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Criterion 4. Teaching and Learning: Evaluation and Improvement

The institution demonstrates responsibility for the quality of its educational programs, learning environments and support services, and it evaluates their effectiveness for student learning through processes designed to promote continuous improvement.

4.A. Core Component

The institution ensures the quality of its educational offerings.

- 1. The institution maintains a practice of regular program reviews and acts upon the findings.
- The institution evaluates all the credit that it transcripts, including what it awards for experiential learning or other forms of prior learning, or relies on the evaluation of responsible third parties.
- 3. The institution has policies that ensure the quality of the credit it accepts in transfer.
- 4. The institution maintains and exercises authority over the prerequisites for courses, rigor of courses, expectations for student learning, access to learning resources, and faculty qualifications for all its programs, including dual credit programs. It ensures that its dual credit courses or programs for high school students are equivalent in learning outcomes and levels of achievement to its higher education curriculum.
- 5. The institution maintains specialized accreditation for its programs as appropriate to its educational purposes.
- 6. The institution evaluates the success of its graduates. The institution ensures that the credentials it represents as preparation for advanced study or employment accomplish these purposes. For all programs, the institution looks to indicators it deems appropriate to its mission.

Argument

4.A.1. The institution maintains a practice of regular program reviews and acts upon the findings.

Academic units conduct program reviews every five years in rotation. Deans present relevant excerpts of reports to Finance and Budget (F&B) and Faculty and Educational Affairs (FEAC)

committees of the Board of Trustees (BOT). Reviews include analysis of measures related to student success, operations, faculty workload, inclusive excellence, finances, and strategic plans. The last six full college-level program review reports are available [Sturm College of Law (SCOL), University College (UCOL), Morgridge College of Education (MCE), Graduate School of Social Work (GSSW), Josef Korbel School of International Studies (JKSIS), Ritchie School of Engineering and Computer Science (RSECS)].

In the last five years, every college has been reviewed and discussed with unit-level leadership, senior leadership, and the BOT. In each review, the dean constructs a narrative based on comprehensive data provided by central administration. Deans and unit-level leadership contextualize data to inform five-year strategic plans and identify areas of success and concern. DU's review process was highlighted in an *Academic Impressions* webcast on "Strategies for Effective and Actionable Academic Program Reviews."

The BOT receives a summary of all program openings and closings from the last 10 years and a summary of program enrollments in the <u>Active Academic Program Report [2017, 2018</u>, and 2019 Active Academic Program Reports]. In January 2020, the BOT reviewed academic program changes from 2009-2019 and concluded that the University has been disciplined and conscientious in opening new academic programs and closing outdated, under-enrolled, and less competitive programs [2019 Active Academic Programs Report]. Over the last ten years, 80 programs have been added and 70 closed. Some changes are re-launches of degree programs with different requirements, degree names, or major names; e.g., University College closed the MLS in Global Affairs and reopened it as the MS in Global Community Engagement. Some reflect new offerings, like the Executive PhD in Business.

DU creates regular opportunities for deans to identify struggling academic programs and deploy immediate interventions. A <u>Key Performance Indicator Dashboard</u> (KPI) was created in 2020 to provide deans with current data and built-in thresholds indicating vulnerable program performance.

4.A.2. The institution evaluates all the credit that it transcripts, including what it awards for experiential learning or other forms of prior learning, or relies on the evaluation of responsible third parties.

The <u>Undergraduate Transfer Policy</u> documents how credit for prior learning is evaluated, from Advanced Placement (AP) and International Baccalaureate (IB) credit and other exams to experiential learning, and maintains that only coursework recorded on an official transcript per the <u>University's Transcript Acceptance Policy</u> is eligible for transfer. The <u>Graduate Bulletin</u> articulates policies regarding prior learning and credit. Ellucian Degree Works Transfer Equivalency provides tools to efficiently determine how coursework from other institutions is assessed and applied.

Procedures for international transcript evaluation maintain integrity and consistency in conversion to DU's evaluation/grading scale. For undergraduates, the <u>Office of International Student Admission</u> evaluates transcripts. At the graduate level, we employ an external credit evaluation through <u>Educational Credential Evaluators</u>.

Students, parents, or DU community members with questions about transfer equivalencies can use an interactive system to negotiate unique situations. A registration form for experiential

<u>learning</u> credit must be submitted to the Registrar prior to the experience to earn credit. An <u>online experiential learning approval module</u> has been introduced, with 10 departments using the module as of April 2019.

Because studying abroad is an important part of the DU experience course approvals are articulated <u>online</u> and in the study abroad <u>handbook</u> for students. The Office of International Education created a comprehensive list of course equivalencies from international institutions that streamlines the transfer review process and regularly updates its Grades and Credits Translation Scale [AY 2018-19 Updates].

DU supports two ROTC programs, <u>Air Force ROTC</u> and <u>Army ROTC</u>. While specialized courses are taught at nearby institutions, <u>Air Force ROTC courses</u> and <u>Army ROTC courses</u> have DU course codes and count for resident credit.

4.A.3. The institution has policies that assure the quality of the credit it accepts in transfer.

DU ensures transparency in <u>undergraduate transfer policies</u> for students and those who administer these policies, allowing consistent interpretation and application throughout the institution and responsiveness to new learning opportunities.

DU awards transfer credit for Advanced Placement (AP) and higher-level International Baccalaureate (IB) exam scores that meet the criteria [AP and IB Credit Form]. For Colorado community colleges, DU accepts courses from the system's general education curriculum guaranteed to transfer to DU's bachelor's program. Guided Pathways allows graduates from a Colorado community college with a 60-credit associate degree to enroll with junior status to complete a bachelor's, such as: Biology, Business, Economics, French, History, and Theatre.

Subject matter, institution, and course grade affect <u>transferability of credits</u> to the Bachelor of Arts Completion Program at UCOL. Usually, courses taken in baccalaureate disciplines of the arts and sciences are readily transferable. Credits from professional programs are considered on a course-by-course basis.

As stated in 4.A.2, DU also provides clear guidelines for transfer credit at the graduate level. See the <u>Graduate Bulletin</u> for graduate transfer policy.

4.A.4. The institution maintains and exercises authority over the prerequisites for courses, rigor of courses, expectations for student learning, access to learning resources and faculty qualifications for all its programs, including dual credit programs. It assures that its dual credit courses or programs for high school students are equivalent in learning outcomes and levels of achievement to its higher education curriculum.

DU maintains authority over prerequisites for courses, rigor of courses, expectations for student learning, access to learning resources, and faculty qualifications for all programs. All course proposals are managed in Courseleaf and faculty members can edit those courses [Course Proposal and Course Change Instructions]. Course rigor, pre-requisites, and expectations for student learning are determined by faculty and reviewed by chairs, deans, and the Vice Provost for Academic Affairs. Students are notified if they attempt to register for a course without meeting prerequisites. Instructors or departments can override prerequisites on a case-by-case basis [instructions] and example].

Upon faculty hire, educational qualifications are confirmed within human resources. As detailed in 3.C, 90% of full-time faculty have terminal degrees. For those without terminal degrees, each unit has a process/procedure for documenting "otherwise qualified" status. As detailed in 3.C, all offers and appointments flow through the provost's office [Resources for Faculty Hiring] and the process of faculty evaluation follows Policies and Procedures Relating to Faculty Appointment, Promotion and Tenure.

DU does not offer dual credit programs linked to any high school. As a part of <u>The Early Experience Program</u>, high school juniors and seniors enroll in unmodified university-level courses. Students are graded and receive college-level credit.

4.A.5. The institution maintains specialized accreditation for its programs as appropriate to its educational purposes.

As mentioned in 3.A.1, many schools and programs have external accreditations to ensure quality and rigor. The <u>Institutional Research website</u> lists accredited programs [<u>Specialized Accreditations List</u>].

4.A.6. The institution evaluates the success of its graduates. The institution assures that the degree or certificate programs fit represents as preparation for advanced study or employment accomplish these purposes. For all programs, the institution looks to indicators it deems appropriate to its mission, such as employment rates, admission rates to advanced degree programs, and participation rates in fellowships, internships, and special programs (e.g. Peace Corps and Americorps).

The Office of <u>Career and Professional Development</u> (CPD) evaluates graduate outcomes and enhances the career success of students and alumni through coaching, programming, and resources; facilitating connections between students, alumni, parents/families, and employers; and experiential learning and professional development opportunities relevant to students and alumni at all career stages.

To assess success of graduates and ensure DU's degree programs prepare students for advanced study and careers, CPD and individual units analyze numerous indicators, including:

- First-destination outcome rates
- Licensure acquisition
- Participation in fellowships and special programs
- Alumni career mobility

First Destination Employment Outcomes

In 2016, DU began participating in national post-graduation outcomes reporting following guidelines developed by the National Association of Colleges and Employers (NACE). While we previously gathered first-destination data, aligning with national standards allows DU to better analyze how our six-month post-graduation outcomes compare to national and regional peers [Class of 2018 Comparative Data].

The first destination survey identifies outcomes for recent graduates. For the class of 2019, 90.3% of undergraduates, 92.8% of master's students, and 94.7% of doctoral students were either

employed, continuing their education, or in military/service six months after graduation. Data collected, including average salary, internship participation rates, and job source is comprehensive and representative of DU's student body. [Class of 2017 Outcomes Report, Class of 2018 Outcomes Report, Class of 2019 Outcomes Report].

Each year, CPD analyzes first-destinations data to identify patterns for students who are employed or seeking employment and predictive factors that allow us to be proactive with students around career planning and development. When CPD identified that students who graduate in November or March are more likely to report "seeking employment" six months after graduation, a monthly outreach strategy was launched for these graduates. Analysis revealed that students who engage in career development activities regularly are more likely to secure employment within six months. Therefore, CPD set an aggressive goal that by 2025, 90% of students would engage in career development activities annually. In 2017, CPD began documenting student engagement and reporting to staff bi-weekly. CPD estimates that the team engaged 35% of undergraduates and 25% of master's students in 2016-2017 compared to 63% of undergraduates and 36% of master's students in 2018-2019 [FY19 Campus Advancement Culture Report]. CPD uses information about less-engaged students to conduct outreach to faculty regarding curricular integration and to develop relevant new programming.

CPD produces college-level reports summarizing outcomes for each undergraduate and graduate major and program. When national data become available, CPD <u>benchmarks post-graduation</u> <u>outcomes rates</u> for all majors and programs to identify how each is performing compared to national averages. CPD staff meet with department chairs to review data and brainstorm opportunities for greater collaboration around career development, employer outreach, and internship support.

In addition to analyzing first-destination employment information, professional units collect reporting specific to professional academic programs. Daniels College of Business collects and reports data following MBA Career Services and Employer Alliance (MBA CSEA) standards [AACSB Fifth year Continuous Improvement Report 2019]. The American Bar Association requires reporting on post-graduation outcomes for law degrees measured ten months after graduation [SCOL 2018 Employment Summary]. JKSIS tracks employment rate, sector and position, and internship completion rates for all graduates following Association of Professional Schools of International Affairs (APSIA) guidelines, which require reporting on post-graduation outcomes 12 months after graduation.

Licensure Acquisition

When applicable, academic units track <u>licensure pass rates</u>. Steady improvement has been made at GSSW, with an 85% licensure pass rate in 2013, 90% in 2015, and 93% in 2018 [GSSW Pass Rates Summary 2015, GSSW Pass Rates 2016-2018]. DU's pass rates on the Certificated Public Accountant (CPA) test have remained steady from 2014-2018, ranging from 65.3%-68.1%, approximately 11.65% higher than Colorado average and 16.67% higher than national average [CPA Pass Rates 2014-2018]. In the Graduate School of Professional Psychology, 90% of doctoral students become licensed psychologists [Student Admissions Outcomes Data].

Fellowships and Special Programs

Since 2017, CPD staff, in collaboration with campus partners, have worked to increase the number of students securing Fulbright, Boren, and National Nuclear Security Administration's Graduate Fellowships, which averaged two to four awardees annually since 2016. This led to growth in Fulbright applicants and awardees. In 2019, as part of DU IMPACT 2025, DU committed resources toward a full-time staff member focused on fellowships, though due to the COVID-19 hiring slow-down, this position will be posted later [Job Description, Fellowship Proposal, Budget, Evaluation Plan].

Student Peace Corps participation has consistently been five to six students per year. Data from the class of 2019 reflects no Peace Corps volunteers, which is a concerning outlier that may be due to changing recruitment staff, strategy, and application cycle. CPD will work with the new recruiter to reverse the trend as the Peace Corps experience complements DU's mission and vision.

Alumni Career Mobility Survey

In 2019, DU joined the first National Alumni Career Mobility (NACM) Survey to better understand the long-term success of graduates. This national survey collects data from alumni 5 and 10 years post-graduation, focusing on educational satisfaction, career pathways, career satisfaction, economic mobility, and community engagement [DU 2019 Report].

4.B. Core Component

The institution conducts ongoing assessment of student learning as part of its commitment to the educational outcomes of its students.

- 1. The institution has effective processes for assessment of student learning and for achievement of learning goals in academic and cocurricular offerings.
- 2. The institution uses the information gained from assessment to improve student learning.
- 3. The institution's processes and methodologies to assess student learning reflect good practice, including the substantial participation of faculty, instructional, and other relevant staff members.

Argument

4.B.1. The institution has effective processes for assessment of student learning and for achievement of learning goals in academic and cocurricular offerings.

As articulated in 3.A, DU has clearly stated <u>learning outcomes</u> at the undergraduate and graduate levels.

The University assesses undergraduate general education as part of the larger undergraduate experience. Undergraduate student learning is a product of academic work in major(s), minor(s), electives and the co-curriculum. Recent common curriculum assessment results and recommendations for improvement regarding First-Year Seminar (FSEM), Analytic Inquiry—Natural and Physical World, Scientific Inquiry—Natural and Physical World, Analytic Inquiry—Society and Culture, Scientific Inquiry—Society and Culture, and Foreign Language components are available in the 2017-18 Assessment Report. Writing and Advanced Seminar (ASEM) components are assessed by the Executive Director of the Writing Program [University Writing Program Assessment Report].

The <u>HLC 2014 follow-up report</u> documents the assessment process for the current Common Curriculum. As discussed in Criterion 3, the <u>General Education Review and Inquiry (GERI)</u> committee is re-designing the common curriculum, so DU has temporarily modified assessment efforts.

Annual processes assess students' achievement of learning goals at the academic unit level. As detailed in 3.A.1, the Office of Teaching and Learning (OTL) offers program assessment services to continually improve student learning in each major. OTL coordinates annual program-level assessments where every program submits a report detailing how assessment data were collected and analyzed; the interpretations faculty made of the data; and the actions faculty took to facilitate improvement in classes and curricula.

Annual assessment reports include <u>assessment blueprints</u> and <u>curricula maps</u> that align required coursework with program learning outcomes. While artifacts for program-specific assessment vary depending on program requirements, the documentation process is more uniform. Departments complete a <u>skeleton document</u> in <u>DU Assessment</u> that describes student learning outcomes assessed and how assessment informed changes. The <u>JD Annual Report 2017</u> demonstrates how Law School Survey of Student Engagement (LSSSE) data were used to

improve advising and how bar passage scores related to experiential learning. The <u>BS</u> <u>Mechanical Engineering Annual Report 2017</u> shows how Fundamentals of Engineering (FE) exam data were used to update curricula—embedding aspects of the exam through curricular and co-curricular activities so students can better prepare. The <u>Communication Management Annual Report 2017</u> shows how Instructor Insight and Dropout Detective data were used to support faculty and staff, while faculty surveys and student course evaluations informed curricular improvements.

Student Affairs and Inclusive Excellence hosts most of the co-curricular programs at DU. Each department head completes assessment for their area with support and guidance from divisional leadership [Behavioral Intervention Assessment Report, Academic Advising Assessment Report, Disability Services Program Assessment Report]. Co-curricular programs within Student Affairs conduct meaningful, manageable, and measurable assessments using the Cultural Relevance framework and a report template, attendance data, satisfaction surveys, and national instruments like the Learning and Study Strategies Inventory.

The <u>Center for Community Engagement to advance Scholarship and Learning</u> (CCESL) established procedures for ongoing program assessment and refinement based on learning goals associated with critical thinking related to social change through community-engaged academic and co-curricular work. For assessment, students submit written critical reflections at the beginning and end of the academic year, which are scored using a <u>rubric</u>. Over several years, students have demonstrated statistically significant increases in critical reflection. Individual CCESL programs have unique learning objectives. To assess the Community Organizing Institute, a workshop designed to increase students' knowledge of community organizing principles for social change, students take a pre-and post-test [Community Organizing Training Test]. By comparing scores, CCESL determines if learning goals were met and any areas of weakness. CCESL summarizes key findings in public <u>end of year reports</u> and a detailed assessment report to the Office of the Provost [2018-2019 End of Year Report].

4.B.2. The institution uses the information gained from assessment to improve student learning.

To encourage use of assessment to guide programmatic decisions and improve student learning, the director of academic assessment provides feedback for each annual assessment report following a <u>rubric for reflection</u> [Examples: <u>Chemistry Feedback Report, French and Francophone Studies Feedback Report, Philosophy Feedback Report]</u> and encourages departments to document decisions [Examples: <u>PhD Higher Education</u> and <u>MA Religious Studies</u> meeting minutes]. In 2019, programs included information about program improvements in their assessment reports [Examples: <u>Chemistry BS Report, Marketing BSBA Report, BA Italian Report, Educational Leadership and Policy Studies PhD Report, GSPP Forensic Psychology Report, Master of Science in Management Report].</u>

In 2017, the Daniels College of Business (Daniels) marketing department redesigned its assessment process to engage more faculty and increase ownership of assessment. Faculty currently use an assessment template that encourages recommending changes, following up with implementation, and celebrating improvements. The MS in Marketing program now uses a common rubric for written and oral communication.

In 2016-2017, assessment led to two new courses in the Daniels BSBA core. *Strategic Business Communication* focuses on individual and team communication in written, oral, and listening skills, concluding with a not-for-profit client project addressing community issues. *Pioneering Business for the Public Good*, the culminating core course, challenges students to use business tools and knowledge to identify and address a real-world problem. In addition to assessment data, Daniels used feedback from employers in deciding to focus on closing the gap for communication and interpersonal effectiveness outcomes [BSBA Assessment Report]. When data from student presentations revealed weaknesses related to the communications learning outcome, including the ability to tailor one's speaking to particular audiences, the team increased formal training for presentations.

In 2019, the Graduate School of Social Work (GSSW) made significant changes to their program and curriculum [Proposed Program Changes PowerPoint], including reducing required field internship credits from 27 to 21 and removing the SOWK 4901: Applied Practice Evaluation Research requirement [Email to Students, Implementation Plans for Reduction of Hours and Research Credits, Memo to Graduate Council]. The changes were informed by national data of comparable MSW programs, GSSW's accreditation standards for Council of Social Work Education (CSWE), faculty guidance, community input from GSSW's field agency representatives, and GSSW students' feedback on their experiences in courses and field internships. GSSW regularly reviews data from surveys of field instructors for supervised internships and from academic instructors for course-based learning. Program administrators and lead faculty for all required courses review student course evaluations and hold quarterly town hall meetings.

In 2013-2014, Materials and Mechanical Engineering (MME) introduced a one-quarter-hour course, <u>ENME 4900</u>, to address written and oral communication skills among MS-level graduate students. Through assessment, MME recognized that the existing program did not offer opportunities to enhance skills, prompting the creation of the course so students would learn techniques for effectively writing literature reviews and making oral presentations. Results have been positive; from 2010-2012, the six MS non-thesis students had an average oral and written skills scores of 2.66 (on a 4-point scale). From 2016-2019, 21 students had an average score of 3.1 [EMNE 4900 Results Summary].

Recent MME assessment revealed students' understanding of experimentation and testing design fell below desired performance as evaluated during the senior design class. These skills were taught primarily in a junior design sequence prior to MME laboratory classes. With this finding, the faculty redesigned ME lab 1 and 2. All skills related to advancing the understanding of fundamental materials (heat transfer, fluids, statics/dynamics, controls) were placed in one-quarter-hour labs associated with lecture-based courses. This aligned laboratory experiences with theory and moved the work into sophomore and junior year, providing more value from the junior-year design experience.

In 2015, the Department of English and Literary Arts began a program review and discussions about revising the undergraduate curriculum. The department identified key weaknesses in students' achievement of two program learning outcomes: identifying formal qualities of key literary genres and understanding and applying significant theories, methods, and concepts of rhetorical and/or literary theory. The faculty created an *Intro to the Major* course focused on

close reading skills, research methods, and introduction to literary studies [<u>Undergraduate</u> <u>Council Minutes February 2017</u>] to address the deficits.

4.B.3. The institution's processes and methodologies to assess student learning reflect good practice, including the substantial participation of faculty, instructional and other relevant staff members.

Beginning in 2016, academic departments receive annual assessment feedback from OTL. To increase participation in assessment, OTL created the <u>Assessment Fellows</u> initiative and recruited <u>23 faculty and staff</u> to provide peer assessment consultations. Several AFs have spearheaded additional initiatives such as providing feedback on program assessment reports, codeveloping and co-leading <u>assessment trainings</u>, and serving on the <u>Assessment Groupware</u> committee to select a new technological platform to efficiently collect, analyze, and report assessment data.

In 2018-19, OTL <u>created a process</u> to better involve department chairs and associate deans, leading to more intentional connections between assessment and program review. Now, as discussed in 4.B.1, after faculty share a program assessment draft, their department chair writes a cover letter [MASPP Example] that associate deans review to inform their summary statements [UCOL Example]. Program assessment reports <u>are showcased on DU Portfolio</u>. These practices increased participation by 63%.

Program assessment reports are submitted annually using the <u>program assessment skeleton</u> template and reviewed by the DAA and AFs, who provide feedback. The DAA created a <u>faculty reflection rubric</u> to provide feedback about how faculty and staff can: collect, analyze, and interpret direct and indirect data; use interpretations to improve student learning and transform curricula and pedagogy; discuss student learning; and create equitable distribution of assessment responsibilities.

The 2020 Assessment Report and a report on assessment and inclusion research grants underscore opportunities to further strengthen DU's culture of assessment. Therefore, OTL offers Assessment Meetups, exemplary assessment models and more to strengthen the culture of assessment and improve student learning. OTL is working to shift the culture so that assessment is integrated into everyday activities of faculty and staff. A Program Re-Design Institute in 2019-20 encouraged faculty and staff to consider how assessment can feed into Scholarship of Teaching and Learning and the inaugural Faculty Scholar of Assessment expanded assessment support and interdisciplinary partnerships so graduate students can gain experience facilitating focus groups and departments can gain additional bandwidth for assessment.

4.C. Core Component

The institution pursues educational improvement through goals and strategies that improve retention, persistence and completion rates in its degree and certificate programs.

1. The institution has defined goals for student retention, persistence and completion that are ambitious, attainable and appropriate to its mission, student populations and educational offerings.

- 2. The institution collects and analyzes information on student retention, persistence and completion of its programs.
- 3. The institution uses information on student retention, persistence and completion of programs to make improvements as warranted by the data.
- 4. The institution's processes and methodologies for collecting and analyzing information on student retention, persistence and completion of programs reflect good practice. (Institutions are not required to use IPEDS definitions in their determination of persistence or completion rates. Institutions are encouraged to choose measures that are suitable to their student populations, but institutions are accountable for the validity of their measures.)

Argument

4.C.1. The institution has defined goals for student retention, persistence and completion that are ambitious, attainable and appropriate to its mission, student populations and educational offerings.

DU formally articulated a goal of increasing fall-to-fall persistence through our application to the 2016 HLC Persistence and Completion Academy and creation of a University Council on Student Success (UCSS). In 2019, UCSS began formal discussion of an institution-wide goal for undergraduate retention and completion and established a retention goal of being at the median of peers based on IPEDS data. The peer list was based on multi-factor cluster analysis by the Office of Institutional Research and Analysis (IR) [Analysis of Peer Institutions]. Recent discussion called for inclusion of endowment data to refine the list [Meeting Minutes]. Because IPEDs data are only collected for undergraduates, gathering and analyzing graduate level information is more challenging, but DU is committed to better understanding how to help graduate students succeed [FEAC Presentation 2020].

In 2019, the Council surveyed associate deans and department chairs to determine if academic units track student retention and completion and whether goals have been established [Survey Results]; 41.1% responded that their college/department/division tracks student persistence/retention/completion, but only 11.8% had established specific goals for persistence/retention/completion. Additionally, 47.1% reported they would benefit from additional support for monitoring student persistence/retention/completion.

DU invested in student retention and completion efforts by creating an Office of Student Success within Academic Affairs. In 2017, the Director for Academic and Persistence Initiatives began to coordinate undergraduate retention, persistence, and completion efforts. In 2019, that position was elevated to Assistant Provost of Student Success and the purview expanded to include graduate students. In 2019, DU hired a Student Success Analyst to develop tools, surveys, and internal reports to monitor student retention and completion at college and department levels. In 2020, an Associate Director of CRM Communications was hired to guide adoption and implementation of a communications tool to support advising infrastructure.

4.C.2. The institution collects and analyzes information on student retention, persistence and completion of its programs.

Undergraduate retention and persistence rates are analyzed comprehensively one, two, and three years after matriculation for fall first-time, first-year (FTFY) and transfer cohorts. Analysis includes demographics, admission qualifications, engagement, and financial need. Four-, five-, and six-year graduation rates are calculated six years after matriculation for FTFY cohorts and financial aid sub-cohorts. Completions are reported and analyzed each year by the Classification of Instructional Programs (CIP) code, award level, gender, and race/ethnicity. General information on retention, persistence, and completion is available publicly in the <u>university factbook</u>, <u>common data set [Example Report 1]</u>, and <u>peer analysis reports [Example Report 1</u>, <u>Example Report 2</u>].

Detailed analysis reports are available to faculty, staff, and administrators through secure-access tools, such as the BOT Executive Dashboard and Strategic Metrics Dashboard and Data Insights. Operational analysis of persistence and information on students at risk for attrition is available through *Illume*, a predictive analytics tool from Civitas Learning that uses over 200 variables to produce models that provide better and earlier information to determine needs for at-risk students. Using Illume, staff produce lists of at-risk students to share with Student Outreach and Support (SOS) if individualized intervention is appropriate.

At the graduate level, IR produced two dashboards for tracking retention and graduation rates for master's students and retention and completion rates for doctoral students (up to eight years) [Master's Student Dashboard, Doctoral Student Dashboard].

4.C.3. The institution uses information on student retention, persistence and completion of programs to make improvements as warranted by the data.

The Illume tool allows targeted outreach based on students' predicted likelihood to re-enroll the next term. The Office of Student Success uses this tool to identify students who have high GPAs but low likelihood to persist [GPA Data] and promotes academic resources known to improve students' academic experiences and overall persistence, including DU's Writing Center, academic coaching, and opportunities to earn additional credit during off-cycle terms. Student Success has learned that, while students who perform poorly in the FSEM Program and in the First-Year Writing sequence tend to persist to the next year, they are much less likely to graduate from the institution [FSEM Data]. DU encourages these students to participate in courses that support academic exploration, as struggles in the first year are often due to a lack of connection and purpose. The interterm program offers "Finding Your Way" and "Unlearning to Learn" courses to support student self-discovery.

DU demonstrates similar undergraduate persistence rates across demographic groups as reflected in One-Year, Two-Year, and Three-Year graduation reports [DU Factbook]. In the context of increasing overall retention and graduation rates, this presents a challenge of where to focus energy and new programming. After data revealed observable differences in retention based on financial aid received, DU refined policies around departmental aid that could result in an average of \$1.4 million being re-directed to continuing students that previously would go unallocated and rollover to the next year [Proposal]. At the graduate level, DU piloted a Last Mile Funding Initiative to provide small grants for students within two quarters of completion to help them graduate.

The most significant investments DU has made to increase student retention and completion are related to better supporting the faculty advising model and purchasing the Inspire (CRM) tool from Civitas Learning. Inspire bridges advising and student support efforts across campus by centralizing advising notes, appointment histories, and outreach efforts. This allows faculty and staff to raise and resolve alerts for individual students and further build on the predictive modeling of Illume. Student Success has reviewed policies that created unintended obstacles to retention and DU is investigating a course repeat with grade forgiveness policy for undergraduate and graduate students and examining late registration fees to create a more flexible environment for students to persist.

At this time, the academic units do not have a standard method to access the retention and graduation rates of their own majors, although the UCSS has reviewed graduation rates of juniors [Undergraduates' Time to Graduation Report] and has not identified disparities. Academic units track retention in various ways. UCOL employs a multi-faceted approach to inform current practice and ongoing improvement. UCOL has developed a high-touch preenrollment model that includes frequent personal outreach [Communications Plan] and robust data-analytics that provide comprehensive enrollment data and metrics at a micro and macro level [All Enrollment Dashboard, Program Specific Dashboard]. UCOL also reimagined its approach to academic advising; developed a comprehensive onboarding and orientation course; implemented a student retention and success solution that alerts academic coaches of possible student academic challenges [AspirEDU's Dropout Detective, Example Drop Out Report]; and revised their career advising model.

In addition, DU used the Quality Initiative requirement as an opportunity to expand the work being done to improve our retention and graduation rates for our undergraduate students [2019 QI Recommendation]. The data collected through this process has led to improvements in the academic advising processes [QI Summary].

4.C.4. The institution's processes and methodologies for collecting and analyzing information on student retention, persistence and completion of programs reflect good practice. (Institutions are not required to use IPEDS definitions in their determination of persistence or completion rates. Institutions are encouraged to choose measures that are suitable to their student populations, but institutions are accountable for the validity of their measures.)

DU collects and analyzes information on student retention, persistence, and completion of programs in alignment with definitions and guidelines established for federal reporting in IPEDS and instructions for the IPEDS <u>Fall Enrollment</u>, <u>Completions</u>, <u>Graduation Rates</u>, <u>Graduation Rates</u>, <u>Graduation Rates</u>, <u>Graduation Rates</u> surveys. Internal and external reporting and analysis of undergraduate student outcomes aligns with these surveys to ensure consistency and accuracy of institutional data across products and platforms, such as the Common Data Set (CDS), state compliance reporting, accreditation reporting, college guides, and ranking surveys.

In past years, persistence reports focused only on statistically significant differences among groups, but the practice was revised to include differences that may be *practically* significant as

well, for example if some sub-groups have especially small numbers [Fall 2019 EOT Persistence Results Summary]. The 2019 one-year persistence report shows a consistent finding that males and out-of-state students return for their second fall quarter at lower rates than cohort average. Students of color (87.4%) returned for their second fall quarter at higher rates than white students (85.4%). First-generation students persisted at slightly higher rates (86%) than the overall cohort (85.5%). While these differences may not reach statistical significance, they are meaningful for students' experiences.

Office of Student Success surveys of students who do not return after their first year [Non-Returning Student Report 2017, 2018 and 2019] consistently indicate that about half of undergraduates who leave DU transfer to public institutions closer to home. Survey respondents often cite personal and financial reasons for leaving. In March 2019, Student Success began distributing the non-returning student survey to graduate students, but to date have had low response rates. A recently added option on the survey indicating whether they consent to outreach from our office will allow qualitative research in the future.

Data for IPEDS reporting are DU's most precise measure of graduation rates, capturing four- and six-year graduation rates for each cohort, defined by fall matriculation term, as reported after the six-year mark. DU's most current graduation rates for the fall 2013 cohort were published in fall 2019 [Four and Six Year Graduation Rates Over Time]. Four-year undergraduate graduation rates have steadily improved by an average of +1.09% annually from 2004 (56.4%) to 2013 (67.3%). Six-year graduation rates have remained steady, averaging 76.97%.

When examining undergraduate graduation rates among sub-populations, such as white students, students of color, and Pell grant recipients, different trends emerge. First, it is important to note that the overall proportion of students of color increased from 2003 (13.54%) to 2012 (23.44%). Despite this increase, graduation rates for students of color remain proportionally more affected by the loss or gain of each student due to the relative size of this demographic compared to white students, which may explain large fluctuations discussed below.

Four- and six-year graduation rates of students of color have an overall positive trend. On average, the four-year graduation rate of students of color was 3.09% lower and the six-year rate was 3.78% lower than that of white students. However, the overall rate of annual improvement exceeded that of white students. The four-year graduation rate for students of color averaged +1.33% and the six-year rate averaged +0.97%, compared to +1.09% and +0.19% respectively for white students, indicating the two groups are on a path of convergence.

Pell-eligible students experienced an average annual +1.99% lift in four-year and +0.9% increase in six-year graduation rates between 2003 and 2012. In 2003, Pell recipients graduated at -7.8% (four-year) and -6.8% (six-year) lower than the University average. By 2012, the difference between these rates shrank to +0.3% and -1.7% respectively. This trend illustrates convergence between Pell recipients and the rest of the undergraduate population.