

**Departmental BPC Plan
Gianforte School of Computing
Montana State University**



Effective dates of Plan: Spring Semester 2021 – Fall Semester 2024

Contacts: John Paxton, Professor and Director, john.paxton@montana.edu / Brittany Fasy, Associate Professor, brittany.fasy@montana.edu / Laura Stanley, Associate Professor, laura.stanley@montana.edu

1. Context

Montana State University is Montana’s public land grant university and the only university in the state of Montana with R1 designation.

Data	Population	Female	White	Am. Indian / AK Native	Latino / Hispanic	Black / African Am.
Fall 2019 State of Montana	1,068,778	49.7%	85.9%	6.7%	4.1%	0.6%
Fall 2019 Montana State Univ. (MSU)	16,776	47.0%	81.4%	3.8%	4.0%	1.3%
Fall 2019 MSU Coll. Of Engineering	3,763	19.0%	77.9%	3.0%	3.8%	0.9%
Fall 2019 CS Majors	530	16.3%	84.1%	0.0%	5.0%	0.0%
'19 Taulbee Survey	143,287	20.8%	43.9%	0.2%	10.5%	5.4%
Fall 19 CS MS/PhD	52	19.2%	57.7%	0.0%	1.9%	1.9%
2019 Taulbee MS	38,270	25.7%	22.8%	0.1%	3.7%	2.5%
2019 Taulbee PhD	15,342	23.9%	21.5%	0.1%	1.9%	1.6%
Fall 20 CS Faculty	16	25.0%	87.5%	0.0%	6.2%	0.0%
'19 Taulbee Faculty	8,042	22.6%	56.9%	0.3%	2.6%	2.0%

Sources: 2019 Taulbee Survey (Tables B6, B8, M6, M8, D7, D8, F6, F7), Internal MSU Tableau Departmental Dashboards, US Census Bureau: <https://www.census.gov/quickfacts/MT>

2. Goals

G1: Raise the female CS undergraduate percentage from 16.3% to 18.3% by AY 2024-2025. Longer-term, the goal is to match the underlying MSU undergraduate population.

G2: Raise the female CS graduate student percentage from 19.2% to 21.2% by AY 2024-2025. Longer-term, the goal is to match the Taulbee Survey.

G3: Raise the American Indian CS undergraduate percentage from 0% to 1.5% by AY 2024-2025. Longer-term, the goal is to match the MSU College of Engineering populations.

G4: Raise the American Indian CS graduate student percentage from 0% to 1.5% by AY 2024-2025. Longer-term, the goal is to match the MSU College of Engineering population.

3. Activities and Measurement

A1: Obtain a 10% or greater participation rate in the 2019-2020 CRA Data Buddies (<https://cra.org/cerp/data-buddies/>) climate survey. Analyze results. Contact: Paxton. (G1, G2, G3, G4)

A2: Collect gender data on starting the major, completing the major, predicted and actual success in required courses and possibly more. Contact: Paxton. (G1)

A3: Survey instructors to learn what diversity/equity/inclusion issues are addressed in our courses. Consider NCWIT Engagement Practices Framework (<https://ncwit.org/resource/ncwit-engagement-practices-framework/>) and CWSEI Teaching Practices Inventory (<https://cwsei.ubc.ca/outcomes/events>). Contact: Paxton. (G1, G2, G3, G4)

A4: Design a procedure to better understand why students from groups underrepresented in computing do or do not persist in CS. Consider ideas from Talking About Leaving Revisited (<https://link.springer.com/book/10.1007/978-3-030-25304-2>) and NCWIT 's Student Experience of the Major (<https://ncwit.org/resource/sem/>). Contact: Stanley. (G1, G2, G3, G4)

A5: Design a procedure to better understand why graduate students from groups underrepresented in computing do or do not accept MSU's offer. Contact: Fasy. (G2, G4)

A6: Revise the procedure for assigning undergraduate advisors, including to undergraduates from groups underrepresented in computing. Contact: Paxton. (G1, G3)

A7: Build and maintain relationships with key feeder schools. These could include graduate school feeders, Montana tribal colleges, Montana high schools, code schools and more. Contact: Fasy. (G2, G4)

A8: Strategize how to build a first cohort of American Indian CS majors. Consider MSU's BIPOC (Black, Indigenous, People of Color) Action Plan: <https://www.montana.edu/diversity/bipoc/index.html>. Contact: Fasy. (G3, G4)