URGE Demographic Data for Colorado College, with emphasis on CC Geosciences
this submission version is a preliminary document [1]

The CC Geosciences URGE Pod at Colorado College assembled demographic data (public and internal facing) pertaining to racial representation and antiracism. We identified the following materials that report Colorado College's demographic data and stated goals for representation. We researched and consolidated 1990-2020 demographic data for Geosciences that is contained in departmental and institutional records. In Geosciences at CC, no goals for representation among Geosciences graduates and Geosciences faculty had ever been discussed nor developed.

As a point of reference, Geoscience graduate and faculty data is a combination of the Geology Department and the Environmental Sciences Program at Colorado College; when just Geology is used, this refers to data solely from the Geology Department.

- **The links to demographic data at Colorado College** (undergraduate institution) **are:**
    - Colorado College Staff/Faculty Demographics Data gathered and publically available include rank, gender, race/ethnicity and salaries (10-year trend of salaries).
        - Points of note: Demographic data at Colorado College are managed by the Office of Institutional Planning and Effectiveness The Office works closely with the Diversity and Equity Advisory Board.
    - Colorado College Student Demographics. Data gathered and publically available include ethnicity, gender (includes non-normative), enrollment by financial aid received (a measure of socioeconomic status) and proportion of 1st-generation college students.
    - For CC Geosciences graduates, demographic data is compiled annually by the Geology and EV-science faculty. Consolidated data for 1990-2020 appear below.
    - Demographic data for undergraduates who conduct summer research in STEM at Colorado College. Data gathered include host department, gender, class year, ethnicity, Pell eligibility (a measure of socioeconomic status) and proportion of 1st-generation college students).

- Colorado College's public goal for increasing representation is stated in the CC Antiracism plan. It is to increase compositional diversity of the CC community, with progress monitored in the next 5-10 years. However, the public Antiracism Plan has no stated goals for what compositional diversity targets look like.

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[1] *There is further data to incorporate that is not yet available to the CC Geosciences Pod. Once it is received, some time will be needed to consolidate the data streams and update the Deliverable.*

URGE
Unlearning Racism in Geoscience

- **How does Colorado College Geosciences compare to other comparable programs, or to the field of Geosciences as a whole?**

  This section begins with student demographic data and then provides faculty demographic data.

  STUDENTS: Breaking out by graduates in Geology, Departmental records for **1990 to 2020** show that of 500 graduates, 7.1% are biracial or BIPOC Americans; 43% are women; and 1.4% of graduates were international students. *At this time we have insufficient data to determine % LGBTQ, trans-, and cis- identified Geosciences graduates.*

  As of 2019[2], the U.S. population by race and ethnicity is:
  - White (non-Hispanic) 60.1%
  - Hispanic: 18.5%
  - Black: 13.4%
  - Asian: 5.9%
  - Multiple Races: 2.8%
  - First Nations*: 1.5%

  CC Geosciences students (1990-2020) by race and ethnicity are:
  - White (non-Hispanic): 92%
  - Hispanic: 3.6%
  - Black: 0.8%
  - Asian: 1.8%
  - Multiple Races: *insufficient data*
  - First Nations*: 0.8%
  - *International*: 0.01%

- A comparison of Colorado College Geosciences students 2000-2020 with Geological Society of America demographic data from GSA's 2019 report is as follows. Identifiers are those used by GSA.

  Geol Society of America 2019 by race and ethnicity:
  - White (non-Hispanic) 76.2%
  - Hispanic: 4.5%
  - Black: 1.6%
  - Asian: 6.2%
  - Multiple Races: 2.6%
  - First Nations*: 0.5%

  CC Geosciences (314 students, 2000-2020) by race and ethnicity are:
  - White (non-Hispanic): 92%
  - Hispanic: 2.9 %
  - Black: 0.9%
  - Asian: 2.7 %
  - Multiple Races: insufficient data
  - First Nations*: 0.9%
  - *International* : 0.02%

  *American Indian/Alaska Native/Native Hawaiian/Pacific Islander

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[2] US Census data at https://www.census.gov/quickfacts/fact/table/US/PST045219

FACULTY:

As of calendar year 2021, just 1 of 8 CC Geosciences tenure-track or tenured faculty are biracial (12.5%) and the remainder are White (non Hispanic). Gender parity has been exceeded, as 6 of 8 geosciences faculty are women. Prior to 2020, the demographic of faculty was 57% male (4 of 7) and 100% White. In the year 2000 (a specific sample that includes an Asian American professor who has since left CC), this was 75% male (6 of 8) and 87.5% White (7 of 8).

Employment of visiting faculty represents an opportunity to 1) introduce CC undergraduates to diverse, non-majority geoscientists, and 2) aid in the career development of geoscientists from minoritized groups. Since 2000, fifty-plus visiting faculty have been employed in the Geology Department, alone[3]. Demographic data on visitors is here provided:

- Fifty faculty visitors joined the Dept between 2000-2021, six of whom held multi-year appointments (2- to 3- years). Of the 50 faculty visitors, 36% are women, 12% are black or biracial, .08% are international, and insufficient data exist to determine LGBTQ+ identities. 65% percent of visitors are CC Geology alumni or CC faculty spouses. This reflects the priority the Department places on the employment of CC alumni and CC spouses who can benefit from undergraduate teaching experience to enhance their professional qualifications, as well as the temporary employment. Of the 32 Geology alums who taught in Geology Department over the past two decades, five taught during Summer Session only.
- Two visiting women faculty diversified CC Geosciences in respect to gender in the 1980s. Both Susan Hall and Karen Havholm now hold leadership positions in the sciences.
- Two visiting women faculty in the 1990s contributed to periodic gender diversity in the latter part of the 1990s. Both Joanie Kleypas and Christine Siddoway (né Smith) went on to occupy positions of responsibility in the geosciences.

- **Public[4] goals on demographics or increasing representation in CC Geosciences:**
  - Goals for achieving representation among students majoring in geosciences (Sum of Geology majors and EV-science majors):
    - As Colorado College's compositional diversity increases, strive to reach that 'composition' in CC Geosciences.

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[3] Visiting faculty demographic data for EV-science remain to be collected and incorporated in our Pod's data
[4] CC Geosciences goals are not public as of this date (March 5, 2021). As a result of URGE, the Pod will develop a joint web page that provides one or two decades of demographic data and the demographic targets being developed now during URGE.

- Contribute to outreach programs at Colorado College (Stroud Scholars – offer a geology module; Systematize student-outreach [along lines of CoolScience in the past and CC Science Outreach currently]; Contribute education activities to Bridge Scholars program.
  - In addition to structured programs, we intend to involve more community-based research in our courses, aided by the Collaborative for Community Engagement. As an example, Prof Lynne Gratz is working to provide energy assessments and retrofits to low-income communities in the city.
- Increase representation of Black, Indigenous, Asian-American, Hispanic and multiracial graduates in Geosciences by 5-15% in each of the next two decades, with the target to reach parity with US demographics (e.g., +15% Hispanic, +13% Black, +0.7% First Nations)
  - Allow time to faculty (provide release time?) for mentoring of students from minoritized groups.
- Increase accessibility in introductory courses through: implementation of antiracist field trip planning, resource availability, and increased breadth of course topics
- Increased relevancy of the geoscience courses. The Geology Department is currently in the process of reviewing the curriculum with the NAGT Traveling Workshops in order to create a modern geology curriculum that attracts, retains, and trains a wide array of geology students.

- Goals for faculty demographic and faculty retention (Geology and EV-science):
  - For tenure track positions, we achieved gender parity in 2021, and an objective is to maintain this.
  - In tenure track positions, 7 of 8 faculty are White (non-Hispanic). Because the size of the faculty is fixed, CC Geosciences will broaden diversity through use of Visitor Hires and future replacement of faculty who retire.
    - Employment of visiting faculty represents an opportunity to 1) introduce CC undergraduates to diverse geoscientists, and 2) aid in the career development of geoscientists from minoritized groups. Since 2020, fifty-plus visiting faculty have been employed in the Geology Department, alone[5].
  - For the faculty hiring process (tenure-track and visiting faculty), we advertise in numerous employment sites in order to ensure a diverse

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[5] Visiting faculty demographic data for EV-science remain to be collected and incorporated in our Pod's data

applicant pool, employ rubrics that prevent bias in review of applications, and require hiring committees to have taken implicit bias training. A new group mentoring program by the Associate Dean of Diversity, Equity and Inclusion will help visitors advance their academic careers past CC.

- **Policy for collecting demographic data at Colorado College:**
  - We could not find a college-wide comprehensive policy on the collection, use, and distribution of demographic data.
  - The Athletics Department's official policy on student demographic information is that data is retained for 50 years before being shredded. This was the only demographics-related policy on our retention schedule. https://www.coloradocollege.edu/other/datagovernance/records-retention-schedule.html
  - The Division of Advancement maintains demographic data for college alumni, parents, students, and friends for the purpose of fundraising and alumni relations. https://www.coloradocollege.edu/basics/welcome/leadership/policies/advancement-database-usage.html
  - The Office of Institutional Planning and Effectiveness (IPE) collects and publicly displays demographic data for students, faculty and staff; there is no clear policy on how this data is used in decision-making.
  - https://www.coloradocollege.edu/offices/ipe/index.html

- **Policy for collecting demographic data for CC Geosciences:**
  - Previously, data on alumni and majors has been stored with the administrative assistant and unofficial demographic collections by individual faculty members. We are in the process of a more systematic data collection and policy for storing the data.
  - Steps underway to gather 3 decades of alumni data:
    - Departmental records of graduates with Faculty input
    - Online poll sent to alumni from 2005-2015 (Henry developed; distributed on Feb 25, 2021)
  - Proposed policy for collecting, reporting, tracking and utilizing demographic data.
    - Engage students in the analysis of data -- e.g. 1) multi-year demographic for seminar presentations in our Dept and Program, or NS Division as a whole, along lines of LDEO and UMass, 2) demographic of CC NS faculty who received 2-year Honorary Chair positions

- **What did you learn** about other organizations (or in general) while investigating demographic data?
  - Student enrollment is becoming more diverse at the national level.
  - There are inspiring examples of reducing underrepresention in scientific research, leading to greater participation of women, ethnic minorities, people with disabilities and socially disadvantaged populations.
  - Published literature with ethnically diverse authorship has higher scientific impact .
  - Diversity in Peer Review is increasing in USA and in response to research that reveals a deep disparity
    - - Actions being taken to balance "authority figure" influence in peer review with non-majority perspectives (peer review prone to bias and abuse in numerous dimensions, documented by research)
    - Emergent and Future Innovations in Peer Review -- new modes and rapid evolution of peer review called for in response to open-access
  - Studies show that intersectionality of gender with another distinctive social identity affects opportunity in geosciences. Publishers (e.g. Elsevier Gender in the Global Research Landscape have performed self-studies and developed demographic goals to address the disproportionate number of publications and citations by majority white/male researchers.