

UNIVERSITY OF WYOMING
Endowed Faculty Report
From the Office of the Vice President for Academic Affairs
1 OCTOBER 2019

To the Joint Appropriations and Joint Education Interim Committees

The University of Wyoming has benefited greatly from the Excellence in Higher Education Endowment, which allows the university to establish state-funded endowed faculty positions to advance teaching and scholarship in the areas of distinction defined in the university's strategic plan. It has also benefited from state appropriations targeted toward faculty positions in legislatively identified areas of priority, in particular, the School of Energy Resources positions and the Sustainable Business Practices positions. Furthermore, faculty positions supported (partially or fully) by private endowment gifts through the University of Wyoming Foundation enhance UW's teaching and research programs in areas of mutual interest to the institution and its donors. This report covers all such positions. Part A covers the Excellence in Higher Education Endowment (a continuation of legislative reports prepared annually); Part B covers other faculty positions identified in legislative appropriations; and Part C covers privately endowed faculty positions.

Part A. Excellence in Higher Education Endowment Report
[Pursuant to W.S. 21-16-1204]

1. Background

Created in 2006, the Excellence in Higher Education Endowment was funded at \$105 million, the earnings from two-thirds of which, or \$70 million, was designated to the University of Wyoming. Earnings on the state-managed endowment, which are distributed by the state treasurer to the university, allow the university to establish endowed faculty positions (known as Wyoming Excellence Chairs) and to acquire instructional and scholarly materials, classroom equipment, and other resources necessary to support the work of endowed chairs. Distributions to the university are based on a spending policy of 5% of the average of the market value of the corpus for each of the preceding five (5) fiscal years or the fiscal years up to five for which there was a balance.

The statute imposes some constraints on the uses of the endowment earnings. Not less than 2/3 of the amounts must be used to expand university instruction and research in disciplines related to economic and social challenges facing Wyoming. No fewer than four Wyoming Excellence chairs must be in the College of Education. The remaining endowed faculty members must have established reputations in other areas of distinction as identified in the university academic plan, including business, arts and humanities, mathematics, cultural studies, healthcare, economics and law.

To jump-start the program while the endowment corpus was filling, and pursuant to Senate Enrolled Act 54 Section 1 (c) (ii), the Legislature appropriated \$2.8 million in one-time funds, subsequently reduced to \$1.8 million, to be distributed to the University of Wyoming and expended exclusively for the purposes specified in W.S. 21-16-1202 (b). The one-time appropriation allowed the university to begin filling positions in fiscal years 2007 and 2008. Those initial positions were then funded permanently with earnings from the Excellence in Higher Education Endowment.

2. Summary, history, and accomplishments of authorized positions

Under W.S. 21-16-1204, UW must report annually on faculty positions partially or fully funded through the endowment program, including the name of each faculty member filling a Wyoming Excellence chair, their education and experience, their research and instructional activities, and the benefits of their research and instruction.

The jump-start appropriation became effective July 1, 2006. The provost developed a planning budget for the allocation of positions to be supported with these funds during the 2007-2008 biennium, while the \$70M endowment account began to fill. Based on the planning budget, three searches were authorized with jump-start funds: two in the College of Education (fulfilling one-half of the legislative mandate requiring four positions in the College of Education) and one in the College of Arts and Sciences Creative Writing MFA program (aligned with UW's area of distinction Cultural Assets, Arts, and Humanities).

During the second year of that biennium, as more information became available about anticipated payouts to the university from the state-managed endowment account, the provost's office authorized more searches, in two phases. Seven additional Wyoming Excellence endowed positions were authorized during fiscal year (FY) 2008, and five more were authorized in July 2008 for a total of fifteen authorized endowed faculty positions. Four of these 15 positions were to be funded with earnings combined from both the state account and private endowment gifts to the university, allowing for a greater number of search authorizations and establishing a unique private-public partnership in endowing distinguished professorships.

The decision to authorize the 15 fully or partially funded positions was based on a budget for salary, benefits, and other position-related costs consistent with the projected payout estimates provided by the state treasurer's office prior to the financial market declines realized later in FY2009. Subsequent financial market events mandated the need to reevaluate the size of the budget and number of permanent positions that could be supported by the endowment earnings. Given the need for exceptional prudence in filling permanent faculty positions, and consistent with representations to the Joint Appropriations Committee, the university placed a number of the previously authorized searches on hold through FY2010. At the beginning of FY2011, following careful evaluation of the anticipated earnings stream and the accumulated reserves held in the university account, the provost authorized searches to fill a number of the on-hold positions, including some for a bridging period only in order to ensure that permanent funding commitments would remain in line with the anticipated funding stream. Then, at the beginning of FY2013, based on having received a significantly larger payout during FY2012 and as well as enhanced projected payout estimates from the state, and a substantial private gift, the provost was able to complete the originally planned position allocations, and augment the program with additional allocations to Nursing, Law, the Haub School (in collaboration with the College of Business), Global and Area Studies, and American Indian Studies.

In FY2019, fourteen (14) positions were funded and several additional positions were supported with endowment funds for a bridging through the end of the fiscal year. Although all positions are subject to available funding in any year, the ongoing annual expenses associated with filling the 14 funded positions were in line with the state projections for annual earnings. The expenses associated with the additional bridge-funded (or temporarily) supported positions are funded with accumulated reserves beyond those needed to cover the risks of another period of earnings declines. Individual plans are in place to support each of the bridge-funded positions after the period of support by the Endowment has ended.

The 14 authorized positions conform to the legislative mandate. Four positions in Education, as prescribed by the legislation, have been created and all are important to the future of K-12 education in the state: literacy education (2 positions), science education, and mathematics education. The strategy for allocation of the other positions was to coordinate a set of positions in the life sciences, an institutional area of distinction identified in the university's strategic plan, and to build greater depth in other areas of distinction, including the arts and humanities, and professions critical to the state such as business, law, and health professions. In addition, positions were selected for allocation based on their potential to address economic and social challenges in the state, such as community economic development, livestock and wildlife disease, managing natural resource conflicts, water management, and preparing for a global economy. Endowment for Excellence position allocations complement a group of faculty positions focused on energy resource sciences that are funded by the School of Energy Resources. The allocation strategy is reflected in the following table, and the accomplishments of the currently filled positions and the benefits of their research or instruction to students, businesses, industries or other Wyoming residents are described in detail below.

Allocation strategy	# Permanent Positions	College/Academic Unit	Names
Education	4	Education	Dr. Cynthia Brock, Dr. Leigh Hall, Dr. Rick Kitchen, Dr. Tim Slater,
Cultural Assets, Arts & Humanities	1	Academic Affairs	Mark Jenkins
Life Sciences, Environmental and Natural Resource Sciences, Earth and Energy Sciences	3	Agriculture & Natural Resources; Engineering & Applied Science; Haub School	Dr. Melinda Benson, Dr. Holly Ernest, Dr. Xiaohong Liu,
Professions Critical to Wyoming (other than education)	4	Law/Haub School Health Sciences (Nursing, Kinesiology & Health Promotion)	Dr. Temple Stoellinger, Dr. Diane Boyle, Dr. Christine Porter; Danielle Cover
Other Economic and Social Challenges	2	Agriculture & Natural Resources; Haub School	Dr. Steven Smutko, Dr. Heidi Jo Albers

FY 2019 Accomplishments of Wyoming Excellence Chairs

COLLEGE OF EDUCATION

Four of the permanent positions reside in the College of Education, with focuses on literacy, science education, and mathematics education. The individuals who hold these positions are developing and leading nationally recognized programs in these fields and are expected to be magnets for attracting the best and brightest junior faculty and students into these critical areas of teaching need in Wyoming. These positions represent the four Wyoming Excellence chairs that must, by law, be in the College of Education.

Dr. Cynthia Brock, (Ph.D. in Educational Psychology, Focus: Literacy & English Learners, Michigan State University) *Wyoming Excellence Chair in Elementary Literacy Education*. Across the past year, Dr. Brock worked with Dr. Dana Robertson (Executive Director of the Literacy Research Center and Clinic) and Dr. Leigh Hall (Wyoming Excellence Chair in Adolescent Literacy Education) to develop collaborative research/professional literacy learning partnerships in schools in the following counties: Teton, Sublette, Natrona, and Albany. Dr. Brock was one of the co-chairs of the 2017 UW Literacy Research Center and Clinic Annual Literacy Conference; approximately 220 administrators and educators from Wyoming and Colorado attended this annual literacy conference. This UW LRCC Literacy Conference and professional development work has benefitted hundreds of educators and children across the state of Wyoming by providing state-of-the-art literacy instructional ideas to Wyoming educators. Drs. Brock and Fisher (Interim Director of the UW Writing Center) successfully implemented the second year of the College of Education Academic Writing Fellows Initiative; this is a yearlong initiative that started in June 2018 and ended in June 2019. Years one and two of this initiative were so successful that the Initiative was extended to a third year. Dr. Brock collaborated with Dr. Mary Alice Bruce to implement the second year of the College of Education Mentoring Program. The College of Education initiatives developed by Dr. Brock and her colleagues benefit the residents of Wyoming because they provide ongoing learning and development to the educators who teach the pre- and in-service teachers in the state of Wyoming. In the spring and summer of 2018, Dr. Brock sponsored two international literacy scholars (Drs. Pauline Harris & David Caldwell) to work with College of Education faculty and doctoral students. Additionally, in conjunction with Drs. Hall and Robertson, Dr. Brock sponsored a group of UW doctoral students to attend and present research at the 2018 Literacy Research Association Conference. Dr. Brock was elected to serve as a three-year term on the Literacy Research Association Board of Directors. As well, Dr. Brock serves on the Wyoming English Language Arts Council (WELAC) Board of Directors. WELAC is the Wyoming affiliate for the National Council of Teachers of English. Across the 2018/2019 year, Dr. Brock co-wrote one grant, published two journal articles, co-wrote four book chapters, and wrote one book. Dr. Brock's state, national, and international scholarly work benefits the teacher educators and educators she serves in the state of Wyoming because her ongoing learning and development informs the nature of the work that she does with teacher educators, educators, and children in the state of Wyoming.

Dr. Richard Kitchen, (Ph.D. Curriculum & Instruction Mathematics Education, University of Wisconsin-Madison) *Wyoming Excellence Chair in Mathematics Education*. In 2018-19, Dr. Kitchen continued in his role as the coordinator of the Ph.D. degree program in Mathematics Education at the University of Wyoming. By fall 2019, 14 students are projected to be enrolled in the program. In 2018-19, Dr. Kitchen was active in Wyoming and nationally working as a consultant and professional development provider for school districts in the areas of mathematical content and pedagogy. He continued to lead the UW Math Institute, a series of grade 6-12 professional development workshops in mathematics for teachers from Platte County School District #1, Platte County School District #2, and Goshen County School District #1. Dr. Kitchen also supported initiatives in Converse County School District #1 to improve secondary mathematics instruction. In addition, he was a consultant for the Regional Partnership Schools, a professional development school comprised of Pojoaque Valley School District located in Northern New Mexico, Los Alamos National Laboratory, and New Mexico Highlands University. In spring 2019, Dr. Kitchen, in collaboration with Dr. Ali Bicer, made a featured presentation at the 4th Annual Wyoming English as a Second Language Conference in Casper entitled, “The Design and Development of the Discursive Assessment Protocol: An Instrument Intended to Support the Mathematical Learning of ELLs.” Last year, Dr. Kitchen was the co-editor along with Drs. Jacqueline Leonard and Andrea Burrows of a book published by Brill entitled, *Recruiting, Preparing, and Retaining STEM Teachers for a Global Generation*. He published an article in *For the Learning of Mathematics* and presented his research at the 43rd Annual Meeting of the International Group for the Psychology of Mathematics Education (PME 43), the American Educational Research Association (AERA) Annual Meeting, the MidSchoolMath National Conference, and the 2018 National Forum to Advance Rural Education. In fall 2018, Dr. Kitchen co-authored two grant proposals and was Co-PI on a National Science Foundation (NSF) grant entitled, “The Bessie Coleman Project – Using Computer Modeling and Flight Simulation to Create STEM Pathways.” Dr. Kitchen’s research interests include diversity and equity in mathematics education, school reform at urban schools that serve low-income students, and formative assessment of emergent bilingual learners.

Dr. Leigh A. Hall, (Ph.D. Curriculum and Instruction, Michigan State University) *Wyoming Excellence Chair in Literacy Education*. Dr. Hall continued to develop her research on online teacher education to help middle and high school teachers improve their literacy instruction. She received 100,000.00 in the fall of 2018 to help support this work. To date, 323 teachers have enrolled in this project with 226 (70%) of those being from Wyoming. Thirty-four professional development courses were developed to support teachers involved in this work. Data from Year 1 is being analyzed. However, initial results show that teachers found the structure and of the online approach useful and that their experiences within the courses improved their overall understandings about literacy instruction. Additionally, Dr. Hall, in conjunction with Dr. Cynthia Brock, continued to develop and implement a year long writing initiative for faculty in the College of Education. This initiative was meant to support faculty as they increased both the quality and the quantity of their academic publications. With the support of the College of Education, Dr. Hall has been working to redesign a literacy masters program that uses a competency based model. This approach will allow teachers to receive their masters degree online, but it will also allow for teachers to return for on-going professional development after they have received their degree. Dr. Hall finished out her term as a column editor for The ALAN Review where she worked to identify a diverse set of scholars to feature. She has had manuscripts accepted into Research In the Teaching of English and Teaching and Teacher Education. She has been a featured speaker on one podcast and two invited blog posts. Her conference presentations were featured at numerous places including the Literacy Research Association and Connected Learning.

Dr. Tim Slater, (Ph.D. Geological Sciences, University of South Carolina) *Wyoming Excellence Chair in Science Education*. Dr. Slater is a Professor in the College of Education's School of Teacher Education and Adjunct Professor in the College of Arts & Science's Department of Physics & Astronomy. Dr. Slater is a prolific author being cited thousands of times by international scholars, having published more than 100 refereed journal articles, 26 books, and presented hundreds of papers at conferences, often with his graduate students as co-authors, describing his scholarly research on understanding the underlying cognitive mechanisms related to teaching and learning in introductory science survey courses taught to undergraduates and future teachers. An expert in enhancing STEM education for indigenous students both in Wyoming and across the Pacific-islands, Professor Slater serves as the Editor-in-Chief for the Journal of Astronomy & Earth Sciences Education, Senior writer for the Society of College Science Teachers, and as Co-Editor for the Science Division of the Contemporary Issues in Technology and Teacher Education for the International Association for Science Teacher Education. Winner of numerous national awards and frequently an invited speaker at education conferences worldwide, he teaches graduate-level courses in evidence-based education research methods and the learning sciences for the College of Education each year to teachers across Wyoming. Along with Wyoming graduate students, he further impacts the state by conducting summer and weekend professional development workshops for K-12 teachers and professors across Wyoming, including co-hosting the Wyoming Society of College Science Teachers Conference in Casper. Professor Slater is working closely with Wyoming STEM teachers to pursue extramural grant funding opportunities to create state standards-aligned curriculum materials and provide professional development workshops supporting Wyoming K-12 teachers and students to learn to engineer and fly drone quadcopters and earn FAA certifications in the service of enhancing Wyoming's STEM, computer science, and CTE/IT education programs.

CULTURAL ASSETS, ARTS & HUMANITIES

Mark Jenkins, (M.S. Geography from University of Wyoming), *Writer-in-Residence*, is a statewide ambassador for the University of Wyoming whose work is coordinated by the Office of Engagement and Outreach. Jenkins, a critically acclaimed author and internationally recognized journalist is a foreign correspondent for National Geographic Magazine (see the May 2019 issue of Nat Geo for his story about Smokejumpers in Alaska). A decade ago Jenkins founded the World To Wyoming series: each year Jenkins creates a fresh National Geographic program from a recent assignment and tours the entire state. Jenkins visits every community college---Casper, Torrington, Cheyenne, Rock Springs, Riverton, Gillette, Sheridan and Powell---every year, where he teaches classes in international relations, cultural anthropology, ethics, composition, political science and composition: then gives his World to Wyoming National Geographic presentation to the community. (Even in small communities, it is common for over two hundred people to attend his presentation.) He also gives this presentation at least once on the campus of the University of Wyoming. On behalf of UW, Jenkins also gives his World to Wyoming presentations in Cody, Jackson Hole, Douglas, the Wyoming Boys School in Worland and the Wyoming Girls School in Sheridan every year. Over twelve thousand people in Wyoming have now attended one of Jenkins' presentations. His current program is *A Journey into the Ancient Namib Desert: Rock Paintings, a Vanished People and Water Scarcity*. His previous presentations include *Burma's Resurrection: An Expedition into a Forbidden Land*, *The Ascent of Everest*, *The First Descent of the Biggest Cave in the World*, *Landmines in Cambodia*, *Gorillas in the Congo* and a dozen others.

As part of his UW Writer-in-Residence position, Jenkins also gives lectures across campus in numerous departments, including Creative Writing, ENR, the Outdoor Program, Global Studies and Political Science. Last year he gave the Martin Luther King address in Casper. A Wyoming native, the author of four books and over

three hundred articles, Jenkins has appeared on BBC, CNN, ABC, NBC and countless NPR programs. Among his numerous awards are the Overseas Press Club Award, the National Magazine Award, five Lowell Thomas Awards, three Best American Travel Writing Awards, the American Alpine Club Literary Award and the Banff Mountain Adventure Book Award.

LIFE SCIENCES, ENVIRONMENT AND NATURAL RESOURCES, AND EARTH AND ENERGY SCIENCES

Melinda Harm Benson, (J.D., University of Idaho) *Wyoming Excellence Chair in Environment and Natural Resources*. Professor Benson is Dean of the Haub School of Environment and Natural Resources since August 2017. Her current research focuses on the next generation of environmental governance approaches and the extent to which existing legal and institutional frameworks facilitate and constrain their theoretical development and practical application. Publications in 2018 include: **Benson, M.H.**, D. Llewellyn, R. Morrison and M. Stone (2018). "Governing the Rio Grande: Challenges and Opportunities for New Mexico's Water Supply" in *Practical Panarchy, Linking Law, Resilience and Adaptive Water Governance of Regional Scale Social Ecological Systems*. Barbara Cosens and Lance Gunderson, ed. (New York: Springer); C.A.T. Arnold, H. Gosnell, **M.H. Benson**, R.K. Craig (2018). *Practical Panarchy for Adaptive Water Governance: Linking Law to Social-Ecological Resilience in Practical Panarchy, Linking Law, Resilience and Adaptive Water Governance of Regional Scale Social Ecological Systems*. Barbara Cosens and Lance Gunderson, ed. (New York: Springer); H. Gosnell, B.C. Chaffin, J.B. Ruhl, C.A.T. Arnold, R.K. Craig, **M.H. Benson**, A. Devenish (2018). Finding Flexibility in Section 7 of the Endangered Species Act Through Adaptive Governance in *Practical Panarchy, Linking Law, Resilience and Adaptive Water Governance of Regional Scale Social Ecological Systems*. Barbara Cosens and Lance Gunderson, ed. (New York: Springer). She also has an upcoming law review article in *Natural Resources Journal* to be published in 2019 titled *New Materialism: an Ontology for the Anthropocene*.

Dr. Holly Ernest, (Doctor of Veterinary Medicine, Ohio State University; Ph.D. Ecology with focus in wildlife genetics, University of California, Davis) **Professor, Wyoming Excellence Chair in Disease Ecology**, Department of Veterinary Sciences, faculty member in the Program in Ecology, and Affiliate faculty member in the Haub School of Environment and Natural Resources. Professor Ernest's research, teaching, and service program involves the intersection of Wildlife Genomics and Disease Ecology. She leads a team of students and researcher-trainees to answer questions vital to conservation and management of wild ungulates (bighorn sheep, mule deer, elk, and pronghorn), carnivores (mountain lions, black bears, and otters), and birds (raptors and hummingbirds) in Wyoming, the Rocky Mountain West, and the Pacific coastal US. Dr. Ernest was recently awarded certification as Senior Ecologist by the Ecological Society of America, the highest certification offered by the ESA, and the first veterinarian at University of Wyoming to achieve this distinction. This work answers key questions about when, how, and why populations, and the impacts of diseases such as Chronic Wasting Disease in deer, change over time and what ecological and human factors are important in changes. Her group also studies DNA of pathogens that infect wildlife including hummingbird malarial parasites. The team employs the latest genomic lab techniques and bioinformatics (expert computer coding) using UW's Teton supercomputing cluster. Dr. Ernest and her students have provided public service activities including Women in STEM, Wyoming State Science Fair, STEM Saturday, Biodiversity outreach to kids, Science Kitchen (NASA), and Fort Collins Audubon Society. They collaborate with and advise more than 100 biologists and scientists from state, federal, and non-governmental institutions such as US Fish and Wildlife Service, Colorado State University, University of California Davis, University of Minnesota, University of Tasmania, Wyoming Department of Game and Fish (WGFD), Wyoming Wild Sheep Foundation, Teton Raptor Center, The Wildlife Conservancy, National Park Service, US Geological Survey, Smithsonian Institution, UC Santa Cruz, US Department of Agriculture, and

others. Dr. Ernest provides advice on the federal Wildlife Forensic Science NIST panel of experts for crime labs. Her lab was funded by the Wyoming Governor's Big Game Grant (deer/CWD), Wyoming Wild Sheep Foundation, California Department of Fish and Wildlife, student grants through INBRE, NASA, Wyoming Research Scholars program, and others. Ten scientific papers have been accepted, in-press or published during the past year include journals of Environmental Science and Pollution Research, Ecological Applications, Journal of Wildlife Management, Journal of Wildlife Diseases, Evolutionary Applications. Topics published included "Genetic outcomes of translocation of bighorn sheep", "Advancing understanding of pathogen dynamics and disease ecology through landscape genetics" and "Insecticide exposure in hummingbirds". Dr. Ernest's Wildlife Genomics and Disease Ecology Lab's active online presence educates the public with over 30 informational pages and links to publications, www.wildlifegenetichealth.org, and regular twitter and Facebook postings about our science.

Dr. Xiaohong Liu, (Ph.D., Nanjing University, P.R. China) *Wyoming Excellence Chair in Climate Modeling.*

Dr. Liu is an internationally recognized scientist in climate modeling, aerosol-cloud reactions and aerosol modeling. He has made significant contributions to the understanding of climate system related to cloud and aerosol processes through the modeling and observation analyses, and to the development of Earth System Models. He joined the University of Wyoming from the Department of Energy (DOE)'s Pacific Northwest National Laboratory, located in Richland, Washington in August 2013. In FY2019, Dr. Liu and his research team have been heavily involved in the development of the NCAR Community Earth System Model (CESM) and DOE's Energy Exascale Earth System Model (E3SM) by improving the representation of atmospheric aerosols, clouds, and aerosol-cloud interactions. Schemes/parameterizations developed in his group were adopted by CESM and E3SM. In FY2019, Dr. Liu was awarded a new DOE project to improve the representation of volcanic stratospheric aerosols for the next generation model development of E3SM. He was also awarded another new DOE project to investigate the physical mechanisms and improve representations of mixed-phase cloud formation and interactions with aerosols at high latitudes in climate models by using the DOE observations in the polar regions. His group has been investigating the global transport, lifecycle, and radiative and microphysical effects of anthropogenic aerosols, wildfire smokes, and mineral dust, including a high profile paper published in *Nature Geoscience*, with funding supports from DOE and NASA. During FY2019, Dr. Liu gave presentations at 20 national and international conferences including 8 invited talks and seminars, and published 15 papers in peer-reviewed journals. For the fifth consecutive year, he was named to the list "Highly Cited Researchers" in 2018 by Web of Science (approximately 4,000 researchers in specific fields in the World earned this distinction). As a principal investigator on nine grants from NSF, DOE, NASA and EPA, Dr. Liu has brought ~\$4.3 millions external funding to UW since August 2013. Dr. Liu was the Chair of nine graduate thesis committee. Dr. Liu also taught both an undergraduate and a graduate course, and served on numerous editorial boards and advisory committees, including the Co-chair of NCAR CESM Chemistry-Climate Working Group. Dr. Liu was a major user of computational resources on Cheyenne from the NCAR-Wyoming Supercomputer Center (NWSC), and was awarded ~30 Million core hours in FY2019. With the NWSC support, his group used the regional and global climate models to study the temperature, precipitation, and snow depth and snow cover changes in the Rocky Mountain region in the historical period (1850 to 2000) and in the future (until 2100). These studies are very beneficial to the water resource managements in the State of Wyoming.

PROFESSIONS CRITICAL TO THE STATE

Temple Stoellinger, (University of Wyoming; J.D. with honors, University of Wyoming College of Law) *Law & Haub School*. Professor Stoellinger is an Assistant Professor in the Haub School of Environment and Natural Resources with a joint appointment at the College of Law where she is also the Co-Director of the Center for Law and Energy Resources in the Rockies and has been the Faculty Director of the Energy, Environment and Natural Resources Law Clinic (EENR). Professor Stoellinger's work and engagements continue to have a direct and impactful benefit to the State of Wyoming. During the 2018/2019 academic year she taught the following courses: EENR Law Clinic (Law 6930-03), Environment and Natural Resource Law and Policy (ENR 4750/5750) and co-taught a seminar course on plan b/thesis writing for the Haub School/Law School joint JD/MA students. During the spring semester she continued to teach and direct the EENR Law Clinic and worked to develop a new course on wildlife law that will be offered in the spring of 2020. This last year Professor Stoellinger chaired three graduate committees and served as the coordinator of the Haub School's JD/MA program. Professor Stoellinger's scholarship continues to focus on the intersection of natural resource law and effective policy. Highlights of her scholarship this past year include the development of an interdisciplinary law review article focusing big game migrations and an interdisciplinary policy paper on capturing additional revenue from park visitors for transboundary wildlife conservation use. In May of 2019 she organized a workshop of selected national experts to discuss how states might be more involved in Endangered Species Act. The workshop's report is intended to inform the national debate on the subject. As co-director of CLERR, Professor Stoellinger's main effort was the organization of the 2018 Landscape Discussion on Energy Law and Policy in the Rockies, which was attended by 200 participants and covered the following topics: NEPA Expediting for Energy Infrastructure, Current Issues Facing the Oil and Gas Industry, and Renewable and Transmission Infrastructure. Notably, then Deputy Secretary, now Secretary of the Interior David Bernhardt was the conference keynote speaker. Professor Stoellinger's EENR Clinic continued to do meaningful work for the Wyoming Attorney General's office this past year including the drafting of several motions to intervene in cases in federal district court. Professor Stoellinger also serves as the chair of the editorial board for the Wyoming Lawyer, the Wyoming State Bar's bi-monthly publication.

Diane K. Boyle, (Ph.D. University of Kansas) *Wyoming Excellence Chair in Nursing*. Dr. Boyle's research activities focus on improvement of the nursing work environment, nursing workforce, and patient safety through expertise in developing and evaluating standardized quality measures and sustained investigation of relationships between nursing characteristics and patient outcomes. To that end, her team currently has funding from the Medical-Surgical Nursing Certification Board to investigate how specialty certified RNs maintain their continuing competence. Over the past year Dr. Boyle published 2 papers. Along with Dr. Ann Marie Hart, she taught NURS 5891 (fall 2018) and 5892 (spring 2019), which entailed working with 18 Doctor of Nursing Practice students on their final DNP projects. She was the advisor for 6 projects (9 students). She also taught a new course in the science of quality improvement and patient safety for the School of Nursing MS and DNP students. Dr. Boyle's work contributes to improved quality and patient safety for hospitals within the State of Wyoming and across the nation.

Christine M. Porter, (Ph.D. Community Nutrition, Cornell University) *Wyoming Excellence Chair in Community & Public Health*. Dr. Porter does participatory action research in public health nutrition, community food systems, and ending health disparities. She has published four papers in the first half of 2019, mainly about the Growing Resilience project. That is an NIH-funded five-year trial of the health impacts of home gardens with Wind River Indian Reservation families, which employs three people full time. In addition, she has 10 papers in a July 2018 special journal issue about the \$5-million, 7-year Food Dignity project that finished in early 2018.

She has applied for external funding for several new food system and health projects for 2020. In national service, she became chair of the executive committee of the Inter-Institutional Network for Food, Agriculture, and Sustainability; co-chair of the advisory committee to the Lyson Center for Civic Agriculture and Food Systems; and co-chair of the equity committee of the *Journal of Agriculture, Food Systems, and Community Development*. She reviewed papers for 11 journals. She has also been collaborating state wide towards building food system and food security coalitions. At UW, she received the Antell STEM Diversity Award; the Diversity, Equity & Inclusion Fabulous Fieldwork Award; and the College of Health Sciences Faculty Mentorship Award and the College's Outstanding Researcher Award. This year she has also supported the development of student-run food sharing cabinets, mentored 8 graduate students, taught her campus-based course called Food, Health and Justice and taught her online course called Creating Conditions for Community Health.

Danielle R. Cover, (J.D. *Cum Laude*, Tulane University School of Law) College of Law. Professor Cover is an Associate Professor at the College of Law where she is the *Director of the Civil Legal Services Clinic*. During AY 18-19 Professor Cover taught the following courses: Civil Legal Services Clinic (Fall, Spring); Interviewing, Counseling, & Negotiation (Fall); and Judicial Remedies (Spring). As Director of the Civil Legal Services Clinic, Professor Cover has worked to expand the substantive case law offerings to low income residents of the State of Wyoming. The CLSC is a trusted and well-respected legal service provider in the state and has a close working relationship with Equal Justice Wyoming, the low-income legal services clearinghouse for the state and primary outside funder for legal services within the state. The CLSC represented approximately 60 people in the state over the academic year in a variety of legal matters from divorce and custody to special education and social security. Professor Cover's scholarship focuses on the intersections between psychology and legal practice, particularly around motivational theory, adult learning theory, and clinical pedagogy. During AY 18-19, she worked with several co-authors on an instructional design manual, scheduled to be published in August 2019, called *Learning Law Through Experience & by Design*. She also wrote a lengthy article called *Brainwise Lawyering for the Clinical Law Student* that will be published in the April 2020 issue of the *clinical Law Review*. *Brainwise Lawyering* explores the relationship between practiced self-awareness, clinical pedagogy, and neuropsychology in the quest to increase student empathy and dampen negative biases and stereotypes.

Professor Cover's work has a direct positive impact on the State of Wyoming. As one of the largest providers of pro bono legal assistance in the state, the Civil Legal Services Clinic works diligently to develop and direct the rich resources of Wyoming's College of Law toward promoting access to justice for low income individuals in the state. The Kaiser Family Foundation estimates that the percentage of Wyoming's population living at or below 200-299% of the federal poverty income guideline is 33%.¹ The clinical experience promotes a practical, holistic legal education to students, while re-affirming a strong commitment to public service through experiential learning. An additional benefit to the CLSC is increasing awareness among matriculating law students of the vast need for legal representation for people living in poverty. This in turn can influence the willingness of law students to incorporate pro bono or low bono legal assistance into their legal careers, regardless of their ultimate practice choices. When vulnerable populations receive direct legal representation and community education, many members of those populations can overcome severe barriers to maintaining financial stability. Students experience first-hand how economic independence and income stability improve not only the lives of their clients but the functioning of entire communities. In-person meetings with clients and relationships with local judicial bodies, together with community outreach and education that takes the students where the clients live, work, and build their families, amplifies the benefits the CLSC program offers. Because most University of Wyoming College

¹ See the Henry J. Kaiser Family Foundation Infographic '*Distribution of Total Population by Federal Poverty Level*,' <http://kff.org/other/state-indicator/distribution-by-fpl/?currentTimeframe=0>, retrieved February 10, 2017. Kaiser Family Foundation estimates are based on the March 2016 Census Bureau Current Population Survey.

of Law students remain in Wyoming, many returning to the small towns from which they came, they can provide access to the legal system in ways they may not have anticipated.

OTHER ECONOMIC AND SOCIAL CHALLENGES

Dr. Steven Smutko, (Ph.D. Economics, Auburn University) *Wyoming Excellence Chair and Spicer Distinguished Chair in Environment and Natural Resources*. Dr. Smutko advances leadership, training, and scholarship in natural resource collaborative decision-making in Wyoming. In FY2018-19, Dr. Smutko's research activities included an investigation of the suitability of collaborative decision processes in "social trap" situations with application to the elk feed-ground debate in Wyoming; an assessment of the application of collaborative approaches to wilderness designation in the United States; an investigation of how the courts view collaborative processes with respect to the "hard look" provision of the National Environmental Policy Act; and the effect of negotiation training for agricultural producers on privately negotiated sales of agricultural commodities. He published four refereed journal articles in 2018-19. Dr. Smutko taught graduate and undergraduate courses in negotiation analysis and environmental problem-solving, and provided students hands-on experience in policy development and implementation in the natural resources arena. Through his position as the Spicer Wyoming Excellence Chair, Dr. Smutko builds capacity for people in the West to collaborate and solve complex and contentious natural resource problems. He oversees the Collaboration Program in Natural Resources, a yearlong series of professional development workshops attended by natural resources professionals in the public, private and nonprofit sectors in Wyoming and adjacent states. In May of this year, Dr. Smutko worked with UW faculty in the School of Law to organize and facilitate a workshop on enhancing involvement by the States in implementing the federal Endangered Species Act.

Dr. H. Jo Albers, (Ph.D. in Economics. University of California at Berkeley) *Conservation Economics: Wyoming Excellence Chair*. In 2018-2019, Dr. Albers taught a her core PhD course in Natural Resource Economics and a new course in "Environmental Economics: Sustainable Development" for the Department of Economics. She advised, or served on the committees for 11 graduate students. She took over as the Director of Graduate Studies in Economics through which she advised undergraduates, MS, and PhD students on successful degree progress and job market outcomes, in addition to serving on the UW Graduate Council. She also serves as a mentor to junior faculty on campus and worldwide. In that capacity, Albers continues to work with women in economics through the Environment for Development Initiative, CSWEP, and Wyoming Women in Economics. Dr. Albers maintains an internationally respected research agenda based around determining resource management strategies that integrate socio-economic, ecological, and institutional characteristics of the setting. In 2018-2019, Dr. Albers published 5 journal articles covering topics ranging from river management with invasive species to evaluating Reducing Emissions from Forest Degradation and Deforestation (REDD) programs, with all publications having a former or current student as a co-author. She gave 7 research presentations, including four internationally. In addition, Dr. Albers continues to work with land managers and organizations to bring research insights into management and policy. In particular for this year, Excellence funds enabled Albers to engage with research, policy and management issues surrounding seasonal wildlife migrations. In addition, her research activities focused on funded projects in Chile – policy analysis for small scale aquaculture development – and Tanzania – women's livelihood and wellbeing in Ngorongoro Conservation Area – that trained students in fieldwork and data analysis, will generate academic journal articles, and will produce important policy prescriptions. She continues to contribute to economics, policy, and interdisciplinary literatures through editorial roles at the *Environmental and Resource Economics*, *Ambio: A Journal of the Human Environment*, and *Conservation Biology*. Her teaching benefits students by giving them strong decision analytic tools that empower students to make well-developed arguments for their positions, make students into better decision-makers and

contributors to society, and prove important for employment success. Excellence funds enable Dr. Albers to conduct fieldwork that she then brings to the classroom as local and international case studies that cover a wide range of perspectives, tools, and issues, which further expands the UW students' horizons. To further foster students' educational growth, Dr. Albers used her Excellence funding to support 5 graduate students and 1 undergraduate intern for various experiences including summer work, conference presentation experience, and fieldwork skills development, which provides students with important learning/networking, develops marketable skills, and deepens understanding of tools and issues. The funding enriches the students' educational programs by enabling them to explore topics and develop skills differently than classroom work and by providing experience with analytical tools that employers value. Through these experiences, students become stronger contributors to Wyoming's economy and resource management debates.

Wyoming Excellence in Higher Education Endowment Fiscal Summary

The costs associated with each position include salaries commensurate with the market for top academics, employer paid benefits, ongoing budgets to support research and instructional activities, as well as one-time start-up expenses which are especially critical to recruiting distinguished scholars with large established laboratory research programs.

The balance in the Excellence in Higher Education Endowment expenditure account held at the university as of June 30, 2018 was \$4.08 million. Total expenditures for the 2019 fiscal year were currently budgeted at \$2.93 million. The planning budget was designed to maintain an adequate cash balance to cover on-going expenses for an acceptable period, in the event of diminished revenue.

The following table summarizes the uses and expenditures of the budgets for filled positions, and the total estimated initial cost of the program when all allocated positions are filled. Not shown are projected costs as the program continues.

Balance July 1, 2018	\$4,081,151.99
Advertising and Recruitment	\$2,092.57
Salaries and Benefits	\$2,703,396.56
Support	\$170,874.73
Equipment/facilities	\$9,031.01
Total Expenses	\$2,885,394.87*
Income (distribution from state and interest)	\$3,720,104.10
Balance June 30, 2019	\$4,915,861.22

*Expenses to date (June 30, 2019). Due to UW Year-End processes, full accounting for FY2019 is not complete.

Planning for FY2020

Planning for the FY2020 budget is based on anticipated annual projected income as per State Spending Policy for FY19 (WS 9-4-719). The table below includes the estimated annual budget for 13 permanently funded positions. Unless annual distributions increase, planning for subsequent fiscal years will mirror FY2019 projected budget.

<i>Estimated FY20 Spending Policy Amount for UW*</i>	\$3,800,000
Income FY20 90% per W.S. 21-16-1201(c)	\$3,420,000
Salaries and Benefits (for Chairs and GAs)	\$2,417,702
Support for Chairs	\$ 250,000
Other support (Visiting Programs)	\$ 501,533
Equipment/facilities	\$ 250,765
Total Expenses	\$3,420,000

* *The FY 2020 Spending Policy Amount was not available prior to the due date of this report; therefore, an estimated based on the FY 2019 Spending Policy Amount was used.*

Part B. Legislatively identified faculty positions

1. School of Energy Resources (SER) faculty

The Wyoming Legislature established and appropriated initial funding for the School of Energy Resources (SER) in 2006. The plan for SER stipulated the hiring of up to 12 distinguished faculty who were to be co-appointed in departments across campus. Professors in the SER are internationally recognized energy experts who are actively involved in both energy research and teaching. They work in a variety of disciplines and have formed productive collaborations across campus. The current SER professors include:

Dr. Timothy Considine, (Ph.D., Cornell University) *SER Professor of Economics and Finance*. During academic year 2018-2019, Dr. Considine taught undergraduate courses in Oil: History, Culture, and Power, Energy Economics and Public Policy, the MBA course in energy economics. He and his colleagues in the School of Energy Resources were awarded a \$249,949 research grant from the Charles Koch Foundation to conduct studies in energy regulatory law and economics, including oil and gas development on federal lands, siting carbon dioxide pipelines, environmental considerations in oil and gas permitting, contracts for sustainability, the economic impacts of fracking, productivity and technical change in the fracking industry, and the economics of technological innovation in the petroleum refining industry. Considine also worked with two uranium companies, UR Energy and Energy Fuels, estimating the market impacts of uranium import quotas, publishing the research in the per-reviewed journal, Resources Policy.

Dr. Considine's research is recognized by business and policy leaders in Wyoming and around the world. His research has been supported by several organizations including Peabody Energy, Cloud Peak Energy, the American Petroleum Institute, The Manhattan Institute, and The Strata Institute. His studies on the importance of Powder River Basin coal to the US economy and the economics and environmental dimensions of fracking have attracted considerable attention around the country. Since 2008, nearly 800 students, many of whom are STEM students, have taken his oil class in which he provides an historical perspective on the challenges facing the oil and gas industry. Dr. Considine's research applies state of the art economic and industry analysis to address major policy issues directly affecting Wyoming's coal, natural gas, and petroleum industries, providing business and policy leaders with the arguments and data to effectively engage in national energy and environmental debates whose outcomes directly affect the citizens of Wyoming.

Dr. Craig Douglas, (Ph.D. Yale University) *SER Professor of Mathematics*. Dr. Douglas is an internationally recognized expert in computational sciences who leads a research group that creates sophisticated mathematical models of physical phenomena using networks of remote sensors and high performance parallel computers. He has a long term collaboration with AirLoom, LLC, a renewable energy company located in Laramie. Two of his current or former Ph.D. students have worked there, including one full time. He has published a research paper recently with AirLoom staff on optimization techniques relevant to wind energy design development. Dr. Douglas also has a project on dual porosity models relevant to both the fracking industry and aquifer modeling. An open source two and three dimensional high performance code has been released that runs efficiently on one to thousands of processors. Federal dollars are spent in state and the results enhance UW's reputation through high visibility internationally. One of his projects has created the first 100 Gigabit/second computer network in Wyoming, which enhances Wyoming's ability to attract large data centers to the state. He has taught a first year seminar course on Energy, the Environment, and Economics, which covers all aspects and forms of energy from the viewpoints of Wyoming and globally.

Dr. Subhashis Mallick, (Ph.D. University of Hawaii) *SER Professor of Geology and Geophysics*. In addition to advanced research on the development of the state-of-the-art waveform inversion, modeling, and imaging algorithms, Dr. Mallick and team has recently started working on the use of machine learning to solve geophysical optimization problems. Using the high-performance computing facility, both at the University of Wyoming's advanced research computing center (ARCC) and the NWSC supercomputing facility, his team continues research collaborations with Dr. Dario Grana, SER Associate Professor of Geology and Geophysics and Dr. Vladimir Alvarado, Professor and Head of the Chemical Engineering. In addition, Dr. Mallick has initiated a new research collaboration with Daqing Oilfield Company (DOC, a division of Petro China), Daqing, China. He spent one summer month in Daqing for research on the use of seismic waveform inversion methods to solve some outstanding exploration challenges of DOC. The results were extremely encouraging and will be soon submitted for publication in GEOPHYSICS. Based on the results, DOC is also working with Dr. Mallick for a long-term research collaboration with SER and University of Wyoming. In 2018-2019, Dr. Mallick and his team published two papers in peer-reviewed journals, presented nine peer-reviewed expanded abstracts in international conferences, and submitted three papers for publication, which are now undergoing review. Dr. Mallick also submitted two research proposal for funding to the US Department of Energy (DOE). Out of them, one proposal was not successful, and the other one is undergoing review. In Fall 2018, Dr. Mallick taught a course on Geophysical Optimization Theory to the graduate and senior undergraduate students. In Spring 2019, Dr. Mallick taught two sections of the Petroleum Geology course to the senior undergraduate students majoring in Geology and Petroleum Engineering. In addition, Dr. Mallick was also involved in advising three graduate students as their primary research advisor. Dr. Mallick and his students will continue their research on waveform inversion, imaging, and machine learning. The courses taught by Dr. Mallick benefit the students as they work as professionals in the oil and gas industry. All students graduated with advanced (Masters and Ph.D.) degrees with Dr. Mallick as their primary advisor are well-respected industry professionals, which indirectly benefits the state by establishing the University of Wyoming as a reputed school of higher learning. Lastly, Dr. Mallick is one of the SEG honorary lecturers (HL) for 2019. Every year, SEG selects five HL speakers who tour different regions of the World and give talks on a topic of his/her interest, and Dr. Mallick is the 2019 SEG HL speaker for East and South Asia. In the next annual meeting of the Society of Exploration Geophysicists (SEG), Dr. Mallick will receive as special honor and recognition from SEG, which would also recognize the University of Wyoming as a reputable institution of higher learning and advanced research.

Dr. Bruce Parkinson, (Ph.D. California Institute of Technology) *SER Professor of Chemistry and Warren Chair of Energy and Environment*. Dr. Parkinson is an internationally renowned scientist who leads a research group that investigates novel methods to harness solar energy and developing new materials for electrochemical and environmental applications. Dr. Parkinson's research in several areas has been well funded, with a total in the last fiscal year of about \$300k. He is working on fundamental aspects of storing solar energy in chemical bonds such as producing hydrogen from sunlight and water and charging redox flow batteries directly with sunlight. He also collaborates with Dr. Carrick Eggleston in geology in investigating photoelectrochemical processes on the surface Mars. The resulting publications have enhanced UW's reputation for research and innovation since their research has upended previous models. In addition, he is co-inventor on a composition of matter patent with Professor John Hoberg in a new area where they synthesize two dimensional nanoporous polymers with unique properties useful for membrane separations that have many different commercial applications that could result in significant licensing revenue for UW. Every year he teaches the introductory course for the Energy Resource and Management and Development majors called Energy and Society. This class uses many class participation activities to present the many sides of energy related issues. Students get exposure to a top-level researcher in the classroom with many years of experience in energy related issues and where they are encouraged to discuss current energy related topics. He also has taught a graduate level courses on solar energy and on the chemistry of electronic materials. The main expenditures from the research grants are to pay graduate students and post-doctoral researchers with the result that federal dollars are being spent in Wyoming for food, lodging and at local businesses. The reputation of UW is enhanced by the high visibility of the research activities due his over 250 publications in high impact journals. He also was the recipient of the University of Wyoming's Presidential Research Award for 2019.

Dr. Maohong Fan, (Ph.D. Iowa State University; Ph.D. Osaka University), *SER Professor of Chemical and Petroleum Engineering*. As a PI and Co-PI, Dr. Fan led various research projects including those funded by NSF and DOE in the areas of advanced material development, energy production, and environmental protection. He has supervised many graduate students, postdocs, and research scientists. His last year's publications are in the areas of clean energy production and environmental protection. Web of Science (the leading scientific data base) acknowledged that Dr. Fan was a highly cited researcher ([Highly Cited Researcher 2018](#)) in the world. The website says that "This list recognizes world-class researchers selected for their exceptional research performance, demonstrated by production of multiple highly cited papers that rank in the top 1% by citations for field and year in Web of Science." Dr. Fan not only instructed graduate students but also undergraduate students for conducting scientific research. A number of the undergraduate students took undergraduate research courses with Dr. Fan. In addition, Dr. Fan taught a course for the College of Engineering and Applied Science. The gained and disseminated knowledge from Dr. Fan's research or instruction considerably helped students' employment and career development opportunities. The technologies developed by Dr. Fan could help businesses and industries improved their market development opportunities, and thus could create great employment opportunities for Wyoming's residents.

Dr. John Kaszuba, (B.S. Beloit College; M.S. Virginia Tech; Ph.D. Colorado School of Mines), *SER Associate Professor of Geology and Geophysics*. Professor Kaszuba has over 25 years of experience researching geochemical interactions between fluids and rocks; his research group of five graduate students and one undergraduate student presently focus on unconventional oil and gas reservoirs in Wyoming. His research is well funded, including a \$1.1 million grant from the DOE and smaller grants from independent oil and gas companies operating in Wyoming. He teaches courses in the Department of Geology and Geophysics. He serves on numerous committees, including graduate student committees as well as SER and University committees, and is a member of the Wyoming State Geological Survey Advisory Board.

Dr. Mohammad Piri, (Ph.D. Imperial College London) *Thomas and Shelley Botts Endowed Chair in Unconventional Reservoirs in the College of Engineering and Applied Sciences* (See Privately Endowed Faculty Positions – Section C)

Dr. Po Chen, (Ph.D. University of Southern California) *SER Associate Professor of Geology and Geophysics*. A fundamental problem in hydrology is to quantify and explain geographical and temporal variations of the water balance, i.e., the partitioning of precipitation into evapotranspiration, streamflow and groundwater recharge. In Wyoming, over 70% of streamflow originates from melting snowpack throughout the melting season, supplying water demands of millions of people living in adjacent lowland river basins in other states. In the past fiscal year, Dr. Chen and his graduate student Wei Wang, who has been supported by a previous NSF grant to the Wyoming Center for Environmental Hydrology and Geophysics, have been working towards establishing quantitative models for understanding and predicting the water balance in the Laramie Ranges. Our research in this direction has resulted in 3 peer-reviewed journal publications in the past fiscal year and one of those publications was first-authored by the student, Wei Wang, who is scheduled to defend his PhD thesis in fall 2019. Dr. Chen taught 5 courses in the past fiscal year, including “Methods in Petroleum Geology” (Spring & Fall), “Introduction to Machine Learning for Scientists and Engineers” (Spring), “Geosciences and Computers” (Fall), “Introduction to Wind Energy” (Fall).

Dr. Dario Grana, (M.S. and Ph.D., Geophysics, Stanford University), *SER Associate Professor of Geology and Geophysics*. Dr. Grana’s research focuses on petrophysical modeling and characterization of subsurface reservoirs of energy resources using geophysical methods, such as seismic and electromagnetic data. Reservoir characterization studies aim to build 3D reservoir models of rock and fluid properties for the estimation of subsurface reserves and the prediction of hydrocarbon production. This research also aims to quantify the uncertainty in the predictions and assess the risks associated to exploration and production. Other research projects include geophysical monitoring of the reservoirs using repeated seismic surveys and model updating using production data to reduce the uncertainty in the reserve evaluation and production forecast. The developed methods have also been applied to CO₂ sequestration and geothermal studies. Dr. Grana’s research has been applied in several case studies all over the world, including a CO₂ sequestration project in Southeast Wyoming. A more accurate reservoir characterization study allows reducing the uncertainty in the model predictions and consequently the exploration and production costs. Furthermore, the model predictions are generally used in decision making processes to maximize the production and reduce the environmental impact of the exploration and production activities. The recent research conducted by Dr. Grana and the application to CO₂ sequestration provided a valuable contribution in the development of strategies for carbon dioxide reduction. Dr. Grana published 10 peer reviewed papers in 2018. Dr. Grana currently teaches three classes at the University of Wyoming: an undergraduate level class on the basic concepts of exploration and production, and two graduate level course on geophysical methods for reservoir characterization and mathematical methods for geosciences respectively. Dr. Grana’s classes at the University of Wyoming contribute to the formation of the new generation of scientists, including geologists and petroleum engineers who aim to work in the energy sector.

Tara Righetti, (J.D., University of Colorado Boulder) *SER Associate Professor of Law*. Ms. Righetti joined the University of Wyoming College of Law and SER faculty in the fall of 2014. In the past fiscal year she taught two sections oil and gas law, and one section each of advanced oil and gas law, ethics and leadership, and the Landman Capstone Course. Ms. Righetti’s teaching is housed within the colleges of Law and Business, and the school of Energy Resources. She also serves as the director of the academic program in Professional Land Management at the School of Energy Resources. She presented at the Wyoming State Bar Conference, the Ernest Smith 2019

Fundamentals of Oil and Gas Law, the RMMLF Short Course on Oil and Gas Law, the Wyoming Association of Professional Landmen Annual Education Seminar, the Rocky Mountain Mineral Law Foundation Annual Institute, and the Florida State University Distinguished Environmental Speaker Series. Professor Righetti's research in the fiscal year 2017-2018 resulted in the publication of articles in the Arkansas Law Review, The Rocky Mountain Mineral Law Foundation Annual Institute, and the forward to a book on the Joint Operating Agreement. She served as a member of the University of Wyoming's Carbon Safe, EPSCoR, Energy Regulatory Research, and Clear Path research teams. She also served on numerous committees within her colleges and campus wide, including the SER Course Review Committee and the Curriculum Committee and Faculty Recruitment Committees at the college of law. Professor Righetti served as the faculty supervisor and coach of the College of Law's Energy Negotiations Team, which competed at the National Energy Negotiation Competition at the South Texas College of Law in Houston. Professor Righetti also served on the special institutes committee and as a trustee-at-large of the Rocky Mountain Mineral Law Foundation and on the executive council of the Wyoming Association of Professional Landmen.

Professor Righetti's teaching prepares students for work in business and in the landman and legal professions in the fields of energy, environment and natural resources. Professor Righetti's courses are practice and experientially oriented, and focus on development of core competencies in oil and gas leasing, title research, finance and acquisition/divestiture transactions, and entrepreneurship. These skills prepare students to making meaningful contributions in their businesses, for the clients, and within the energy industry. Her research benefits the state and its citizens through its focus on Wyoming law and subsurface property, in particular issues related to the energy industry and projects for carbon capture and sequestration. Ms. Righetti also serves both the landman and legal professions by providing instruction for continuing education at state and national events.

Part C. Privately Endowed Faculty Positions

Forty-six² UW faculty positions are partially or fully supported by privately funded endowments established with gifts to the UW Foundation. A \$3 million or more endowment supports a faculty chair, which may be designated to cover all or part of the base salary of the faculty member. A \$2 million gift endows a professorship, which may be used to provide an annual salary supplement or to support teaching, research, or scholarship expenses. And a \$1 million gift endows a faculty fellowship, which supports faculty development in teaching or research. Of the 46 endowments, 22 support faculty chairs (most are partially funded from their respective endowments), 24 support faculty professorships and/or programs. A complete list of the privately endowed chairs, professorships, and faculty fellowships is available from the UW Foundation. That list describes the history of the endowment, the qualifications or purpose, the uses, and the current and past faculty recipients. Some of these endowed positions are not filled at the present time; others fund various faculty from year-to-year.

In all cases, the specific uses of the endowment earnings are specified in the gift agreements and are reflected in the focus of the teaching, research, and extension/outreach programs of the faculty member beneficiaries.

As discussed in Part A of this report, the funding for some privately endowed positions is bolstered by earnings from the state-funded Excellence in Higher Education Endowment. These public-private partnerships include:

The *Roy & Caryl Cline Endowed Chair in Engineering, Environment, and Natural Resources*, held by Professor Fred Ogden (College of Engineering and Applied Science).

The *Eldon & Beverly Spicer Chair in Environment and Natural Resources*, held by Professor Steve Smutko (Haub School and College of Agriculture).

The *Clara Raab Toppan Distinguished Professorship in Accounting*, held by Professor Eric Johnson (College of Business).

The individuals who currently hold endowed faculty positions are as follows:

College of Agriculture and Natural Resources

Sadanand Dhekney, Dept. of Plant Science, (Ph.D. in Horticulture, University of Florida), *E.A. Whitney Professorship in Agriculture*, Dr. Dhekney's research program is focused on the genetic improvement of fruit crops using conventional and molecular breeding approaches. A major goal of the program is targeted towards grapevine genetic improvement and optimizing vineyard management practices for expanding the grape industry in Wyoming. The research utilizes precision breeding technology for rapid improvement of commercial table and wine grape cultivars. Dr. Dhekney's research has resulted in optimizing parameters for precision breeding and rapid trait improvement of grapevine cultivars. Dr. Dhekney's research extended precision breeding technology to optimize systems for grapevine genome editing using CRISPR/Cas9. In this regard, several traits of interest such as disease resistance and quality improvement by modifying berry colors were demonstrated using genome editing. Dr. Dhekney's field research has focused on the screening and identification of cold-hardy grape cultivars that will perform well under Wyoming's short growing conditions. Significant progress has been made towards identification of early red and white wine grape cultivars that will perform well in Wyoming and assist in the expansion of the grape industry. Test batches of wine were prepared for the first time from the 2018-19 growing

² One endowment supports academic centers or institutes: the Solomon D. Trujillo Center for e.Business.

season, which will be evaluated in blind tastings at various locations. Being the only grape researcher statewide, Dr. Dhekney consults Wyoming grape growers, current and prospective, and homeowners on various aspects of grape production including site selection for vineyards, desirable cultivars and canopy management practices for the production of high quality fruit. He frequently attends grape growers' farms and extension meetings to provide consultations and make research presentations. Such activities are a necessary part of his research program and assist him in identifying viticulture-related issues. Dr. Dhekney has written several extension articles in *Barnyard* and *Backyard* magazine and *UW AES Field Days* bulletin. He is currently in the process of writing a grape production manual for grape growers in Wyoming.

Dr. Dhekney teaches courses in horticulture and plant biotechnology from the Sheridan R&E center, which are available to students statewide, through the long-distance teaching program. Dr. Dhekney has also mentored several community college, undergraduate and graduate students at the Sheridan R&E center. He actively collaborates with Sheridan College faculty to identify and train agroecology and biology students in areas of cell culture, molecular biology, genome modification, biological imaging and field practices including fruit production and vineyard management. His efforts have resulted in more than 40 students being trained in above areas in the past seven years. His students have presented their research findings at several regional and national conferences. Dr. Dhekney has served as a major advisor for 1 PhD and 1 MS student while being on several graduate student committees. He has also served as an external committee member for students from other states who are pursuing research endeavors in plant biotechnology. Dr. Dhekney's program has attracted scientists from six countries to learn advanced techniques in grapevine precision breeding and genome editing. Active interaction between visiting scientists and local students have greatly contributed to improving the diversity at Sheridan and the University of Wyoming.

Curtis and Marian Rochelle Endowed Chair in Animal Science – Vacant

Riverbend Ranch Endowed Chair in Wildlife-Livestock Health – Vacant

American Heritage Center

Clara R. Toppan Curator of the Toppan Rare Books Library – Vacant

College of Arts and Sciences

Jerod Merkle, (Ph.D., Université Laval, M.S., University of Montana), the *Knobloch Professorship in Migration, Ecology and Conservation*, Department of Zoology and Physiology. Dr. Merkle's research aims to uncover the ecological intricacies of how animals move across large landscapes, and how to conserve them. Dr. Merkle leads a wide range of projects including how extreme heat affects the movements of large mammals, how energy development and roads affect migrating big game, and how migrating big game use memory and social dynamics to navigate across large landscapes. Over the past year, Dr. Merkle has authored or co-authored 9 peer-reviewed publications in journals ranging from *Science* to *Global Change Biology*, to *Ecology Letters*. Dr. Merkle, in collaboration with the Wyoming Migration Initiative and the Wyoming Cooperative Fish and Wildlife Research Unit, has played a crucial role in leading a migration mapping effort across the western United States, which includes writing and compiling all of the computer code for the effort, co-authoring open-source migration mapping software, and co-developing online migration viewing platforms for the public and for conservation organizations. Dr. Merkle taught two graduate level courses this past year (Introduction to the data management

and statistics software R, and Animal movement modeling), and will be teaching an undergraduate Geographical Information Systems course in spring 2020.

Craig Benkman, *Wolf Creek/Bob and Carol Berry Chair*, (Ph.D. Biology, State University of New York at Albany, 1985). Dr. Benkman has spent much of his career studying a group of finches called crossbills and the conifers on which they feed to elucidate general principles of ecology and evolution. The highlight for Benkman during the past fiscal year was receiving the William Brewster Memorial Award from the American Ornithological Society, the largest ornithological society in the world. This award is given “to the author or co-authors of the most meritorious body of work (book, monograph, or series of related papers) on birds of the Western Hemisphere published during the past ten years.” Benkman also gave the Ramon Margalef Lecture (named for a distinguished Spanish ecologist) at the University of Missouri, St. Louis, and a lecture on “Evolution on sky islands in the west” for the Tate Geological Museum lecture series, Casper College. Because some of his research is highlighted in widely used college textbooks in ecology (Cain et al. 2013, Ecology, Sinauer Associates) and evolution (e.g., Zimmer and Emlen, 2015, Evolution: Making sense of life, W. H. Freeman), his research reaches college students across the country and beyond. Perhaps the most important benefit from his research is its illustration of the importance of considering evolution in understanding the ecology of populations and communities, especially in the Rocky Mountain region, and thereby enriches the experiences of residents and those visiting our region. During the past fiscal year, along with his graduate students, Dr. Benkman has been conducting field research in the Rocky Mountain region. One Ph.D. student (from Michigan) is examining, mostly within Wyoming, the conditions that facilitate and inhibit the origination of new bird species. One of his M.S. students (from Ohio) plans to defend her thesis this fall on the evolutionary interactions between red squirrels and lodgepole pine in the Medicine Bow Mountains. A second M.S. student (from Florida) started in fall 2019. Benkman and his students published four articles during the past fiscal year. Students take his Herpetology course as an upper division elective, and those taking it are predominately in wildlife management, interested in working with animals especially in zoos, or have a passion for reptiles and amphibians. Dr. Benkman usually has 30-40 students in the course, and many are Wyoming residents. Dr. Benkman also co-taught a course for 14 students on Darwin and the Galápagos during late May and June that included a 12-day excursion to the cloud forests in Ecuador and to the Galápagos. Finally, he also provides help and consultation to Robert Berry from Sheridan on his studies of a falcon in Central America, and serves on a related board of directors for a new foundation devoted to the management and conservation of lands near Sheridan and in Belize.

Clarence Seibold Professorship – Provides program support in the Social Sciences, Humanities, and Fine Arts

L. Floyd Clarke Professorship in Zoology and Physiology – Provides support for annual lecture series, scholarships to support research in Greater Yellowstone area.

Knobloch Professorship in Migration, Ecology and Conservation – Vacant

Gardner Chair in Physiology – Vacant

Milward Simpson Professorship in Political Science, Provides support for visiting lecturers – Vacant

Robert H.N. Ho Family Foundation Professorship in Buddhist Studies -- Vacant

College of Business

Kent R. Noble, (B.S., University of Wyoming), Department of Management and Marketing, *Bill Daniels Chair of Business Ethics*. The [Daniels Fund Ethics Initiative](#) is making an impact on current and future business leaders in Wyoming and beyond. To that end, in AY 2018-19, 234 UW students distinguished themselves by completing an [Ethical Leadership Certification Program](#) through the [NASBA Center for the Public Trust](#). Spring 2019, eight UW business ethics students participated in the 34th Annual National Conference on Ethics in America held at the United States Military Academy in West Point, NY. Moreover, UW's chapter of the Student Center for the Public Trust (SCPT) ethics club raised \$12,500 during the fall of 2018 for a special community project. Spring 2019, chapter members evaluated select nonprofit organizations in Wyoming to determine where to invest the funds. In the end, \$9,000 went to the students' top choice, Interfaith-Good Samaritan, with the remaining \$3,500 split among four other nonprofit organizations. Spring 2019, 13 UW students took part in two business ethics competitions and placed first in the SCPT video competition and third in the Daniels Fund Ethics Consortium Case Competition. Additionally, in 2018, Kent received the *Professor of the Year* distinction at the University of Wyoming College of Business. The award is selected by students in their graduating semester and goes to the faculty member who had the largest impact on them during their collegiate career. Also in 2018, Kent received the *Campus Being a Difference Award* by the NASBA Center for the Public Trust. In 2018, former Governor Matt Mead appointed Kent to the Wyoming Commission on Judicial Conduct and Ethics. Kent also currently serves on the board of directors of the John P. Ellbogen Foundation and the Better Business Bureau Foundation Board of Advisors for Northern Colorado and Wyoming. In AY 2018-19, Kent used two primary outreach vehicles to conduct more than 50 presentations for business, education, and community leaders. The first, *What Do You Stand For?*, is spotlighted in this three-minute [promotional video](#). The other primary offering is *What's Your Brand?*, a personal branding presentation that focuses on integrity, attitude, and grit. An abbreviated version of the *What's Your Brand?* talk is featured in this 13-minute [TEDx presentation](#). Finally, the College of Business recently launched two statewide recognitions honoring individuals who embody the [Daniels Fund Ethics Initiative Principles](#). Greg Dyekman was the 2018 recipient of the [Daniels Fund Ethical Leadership Award](#). The award was presented in November 2018 at the Wyoming Leaders and Legends Banquet at Little America in Cheyenne. The evening was the centerpiece of the annual Governor's Business Forum and attracted Wyoming's business, government, education, and civic leaders. In 2019, Wyoming women's basketball coach Joe Legerski received the Wyoming Athletics Department Ethical Leadership Award. The honor recognizes a University of Wyoming team, coach, player, donor, administrator, and/or volunteer who embodies the Daniels Fund Ethics Initiative Principles on the field, in the classroom, and/or in the community.

Mark Leach, (Ph.D., Georgia State University) *Mendicino Chair in Sales and Salesmanship*. Dr. Leach's research is in business-to-business marketing and sales. More specifically, his research typically focuses on understanding buyer and seller relationships, leveraging the sales function to manage relationships with profitable customers, and providing effective sales training. Mark has published articles in the *Journal of Business Research*, *Journal of Personal Selling & Sales Management*, *Industrial Marketing Management*, *Journal of Applied Social Psychology*, and other leading academic journals. Mark is a member of the editorial review board of the *Journal of Marketing Theory and Practice*, the *Journal of Business and Industrial Marketing*, and the *Journal of Business-to-Business Marketing*. Prior to joining the University of Wyoming in 2017, Dr. Leach was a member of the faculty at Loyola Marymount University and Purdue University. He has also been a behavioral research scientist at the Centers for Disease Control and Prevention. During the 2018-2019 academic year, Dr. Leach has worked to establish UW's new major and minor in Professional Selling. Furthermore, he has

continued to develop and refine curriculum for these new programs. Dr. Leach has continued to develop the new Center for Professional Selling and secured College support to expand the center by hiring a Director and Assistant Professor during the 2019-2020 academic year.

Larry Weatherford, (Ph.D., University of Virginia), Department of Management and Marketing, **W. Richard Scarlett III and Margaret W. Scarlett Chair of Business Administration**. Dr. Weatherford presented research at numerous conferences and professional meetings, including PODS (a high-level research consortium sponsored by MIT, Boeing and 10 global airlines [e.g., United, Delta, Lufthansa, Air Canada, American, Scandinavian/SAS, LAN Chile, Emirates]) meetings at MIT (Cambridge, Massachusetts); Seattle, WA; Cannes, France; and Hong Kong. He taught three courses, two in decision science modeling for managers and one in revenue management for a total of 159 student-credit hours. He published several articles (total = 45) in refereed journals, including *Journal of Air Transport Management*, *Journal of Revenue and Pricing Management* (*special issue which he edited*), *Decision Sciences*, and *INFORMS Journal on Computing* (*Editor's Pick as top article of year*). UW students are benefited by having a global expert in revenue management (applied to airline, hotel, cruise line, and other service industries) in the classroom who is able to share not only his leading knowledge, but also his connections to industry (in terms of internships, jobs, data, etc.). Because of his professional connections, he was able to bring into the classroom the Senior VP of Walt Disney World to talk regarding the tools that Dr. Weatherford teaches students, and the President/CEO of a Seattle-based firm in the same industry (alternating years). The main industry that is benefited is the airline industry. As an example, WyDOT engaged him recently to review a proposal for statewide air service that the Wyoming Legislature is reviewing. UW gets the credit and enhanced reputation when a UW endowed professor edits a special issue for the top journal in his field. Lastly, he earned the George Duke Humphrey Distinguished Faculty award the previous year, along with the Hollon Off-campus and Ellbogen teaching awards in prior years, making him the only faculty member in UW's history to earn all 3 prestigious University awards!

Jason Shogren, (Ph.D., University of Wyoming), Department of Economics, **Stroock Chair of Natural Resource Conservation and Management**. Returning to his alma mater, Dr. Shogren has been the Stroock Chair of Natural Resource Conservation and Management since 1995. From 2018-19, he was the Department Chair. He worked with the new Dean David Sprott to develop a new strategic plan for the College and the Department, including a plan to hire a new Bugas Chair and new assistant professor, and a Director for the new Center for Business and Economic Analysis (CBEA). He hired a new full-time professional academic advisor, a full-time coordinator for the FYS courses, and secured funding for the Summer Undergraduate Research in Economics program (SURE). As chair, Shogren continued to work with his colleagues in the Department to revamp the undergraduate program and graduate programs, increasing the focus and providing more opportunities. Shogren taught a course on Experimental Economics for the graduate students. He also taught the economics capstone course—History of Economic Thought. He chaired or co-chaired the Ph.D. committees for several PhD students. He also talks a lot with recent graduates to help them with their research program. He is also on the committees of several Ph.D. and MS candidates. Dr. Shogren also talked with numerous media outlets about economics throughout the year.

He published numerous peer-reviewed papers in top general and field journals, and was awarded the COB Senior Research Award. He finished and published the 3rd edition of his book *An Introduction to Environmental Economics* (Oxford University Press, with N Hanley and B White). He is currently working on the 3rd edition of his graduate textbook *Environmental Economics: Theory and Practice*, for publication in late 2019/early 2020 (Macmillan). He is also exploring the opportunities with the publishers to revise his 2013 edition of the *Encyclopedia of Environmental, Resource, and Energy Economics* (Elsevier).

Shogren is on the editorial board of two international journals, he is a foreign member of the Royal Swedish Academy of Sciences, he is a fellow of the Association of Environmental and Resource Economics, the Association of Applied and Agricultural Economics, he is a fellow of the Beijer Institute of Ecological Economics, the Ecological Society of America, US Steering Committee for Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), and he is serving on board for the Laramie Plains Civic Center and was appointed to the Wyoming Arts Council by Governor Mark Gordon. He will receive his second Honorary Doctorate in October, this one is from the Swedish University of Agriculture Sciences (SLU).

Endowed chairs benefit people locally and globally in three general ways: (1) These chairs help UW to attract world-class economists. Back in the mid-1970s, the UW President asked economics to focus on building a world-class program in Environmental & Natural Resource Economics (ENR Econ), with the goal to help make better policy in Wyoming and beyond. The Stroock Chair has provided a platform to attract excellent faculty that do research and teaching to understand better how to make good economic/environmental and resource policy better, and prevent bad policy from getting worse. The Department works with undergraduate and graduate students, policymakers, and the lay-public understand the power and limits of economics for policy analysis. This specific focus has allowed the Stroock Chair to provide effective and timely policy advice. (2) These professorships help UW provide strength in scholarship even though we are small in size. The Stroock Chair provides a platform into a specific focus—ENR economics and applied microeconomics with the idea that we can specialize to excel in a few specific areas. We continue to follow this strategy today in research, teaching, and outreach. (3) These professorships/chairs allow UW to find students who are “diamonds in the rough”—extremely talented students who blossom under the guidance of UW economics department. The specific focus on ENR economics has attracted high quality students over the years. Our ENR alumni now work to keep the cycle going—UW produces good students, who become business leaders, academics, and policy makers who continue to send us their top students. The main contribution of the Stroock chair has been through the students. Dr. Shogren enjoys working with graduate students on their ideas and helping them find their own voice. Other contributions include working with government agencies at the State, Federal, and International level; working with scholars from other disciplines (e.g., ecology, biology, psychology) to understand better how they approach a problem.

Charles Mason, (Ph.D., University of California, Berkeley) Department of Economics and Finance, *H.A. (Dave) True Jr. Chair in Petroleum and Natural Gas Economics*. During the past fiscal year, Dr. Mason taught two classes (Economics of Oil and Gas, ECON 4430; Economics of Uncertainty and Game Theory, ECON 5120). He also directed or co-directed a number of doctoral students, most of whom have not yet matriculated from UW. His research program has been active, with 10 papers accepted or published, presentations at several national or international academic conferences, and keynote speeches invited at an international conference on energy transitions (held in Oslo, Norway) and the Mid-West Electric Consumers Association’s 60th annual meeting. In addition, he participated in a project focused on oil and gas infrastructure, organized by the prestigious National Bureau of Economic Research. The material Dr. Mason covers in his graduate class is critically important to modern economists: it forms the backdrop for a wide swath of contemporary research within the profession, so that the students in this class leave with a far greater facility to learn from the literature, to identify important gaps in the profession’s understanding, and to formulate potential dissertation topics. Students in his undergraduate class gained new insights into the way key energy markets work; this information is beneficial in numerous ways, from enhancing the students’ appreciation of energy markets, to providing key institutional knowledge that can help land a first job out of college. The material he discusses in that class is also amenable to public presentations, as with the Loveland Energy Conference, which provides visibility for the University and helps lay people better

understand these markets. His research program is largely centered on studying oil and gas markets, including studies of oil and gas prices, motives to hold oil inventories, and the incentives for deployment of infrastructure, such as pipelines, and the implications of constrained infrastructure upon energy markets. These topics have clear relevance to the energy sector of the state, and policy relevance to the nation. Dr. Mason's research agenda also provides valuable input that allows me to regularly update the oil and gas class, enhancing the educational value and relevance of the class.

Ali Nejadmalayeri, (Ph.D., University of Arizona), *John A. Guthrie Endowed Chair of Banking and Financial Services*, Department of Accounting and Finance. Since joining UW in August 2018, Dr. Nejadmalayeri has taught three classes (Bank Management, FIN 4510; Bank Policy, FIN 4540; Fixed Income Securities 4530). His broad research agenda concerns the intersection of corporate finance and capital market. His recent publications and work-in-progresses involve the study of information flow on corporate and municipal bonds. In a 2018 paper published in the *Review of Finance* (a premier journal), titled "Do FOMC Actions Speak Loudly? Evidence from Corporate Bond Credit Spreads", he and his coauthors show that Federal Reserve's actions regarding Fed Fund rate markedly impact corporate bond values. In a 2019 paper published in the *Journal of Investing* (a premier practitioner journal), titled "Demography, Asset Allocation, and Investment Horizon: Enduring Lessons from Long History" [lead article and the featured report in the Practical Application publication], he uses 150 years of data and shows demography (per se the ratio of middle-age-to-young) is the most enduring pertinent determinant of major asset classes' differential returns. Dr. Nejadmalayeri teaches the full sequence of courses necessary for the Banking Minor in Finance. In his bank management course, he delves into the inner-workings of banks while over-viewing a long history of banking as told by Nile Ferguson's best-selling book, "The Ascent of Money". In his bank policy course, he prepares students for Credit Essentials Certificate through rigorous real world case analysis and live presentations to Wyoming's own renowned commercial banking dignitaries. Students additionally revel in the glorious story of the famed Morgan Dynasty vis-à-vis American banking history through the lens of Ron Chernow's best seller, "The House of Morgan". His fixed income securities course follows the CFA[®] curriculum and offers students a tour de force of bond markets. Dr. Nejdmalayeri's research in bonds intimately compliments his teaching in banking and fixed income securities.

Patrick M. Kreiser, (Ph.D., University of Alabama), *Rile Endowed Chair of Entrepreneurship and Leadership*. During the 2018/2019 academic year, Dr. Kreiser served as the Chair of the cross-campus Entrepreneurship Curriculum Task Force, which revised the existing Entrepreneurship Major and cross-campus Entrepreneurship Minor at the University of Wyoming; he served in a leadership role championing Entrepreneurship within the College of Business, across the University of Wyoming, and throughout the state of Wyoming; he taught multiple sections of New Venture Management; he served on the Editorial Review Board for the *Journal of Business Venturing* and *Entrepreneurship Theory and Practice* (widely recognized as the top two journals in Entrepreneurship); he served as the Competitive Papers (Research) Chair for the 2019 United States Association of Small Business and Entrepreneurship (USASBE) Conference; he served as a judge for the Ellbogen 50k Business Plan Competition; and he served on the Advisory Board for the Kickstart Wyoming and SBIR Grant Programs through the Wyoming Business Council. In the past year, he had eight academic research papers published or accepted for publication (five in peer-reviewed journals, two as peer-reviewed book chapters, and one in a peer-reviewed best paper proceedings). The five papers published or accepted for publication in peer-reviewed journals were in *International Small Business Journal*, *Small Business Economics*, *Entrepreneurship Education and Pedagogy*, *Journal of Small Business and Entrepreneurship*, and *Journal of Small Business Strategy*. His paper in *Entrepreneurship Education and Pedagogy*, which is widely considered the best pedagogical journal in Entrepreneurship, won the 'Top Paper Published in 2018 Award'. Dr. Kreiser attended the 2018 Academy of Management Conference and the 2019 USASBE Conference. While at the 2019

USASBE Conference, he attended the Curriculum Design Consortium in order to learn best practices in pedagogical methods and approaches. He also conducted several benchmarking visits to top-rated Entrepreneurship programs, including Indiana University, where he held the honorary title of Visiting Scholar in Entrepreneurship during the 2018/2019 academic year.

John S. Bugas Professor of Economics – Vacant

College of Education

Dr. Linda Hutchison (Ph.D. University of Washington) *Everett D. and Elizabeth M. Lantz Distinguished Professorship in Education*. (Research and teaching support) In an earlier Literacy Grant, Dr. Hutchison identified areas of content concern with preservice secondary mathematics teachers in graphical literacy. Dr. Hutchison's Lantz work followed up with professional development and research with practicing upper elementary and middle grades mathematics teachers in several different Wyoming schools and districts. Dr. Todd Reynolds (English Education) and Dr. Hutchison (Mathematics Education) planned and provided professional support and conducted research examining in-service teacher's understandings of graphical literacy-- specifically box and whisker plots. Discipline-specific literacy strategies were emphasized in how to teach these ideas to students. The work took different forms in different districts to accommodate local needs and available teacher time as the work was done on site in Wyoming schools during the 2017-2019 school years. Modeling, content-specific teaching, observation, interviews, and discussion were used with teachers from Casper, Green River, Rock Springs, and Laramie. Conference presentations of this work will occur at the National Network of Educational Renewal (NNER)2019 Annual Conference and a proposal to the American Educational Research Association 2020 Annual Conference has been submitted. Research findings are currently being processed for publication.

College of Engineering and Applied Science

Dennis Coon, (Ph.D., Pennsylvania State University) *H.T. Person Professorship of Engineering Education*. Dr. Coon coordinated HT Person Distinguished Speaker Series and Dr. Douglas Melton, Program Director for the Kern Engineering Entrepreneurship Network at the Kern Foundation. Dr. Melton resented a talk entitled "Developing an Entrepreneurial Mindset in Engineering Students" on October 19, 2018. Prof. Coon coordinated the CEAS Freshman Design Challenge for FY18-19 for approximately 125 freshman engineering students. Prof. Coon collaborated with the CEAS John and Sally Steadman Endowment for Educational Improvement Grants program and HT Person Endowment funding was used to computing methodologies in CEAS courses. Several activities associated with the integration of active learning methodologies into CEAS coursework were continued in FY18-19. The focus in FY 18-19 was on providing technology to equip faculty to implement active learning methods. In addition, travel funding was provided to engineering instructors to enhance their knowledge of pedagogical techniques for undergraduate instruction. Prof. Coon assisted with the analysis of data from UW students completing the Fundamentals of Engineering Exam. He continued his focus an educational research effort to apply the quantitative analysis tools to evaluate the academic success of UW-CEAS students. Dr. Coon was the instructor of record for five engineering courses during AY 18-19. Prof. Coon also assisted with international searches and hiring of faculty to serve leadership roles in the development of entrepreneurship development at UW.

Dimitri Mavriplis, (Ph.D., Princeton University), *A.J. Castagne Professorship in UW's College of Engineering and Applied Science (CEAS)*. During the 2018-2019 academic year, Professor Mavriplis taught two courses in

the department of Mechanical Engineering, managed a research group consisting of five PhD graduate students and three postdoctoral researchers, and was involved in various university and external professional service commitments. In Fall 2018, Professor Mavriplis taught ME 5442: Advanced Fluid mechanics, a graduate course in our department. In Spring 2019, he taught ME 5461: Computational Fluid Dynamics I, which is also a graduate level course in our department in the area of research expertise of Professor Mavriplis. Throughout the year, Professor Mavriplis managed his on-going research group which currently consists of three postdoctoral researchers and five PhD graduate students. Additionally, two external postdoctoral researchers were supported on a part-time basis over the past academic year. Two of the current graduate students are on track to graduate in 2019. Professor Mavriplis also serves on four other graduate student committees, all of which are graduating in 2019. During the past academic year Professor Mavriplis and his research group have published 8 conference papers and 3 archival journal papers.

Professor Mavriplis has been active in service contributions for UW, serving on the College of Engineering and Applied Science (CEAS) Tenure and Promotion committee, and also serving on the Advisory Group of Research Intensive Faculty (AGRIF) at UW. Professor Mavriplis has also been involved extensively with the NCAR-Wyoming alliance, and has served on the Science Requirements Advisory Panel (SRAP) for the NWSC-3 procurement. He was also asked to review the draft Request for Proposals (RFP) for the NWSC-3 procurement process. Professor Mavriplis serves on the NREL Working group on wind-sim benchmarks, and also serves as a member of the American Institute of Astronautics and Aeronautics (AIAA) High-Lift Prediction Workshop organizing committee, the AIAA Community of Interest on Aircraft Certification by Analysis, and is the vice-chair of the AIAA CFD 2030 Integration Committee. Finally, Professor Mavriplis and two of his former students wrote an SBIR Phase 2 proposal in December 2018, after the successful completion of the corresponding Phase 1 project awarded in July 2018. In May 2019 the Phase 2 proposal was awarded and contract negotiations with NASA are currently underway with a targeted start date of September 1st, 2019. The research on computational methods for aerodynamics and wind energy undertaken by Professor Mavriplis' group is highly relevant and of interest to the various companies involved in current and future planned wind plant installations in the State of Wyoming. Dr. Mavriplis' research has also been instrumental in leveraging the NCAR-Wyoming Supercomputer (NWSC) facility and demonstrating the importance of this facility for competitive research at UW, for student and faculty recruitment, as well as for economic development and diversification within the State of Wyoming.

Jonathan Brant, (Ph.D., University of Nevada, Reno), *Vincent O. Smith Professorship in Engineering*. Dr. Brant taught three courses in the 2018-19 academic year. These were CE 4410 (design of wastewater treatment facilities), CE 3400 (introduction to environmental engineering), and CE/ENVE 5450 (advanced physicochemical treatment systems). He was the academic advisor for 5 undergraduate students, one undergraduate researcher, 1 MSc graduate student and 5 doctoral candidates. He was the Principal Investigator on four active research grants related technology development for treating oil and gas produced waters, the development of a new subsurface desalination irrigation system for using impaired waters for agricultural production, recovering rare earth elements (REEs) from brine mixtures and the synthesis of nanocomposite membranes for advanced separation processes. The focus of Dr. Brant's research is the development of new materials and technologies for separating materials from water. These applications range from produced water treatment to municipal water reuse to the recovery of elements of value from aqueous mixtures. The benefits of this work to Wyoming include the expansion of our ability to successfully utilize our State's resources, diversification of our water resources, and environmental protection. Dr. Brant is currently working with researchers from the Idaho National Laboratory (INL) to establish a national center of excellence in desalination. This \$200M proposal was submitted in Spring 2019 and a decision is expected in August 2019. Through this effort Dr. Brant will work to further the application of inland desalination systems for industrial and municipal applications in Wyoming. The overall goal of this

effort being to expand the types water resources available to the citizens of Wyoming and to protect our existing resources from pollution. In a separate effort, Dr. Brant has submitted a proposed to the Department of Energy (DOE) focused on the development of a commercial prototype for enhancing the recovery of hydrocarbons from produced waters. The goal of this effort is to improve resource recovery and increase the treatability of produced waters to facilitate water reuse.

John Pierre, (Ph.D., University of Minnesota), *G.J. Guthrie Nicholson Professorship in Electrical Engineering*. Dr. Pierre Has received numerous honors and awards, include being named as an IEEE Fellow, 2013: for development of signal processing methods for estimation of power-system stability. The G.J. Guthrie Nicholson Chaired Professor of Power Engineering is specific to the field of electric energy. Dr. Pierre was appointed to the position effective July 2016, and he has been a faculty member at UW for over 25 years. His expertise is in the area of monitoring the reliability and stability of power grids using a newer measurement technology. This technology takes high data rate power system measurements that are time synchronized from all throughout a power grid. Dr. Pierre's research has led to application software used in control centers to detect undesired oscillations in the power flowing on the grid. He teaches both undergraduate and graduate courses that support this research. Dr. Pierre's research is important to the state and nation. The western US power system operates as one large interconnected grid which is arguably one of the largest, most complex, and geographically dispersed man-made systems in the world. Wyoming is a major exporter of electricity; much of which travels great distances to its end use. Reliable operation of that Grid is essential to the daily lives of Wyoming citizens and to the companies producing, transmitting, and distributing the power. Dr. Pierre continues to be very active in IEEE and is currently serving on an IEEE PES Task Force on Oscillation Source Localization and on the Oscillation Analysis Work Group for WECC. Over the 2018/2019 academic year, Dr. Pierre and his research team published multiple papers in journals and at conferences. Many of these papers are published in the IEEE Transactions on Power Systems which is the premier journal in the field. Two recent Ph.D. students graduated taking jobs in the electric power industry where they continue the work they were performing at UW. Dr. Pierre and his colleagues continue to work on a grant from the US Department of Energy where he is the lead on Thrust 2 – Measurement and Model Based Power System Modeling. He was also part of a team to receive an NSF Major Research Instrumentation grant for over one million dollars.

Dr. Mohammad Piri, (M.Sc. and Ph.D. Imperial College London), *Thomas and Shelley Botts Endowed Chair in Unconventional Reservoirs in the College of Engineering and Applied Sciences*. In the 2018-2019 fiscal year, Dr. Piri and members of his research group presented their research results at different conferences and published more than ten (10) papers in peer-reviewed journals with several more submitted and in preparation. Dr. Piri and his research team continued further development of the world's most advanced Center of Innovation for Flow through Porous Media (COIFPM) in UW's newly-built High Bay Research Facility. In this time period, he obtained \$10 million external research funding. Furthermore, he developed several research proposals with a total budget of more than \$32 million to establish partnerships with various oil and gas companies. Dr. Piri's external research funding exceeds \$20 million. His research group currently includes twenty-six (26) PhD students, seven (7) post-doctoral research associates, and three staff members. Three more PhD students will be joining the team in the next 1-2 months. Furthermore, Dr. Piri taught two classes: 1) Flow through Porous Media and 2) Unconventional Reservoirs. Dr. Piri's specialty is multiphase flow in porous media with applications in oil and gas recovery from unconventional and conventional reservoirs, pore-scale modeling of displacement processes, two- and three-phase relative permeability (measurement and prediction), wettability, and CO2 sequestration and leakage. Dr. Piri's expertise and research findings have direct implications for enhancing oil and gas recovery from the reservoirs in the State of Wyoming and elsewhere. Over the last 14 years, he has designed, installed, integrated, and commissioned three unique research facilities that have put the University of

Wyoming at the forefront of research in the area of flow through porous media. These research facilities include: Encana Three-Phase Flow and Computed Tomography Research Laboratory, Hess Digital Rock Physics Laboratory, and Center of Innovation for Flow through Porous Media (COIFPM) located in UW's newly-built High Bay Research Facility. These platforms provide UW students exceptionally rich research and educational experiences that are seldom available elsewhere. Dr. Piri also used these to help attract three new faculty members to the Petroleum Engineering program at UW. Furthermore, he has been diligently working to commercialize the unique technologies developed over the last 14 years through cutting-edge research in his research group at the University of Wyoming. This has been made possible by a spin-off company, Piri Technologies, LLC, in Laramie, Wyoming. This entity provides distinctive technical services in the broad area of Flow through Porous Media. Through this initiative, Dr. Piri has established an avenue for diversification of the economy in the State of Wyoming as well as providing job opportunities for UW graduates. Since the start of its operations in September 2017, Piri Technologies has developed several projects with large national and international corporations, such as ConocoPhillips, Saudi Aramco, Hess, Alchemy Sciences, Encana, etc. This indicates that its technologies are globally relevant. It currently employs five (5) highly-talented professionals with advanced degrees. Four of these employees are University of Wyoming graduates with a PhD degree in Petroleum Engineering. COIFPM is currently home to a world-leading research team that includes 33 graduate students and post-doctoral research scientists. They develop additional innovative technologies that can then be commercialized thereby creating more jobs.

Dr. Fred Ogden, (B.S., M.S., and Ph.D., Civil Engineering, Colorado State University) *Roy and Caryl Cline Distinguished Chair of Engineering, Environment, and Natural Resources*. Dr. Ogden's occupied the Cline Distinguished Chair of Engineering, Environment, and Natural Resources, from January, 2006, through May, 2019. Dr. Ogden is an internationally-recognized expert in Civil Engineering hydrology for developing advanced hydrological models that run on supercomputers to predict runoff, flooding and water resources availability. During his tenure at the University of Wyoming, he attracted over \$7M in external research funding, including over \$5.6M as principal investigator. These funds were used to support students, staff, and acquire significant amounts of research infrastructure. He led writing of an NSF grant proposal that received \$1.0M of funding towards the purchase of UW's first large supercomputer cluster, Mt. Moran. Dr. Ogden led the U. Wyoming team that discovered the Soil Moisture Velocity Equation, a groundbreaking finding that solved a long-standing challenge in hydrologic prediction. His team-oriented research on high-performance computing in hydrology attracted funding from the U.S. National Weather Service, Office of Water Prediction, aimed at improved local flood predictions at the continental scale. This model development incorporates the latest in findings in numerical and computational hydrology and hydraulics to improve street-level flood forecast accuracy and specificity for the benefit of the U.S. public. Addressing a problem of global hydro-economic importance, Dr. Ogden led an international team of researchers funded by the NSF Water, Sustainability, and Climate program from 2012-2018 that performed research on the effectiveness of payment for ecosystem services schemes to increase water resources reliability in the Panama Canal Watershed. That project led to a seminal publication on the topic published in the Proceedings of the National Academy of Science. Dr. Ogden resigned from the Univ. of Wyoming in May, 2019, and is working full time as a NOAA-affiliated Senior Visiting Scientist at the U.S. National Water Center in Tuscaloosa, Alabama, and remains affiliated with the Univ. of Wyoming as an adjunct Professor in the Dept. of Civil & Architectural Engineering.

Alchemy Sciences Petroleum Engineering Chair – Vacant

E.G. Meyer Family Visiting Industry Professorship – Vacant

Le Norman Endowed Leadership Chair in Petroleum Engineering -- Vacant

Snaptron Innovation and Entrepreneurship Professorship – Vacant

Interdisciplinary

Drew Bennett, (Ph.D. Geography, Oregon State University) *Whitney MacMillan Professor of Practice in Private Lands Stewardship*. Dr. Bennett leads the Whitney MacMillan Program in Private Lands Stewardship in the West, housed within the Ruckelshaus Institute at the University of Wyoming. The program supports research, information synthesis, outreach, and teaching to help sustain working farms and ranches in Wyoming and the West. During the 2018-19 fiscal year, the program launched several new outreach and research efforts and continued to develop strong relationships with key partners. One component of the outreach effort included identifying high quality sources of information on a wide range of stewardship issues including estate planning, ranch business management, and habitat restoration, and compiling these resources in a central location online so they are more accessible to landowners. Ranch succession, or assisting the next generation of farmers and ranchers in accessing agricultural land, also emerged as a key priority for the program and faculty and staff engaged key stakeholders in the region to better understand the issue. Over the next year, faculty and staff will work with these stakeholders to identify innovative financial, policy, and partnership approaches to support the next generation of land stewards. The MacMillan Program also supported the visit of Robert Bonnie, the former Undersecretary of Agriculture, as part of the Haub School of Environment and Natural Resources' Distinguished Speaker Series. Mr. Bonnie spoke about the need to move beyond a regulatory focus in conservation policy and develop incentives that proactively engage landowners in conservation efforts. The MacMillan Program is also leading several ongoing research projects to better understand landowner experiences with different conservation programs and their compatibility with landowner goals. Five students are currently involved as projects assistants and gaining experience in research, communication, and project management through the program.

Steve Smutko, *Eldon & Beverly Spicer Chair in Environmental and Natural Resources* (See WY Excellence Endowment Report)

Dr. H. JO Albers, *Knobloch Wyoming Excellence Chair for Conservation Economics and Finance* - (See WY Excellence Endowment Report)

Bruce Parkinson, (Ph.D. California Institute of Technology) *J.E. Warren Distinguished Professorship of Energy and the Environment*. Dr. Parkinson has been a Professor of Chemistry at Colorado State University since 1991. Dr Parkinson is jointly appointed in the School of Energy Resources and the Chemistry Department. (See School of Energy Resources (SER) faculty, part B)

John and Jane Wold Chair of Energy – Vacant

University Libraries/Honors College

Carol J. McMurry Endowed Librarian for Academic Excellence - Vacant

College of Law

Jacquelyn Bridgeman, (J.D., University of Chicago), has been the *Kepler Distinguished Professorship of Law*. During FY 2019, Ms. Bridgeman became the permanent director of the School of Culture, Gender, and Social Justice (SCGSJ), having served in the previous two years as its inaugural interim director. Although director of this relatively new program in the College of Arts and Sciences, Bridgeman still serves the College of Law as well, creating synergistic and beneficial ties between the two colleges and programs. In academic year 2018/2019 Bridgeman taught two courses for the College of Law, Family Law and Torts II. In the upcoming year she will teach Employment Law for the College of Law and an upper division elective course, Race, Gender, and the Law, which is cross listed between the College of Law and several master's programs within the College of Arts and Sciences, strengthening the offerings and connections between several programs. The two book chapters she completed in 2019 will be published in the spring of 2020 and she is completing work on a book proposal on Women, Sports, and Equality. The SCGSJ, which Professor Bridgeman directs, is involved in a number of statewide engagement initiatives and programs including the Wyoming Pathways from Prison Program, the Native American Summer Institute, and the Wyoming Latina Youth Conference. Over the course of the next year the SCGSJ will be working to develop its distance education capacity to offer a range of innovative course offerings to those on campus and throughout the state. Additionally, Professor Bridgeman chairs a committee that developed a diversity pipeline program that partners with Wyoming Community Colleges, to bring underrepresented students interested in law who first matriculate at a community college to transfer to UW and then gain automatic admission to the University of Wyoming College of Law provided certain benchmarks are met.

Stephen M. Feldman, (J.S.M., Stanford University, 1986; J.D., University of Oregon, 1982; B.A., Hamilton College, 1977), has been the *Jerry W. Housel/Carl F. Arnold Distinguished Professor of Law* and Adjunct Professor of Political Science since 2002. During the past year, he has published numerous articles and essays, including the following: Broken Platforms, Broken Communities? Free Speech on Campus, _ Wm. & Mary Bill Rts. J. _ (forthcoming); The Politics of the Law-Politics Dichotomy, 33 B.Y.U. J. Pub. L. 15 (2019); Having Your Cake and Eating It Too? Religious Freedom and LGBTQ Rights, 9 Wake Forest J. of Law & Policy 35 (2018); Justice Scalia and the Originalist Fallacy, in *The Conservative Revolution of Antonin Scalia* 189 (Howard Schweber & David A. Schultz eds., Lexington Books, 2018); Nothing New Under the Sun: The Law-Politics Dynamic in Supreme Court Decision Making, 2017 Pepp. L. Rev. 43 (2018) (presented at Symposium on The Supreme Court, Politics, and Reform); The History, Philosophy, and Law of Free Expression in the United States: Implications for the Digital Age, in *Speech and Society in Turbulent Times* 192 (Monroe Price & Nicole Stremlau eds., Cambridge University Press, 2018).; Postmodern Free Expression: A Philosophical Rationale for the Digital Age, 100 Marquette L. Rev. 1123 (2017). As he does regularly, Professor Feldman taught Constitutional Law I, Constitutional Law II, and Jurisprudence. His research and writing projects emphasize national concerns and are of national interest. As such, they benefit the University of Wyoming, the state of Wyoming, and Wyoming residents. His articles and essays consistently rank in SSRN's Top Ten Percent Total New Downloads List as well as SSRN's Top Ten Percent Total All-Time Downloads List. His essay, Nothing New Under the Sun: The Law-Politics Dynamic in Supreme Court Decision Making, 2017 Pepp. L. Rev. 43 (2018), placed in SSRN's Top Ten Download List for The Judiciary & Judicial Process (July 18, 2018; July 9, 2018), and Federal Courts and Jurisdiction eJournal (July 29, 2018; July 21, 2018). His article, Postmodern Free Expression: A Philosophical Rationale for the Digital Age, 100 Marquette L. Rev. 1123 (2017), placed in SSRN's Top Ten Download List for Post-Modern (Topic) (June 8, 2018), and Political Theory: History of Political Thought eJournal (June 8, 2018). He is the faculty adviser for the American Constitution Society Wyoming student Chapter.

James Delaney, J.D., Gonzaga School of Law, LLM (Taxation) University of Florida School of Law, **Winston S. Howard Distinguished Professor of Law**. James Delaney was appointed as the Winston S. Howard Distinguished Professor of Law at the beginning of the 2017-2018 academic year and continued in this role during the 2018-2019 academic year. At the beginning of the 2017-2018 academic year, Prof. Delaney completed his appointment as the Associate Dean of Academic Affairs where he, under the leadership of Dean Klint Alexander, was responsible for managing all faculty, staff and student affairs for the College of Law. In this role, Assoc. Dean Delaney managed College of Law admissions, registration, and career services to assist UW law students in their efforts to attend, graduate and successfully integrate into local, regional and more distant bar associations. During the past year, Prof. Delaney completed an updated third edition of the book, *Questions & Answers, Federal Estate & Gift Taxation*, Carolina Press (forthcoming fall 2019). This book was co-authored with Prof. Elaine Gagliardi, University of Montana School of Law. Prof. Delaney was also invited along with two other authors in the Mountain West to rewrite and update a legal treatise used by the local and national members of the bar entitled *Planning for Large Estates* (forthcoming). Prof. Delaney is currently working on this large project which will span several years due to the changes in federal tax law which occurred in 2018. With regard to teaching and due to the loss of one professor who retired and another who left for a different institution, Prof. Delaney continued to teach an overload of business law and tax courses at the College of Law during the 2018-2019 academic year. He teaches Contracts 1, Business Entities Taxation (corporate and partnership taxation), Federal Income Taxation, Estate & Gift Taxation, and Estate Planning every year. Professor Delaney's teaching and writing projects emphasize national concerns and are of national interest. As such, they benefit the University of Wyoming, the state of Wyoming, and Wyoming residents. For instance, his books on Federal Income and Estate & Gift Taxation Serve to educate students at Colleges of Law throughout the Mountain West and abroad. His work on the *Planning for Large Estates* treatise is available to legal practitioners in paper and electronic form on Westlaw and LexisNexis databases. This treatise will inform the local, regional and national tax bars. In relation speaking, Prof. Delaney will be speak in September at the American College of Trust and Estate Counsel's Rocky Mountain West Conference to be held in Jackson Hole, Wyoming. He has also been invited to speak at the University of Montana Tax Institute which will take place in mid-October. Prof. Delaney was recently honored by the Board of Regents of the American College of Tax Counsel who elected Professor Delaney as Fellow of the College. The American College of Tax Counsel was formed to elevate professional standards in the practice of tax law, stimulate knowledge, provide for input by the tax bar into the development of tax laws, and to facilitate the scholarly discussion and examination of tax policy issues. Membership in the College is an honor limited to a maximum of 700 tax attorneys nationwide. The Board of Regents elected Professor Delaney based upon his active involvement in the work of the Tax Section of the American Bar Association and his numerous presentations at tax conferences which are national, regional and statewide. The Regents also considered Professor Delaney's scholarly publications, extensive teaching experience in the field of tax law, and his previous service to the United States Judiciary as Counsel to the Chief Judge of the United States Tax Court as well as his service as an Attorney Advisor to the Honorable Judge Robert P. Ruwe, Judge, United States Tax Court.

Tori Kricken, (B.S. in Business Administration, University of Wyoming, 1996; J.D., University of Wyoming College of Law, 2000). **E. George Rudolph Distinguished Visiting Chair**. The Honorable Tori Kricken is the District Judge for the Second Judicial District, Albany County, Wyoming. In that capacity, she works closely with the University of Wyoming to provide students with learning opportunities in law-related fields. She serves as the Chair of the Academic Achievement Program at the College of law, where she works individually with law students to maximize their success in the law studies. Additionally, Tori teaches business and law courses at the University of Wyoming. She strives to foster a love of academics and a particular passion for the legal field in

each of her students. Even more importantly, Professor Kricken hopes that all of her students will take from her courses real-life skills that can assist them in becoming contributing members of Wyoming's society. She serves on several law-related boards and committees and is actively involved in volunteer work in the Laramie community. Prior to these positions, she served as a Hearing Examiner for the Office of Administrative Hearings and was in private practice at the firm of Brown and Hiser, LLC. Tori received her J.D. from the University of Wyoming in 2000.

Mary Dee Pridgen, (J.D., New York University) has been the *Carl M. Williams Professor of Law & Social Responsibility* since July 1, 2008, now split with Alan Romero. In the summer of 2018, she updated her treatises, *Consumer Credit and the Law*, and *Consumer Protection and the Law*, published by Thomson Reuters and coauthored with Richard Alderman. Ms. Pridgen was assisted on the research for the update by a College of Law student, Sam Laffey. In the fall of 2018, she taught two classes at the law school, Consumer Protection and Payment Systems, both of which are upper class electives. She also co-chaired the College Faculty Appointments Committee, in which capacity she coordinated resume screening, meetings at the national law school hiring conference, and on campus interviews for three separate positions. Professor Pridgen also attended the National Consumer Law Center's Consumer Rights Litigation Conference held in Denver, Colorado in October of 2018. In the spring and early summer of 2019, she drafted her share of the manuscript for the fifth edition of the Consumer Law casebook that she coauthored and that she uses in her course. Pridgen was responsible for the update of four of the ten chapters, along with the corresponding notes for the Teacher's Manual. This project is scheduled for completion by mid-August of this year. In May of 2019, Professor Pridgen attended the annual meeting of the American Law Institute, of which she is an elected member. At this meeting, the ALI held a lengthy and heated discussion of the proposed Restatement of the Law of Consumer Contracts, a project for which Pridgen was selected to serve on the advisory committee.

Given her long career as a scholar in the field of consumer protection, her research and instruction has benefitted law students, lawyers, businesses and the general public. The law students in her consumer protection course have benefitted from the products of her research, including a nationally published casebook, "nutshell" and treatises. The attorneys of the state of Wyoming, as well as attorneys nationwide, can also benefit from Ms. Pridgen's published works which are basically reference works for attorneys and law students. Since businesses and industries dealing with consumers must comply with consumer protection laws, both state and federal, these works also benefit them and their legal counsel. Students in her courses benefit from instruction by an experienced and knowledgeable professor. One of her courses, Payment Systems, includes material that is tested on the Wyoming Bar Exam, which directly benefits students taking that exam. Prof. Pridgen has supervised students writing their own research papers on consumer protection topics, and she also routinely hire Wyoming law students as research assistants. Professor Pridgen announced her retirement from the University of Wyoming in June 2019.

Alan Romero (J.D., Harvard University), *Carl M. Williams Professor of Law & Social Responsibility*. Professor Romero is the founding Director of the University of Wyoming Rural Law Center. During the 2018-2019 academic year, Professor Romero organized and hosted a conference on current issues in agricultural law, held at the College of Law on March 29, 2019. Presenters included prominent agricultural law scholars, government officials, an industry representative, and a practicing attorney. The conference was attended in person and online by people across the state, both lawyers and non-lawyers. Professor Romero also joined in a grant application to the USDA's National Institute of Food and Agriculture to fund programs to support beginning farmers and ranchers. He also supervised preparation of a guide about the law of county roads to be distributed to Wyoming counties to help them in statutory road identification projects as well as in dealing with other legal requirements concerning county roads. In the spring, Professor Romero published his latest article, *Extraterritorial Land Use*

Regulation and Bridging the Urban-Rural Divide, in the University of Missouri-Kansas City Law Review. The article originated with research about extraterritorial jurisdiction at the request of the Wyoming Association of Municipalities and addresses a subject of recent and current legislative interest in Wyoming. Professor Romero taught Property I and Property II, required courses for all first-year law students; Real Estate Finance, which covers subjects tested on the Wyoming bar exam; and Agricultural Law, a new course for him at the College of Law and which has not been offered for a number of years. He also supervised a student who wrote a paper about crossover voting in Wyoming primary elections.

Sam Kalen, (J.D., Washington University), *Centennial Distinguished Professor*. Mr. Kalen is the Associate Dean and Co-Director of the Center for Law and Energy Resources in the Rockies. He is a nationally recognized scholar in the fields of energy, environment, public lands and natural resources, and administrative law. He is a co-author of one of the principal natural resources law casebooks, a co-author of *Energy Follies*, a book on the history of U.S. energy policy published by Cambridge University Press in 2018, as well as a co-author of the American Bar Association's Endangered Species Act Basic Practice Series book. Mr. Kalen also has published numerous law review articles, one of which has been cited and quoted in a United States Supreme Court opinion, and another one, on the federal Clean Air Act, was published in a top 30 law review, out of hundreds. Mr. Kalen teaches a variety of courses, ranging from administrative law, environmental law, Indian law, and public lands & natural resources, energy law, legislation, American legal history. This past year, he also co-taught the first of its kind field course with Wyoming College of Law and the Haub Pace School of Law (in New York) with students from both universities studying public lands & natural resources in Jackson Hole. He also published, along with another scholar at Berkeley, an article in one of the nation's more prestigious environmental journals (online) on a constitutional issue involving the state and federal roles over energy decisions, and he has an upcoming article on international approaches to water as well as on natural gas pipelines. Through teaching public lands & natural resources, federal energy law as well as environmental law, and by exploring aspects of these courses in his scholarship, he believes that it allows him the opportunity to better engage with students. He brings parts of his research into the classroom, and challenges students to think critically about areas of the law that presently may not be as thoroughly explored in existing scholarship.

Steve Easton, (J.D., Stanford Law School) *William T. Schwartz Professor of Law*. In August of 2019, Steve directed the eighth annual Summer Trial Institute at the College of Law. In this unique program, over 60 Wyoming attorneys, judges, and court reporters served as volunteer guest faculty for a record 29 College of Law students learning trial advocacy. He also continued (with College of Law Professor Tara Righetti and School of Energy Resources faculty members) work on an oil and gas litigation problem for use in this course that was based primarily on Wyoming law, to give students the opportunity to work on a trial arising out of energy production. In the falls of 2017, 2018, and 2019, Prof. Easton presented continuing education courses on evidence for Wyoming judges at their annual conferences. In 2018, he presented continuing education lectures for Wyoming prosecutors and for federal criminal defense attorneys. In the spring of 2019, he presented a second evidence law seminar for Wyoming's Circuit Court Judges (in Jackson) and District Court Judges (in Lander). In May and June of 2019, he worked with Professor Dona Playton to present continuing legal education lectures for Wyoming judges and attorneys (in honor of the late Professor John Burman) and the Wyoming Attorney General's Office. In the fall of 2019, he presented an evidence seminar at the annual meeting of the Wyoming State Bar (in Jackson). He also worked, on a pro bono (i.e., volunteer) basis, on Wyoming matters. In the spring of 2019, he directed the fifth annual Spence Law Firm Historic Trial, based on the Rock Springs Massacre, working with Wyoming attorneys, judges, and law students. This event is open to the public, to give non-lawyer Wyomingites the opportunity to learn about both history and the legal system. To increase the University's outreach programs, Prof. Easton worked with faculty at Western Wyoming Community College to present a second historical trial

(in addition to the annual trial in Laramie) in Rock Springs on March 1, 2019. This trial drew an overflow crowd of approximately 250 persons, most of them Sweetwater County community members. He continues to provide evidence and legal ethics advice upon request to Wyoming attorneys and judges. The subjects in two of Prof. Easton's courses, Evidence and Professional Responsibility, are tested on the Wyoming bar examination. Prof. Easton also coordinates law student participation in the Ewing T. Kerr Inn of Court, an organization of Laramie and Albany County attorneys and judges. He also serves as a member of the Wyoming State Bar's Criminal Jury Instruction Committee, which develops jury instructions for criminal trials in Wyoming.

Noah Novogrodsky, (J.D., Yale Law School) *Carl M. Williams Professor of Law and Ethics* and the Faculty Director of the Center for International Human Rights Law & Policy. Professor Novogrodsky teaches International Human Rights Law, Public International Law, Immigration Law and Civil Procedure. Professor Novogrodsky is a Phi Beta Kappa graduate with highest honors from Swarthmore College; he graduated from Yale Law School in 1997. In January 2019, Professor Novogrodsky taught an intensive course for Wyoming students in Santiago, Chile entitled "Latin America at the Crossroads: Natural Resources, International Law and Human Rights." Professor Novogrodsky also delivered invited lectures in Jackson, Wyoming to the Irish Studies Association, at UNLV law school, and to the Chilean Bar Association. Under Professor Novogrodsky's direction, the Center for International Human Rights Law and Advocacy released two reports in the summer of 2018: 1) a study detailing persecution in Ethiopia of journalists, the LGBT community, political opponents, and women and girls that has been used by refugee agencies (including the UNHCR), asylum advocates, Immigration Court judges and UN officials. Closer to home; and 2) a report detailing the contributions of immigrants to the Teton County economy. Both reports are available at <http://www.uwyo.edu/law/centers/ihrcla/ihrcla-current-projects.html>.

Michael R. Smith (J.D., University of Florida). *Carl M. Williams Professor of Law & Ethics*, split with Noah Novogrodsky. Professor Smith is the Director of the Legal Writing Program and is the Founder and Director of the Center for the Study of Written Advocacy at the University of Wyoming College of Law. During the 2018-2019 academic year, he was invited to serve as a co-author of the Third Edition of the SOURCEBOOK ON LEGAL WRITING PROGRAMS, which will be published in 2019 by the American Bar Association Communications Committee. The SOURCEBOOK sets out best practices for designing, staffing, and administering legal writing programs in law schools and for teaching legal writing in both the required first-year program of law schools and in upper-level electives. Professor Smith is also the author of an ongoing column called "Write On!," which appears in the WYOMING LAWYER, a magazine published by the Wyoming State Bar. During the 2018-2019 academic year, Professor Smith published the following articles under this column: *Going Negative in Policy Arguments* (August 2018); *Applying Legal Rules* (December 2018); and *Concluding on Rules with Multiple Levels of Sub-Rules: Backing Out the Same Way You Went In* (April 2019). As the Director of the Center for the Study of Written Advocacy, Professor Smith often engages in outreach activities to members of the Wyoming Bar by providing Continuing Legal Education (CLE) seminars on written advocacy. In 2018, he gave the following original CLE presentations: "Reader Empathy as a Crucial Skill of Legal Writing," which was presented at the September 2018 Albany County Bar Association Meeting in Laramie, Wyoming; and "Honesty as a Persuasive Strategy in Written Advocacy," which was presented at the September 2018 Wyoming State Bar Annual Meeting in Laramie, Wyoming. Professor Smith was also invited by the Chief Justice of the Wyoming Supreme Court to give a presentation to members of the Wyoming Judiciary at the September 2018 Wyoming Judicial Conference. He presented "Avoiding Altered-Facts Dictum in Judicial Opinion Writing" at the conference held in Laramie, Wyoming. In his role as the Director of Legal Writing, Professor Smith generally administers the legal writing program at the College of Law. During the 2018-2019 academic year, these duties included advising the law school faculty and administration on the legal writing curriculum, overseeing the hiring of adjunct professors to teach in the first-year writing program, overseeing and mentoring these adjunct professors during the academic

year, overseeing the hiring of four students teaching assistants for the first-year legal writing program, and generally being the contact person at the law school on issues related to the legal writing program. Professor Smith also continued working with the Writing Center on the main campus to strengthen the relationship between law students and the general Writing Center.