

An Examination of Supplemental Instruction (SI) Within the Context of Diversity, Equity, Inclusion, and Belonging (DEIB): The Principles of Financial Accounting Course

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This research presents empirical findings associated with the delivery of peer-supported supplemental instruction in the undergraduate principles of financial accounting course. Attention is directed at the differential effects for treatments between and within diversity, equity, inclusion, and belonging (DEIB) groupings through empirical assessments for all students and specific subsets that represent targets of a statewide initiative. Demographic groups were formed and assessed by students of color, international students, underrepresented status, and first-generation students. Results reveal positive impacts for students as a whole as well as DEIB groups. This investigation provides evidence and a solid framework for ongoing efforts to eliminate educational gaps.

Keywords: supplemental instruction, DEIB, financial accounting, educational gaps

INTRODUCTION

Academic support programs, referred to as supplemental instruction (SI), exist in characteristically challenging undergraduate foundational courses within a discipline (Jones & Fields, 2001). The primary focus of SI has traditionally been towards undergraduate courses, although it is documented that some graduate students have been provided SI support (SI Staff from UMKC, 2005). The creation and establishment of SI is traced to University of Missouri-Kansas City (UMKC) in 1975 with the motivation to teach students the basics of learning, regardless of the course (SI Staff from UMKC, 2005 & 2010). The foundational principles embedded within UMKC's SI are propagated in a twofold process. First, SI seeks to educate students in the principles of how to learn. Second, these fundamental learning concepts are connected within and specific to each designated course (SI Staff from UMKC, 2005).

SI focuses its formalized efforts on peer-leaders that are embedded in designated classes (Jones & Fields, 2001). These student leaders, who have previously successfully mastered the course content, attend the professor's weekly class lectures, alongside registered students. Holding weekly sessions outside of class time, the SI peer-leaders plan and facilitate one-or-two weekly group instruction sessions based on explicit class content under the broad guidance of SI professors and learning experts (Jones & Fields, 2001). The SI sessions review and reinforce class topics using team-focused learning methods. In addition, SI

leaders also hold weekly office hours to support individual student questions (SI Staff from UMKC, 2005 & 2010).

The portfolio of SI services is unquestionably a valuable resource to instructors and students in the principles of financial accounting course, as it is historically and widely recognized within academe that this course has a high non-success rate. Traditionally, this class has provided a barrier to students seeking to major in Colleges and Schools of Business, commonly experiencing drop rates over 25 percent across universities and colleges. As such, it has been the target of many reform efforts over the years, including efforts by the American Accounting Association (AAA) and the American Institute of Certified Public Accountants (AICPA). Suffice to say, this important and critical topic has frequently captured the attention of instructors, teachers, professors, textbook authors, and other interested parties who seek to better the educational environment in a manner that serves to create and maintain the accountancy profession. SI can be of benefit to all the varying parties and certainly has the potential to significantly benefit any identified disadvantaged or otherwise challenged groups.

In 1986, the AAA published what has come to be known as The Bedford Report, named for the Chairman Norton Bedford. This report asserted that the pedagogy of the first accounting course had not sufficiently progressed over the years to satisfy the ever-evolving requirements and needs surrounding the modern business world. Suggestions were made to shift undergraduate instruction to encourage active student learning, rather than traditional instructor lectures combined with example problems. Rather than simply depending on a traditional textbook structure, the committee encouraged the academy to reassess and adjust course content and pedagogical methods to better meet student needs throughout the semester within a framework that recognized the broad collection of students across many majors that commonly are required to complete this course and their differing educational needs.

In 1989, the AAA and AICPA jointly created the Accounting Education Change Commission (AECC). This committee was immediately distinctive in its approach and charge as its motivation was adapting accounting education to the future needs of the discipline and the profession. The central objective of this committee was to formally recognize accounting education challenges and suggest modifying changes with the intention of improved student readiness (AECC, 1990). The three-pronged approach for change included: reduced curriculum content, enhanced pedagogy methods, and faculty training. The redesign suggestions were intentionally formulated to assist in the development of students for public accounting careers. Commitment to these reforms from firms was evident by their \$4 million initiative (AAA Establishes AECC, 1989). More recently, the Pathways Commission was established by these two interested parties with a similar charge directed at the continuous redesign of accounting education in order to best meet the needs of an ever-evolving accounting education environment and the profession.

MINNESOTA STATE UNIVERSITY, MANKATO (MNSU) UNIVERSITY-WIDE SUPPLEMENTAL INSTRUCTION (SI) EFFORTS

MavPASS is MNSU's SI program. It is a student-centered program, supporting historically difficult courses across numerous disciplines (Equity 2030, 2020). This university-wide initiative, founded in fall semester 2019, provides extra academic support to increase student success for classes that have traditionally evidenced a high failure rate. (Jacobi, 2023). The specific courses are identified as those with a minimum of, "25% of students that receive a D, F or end up withdrawing¹" (MNSU, 2022). Subject to normal funding contrasts, not all potential targets can be serviced, however the program has expanded over time and now serves a comprehensive era of undergraduate courses including, for example, financial accounting², biology, math, and physics.

A free and confidential program, MavPASS has the overriding goal of eliminating the educational equity gap³ that the Chancellor has articulated as a system wide (Equity 2030, 2020). The sessions provide space for students to engage with course content providers outside of classroom lectures. During the sessions, students are educated on effective learning strategies and study habits while participating in active learning activities applicable to their course. Course topics are presented using creative and engaging techniques. This additional study time allows students to engage with the material and learn at a deeper

level (Jacobi, 2023). Combined, these strategies seek to improve class performance. Historical results across multiple disciplines show students with regular MavPASS attendance customarily earn one letter grade higher than their peers that do not participate in SI (Equity 2030, 2020).

Each discipline's faculty identify MavPASS Leaders. They represent previously successful students, hired, trained, and compensated for attending class and delivering two weekly SI sessions in conjunction with weekly office hours (Minnesota State University, Mankato, 2023). Within the financial accounting course, one leader is embedded with each accounting instructor for all of their respective classes for a given semester regardless of course delivery modality. This creates a team-teaching environment with both parties working closely towards a common goal. These student leaders attend each in-person, on-campus class throughout the semester and participate as needed and requested by the professor/instructor. The MavPASS sessions, based on the current classroom topics, are designed and conducted by the leader, under the guidance of SI faculty who are experts in learning pedagogy and techniques. Prior to each examination, leaders held a two-hour exam review session. Examinations generally account for a significant portion of a course's grade (in excess of 50%), so this final step is considered of great importance in improving course outcomes.

An unpredicted and unexpected, but clearly welcome by-product of MavPASS sessions is that of building a community of learners, which ultimately generates a sense of belonging among the students (Brandt, 2021; MSU Reporter, 2023). Anecdotal evidence indicates that students continue to work together as they approach future classes. Group work within the SI sessions facilitates this ongoing collaboration, building a framework that supports feeling welcome and included within the learning community. This outcome is certainly important and positive for all students, but most so for underrepresented and first-generation students experiencing the uniqueness of a university.

The MNSU MavPASS program has established goals meant to encourage student success. It was initially launched as additional outside-of-class support for courses outside the College of Business with high DFW rates and/or opportunity gaps. An opportunity gap is "marked differences in performance between SOC⁴ and white students" (Brandt, 2021). Additionally, another goal of the program is to have a reduction of student withdrawals across the institution (Gabbert, 2020). The principles of financial accounting course was added to the portfolio of MavPASS classes with the 2019 fall semester and has remained a participant since that time expanding to encompass all sections offered each term.

LITERATURE REVIEW

The effectiveness of SI has been reported in several articles where varying degrees of success have been reported. Etter, Burmeister, & Elder (2000) provide an analysis of financial and managerial accounting courses across 21 institutions finding that the implementation of SI exhibited higher grades with lower failing grades and course withdrawals. The final course grades of students who attended SI sessions were 1/3 grade higher than students who did not participate in SI. They recognized that most institutions in their sample only offered SI for financial accounting, and not managerial accounting. This limitation is understandable as the first accounting course is the traditional and well-recognized gateway that often presents a significant barrier for students.

Ning & Downing (2010) report that business students in Hong Kong experienced higher course accomplishments with utilization of SI processes. Investigation of the detailed relationship between SI attendance and final course performance revealed that individual student motivation was the most robust predictor of academic performance.

A systemic review of prior research into SI studies and evaluations is offered in Dawson, van de Meer, and Cowley (2014). They identify 29 studies between 2001 and 2010 that address SI treatments across diverse courses. Through a synthesis of these works, and despite various research methodologies and definitions for the treatments, they were able to conclude that the, "findings of the review are consistent with claims validated by the U.S. Department of Education in the 1990s that participation in SI is correlated with higher mean grades, lower failure and withdrawal rates, and higher retention and graduation rates" (p. 609).

Skoglund, Wall, and Kiene (2018) assessed SI participation for college freshmen and its impact on retention. Using quantitative procedures, they found that freshman students possessing high GPAs were more likely to be retained regardless of SI attendance. Concurrently, students with lower GPAs were more likely to be retained compared to their cohort if they participated in SI services. Their conclusion is that SI sessions are important to retention efforts especially those directed at, “at-risk students with lower college entrance credentials” (p. 115).

The intersection between disadvantaged students and SI participation rates was studied in Yue et.al. (2018). Disadvantaged students included underrepresented minority status, first-generation students, and several other subgroupings. They found that all students benefited from participation in SI services with the more disadvantaged students exhibiting increased gains when contrasted with less disadvantaged participants based on number of sessions attended. In other words, the performance and equity gaps are closed for disadvantaged students through increased participation rates.

Buchanan, Valentine, and Frizell (2018) considered the seminal SI program developed at UMKC. According to the authors, this program has been successfully replicated across other higher education institutions and has exhibited definitive outcomes concerning addressing high-risk courses. For their study, focus was placed on attendance, the influence of participation on final course grades, and graduation rates of participants within the context of several underserved groups of students. Positive correlational evidence is presented across each of their three research questions. Of particular note, they consider non-traditional student groups in their analysis and note the part that technology may play in enhancing SI instructional methods. There can be little doubt that the recent Covid-19 pandemic, which forever altered the landscape of higher education, has led to the development and advancement of technology in both course and SI delivery methods.

An SI program at a small southeastern Texas college was assessed utilizing data from the 2017 and 2018 fall semesters by Armentor (2019). The study focus was on performance and persistence relative to “at-risk” students who attended SI sessions provided for gatekeeper courses versus those who did not attend any sessions. The findings were inconsistent with most current studies, revealing no statistically different outcomes for these two groups concerning either performance or persistence. Conflicting results highlight the need for additional quantitative research on this subject as contradictory results are always of concern and interest.

It was proposed in and ultimately passed through both houses of Congress that the field of accounting studies be designated as a STEM track of learning for secondary and higher education (Foumberg, Juneja, Rocher, & Co., 2022). Much of this attention has to do with a perceived and arguably real deficiencies in financial literacy for our children and rising adults. Anfusco (2022) specifically addresses introductory STEM courses, paying particular attention to the role of prior academic experiences relative to outcomes, as indicated by high school grade point average. They conclude that data is developed for a robust consideration of academic performance across five semesters. The findings support an assertion that frequent attendance at SI services positively impacts final course performance with an increase in A/B attainment and a decrease in DFW outcomes. Students identifying as Black/African American witnessed the greatest improvements. Further, students with similar prior academic experiences benefited equally regardless of race/ethnicity.

Jacobi (2023) provides an exhaustive and informative overview of the MavPASS SI initiative at MNSU in conjunction with some initial evidence on the program’s efficacy across all courses including such services. Examining the same institutional setting as the current study, she provides evidence that this unique portfolio of SI tools facilitates academic success across different student categories. Interestingly, MNSU’s international students exhibited a high level of success, compared to students of color (SOC) and white students, despite the stressful circumstances surrounding their learning environment during the Covid-19 pandemic, when MavPASS was operative. The author explains this by the high academic and social support the University’s International Center provides. The current research effort seeks to expand upon her work directing attention towards a specific course offering SI support services.

DIVERSITY, EQUITY, INCLUSION, AND BELONGING (DEIB)

DEIB concepts and initiatives have a long history in business environments, including higher education. However, advancements and enhancements in this critical arena require continued employee education and training as well as critical evaluations to support positive outcomes and confirm progress towards eliminating barriers. To ensure opportunities and progress for underrepresented groups, normative and empirical assessments of intervention strategies are required. Specifically, for higher education initiatives directed at addressing overall learning and the core DEIB issues, this means empirical studies of hypothesized outcomes, a primary goal and objective of this study.

Booker, Cook, & Wu (2023) report that including DEIB constructs within accounting pedagogy expands learners' cognizance and mindsets. The instructional tools of a required symposium and reflective writing assignments demonstrated that students experienced increased DEIB knowledge and attitudes. These results showed an intensification with the concept of systematic racism. To be an effective institutional initiative, DEIB needs to be integrated into and across the curriculum. This allows students to feel safe learning and sharing their unique perspectives with others.

The concepts and ideas surrounding DEIB can be traced to the Civil Rights Movement in the United States during the 1960, which focused on racial diversity. Expanding from these humble beginnings, contemporary initiatives now include a broader group of actors concentrating on personal characteristics such as gender, sex, sexual orientation, age, ethnicity, ability, socio-economic status, and other categories (Beavers, 2018). Recently, there has been a further evolution and extension of the concept incorporating the term Belonging. This transformation in language seeks to provide a pathway for all individuals, regardless of the presence or absence of any identified personal attribute, to be welcomed into the universe of DEIB initiatives, in a manner cohesive with the pronouncements of professional organizations (AAA, 2021; AAA, 2022). The addition of Belonging raises all people to a position of value within the DEIB community, thereby welcoming a broader range of ideas and personal efforts into the conversation. A greater diversity of backgrounds and a wider universe of thoughts will ultimately lead to more robust outcomes and broader societal acceptance. This simple terminology alteration confirms that DEIB work, to date, is and has been dynamic while supporting the expectation that the ideas articulated here will continue to evolve and progress across time. For these initiatives to ultimately be successful in attaining their stated goals and objectives, they must be well-positioned to be accepted by a broad base of constituents. Basing this important shared work on a concept of inclusiveness for all to belong will greatly assist in building a platform upon which success can be attained to support long-lasting and enduring changes within the framework of society.

Belonging, a relatively new addition to the DEIB framework, originated in San Francisco during the George Floyd rallies. It simply states that everyone, regardless of any individual personal or demographic attribute that may distinguish them from others, is a part of the whole, and a welcome addition to society. Such an expansion of the framework brings more parties into the conversation, supporting enhanced interest and broader acceptance of resulting changes.

Within higher education it is widely known, understood, and deemed imperative to recognize that instructors and students are unique and different. All parties must respect and value each other's differences and understand these distinctions' seminal role in the knowledge transfer process. An overt recognition of diversity strengthens the student body, faculty, and the whole institution. As educators, we are called on to provide a variety of learning environments and methods as students acquire knowledge in diverse ways while concurrently arriving at their current position in life carrying differing backgrounds and expectations. They need different support mechanisms to assist with the creation of an equal learning opportunity. Offering a comprehensive support network, such as SI initiative, including fair access to resources and opportunities, facilitates and stimulates student equity perception and reality. Equality levels the 'playing field' assisting in making all members of the learning community valued and necessary participants.

ACCOUNTING EDUCATION AND THE ACCOUNTANCY PROFESSION – A HEIGHTENED FOCUS ON DEIB

The AAA is the premier organization for an expansive set of accounting stakeholders including professional educators and the major firms involved in the public accounting profession. Its membership is firmly committed to improving accounting education (AECC) and ongoing DEIB endeavors. While the accounting profession, largely represented through the AICPA, has a long recognized structural inequity and oppression barriers, the AAA is a relatively new convert to DEIB ideas. The AAA board has worked rigorously to establish initiatives and objectives targeted at supporting stakeholders with a DEIB Task Force being established in 2020 and the first Chief Diversity Officer hired in spring 2022 (AAA, 2021). Relevant, timely, and continuous support is provided through certification, webinars, resources, and the sharing of research findings (AAA, 2022). This stratified approach supports the advancement of DEIB objectives, while concurrently serving to continue the discussions and support a vibrant discussion on these important matters throughout the member community. The first and foremost goal is to create a knowledge repository that can be utilized in educating current classroom leaders who will integrate this knowledge into classroom lessons.

The accounting profession had a long history of male membership to the exclusion of females. The recognition of barriers to athletic participation (Title IX) and the paucity of females pursuing the undergraduate accounting major in the 1970s and 1980s dramatically increased female college and career opportunities. At that time, women became a focus to the accounting academy and profession both from an education standpoint and from a career progression view. Females began to select the accounting undergraduate major at an ever-increasing rate. In the 1977-78 academic year, women comprised only 28 percent of the pool of undergraduate accounting students (Buckless, Lipe, and Ravenscroft 1991). Thirteen years later, women and men were equally represented in the universe of accounting graduates and, even more significantly, females comprised most new hires (Daidone and Young 1992). Using this lens, it was immensely clear that whatever had been restricting females from entry into this arena of studies was dissipating and there was no compelling evidence to suggest a return to the male dominated position of the past. Through active intervention and substantive efforts directed at addressing gender diversity in accounting, the academy and the accounting profession can now claim a success. As of June 2023, women now comprise 62 percent of accounting professionals, and are increasingly attaining senior leadership roles, with 38 percent of partner roles held by female professionals (O'Bannon 2023). Yet, if current pedagogical and environmental issues impact female performance in the classroom, they must be identified, targeted, and resolved to ensure continued success. For this reason, gender is included amongst the DEIB groupings of interest for this study.

The commitment by the AAA and the AICPA advocates for DEIB responsibility on both fronts - within educational institutions as well as inside the accounting industry, most specifically the public accountancy profession. The AAA means of accomplishing these goals includes adjusting their framework to have DEIB integrated into all aspects of their work to reach all informed, interested, and impacted parties.

RESEARCH DESIGN AND METHODOLOGY

This paper utilizes a quasi-experimental research design to assess and evaluate the MNSU peer supported MavPASS SI initiative targeting performance impacts, if any, associated with intervening in the delivery of the principles of financial accounting course (ACCT200). The SI program is free to all students, and those interested in accessing these services can self-select into the treatment group. All accounting instructors, professors, and adjunct faculty members at the principles of financial accounting level are active in the SI program and strongly advocate for it with some offering limited bonus points to their students depending upon the number of visits completed during the semester. These points are generally considered immaterial in amount and are not believed to significantly impact final course grade; the bonus points are an incentive to encourage student attendance. The program has been offered over eight fall and spring semesters; the SI support services are not funded, and therefore unavailable, during summer terms. Services

are accessible to all students both in person and through Zoom sessions regardless of their enrolled course delivery modality.

The paper proceeds as follows. First, data collection procedures and summary statistics are offered for the complete dataset and the MavPASS timeframes. Second, an analysis is conducted on the relationship between MavPASS attendance and ACCT200 course grades obtained for all observations contained in the semesters for which MavPASS treatment was available. This is followed by a similar assessment with respect to the five DEIB groupings of interest for this study. Third, the findings are assessed with regard to the stated goals and objectives of the MavPASS SI program and their intersection with the Equity 2030 initiative primary goal. Finally, suggestions, limitations, and future research are offered in closing the paper.

DATA COLLECTION PROCEDURES AND THE RESEARCH SAMPLE

Data for this study was collected in October 2023 from MNSU Institutional Research records for students enrolled in the principles of financial accounting course (ACCT200) during the fall semester 2012 to spring semester 2023 (11 academic years) timeframe. Students were not restricted to College of Business enrollees as the class is required for numerous other majors outside this specific domain and may also be completed as a general education requirement. Relevant data collected included such items as course grade, repeat status, MNSU cumulative GPA, high school GPA, high school class rank, ACT scores, gender identification, ethnicity, first-generation student status, and a simple mathematical count of attendance at MavPASS SI sessions during the term of the targeted course. The institutional review board (IRB) approved the data collection protocol. A total of 8,461 cases were provided, including student retake attempts. Retakes are considered as a new observation for each attempt at the course with students being restricted at the university level to three enrollment attempts.

Table 1A1 offers summary statistics by academic year for the 8,461 cases obtained. The observations are divided into a pre-MavPASS (5,106 observations) and MavPASS (3,355 observations) dichotomy. Data was unavailable for all observations for all academic achievement attributes presented in the table (see counts). For the Pre-MavPASS period, the average course GPA was 2.48, while during the MavPASS period it was 2.95. Cumulative MNSU GPA and High School GPA appear relatively stable across the pre-MavPASS timeframe with some evidence of an increase for both attributes during the MavPASS period. High school rank and ACT were all comparatively constant across both timeframes. The data suggests that students were comparable in general academic ability throughout the data collection period.

TABLE 1A1
DESCRIPTIVES: MEASURES OF ACADEMIC PERFORMANCE (COMPLETE DATASET)

Academic Year	ACCT200 Course Grades Mean	MNSU Cumulative GPA Mean	High School Cumulative GPA Mean	High School Class Rank Mean	ACT Mean
2012-13	2.35	2.95	3.19	58.72	22
2013-14	2.73	3.01	3.23	59.34	22
2014-15	2.28	2.96	3.19	57.76	22
2015-16	2.52	2.97	3.18	55.05	22
2016-17	2.35	2.93	3.14	55.12	22
2017-18	2.53	2.99	3.23	56.74	22
2018-19	2.63	2.99	3.24	56.69	22
2019-20	2.84	3.05	3.27	55.81	22
2020-21	2.90	3.08	3.29	55.70	21
2021-22	2.84	3.11	3.34	56.19	21
2022-23	2.85	3.10	3.35	58.09	21
Average	2.63	3.01	3.24	56.77	21.78

Academic Year	ACCT200 Course Grades Mean	MNSU Cumulative GPA Mean	High School Cumulative GPA Mean	High School Class Rank Mean	ACT Mean
Count	7537	8429	7260	5593	6781
Missing	924	32	1201	2868	1680

**TABLE 1A2
CORRELATIONS: ACCT200 COURSE GRADE BY ACADEMIC PERFORMANCE
(COMPLETE DATASET)**

		MNSU Cumulative GPA	High School Cumulative GPA	High School Class Rank	Composite ACT
ACCT200 Course Grade	Pearson Correlation	.680**	.354**	.310**	.206**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	N	7512	6457	4987	6050

** Correlation is significant at the 0.01 level (2-tailed)

Demographics surrounding the five DEIB groupings of interest for this study are proffered in Table 1B1. Self-identified females constitute 33.55% of the sample (n = 2,839), students of color report 14.86% of the observations (n=1,257), international students are represented in 8.18% of the sample (n=692), the attribute first generation is present for 36.71% of the sample (n=3,106) and under-represented is reported for 34.24% (n=2,897). As can be expected, a student may be present in more than one of the DEIB groupings.

**TABLE 1B1
DESCRIPTIVES: DEIB DEMOGRAPHICS (COMPLETE DATASET)**

	Self-Identified Females	Students of Color	International Students	First Generation Students (Federal)	Underrepresented Students
2012-13	32.12%	11.23%	5.38%	41.93%	34.97%
2013-14	34.07%	10.94%	6.81%	40.41%	33.60%
2014-15	31.53%	14.01%	7.30%	41.90%	39.56%
2015-16	28.97%	12.95%	10.17%	42.06%	36.21%
2016-17	31.55%	14.32%	7.89%	39.44%	33.74%
2017-18	35.16%	14.84%	10.03%	38.90%	34.76%
2018-19	32.33%	15.41%	9.02%	34.09%	33.71%
2019-20	36.18%	15.39%	10.22%	33.37%	32.13%
2020-21	34.53%	16.76%	7.37%	33.41%	32.63%
2021-22	33.80%	18.30%	6.41%	32.63%	35.43%
2022-23	37.72%	16.88%	8.70%	29.80%	31.20%
Count	2,839	1,257	692	3,106	2,897
Average	33.55%	14.86%	8.18%	36.71%	34.24%

Correlations between ACCT200 course grade and DEIB classification are presented in Table 1B2. For each group, there is a statistically significant relationship between these attributes. For self-identified females and international students, the relationship is positive while for the other three groupings are negative.

TABLE 1B2
CORRELATIONS: ACCT200 COURSE GRADE BY DEIB DEMOGRAPHICS
(COMPLETE DATASET)

		Self-Identified Females	Students of Color	International Students	First Generation Students (Federal)	Underrepresented Students
ACCT200 Course Grade	Pearson Correlation	.058**	-.102**	.075**	-.036**	-.074**
	Sig. (2-tailed)	0.000	0.000	0.000	0.002	0.000
	N	7537	7461	7537	7319	5706

** . Correlation is significant at the 0.01 level (2-tailed).

The distribution of ACCT200 course grades for the complete dataset is offered in Table 1C. MNSU utilizes a tiered grading system involving both pluses and minuses. For our purposes, final course grades have been combined into single groups for each broad classification, such as A+, A, and A- constituting a single class. Generally, students are not permitted to take the class using a Pass / No Pass classification; however, during the first semester of the Covid-19 crisis (spring semester 2020), this option was made available to ensure a smooth transition for students and faculty. As reported below, some students elected this pathway with all receiving a P final course grade. DFW rates, a long-standing measure of degree of difficulty for the course are presented below (Pass grades are not included in the DFW numerator but are included in the denominator). These reveal a varying, inconsistent rate across the academic years (which is to be expected) with some degree of improvement during the MavPASS timeframe. The Pre-MavPASS DFW average is 24.36% for seven academic years, with the MavPASS DFW rate for four academic years reported as 17.94%. This represents a decline from the historical rate and suggests program success.

TABLE 1C
GRADE DISTRIBUTIONS AND DFW RATES (COMPLETE DATASET)

Academic Year	A+	B+	C+		D		D/F/W Rate
	A	B	C	P	F	W	
	A-	B-	C-		F	W	Rate
2012-13	65	182	247	0	89.00	49	21.84%
2013-14	163	201	145	0	76.00	46	19.33%
2014-15	79	214	197	0	136.00	59	28.47%
2015-16	111	225	231	0	82.00	69	21.03%
2016-17	95	222	277	0	124.00	106	27.91%
2017-18	121	231	225	0	87.00	84	22.86%
2018-19	156	245	177	0	96.00	124	27.57%

2019-20	215	252	190	61	57.00	115	19.33%
2020-21	259	342	158	0	71.00	65	15.20%
2021-22	223	327	165	0	75.00	68	16.67%
2022-23	210	272	152	0	70.00	78	18.93%
Count	1697	2713	2164	61	963	863	21.58%

Pre-MavPASS DFW Rate	5036	1227	24.36%
MavPASS DFW Rate	3425	599	17.49%

The MavPASS program was initially offered at MNSU and for this course during fall semester 2019. The program had less than one academic year of treatments before the dawn of the Covid-19 contagion and the major educational, institutional, and course delivery changes demanded by this worldwide pandemic. MNSU was no different than others in having to adapt its on-campus course delivery processes to a new and novel off-campus methodologies. Faculty were encouraged to provide pathways for student success as both parties acquired the necessary knowledge to deploy Zoom technology and adopt their courses and learning models to this new technologically enabled teaching environment. While many arguments can be offered on the effectiveness of this method of course delivery, that subject and conversation is well beyond the scope of the current research effort. Since the MavPASS program was largely targeted at on-campus, in-person courses, the switch to full online course delivery demanded rapid and significant changes in MavPASS protocols. Zooming quickly became the presumptive method for treatment administration.

As presented in Tables 1A1 to 1C for the complete set of observations, Tables 2A1 to 2C offer summary statistics for only the four-year MavPASS treatment timeframe. MavPASS treatments were only funded by the university and therefore available to students during each academic year's fall and spring semesters. No opportunity to access or obtain the SI treatment was afforded during summer session classes. Table 2A1 presents measures of academic performance for the MavPASS timeframe observations by semesters.

**TABLE 2A1
DESCRIPTIVES: MEASURES OF ACADEMIC PERFORMANCE (MAVPASS TIMEFRAME)**

Academic Semester	ACCT200 Course Grades Mean	MNSU Cumulative GPA Mean	High School Cumulative GPA Mean	High School Class Rank Mean	ACT Mean
Fall 2019	2.68	2.97	3.26	55.72	22
Spring 2020	3.13	3.17	3.30	56.48	22
Fall 2020	2.88	3.09	3.27	55.81	21
Spring 2021	3.02	3.08	3.33	56.90	22
Fall 2021	2.86	3.08	3.30	55.82	21
Spring 2022	2.80	3.15	3.40	57.78	22
Fall 2022	2.88	3.12	3.34	57.10	21
Spring 2023	2.80	3.08	3.37	58.73	21
Average	2.88	3.09	3.32	56.69	21.46
Count	2819	3143	2797	1948	2386

Average course grades are slightly higher for these observations when compared to the complete dataset (2.88 versus 2.63), MNSU cumulative GPA (3.09 versus 3.01), and high school GPA (3.32 versus 3.24). High school rank and ACT mean are consistent across the two timeframes. There has been some prior research on grade inflation in both higher education and K-12 environments and perhaps these summary statistics provide some evidence supporting that line of thought. Further, in reflecting upon the rapidly evolving and chaotic scenario surrounding Covid-19, there is considerable reason to ponder whether this aberration was accompanied by grade inflation with respect to the course of interest in this research study. Table 2A1 reveals that course grades generally experienced an increase commencing with Spring 2020 and continuing through the following two semesters. Grades appear to be trending downward with the ensuing semesters, but grade inflation may have played some role in any increase in course grades attained during this subset of the MavPASS timeframe observations.

The strong positive relationship between each of the measures of academic achievement reported in Table 1A2 is confirmed in Table 2A2. MNSU cumulative GPA remains the best predictor of this attribute having the highest Pearson Correlation (.696, $p=.0000$) and the greatest number of observations ($n=2794$).

**TABLE 2A2
CORRELATIONS: ACCT200 COURSE GRADE BY ACADEMIC PERFORMANCE (MAVPASS TIMEFRAME)**

		MNSU Cumulative GPA	High School Cumulative GPA	High School Class Rank	Composite ACT
ACCT 200 Course Grade	Pearson Correlation	.696**	.361**	.306**	.155**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	N	2794	2483	1731	2120

DEIB demographics surrounding the five DEIB groupings of interest for the MavPASS timeframe are proffered in Table 2B1. Self-identified females constitute 34.62% of the sample ($n = 1,098$), students of color report 16.45% of the observations ($n=520$), international students are represented in 8.10% of the sample ($n=257$), the attribute first generation student is present for 32.58% of the sample ($n=1,017$) and under-represented student is reported for 42.57% ($n=1,032$). As can be expected, a student may be present in more than one of the DEIB groupings.

**TABLE 2B1
DESCRIPTIVES: DEIB DEMOGRAPHICS (MAVPASS TIMEFRAME)**

	Self-Identified Females	Students of Color	International Students	First Generation Students (Federal)	Underrepresented Students
Fall 2019	33.96%	17.61%	10.77%	37.35%	43.07%
Spring 2020	32.27%	16.30%	8.56%	38.02%	44.97%
Fall 2020	31.23%	18.43%	6.30%	32.05%	48.80%
Spring 2021	38.66%	14.01%	8.68%	29.63%	40.54%
Fall 2021	34.35%	13.23%	9.92%	29.09%	39.34%
Spring 2022	36.28%	16.35%	5.73%	30.51%	37.50%
Fall 2022	34.47%	16.91%	6.36%	31.75%	44.44%

	Self-Identified Females	Students of Color	International Students	First Generation Students (Federal)	Underrepresented Students
Spring 2023	36.29%	18.61%	8.59%	31.27%	42.11%
Count	1,098	520	257	1,017	1,032
Average	34.62%	16.45%	8.10%	32.58%	42.57%

Correlations between ACCT200 course grade and DEIB classification are presented in Table 2B2 for the MavPASS timeframe. For each group, there is a statistically significant relationship between these attributes. As was found for the complete dataset, self-identified females and international students exhibit a strong positive relationship ($p < .01$). For the other groupings a strong negative association ($p < .01$) is reported for students of color and first-generation students alongside a less significant ($p < .05$) statistic for the underrepresented group.

TABLE 2B2
CORRELATIONS: COURSE GRADE BY DEIB DEMOGRAPHICS (MAVPASS TIMEFRAME)

		Self-Identified Females	Students of Color	International Students	First Generation Students	Underrepresented Students
ACCT200 Course Grade	Pearson Correlation	.067**	-.102**	.049**	-.051**	-.055*
	Sig. (2-tailed)	0.000	0.000	0.010	0.007	0.011
	N	2819	2808	2819	2776	2140

**Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

The distribution of ACCT200 course grades for the MavPASS semesters is offered in Table 2C. As stated earlier, MNSU utilizes a tiered grading system involving both pluses and minuses. For our purposes, final course grades have been combined into single groups for each broad classification, such as A+, A, and A- constituting a single class. Generally, students are not permitted to take the class using a Pass/No Pass classification; however, during the first semester of the Covid-19 crisis, this option was made available to ensure a smooth transition for students. As reported below, some students elected this pathway with no one receiving a No Pass final course grade. DFW rates, a long-standing measure of degree of difficulty for the course are presented below (Pass grades are not included in the DFW numerator but are included in the denominator). These reveal a varying, inconsistent rate across the semesters (which is to be expected) with a greatly reduced rate during the Covid-19 semesters. MavPASS DFW rates average 16.77 % for the eight semesters with the three semesters Covid-19 average rate of 13.51%. During this later timeframe, instructors were strongly encouraged to work with students to ensure a heightened degree of success and this may account for these findings for these findings.

**TABLE 2C
GRADE DISTRIBUTIONS AND DFW RATES (MAVPASS TIMEFRAME)**

Academic Semester	A+ A A-	B+ B B-	C+ C C-	P	D F	W	D/F/W Rate
Fall 2019	92	127	109	0	40	59	23.19%
Spring 2020	116	101	55	0	10	50	18.07%
Fall 2020	117	165	73	0	34	20	13.20%
Spring 2021	136	165	67	61	23	28	10.63%
Fall 2021	115	143	72	0	36	31	16.88%
Spring 2022	94	161	91	0	33	30	15.40%
Fall 2022	99	127	61	0	32	38	19.61%
Spring 2023	91	120	82	0	32	36	18.84%
Count	860	1109	610	61	240	292	

MavPASS DFW Rate	3172	532	16.77%
Covid-19 DFW Rate	1221	165	13.51%

THE RELATIONSHIP BETWEEN MAVPASS ATTENDANCE AND ACCT200 COURSE GRADES

The primary goal and objective for SI services is to improve the course grade outcomes for students who voluntarily access these resources for the portfolio of “difficult” courses for which university funding has been made available. No particular grouping of students is targeted, nor must any standards be satisfied, rather the services are available to all. Concurrently, and importantly, it is believed that making this opportunity available will encourage those most in need to make the right choice and participate. Through this pathway, most DEIB groups are considered a viable target of the program. The singular hope is that everyone will feel welcome, that all will be afforded a sense of belonging, and that no one should feel any stigma attached to their choice to participate. In summary, those associated with the MavPASS program have great optimism that these types of out-of-class experiences, after some time and through success, will be seen by both educators and students as both normal collegiate activities and valuable pre-cursors for success in reaching the graduation milestone.

Success for the program can be measured and reflected by a student obtaining a higher course grade or in the lowering of the DFW metric. As is well known in sales and marketing, the first hurdle in obtaining a customer is to get them in the door. This first step is critical; all efforts must be directed at this initial contact point. Instructors work with their MavPASS leaders to market these services early in the semester in the classroom and via electronic exchanges such as D2L postings and emails. To some degree this may result in targeting as student performance information accrues throughout the semester and suggestions for support services are offered. For the ACCT200 course, the knowledge builds across the semester requiring early success as a framework for understanding more advanced concepts. To that end, early intervention is extremely important.

After that first interaction (sale), obtaining repeat engagement (sales) is the key to success. In this regard, participation level and timing of participation is certainly important to evaluating the program’s success. Unfortunately, timing data is not available for student visits. The only data collected for this study

is the number of times a given student participated in MavPASS services. This is collected through an electronic sign-in process for each session conducted. Therefore, a simple count of the number of times attended is our variable of interest.

Table 3A1 presents grade distributions for observations during the MavPASS semesters with a dichotomous grouping of the observations by did not attend and all others. Therefore, the treatment is considered in effect if a student attended 1 or more sessions without any regard for how many sessions they attended throughout the semester.

TABLE 3A1
COURSE GRADES: ATTENDING AT LEAST ONE MAVPASS SESSION FOR ALL STUDENTS DURING MAVPASS ACADEMIC SEMESTERS

	Course Grade							Total	ACCT200 Course GPA	DFW Rate
	W	P	F	D	C	B	A			
No	235	51	107	90	450	802	576	2311	2.460	18.69%
Yes	57	10	12	31	160	307	284	861	2.816	11.64%
Totals	292	61	119	121	610	1109	860	3172		
Differences									0.356	-7.65%

Chi-Square = 84.501 (p<.001)

The ACCT200 course GPA for non-attending students was 2.460 compared to 2.816 for those who attended at least one MavPASS session. This represents a difference of .356, with MavPASS attendees, on average, receiving a positive boost in final course grade attainment. Grade distributions across these two groups were statistically different (Chi-Square =84.501, p<.001). MavPASS attendees received a higher percentage of A and B course grades (32.98%, 36.94%) when compared to non-attendees (24.92%, 34.04%). DFW rates were 18.69% and 11.64% respectively, with a notable decline for this metric based on MavPASS attendance. Both of these measures strongly suggest that MavPASS services are having a positive impact.

Tables 3A2 to 3A4 present grade distributions for observations during the MavPASS semesters with a dichotomous grouping of the observations based on more participation. Therefore, the treatment is considered in effect if a student attended 4 or more sessions, eight or more sessions, or 12 or more sessions, respectively. Greater participation and attendance are believed to support greater achievement and lower DFW rates.

TABLE 3A2
COURSE GRADES: ATTENDING FOUR OR MORE MAVPASS SESSIONS FOR ALL STUDENTS DURING MAVPASS ACADEMIC SEMESTERS

	Course Grade							Total	ACCT200 Course GPA	DFW Rate
	W	P	F	D	C	B	A			
No	283	57	113	112	552	1006	714	2837	2.499	17.91%
Yes	9	4	6	9	58	103	146	335	3.039	7.16%
Total and Difference	292	61	119	121	610	1109	860	3172	0.540	-10.74%

Chi-Square = 96.262 (p<.001)

**TABLE 3A3
COURSE GRADES: ATTENDING EIGHT OR MORE MAVPASS SESSIONS FOR ALL
STUDENTS DURING MAVPASS ACADEMIC SEMESTERS**

	Course Grade							Total	ACCT200 Course GPA	DFW Rate
	W	P	F	D	C	B	A			
No	292	61	118	119	592	1073	784	3039	2.520	17.41%
Yes	0	0	1	2	18	36	76	133	3.383	2.26%
Total and Difference	292	61	119	121	610	1109	860	3172	0.864	-15.15%

Chi-Square = 110.737 (p<.001)

**TABLE 3A4
COURSE GRADES: ATTENDING TWELVE OR MORE MAVPASS SESSIONS FOR ALL
STUDENTS DURING MAVPASS ACADEMIC SEMESTERS**

	Course Grade							Total	ACCT200 Course GPA	DFW Rate
	W	P	F	D	C	B	A			
No	292	61	119	121	604	1103	828	3128	2.542	17.01%
Yes	0	0	0	0	6	6	32	44	3.591	0.00%
Total and Difference	292	61	119	121	610	1109	860	3172	1.049	-17.01%

Chi-Square = 72.108 (p<.001)

ACCT200 course GPA for attending students increases as participation rises. Further, DFW rates decline reaching zero at an attendance level of 12 or more sessions. While quite interesting, these findings must be viewed with some degree of caution. The number of observations in the attendance grouping is quite limited as the participation level increases, meaning that the statistical power is greatly diminished. However, these results suggest that greater participation is a factor in obtaining a better outcome.

THE RELATIONSHIP BETWEEN MAVPASS ATTENDANCE AND ACCT200 FINAL COURSE GRADES BY DEIB GROUPINGS

An important component of our assessments is the consideration of the impacts, if any, that can be identified for students relative to their inclusion in specific DEIB groups. Five DEIB groups were developed and evaluated including females, students of color, international students, first generation students, and students classified as underrepresented. Each analysis included all of the students meeting the particular DEIB definition, dividing these observations into a dichotomous grouping based on attending one or more MavPASS sessions.

For each of the DEIB groups, MavPASS attendance produced a higher ACCT200 GPA along with a grade distribution that was statistically significantly different. In addition, DFW rates declined for those attending at least one session across each of the DEIB groupings studied. These findings provide evidence to support a statement that MavPASS has had a positive impact concerning these five DEIB distinctions. Additionally, and importantly, it is very clear in the data that students of color are generating the lowest course grades and the highest DFW rates, either with or without SI intervention. This effectively confirms that this DEIB grouping is and should be an enhanced target of intervention services.

TABLE 3B1
COURSE GRADES: ATTENDING AT LEAST ONE MAVPASS SESSION FOR DEIB GROUP
SELF-IDENTIFIED FEMALES DURING MAVPASS ACADEMIC SEMESTERS

	Course Grade							Total	ACCT200 Course GPA	DFW Rate
	W	P	F	D	C	B	A			
No	75	15	28	31	122	262	202	735	2.543	18.23%
Yes	29	8	5	14	60	106	141	363	2.799	13.22%
Totals and Differences	104	23	33	45	182	368	343	1098	0.256	-5.01%

Chi-Square = 41.827 (p<.001)

TABLE 3B2
COURSE GRADES: ATTENDING AT LEAST ONE MAVPASS SESSION FOR DEIB GROUP
STUDENTS OF COLOR DURING MAVPASS ACADEMIC SEMESTERS

	Course Grade							Total	ACCT200 Course GPA	DFW Rate
	W	P	F	D	C	B	A			
No	52	6	25	18	101	125	55	382	2.134	24.87%
Yes	17	0	3	5	28	45	40	138	2.580	18.12%
Total and Difference	69	6	28	23	129	170	95	520	0.446	-6.75%

Chi-Square = 33.332 (p=.003)

TABLE 3B3
COURSE GRADES: ATTENDING AT LEAST ONE MAVPASS SESSION

	Course Grade							Total	ACCT200 Course GPA	DFW Rate
	W	P	F	D	C	B	A			
No	16	5	6	5	27	61	62	182	2.692	14.84%
Yes	1	3	2	7	6	27	29	75	2.880	13.33%
Total and Difference	17	8	8	12	33	88	91	257	0.188	-1.50%

Chi-Square = 25.373 (p=.031)

TABLE 3B4
COURSE GRADES: ATTENDING AT LEAST ONE MAVPASS SESSION FOR DEIB GROUP
FIRST GENERATION STUDENTS DURING MAVPASS ACADEMIC SEMESTERS

	Course Grade							Total	ACCT200 Course GPA	DFW Rate
	W	P	F	D	C	B	A			
No	81	17	40	31	160	268	160	757	2.371	20.08%
Yes	21	3	0	11	52	101	72	260	2.715	12.31%
Total and Difference	102	20	40	42	212	369	232	1017	0.344	-7.77%

Chi-Square = 29.595 (p=.009)

TABLE 3B5
COURSE GRADES: ATTENDING AT LEAST ONE MAVPASS SESSION FOR DEIB GROUP
UNDERREPRESENTED STUDENTS DURING MAVPASS ACADEMIC SEMESTERS

	Course Grade							Total	ACCT200 Course GPA	DFW Rate
	W	P	F	D	C	B	A			
No	89	16	39	34	163	262	152	755	2.323	21.46%
Yes	22	3	4	12	55	102	79	277	2.686	13.72%
Total and Difference	111	19	43	46	218	364	231	1032	0.363	-7.74%

Chi-Square = 33.260 (p =.003)

MAVPASS AND EQUITY 2030

While the empirical findings for the MavPASS program concerning the principles of accounting course provide statistically strong evidence of effectiveness, they must be viewed with care and through the lens of the Equity 2030 initiative. This important initiative seeks to, “close the gaps across race and ethnicity, socioeconomic status, and geographic location”, as it is reported as a primary reason for the MavPASS initiative. Two ways to define an equity gap is the existence of a final course grade or DFW rate differentials between one group of students and another based on the demographic distinction of interest. A program of supplemental study, such as the MavPASS program, which does not overtly target a specific group, such as SOC, has great potential to impact everyone, in fact that is its very purpose. This lack of discrimination is especially apparent if the treatment participation rates approximate the relative population ratios for each interest group. In such a case, it can be expected that each group will improve concerning the two metrics under consideration and that the relative advances should mathematically result in no differential change between the parties. In other words, as President John F. Kennedy so clearly articulated regarding investment tax credits for the economy, “A rising tide raises all boats”. This is not a minor or insignificant point to be easily dismissed, if everyone is 10% percent better off, then everyone is still in the same comparative position and the gap or distinctions between the parties has not been decreased despite your successful efforts in raising everyone’s outcome to a higher level.

SUGGESTIONS, LIMITATIONS, AND FUTURE RESEARCH

It generally appears from these empirical findings surrounding attained grades that students are positively impacted by access to the MavPASS portfolio of services. As reported in prior research, SI is confirmed here to have a positive impact that leads to better course outcomes both from a course grade perspective and through the DFW lens. Concurrently, it is readily apparent through discussions with colleagues, that there is a great desire and potential to identify students before class enrollment and/or early in the semester as struggling and likely to not succeed. Such a classification process would certainly assist in achieving fewer bad outcomes while also, very likely, supporting the recognition of students who really need these services. Targeting is a proven and highly effective way to break down economic and societal gaps. While it is undesirable to many interested parties to specifically identify DEIB students that need and/or require SI services, such a process may in fact be the only reasonable, prudent, and cost-effective way to address the known class success issue that resides with far too many students. More overt targeting of the DEIB groups of interest is to be encouraged. While such efforts should be founded in common sense and awareness of the anxiety that may accompany such endeavors, you cannot treat those who do not present themselves. We must devise strategies that encourage and succeed at obtaining early access and intervention and enhanced participation for these DEIB parties of interest so that our initiatives are not unnecessarily impeded.

DFW rates are, at best, a fragile measure of student's lack of success that should be interpreted with great caution. Some students, for unknown reasons, register for a class and then never engage in any meaningful efforts towards completing the course requirements. For in-person classes, they attend few, if any, classes, do no/little homework, and often times complete none of the required semester examinations. Similar behavior has been observed within online modalities. The outcome is unquestioned and will include either a failing grade, withdrawal at the last possible date, or a complete failure to complete the specified withdrawal process. It has been postulated that bracketed tuition pricing encourages "test driving" of courses, which may be a plausible rationalization for such behavior. Such outcomes infect the DFW metric, even in the presence of a fully understandable rationale for such a lack of success in the class and measures of classroom delivery. Further, faculty have articulated increasing concerns regarding the effectiveness of examinations offered in online formats, whether for online or in-person classes. To offset their considerable apprehensions surrounding "cheating" in these testing formats, some professors and instructors have placed more reliance on homework as a measure of success, an assessment process that is readily possible given the advancements in textbook homework management systems by allocating a greater portion of the final course grade to outside of class activities. This means that students must at least attempt and successfully complete to some degree the out of class assignments to earn sufficient points to obtain a passing grade for the course. In far too many cases, both in-person and online students simply do not attempt or complete the homework and therefore earn a much reduced, if not failing course grade as a direct result of their lack of engagement. Such negative outcomes further infect this increasingly utilized measure of academic achievement. For one of the authors, this potential explanation accounted for a DFW rate of approximately 30% for a single semester across two class offerings, an online and in-person class. It would be reduced to 3% if these student-orchestrated failures were removed from consideration. Finally, some students do not accrue sufficient points to obtain a desired grade for the course. If the expected grade is beneath their standards, they withdraw despite succeeding in the class. All possible, reasonable explanations for high DFW rates must be considered for the measure to be of any usefulness, to ignore these explanations, and merely accept its numeric outcome devalues the metric to no minor degree.

As with all studies, the findings may be specific to the institution, its student body, and the population studied. First, and most importantly, self-selection bias is a concern for all quasi-experiments where students can opt into the treatment group. Paloyo offers suggestions for addressing this issue when evaluating supplemental instruction initiatives (2015). Second, generalizing the results to other institutions should be taken with considerable caution. To the extent that a given institutional environment mirrors that of a small, midwestern university with a largely rural student body, the findings may provide significant evidence.

On the other hand, a large metropolitan institution, with a significant portion of the student body entering from an urban background, should be quite careful. The best way for the findings to apply in a given situation is for a similar study to be conducted. Third, replication of this paper and its research methodology is encouraged where SI techniques are applied to the target course. Any intervention in the learning process is worthy of evaluation and the archival data selected here are generally available within an institutional environment. Finally, as we progress through more post-pandemic academic years, additional observations will be accessible, providing more statistical power to the tests of interventions such as MavPASS. It is strongly suggested that the study be replicated in two or three more years at our institution when the post-pandemic period has become longer, which will support stronger, more meaningful inferences.

ENDNOTES

1. Withdraw (W) at MNSU is administrative marker and not a grade.
2. MNSU's accounting department, like most departments and schools of accountancy, has an extensive tutoring program involving upper-division accounting majors. These sessions address a broad array of accounting courses, including principles of financial accounting, in a less structured learning environment when compared to the MavPASS program.

3. See Appendix for Chancellor's Equity 2030 Initiative, which defines MNSU's educational equity gap.
4. SOC is defined as American Indian or Alaska Native, Asian, Black or African American, Hispanic of any race, Pacific Islander, and Two or more races. These are the categories used for reporting by MNSU.

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APPENDIX

Chancellor’s Equity 2030 Initiative Excerpts from Minnesota State Equity 2020 Communications Plan Overview (Jan. 2021):

- Equity 2030 aims to close the educational equity gaps across race and ethnicity, socioeconomic status, and geographic location by 2030 at every Minnesota State college and university.
- Equity 2030 will close educational equity gaps by increasing the rate of credential completion for first-generation students, low-income students, indigenous students, and students of color at every Minnesota State college and university.
- An educational equity gap is a disparity in a metric, such as graduation completion, term-to-term persistence, etc. along racial, ethnic, socioeconomic, geographical or other major demographic groupings. Educational equity gaps can be measured in many areas.
- The Equity 2030 goal focuses on the credential completion rate for students of color, Indigenous students, low-income students, and first-generation students when compared to majority students. The difference in completion rates for each of those groups of students compared to those students who have enjoyed historical access to and success in higher education is the educational equity gap.