

COLLEGE HAPPENINGS

June 22, 2021

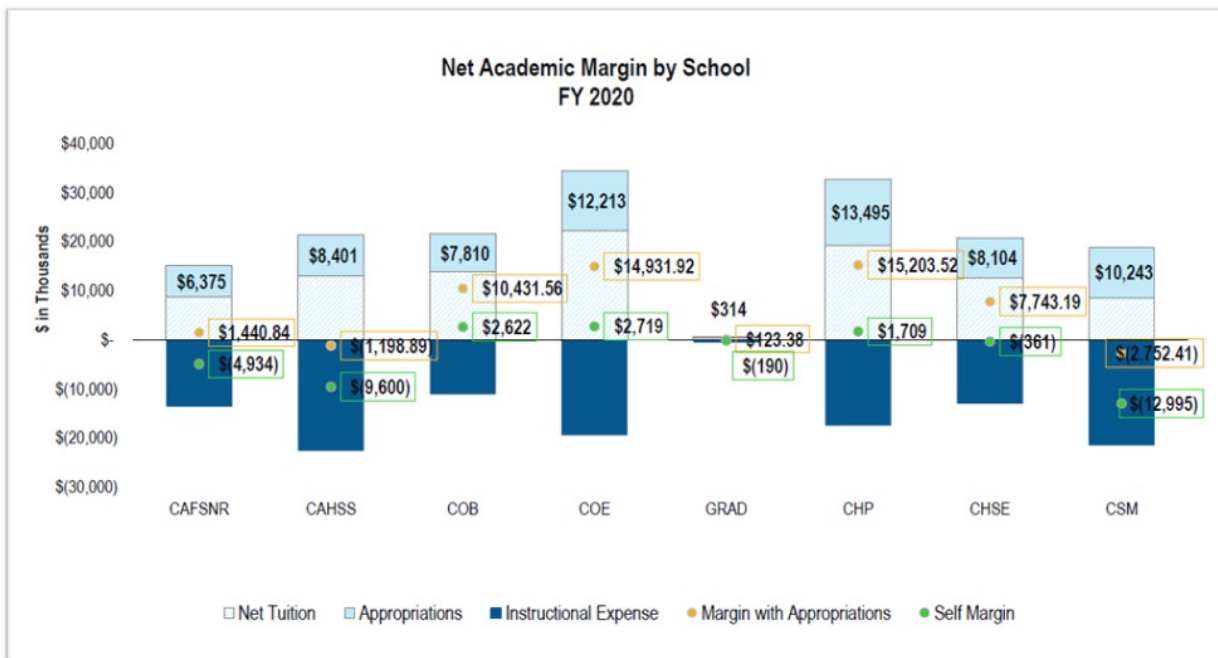
FROM THE DEAN

Program Prioritization

Last month Huron Consulting Group completed their [final report](#) on NDSU Academic Program Prioritization. Huron worked over the past semester to analyze financial and administrative data from NDSU to develop their objective, data-based report about our academic programming. The key outcome of the report is a cost-to-educate model that can be used to inform key decisions. The analysis found an average cost per credit hour produced of \$340, with significant variability across academic units and program levels (the College of Engineering’s cost per credit hour produced is \$391). The report also found graduate education at NDSU to be expansive and expensive.

As a result of the report findings, Provost Fitzgerald formed two committees, one to look at issues related to graduate enrollment and allocation of tuition waivers and another to consider the report findings related to class and section sizes. The College of Engineering is represented on these committees by Simone Ludwig and Mijia Yang, respectively.

The figure below, from [page 25 of the report](#), shows a comparison of the Net Academic Margin for each college at NDSU. Net tuition is the tuition minus waivers by students majoring in the college. Appropriations are those revenues from the state funding formula associated with student credit hours taught. Instructional costs include both direct (instructor cost) and indirect (departmental support, materials and supplied, provosts overhead, etc.) expenses. For the College of Engineering, our overall margin (profit for NDSU) in FY 2020 was \$14.9M.



[Starting on page 132 of the report](#) is an analysis specific to the College of Engineering and its departments. Overall, I believe that the cost-to-educate model developed by Huron will be a helpful tool for the NDSU administration moving forward.



IN THE NEWS

[Inspiring Teacher: Kalpana Katti, University Distinguished Professor of civil and environmental engineering](#)

[NDSU research team honored by national transportation group](#)

[7 student-athletes earn Academic All-League for men's outdoor track and field](#)

[Football student-athletes named to FCS ADA Academic All-Star Team](#)

CONGRATULATIONS

Please let [College Happenings](#) know about honors, awards, new grants and other announcements so we can share them with other faculty and staff.

UPCOMING EVENTS

Tuesday, August 17, **New Faculty Orientation**. The event runs from 8:30 a.m. to 4:00 p.m. [Register here](#).

Wednesday, August 18, **Annual Faculty and Academic Staff Conference**. Presentations will include demonstrating best practices for research, instruction, advising, assessment, campus climate, inclusion, mentoring, leadership, and classroom technologies. [Register here](#).

Monday, August 23, **College of Engineering Welcome Week Event**. 8:30 – 10:30 a.m. at the Bentson-Bunker Fieldhouse.

COE STAFF AWARD NOMINATIONS

In 2019 we began the tradition of recognizing our staff with the creation of the outstanding staff award for the College of Engineering, presented at our annual scholarship and awards reception. This award identifies and honors unusual dedication and exceptional contributions by a staff member in the College of Engineering.

Any NDSU staff member, faculty member, or student may submit a nomination. The nomination consists of just a letter of two pages or less describing the nominee's contributions to the success of the College of Engineering.

Nominations for outstanding staff awards should be submitted to Angela Thomassen (angela.thomassen@ndsu.edu). The nomination deadline is **Wednesday, July 15** at 5:00 p.m.

Two awards will be considered, one for paraprofessional and office support staff and one for professional staff. The nominations, however, do not need to specify the job band.

JEFFERSON SCIENCE FELLOWS

The National Academies of Sciences, Engineering, and Medicine, on behalf of the U.S. Department of State and the U.S. Agency for International Development (USAID), will be accepting applications for the 2022 cohort of Jefferson Science Fellows (JSF).

The JSF program was established in 2003 and serves as an innovative model for engaging the American academic science, technology, engineering, and medical communities in U.S. foreign policy and international development.

The JSF program is open to tenured, or similarly ranked, faculty from U.S. institutions of higher learning who are U.S. citizens. Fellows spend one year on assignment at the U.S. Department of State or USAID serving as advisers on issues of foreign policy or international development. Following the fellowship year, Fellows will return to their academic career but remain available to the U.S. government as experienced consultants for short-term projects.

Additional details on the JSF program can be found here: www.nas.edu/jsf.

CHALLEY FACULTY FELLOWS

The Sheila and Robert Challey Institute for Global Innovation & Growth is seeking applications for its Faculty Fellows Program. Selected Faculty Fellows will have an affiliation with the Challey Institute from August 16th, 2021 through August 15th, 2022, and will receive a stipend of \$8,000. Up to 15 NDSU faculty members will be chosen for the Fellowship.

Faculty Fellows contribute to the Challey Institute's mission by generating policy-relevant research, educating and training students, and engaging in public outreach. The Fellows Program is open to faculty in any discipline.

If you are interested in becoming a Challey Institute Faculty Fellow, please submit an application with the following components to John.Bitzan@ndsu.edu by June 28th:

- A letter of interest, describing your research and/or student programming interests and how they align with the core areas and mission of the Institute. Please highlight your plans for meeting the expectations of being a Challey Institute Faculty Fellow.
- A curriculum vitae.

FUNDING OPPORTUNITIES

NDSU Foundation: Impact Fund

The NDSU Foundation Grants Committee is accepting applications for the 2021 Impact Fund Grant Program.

The NDSU Impact Fund Grant Program provides funding for projects that make a significant impact on excellence and the educational experience for students at North Dakota State University. The Impact Fund Grant Program offers grants of \$20,000 to \$75,000 and is supported by annual contributions from alumni and friends of the University.

Applications are accepted from faculty, staff, and recognized student groups.

For additional information and to apply, go to: <https://www.ndsufoundation.com/impact-fund>.

The application deadline is Monday July 26, 2021, by 5 p.m.

RECENTLY FUNDED GRANTS

- Achintya Bezbaruah (CPI). Development of RNA Fungicides for Management of Sclerotinia Sclerotiorum on Canola. \$84,124 from the Agricultural Research Service. 07/01/2021 – 09/30/2022.

- Mijia Yang (PI). Trace fragment shapes, sizes, and motions after impact. \$39,188 from the National Aeronautics and Space Administration. 05/16/2021 - 05/05/2022.

RECENTLY SUBMITTED PROPOSALS

- Zhulu Lin (PI), Lu Liu (CPI). Harnessing the Power of Interpretable Machine Learning to Improve Water Quality Prediction and Management in the Red River of the North Basin. \$575,400 from the National Institute of Food and Agriculture. 01/01/2022 – 12/31/2024.
- Lokesh Karthik Narayanan (PI). ERI: Real time monitoring of cell health in the 3D constructs through Impedance sensing for 3D biofabrication. \$199,908 from the National Science Foundation. 01/01/2022 – 12/31/2023.

RECENT PUBLICATIONS

For 2021, 116 publications by authors with the College of Engineering affiliation have appeared in various journals, according to the ISI Web of Science and submissions from faculty. Here are some of the most recent publications:

- Bozorg-Haddad, Omid, Pouria Yari, Mohammad Delpasand, and Xuefeng Chu. n.d. “Reservoir Operation under Influence of the Joint Uncertainty of Inflow and Evaporation.” *Environment Development and Sustainability*. <https://doi.org/10.1007/s10668-021-01560-4>.
- Chowdhury, Uraching, and Xiang-Fa Wu. 2021. “Cohesive Zone Modeling of the Elastoplastic and Failure Behavior of Polymer Nanoclay Composites.” *Journal of Composites Science* 5 (5): 131. <https://doi.org/10.3390/jcs5050131>.
- Fatima, Talgat Inerbaev, Wenjie Xia, and Dmitri S. Kilin. 2021. “Magnetic-Field-Driven Electron Dynamics in Graphene.” *Journal of Physical Chemistry Letters* 12 (19): 4749–54. <https://doi.org/10.1021/acs.jpcclett.1c01020>.
- Hendawi, Rasha, Juan Li, and Shadi Alian. 2021. “ADDietCoach: A Personalized Virtual Diet Coach for Alzheimer’s Disease.” *International Journal of E-Health and Medical Communications* 12 (6): 1–18. <https://doi.org/10.4018/IJEHMC.20211101.0a6>.
- Nasab, Mohsen Tahmasebi, and Xuefeng Chu. 2021. “Do Sub-Daily Temperature Fluctuations around the Freezing Temperature Alter Macro-Scale Snowmelt Simulations?” *Journal of Hydrology* 596 (May): 125683. <https://doi.org/10.1016/j.jhydrol.2020.125683>.
- Safaripour, Maryam, Khwaja G. Hossain, Chad A. Ulven, and Ghasideh Pourhashem. 2021. “Environmental Impact Tradeoff Considerations for Wheat Bran-Based Biocomposite.” *Science of the Total Environment* 781 (August): 146588. <https://doi.org/10.1016/j.scitotenv.2021.146588>.
- Simsek, Miray, Tawakalit Tope Asiyani-Hammed, Nurudeen Rasaan, and Ademola Monsur Hammed. n.d. “Progress in Bioactive Polysaccharide-Derivatives: A Review.” *Food Reviews International*. <https://doi.org/10.1080/87559129.2021.1935998>.
- Souguir, D., G. Hoermann, S. Halis, B. W. Jatoi, and M. Hachicha. 2021. “Genotoxic Potential of Soils Irrigated with Treated Wastewater: Case of the Cebala-Borj Touil Irrigated Perimeter (Tunisia).” *Applied Ecology and Environmental Research* 19 (3): 2073–90. https://doi.org/10.15666/aeer/1903_20732090.

See your name on this list? Help us get the word out about your amazing work by submitting it as a **Breakthrough Alert**. [This online form](#) is an easy, step-by-step guide for summarizing published research for the general public.

College Happenings is distributed to the NDSU College of Engineering staff and faculty every other Tuesday.

Read past issues of *College Happenings* [here](#).

Deadline for submissions to *College Happenings* is 12:00 p.m. Fridays.

Contact kyle.bosch@ndsu.edu to submit items for *College Happenings*.

Follow the College of Engineering on social media.

