2001-2003 first-year cohorts. 29.5% went missing by the second year, with 14.1% more by the third year and 13% more by the fourth year. By the sixth year, while 43.2% achieved a bachelor’s degree, 56.7% did not make the graduation. There are two ways of interpreting these findings. First, if no first-year entry student went missing after the first year, then, even if they become missing after the first year, their graduation rate could be as high as 75%. Second, if the majority of students who successfully return to the campus in the second year persisted through

graduation, the graduation rate could be as high as 70% rather than 43.5%. Considering the multiple programmatic needs to promote the persistence after the first year, intervention for persistence during the first year may appear a more efficient method.

When disaggregated by race/ethnicity, however, this general pattern does not persist (Chart 1). The retention rate for white students was higher than that for all students of color, as seen in the two columns on the right in Table 3. The second-year retention rate was 70.5% for white students and 67.4% for students of color. The 3.1% difference in these retention rates was almost consistent in the third-year retention, where white students' retention rate of 56.7% was 4.5% better than that for students of color (52.2%). In the fourth year, however, this gap widened to 11.0% (48.0% for white students and 37.0% for all non-white students), leading to the gap in the six-year graduation rate of 11.3% (43.9% for white students and 32.6% for all non-white students). The consequence of these widening gaps is easily observed in the declined share of students of color in the total. While 5.8% of total students were students of color at the time of entry, only 4.4% of those who graduated within six years were students of color.

Chart 1. 2001-2003 Fall First-Year Cohorts Retention-to-Graduation



While white students' retention pattern was generally different from that for students of color, retention patterns over six years among students of color also varied. On the one hand, some racial/ethnic groups are better retained after the second year of their college career. Southeast Asian and Hispanic/Latino(a) students were relatively well retained throughout their college career and achieved a higher six-year graduation rate (66.7%) than white students (43.9%). Even though the actual number of students was small, the campus may be able to learn from the successful retention of these groups.

On the other hand, a progressively widening equity gap was noted among American Indian students, who constituted 50% (23 out of 46) of the students of color in 2001-2003 first-year cohorts. This group's second-year retention rate (69.9%) was actually very similar to that of white students (70.7%). In the third year the retention rate for American Indians dropped by 12.1% (from 69.9% to 47.8%). This drop affected their share in the total student body, reducing it from 2.9% to 2.5%. In contrast, although the drop of retention rate for white students between the second year to the third year was as great as 14% (from 70.7% to 56.7%), their share in the total student body actually increased from 94.4% to 94.6%. By the fourth year American Indians experienced the retention rate of 34.8%, which was 11.9% lower than their third-year retention rate. In contrast, white students' fourth-year retention rate was 48%, which was 8.7% lower than their third-year retention rate, but 13.2% higher than that for American Indians. The six-year graduation rate showed a further widening gap of 17.8% between American Indians and white students (26.1% for American Indians and 43.9% for white students).

Furthermore, for Asian Americans, the second-largest racial/ethnic minority group in these cohorts, the retention pattern differed from other groups of students of color. Their retention rate from the first to the second year was worse than others (44.4%, which is 36.3% lower than white students of 70.7%), and continued to worsen, with the six-year graduation rate of 11.1%. Although the actual number of this group was relatively small, the campus may want to reflect upon the fact that eight out of nine Asian American students in the original cohorts did not graduate.

Data on five African American students indicated the fluid pattern of retention. Although only three out of five students were retained from the first to the second year, one student returned in his/her third year, increasing the retention rate for the group. However, only two out of four students were retained from the third to the fourth year.

The team agrees that the gap in the retention from the third year to the fourth year definitely deserves further study, and recommends the campus to ask the following questions, with special attention to Asian Americans, Native Americans and African Americans.

- How does the shift in the residential arrangement (from on-campus to off-campus) at the end of the second year affect students' academic performance and social life on campus?
- Do students in junior or senior years receive adequate and appropriate access to advisement, particularly as they declare majors?
- How well do students get supported in the process of completing senior capstone projects?
- Is there any gap in the access to financial aid as students advance in their college career?

c. Sex and Retention/Graduation

Sex is one of the factors that shape students' educational opportunities, social-economic conditions, and perception of personal capacities, social roles and future possibilities.

Table 3. 2001-2008 Fall First-Year Cohorts: Enrollment by Sex

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Total Fall 2001-2008 Cohorts (share in total)	22 (1.0%)	50 (2.3%)	11 (0.5%)	20 (0.9%)	8 (0.4%)	2006 (93.9%)	13 (0.9%)	2137 (100.0%)
Male (share in total)	13 (1.4%)	24 (2.5%)	6 (0.6%)	8 (0.8%)	4 (0.4%)	883 (93.3%)	8 (0.8%)	946 (100.0%)
[rate in category]	[59.1%]	[48.0%]	[54.5%]	[40.0%]	[50.0%]	[44.0%]	[38.5%]	[44.2%]
Female (share in the total)	9 (0.8%)	26 (2.2%)	5 (0.4%)	12 (1.0%)	4 (0.3%)	1123 (94.3%)	12 (1.0%)	1191 (100.0%)
[rate in category]	[40.9%]	[52.0%]	[45.5%]	[60.0%]	[50.0%]	[56.0%]	[61.5%]	[55.8%]

The first-year student enrollment pattern at UW-S was generally in accord with the national trend of female majority campus. As shown in Table 3, in 2001-2008, 44.2% of first-year students were male

while 55.8% were female. This female dominance is observed particularly among Hispanic/Latino(a) (37.5% male vs. 62.5% female), Asian Americans (40% male vs. 60% female), whites (42.7% male vs. 57.3% female), and to a lesser extent, among American Indians (48% male vs. 52% female). This trend was however reversed for African Americans (59.1% male vs. 40.9% female) and Southeast Asians (54.5% male vs. 45.5% female).

The overall first-to-second-year retention rate was higher for female students (71.3%) than for male students (69.6%) (Table 16). This is in accord with the national data, and thus, not particularly surprising.

When disaggregated by race/ethnicity, however, students of color were typically better retained if they were male. While white students' retention pattern by sex was very much like the general trend, it reversed for all groups of students of color. The major exception was Southeast Asian Americans, whose retention rate was 100% for both sexes.

In particular, the retention rate of Hispanic/Latino(a) female students was the lowest (25%), followed by Asian American females (50%), American Indian females (65.4%), and African American females (66.7%). These retention rates for female students of color were not only lower than the overall retention rate for all female students (71.3%), but also lower than that for males in the respective racial/ethnic groups. This gap for female students is particularly great for Hispanic/Latino(a)s (41.7%) and Asian Americans (25.0%), and moderately large for American Indians (5.4%) and African Americans (2.5%).

If one or two more female students in each of Hispanic/Latino(a), Asian American, American Indian and African American groups were retained, the gap discussed above would not be an issue. It is also important to address the retention of male students, particularly for African Americans as well as whites. In fact, if one more percent of male students in these groups were retained, then, our total retention rate would also increase.

Table 4. 2001-2008 Fall First-Year Cohorts: First-to-Second-Year Retention by Sex

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Overall # Retained / # Total [Retention Rate]	15 / 22 [68.2%]	34 / 50 [68.0%]	11 / 11 [100.0%]	12 / 20 [60.0%]	4 / 8 [50.0%]	1419 / 2006 [70.7%]	13 / 20 [65.0%]	1508 / 2137 [70.6%]
Male # Retained / # Total [Retention Rate]	9 / 13 [69.2%]	17 / 24 [70.8%]	6 / 6 [100.0%]	6 / 8 [75.0%]	3 / 4 [75.0%]	613 / 883 [69.4%]	5 / 8 [62.5%]	658 / 946 [69.7%]
Female # Retained / # Total [Retention Rate]	6 / 9 [66.7%]	17 / 26 [65.4%]	5 / 5 [100.0%]	6 / 12 [50.0%]	1 / 4 [25.0%]	806 / 1123 [71.8%]	8 / 12 [66.7%]	849 / 1191 [71.3%]

Note: Red indicates an equity gap in comparison with overall.

As in the case of retention, graduation was generally better achieved by female students than male students. Among 2001-2003 first-year cohorts, the graduation rate was higher for female students (44.2%) than for male students (38.1%), leaving male students' graduation rate 6.1% behind of that of female students. Note that this sex difference in the graduation rate was much greater than that for the first-to-second-year retention rate. This implies that, as students began to take upper-division courses and move on to the capstone, more male students than female students dropped out.

Table 5. 2001-2003 Fall First-Year Cohorts: Graduation Rates by Sex

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Overall
Total Fall 2001-2003 Cohorts (share in the total)	5 (0.6%)	23 (2.9%)	6 (0.8%)	9 (1.1%)	3 (0.4%)	741 (94.2%)	787 (100%)
# graduated [graduation rate]	2 [40.0%]	6 [26.1%]	4 [66.7%]	1 [11.1%]	2 [66.7%]	325 [43.9%]	340 [43.2%]
Male (share in the total)	2 (1.2%)	10 (5.0%)	3 (1.9%)	5 (0.8%)	1 (0.0%)	318 (91.1%)	339 (100%)
# graduated [graduation rate]	0 [0.0%]	5 [50.0%]	2 [66.7%]	0 [0.0%]	1 [100.0%]	134 [42.1%]	142 [41.9%]
Female (share in the total)	3 (0.4%)	13 (1.9%)	3 (0.2%)	4 (1.3%)	2 (0.6%)	423 (95.6%)	448 (100%)
# graduated [graduation rate]	2 [66.7%]	1 [7.7%]	2 [66.7%]	1 [25.0%]	1 [50.0%]	191 [45.2%]	198 [44.2%]

Note: Red indicates an equity gap in comparison with overall.

However, the sex gap in graduation rate was not consistent across individual racial/ethnic groups.

- For white students, female students graduated at a higher rate (45.2%) than male students (42.1%). The difference of 3.1% was however smaller than that for the total population.
- For African American and Asian American groups, female students' graduation rate was much higher than that of male students. Note that this was not because female students were particularly successful (considering that 2 out of 3 African American females and 1 out of 4 Asian American female students graduated), but rather due to the fact that the graduation rate for males in these groups was 0%.
- For American Indians and Hispanic/Latino(a)s, the graduation rate was higher for male students than for female students. Among American Indians, 50% of male students (i.e., 5 out of 10 male students) graduated while only 7.7% of female students (or 1 out of 13 female students) graduated. Among Hispanic/Latino(a) students, the male graduation rate was perfect, for one student enrolled in the 2001-2003 cohorts successfully graduated within 6 years. On the other hand, one of the two female students in the 2001-2003 cohorts did not graduate.

The analysis of retention and graduation rates for first-year cohorts by race/ethnicity and sex reveals the existence of “at risk” populations, specifically African American males, American Indian females, Asian Americans for both sexes, and white males. To improve their retention and graduation rate, then, it is important to investigate whether academic support, financial support, mentoring and other student services are not only accessible but also effective, particularly to these “at risk” populations.

d. Age and Retention

Students' retention may be affected by their age at the time of entry to the university. Typically, “non-traditional students” or students at age 25 or above, are regarded as “at risk.” Among 2001-2008 fall first-year cohorts, 94.4% were at age 17-19, 4.5% were at age 20-24 and 1.1% were at age 25 or above. In other words, the great majority of the first-year students entered UW-S immediately or within two years after their high school graduation, although 1 out of 20 first-year students were older than 20 years old. Among older students (i.e., those at or above age 20), students of color were overrepresented. In particular, among students at age 20-24, American Indians were 6.3% (in contrast to 2.3% in the total) and Southeast Asians were 3.1% (in contrast to 0.5% in total).

Table 6. 2001-2008 Fall First-Year Students by Age at the Entry to UW-S

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall	Students of Color
Total Fall 2001-2008 Cohorts (share in total)	22 (1.0%)	50 (2.3%)	11 (0.5%)	20 (0.9%)	8 (0.4%)	2006 (93.9%)	20 (0.9%)	2137 (100.0%)	2137 (100.0%)
[rate in category]	[100.0%]	[100.0%]	[100.0%]	[100.0%]	[100.0%]	[100.0%]	[100.0%]	[100.0%]	[100.0%]
Age 17-19 (share in total)	20 (1.4%)	43 (2.5%)	8 (0.6%)	17 (0.9%)	8 (0.3%)	1904 (94.3%)	17 (1.0%)	2017 (100.0%)	2017 (100.0%)
[rate in category]	[90.1%]	[86.0%]	[72.7%]	[85.0%]	[100.0%]	[94.9%]	[85.0%]	[94.4%]	[94.4%]
Age 20-24 (share in the total)	2 (2.1%)	6 (6.3%)	3 (3.1%)	2 (2.1%)	0 (0.0%)	81 (84.4%)	2 (2.1%)	96 (100.0%)	96 (100.0%)
[rate in category]	[9.1%]	[12.0%]	[27.3%]	[10.0%]	[0.0%]	[4.0%]	[10.0%]	[4.5%]	[4.5%]
Age 25 or above (share in the total)	0 (0.0%)	1 (4.2%)	0 (0.0%)	1 (4.2%)	0 (0.0%)	21 (87.5%)	1 (4.2%)	24 (100.0%)	24 (100.0%)
[rate in category]	[0.0%]	[2.0%]	[0.0%]	[5.0%]	[0.0%]	[1.0%]	[5.0%]	[1.1%]	[1.1%]

The gaps in the retention rate shown in Table 7 signal the urgency of the attention to the older first-year students. While the first-to-second-year retention rate was 71.6% for those at age 17-19, it dropped to 53.1% for those at age 20-24 and 54.2% for those at age 25 or above.

When disaggregated by race/ethnicity, the gap in retention rate between students at age 17-19 and those at 20-24 was not consistent across racial/ethnic groups. The retention gap by age was particularly severe among African Americans (75% for age 17-19 and 0% for age 20-24, or a gap of 75%) as well as among whites (71.7% for age 17-19 and 49.4% for age 20-24; a gap of 22.3%). However, the retention rate for American Indians was better for students at age 20-14 (83.3%) than students at age 17-19 (67.4%).

This finding is significant particularly to the programming of the First-Year Experience, one of the five public liberal arts initiatives. Whether various programmatic efforts, including the orientation, the first-year seminar, mentoring, etc. take this fact into consideration or not is an interesting question that can be addressed to appropriate campus units and committees. In considering this question, we may also want to ask what made American Indians who entered UW-S at age 20-24 more successful than their counterparts in other racial/ethnic groups and find out contributing factors.

Table 7. 2001-2008 Fall First-Year Cohorts First-to-Second-Year Retention by Age at the Entry to UW-S

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Overall # Retained / # Total [Retention Rate]	15 / 22 [68.2%]	34 / 50 [68.0%]	11 / 11 [100.0%]	12 / 20 [60.0%]	4 / 8 [50.0%]	1419 / 2006 [70.7%]	13 / 20 [65.0%]	1508 / 2137 [70.6%]
Age 17-19 # Retained / # Total [Retention Rate]	15 / 20 [75.0%]	29 / 43 [67.4%]	8 / 8 [100.0%]	10 / 17 [58.8%]	4 / 8 [50.0%]	1366 / 1904 [71.7%]	12 / 17 [71.6%]	1444 / 2017 [71.6%]
Age 20-24 # Retained / # Total [Retention Rate]	0 / 2 [0.0%]	5 / 6 [83.3%]	3 / 3 [100.0%]	2 / 2 [100.0%]	0 / 0 [n/a]	40 / 81 [49.4%]	1 / 2 [50.0%]	51 / 96 [53.1%]
Age 25 or above # Retained / # Total [Retention Rate]	0 / 0 [n/a]	0 / 1 [0.0%]	0 / 0 [n/a]	0 / 1 [0.0%]	0 / 0 [n/a]	13 / 21 [61.9%]	0 / 1 [0.0%]	13 / 24 [54.2%]

Note: Red indicates an equity gap in comparison with overall.

e. High School Rank and Retention/Graduation

The first-year students' standing in the high school graduation class is often referred to as the best predictor of success in college. The underlying assumption is that the higher the students' high school standing is, the more likely for the student to complete the degree. In fact, the standing in the high school class is currently used as one of the parameters in the holistic admission scheme at UW-S. The team found that, while this assumption is generally supported, it does not apply to understand retention of some students of color.

Overall, the majority of students who entered UW-S as full-time fall-entry first-year students were from the top half of the graduating high school class (Table 3). For the 2001-2008 cohorts, 40% were from the top quarter of the graduating high school class, while 38.7% were from the second quarter. When disaggregated by race/ethnicity, however, the team noticed that all groups of students of color were underrepresented among those from the top quarter, while they were overrepresented among those from the third quarter. The proportion of students from the top quarter of the graduating high school class was highest among white students (40.9%) while that for other racial/ethnic groups was in the range of 18.2% (Southeast Asian Americans) to 25% (Asian Americans and Hispanic/Latino(a)s). In contrast, only 12.7% of whites were from the third quarter of the graduating high school class, while among students of color, between 14% (American Indians) and 27.3% (Southeast Asian Americans) were from this rank.

Table 8. 2001-2008 Fall First-Year Cohorts by High School Rank

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Total (% in the total) [% in the group]	22 (1.0%) [100.0%]	50 (2.3%) [100.0%]	11 (0.5%) [100.0%]	20 (0.9%) [100.0%]	8 (0.4%) [100.0%]	2006 (93.9%) [100.0%]	20 (0.9%) [100.0%]	2137 (100.0%) [100.0%]
HS Rank Top 1/4 (% in the total) [% in the group]	5 (0.6%) [22.7%]	12 (1.4%) [24.0%]	2 (0.2%) [18.2%]	5 (0.6%) [25.0%]	2 (0.2%) [25.0%]	821 (96.1%) [40.9%]	7 (0.8%) [35.0%]	854 (100.0%) [40.0%]
HS Rank 2nd 1/4 (% in the total) [% in the group]	8 (1.0%) [36.4%]	28 (3.4%) [56.0%]	4 (0.5%) [36.4%]	6 (0.7%) [30.0%]	4 (0.5%) [50.0%]	774 (93.5%) [38.5%]	4 (0.5%) [20.0%]	828 (100.0%) [38.7%]
HS Rank 3rd 1/4 (% in the total) [% in the group]	5 (1.8%) [22.7%]	7 (2.1%) [14.0%]	3 (1.1%) [27.3%]	5 (1.8%) [25.0%]	2 (0.7%) [25.0%]	254 (90.1%) [12.7%]	6 (2.1%) [30.0%]	282 (100.0%) [13.2%]
HS Rank Bottom 1/4 (% in the total) [% in the group]	0 (0.0%) [0.0%]	1 (2.1%) [2.0%]	2 (4.3%) [18.2%]	2 (4.3%) [10.0%]	0 (0.0%) [0.0%]	42 (89.4%) [2.1%]	0 (0.0%) [0.0%]	47 (100.0%) [2.2%]
Without HS Rank (% in the total) [% in the group]	4 (3.2%) [18.2%]	2 (1.6%) [4.0%]	0 (0.0%) [0.0%]	2 (1.6%) [10.0%]	0 (0.0%) [0.0%]	115 (91.3%) [5.7%]	3 (2.4%) [15.0%]	126 (100.0%) [5.9%]

The overall first-to-second-year retention rate *appears to* correlate to the high school class rank. Table 9 shows that 74.6% of students from the top half were retained, while the retention rate for students from the bottom half was 54.4%. For those coming without high school rank the retention rate was 59.5%, which was lower than the overall retention rate.

When disaggregated by race/ethnicity, however, the team noticed the different patterns between white students and students of color. In particular, the expected relationship between class rank and retention was only applicable to American Indians and whites. American Indians in the top half of their graduating class had a retention rate 4.5 % higher than the overall retention rate for American Indians. Similarly the retention rate of American Indians in the bottom half of their graduating class was 18 % below their overall retention rate. Whites in the top half of their class were retained at a rate of 4.2 %

higher than their overall retention rate, while whites in the bottom half of their graduating class were retained at a rate 18.7 % below their overall retention rate.

Table 9. 2001-2008 Fall First-Year Cohorts First-to-Second-Year Retention by High School Class Rank

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Overall # Retained / # Total [Retention Rate]	15 / 22 [68.2%]	34 / 50 [68.0%]	11 / 11 [100.0%]	12 / 20 [60.0%]	4 / 8 [50.0%]	1419 / 2006 [70.7%]	13 / 20 [65.0%]	1508 / 2137 [70.6%]
HS Rank Top 50% # Retained / # Total [Retention Rate]	10 / 13 [76.9%]	29 / 40 [72.5%]	6 / 6 [100.0%]	5 / 11 [45.5%]	4 / 6 [66.7%]	1195 / 1595 [74.9%]	7 / 11 [63.6%]	1255 / 1681 [74.6%]
HS Rank Bottom 50% # Retained / # Total [Retention Rate]	4 / 5 [80.0%]	4 / 8 [50.0%]	5 / 5 [100.0%]	5 / 7 [71.4%]	2 / 2 [100.0%]	154 / 296 [52.0%]	5 / 6 [83.3%]	179 / 329 [54.4%]
Without HS Rank # Retained / # Total [Retention Rate]	1 / 4 [25.0%]	1 / 2 [50.0%]	0 / 0 [n/a]	2 / 2 [100.0%]	0 / 0 [n/a]	70 / 115 [60.9%]	1 / 3 [33.3%]	75 / 126 [59.5%]

On the other hand, the retention rate for Asian Americans in the top half of their graduating class was 14.5 % below the overall retention rate for Asian Americans and their retention rate for those in the bottom half of their graduating class was actually 11.4 % higher than their overall retention rate. A similar pattern applies to Hispanic/Latino(a) students. Hispanic/Latino(a) students in the lower half of their graduating class had a 100% graduation rate, compared to the overall retention rate of 50%. African Americans in both the top and bottom halves of their graduating class were retained at a higher level than that for all African Americans. This appears to be due to the especially low rate of retention for African Americans from high schools that don't report student class rank. All Southeast Asian Americans were retained no matter where they ranked in their high school classes.

These observations indicate that the predicted relationship between class rank and retention rate exists primarily for whites and American Indians and not for African Americans, Southeast Asian Americans, Asian Americans and Hispanic Latino/a Americans. This finding defies the often held assumption that the high school rank can predict the successful retention/experience of first-year students. In fact, it suggests that students of color's first-year experience after they entered the UW-S matters more than their high school performance. It also urges us to examine how different the support system at UW-S may be for students from different ethnic and racial backgrounds and consider how to improve the existing support system to help all first-year students to be retained at a higher rate.

As in the case of second-year retention, graduation from college has been considered as a function of the high school class rank. As Table 10 shows, this pattern was observed in the overall data for the 2001-2003 fall full-time first-year student cohorts. 47.4% of students from the top half graduated within six years, while only 21.8% of students from the bottom half graduated. For those coming without high school rank the graduation rate was 41.9%, which was only slightly lower than overall retention rate.

Disaggregation of the data by race/ethnicity leads to a slightly different pattern than we have reported, however. 48.2% of whites from the top half of their high school class graduated. In comparison, among those who entered UW-S from the top half of their graduating class, only 25% of African Americans, 26% of American Indians and 25% of Asian Americans actually graduated. At the same time, Hispanic/Latino(a) Americans and Southeast Asian Americans from the top half of their high school class actually graduated at a higher rate (66.7% and 50% respectively) than whites. Among those in the bottom half of their graduating class only 21.1% of the whites graduated as compared to 100% of the Southeast Asian American students and 33% of American Indians. The graduation rate for

Asian Americans from the bottom half was 0%. There were no African American or Hispanic/Latino(a) students in the bottom half of their high school classes.

Table 10. 2001-2003 Fall First-Year Cohorts: Graduation Rate by High School Class Rank

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Overall
Overall # Graduated / # Total [Graduation Rate]	2 / 5 [40.0%]	6 / 23 [26.1%]	4 / 6 [66.7%]	1 / 9 [11.1%]	2 / 3 [66.7%]	325 / 741 [70.7%]	340 / 787 [43.2%]
HS Rank Top 50% # Graduated / # Total [Graduation Rate]	1 / 4 [25.0%]	5 / 19 [26.3%]	2 / 4 [50.0%]	1 / 4 [25.0%]	2 / 3 [66.7%]	285 / 591 [48.2%]	296 / 625 [47.4%]
HS Rank Bottom 50% # Graduated / # Total [Graduation Rate]	0 / 0 [n/a]	1 / 3 [33.3%]	2 / 2 [100.0%]	0 / 5 [0.0%]	0 / 0 [n/a]	23 / 109 [21.1%]	26 / 119 [21.8%]
Without HS Rank # Graduated / # Total [Graduation Rate]	1 / 1 [100.0%]	0 / 1 [0.0%]	0 / 0 [n/a]	0 / 0 [n/a]	0 / 0 [n/a]	17 / 41 [41.5%]	18 / 43 [41.9%]

Based on the above observations, it seems unwise to use high school rank as a good predictor of success or failure in retention or graduation for students of color. This finding can also raise a question to the current practice of holistic admission at UW-S, which does use high school rank as one of the criteria. It may be worth considering how much weight should be assigned to high school rank in comparison to other indicators of academic preparation and dispositions.

The team also considered the implications of these findings on the relationship between high school class rank and retention/graduation, particularly for students of color. There are some inconsistent patterns between the findings on the relationship between retention and high school class rank and the findings on the relationship between graduation and high school class rank. For example, American Indians from the top half of their high school class were better retained than those from the bottom half, but the graduation rate was higher for those from the bottom half than the top half. This inconsistency implies that American Indians' graduation rate might not have been a function of their high school class rank or the first-year experience. Rather, their experience at UW-S after the first year seems to have more influence on their graduation rate. Also, consider the fact that neither the high graduation rate among Southeast Asian Americans nor the 0% graduation rate among Asian Americans could be correlated to their high school rank. The team recommends further investigation into curricular and co-curricular factors that would help students of color successfully complete their degree, and to find out if there is any gap in the availability of culturally and socially sensitive support systems as well as in the access to quality advisement, not only for the first-year students, but also for sophomores, juniors and seniors.

f. ACT Scores and Retention

Along with the high school class rank, UW-S holistic admission criteria include the ACT score. ACT scores presumably indicate the level of academic preparation for college. Data from 2001-2008 first-year cohorts revealed (Table 11), however, that ACT scores do not necessarily help us predict how well first-year students persist into the second year.

The higher the ACT score was, the higher the retention rate was. The team noted, however, that the ACT score did not seem to predict the retention rate of first-year students in the same way as the high school class rank did. While first-year students whose ACT scores were in the 24-35 range (i.e., the national top 25%) were retained at the rate of 75.6%, those whose ACT scores were 12-17 (i.e., the national bottom 25%) were retained at the rate of 66.2%. The 9.4% difference of these rates is much smaller than the 20.2% difference in the retention rates between those from the top 50% of high school class (74.6%) and those from the bottom 50% of the high school class (54.4%). At the same time, it is

important to note that students without ACT scores had a much lower retention rate of 54.3% in comparison with those who submitted ACT scores.

Table 11. 2001-2008 Fall First-Year Cohorts ACT scores and First-to-Second-Year Retention

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall	All students of color
Overall # Retained / # Total [Retention Rate]	15 / 22 [68.2%]	34 / 50 [68.0%]	11 / 11 [100.0%]	12 / 20 [60.0%]	4 / 8 [50.0%]	1419 / 2006 [70.7%]	13 / 20 [65.0%]	1508 / 2137 [70.6%]	76 / 111 [68.5%]
ACT 24-35 # Retained / # Total [Retention Rate]	1 / 1 [100.0%]	7 / 10 [70.0%]	0 / 0 [n/a]	2 / 4 [50.0%]	2 / 3 [66.7%]	327 / 431 [75.9%]	5 / 6 [83.3%]	344 / 455 [75.6%]	12 / 18 [66.7%]
ACT 21-23 # Retained / # Total [Retention Rate]	6 / 6 [100.0%]	16 / 20 [80.0%]	1 / 1 [100.0%]	5 / 7 [71.4%]	1 / 3 [33.3%]	615 / 868 [70.9%]	6 / 10 [60.0%]	650 / 915 [71.0%]	29 / 37 [78.4%]
ACT 17-20 # Retained / # Total [Retention Rate]	4 / 7 [57.1%]	9 / 14 [64.3%]	1 / 1 [100.0%]	2 / 5 [40.0%]	0 / 1 [0.0%]	397 / 571 [69.5%]	2 / 2 [100.0%]	415 / 601 [69.1%]	16 / 28 [57.1%]
ACT 12-16 # Retained / # Total [Retention Rate]	2 / 2 [100.0%]	0 / 2 [0.0%]	6 / 6 [100.0%]	0 / 1 [0.0%]	1 / 1 [100.0%]	40 / 62 [64.5%]	0 / 0 [n/a]	49 / 74 [66.2%]	9 / 12 [75.0%]
No ACT Score # Retained / # Total [Retention Rate]	2 / 6 [33.3%]	2 / 4 [50.0%]	3 / 3 [100.0%]	3 / 3 [0.0%]	0 / 0 [n/a]	40 / 74 [54.1%]	0 / 2 [0.0%]	50 / 92 [54.3%]	10 / 16 [62.5%]

Overall, there is a positive correlation between the ACT score and the retention rate. When disaggregated by race/ethnicity, however, ACT scores simply did not have much power of prediction on first-year students' retention. The positive correlation between ACT scores and retention rates is no longer observed. Generally speaking, students of color with the ACT scores of 24-35 were retained at a lower rate of 66.7% than those with the ACT scores of 21-23, who were retained at a higher rate of 78.4%. Also, students of color with the ACT scores of 12-16 were 75% retained while those with higher ACT scores of 17-20 were retained only at the rate of 57.1%. These patterns were inconsistently observed among African Americans, American Indians, Asian Americans and Hispanic/Latino(a)s. At the same time, Southeast Asian American students were 100% retained regardless of their ACT scores.

These observations seem to confirm that ACT is not the best measure of academic capabilities, particularly among students of color. Cultural biases in this kind of standardized test are well known, also. How much weight should be given to ACT in the process of admission is a concern that should be addressed.

At the same time, the data raises curiosity around the access to the appropriate level of academic support for students of color whose academic needs may be difficult to capture. In particular, those coming in with the ACT scores of 17-20 or no ACT scores are possibly outside the radar because they can fly low for long without being noticed. It is worth investigating these students' challenges and obstacles in their transition into college.

g. GPA at the End of the First Year, Core-Course Taking Patterns, and Retention/Graduation

An obviously critical parameter that affects students' retention and graduation pattern is their academic performance at UW-S. In particular, if a student does not meet the minimum GPA of 2.0 at the end of the first year, the student may not be able to return to campus in the second year.

Table 12 (next page) shows the GPA at the end of the first year for the 2001-2008 fall first-year cohorts, disaggregated by race/ethnicity. One would immediately notice the excellent academic performance of Southeast Asian American students. Despite their variable standing in high school (cf., Table 8), all Southeast Asian American students earned a GPA of 2.0 or better during the first year at UW-S. This is a remarkable achievement and worth investigating. In contrast, other groups of students of color were more likely to earn a lower GPA than white students. While 55.6% of white students earned a

GPA at or above 3.0, only 22.7% of African Americans and 44.0% of American Indians earned such a GPA (see Chart 2). At the same time, 22.7% of African Americans, 15.0% of American Indians, 15% of Asian Americans and 25% of Hispanic/Latino(a)s earned a GPA below 2.0, although only 8.1% of white students earned such a GPA.

Chart 2. Equity Gaps in GPA at the End of the First-Year for the 2001-2008 Fall First-Year Cohorts, for selected race/ethnic groups

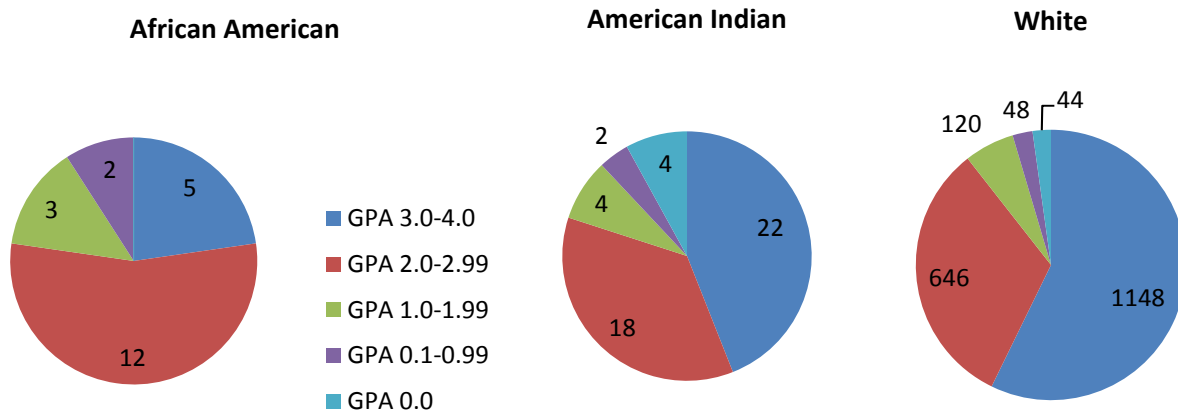


Table 12. First-Year GPA for the 2001-2008 Fall First-Year Cohorts

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Total (share) [% within group]	22 (1.0%) [100.0%]	50 (2.3%) [100.0%]	11 (0.5%) [100.0%]	20 (0.9%) [100.0%]	8 (0.4%) [100.0%]	2006 (93.9%) [100.0%]	20 (0.9%) [100.0%]	2137 (100.0%) [100.0%]
GPA 3.0-4.0 (share) [% within group]	5 (0.4%) [22.7%]	22 (1.8%) [44.0%]	6 (0.5%) [54.5%]	10 (0.8%) [50.0%]	4 (0.3%) [50.0%]	1148 (95.0%) [57.2%]	13 (1.1%) [65.0%]	1208 (100.0%) [56.5%]
GPA 2.0-2.99 (share) [% within group]	12 (1.7%) [54.5%]	18 (2.6%) [36.0%]	5 (0.7%) [45.5%]	5 (0.7%) [25.0%]	0 (0.0%) [0.0%]	646 (93.8%) [32.2%]	3 (0.4%) [15.0%]	689 (100.0%) [32.2%]
GPA 1.0-1.99 (share) [% within group]	3 (2.3%) [13.6%]	4 (3.0%) [8.0%]	0 (0.0%) [0.0%]	2 (1.5%) [10.0%]	3 (2.3%) [37.5%]	120 (90.9%) [6.0%]	1 (0.8%) [5.0%]	132 (100.0%) [6.2%]
GPA 0.1-0.99 (share) [% within group]	2 (3.6%) [9.1%]	2 (3.6%) [4.0%]	0 (0.0%) [0.0%]	1 (1.8%) [5.0%]	0 (0.0%) [0.0%]	48 (87.3%) [2.4%]	2 (3.6%) [10.0%]	55 (100.0%) [2.6%]
GPA 0.0 (share) [% within group]	0 (0.0%) [0.0%]	4 (7.7%) [8.0%]	0 (0.0%) [0.0%]	2 (3.8%) [10.0%]	1 (1.9%) [12.5%]	44 (84.6%) [2.2%]	1 (1.9%) [5.0%]	52 (100.0%) [2.4%]
0.0 < GPA <2.0 (share) [% within group]	5 (2.7%) [22.7%]	8 (4.3%) [16.0%]	0 (0.0%) [0.0%]	3 (1.6%) [15.0%]	3 (1.6%) [37.5%]	168 (89.8%) [8.4%]	3 (1.6%) [15.0%]	187 (100.0%) [8.8%]

Students with 0.0 GPA at the end of the first year are most likely to have left without completing any course work at UW-S. Among them, the share of American Indians (7.7% against 2.3%), Asian Americans (3.8% against 0.9%) and Hispanic/Latino(a)s (1.9% against 0.4%) was respectively higher than that for the overall total, indicating their overrepresentation among those who left with their first year not completed.

One of the ways to understand the patterns of GPA in the first year is to look into the performance in the core courses, which tend to enroll first-year students. At UW-S, core courses consist of two English

composition courses (ENGL 101 and ENGL 102; C- or better grade to meet the requirement); one public speech course (COMM 110); one mathematics or computer science course (selected from nine courses recommended by the placement test); and one course on health and wellness (HHP 102). In the catalog, it was recommended that all these courses be taken early, preferably within the first year, and at the latest by the end of the sophomore year (2008-2010 University of Wisconsin –Superior General Catalog, [http://www.uwsuper.edu/wb/catalog/general/2008-10/academic/degree%20requirements.htm#General Education Requirements](http://www.uwsuper.edu/wb/catalog/general/2008-10/academic/degree%20requirements.htm#General_Education_Requirements)). Except for English courses that require C- or a better grade to meet the requirement, receiving D- would be sufficient to meet the requirement for these courses. To keep the minimum 2.0 GPA to be retained in the second year, however, earning C or a better grade on average is necessary.

Table 13. 2001-2008 First-Year Cohorts: Grades in Core Courses Completed in the First Year

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
# Total	22	50	11	20	8	2006	20	2137
ENGLISH (either ENGL101 or 102 completed in the first year)								
# of Grade C- or above [rate within group]	14 [63.6%]	33 [66.0%]	6 [54.5%]	12 [60.0%]	6 [75.0%]	1602 [79.9%]	15 [75.0%]	1678 [78.5%]
# of Grade D+~D- [rate within group]	1 [4.5%]	1 [2.0%]	0 [0.0%]	0 [0.0%]	0 [0.0%]	20 [1.0%]	1 [5.0%]	23 [0.0%]
# of not passing [rate within group]	1 [4.5%]	3 [6.0%]	0 [0.0%]	0 [0.0%]	0 [0.0%]	71 [3.5%]	2 [10.0%]	77 [0.0%]
# Not Enrolled [rate within group]	6 [27.3%]	13 [26.0%]	5 [45.5%]	8 [40.0%]	2 [25.0%]	313 [15.6%]	2 [10.0%]	349 [0.0%]
COMM 110								
# of Grade C- or above [rate within group]	13 [59.1%]	31 [62.0%]	7 [63.6%]	11 [55.0%]	5 [62.5%]	1503 [74.9%]	13 [65.0%]	1583 [74.1%]
# of Grade D+~D- [rate within group]	1 [4.5%]	1 [2.0%]	1 [9.1%]	0 [0.0%]	0 [0.0%]	34 [1.7%]	0 [0.0%]	37 [1.7%]
# of not passing [rate within group]	3 [13.6%]	2 [4.0%]	0 [0.0%]	3 [15.0%]	0 [0.0%]	70 [3.5%]	0 [0.0%]	78 [3.6%]
# Not Enrolled [rate within group]	5 [22.7%]	16 [32.0%]	3 [27.3%]	6 [30.0%]	3 [37.5%]	399 [19.9%]	7 [35.0%]	439 [20.5%]
Mathematics (one of nine designated courses)								
# of Grade C- or above [rate within group]	5 [22.7%]	11 [22.0%]	2 [18.2%]	4 [20.0%]	2 [25.0%]	672 [33.5%]	6 [30.0%]	702 [32.8%]
# of Grade D+~D- [rate within group]	3 [13.6%]	2 [4.0%]	1 [9.1%]	1 [5.0%]	1 [12.5%]	57 [2.8%]	0 [0.0%]	65 [3.0%]
# of not passing [rate within group]	1 [4.5%]	1 [2.0%]	0 [0.0%]	1 [5.0%]	0 [0.0%]	59 [2.9%]	3 [15.0%]	65 [3.0%]
# Not Enrolled [rate within group]	13 [59.1%]	36 [72.0%]	8 [72.7%]	14 [70.0%]	5 [62.5%]	1218 [60.7%]	11 [55.0%]	1305 [61.1%]
Health Wellness (HHP 102 plus lab)								
# of Grade C- or above [rate within group]	15 [68.2%]	27 [54.0%]	10 [90.9%]	9 [45.0%]	5 [62.5%]	1388 [69.1%]	6 [30.0%]	1460 [68.3%]
# of Grade D+~D- [rate within group]	1 [4.5%]	0 [0.0%]	0 [0.0%]	0 [0.0%]	0 [0.0%]	14 [0.7%]	1 [5.0%]	16 [7.5%]
# of not passing [rate within group]	0 [0.0%]	1 [2.0%]	1 [9.1%]	1 [5.0%]	0 [0.0%]	57 [2.8%]	1 [5.0%]	61 [2.9%]
# Not Enrolled [rate within group]	6 [27.3%]	22 [44.0%]	0 [0.0%]	10 [50.0%]	3 [37.5%]	547 [27.3%]	12 [40.0%]	600 [28.1%]

Table 13 shows the pattern of grades and enrollment in these courses during the first year. If enrolled in the course, a great majority of students apparently earned C- or a better grade in each of these courses. However, the rate of earning a grade C- or better was generally lower for students of color than whites. In most of the cases, this was due to the fact that students of color tended to enroll in cores courses at lower rates than whites. In some subjects, students of color also did not pass the course at higher rates.

For instance, in the case of Math, students of color typically received the grade C- or better at lower rates than whites. The rate that American Indians earned the grade of C- or above in a Math core course was 54.0% while the rate for whites to earn this grade was 69.1%. This was in part due to the fact that 44.0% of American Indians did not enroll in the class, while only 27.3% of whites did not enroll in the course. There may be various reasons for not taking the math course in the first year; in fact, it would be possible that a number of the students were taking remedial math courses (MATH 090, 095) based on their performance in the Wisconsin Mathematics Placement Test. Examining course taking patterns for these courses by race/ethnicity may be useful to get a better grasp of the reality.

Access to the core English courses is also regulated by the level of preparation incoming students demonstrate via ACT or SAT scores or by the Wisconsin English Placement Test. Although the number of students who were not enrolled in the required English courses was much smaller than those for the required Mathematics course, an investigation of course taking patterns for the remedial English courses (ENGL 095) may be wanted for a better understanding of the situation.

The overrepresentation of students of color who did not enroll in COMM 110 and HHP 102 during the first year is a puzzle. These courses do not have any pre-requisite, but the gate to these courses tends to be kept by the timing of enrollment. Generally, if students do not enroll early enough, these courses tend to have no vacancy. A study of the timing (as well as the content) of advisement may provide some insight to students of color not taking these courses in the first year.

Common wisdom tells that the GPA at the end of the first year can predict the retention pattern. This is typically true for UW-S 2001-2008 first-year cohorts (Table 14). Students who ended the first year with a GPA of 2.0 or above were retained at the rate of 77.2% while those whose ending GPA was lower than 2.0 but better than 0.0 were retained at the rate of 22.9%. Not surprisingly, no student with the ending GPA of 0.0 was retained.

Table 14. Second-Year Retention by the First Year GPA for the 2001-2008 Fall First-Year Cohorts

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Overall # Retained / # Total [Retention Rate]	15 / 22 [68.2%]	34 / 50 [68.0%]	11 / 11 [100.0%]	12 / 20 [60.0%]	4 / 8 [50.0%]	1419 / 2006 [70.7%]	13 / 20 [65.0%]	1508 / 2137 [70.6%]
GPA 2.0 or higher # Retained / # Total [Retention Rate]	13 / 17 [76.5%]	33 / 40 [82.5%]	11 / 11 [100.0%]	12 / 15 [80.0%]	3 / 4 [75.0%]	1381 / 1794 [77.0%]	12 / 16 [75.0%]	1465 / 1897 [77.2%]
0 < GPA < 2.0 # Retained / # Total [Retention Rate]	2 / 5 [40.0%]	1 / 6 [16.7%]	0 / 0 [n/a]	0 / 3 [0.0%]	1 / 4 [25.0%]	38 / 168 [22.6%]	1 / 3 [33.3%]	43 / 188 [22.9%]
GPA 0.0 # Retained / # Total [Retention Rate]	0 / 0 [n/a]	0 / 4 [0.0%]	0 / 0 [n/a]	0 / 2 [0.0%]	0 / 1 [0.0%]	0 / 44 [0.0%]	0 / 1 [0.0%]	0 / 52 [0.0%]

When disaggregated by race/ethnicity, however, the pattern of retention by GPA at the end of the first year was slightly different from group to group. As mentioned earlier, Southeast Asian American students were all retained with a GPA at or above 2.0. American Indians and Asian Americans with higher GPA were also retained at a higher rate (82.5% and 80.0% respectively) than other groups,

including white students (77.0%), African Americans (76.5%), and Hispanic/Latino(a)s (75.3%). Among those whose GPA was lower than 2.0 but not 0.0, the retention rate for Asian Americans and American Indians dunked to 0.0% and 16.7% respectively. White students with the lower GPA were also retained at the low rate of 22.6%. In contrast, African American students with the lower GPA were retained at a higher rate of 40.0%.

These data suggest that if equity could be achieved in first-year GPA, then retention into the second year would follow naturally.

Table 15 shows the second-year retention by core course taking patterns. Most apparent patterns include the positive correlation between the lower grade in these courses and the lower rate of second-year retention. Also, those who did not enroll in the core courses had a lower retention rate.

Table 15. 2001-2008 Fall First-Year Cohorts: Second-Year Retention by the Enrollment in Core Courses

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
# Total (share)	22 (1.0%)	50 (2.3%)	11 (0.5%)	20 (0.9%)	8 (0.4%)	2006 (93.9%)	20 (0.9%)	2137 (100.0%)
# Retained	15	34	11	12	4	1419	13	1508
[Retention Rate]	[68.2%]	[68.0%]	[100.0%]	[60.0%]	[50.0%]	[70.7%]	[65.0%]	[70.6%]
ENGLISH								
# of Grade > D+ (share)	14 (0.8%)	33 (2.0%)	6 (0.4%)	12 (0.7%)	6 (0.4%)	1602 (95.0%)	15 (0.9%)	1678 (100.0%)
# Retained	12	28	6	9	4	1231	12	1302
[Retention Rate]	[85.7%]	[68.0%]	[100.0%]	[75.0%]	[66.7%]	[76.8%]	[80.0%]	[77.6%]
# of Grade < C- (share)	2 (2.0%)	4 (4.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	91 (91.0%)	3 (3.0%)	100 (100.0%)
# Retained	0	1	0	0	0	21	1	21
[Retention Rate]	[0.0%]	[25.0%]	[n/a]	[n/a]	[n/a]	[23.1%]	[33.3%]	[21.0%]
# Not Enrolled (share)	6 (1.7%)	13 (3.7%)	5 (1.4%)	8 (2.3%)	2 (0.6%)	313 (89.7%)	2 (0.6%)	349 (100.0%)
# Retained	3	5	5	3	0	169	0	185
[Retention Rate]	[50.0%]	[38.5%]	[100.0%]	[37.5%]	[0.0%]	[54.0%]	[0.0%]	[53.0%]
COMM 110								
# of Grade > D+ (share)	13 (0.8%)	31 (2.0%)	7 (0.4%)	11 (0.7%)	5 (0.3%)	1503 (95.0%)	13 (0.8%)	1583 (100.0%)
# Retained	11	28	7	9	3	1210	11	1279
[Retention Rate]	[84.6%]	[90.3%]	[100.0%]	[81.8%]	[60.0%]	[80.5%]	[84.6%]	[80.8%]
# of Grade < C- (share)	4 (3.5%)	3 (2.6%)	1 (0.1%)	3 (2.6%)	0 (0.0%)	104 (90.4%)	0 (0.0%)	115 (100.0%)
# Retained	1	0	1	0	0	32	0	34
[Retention Rate]	[25.0%]	[0.0%]	[100.0%]	[0.0%]	[n/a]	[30.8%]	[n/a]	[29.6%]
# Not Enrolled (share)	5 (1.1%)	16 (3.6%)	3 (0.7%)	6 (1.4%)	3 (0.7%)	399 (90.1%)	7 (1.6%)	439 (100.0%)
# Retained	3	7	3	3	1	183	2	202
[Retention Rate]	[60.0%]	[43.8%]	[100.0%]	[50.0%]	[33.3%]	[45.9%]	[28.8%]	[46.0%]
# Total (share)	22 (1.0%)	50 (2.3%)	11 (0.5%)	20 (0.9%)	8 (0.4%)	2006 (93.9%)	20 (0.9%)	2137 (100.0%)
# Retained	15	34	11	12	4	1419	13	1508
[Retention Rate]	[68.2%]	[68.0%]	[100.0%]	[60.0%]	[50.0%]	[70.7%]	[65.0%]	[70.6%]

(to be continued to the next page)

Table 15. 2001-2008 Fall First-Year Cohorts: Second-Year Retention by the Enrollment in Core Courses (continued from the previous page)

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Mathematics								
# of Grade > D+ (share)	5 (0.7%)	11 (1.6%)	2 (0.3%)	4 (0.6%)	2 (0.3%)	672 (95.7%)	6 (0.9%)	702 (100.0%)
# Retained [Retention Rate]	4 [80.0%]	8 [72.7%]	2 [100.0%]	3 [75.0%]	1 [50.0%]	549 [81.7%]	3 [50.0%]	570 [81.2%]
# of Grade < C- (share)	4 (3.1%)	3 (2.3%)	1 (0.8%)	2 (1.5%)	1 (0.8%)	116 (89.2%)	3 (2.3%)	130 (100.0%)
# Retained [Retention Rate]	3 [75.0%]	3 [100.0%]	1 [100.0%]	1 [50.0%]	1 [100.0%]	63 [54.3%]	2 [66.6%]	74 [56.9%]
# Not Enrolled (share)	13 (1.0%)	36 (2.8%)	8 (0.6%)	14 (1.1%)	5 (0.4%)	1218 (93.3%)	11 (0.8%)	1305 (100.0%)
# Retained [Retention Rate]	8 [61.5%]	23 [63.9%]	8 [100.0%]	8 [57.1%]	2 [40.0%]	807 [66.3%]	8 [72.7%]	863 [66.2%]
Health Wellness								
# of Grade > D+ (share)	15 (1.0%)	27 (1.8%)	10 (0.7%)	9 (0.6%)	5 (0.3%)	1388 (95.1%)	6 (0.4%)	1460 (100.0%)
# Retained [Retention Rate]	11 [73.3%]	21 [77.8%]	10 [100.0%]	8 [88.9%]	4 [80.0%]	1105 [79.6%]	6 [100.0%]	1165 [79.8%]
# of Grade < C- (share)	1 (1.3%)	1 (1.3%)	1 (1.3%)	1 (1.3%)	0 (0.0%)	71 (92.2%)	2 (2.6%)	77 (100.0%)
# Retained [Retention Rate]	1 [100.0%]	0 [0.0%]	1 [100.0%]	0 [0.0%]	0 [n/a]	17 [23.9%]	2 [100.0%]	21 [27.3%]
# Not Enrolled (share)	6 (1.0%)	22 (3.7%)	0 (0.0%)	10 (1.7%)	3 (0.5%)	547 (91.7%)	12 (2.0%)	600 (100.0%)
# Retained [Retention Rate]	3 [50.0%]	13 [59.1%]	0 [n/a]	4 [40.0%]	0 [0.0%]	297 [54.3%]	5 [41.7%]	322 [53.7%]

One possibly interesting finding was that, even when students earned a grade better than C- in English and Mathematics, not all groups of students returned to campus in the second year at the same rate. This was particularly true for American Indians and Hispanic/Latino(a) students who earned C- or better in English, whose retention rate was 68.0% and 66.7% respectively, about 10% lower than the average for this group (77.6%). American Indians, Asian Americans and Hispanic/Latino(a)s who earned C- or better in Mathematics during the first year also had lower retention rates (72.7%, 75.0% and 50.0%) than the average (81.2%). While these patterns can be due to their transfer opportunities to other 4 year colleges, it is worth investigating the reasons for their lower retention, in comparison with, for example, Southeast Asian Americans whose retention rate was perfect.

The GPA at the end of the first year was also related to the six-year graduation rate (Table 16). Students who ended the first year with a GPA of 2.0 or above graduated at the rate of 47.9% while only 8.3% graduated of those whose ending GPA was lower than 2.0 but better than 0.0. Students with 0.0 GPA at the end of the first year were not retained, and thus did not graduate, either.

Table 16. 2001-2003 Fall First-Year Cohorts: Graduation Rate by the GPA at the End of the First-Year

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Overall
Overall							
# Graduate / # Total [Graduation Rate]	2 / 5 [40.0%]	6 / 23 [16.1%]	4 / 6 [66.7%]	1 / 9 [11.1%]	2 / 3 [66.7%]	325 / 741 [43.9%]	340 / 787 [43.2%]
GPA 2.0 or above							
# Graduate / # Total [Graduation Rate]	1 / 3 [33.3%]	6 / 19 [31.6%]	4 / 6 [66.7%]	1 / 5 [20.0%]	2 / 2 [100.0%]	320 / 662 [48.3%]	334 / 697 [47.9%]
GPA 0.1 – 1.9							
# Graduate / # Total [Graduation Rate]	1 / 2 [50.0%]	0 / 3 [0.0%]	0 / 0 [n/a]	0 / 2 [0.0%]	0 / 1 [0.0%]	5 / 64 [11.1%]	6 / 72 [8.3%]
GPA 0.0							
# Graduate / # Total [Graduation Rate]	0 / 0 [n/a]	0 / 1 [0.0%]	0 / 0 [n/a]	0 / 2 [0.0%]	0 / 0 [n/a]	0 / 15 [0.0%]	0 / 18 [0.0%]

It is troubling enough to realize that less than half (or 47.9%) of those who enrolled at UW-S as first-year students in 2001-2003 and ended the first year with a GPA at or above 2.0 did not complete the degree in six years. Yet, the graduation rate for those with a GPA of 2.0 or above was even lower for Asian Americans (20.0%), American Indians (31.6%) and African Americans (33.3%). At the same time, the graduation rates were higher for Hispanic/Latino(a)s (100.0%) and Southeast Asian Americans (66.7%) with a GPA of 2.0 or above. These observations would be best interpreted in relation to the aforementioned observation of the expanding retention equity gap (Table 2), and with a study of racial/ethnic students' post-first-year experiences.

- **Pell Grants Eligibility and First-Year Cohorts Retention/Graduation**

One of the challenges that students face as they stay on at college is the financial cost of college. One way to assess students' financial difficulty is to examine whether the Pell Grants eligibility affects the retention and graduation patterns. Pell Grants are the federally funded need-based grant program for low-income undergraduate students. Grant amounts are determined by such factors as the student's expected family contribution, the cost of attendance, the student's enrollment status (full-time or part-time), and whether the student attends for a full academic year or less. Students who are eligible for and recipients of Pell Grants hence must come from families with financial need. It is important to note that Pell Grants eligibility is a proxy, but not the most accurate, indicator of students' economic challenges, and thus, no definite conclusion can be drawn from the analysis.

As Table 17 shows, at UW-S in 2001-2008, 29.1% of first-year students were eligible for and recipients of Pell Grants. When disaggregated by race/ethnicity, however, the data revealed that African Americans, American Indians, and Southeast Asians were more likely to receive Pell Grants than whites, Asian Americans and Hispanics/Latino(a)s. While 26.8% of white students received Pell Grants, Pell Grants recipients constituted 77.3% of African Americans, 72.7% of Southeast Asians, and 62.0% of American Indians. Among Asian Americans only 25% of students received Pell Grants, while no Hispanic/Latino(a) student was Pell Grant eligible.

Table 17. 2001-2008 Fall-Entry First-Year Students by Pell Grants Eligibility

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Total Fall 2001-2008 Cohorts	22	50	11	20	8	2006	13	2137
(share in total)	(1.0%)	(2.3%)	(0.5%)	(0.9%)	(0.4%)	(93.9%)	(0.9%)	(100.0%)
Pell Grants Recipients	17	31	8	5	0	553	8	622
(share in total)	(2.7%)	(5.0%)	(1.3%)	(0.8%)	(0.0%)	(88.9%)	(1.3%)	(100.0%)
[% in the group]	[77.3%]	[62.0%]	[72.7%]	[25.0%]	[0.0%]	[27.6%]	[61.5%]	[29.1%]
No Pell Grants	5	19	3	15	8	1453	12	1515
(share in total)	(0.3%)	(1.3%)	(0.2%)	(1.0%)	(0.5%)	(95.9%)	(0.8%)	(100.0%)
[% in the group]	[22.7%]	[38.0%]	[27.3%]	[75.0%]	[100.0%]	[72.4%]	[92.3%]	[70.8%]

Does the Pell Grants eligibility affect the first-to-second-year retention rate among first-year students? Overall the retention rate among the Pell Grants recipients (69.1%) was only 2.0% lower than those who were not eligible for Pell Grants (71.1%). It appears that the impact of Pell Grants eligibility has little, if any, impact on second-year retention.

When disaggregated by race/ethnicity, no obvious impact of Pell Grants eligibility is found. Rather, the relationship between retention and Pell Grants eligibility indicated in the data is at best inconsistent. First, low-income backgrounds appeared to affect the retention rate particularly among Asian Americans (40.0% against 68.6% for all Pell Grants recipients), as well as African Americans (64.7%) and whites (67.8%). However, American Indians and Southeast Asians who were eligible for Pell Grants were better retained, respectively at the rates of 71% and 100%. Second, Pell Grants eligibility

alone cannot explain lower retention rates for such groups as American Indians, Asian Americans, and Hispanic/Latino(a)s. American Indians who were not eligible for Pell Grants were retained at a lower rate (64.7%) than the total Pell Grants non-eligible students (71.7%). The same was true for Asian American students who were not eligible for the Pell Grant and retained at the rate of 66.7%. In the case of Hispanic/Latino(a) students, their retention rate of 50% was lower than average even though none of these students were eligible for Pell Grants.

Table 18. 2001-2008 Fall First-Year Cohorts Pell Grants Eligibility and Second-Year Retention Rate

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Overall # Retained / # Total [Retention Rate]	15 / 22 [68.2%]	34 / 50 [68.0%]	11 / 11 [100.0%]	12 / 20 [60.0%]	4 / 8 [50.0%]	1419 / 2006 [70.7%]	13 / 20 [65.0%]	1508 / 2137 [70.6%]
Pell Grants Recipients # Retained / # Total [Retention Rate]	11 / 17 [64.7%]	22 / 31 [71.0%]	8 / 8 [100.0%]	2 / 5 [40.0%]	0 / 0 [n/a]	380 / 553 [68.7%]	7 / 8 [87.5%]	430 / 622 [69.1%]
No Pell Grants # Retained / # Total [Retention Rate]	4 / 5 [80.0%]	12 / 19 [63.2%]	3 / 3 [100.0%]	10 / 15 [66.7%]	4 / 8 [50.0%]	1039 / 1453 [71.5%]	6 / 12 [50.0%]	1078 / 1515 [71.2%]

Pell Grants eligibility appears to have some impact on the likelihood of graduation. As seen in Table 19, Pell Grants recipients generally completed their degree at a significantly lower rate than others. The overall graduation rate for the Pell Grants recipients was 35.9% while that for those who were not eligible for Pell Grants was 46.6%. This 10.7% gap is significant; if those who received Pell Grants were retained at the same rate as non Pell Grants recipients, 27 more students would complete the degree, raising the graduation rate to 46.6%. Particularly for white students, Pell Grants status appeared strongly related to the graduation rate, as the gap in graduation rate between Pell Grants recipients and non-recipients was as large as 11.5% (36% vs. 47.5%).

Table 19. 2001-2003 Fall First-Year Cohorts Pell Grants Eligibility and Graduation Rate

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Overall	All Students of Color
Total Fall 2001-2003 Cohorts (share in the total)	5 (0.6%)	23 (2.9%)	6 (0.8%)	9 (1.1%)	3 (0.4%)	741 (94.2%)	787 (100%)	46 (5.8%)
# graduated [graduation rate]	2 [40.0%]	6 [26.1%]	4 [66.7%]	1 [11.1%]	2 [66.7%]	325 [43.9%]	340 [43.2%]	15 [32.6%]
Pell Grants Eligible (share in the total)	3 (1.2%)	13 (5.0%)	5 (1.9%)	2 (0.8%)	0 (0.0%)	236 (91.1%)	259 (100%)	23 (8.9%)
# graduated [graduation rate]	1 [33.3%]	3 [23.1%]	3 [60.0%]	1 [50.0%]	0 [n/a]	85 [36.0%]	93 [35.9%]	8 [34.8%]
No Pell Grants (share in the total)	2 (0.4%)	10 (1.9%)	1 (0.2%)	7 (1.3%)	3 (0.6%)	505 (95.6%)	528 (100%)	23 (4.4%)
# graduated [graduation rate]	1 [50.0%]	3 [30.0%]	0 [0.0%]	0 [0.0%]	2 [66.7%]	240 [47.5%]	246 [46.6%]	6 [26.1%]

For students of color, however, the impact of Pell Grants Eligibility on graduation does not follow any particular pattern. Graduation rates for 2001-2003 first-year cohorts were not consistently correlated with the Pell Grant eligibility. Among racial/ethnic minority students, African Americans, American Indians and Southeast Asians were overrepresented among those who received Pell Grants in these cohorts. Their graduation rates were not particularly patterned in any way. Among African Americans, those with the Pell Grants eligibility had a lower graduation rate of 33.3% than those without Pell Grants eligibility (50%). Among American Indians, however, although the Pell Grants recipients had a lower graduation rate of 23.1% than those without the Pell Grants eligibility (30.0%), both of these graduation

rates were way lower than the overall graduation rate of 43.2%. As for Southeast Asian Americans, the graduation rate was 60% among the Pell Grants recipients (60%) while the one student without the Pell Grants eligibility did not complete the degree. Furthermore, for Asian American students, one student who completed the degree was a Pell Grants recipient while 7 out of 8 students who did not complete the degree were not eligible for Pell Grants. Among Hispanic/Latino(a)s, those who did not complete the degree were also not eligible for Pell Grants.

The above findings suggest inconsistent patterns between Pell Grants eligibility and retention and graduation of students of color. It is however premature to conclude that the lower rate of retention and graduation rates for Hispanic/Latino(a)s, Asian Americans, and American Indians without Pell Grants eligibility, is unrelated to their financial status. As mentioned earlier, Pell Grants eligibility is a proxy, but not the most accurate indicator of students' economic situations. While those eligible for Pell Grants are most likely to be from the families with financial need, those not eligible for Pell Grants can also be burdened with major financial need. At the same time, it would be helpful to investigate race/ethnicity-specific factors that may interact with socioeconomic backgrounds and generate different retention and graduation outcomes among the racially and ethnically diverse student body.

- **First-Generation Status and First-to-Second-Year Retention of First-Year Students**

Currently first-generation students are defined as those whose parents have not attained a four-year college degree. The first-generation status has been known to affect the retention and graduation rate, and thus, the team decided to investigate whether the retention and graduation gaps for students of color would be related to this factor. Because the data on this particular category at UW-S became electronically available only after 2006, Table 20 shows the patterns of retention only for the 2006-2008 first-year cohorts.

Table 20. 2006-2008 Fall First-Year Cohorts by First Generation Status

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Total
Total Fall 2006-2008 Cohorts (share in the total) [% within]	10 (1.6%) [100.0%]	16 (2.0%) [100.0%]	4 (0.5%) [100.0%]	2 (0.3%) [100.0%]	3 (0.4%) [100.0%]	751 (94.5%) [100.0%]	9 (1.1%) [100.0%]	795 (100.0%) [100.0%]
# retained [retention rate]	6 [60.0%]	12 [75.0%]	4 [100.0%]	2 [100.0%]	1 [33.3%]	519 [69.1%]	6 [66.7%]	550 [69.2%]
First Generation (share in the total) [% within]	5 (1.3%) [50.0%]	11 (2.9%) [68.8%]	3 (0.8%) [75.0%]	1 (0.3%) [50.0%]	1 (0.3%) [33.3%]	356 (93.0%) [47.4%]	6 (1.6%) [66.7%]	383 (100.0%) [48.8%]
# retained [retention rate]	3 [60.0%]	7 [63.6%]	3 [100.0%]	1 [100.0%]	0 [0.0%]	242 [68.0%]	4 [66.7%]	260 [67.9%]
Not First Gen. (share in the total) [% within]	5 (1.2%) [50.0%]	5 (1.2%) [31.2%]	1 (0.2%) [25.0%]	1 (0.2%) [50.0%]	2 (0.5%) [66.6%]	395 (95.9%) [52.6%]	3 (0.7%) [33.3%]	412 (100.0%) [51.2%]
# retained [retention rate]	3 [60.0%]	5 [100.0%]	1 [100.0%]	1 [100.0%]	1 [50.0%]	277 [70.1%]	2 [66.7%]	290 [70.4%]

Among the total of 795 fall-entry full-time first-year students in 2006-2008, 383 or 49.8% were first-generation students while 412 or 51.2% were not. When disaggregated by race/ethnicity, the rate of being first-generation was lower for whites (47.4%) and Hispanic/Latino(a)s (33.3%) than overall (49.8%), and higher for Southeast Asians (75.0%) and American Indians (68.8%). The team noted the significance of this finding, for it contradicts the perception on campus that the vast majority of UW-S students, particularly students of color, were first-generation. At the same time, the data raised a question as to the ways in which UW-S supports first-generation students' success on campus.

Table 20 also reveals some gaps in the retention rate. The overall data show that the first-generation students were retained at the rate of 67.9%, which was slightly (by 2.5%) lower than those who were not first-generation. White students (68.0% for first-generation, vs. 70.1% for non first-generation) and

American Indians (63.6% for first-generation vs. 100% for first-generation) appear to follow this pattern. For other groups, little gap was observed between first-generation and those who were not.

In sum, our finding defies the assumption that first-generation students would have higher attrition rates. This should not surprise us, for the current definition of first-generation students actually includes students with parents who have attended college and earned the Associate degree. Also, it is possible that the immediate family’s educational background affects students’ third- or fourth- year retention as well as graduation. More data on first-year students’ experiences, and the impact of race/ethnicity on them, would help us gain a clearer understanding of the relationship between the first-generation status and retention/graduation.

- **Residence and Retention of First-Year Students**

UW System policy requires that first-year students and sophomore students live on campus unless they are “veterans, married and/or with legally dependent children, or living with a parent or guardian within 35 miles of campus.” Living on campus is often assumed to have a positive effect on student retention, for the physical proximity should increase the level of student engagement, a key factor in retention.

As reflected in Table 21, the overall retention levels of students living on campus compared to students living off campus are different only by 2%. In addition, students living off-campus were actually better retained (at the rate of 71.8%) than on-campus students (69.8%). This gap may have more to do with the characteristics of students required to live on campus, rather than the on-campus living itself.

Table 21. 2001-2008 Fall First-Year Cohorts Residency and First-to-Second-Year Retention

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic/Latino(a)	White	Unknown	Overall	Students of Color
Total Fall 2001-2008 Cohorts [Retention Rate]	15 / 22 [68.2%]	34 / 50 [68.0%]	11 / 11 [100.0%]	12 / 20 [70.0%]	4 / 8 [50.0%]	1419 / 2006 [70.7%]	13 / 20 [65.0%]	2137 [70.6%]	76 / 111 [68.5%]
On-campus residents # Retained/Total [Retention Rate]	10 / 15 [66.7%]	22 / 34 [64.7%]	5 / 5 [100.0%]	7 / 10 [70.0%]	3 / 5 [60.0%]	866 / 1238 [70.0%]	8 / 8 [61.5%]	921 / 1320 [69.8%]	47 / 69 [68.1%]
Off-campus Commuters # Retained/Total [Retention Rate]	5 / 7 [71.4%]	12 / 16 [75.0%]	6 / 6 [100.0%]	5 / 10 [50.0%]	1 / 3 [33.3%]	553 / 768 [72.0%]	5 / 7 [71.4%]	587 / 817 [71.8%]	29 / 42 [69.0%]

When disaggregated by race/ethnicity, data show some differences of interest. First, the retention rates of Asian Americans living on campus are 20% higher than those for Asian Americans living off campus. Second, the percentage retention of Hispanic/Latino(a) students living on campus is 26% higher than for those living off campus. These patterns are reversed when looking at American Indians, African Americans and whites. American Indians living off campus have a first to second year retention rate 10.3% higher than their on campus peers. More modest differences appear for African Americans and whites. Among African Americans the retention rate is 4.6% higher for students living off campus. White students show only a 2% higher retention rate for those living off campus compared to those living on campus.

Notable differences also exist in the likelihood of various groups living on campus. Overall 61.8% of the first-year students lived on campus, but only 45.5% of Southeast Asian and 50% of the Asian students. For all other groups the percentage of freshmen living on campus ranges from 61.7% for whites to 68.2% for African Americans.

2. Transfer Student Retention and Graduation

As discussed in the Access interim report, UW-S typically enrolls a substantial number of transfer students, and the likelihood that students of color (except for Southeast Asians) enter UW-S as transfers was higher than white students. As stated in the interim Access report, based on the data from 2002-2007, out of 4658 total, first-year students were 2123 while transfer students were 2535. This meant that 54.4% of new enrollment was transfer students and that the ratio of transfer students to first-year students was 1.2 to 1. This finding urged the team to give serious attention to the equity for transfer students.

In the data set used for this report, the ratio of transfer students to first-year students was smaller than what the interim report on access suggested. While the total number of first-year students enrolled in 2001-2008 was 2197, the total number of transfer students enrolled in 2001-2008 was 1645. This means that the ratio of transfers to first-year students was 0.75 to 1. The reason for this discrepancy is the fact that the 2002-2007 cohort data included new students enrolled in all terms (fall, spring and summer) while the 2001-2008 cohort data in the Retention report included only fall entries.

Notwithstanding the data issue above, there is still no question that transfer students have an important presence at UW-S. Furthermore, the transfer population has greater representation of students of color. In the current data set discussed below, the share of whites in the first-year population was 93.1% while that in the transfer population was 91.3%. Analysis of transfer students' retention equity will help us create a better environment for equity, inclusivity and diversity.

a. Overall Patterns of Retention and Graduation

Overall, the second-year retention rate for 2001-2008 cohorts was 72.6% for transfers. Among the 2001-2008 transfer cohorts, the second-year retention rate for white students was 73.3% while that for students of color was 65.1% (Table 22). As a result, the share of students of color in the total student population became lower by the beginning of the second year. For first-year cohorts, this change in share was only 0.2% (5.2% to 5.5%), but for transfers, the decrease was by 1% (7.7% to 6.7%).

That for 2001-2003 transfer cohorts was 58% for white students and 46.7% for students of color (Table 23; next page). This means that, while transfers' graduation rate was higher than first-year entries, the equity gap was as great as 11.3% for both groups. The share of students of color in the total student population also became notably lower by the time of graduation. For transfers, the share of students of color also declined from 5.2% to 4.2%.

Table 22. 2001-2008 Fall Transfer Cohorts Second-Year Retention

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall	All students of color
Total Fall 2001-2008 Cohorts (share in the total)	31 (1.2%)	68 (4.1%)	2 (0.1%)	14 (0.9%)	11 (0.7%)	1502 (91.3%)	17 (1.1%)	1645 (100%)	126 (7.7%)
Retained Fall of Year 2 (share in the total)	17 (1.4%)	42 (3.5%)	1 (0.1%)	11 (0.9%)	11 (0.9%)	1101 (92.1%)	12 (1.0%)	1195 (100%)	82 (6.7%)
[Retention Rate]	[54.8%]	[61.8%]	[50.0%]	[78.6%]	[100.0%]	[73.3%]	[70.6%]	[72.6%]	[65.1%]
Missing Students	6	8	2	0	0	0	0	11	10

Note: "Missing students" is calculated to show how many more students would have been retained if there were no equity gap, i.e., all students of color were retained at the same rate as white students.

b. Retention-to-Graduation Pattern

As in the case of first-year entries, it is important to ask how the second-year retention of transfers leads to the completion of degree. Unlike the first-year cohorts, however, the current data do not allow us to interpret the transfers' persistence to graduation. Transfers enter UW-S with various prior educational backgrounds at various points of their college career.

Table 23. 2001-2003 Fall Transfer Cohorts: Retention to Graduation

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall	All Students of color
Total Fall 2001-2003 Cohorts (share in the total)	11 (1.9%)	13 (2.2%)	1 (0.2%)	2 (0.3%)	3 (0.5%)	548 (94.6%)	1 (0.2%)	579 (100%)	30 (5.2%)
Retained Fall of Year 2 (share in the total)	8 (1.9%)	8 (1.9%)	0 (0.0%)	1 (0.2%)	3 (0.7%)	407 (95.1%)	1 (0.2%)	428 (100%)	20 (4.7%)
[Retention Rate]	[72.7%]	[61.5%]	[0.0%]	[50.0%]	[100.0%]	[74.3%]	[100.0%]	[73.9%]	[66.7%]
Graduated <6 years (share in the total)	6 (1.8%)	5 (1.5%)	0 (0.0%)	0 (0.0%)	3 (0.9%)	318 (96.8%)	0 (0.0%)	332 (100%)	14 (4.2%)
[Graduation Rate]	[54.5%]	[38.5%]	[0.0%]	[0.0%]	[100.0%]	[58.0%]	[0.0%]	[57.3%]	[46.7%]

Compared with First-Year cohorts, transfers were generally retained in the second year at a better rate. The overall retention rate for fall-entry transfers in 2001-2008 was 72.6% (Table 21), which was 4.1% better than the first-year students (cf., Table 1).

However, transfer data show equity gaps by race/ethnicity in second-year retention and graduation. While transfers graduated at a higher rate of 57.3% than first-year entries did (i.e., 43.2%; see Table 2), the overall levels of retention and graduation were different between white students and students of color. 74.3% of white students returned to campus in the second year, while 66.7% of students of color did so. The gap of 6.6% at the second-year retention was widened by the 6-year graduation to 11.3%, for white students' graduation rate was 58.0% while students of color's was 46.7%. This left these cohorts less diverse, with the share of students of color shrunken from 5.2% to 4.2%.

Further disaggregated by race/ethnicity, the retention-to-graduation pattern varied from one group to another. On the one end, all Hispanic/Latino(a) transfers persisted for the second year and successfully completed the degree within six years. On the other hand, American Indian transfers' first-to-second year retention rate was 61.5% (13.2% lower than whites), and their graduation rate was 38.5% (19.5% lower than whites). No Southeast Asian American and Asian American transfers reached graduation. African American transfers did persist for the second year at a slightly lower rate of 72.7% than whites (74.3%), but graduated at the rate of 54.5%, which was 3.5% lower than that for whites (58.0%).

The equity gap observed for the transfers' retention and graduation urges us to investigate the race/ethnicity specific nature of academic, social and other challenges that transfers face at UW-S, and find a way to provide more effective support to them. The team also noted the fact that some racial/ethnic groups of students enter UW-S more likely as transfers than as first-year students (see the Interim Report on Access). A study of transfers' experience at UW-S would not only help improve retention but also increase diversity and inclusivity on our campus.

c. Sex and Graduation

As mentioned earlier, students' retention can be affected by gender-specific factors. In particular, transfers with more social responsibility may find this to be more true than otherwise. As it happens, the majority of 2001-2008 transfers to UW-S were female (55.1%) (Table 24). This gender bias was consistent not only among whites (55.2%) but also among American Indians (61.5% female), Asian Americans (100% female), Hispanic/Latino(a)s (66.7%). This trend was however reversed for African Americans (81.8% males against 18.2% females) and Southeast Asians (0% female).

Table 24. 2001-2003 Fall Transfer Cohorts by Sex

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Total Fall 2001-2003 Cohorts (share in the total)	11 (1.9%)	13 (2.2%)	1 (0.2%)	2 (0.3%)	3 (0.5%)	548 (94.6%)	1 (0.2%)	579 (100%)
Male (share in the total)	9 (3.4%)	5 (1.9%)	1 (0.4%)	0 (0.0%)	1 (0.4%)	244 (93.8%)	0 (0.0%)	260 (100%)
[% within]	[81.8%]	[38.5%]	[100.0%]	[0.0%]	[33.3%]	[44.5%]	[0.0%]	[44.9%]
Female (share in the total)	2 (0.6%)	8 (2.5%)	0 (0.0%)	2 (0.6%)	2 (0.6%)	304 (95.3%)	1 (0.3%)	319 (100%)
[% within]	[18.2%]	[61.5%]	[0.0%]	[100.0%]	[66.7%]	[55.5%]	[100.0%]	[55.1%]

As in the case of first-year cohorts, female transfer students graduated at a higher rate of 60.2% than male students (53.8%)(Table 25). This pattern was however not consistent among individual racial/ethnic groups. First, the sex difference in the graduation rate was particularly great among American Indians. While American Indian females graduated at the rate of 50.0%, American Indian males' graduation rate was only 20.0%. Second, among African Americans, males had a higher graduation rate (55.6%) than females (50%). Third, Hispanic/Latino(a)s had a perfect (100%) graduation rate. Finally, nobody from the Asian Americans and Southeast Asian American groups did graduate as far as this particular set of cohorts was concerned.

Table 25. 2001-2003 Fall Transfer Cohorts Graduation Rates by Sex

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Total Fall 2001-2003 Cohorts	11	13	1	2	3	548	1	579
Graduated <6 years	6	5	0	0	3	318	0	332
[Graduation Rate]	[54.5%]	[38.5%]	[0.0%]	[0.0%]	[100.0%]	[58.0%]	[0.0%]	[57.3%]
Male	9	5	1	0	1	244	0	260
Graduated <6 years	5	1	0	0	1	133	0	140
[Graduation Rate]	[55.6%]	[20.0%]	[0.0%]	[n/a]	[100.0%]	[54.5%]	[n/a]	[53.8%]
Female	2	8	0	2	2	304	1	319
Graduated <6 years	1	4	0	0	2	185	0	192
[Graduation Rate]	[50.0%]	[50.0%]	[n/a]	[0.0%]	[100.0%]	[60.9%]	[0.0%]	[60.2%]

The above findings on the sex difference in the graduation rate among transfer cohorts urges us to investigate whether we assist transition of transfer cohorts with sensitivities to culture and gender specific needs. In particular, the lower graduation rate for male students is something that must be addressed in relation to the review of policies and procedures for advisement, academic support, financial support, mentoring and other student services.

d. Age and Retention

In 2001-2008 transfer students entered UW-S at various ages (Table 26). A little more than a majority (56%) of the total transfer students were at age 20-24, followed by those at age 17-20 (27.8%) and those who were 25 years old or older (16.2%). Those transferring in at age 17-20 would include those who had enrolled in the ACCESS program. Even considering this, it is noteworthy that the typical "non-traditional" student body at age 25 or above is actually a minority, not the majority, among the transfers.

The age composition of transfer students varies, however, by race/ethnicity. In particular, among non-traditional students (age 25 or above), American Indians were overrepresented, with the share of 10.2% (against the 4.1% share in the overall), and so were African Americans (2.3% against 1.9%) and

Asian Americans (1.1% against 0.9%). Among those transferring at age 20-24, African Americans have a greater share of 2.4% than 1.9% in the overall, and so were Hispanic/Latino(a)s (0.8% against 0.7%).

Table 26. 2001-2008 Fall Transfer Cohorts by Age at the Entry to UW-S

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Total Fall 2001-2008 Cohorts (share in the total)	31 (1.9%)	68 (4.1%)	2 (0.1%)	14 (0.9%)	11 (0.7%)	1502 (91.3%)	17 (1.0%)	1645 (100.0%)
[% within]	[100.0%]	[100.0%]	[100.0%]	[100.0%]	[100.0%]	[100.0%]	[100.0%]	[100.0%]
Age 17-20 (share in the total)	3 (0.7%)	15 (3.3%)	1 (0.1%)	6 (1.3%)	3 (0.7%)	426 (93.2%)	3 (0.9%)	457 (100%)
[% within]	[9.7%]	[22.1%]	[50.0%]	[42.9%]	[27.3%]	[28.4%]	[17.6%]	[27.8%]
Age 20-24 (share in the total)	22 (2.4%)	26 (2.8%)	1 (0.1%)	5 (0.5%)	7 (0.8%)	853 (92.5%)	8 (0.9%)	922 (100%)
[% within]	[71.0%]	[38.2%]	[50.0%]	[35.7%]	[63.6%]	[56.8%]	[47.1%]	[56.0%]
Age 25+ (share in the total)	6 (2.3%)	27 (10.2%)	0 (0.0%)	3 (1.1%)	1 (0.4%)	223 (83.8%)	6 (0.2%)	266 (100%)
[% within]	[19.4%]	[39.7%]	[n/a]	[21.4%]	[9.1%]	[14.8%]	[35.3%]	[16.2%]

While non-traditional students were typically considered as “at risk” students, the data shown in Table 27 indicate that the “at risk” population among transfers could be those transferring in as “traditional” students. In fact, the retention rate for those transferring at age 17-20 was lower (66.7%) than that for age 21-24 (74.2%) or age 25 or above (77.4%). Among non-traditional students at age 25 or above, white students’ retention rate was lower (76.7%) than other groups, although this was still much better than the overall retention rate (72.9%). The “at risk” groups among transfers were African Americans and American Indians at age 17-20, along with African Americans and American Indians at age 21-24 (as marked with the green shading).

Table 27. Second-Year Retention of the 2001-2008 Fall Transfer Cohorts Age at the Entry to UW-S

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Overall # Retained / # Total [Retention Rate]	17 / 31 [54.8%]	46 / 68 [67.6%]	1 / 2 [50.0%]	11 / 14 [78.6%]	11 / 11 [100.0%]	1101 / 1502 [73.3%]	12 / 17 [70.6%]	1199 / 1645 [72.9%]
Age 17-20 # Retained / # Total [Retention Rate]	1 / 3 [33.3%]	8 / 15 [53.3%]	1 / 1 [100.0%]	4 / 6 [66.7%]	3 / 3 [100.0%]	286 / 426 [67.1%]	2 / 3 [66.7%]	305 / 457 [66.7%]
Age 21-24 # Retained / # Total [Retention Rate]	11 / 22 [50.0%]	12 / 26 [46.2%]	0 / 1 [0.0%]	4 / 5 [80.0%]	7 / 7 [100.0%]	644 / 853 [75.5%]	6 / 8 [75.5%]	684 / 922 [74.2%]
Age 25+ # Retained / # Total [Retention Rate]	5 / 6 [83.3%]	22 / 27 [81.5%]	0 / 0 [n/a]	3 / 3 [100.0%]	1 / 1 [100.0%]	171 / 223 [76.7%]	4 / 6 [66.7%]	206 / 266 [77.4%]

These findings indicate that, while a number of students of color may come into UW-S as transfers, and they are generally older, the groups that may need more attention were transfers at younger ages as well as white non-traditional transfers. It would be helpful to look at the graduation rate, also, in order to figure out who actually persisted.

e. GPA at the end of the First Academic Year and Retention

As in the case of first-year cohorts, transfers’ GPA at the end of the first year can help us understand the retention pattern. As shown in Table 28, the great majority of transfer students, regardless of their racial/ethnic backgrounds, earned a GPA of 2.0 or above. However, among those whose GPA at the

end of the first year was lower than 2.0 but not 0.0, students of color were overrepresented. While only 9.1% of white transfers earned a GPA in this range, 21.4% of Asian Americans, 19.4% of African Americans and 13.2% of American Indians ended the first year with GPA below 2.0. In contrast, over 90% of Hispanic/Latino(a) students earned a GPA of 2.0 or above.

Table 28. 2001-2008 Fall Transfer Cohorts and GPA at the End of the First-Year

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Total (share) [% within]	31 (1.9%) [100.0%]	68 (4.1%) [100.0%]	2 (0.1%) [100.0%]	14 (0.9%) [100.0%]	11 (0.7%) [100.0%]	1502 (91.3%) [100.0%]	17 (1.0%) [100.0%]	1645 (100.0%) [100.0%]
GPA 2.0 or above (share) [% within]	25 (1.7%) [80.6%]	56 (3.9%) [82.3%]	1 (0.1%) [50.0%]	11 (0.8%) [78.6%]	10 (0.7%) [90.1%]	1320 (91.8%) [87.9%]	15 (1.0%) [88.2%]	1438 (100.0%) [87.4%]
0.0 < GPA <2.0 (share) [% within]	6 (3.8%) [19.4%]	9 (5.7%) [13.2%]	0 (0.0%) [0.0%]	3 (1.9%) [21.4%]	1 (0.6%) [9.1%]	137 (87.3%) [9.1%]	1 (0.6%) [5.6%]	157 (100.0%) [10.9%]
GPA 0.0 (share) [% within]	0 (0.0%) [0.0%]	3 (6.0%) [4.4%]	1 (2.0%) [50.0%]	0 (0.0%) [0.0%]	0 (0.0%) [0.0%]	45 (90.0%) [3.0%]	1 (2.0%) [5.9%]	50 (100.0%) [3.0%]

GPA at the end of the first year and second-year retention rate appear to have positive correlation, although this is by no means consistent across individual racial/ethnic groups. Table 29 shows that, generally speaking, those who ended the first year with the GPA of 2.0 or above were retained at the rate of 79.3% while those with the ending GPA of below 2.0 were retained at the rate of 36.3%. For African Americans, however, the retention rate for those with GPA of 2.0 or above was 56.0%, which was 23.3% lower than the overall retention rate for this GPA group. On the other hand, African American transfers whose GPA was below 2.0 were retained at a higher rate of 40.9%, in comparison with the overall rate for this GPA group of 36.3%. A similar pattern was also observed among American Indians (73.2% for GPA of 2.0 or above; 55.6% for GPA below 2.0). In contrast, all Hispanic/Latino(a) and Asian American transfers achieved a GPA of 1.0 or above, but their retention pattern was somewhat different. Hispanic/Latino(a)s were all retained regardless of GPA while this was not the case for Asian Americans.

Table 29. 2001-2008 Fall Transfer Cohorts: Second-Year Retention by GPA at the End of the First Year

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Overall # Retained / # Total [Retention Rate]	17 / 31 [54.8%]	46 / 68 [67.6%]	1 / 2 [50.0%]	11 / 14 [78.6%]	11 / 11 [100.0%]	1101 / 1502 [73.3%]	12 / 17 [70.6%]	1199 / 1645 [72.9%]
GPA 2.0 or above # Retained / # Total [Retention Rate]	14 / 25 [56.0%]	41 / 56 [73.2%]	1 / 1 [100.0%]	10 / 11 [90.9%]	10 / 10 [100.0%]	1052 / 1320 [79.7%]	12 / 15 [80.0%]	1140 / 1438 [79.3%]
0 < GPA < 2.0 # Retained / # Total [Retention Rate]	9 / 22 [40.9%]	5 / 9 [55.6%]	0 / 0 [n/a]	1 / 3 [33.3%]	1 / 1 [100.0%]	47 / 137 [34.3%]	0 / 1 [0.0%]	57 / 157 [36.3%]
GPA 0.0 # Retained / # Total [Retention Rate]	0 / 0 [n/a]	0 / 3 [0.0%]	0 / 1 [0.0%]	0 / 0 [n/a]	0 / 0 [n/a]	2 / 45 [4.4%]	0 / 1 [0.0%]	2 / 50 [4.0%]

These patterns appear to be carried over to the time of graduation. Transfers who earned a higher GPA at the end of the first semester tended to graduate at a higher rate (Table 30). Those who earned a GPA at or above 2.0 graduated at the rate of 62.9% while students whose GPA at the end of the first

year was below 2.0 graduated at the rate of 15.7%. This pattern persisted even when disaggregated by race/ethnicity. However, it is important to consider that the graduation rate for those with a GPA above 2.0 was lower for some students of color. While Hispanic/Latino(a) transfers whose graduation rate was 100.0% and African Americans with GPA above 2.0 graduated at the rate of 71.4%, which was 7.6% higher than their white counterparts (63.7%), American Indians with a GPA of 2.0 or above had the graduation rate of 58.3%, which was 5.4% lower than their white counterparts.

Table 30. 2001-2003 Fall Transfer Cohorts: Graduation Rate by GPA at the End of the First Year

	African American	American Indian	Southeast Asian Am	Asian American	Hispanic Latino/a	White	Unknown	Overall
Overall # Grad / # Total [Graduation Rate]	6 / 11 [54.5%]	7 / 13 [53.8%]	0 / 1 [0.0%]	0 / 2 [0.0%]	3 / 3 [100.0%]	318 / 548 [58.0%]	0 / 1 [0.0%]	334 / 579 [57.7%]
GPA of 2.0 or above # Grad / # Total [Graduation Rate]	5 / 7 [71.4%]	7 / 12 [58.3%]	0 / 0 [n/a]	0 / 1 [0.0%]	2 / 2 [100.0%]	312 / 490 [63.7%]	0 / 1 [0.0%]	323 / 513 [62.9%]
0 < GPA < 2.0 # Grad / # Total [Graduation Rate]	1 / 2 [50.0%]	0 / 0 [n/a]	0 / 0 [n/a]	0 / 1 [0.0%]	1 / 1 [100.0%]	6 / 47 [12.8%]	0 / 0 [n/a]	8 / 51 [15.7%]
GPA 0.0 # Grad / # Total [Graduation Rate]	0 / 0 [n/a]	0 / 3 [0.0%]	0 / 1 [0.0%]	0 / 0 [n/a]	0 / 0 [n/a]	0 / 11 [0.0%]	0 / 1 [0.0%]	0 / 13 [4.0%]

The team noted that finding out the transfers' entry GPA would help us strategize the assistance to transfers so that they can achieve GPA at or above 2.0. In addition, learning about the challenges they face in engaging with the major curriculum and advisement would bring a better understanding of the barriers to retention equity.

3. Retention at the Course Level

While retention equity is typically discussed in terms of overall persistence, it can also be addressed at the course level. If students of color as a group are more likely to fail in a particular course, the course contributes to the retention equity gap. The course's impact on persistence is even stronger when the course happens to be a required course, either for general education or for a particular major. Once an apparent gap in students' success rate by race/ethnicity is discovered, instructors and programs can apply critical thinking and lead to action for change in pedagogy, course sequences, and other areas related to teaching.

With the above premise in mind, the team decided to look into students' retention patterns in courses that enrolled more than 150 students during the three semesters of Fall 2008, Spring 2009 and Fall 2009. Because of the large enrollment, these courses have a greater influence on students' persistent patterns. Grades less than C- in any of these courses would have proportionally greater impact on overall persistence patterns, and thus, the analysis focuses on this particular aspect. In addition, the patterns of withdraw or incompletes are also examined, for these also affect students' persistence. Distance education courses were omitted from this analysis so as to be consistent with other parts of this report, even though we acknowledge their significant contribution.

Table 31 shows the percentage of students who earned the grade of A, B, or C in the selected 22 courses at UW-S. Unlike other tables, this table used only three categories of race/ethnicity, i.e., whites, students of color and other. This is due to the small cell sizes when data for students of color were disaggregated by specific race/ethnicity categories. The category "other" includes 80% international students. The percentage in [] indicates the rate of ABC grades within the group. Within the course,

the group that had the highest rate of ABC grades is marked in blue, and the group that had the lowest rate of ABC grades is marked in red. Shading marks general education core courses.

Table 31. ABC grade distribution by race/ethnicity in the most enrolled courses in Fall 2008, Spring 2009 and Fall 2009 (All Students at UW-S)

Course	White		SOC		Other	
ACCT200	93	[67%]	7	[88%]	23	[96%]
ANTH101	150	[94%]	7	[78%]	12	[93%]
ART101	214	[88%]	18	[86%]	40	[100%]
BIOL100	245	[79%]	12	[60%]	21	[81%]
BUS211	138	[85%]	7	[78%]	28	[93%]
BUS270	100	[70%]	7	[70%]	30	[97%]
CHEM100	99	[75%]	18	[90%]	15	[94%]
CIS108	119	[78%]	6	[60%]	43	[96%]
COMM110	507	[91%]	49	[86%]	68	[98%]
ECON250	117	[70%]	8	[80%]	23	[89%]
ENGL101	370	[88%]	29	[74%]	82	[100%]
ENGL102	453	[85%]	33	[72%]	56	[93%]
ENGL209	116	[84%]	11	[100%]	25	[92%]
ENGL221	158	[87%]	8	[88%]	10	[100%]
HHP100	265	[99%]	15	[94%]	47	[100%]
HHP102	598	[95%]	50	[89%]	98	[96%]
HHP300	281	[100%]	21	[91%]	33	[97%]
MATH090	205	[79%]	20	[58%]	8	[89%]
MATH095	165	[84%]	13	[65%]	8	[89%]
MATH102	137	[72%]	8	[80%]	12	[85%]
MUSI110	176	[99%]	22	[100%]	8	[100%]
PSYC101	323	[80%]	31	[84%]	30	[84%]

Note: The percentage in [] indicates the rate of ABC grades within the group. Within the course, the group that had the highest rate of ABC grades is marked in blue, and the group that had the lowest rate of ABC grades is marked in red.

Overall, students of color are less likely to achieve ABC grades in comparison with white and other students. As color coding makes it rather clear, in 18 out of 22 courses examined, students of color had the lowest rate of ABC grades. Because of the low number of students of color, these data would improve very quickly if one more student of color earned an ABC grade instead of D, F, Withdraw, Drop or Incomplete, in each course, leading to a positive influence to the overall retention rate. Short of such a change, however, the low performance of students of color as whole would have negative impact on their retention.

In some of the general education gate keeping courses the rate of ABC grades for students of color was notably lower than that for white and other students. In English 101 and 102 courses, over 10% fewer students of color achieved ABC grades than white and other students. In Math 090 and 095, which are remedial courses before students are allowed to take a college-level general education math course, the difference in the ABC grade achievement between students of color and others was close to 20%. In other core courses, the difference was moderate. In HHP102 and COMM110, students of color were respectively 6% and 5% less likely to achieve the ABC grades than white students. Considering the gate keeping function of these core courses, the generally lower performance of students of color is significant in light of considering how to improve retention equity.

The overall pattern of grade distribution is not perfectly consistent across the board. In a few courses, the students' rate of success in achieving ABC grades was fairly even (within a 5% difference) across three groups. These courses include: MUSI110 and PSYC101. In some other courses, "other" students, of which 80% were international students, generally perform better than white students as well as students of color. In fact, in such courses as ART 101, BUS 270, COMM110, ENGL 221 and HHP 110, other students' performance surpassed that of white students and students of color by 10-25 percentage points, while the latter two groups demonstrated similar achievement (within 5% difference). It is also concerning that white students' achievement was notably lower than other groups' in such

courses as ACCT200, CHEM100 and MATH102. It is interesting to examine why these uneven success rates occur in each of these courses.

Summary and Recommendations

This report examined various data that addressed retention equity at UW-S for fall-entry, full-time first-year cohorts as well as transfer cohorts. A number of equity gaps emerged as retention and graduation data were disaggregated by race/ethnicity, along with sex, age and commonly used socioeconomic indicators (Pell Grants eligibility and first-generation status). An analysis of course performance data by race/ethnicity also revealed equity gaps. Some of these findings dispelled a few preconceptions we had about students' retention patterns. Data also pointed out some areas that require further investigation.

Most importantly, evidence allowed us to answer the retention-related questions addressed on p.4 and to make recommendations for the campus. Below the answers are summarized and recommendations are marked in *italics*.

- ***What are the overall patterns of equity/inequity in retention by race/ethnicity?***
 - Overall, students of color were retained at lower rates than whites. This applied to both first-year entries and transfers. This means that by the time of graduation, our student body is less diverse. (For more details, see sections 1-a and 2-a.) The campus must address strategies for the betterment of their retention (along with the retention for all).
 - While students of color who entered as first-year students were retained at similar rates as whites during the first three years, their retention rates became worse than that for whites between the third and fourth year (section 1-b.)
 - ***. Investigate the post-first-year experience of the students of color. This study will help identify the retention barriers in curricular and co-curricular programs that students of color face after the first year.***
 - Retention patterns vary among and within individual racial/ethnic groups of students, including African Americans, American Indians, Southeast Asian Americans, Asian Americans, Hispanic/Latino(a)s, and white students. One must distinguish between students who enter UW-S as first-year students and those who transferred into UW-S. Among first-year cohorts, Asian Americans and Hispanic/Latino(a)s were retained at particularly lower rates than whites (sections 1-a and 1-b). As for transfer cohorts, however, American Indians and Southeast Asians were retained at noticeably lower rates than whites (section 2-a). This means that affiliation to a particular race/ethnicity has distinctive impact on their experience prior to and at UW-S.
 - *Any strategy for the improvement of retention equity must recognize that significant differences exist among groups of students of color.*
- ***What difference do sex and age of students make to retention?***
 - Typically, females among first-year cohorts were better retained. However, among students of color, first-year entry female students were less well retained than first-year entry male students (section 1-c). This was however not the case among transfers, where the retention seems to be particularly problematic among American Indian males (section 2-b).
 - Age at the entry to UW-S has some impact on retention. Overall, first-year entries at the traditional age of 17-20 and transfers at the age of 21-24 were better retained than others (sections 1-d and 2-c). Among students of color, however, first-year entries at age 21-24 and transfers at age 25 or above were better retained, while first-year entries at age 17-20 or transfers at age 21-24 were retained at lower rates than whites.
 - *The team recommends that curricular and co-curricular programs should be reviewed for content, pedagogy and outreach, and adjusted to be inclusive to both first-year entries and transfers. In addition, age and gender specific needs that each racial/ethnic group brings to campus must be identified and addressed through curricular and co-curricular programs.*
- ***What difference does the first-generation status or Pell Grants eligibility make to retention?***

- As a reason for non-retention, socioeconomic backgrounds of UW-S students were often mentioned. Evidence however does not support this hypothesis (sections 1-h and 1-i). While 29% of first-year cohorts in 2001-2008 were Pell Grants eligible and 49% of them were first-generation, these socioeconomic backgrounds hardly affected retention and graduation. The rate of being first generation or Pell Grants eligible was higher among African American, American Indians and Southeast Asian Americans, but no pattern of retention was detected.
- These findings do not refute the hypothesis that students' struggle over economic realities affect retention. We must study students' needs beyond their socioeconomic backgrounds to have a better understanding of the impact of financial difficulties to their achievement gaps. At the same time, more resources can be invested into the investigation and action on students' achievement gaps related to their gender, age, and GPA at the end of the first year (see the next point), which are all demonstrated by evidence.
- **What difference do high school rank and ACT scores make to retention?**
 - For fall-semester first-year entry students of color, neither the high school class rank nor the ACT score would predict their retention at UW-S (sections 1-e and 1-f). In some cases (such as Southeast Asian Americans) students who entered UW-S with relatively low school class rank and/or ACT score, were successfully retained at UW-S, while in other cases (such as Asian Americans) students coming from the top quarter of the high school class were not as well retained as whites.
 - *Based on this finding, the team recommends a reconsideration of the weight put on the high school rank and ACT scores, in comparison with other holistic admission criteria.*
- **What difference does GPA at the end of the first year make to retention?**
 - GPA at the end of the first year was positively correlated to retention for all students (sections 1-g and 2-e). This means their potential cannot be predetermined by high school rank or ACT scores, but rather by our institutional environment for their learning, particularly in their first year.
 - *The team recommends a study of academic challenges that new students face in the process of transitioning into UW-S. This study would provide necessary knowledge to improve our method of outreach to first-year students, particularly those from racial/ethnic minority groups, and help them persist into the second year.*
- **What difference does living on campus make to first-year entries' second-year retention?**
 - Living on campus is often assumed to have a positive effect on student retention. Evidence did not support this theory, either (section 1-j). However, Asian Americans and Hispanic/Latino(a)s living on campus appeared to be better retained, while other groups had reverse results.
 - *To understand these findings, a study on the inclusivity of residential arrangements and co-curricular programs is recommended.*
- **What courses may contribute to the patterns of retention?**
 - An analysis of students' course-level performance indicates that, in comparison with white and other students, students of color were not equally successful in achieving ABC grades (section 3). In particular, their performance is substantially lower in general education core courses on writing (ENGL 101/102), remedial Math courses that precede Math core courses (MATH 090 and 095), and other general education courses. At the same time, "other" students, of which 80% are international students, often performed better than students of color as well as white students. This should not surprise us given the pre-selected nature of the international student body.
 - *We must make strategic efforts to improve retention equity for students of color at UW-S, by further promoting both an inclusive learning environment and diversity-sensitive support systems.*

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