WSU Five-Year Program Review

Self-Study Report

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Department/Program:	Supply Chain & Management Information Systems/ Supply Chain Management (SCM)
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Brief Introductory Statement

The Supply Chain Management program is a longstanding program at Weber State University. It is the oldest SCM/logistics program in the state of Utah and one of the oldest in the country. (The first baccalaureate degrees were awarded in 1973.) Currently, the Supply Chain Management program offers a B.S. degree, a Minor, and four professional certificates (Purchasing, Logistics, Lean Six Sigma and Business Analytics) through the Jerry and Vickie Moyes Center for Supply Chain Excellence.

Faculty research is ongoing, relevant and reaches a variety of industries, topics and issues. Published research from current faculty is highly cited and impactful to the fields of Supply Chain and Operations Management, Analytics, Quality, Sustainability, Diversity and Pedagogy. Thanks to the generous support of Jerry and Vickie Moyes, faculty are well-supported in their research endeavors and are encouraged to engage with the top professional organizations and conferences in their field.

The curriculum has been designed to align with industry needs, state-of-the-art SCM practices, and top SCM programs. Classrooms deploy an experiential pedagogy based on 'deliberate practice' that is supported by ongoing efforts to maintain and improve student learning. As a faculty group, collaboration is a core part of curriculum development and it ensures a quality experience for students that is always improving.

Some evidence of student learning can be seen as students of the program have consistently achieved high levels of performance at national case competitions. In Fall 2020, the SCM case team won the GM/Wayne State national competition. In Spring 2021, a completely different case team won the Minnesota National Case Competition. Ongoing faculty involvement, coaching and course availability will provide continued success in the future.

Our graduates are making a positive impact in their companies, which bolsters the reputation of the program among local employers such as Autoliv, Northrop Grumman, and Hill Air Force Base, as well as national leading companies such as Amazon and others. The alumni are active and involved, even though many work outside of the state, participating as speakers, case judges and mentors to current students through the Nye Executive Leadership Speaker series and events sponsored by the Supply Chain Cats student club.

Through the Jerry and Vickie Moyes Center for Supply Chain Excellence, a dynamic industry partner board provides (i) ongoing advice on curriculum, (ii) mentoring, internship and employment opportunities for our students, (iii) plant tours, (iv) classroom visits, and (v) other extra-curricular and professional development opportunities for both students and faculty.

At the conclusion of the previous 5-year strategic plan, and with the addition of two new faculty members, the SCM program recently reviewed and updated its mission, vision and values (over the summer of 2021) to create strategic alignment among the faculty, the Moyes Center, the Goddard School of Business and Economics and the University as a whole. The timing of this program review and self-study, so soon after refreshing the strategic plan, allows the momentum of innovation and improvement to continue forward as we seek to become the go-to source for supply chain education and advancement in the Intermountain West and beyond.

Standard A - Mission Statement

The supply chain management (SCM) program is a longstanding program at Weber State University. From its early origins dating back to 1969 in partnership with Hill Air Force Base, it is the oldest SCM/logistics program in the state of Utah and one of the oldest in the country. The first baccalaureate degrees were awarded in 1973.

In 1994, the program focus was redirected from defense logistics to business logistics. In 2005, the program was renamed to Supply Chain Management in response to industry trends. Starting in 2014, the curriculum was redesigned to better align with employers' needs for graduates who can lead teams effectively, communicate convincingly and think critically in complex, global supply chain environments. To better prepare students for the workplace, experiential education was introduced systematically throughout the curriculum. Several high impact experiential classes were created such as Supply Chain Case Analysis, Logic and Presentation (SCM 4700) and Operations and Supply Chain Industry Projects (SCM 4840). Weber State SCM students have competed in national supply chain case competitions every year since then, winning high profile competitions several times. In 2014, an industry partner board was also created to guide and support the program's development. Partner board members are experienced supply chain managers at large organizations in the community (See Appendix E). In 2015, a Center for Supply Chain Excellence was created. A year later, the Center received a generous naming endowment from Jerry and Vickie Moyes, which currently generates recurring funding of about $80,000 per year.

From a leadership standpoint, the Jerry and Vickie Moyes Center for Supply Chain Excellence (Moyes Center) and SCM program are tightly integrated. The Moyes Center serves as the instrument for implementing the program strategy. The Moyes Center director (Dr. Ben Neve) is a member of the SCM faculty. The department's administrative specialist (Nancy Tomon) also supports the center. The center provides critical financial resources to support our experiential pedagogy, high impact courses, curriculum development, faculty research and student/community engagement. The SCM faculty group serves as the center's main governing body, with input from the partner board which meets twice a year to review program goals and progress toward them.

In 2018, the SCM program became a standalone program within the newly created Supply Chain and Management Information Systems department[1]. This self-study report is the first formal program review.

With its focus on high impact educational experiences, career-readiness and strong partnerships with local employers, the program is a key contributor to several aspects of the missions of the University and Goddard School of Business and Economics (GSBE). For example, through our rigorous bachelor of science and minor degree programs, and our professional certificate offering, we directly support the development of professionals and career-oriented students in the field of supply chain management. Through our experiential education, we establish and foster personal connections and connect students to curriculum and community. Our education focuses on the enhancement of professional skills and core supply chain fundamentals. We support the local community by matching students with industry partner board members through internships, mentoring, or job placement, and by conducting faculty-led consulting projects involving students.

[1] Previously, the SCM program had been an emphasis within the Business Administration department.

In 2020, the program welcomed two new faculty members, Dr. Alicia Ingersoll (who arrived in Summer 2020) and Dr. Benjamin Neve (who arrived in Spring 2021) as replacements for Drs. Dee and Stan Fawcett who retired. In light of these changes, the SCM group recognized the need to review the program goals and strategies, and therefore conducted a strategic planning process in 2021. As a result of this process, the program's mission, vision and values were defined as follows.

SCM Program Mission, Vision and Values

Mission

Transforming lives through our personal, innovative approach to supply chain education, industry engagement, and research.

We will accomplish this mission by: 1) developing and delivering a transformative educational experience; 2) growing the program to meet stakeholder needs; 3) expanding the SCM program presence, reputation and influence; 4) fostering an inclusive SCM community; and 5) following-through with our strategic planning initiatives and objectives.

Vision

We will be the go-to source for supply chain education and advancement in the Intermountain West and beyond.

Values

Transformative Learning, Discovery, Connection, Culture

The program mission, vision and values are reviewed every spring when the strategic planning update report is prepared and submitted to the Provost office.

Standard B - Curriculum

Background

The SCM curriculum is the result of deliberate efforts over many years to align student outcomes with industry needs. SCM faculty are responsible for reviewing and updating the curriculum and the extracurricular activities that support student development. Curriculum development and integration across major classes is an item of discussion at every program meeting. It is also a recurring item of discussion of the biannual meetings of the Moyes Center industry partner board. The board also provides extracurricular professional engagement opportunities for our students through our mentoring program, plant tours, guest speakers and internships. For example, once a year, SCM majors have the chance to interact with board members at a roundtable event. Each student who chooses to participate is then matched with a board member, who will serve as their mentor for the next four to six months. Students are encouraged to maintain long term relationships with their mentors as well as develop their professional network.

The SCM program currently offers the following degrees/minors and certificates:

- **Bachelor of Science in Supply Chain Management**. This degree covers the fundamental elements of sourcing, operations and logistics including quantitative tools and methods along with the soft skills necessary to successfully plan and manage SCM processes in global supply chains. Distinctive characteristics of the program are:

    - **A strong emphasis on experiential learning**. Experiential learning is a trademark of our personal, high touch education. Class sizes are small (no more than 35 students). Active learning is woven throughout the curriculum through the use of flipped classrooms, think pair-share exercises, simulations and other hands-on learning activities. We offer several high impact educational experiences in and outside of class such as the Case Analysis, Logic and Presentation course, the Operations and Supply Chain Industry Project course, the SCM study abroad course, five leadership positions in the SCM student club (the SC Cats) and the mentoring program.
    - **A deliberate focus on soft skills** through our unique Supply Chain Relational Skills course (SCM 4500). Many SCM programs emphasize quantitative skills perhaps at the expense of people skills. While we recognize the importance of quantitative analysis (e.g., decision sciences and operations research) in SCM, we also recognize the critical importance of interpersonal skills such as relationship building, emotional intelligence, negotiation, leadership and change management. These skills, which are taught throughout the program beginning in our introductory course (SCM 3050), are reinforced in SCM 4500. SCM 4500 is taught by Dr. Ingersoll who has expertise in organizational behavior, ethics, and diversity backed by years of professional industry experience in SCM.
    - **A focus on aligning our curriculum with professional certifications**. For many years, students who complete our Quality Management and Process Improvement course (SCM 4100) have had the opportunity to receive additional coaching from Dr. Schvaneveldt in order to prepare for the Certified Six Sigma Green Belt certification

and the Certified Quality Process Analyst certification from the American Society for Quality. More than 85 students have taken the Green Belt exam with a 95% pass rate. Similarly, we use practice exam questions from the SCPro Level One certification of the Council of Supply Chain Management professionals to assess learning outcomes in the capstone course (SCM 4550). We recognize the value that students place on certification and have considered working with students to help them earn CSCMP or PMI certifications in the future. For our students to do well in professional certification exams provides indirect evidence of the effectiveness and quality of our education.

- **Minor in Supply Chain Management**. This degree, which was originally created for engineering students only, was recently made available to all Weber State University students. As such, it became a new option for students pursuing the Bachelor of Integrated Studies in which students combine three minors of their choice to form a bachelor's degree. Enrollments in this minor are small but growing (See Appendix A).

- **Professional Certificates in Supply Chain Management**. At the request of the Moyes Center industry partner board, we developed a series of short, stackable professional certificates for professionals who work in the field of supply chain management but never received any formal training in the field. These certificates are based on our existing course offering. Each certificate consists of two courses for a total of six credit hours in the following areas:

    - Purchasing
    - Logistics
    - Lean Six Sigma
    - Business Analytics

  In the creation of these certificates, we leveraged the following characteristics of our program:

    - Weber State is an open enrollment university. This means that we can admit students with ad hoc admissions requirements. Prior college work would not be required.
    - The certificates offer university credit but are too short to qualify as institutional certificates. (Under USHE rules, a minimum of 16 credit hours is required.) We market these certificates as professional certificates under the Moyes Center brand.
    - We use LinkedIn Learning modules in Excel and statistics as substitutes for some of the course prerequisites.
    - The certificates require attendance at a related professional event and career workshop with our counselor Brett Merrell.
    - The four certificates stack into the SCM minor.

  We awarded the first four certificates in December 2020. Over the past two years, with nearly $130,000 in Learn & Work in Utah funding we have been able to quickly grow the enrollments to over 25 certificates in the 2022–2023 academic year. Due to continued requests from our degree-seeking students, we began offering the professional certificates to current students as well.

- **The Red Barn SCM Returnship Program**. With funding from the Learn & Work in Utah initiative, the SCM program partnered with the Red Barn Academy to develop a for-credit program for Red Barn residents. Located in Farmington, Utah, Red Barn Academy is a licensed, residential life-skills academy that reinvents lives broken from addiction and crime by teaching honesty, accountability and integrity in a farm setting. The new academic program was designed to prepare Red Barn residents to reenter the workforce by learning professional skills in high-demand supply chain management occupations. In August 2022, after nearly a year of Friday evening classes, reading and homework, eleven Red Barn residents earned their Certificate in Supply Chain Management Essentials from the Jerry & Vickie Moyes Center for Supply Chain Excellence. The certificate comes with six lower-division WSU credits. The program was personally rewarding for everyone involved, so much so that a new cohort is beginning again in Fall 2022, funded once again by the Learn & Work in Utah initiative.

Curriculum Review

As a foundational program review for the SCM program, there are no previous reviews upon which to reflect on changes made. However, some recent curriculum improvements were made to bring us closer to our shared vision, address skill gaps, and streamline the path to graduation:

In 2020-2021, the SCM 2400 Foundations of Project Management was re-offered after being dormant for many years and added to the Elective Courses list for the SCM major. Project management skills are highly valuable in any field, especially in supply chain management, and we did not have an active entry-level course available to students to fill that essential skills gap.

In 2021-2022, SCM 4500 Supply Chain Relational Skills was approved as meeting the communications requirement in the business core. This means SCM students will not have to take a class outside the program to satisfy the school's communication requirement. This opens up the opportunity to add a required or elective course without increasing the required credits for graduation. We are currently discussing as a group how to take advantage of this opportunity.

Starting in 2022-2023, both SCM 3600 Logistics & Transportation and SCM 3700 Purchasing & Strategic Sourcing are set to be scheduled for both Fall and Spring semesters, where they were previously only offered once a year. This will allow students to better (i.e., more flexibly) stagger their classes throughout the program, instead of taking a burdensome final year of classes that leaves many students overwhelmed and with little time to assimilate what they learn, and fully engage in all the activities the program has to offer. We expect demand for the professional certificates to support enrollment levels in these courses.

Other recent curriculum changes are also worth noting:

- SCM 3050 Operations & Supply Chain Management was redesigned using a smart textbook that incorporates self-graded Excel assignments and more in-depth discussions of state-of-the-art SCM best practices. The new textbook provides greater coverage of sustainability, operations planning and service operations, and may in some cases save students money.
- SCM 3600 Logistics & Transportation was redesigned using a new textbook to focus more on developing student skills in applied case analysis related to the topic areas of Logistics and Transportation. A full-time faculty (Ben Neve) was also asked to replace the adjunct

who previously taught this class. These changes were supported by student and alumni feedback.

- SCM 4500 Supply Chain Relational Skills and SCM 4550 Strategic Supply Chain Management courses were redesigned by newly assigned and separate faculty. Previously, the courses were co-taught by two faculty members, now retired.

Standard C - Student Learning Outcomes and Assessment

With our focus on preparing students for the workforce, we follow the recommendations of the National Association of Colleges and Employers when defining our learning outcomes. These are focused on critical and analytical thinking, communication, collaboration, and a knowledge of key functional areas within the SCM field:

- LO 1 [Data-driven decision making]: Be able to utilize data to improve business decision making;
- LO 2 [Communication skills]: Be able to communicate effectively (verbal and written)
- LO 3 [Collaboration skills]: Be able to collaborate effectively with people
- LO 4 [Application of core SCM functional skills]: Be capable of applying core supply chain functional skills

Note that we do not offer General Education and Concurrent Enrollment courses at this time.

Our learning outcomes align with the learning outcomes of the Goddard School of Business and Economics (GSBE) given below. Specifically, LO 1 aligns with the Analytical and Critical Thinkers outcome; LO 2 and LO 3 with the Effective Communicators outcome; and LO 4 with the Knowledge of Key Concepts outcome:

- *Analytical and Critical Thinkers*
  Students will be able to gather and organize relevant data and information to identify issues and problems to draw logical conclusions. Students will be able to:
  1. Identify issues and problems
  2. Gather and organize relevant data and information to analyze issues and problems
  3. Draw logical conclusions through analysis and reasoning and posit viable alternative solutions

- *Ethically Aware*
  Students will be able to:
  1. Systematically analyze ethical dilemmas that demonstrate advanced moral reasoning to find normative solutions
  2. Understand key principles of business law and business ethics

- *Effective Communicators*
  Students will be able to demonstrate proficiency in oral and written communication skills in a professional environment. Students will be able to:
  1. Prepare and deliver professional quality presentations on business issues
  2. Demonstrate good writing skills
  3. Effectively engage in interpersonal communication

- *Knowledge of Key Concepts*
  Students will be able to:
  1. Demonstrate knowledge of key business disciplines.

- *Global Viewpoints*
  Students will be exposed to an international environment and will recognize and anticipate how sociocultural differences and political and economic forces shape institutions and business decisions. Students will be able to:

1. Recognize and anticipate how sociocultural differences shape institutions and business decisions.
2. Recognize and anticipate how political/economic forces shape institutions and business decisions.

The program curriculum map (see below) explains how the learning outcomes are achieved throughout the program and where learning is assessed for each of the four outcomes.

Curriculum Map

	SCM PROGRAM LEARNING OUTCOMES			
COURSES IN PROGRAM	Learning Outcome 1 *Data-driven decision making*	Learning Outcome 2 *Communication skills*	Learning Outcome 3 *Collaboration skills*	Learning Outcome 4 *Application of core SC functional skills*
SCM 3050 Operations & Supply Chain Management	1	1	1 A	1
SCM 3500 Spreadsheet Modeling for Predictive Analytics	2 A	1		2
SCM 3600 Logistics & Transportation	2	2	2	2
SCM 3700 Purchasing & Strategic Sourcing	2	2	2	2
SCM 4100 Quality Management and Process Improvement	3 A	2	2	2
SCM 4400 Global Supply Chain Management	2	2	2	2
SCM 4500 Supply Chain Relational Strategies	2	3 A	3	3
SCM 4550 Strategic Supply Chain Design	3	3	3 A	3 A
Elective Courses				
SCM 2400 Foundations of Project Management	1	1	1	
SCM 4700 Supply Chain Case Analysis, Logic, Presentation	2	3	3	2
SCM 4840 Operations and Supply Chain Industry Projects	3	3	3	3
SCM 4850 Supply Chain Management Study Abroad		1	1	1
SCM 4860 Supply Chain Management Internship		2		3

1= introduced, 2 = emphasized, 3 = mastered, A = Assessed

Five-year Assessment Summary

Learning assessment in the SCM program was formally launched in 2021 with the release of the program's first learning assessment report. The report is available at https://www.weber.edu/ie/Results/Department_Results.html.

A total of six measures were created across five required courses as indicated in the curriculum grid above. The various measures are specified in Appendix G. Measurement began in earnest in Spring 2022 for five of the six measures. Preliminary findings indicate that:

- Students' ability to collaborate appears to improve between the first course in the major (SCM 3050) and the last course in the major (SCM 4550) since the measure for Learning Outcome 3 goes up from about 85% to 100% between the two courses.
- Modalities appear to impact the development of collaborative skills. We are considering measuring collaboration in face-to-face and virtual classes separately.
- In the area of communication (Learning Outcome 2), our current measure captures written communication. We are currently discussing the creation of a new measure for oral communication, which would also be used in SCM 4500.
- The assessment of functional skills (Learning Outcome 4) is a tall order because we need to measure how well students are learning SCM skills across all SCM functional areas. As a first step toward measuring functional skills, we chose CSCMP's SCPro certification model to assess learning in eight functional areas: (1) Integrated SCM, (2) Demand & Supply Integration, (3) Supply Management & Procurement, (4) Manufacturing & Service Operations, (5) Transportation, (6) Inventory Management, (7) Warehousing, and (8) Order Fulfillment & Customer Relationships. As an exploratory measure, we developed a 24-question multiple choice exam using questions for the SCPro practice exam bank. The passing grade for SCPro is 65%, which corresponds to 15.6 correct answers out of 24. Therefore, we set the bar at 16 correct answers and expected 80% of our students to clear the bar. The results were much lower. Only 31% of students got 16 or more correct answers. Our analysis suggests that students may have been confused by the wording of the questions in the CSCMP question bank. We do not use the CSCMP textbook. For example, students were unable to recognize the concept of efficiency because they didn't understand its connection to asset utilization, inventory turnover or waste elimination. As a closing-the-loop activity, we propose to reinforce students' comprehension of fundamental SCM concepts in such a way that students can recognize them even under different verbalizations.

Assessment of Graduating Students

GSBE developed a formal survey for all graduating students beginning in 2021. This survey includes elements that measure the quality of GSBE programs as perceived by graduating students. At our request, specific questions were added to the survey to measure the quality of our program using the Net Promoter Score method. While very few students complete this optional survey (11 responses were received since the survey was launched), our net promoter score is 90%. We didn't have any detractors.

Main themes from the graduate survey are:

- The professors and staff care about students and their success;
- Graduates feel prepared to enter the workforce;
- Students like the small class sizes;
- Graduates would like to have learned Power BI, Tableau, SQL and more familiarity with enterprise systems such as ERP, Warehouse Management Systems, or Transportation Management Systems;
- Graduates would recommend Weber State SCM to friends and family members.

Verbatims (from the graduate survey):

- [The greatest strengths of the SCM undergraduate program is] using feedback from students and businesses to implement a learning program that benefits the needs of both. Caring professors with exceptional experience and knowledge.
- [T]he professors and the staff help you succeed outside of the classroom.
- The instructors who are excited and motivated to teach. The SCM course has multiple professor who genuinely care about the success of the students.
- I do not know a lot about the other programs offered through Weber, but the Goddard school was an amazing experience. I did receive my generals from SLCC, but the two years that I was at weber went from, me not knowing anything or anyone, to creating lifelong friendships and amazing an education that is top of the line. It seemed the whole time I was there, it seemed as if people were doing amazing things and being recognized everyday. It really felt like home when I was at Weber even if I live in SLC. I would recommend Weber to anyone as long as they don't mind traveling if they are not from Ogden, due to the tuition, unparalleled education, and wonderful student body/professors. The professors really care and with smaller class sizes it really helps the teachers learn how to work with each student and bring the best out in them.
- I loved the SCM program and the input that was given by both professors and support faculty. All around I feel prepared for my career. I would recommend improving the Logistics class and find another professor to teach Finance during the summer.
- Amazing program. Amazing professors. Incredible people. Incredible price!
- I would like to use more of the industry tools like Power BI, Tableau or SQL. I would also have like to get familiar with WMS, TMS, and other ERP tools.
- I learned so much more than I thought I would.

In addition, the SCM program sends a follow-up survey ("Hit the Ground Running") to graduates 1 ½ to 2 years after graduation to collect reflective feedback on their educational experience, and to gain insight into improvements to our curriculum or industry trends. Overall, students feel their education has prepared them extremely well for success in the workplace.

Themes from the most recent "Hit the Ground Running" post-graduation survey (Spring 2022):

- Tools and skills prepared them well for the workforce;
- Experiential learning, case studies and projects instilled confidence;
- Soft skills and leadership preparation helped graduates stand out from peers and assume leadership positions;
- Least effective class: Logistics (lacking substance, instructor expertise);
- More data analytics skills, intermediate Excel skills are requested;
- Would like ERP/SAP experience, more certificates (Green belt), more networking opportunities;
- Mentoring, case competition, speakers and tours were highlighted as positive experiences;
- Would like the ability to stay in touch with the program and mentor students as program alumni (want to stay connected to the program).

Verbatims (1.5 - 2 years post graduation):

- I apologize for the lack of specificity, but all the acronyms and "tools" we learned in the program are used every day. I will say what has really made me stand out, and what really differentiates individuals in the workplace is 1. Basic communication skills, 2. Soft skills 3. Leadership skills. I thought learning about soft skills and leadership was overdone when I was in the program, but it wasn't. It's so critical to success. Some of the smartest people I work with don't know how to lead or communicate. We talked a lot about the difference between being a manager and a leader in the program.
- Going on site tours helped me get a job and determine which types of companies I did and did not want to work at. The Mentoring Program paired me up with a great friend that helped me to understand the barriers that I was facing and get over them as I started my career. I loved learning about managing relationships, with team

members, those reporting to you, different parts and functions of your business, and most importantly customers and suppliers. Systems thinking helps me to understand root problems and be a better team player.

- Certificates would be an awesome offering as I am trying to navigate my next steps. Even if it was just study groups to help prepare for the test for certification. Networking events or maybe something like a bi-annual dinner or something of the sort would be awesome, especially if you could get people with years of experience in different supply chain areas there, or even people who started in supply chain that have new roles in the business world. I think it would be great to get info on how to improve and be better sooner from people who have been there and make those connections that can continue on. I think getting professors from the business school invited to any events with alumni would be great as well! They have great insight and I really liked getting to know them through school.
- I think that connecting and refreshing on current supply chain issues with fellow colleagues would be valuable. As the environment changes the SC issues do too.
- Networking events could be great! Job announcements/partnerships with companies could also be really helpful.

Standard D - Academic Advising

Advising Strategy and Process

The Goddard School of Business & Economics (GSBE) has a dedicated advising office. This office currently consists of three (3) academic advisors who meet with students to explore majors, discuss changes, and plan their academic schedule. The advisors also assist with identifying students who have not registered in order to encourage completion of their degree. Degree maps and suggested schedules are provided electronically to all students. SCM major and minor information sheets are available online as well. The advisors maintain both scheduled and open office hours (including virtual, beginning in Spring 2020).

An Advising Collaboration Committee consists of the Academic Advisors, Department Chairs, and Administrative Specialists to ensure that services are meeting the needs of the academic departments and students. Advisors refer students to Department faculty when needed. In addition to the Advising Collaboration Committee, the Academic Advisors also meet with the SCM program faculty to discuss potential changes to course scheduling, prerequisites and the impacts of new course substitutions as the SCM program (or others) has the need to do so.

All GSBE students are required to complete BSAD 2899 taught by Senior Advisor Karen Hicks. In collaboration with Brett Merrell (Director of Career Services), this course focuses students on the development of a standard professional resume as well as prepares them for admittance into GSBE.

SCM faculty are also involved in advising SCM students, especially potential SCM majors, transfer students and new students. The advisors connect with Nancy Tomon, the program administrative specialist, who coordinates connections between SCM faculty and students seeking advice regarding the major, job opportunities and course content.

Effectiveness of Advising

With the introduction of the SCM minor and professional certificates, opportunities for additional students to participate in the Supply Chain program have increased. Our advising team knows about these certificates and have been promoting them. Additionally, we have seen a steady increase in the number of minors who have been participating in the Supply Chain program over the last few years, another credit to our advising staff in properly informing students of these opportunities.

Another sign of effective advising is the connection between students and faculty, as facilitated by the advising team. When students have questions about the major, or exhibit some interest, the advising staff reaches out to our faculty to set up meetings so that students can learn about the program from the faculty and begin building relationships with members of the faculty.

The advisors lead efforts to reach out to students for semester-to-semester retention. They work with the department administrative specialists to personally reach out to all majors who have not enrolled in the upcoming semester to answer questions and connect them with any needed financial or advising resources.

Recent Changes and Future Recommendations

With recent changes made to the SCM curriculum, the advising office has adjusted quickly to those changes by creating an updated planning schedule for Supply Chain students. It is recommended that we develop a set of 2-3 grad maps that show ideal planning schedules for freshman, transfer and newly declared Supply Chain students. This will ensure that students at different start-points can complete the degree in a timely manner while not overburdening any one semester with too many scheduled classes (which, historically, has led to performance issues and student burnout).

Standard E - Faculty

The SCM program faculty consists of five tenure-track faculty with terminal degrees in operations management, industrial engineering and sociology. (See biographical summaries in Appendix H.) All program faculty are scholarly academics as defined by AACSB, the school's accreditation body, which means that they are actively engaged in scholarly work.

Dr. Shane Schvaneveldt is a professor of supply chain management with more than 30 years at Weber State University. Dr. François Giraud-Carrier is an associate professor of supply chain management. Drs. Evan Barlow, Alicia Ingersoll and Ben Neve are assistant professors of supply chain management.

Together, the SCM faculty provide a breadth of knowledge and expertise in a variety of supply chain disciplines:

- Dr. Schvaneveldt is a nationally recognized expert in the field of quality management and process improvement, and currently serves as the president of the local chapter of the American Society for Quality (ASQ).
- Drs. Schvaneveldt and Giraud-Carrier serve on the editorial boards of the Quality Management Journal and Decision Sciences Journal of Innovative Education, respectively.
- Drs. Giraud-Carrier and Ingersoll each have between 10 and 15 years of industry experience, Dr. Giraud-Carrier as an engineering consultant and project manager, and Dr. Ingersoll as a global supply chain manager in the outdoors industry.
- Dr. Giraud-Carrier's sustainability research was published in Management Science.
- Dr. Ingersoll's 2016 paper on the influence of female leaders on corporate environmental performance was cited more than 380 times (and counting). Dr. Ingersoll currently serves as chair of GSBE's committee on diversity, equity and inclusion.
- Dr. Ingersoll's background in sociology uniquely qualifies her to teach our soft skills course (SCM 4500–Supply Chain Relational Skills), which is a hallmark of our program.
- Dr. Barlow's expertise is in analytics with a focus on predictive and prescriptive analytics including mathematical optimization and machine learning.
- Dr. Neve has led many consulting engagements with over 50 clients around the country in the areas of analytics, supply chain, operations, and quality. He is uniquely qualified to lead the Moyes Center for Supply Chain Excellence and chair its industry partner board.
- Several faculty members have ERP experience including experience with the SAP University Alliance curriculum and tools.

From a diversity standpoint, the faculty consist of one female and four male faculty members, all Caucasian. Our faculty have significant international exposure. Dr. Schvaneveldt has spent many years in Japan. Dr. Giraud-Carrier, a native of France, has lived for extended periods of time on three different continents (Europe, Oceania and North America).

Three adjunct instructors support the program on a regular basis (See Appendix B).

1. James Taylor, MBA PMP, is teaching the Purchasing and Strategic Sourcing course (SCM 3700). He is Senior Vice President Supply Chain Management at Logistics Specialties Inc. (LSI). James also serves on the Moyes Center industry partner board.
2. Jordan Robinson, MBA, teaches the Operations & Supply Chain Management course (SCM 3050). Jordan is program manager for the US Air Force at Hill Air Force Base.

3. Nick Browne, MBA ASQ, is teaching the Operations & Supply Chain Management course (SCM 3050). Nick is Vice President Operations at Freeus, a provider of safety solutions.

James, Jordan and Nick have been teaching in the program for 5, 8 and 2 years, respectively.

Standard F – Program Support

Faculty in the SCM program have access to GSBE and departmental administrative support staff, classroom facilities, equipment that is needed for their teaching and research, and library collections. The Goddard School provides dedicated staff to support technology and marketing. The SC&MIS Department shares a dedicated Administrative Specialist.

Adequacy of Staff

Technology Specialist, Jared McKeeth supports all technology needs for the Goddard School of Management. Jared joined GSBE in September 2022, replacing Patrick Leavitt. Jared is currently earning his BS in Computer Science from Weber State University and has over 15 years of industry experience. The university IT group provides additional support as needed to Jared and GSBE faculty/staff.

Brett Merrell joined the Goddard School in 2017 as Director of Career Services. Brett holds a bachelor's degree from Utah State University and an MBA from Northwestern University, Kellogg Graduate School of Management. Brett brings his extensive corporate background into this position advising all Goddard Schools on development of an effective resume as well as acting as a liaison to job opportunities for students in all Goddard majors, including MIS. Brett meets with students in-person and virtually to provide career guidance and resume writing/interviewing skills. Brett is constantly looking for opportunities to increase student exposure to industry. In fall 2022, Brett hosted a career fair in the Wattis Building featuring 35+ companies specifically looking for business students. The event was an overwhelming success with over a hundred students attending and positive feedback from companies about the quality of students. We anticipate this being an annual event.

Karen Hicks is the GSBE Senior Academic Advisor. She has a BS in Business Management and MS degrees in Industrial/Organizational Psychology from Emporia State University and Academic Advising from Kansas State University. Karen has over 20 years of education advising experience. Alex Muller is a GSBE Academic Advisor. He has a BS in Political Science from Grinnell College and an MA in Mideastern Studies from the University of Chicago. Prior to joining the GSBE advising team, Alex was a Sponsored Student Advisor in the International Student and Scholar Center. Natalie Stoddard joined the GSBE advising team in 2022, after graduating cum laude from Weber State with a BS in Family Studies and a minor in Psychology. Natalie will benefit from the extensive advising network at Weber State and formal university and college training programs.

The GSBE marketing manager position is vacant as of November 2022. The marketing manager leads GSBE strategic marketing execution, high school outreach initiatives and the design of marketing materials/social media campaigns for all GSBE programs with the overarching goal of promoting the GSBR brand. The marketing manager designed a marketing strategy for the Moyes Center professional certificates, hosted a high school Early Executive Leadership Academy (EELA) summer camp, and organized a state-wide high school DECA/FBLA case competition, exposing nearly one hundred high achieving high school students to a college-style case competition.

Adequacy of Administrative Support

Nancy Tomon is the dedicated Administrative Specialist for the Department of Supply Chain & Management Information Systems (SC&MIS) and the Jerry & Vickie Moyes Center for Supply Chain Excellence. Responsibilities of this position include administrative and financial record-keeping as well as responding to student and faculty requests and communications. This position is also an interface to prospective students, our industry partner board and other partners. Nancy has relevant supply chain professional experience as well as a BS degree in Mechanical and Industrial Engineering. She is currently pursuing her MBA at Weber State. Nancy manages the mentoring program and was the principal investigator for the Learn & Work professional certificate grant program and co-led the DECA/FBLA case competition.

As a member of the Weber State ASSET group, Nancy attends monthly training sessions in the areas of purchasing, financial systems, HR, Adobe programs, etc.

The college administrative specialists meet regularly to identify opportunities for training and shared work under the guidance of Mary Ann Boles, assistant to the Dean.

Adequacy of Facilities and Equipment

All classrooms and lecture halls in GSBE have been updated with smartboard technology as well as technology upgrades that allow courses to be streamed and recorded. During the rapid transition to online, virtual, and hybrid schedules, faculty were provided with technology such as web cams, microphones, headphones, iPads, etc. to support their remote delivery of course content.

Across campus, online instructional design is coordinated by WSU Online who supports faculty's instructional needs in the online space. WSU Online administers the learning management system (Canvas) and provides training on various instructional software such as Proctorio (online proctoring), and Kaltura (video management). Tim Maw is the WSU Online representative assigned to GSBE. Tim holds office hours in the Wattis Building (Ogden Campus) on Tuesdays from 10 am to 12 pm and on Fridays from 9 am to 11 am.

Adequacy of Library Resources

The library representative for the GSBE, Justin Kani, has been very responsive to any requests by the department. Library facilities are sufficient with a good range of online business databases and access to a wide range of publications and e-journals.

Standard G - Relationships with External Communities

Over the years, the program has built long term connections with organizations in Northern Utah including local employers, Hill Air Force Base, not-for-profit organizations, and professional associations such as the American Society for Quality (ASQ) and the Council of Supply Chain Management Professionals (CSCMP).

Engagement with local employers takes place in the context of the Moyes Center activities.

Relationships with Moyes Center Industry Partner Board

Partner board meetings are held two times/year in the fall and spring semesters. The fall meeting typically includes engagement with students, including mentor roundtables and classroom visits. The spring meeting is focused on our program and gaining board member insights as well as providing professional development to board members. The meetings are generally 2-4 hours.

Board members are active mentors to current students and eager to give-back to the program by hosting student tours and speaking at club events.

Summary of Industry Partner Board Meeting Minutes

Each board meeting reserves a portion of time to allow members of the SCM faculty and staff to receive direct feedback from members of the industry partner board. Over the last five years, feedback has come in a number of ways, including comments made during meeting discussions, surveys, one-on-one interviews, and direct solutions to gaps/opportunities in small group discussions. The areas of feedback provided by the board include (i) curriculum, (ii) the current state of graduates' skill sets, strengths and weaknesses, (iii) industry labor and skill needs now and in the future, (iv) strategic program development, and (v) how to improve the experience of partner board members.

For the purposes of this review, a few key areas of feedback will be summarized below. Namely, in the areas of curriculum development, addressing high impact class needs and ways to improve board member engagement.

Curriculum Development

During a breakout session in a recent board meeting, several new class ideas were discussed as potential stop-gaps or opportunities for new course offerings. These course ideas are listed below:

1. Supplier development, risk management and long-term business sustainability (as in ensuring the continuity of business in light of disruptions and risks of all types).
2. SCM planning and analysis technology (ERP systems, Sales & Operations Planning, analytics software). This category also includes systems to coordinate flows across the supply chain (e.g., transportation management systems).

3. Automation, robotics and other emerging technologies. Specifically, teach students how to take a current process and integrate automation within it. This includes developing the appropriate RFPs, and balancing the flow between automated and analog components.
4. Critical thinking. Case analysis can be used to teach critical thinking in general and especially in situations where students are not given clear guidelines and must instead think creatively.

Addressing High Impact Educational Experience (HIEE) Course Needs

Board members were invited to complete a survey that addressed a number of issues, including the need for real-world projects in one of our critical HIEE courses, SCM 4840 Operations & Supply Chain Industry Projects. Board feedback regarding the search for real-world projects is provided below:

- Acceptable projects for a local firm include both "insights" or "analysis" deliverables, as supplemental inputs to decision makers or as complete implementable improvements;
- Having a project "theme" may help board members more easily identify projects that would be mutually beneficial;
- The board asked about the faculty's research expertise to know if they would align with the company's current strategy or approach.

Improving Board Engagement

In conjunction with a recent survey, select board members were interviewed one-on-one to provide feedback and address concerns they had about their experience as board members.

- Generally, the board members cited the personal benefit of giving back to the next generation of supply chain professionals through the mentorship program.
- They expressed the desire to increase the interaction between board members, as well as be more involved on an ongoing basis rather than just at the board meetings.
- Some were interested in forming subcommittees (or participating as advisors to a subcommittee or special initiative) where they could provide additional guidance for the direction of the program.

Support for professional certificates from our board is strong, with 90% of the current working professionals recommended for the program by board members from Northrop Grumman, UTA, VoBev, and Osprey.

One special initiative that garnered support from several board members was the Red Barn program which is described next.

Relationship with External Communities

Red Barn

In spring 2021, Matt Williams, one of the Moyes Center partners, connected us with the Red Barn Academy, a residential program in Farmington, UT, for men whose lives were broken through addiction and crime. State funding was obtained to develop a vocational training program in SCM to help Red Barn residents re-enter the workforce by learning professional skills in high-demand supply chain management occupations.

The program had a successful first year, with 11 graduates completing the program. Several members of the board are currently helping find placement for graduates of the program, with the first student potentially placed with one of the board companies in the Fall of 2022, accomplishing the purpose of the grant.

The Red Barn program has been supported by a Learn & Work in Utah grant two years in a row (currently in the second year of the program).

Hill Air Force Base

In 2021, the Goddard School and the 748th Supply Chain Management Group (SCMG) at Hill Air Force Base finalized a Memorandum of Understanding (MOU) that opened up new avenues for students and faculty to engage on Hill Air Force Base. Similarly, members of the 748th SCMG had an avenue to share information regarding jobs, desirable skills and internship opportunities. After signing the MOU, getting to connect with the 748th has proven difficult, though there is an ongoing effort as they participated in the recent Goddard School career fair.

Shortly thereafter, Ben Neve was invited to present at the Logistics Officers Association's 40th annual meeting that was held in Salt Lake City in March 2022 and hosted by Hill Air Force Base personnel. The talk was titled: "Data-Driven Decision Making: Supply Chain Lessons from COVID 19". As a result of this engagement another relationship has developed with the Defense Logistics Agency (DLA) personnel on base, with a successful customized tour conducted in October of 2022 on the base that drew more than 20 students. The relationship includes an additional MOU that is currently in process, with the Defense Logistics Agency developing a series of internship opportunities and positions for students from the Supply Chain Program at Weber State.

While these MOUs represent a lot of potential opportunities to collaborate in classroom activities, mentorship of students with base personnel, and supply chain student club events, more effort will need to be made to ensure these relationships lead to positive and measurable outcomes.

The Utah Advanced Materials and Manufacturing Initiative (UAMMI)

UAMMI brings together public, private, community, industry and education partners to support Utah's growing advanced materials (e.g., composites) and advanced manufacturing (e.g., additive manufacturing) ecosystems. Among many programs, UAMMI coordinates the federally-funded Utah Defense Manufacturing Consortium (UDMC). Francois Giraud-Carrier and Evan Barlow were invited to provide expertise in the context of the Coal to Carbon Fiber project funded by UDMC. As part of their work, student research and applied project experiences provided high impact educational experiences for a selected group of supply chain majors.

American Society for Quality (ASQ)

Shane Schvaneveldt recently served on the ASQ Certification Board, Subcommittee for Certified Quality Process Analyst. He currently serves as Chair of the local section of the American Society for Quality, and Ben Neve served one year as the section secretary.

Council of Supply Chain Management Professionals (CSCMP)

Members of our faculty and partner board, along with program alumni are members of CSCMP. Our students participate annually in the CSCMP scholarship competition, often winning top prizes. The

CSCMP Golf Tournament provides funding for the scholarship and also provides an opportunity to showcase our program to supply chain practitioners and gain insight into trends and educational needs. We sponsored a hole at the 2022 tournament and plan to make this an annual event. It was at this event that we fielded a significant interest in developing an SCM concentration in our MBA program.

Community and Graduate Success

National Supply Chain Case Competitions

Since 2016, we have sent student teams to various national case competitions. Most recently, our students have competed at the GM/Wayne State case competition in fall and the Carson School (Minnesota) case competition in spring against some of the largest programs in the country. After making it to the finals for 4 out of 5 years, our team won the GM competition in 2020. Following that success, a different team of students competed virtually and won the Minnesota case competition in 2021. The opportunity for students to meet other SCM students and compete against large programs provides an invaluable experience for our students, increasing confidence in themselves and their individual skills and in the program as a whole.

AWE Scholarship competition

SCM graduate Amberly Carter was selected as a 2021 AWESOME (Advancing Women's Excellence in Supply Chain Operations, Management and Education) Education Scholar, earning a $5,000 tuition scholarship as well as the opportunity to attend the AWESOME Symposium and the CSCMP Edge Conference. Amberly was one of only twenty students selected for this honor.

Certificate Student Success

In 2021, we utilized Learn & Work in Utah funding to market our professional certificates to a wider audience in the community. With the funding, we invited individuals who had previously earned a bachelor's degree in a non-SCM field to enroll in our certificates. Two of the individuals who pursued a career change were hired at HAFB in contract management positions after completing the Professional Certificate in Purchasing. Several individuals were promoted within their current company and others are currently refining their resumes to seek greater opportunities in the field of SCM. SCM professionals have added depth and real-life examples to our classrooms and are able to immediately apply tools that they are learning in class. Participants are encouraged to complete a feedback survey at the end of the program, with an 80% response rate.

<u>Verbatims</u>

- I have already shared concepts I learned at work. One of the biggest take-aways was the supplier scorecard. At my job without having a tool like scorecard the supplier buyer relationship felt adversarial. The supplier scorecard was very useful in closing the communication gap to share what our needs were and encourage goal alignment.
- Is there a way to put together an accredited University level stack of supply chain management certification that stands on its own?
- Thank you for having a great program!
- Growing with the business school is an honor and a pleasure.
- The professors, instructors, and staff really care.
  Expect to expand your world. (When asked what advice you'd give to someone considering pursuing a certificate)

Alumni Survey

The desire of our alumni to stay connected to our program speaks to the relationships built between faculty, staff and students. Alumni have recently suggested an alumni board of some kind and we are in the process of developing plans. In the meantime, a LinkedIn alumni group has been created. Alumni have consistently been willing to be speakers for SCM events and college-wide courses, act as mentors to current students, and share job postings at their companies.

Standard H – Program Summary

No previous program reviews have been completed.

Action Plan for Ongoing Assessment Based on Current Self Study Findings

Action Plan for Evidence of Learning Related Findings

Problem Identified	Action to Be Taken
1. Based on industry partner board and student/alumni feedback, gaps in the curriculum were identified in the areas of project management, enterprise systems (i.e., ERP, WMS), data literacy/analytics, and warehousing.	- Identify peer and aspirant schools for comparison and benchmarking. - Review improvement options as a group, and choose the best path forward. - Take actions according to the selected path.
2. Timing of SCM 3050 in the curriculum, generally and for SCM majors, should support students interested in switching majors and connecting to the curriculum earlier in their academic career.	- Determine magnitude of this issue by working with advising, WSU databases and current/former students. - Develop a plan to adjust messaging, curriculum and/or advising to better meet the needs of students. - Implement the plan.
3. Students delay taking key supply chain classes until their final two semesters at Weber State, which leads to academic overload, lower student engagement, increased burnout and degraded performance.	- Determine magnitude of this issue by working with advising, WSU database, faculty and current/former students. - Develop/continue advising students to better balance workload of classes for better learning and engagement in each class. - Develop/modify approach to advising and course scheduling to enable better workload balancing for students.
4. Lack of student engagement or interest in high impact classes (case analysis, study abroad, internships and industry projects classes) leads to gaps in students' career readiness.	- Better understand this issue by working with faculty and current/former students to identify the benefits and barriers unique to WSU. - Review best practices at peer and aspirant institutions where possible, and use findings to adjust our approach. - Develop/implement plan as informed by previous analysis and based on feedback from key stakeholders.
5. Strategic awareness of the impacts and opportunities related to broad diversity issues in learning, enrollment, and support requires concerted efforts to ensure equity, inclusion and belonging throughout the program.	- Better understand this issue by working with administrators, advisors, faculty and current/former students. - Work with the college EDI committee and campus stakeholders to develop a strategic plan in this area. - Implement the proposed plan to enable and maintain an inclusive community and culture.

6. Except for SCM 3050, all SCM classes are only offered in the evening. This may discourage students who are unable (or unwilling) to take evening classes from joining the program. Should we offer daytime classes also?	- Better understand this issue by working with administrators, faculty and current/former students to identify the benefits, barriers, capacity needs and magnitude of the opportunity in providing both day and night-time classes for supply chain majors. - Adjust schedules, advising messaging, course maps, available adjuncts, etc. as needed to respond to findings.

Action Plan for Staff, Administration, or Budgetary Findings

Problem Identified	Action to Be Taken
1. Need for group coordination to develop and deploy Moyes Center resources available for strategic development purposes.	- Formally meet as a group to discuss potential opportunities related to strategic development funds through the Moyes Center. - Finalize a strategic plan to be deployed over the next 5-10 years.
2. Offering both daytime and evening courses (See item 6 in previous subsection) will impact faculty capacity and deployment.	- Need to assess this fully and make recommendations accordingly.
3. Need to increase visibility of SCM program and SCM field in general, requires a marketing plan and use of available funds to market appropriately on campus and in the region.	- Develop a short-term and long-term marketing plan for the program (BS, Certificates, etc.), focused on high school students, transfer students and working professionals seeking supply chain skill development. - Connect with service providers (on and off campus) to develop printed materials, online materials, and advertising campaigns across various media. - Deploy and maintain an ongoing marketing presence with feedback and adjustment activities built into the maintenance effort.

APPENDICES

Appendix A: Student and Faculty Statistical Summary

Appendix B: Faculty (current academic year)

Appendix C: Staff Profile

Appendix D: Financial Analysis Summary

Appendix E: External Community Involvement Names and Organizations

Appendix F: Site Visit Team (both internal and external members)

Appendix G: Evidence of Learning Courses within the Major

Appendix H: Faculty Bio Summaries

Appendix A: Student and Faculty Statistical Summary

Until 2018-2019, the SCM group was housed in the Business Administration (BSAD) department. Starting in 2019-2020, the SCM group joined the newly created Department of Supply Chain and Management Information Systems.

Supply Chain Management	2017-2018	2018-2019	2019-2020	2020-2021	2021-22
Department Student Credit Hours Total [1]	**14,331 (BSAD Dept)**	**15,558 (BSAD Dept)**	**5,477**	**5,728**	**5,470**
MIS Student Credit Hours	3,243	3,078	3,626	3,793	3,781
SCM Student Credit Hours	1,590	1,764	1,851	1,935	1,689
MIS and SCM SCH	4,833	4,842	5,477	5,728	5,470
Department Student FTE Total [2]	**477.7**	**518.6**	**182.6**	**190.9**	**182.3**
MIS FTE	108.1	102.6	120.9	126.4	126.0
SCM FTE	53.0	58.8	61.7	64.5	56.3
MIS and SCM FTE	161.1	161.4	182.6	190.9	182.3
Student Majors [3] (Supply Chain Only)	91	95	98	94	77
Second Major or Concentration	12	19	10	1	21
Total Majors & Second Majors	103	114	108	95	98
Minors	0	1	4	3	5
Program Graduates [4] (Supply Chain Only)					
Associate Degree	0	0	0	0	0
Bachelor Degree	21	24	22	31	17
Student Demographic Profile [5] (Supply Chain Only)					
Female	18	23	25	19	16
Male	73	72	73	75	61
	Department (includes BSAD and SCM)	Department (includes BSAD and SCM)	SCM Only	SCM Only	SCM Only
Department Faculty FTE Total [6]	**26.6**	**25.7**	**12.9**	**10.4**	N/A
Adjunct FTE	7.9	7.5	2.7	**2.5**	N/A
Contract FTE	18.8	18.2	10.2	7.9	N/A
Department Student/Faculty Ratio [7]	**17.9**	**20.2**	**14.2**	**18.4**	**N/A**

(*Note*: Data provided by Institutional Effectiveness. This is an extract from the Program Review Dashboard and shows what will be sent to the Boards of Trustees and Regents)

NOTES

Due to college restructuring and departmental changes, these data are our best reflection of actual departmental/program counts.

1 **Student Credit Hours Total** represents the total department-related credit hours for all students per academic year. Includes only students reported in Banner system as registered for credit at the time of data downloads.

2 **Student FTE Total** is the Student Credit Hours Total divided by 30 for undergraduate and by 20 for graduate.

3 **Student Majors** is a snapshot taken from self-report data by students in their Banner profile as of the third week of the Fall term for the academic year. Only 1st majors count for official reporting.

4 **Program Graduates** includes only those students who completed all graduation requirements by end of Spring semester for the academic year of interest. Students who do not meet this requirement are included in the academic year in which all requirements are met. Summer is the first term in each academic year.

5 **Student Demographic Profile** is data retrieved from the Banner system.

6 **Faculty FTE** is the aggregate of contract and adjunct instructors during the fiscal year. **Contract FTE** includes instructional-related services done by "salaried" employees as part of their contractual commitments. **Adjunct FTE** includes instructional-related wages that are considered temporary or part-time basis. Adjunct wages include services provided at the Davis campus, along with on-line and Continuing Education courses.

7 **Student/Faculty Ratio** is the Student FTE Total divided by the Faculty FTE Total.

Appendix B: Faculty (current academic year)

	Tenure and tenure-track	Contract	Adjunct
Number of faculty with Doctoral degrees	5	-	-
Number of faculty with Master's degrees	-	-	3
Number of faculty with Bachelor's degrees	-	-	-
Other Faculty	-	-	-
Total	5	-	3

Contract/Adjunct Faculty Profile

Name	Rank	Tenure Status	Highest Degree	Years of Teaching	Areas of Expertise
Nicholas Browne	Adjunct	n/a	MS SCM 2010 /ASQ (Lean Six Sigma)	2	Operations/SCM
Jordan Robinson	Adjunct	n/a	MBA 2010	8	Operations/SCM
James Taylor	Adjunct	n/a	MBA 2019 / PMP	5	Purchasing

Appendix C: Staff Profile

Name	Job Title	Years of Employment	Areas of Expertise
Nancy Tomon	Administrative Specialist	3	Administrative, Finance
Brett Merrell	Career Advisor	5	Career Advising, Interview/Resume Skills
Niki Tonks	Marketing Manager	6	Marketing, Strategic Planning
Jared McKeeth	Technology Specialist	1	Technology/Network Systems
Karen Hicks	Academic Advisor, Head	3	Academic Advising
Alex Muller	Academic Advisor	8	Academic Advising
Natalie Stoddard	Academic Advisor	1	Academic Advising

Appendix D: Financial Analysis Summary

(Information provided by Weber State University's Office of Institutional Effectiveness)

Supply Chain Management and Management Information Systems					
Funding	**17-18 (BSAD Dept)**	**18-19 (BSAD Dept)**	**19-20**	**20-21**	**21-22**
Appropriated Fund	3,436,976	3,941,041	1,877,410	1,967,999	1,480,754
Other: IW Funding from CE	343,334	352,501	120,000	115,000	146,667
Special Legislative Appropriation					
Grants or Contracts					
Special Fees/Differential Tuition	12,906	16,903	6,215	1,390	6,497
Total	**3,793,216**	**4,310,445**	**2,003,625**	**2,084,389**	**1,633,918**
Student FTE Total	477.70	518.60	182.57	190.93	182.33
Cost per FTE	**$7,941**	**$8,133**	**$10,975**	**$10,917**	**$8,961**

Appendix E: External Community Involvement Names and Organizations

The following are members of the Moyes Center Industry Partner Board.

Name	Organization
James Bradley	Petzl America
Larry Bratton	PMI Foods
Jason Chynoweth	Intermountain Health Care
Nathan Day	formerly Vobev and Danone North America
Mike Erickson	O.C. Tanner
Gina Gammick	United States Air Force (retired)
Justin Horsley	Workday
Todd Mills	Utah Transit Authority
Bekah Moore	Northrop Grumman Innovation Systems
Howard Silverman	The Synergy Company
Marvin Steed	L-3 Communications
James Taylor	LSI (Logistic Specialities Inc.)
Joe Tomon	Procter & Gamble
Melanie Webber	Autoliv
Matt Williams	formerly Visible Supply Chain Management
Michael Wadley	JBTC

Appendix F: Site Visit Team (both internal and external members)

Name	Position	Affiliation
Jennifer Anderson	Chair, Business Administration Dept.	Weber State University
Jeff Ogden	Chair, Dept. of Marketing, Logistics and Operations	University of North Texas
Vijay Kannan	Chair, Dept. of Management	Utah State University

Appendix G: Evidence of Learning <u>Courses within the Major</u>

This appendix contains the learning outcome findings, action plans and closing the loop activities for each of our learning outcomes. The information is presented by courses where the measures are collected (one table per course). The list of courses is SCM 3050 (for LO 3), SCM 3500 (for LO 1), SCM 4100 (for LO 1), SCM 4500 (for LO 2) and SCM 4550 (for LO 3 and LO 4).

Course: SCM 3050 Semester taught: Fall, Spring, Summer Sections included: Spring

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 3: *Collaboration skills*	Measure 1: We use the Comprehensive Assessment of Team Member Effectiveness (catme.org) peer evaluation survey. The survey is administered after students have completed their first group assignment. The measure is the average of the students' scores for (1) Contribution to work, (2) Interactions with teammates, and (3) Keeping team on track, which are measured on	Measure 1: It is expected that 80% or more of students will have an average greater than 4.	Measure 1: Sp. 2020: 85.9% Sp. 2021: 78.0% Sp. 2022: 85.2%	Measure 1: The 2020 measure was collected before the COVID-19 pandemic while classes were held in person. The pandemic and the move to online appears to have negatively impacted the students' ability to collaborate. Instruction was back to in-person in 2022, when the measure value returned to pre-pandemic levels.	Spring 2022 will offer a measure for both virtual and face-to-face sections of the same SCM 3050, which will provide a basis for comparison. In Spring 2022, due to the instructional schedule, the measure was collected only in one section, which was taught face-to-face. The results	In the future, we should consider separate measures for different modalities (face-to-face vs. virtual).

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
	a scale from 1 to 5, where a higher score is better.				suggest a COVID-19 effect might be at play.	

*Direct and indirect: at least one measure per objective must be a direct measure.

Course: SCM 3500 Semester taught: Fall & Spring Sections included: Spring

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 1: *Data-driven decision making*	Measure 1: We use the course final examination.	Measure 1: It is expected that 80% or more of students will score 80% or higher on the course final exam.	Measure 1: Sp. 22: 81.4%	Measure 1: The measure for Spring 2022 meets the target performance.	Spring 2022 was the first time the measure was collected. We plan on collecting this measure every spring.	

*Direct and indirect: at least one measure per objective must be a direct measure.

Course: SCM 4100 Semester taught: Fall & Spring Sections included: Spring

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 1: *Data-driven decision making*	Measure 2: We use the score on a multi-stage simulated process improvement project.	Measure 2: To be defined later.	Measure 2:	Measure 2:		

*Direct and indirect: at least one measure per objective must be a direct measure.

Course: SCM 4500 Semester taught: Spring Sections included: Spring

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 2: *Communication skills*	Measure 1: We use the course final examination. The exam is a written case final, where students are presented with a real-life business scenario. Students must distill the major issues from the case, determine necessary decisions and	Measure 1: It is expected that 80% or more of students will score 77% (C+) or higher on the communication portion of the course final exam.	Measure 1: Sp 2022: 88%	Measure 1: The measure for Spring 2022 meets the target performance.	In the future, we may need to reexamine the assessment to split it between written and verbal communication with potentially two points of assessment.	

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
	provide a supported recommendation.					

*Direct and indirect: at least one measure per objective must be a direct measure.

Course: SCM 4550 Semester taught: Spring Sections included: Spring

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 3: *Collaboration skills*	Measure 2: This measure is a repeat of the measure for this learning outcome in SCM 3050.	Measure 2: It is expected that 90% or more of students will have an average greater than 4.	Measure 2: Sp. 2022: 100%	Measure 2: This measure is exactly the same as the SCM 3050 measure for this outcome. SCM 3050 is the introductory course, while SCM 4550 is one of the last courses SCM majors take. In SCM 3050, the measure was about 85%, whereas it is 100% in SCM 4550. This suggests an improvement in collaboration skills among our students between the first and last course, perhaps	Spring 2022 was the first time the measure was collected. We plan on collecting this measure every spring.	

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
				as a result of our experiential curriculum.		
Learning Outcome 4: *Application of core SC functional skills*	Measure 1: As an exploratory measure, we used a practice test from CSCMP's SCPro Level One certification practice exam. The test consisted of 24 questions (3 questions in each of the 8 knowledge areas), with each question worth one point.	Measure 1: It is expected that 80% or more of students will get a score greater than 16. (Note that the passing grade of the CSCMP exam is 65% which is 15.6/24.)	Measure 1: Sp. 2022: 31%	Measure 1: The measure falls short of the target performance by a large margin.	Spring 2022 was the first time the measure was collected. The CSCMP exam was chosen because it covers all functional areas within SCM. We analyzed student responses for each question. The questions for which many students did not have a correct answer are not found in specific functional areas. Our analysis suggests students may have been confused by the wording of the CSCMP questions.	Reinforce students' comprehension of the following concepts in such a way that students can recognize them even under different verbalizations: ● Efficiency ● Effectiveness ● Systems thinking ● Dependent vs. independent variables ● Total landed cost

*Direct and indirect: at least one measure per objective must be a direct measure.

Appendix H: Faculty Bio Summaries

Faculty Name	Evan Barlow
Education	● PhD in Operations Management, Northwestern University (2016) ● MS in Chemical Engineering, University of Texas at Austin (2007) ● BS in Chemical Engineering, BYU (2004)
Publications (recent)	1. Barlow, E, Allon, G, Bassamboo, A. Worker poaching in a supply chain: Enemy from within? Manage Decis Econ. 2020; 41: 695– 709. 2. Barlow, E, Allon, G, Bassamboo, A. The autonomous flexible labor force. Manage Decis Econ. 2021; 42: 516– 527. 3. Lobben, P, Barlow, E, et al. Control Strategy for the Manufacture of Brivanib Alaninate, a Novel Pyrrolotriazine VEGFR/FGFR Inhibitor. Org. Process Res. Dev. 2015; 19(8): 900-907. 4. McClure, S, Barlow, E, et al. Effect of Dilute Nitric Acid on Crystallization and Fracture of Amorphous Solid Water Films. J. Phys. Chem. C 2007; 111(28): 10438–10447. 5. Broxer, S, Barlow, E, et al. The Development of a Robust Process for a CRF1 Receptor Antagonist. Org. Process Res. Dev. 2011; 15(2): 343–352. 6. McClure, S, Barlow, E, et al. Transport in Amorphous Solid Water Films: Implications for Self-Diffusivity. J. Phys. Chem. B 2006; 110(36): 17987–17997. 7. Goodman, P, Barlow, E, et al. Computational Model of Device-Induced Thrombosis and Thromboembolism. Annals of Biomed. Eng. 2005; 33: 780–797. 8. Hunsaker, M, Barlow, E, et al. Renewable transportation fuels from biomass and black liquor. Science in Thermal and Chemical Biomass Conversion 2006; 2
Other intellectual contributions	1. Barlow. A Novel, Scalable Machine Learning Task: Applications to Goal AI, Prescriptive Analytics, and Game Theory. Kellogg Operations 2018, INFORMS 2018-19, DSI 2018 2. Barlow, Allon, Bassamboo. Worker Poaching in Supply Chains: Enemy from Within? MSOM 2014-15, INFORMS 2013-18 3. Barlow, Allon, Bassamboo. Flexible Autonomous Workers. INFORMS 2015, 2017-18; POMS 2018
Current professional engagement	● Engagement with local elected officials and public servants ● Board member of Weber County Smiles Program ● Reviewer for operations, SCM, and economics publications
Courses taught	● SCM 3050: Operations and Supply Chain Management

	● SCM 3500: Prescriptive Analytics in Spreadsheets ● MIS 2040: Business Analytics in Python

Faculty Name	**François C. Giraud-Carrier**
Education	● Ph.D. in Operations Management, University of Utah (2014) ● M.S. in Industrial Engineering, Paris Institute of Technology, France (1994) ● Certified Associate in Project Management from the Project Management Institute (2020) ● SCPro Level One certificate of the Council of Supply Chain Management Professionals (2021)
Publications (recent)	1. Giraud-Carrier, F. C., Fawcett, S. E., & Fawcett, D. M. (2021). SPARRING: A Deliberate Practice Pedagogy for Business Education. Decision Sciences Journal of Innovative Education, 19(4), 229-240. 2. Anand, K. S., & Giraud-Carrier, F. C. (2020). Pollution Regulation of Competitive Markets. Management Science. 66(9) 4193–4206. 3. Fawcett, S. E., Giraud-Carrier, F. C., & Fawcett, A. M. (2020). Using Deliberate Practice to Transform Learning Culture: Helping Students Put Real Skills in their OSCM Toolbox. Decision Sciences Journal of Innovative Education, 18(2), 172-202. 4. Agarwal, A., Giraud-Carrier, F. C., & Li, Y. (2018). A mediation model of green supply chain management adoption: The role of internal impetus. International Journal of Production Economics, 205, 342-358. 5. Agarwal, A., & Giraud-Carrier, F. C. (2018). Green supply chain management adoption in Midwest manufacturing: The role of suppliers. SAM Advanced Management Journal, 83(3), 4-16.
Other intellectual contributions	1. "Pollution Regulation under Imperfect Competition", MSOM Sustainability SIG, UT Dallas, TX, July 2018. 2. "Supplier Integration and Firm Performance: A Meta-Analytic SEM Study", POMS annual meeting, Washington DC, May 2019. 3. "Driving Home the Concept of Externalities: The Freeway Game", DSI annual meeting, New Orleans, LA, November 2019. 4. "Fairness in Pollution Regulation: The 'Polluter-Pays' Principle under Cap-and-Trade", DSI annual meeting, New Orleans, LA, November 2019. 5. "SPARRING: From Knowledge Transfer to Competency Building", DSI annual meeting, New Orleans, LA, November 2019. 6. "Active Learning Exercises for Operations and Supply Chain Management Through Exploration of the COVID-19 Pandemic", DSI annual meeting, San Francisco, CA, November 2020. 7. "How to incorporate Deliberate Practice in Course and Curriculum Design", Professional Development Workshop, POMS annual meeting, Online, May 2021.

	8. "Coal to Carbon Fiber Current Viability", CrossTalk Conference, Utah Advanced Materials and Manufacturing Initiative, Price, UT, September 2022.
Current professional engagement	● Member of the editorial board of the Decision Sciences Journal of Innovative Education. ● Reviewer for Management Science, the Production & Operations Management journal, the Decision Sciences Journal of Innovative Education and Omega. ● Principal investigator of 2021 Red Barn SCM Returnship Learn & Work grant ($110,212) ● Grant writer of 2022 Red Barn SCM Returnship grant ($69,000) ● Research team member of UAMMI Coal-to-Carbon-Fiber grant ($90,000) (2021–2022)
Courses taught	● SCM 3050: Operations & Supply Chain Management | [face-to-face & virtual hybrid] ● SCM 4550: Strategic Supply Chain Design | [face-to-face] ● SCM 4840: Operations & Supply Chain Industry Projects | [face-to-face] ● MBA 6580: Project Management | [hybrid]

Faculty Name	**Alicia R. Ingersoll**
Education	● Ph.D., Sociology, Utah State University (2019) ● M.B.A., Westminster College (2011) ● B.S, Political Science, University of Utah (2004) ● Certified Supply Chain Professional (CSCP), ASCM formerly APICS (2009)
Publications (recent)	1. Ingersoll, A., Cook, A. & Glass, C. (*Forthcoming*). Under pressure: Finding organizational legitimacy through the supply chain. *Journal of General Management.* 2. Ingersoll, A**.,** Glass, C. & Cook, A. (2021). Corporate Lawyers in the USA: Pathway to gender parity. *Gender in Management,* 36(2), 294-308. 3. Li, K., Li, Y., Gu, Q. & Ingersoll, A**.** (2019). Optimal service channel decisions with remanufactured product and protection plan service. *International Journal of Production Research* 57(4), 1066-1081. 4. Ingersoll, A., Glass, C., Cook, A., & Olsen, K. (2019). Power, status and expectations: How narcissism manifests among women CEOs. *Journal of Business Ethics* 158(4), 893-907. 5. Cook, A., Ingersoll, A**.** & Glass, C. (2019). Gender gaps at the top: Does board composition affect executive compensation? *Human Relations* 72(8), 1292-1314. 6. Glass, C., Cook, A., & Ingersoll, A. (2016). Do women leaders promote sustainability? Analyzing the effect of corporate governance composition on environmental performance. *Business Strategy and the Environment* 25(7), 495-511

Other intellectual contributions	1. Abulbasal, R., Ingersoll A**.** & Glass C. (*Forthcoming*). Sociological approaches to women and leadership theory. Handbook of Research on Gender and Leadership, 2nd edition, edited by Susan R. Madsen. Edward Elgar Publishing. 2. Glass, C**.,** Ingersoll, A., & Cook, A. (2022). Greater inclusion at the top strengthens company performance*. I by IMD, Summer 2022.* 3. Cook, A., Glass, C. & Ingersoll, A. (March 2022). Who Speaks for Justice? Individual and Institutional Predictors of CEO Activism. Vienna University of Economics and Business Gender and Diversity Conference, Vienna, Austria (zoom presentation). 4. Giraud-Carrier, F., Neve, B., & Ingersoll, A. (November, 2021). SPARRING: How to Incorporate Deliberate Practice in Course & Curriculum Design. Professional Development Workshop (PDW) present at Decision Sciences Institute Annual Conference, Online. 5. Ingersoll, A., Glass, C. & Cook, A. (March 2019). Credentialed for Success. Presented at the Pacific Sociological Association Conference, Oakland, CA.
Current professional engagement	● Reviewer for Business, Strategy & the Environment, Gender in Management: An international Journal, Equity, Diversity and Inclusion: An international journal.
Courses taught	● SCM 3050: Operations and Supply Chain Management ● SCM 4400: Global Supply Chain Management ● SCM 4500: Supply Chain Relational Skills ● MBA 6120: Organizational Behavior

Faculty Name	**Benjamin Neve**
Education	● PhD, Operations Management, University of Alabama (2011) ● MS, Operations Management, University of Alabama (2008) ● BS, Mathematics, Southern Utah University (2006) ● PMP, Project Management Institute, (2014-Present)
Publications (recent)	1. Neve, B.V., Schmidt, C.P. (August 2022) “Point-of-Use Hospital Inventory Management with Inaccurate Usage Capture.” Health Care Management Science 2. Schvaneveldt, S., Neve, B.V. (March 2021) “Combatting the COVID-19 Pandemic with Quality Tools” Quality Progress

	3. Neve, B.V., Schmidt, C.P. (April 2018) "Rationing Inventory Over Multiple Demand Classes With Backorders" North Eastern Decision Sciences Institute Annual Meeting Proceedings (NEDSI)
Other intellectual contributions	● Neve, B.V., Tcheng, J., Sayles, P. (Forthcoming) "Integrating inventory data management with clinical workflows to reduce clinician burden and improve care processes and outcomes" - National Institute of Health Grant FOA PA-21-164. ● Neve, B.V., (March 2022) "Data-Driven Decision Making: Supply Chain Lessons from COVID 19" Logistics Officers Association Annual Symposium – 40th Anniversary (Invited Speaker) ● Giraud-Carrier, F., Neve, B.V., Ingersoll, A. (November 2021). SPARRING: How to Incorporate Deliberate Practice in Course & Curriculum Design. Professional Development Workshop (PDW) present at Decision Sciences Institute Annual Conference, Online. ● Neve, B.V., Chen, W. "Collaboratively Addressing the Opioid Epidemic within a Complex Network of Competing Stakeholders" 2019 DSI Annual Meeting ● Chen.W., Neve, B.V. "New Information Infrastructure for Handling the Opioid Epidemic - A Blockchain Perspective" 2019 INFORMS Annual Meeting ● Chen, W., Neve, B.V. "Playbook for General Managers in NFL Free Agency Market" 2018 INFORMS Annual Meeting ● Neve, B.V., Schmidt, C.P. "Rationing Inventory Over Multiple Demand Classes With Backorders" 2018 NEDSI Annual Meeting ● Raja, M., Neve, B.V. "The Role of Instructors in the Age of Augmented Learning" 2018 NEDSI ● Neve, B.V. (October 2017) "How Important is Quality as a Competitive Advantage?" Quality Quarterly Magazine – Invited Editorial
Current professional engagement	● Reviewer for Healthcare Management Science ● Analytics/Operations/SCM consultant for a variety of companies in New Hampshire, Utah, Maryland, Virginia and Pennsylvania
Courses taught	Weber State University (2021-2022) ● SCM 2400: Fundamentals of Project Management ● SCM 3050: Operations and Supply Chain Management ● SCM 3600: Logistics and Transportation ● SCM 4700: Case Analysis, Logic and Presentation ● MBA 6580: Project Management Previous (2017-2020) ● Undergraduate ○ Business Statistics I ○ Business Statistics II ○ Intro to Operations Management ○ Global Supply Chain Management

	○ Data Driven Decision Making ○ Modeling and Simulation ○ Six Sigma ● MBA ○ Business Intelligence ○ Continuous Improvement and Lean ○ Six Sigma Process Improvement ○ Supply Chain Optimization ○ Directed Study (Grad Student Research Advisor 2018-2020)

Faculty Name	**Shane J. Schvaneveldt**
Education	● Ph.D., Industrial engineering and management/Operations management - Tokyo Institute of Technology, 1992 ● M. Engr, Industrial engineering and management - Tokyo Institute of Technology, 1989 ● BS, Applied statistics - Utah State University, 1985 ● Certified Quality Engineer, Certified Quality Process Analyst, Certified Six Sigma Green Belt: American Society for Quality
Background	Joined the WSU faculty in 1992 and named as a Presidential Distinguished Professor since 2013. Served as Examiner, Board of Examiners for United States' Malcolm Baldrige National Quality Award. Recipient of Fulbright Senior Scholar Fellowship for research on environmental initiatives in Japanese industry. Co-recipient of Nikkei Quality Management Literature Prize (awarded by Deming Prize Committee, Japan) and Green Business Pioneer Award (*Utah Business* magazine). Recipient of 2021 CSCMP Teaching Innovation Award, 2017 Decision Sciences Institute Instructional Innovation Award, WSU Exemplary Collaboration Award, WSU Outstanding Undergraduate Research Mentor Award (multiple years).

Publications (recent)	1. Frank, B; Herbas-Torrico, B; Schvaneveldt, S.J. (2021) The AI-extended consumer: Technology, consumer, country differences in the formation of demand for AI-empowered consumer products. *Technological Forecasting and Social Change*, Vol 172, November 2021, Article 121018. 2. Schvaneveldt, S.J., Neve, B.V. (2021) Proving Their Mettle: Combating the COVID-19 pandemic with quality tools, *Quality Progress,* Vol 54(3), pp 24-31. 3. Syahrial, E; Suzuki, H; Schvaneveldt, S. J. (2019) The impact of serviceability-oriented dimensions on after-sales service cost and customer satisfaction. *Total Quality Management and Business Excellence*, Vol 30 Issue 11-12, pp 1257-1281. 4. Syahrial, E., Suzuki, H., Schvaneveldt, S. J., Mitsuki, M. (2018) Customer Perceptions of Mediating Role of Ownership Cost in Garvin's Dimensions of Quality, *Journal of Japan Industrial Management Association*, Vol. 69 (2E), pp 95-112. 5. Frank, B; Schvaneveldt, S J (2016) Understanding Consumer Reactions to Product Contamination Risks after National Disasters: The Roles of Knowledge, Experience, and Information Sources. *Journal of Retailing and Consumer Services*, Vol 28, pp 199-208. 6. Frank, B; Enkawa, T, Schvaneveldt, S J (2015) The Role of Individualism vs. Collectivism in the Formation of Repurchase Intent: A Cross-Industry Comparison of the Effects of Cultural and Personal Values. *Journal of Economic Psychology*, Vol 51, Dec 2015, pp 261-278. 7. Frank, B; Enkawa, T, Schvaneveldt, S J, Herbas Torrico, B (2015) Antecedents and consequences of innate willingness to pay for innovations: Understanding motivations and consumer preferences of prospective early adopters. *Technological Forecasting & Social Change*, Oct 2015, Vol 99, pp 252-266.
Other intellectual contributions (selected)	1. Schvaneveldt, S.J. (2021) Framing Corporate Sustainability Goals Regarding Climate Change: Comparative Case Analyses, Decision Sciences Institute Annual Conference, virtual, Nov 17-20, 2021. 2. Schvaneveldt, S.J.; Giraud-Carrier, F.; Barlow, E. (2021) Exploring Supply Chain Disruptions: An Active Learning Exercise for Connecting High School Students to SCM, Proceedings of CSCMP Academic Research Symposium, Sep 18-19, 2021, Atlanta. (selected as Winner of 2021 CSCMP Teaching Innovation Award) 3. Schvaneveldt, S.J.; Giraud-Carrier, F.; Barlow, E (2020) Active Learning Exercises for Operations and Supply Chain Management Through Exploration of the Covid-19 Pandemic, Decision Sciences Institute 2020 Annual Meeting, Nov 21-23, 2020, virtual conference. (selected as Finalist for DSI 2020 Instructional Innovation Award) 4. Schvaneveldt, S.J. (2019) Mistake-Proof the Miss Universe Pageant and Academy Awards, ASQ World Conference on Quality and Improvement, May 20-22, 2019, Fort Worth TX. 5. Frank, B; S.J. Schvaneveldt, B. Herbas Torrico (2019): AI Purchase Motivations: International and Technological Differences, Proceedings of the ANZMAC 2019 Conference 6. Schvaneveldt, S.J. (2018) Teaching Behavioral Aspects of Waiting Line Management, Northeast Decision Sciences Institute Annual Conference, Providence RI, April 12-14, 2018. 7. Schvaneveldt, S.J. (2017): Mistake-Proofing the Miss Universe Pageant and Academy Awards: An Active Learning

	Exercise, Proceedings of Decision Sciences Institute Annual Meeting, Washington, DC, Nov 18-20, 2017. (selected as Winner of DSI 2017 Instructional Innovation Award) 8. Schvaneveldt, S.J. (2017) A Critical, Systems View of Zero Waste-to-Landfill Initiatives, Decision Sciences Institute Annual Meeting, Washington, DC, Nov 18-20, 2017. 9. Schvaneveldt, S.J. (2017): 'Follow the Supply Chain' – A Unifying Theme for International Study Trips. Proceedings of CSCMP Academic Research Symposium (ARS 2017), Sep 23-24, 2017, Atlanta, GA. 10. Schvaneveldt, S.J., S. Brockhaus (2017) Zero Waste Initiatives in Business: A Critical Examination. International Society for Industrial Ecology / International Symposium on Sustainable Systems and Technology (ISIE-ISSST) 9th Biennial Conference, Chicago, IL, June 25-29, 2017. 11. Björn Frank and Shane J. Schvaneveldt (2017) International Differences in the Customer Value of Autonomous Driving Systems. International Conference on Logistics and Maritime Systems 2017, Aug 23-26. 12. Syahrial, E.; H. Suzuki; S.J. Schvaneveldt (2016) Serviceability Practices and Their Impact on Operational Performance: An Empirical Analysis. POMS 2016 Annual Conference, May 6 - 9, 2016, Orlando, FL. 13. Schvaneveldt, S.J. (2016) Utah's Zero Waste Businesses, Intermountain Sustainability Summit, Mar 24-25, 2016, Ogden, UT. 14. Keynote Speaker, "Quality Management for Achieving Competitiveness and Monozukuri: Perspectives of USA and Japan", Symposium of the Japan Society for Vocational Education and Training, Hosted by Polytechnic University/Japan Ministry of Health, Labour and Welfare. Tokyo, Nov 25, 2016.
Current professional engagement	● Chair, Golden Spike Section of the American Society for Quality (ASQ) ● ASQ Certification Board, Subcommittee for Certified Quality Process Analyst, American Society for Quality, 2018, 2019. ● Editorial Board Member, Quality Management Journal (ASQ/Taylor & Francis) ● Reviewer, Quality Management Journal, Decision Sciences Journal of Innovative Education, and other journals ad hoc ● "Guest Professor (Global)" joint research with Dept. of Industrial and Systems Engineering, Keio University, Japan. Funded approx. $12,000 by "Super Global University" program, Keio University/Japanese Ministry of Education. ● Director, Board of Directors, Weber State Credit Union, Ogden UT, Jan 2009 – April 2018
Courses taught	● SCM 4100: Quality Management and Process Improvement ● SCM 4860: Supply Chain Management Internship ● MBA 6150: Operations/Supply Chain Management ● MBA 6370: Continuous Process Improvement and Strategy in Aerospace Management ● MBA 6550: Managing and Improving Quality ● MBA 6520 - International Business Field Studies: Ecuador and Peru ● MBA 6700: Managing for Sustainability