

Department of Physics

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Dear President Zink and the Search Committee,

I am writing to apply for the Herbert Reich Chair of Natural Science position at Deep Springs College. I have interacted with the Deep Springs community in two primary roles, as a parent of a student (Nick Barton, DS '13) and as an interim summer faculty member (Term 6, 2018). Since my first campus visit, I've felt an affinity with the community. After 30 years of service as a Professor at two public Universities, teaching courses in geology, environmental science, mathematical methods, and physics, I am excited to pursue the opportunity to serve as the Reich Chair at Deep Springs College.

Applicants are asked to address their connection to the Deep Springs mission. Deep Springs' overarching mission is to prepare students for a life of service. I view the role of the Natural Science chair to include providing, through interactions with other faculty and students, a science-based curriculum that prepares students to lead informed, meaningful and productive lives in society. This preparation includes being able to think critically regarding scientific observations, to be logical, to recognize and refute flawed arguments, and to be able to express thoughts in oral and written (and possibly other) formats. The natural sciences are an ideal platform to help fulfill the college's educational mission and bring "students into intense contact with nature, work and ideas." Courses that can provide this "intense contact" include studying the geology, climate change, geomorphology, and ecology of Deep Springs valley and the surrounding landscape through a combination of reading relevant texts, analyzing remote sensing data, directly studying the valley (e.g., geology, geomorphology, flora, and fauna), and thoughtfully discussing and synthesizing these disparate threads of knowledge.

For this academic mission to be successful, students must enroll in the courses. I am aware that there can be a dearth of students in the science-oriented courses at Deep Springs. I recognize the allure of courses with small groups of interesting peers tackling varied topics of literature, philosophy, and other subjects in the humanities and social sciences. These are courses and experiences students are unlikely to find anywhere. I posit that science courses can also be compelling and unique at Deep Springs. Deep Springs provides the unusual opportunity for undergraduate classes in the sciences to be conducted in the Socratic seminar teaching style, rather than in the lecture format typical at other colleges and universities. Courses that use Deep Springs valley as the focal point of learning, such as studying a scientific aspect of Deep Springs valley (e.g., geology) can deepen student' relationships to the natural world around them. Courses that explore the history of science, first principles, and the evolution of scientific theory can raise the same questions found in humanities classes while anchoring discussions in a robust scientific understanding. I'd further propose courses, ideally working in collaboration with other permanent Chairs, that combine the sciences with context from the humanities and social sciences, such as studying the geology (petroleum, water resources,

rare earth deposits) and geography of a region such as Ukraine or Iran, and applying this knowledge to consider political implications and motivations, could also be successful. I'd like to explore topics and formats (e.g, field courses) with the other faculty and curriculum committee to develop a science curriculum that is compelling to students.

The role of a faculty member at Deep Springs goes beyond the curriculum and the classroom. I look forward to discussions on varied topics, both philosophical and scientific. Helping to prepare students for a life of service involves getting to know the students and discussing their areas of interest, other classes, current events, and historical precedents. If I am selected for this position, I aspire to provide a supportive environment wherein I challenge students and am challenged by them.

Applicants are also asked to address their connection to Deep Springs' three pillars: Labor, Self-Governance, and Academics. I've observed students struggle, often due to time constraints, to be simultaneously successful in all three pillars. During the summer I taught at Deep Springs, some students proposed removing the academic pillar, arguing that academic knowledge can be acquired elsewhere while Labor and Self-Governance make Deep Springs unique. Some students further argued that if we must have academics, at least remove the sciences, which can be studied effectively at other institutions. My response is that the sciences are central to informed decision making, whether with regard to crop rotation, implications of climate change, implications of limited critical resources, interpretation of probability and statistics, and innumerable other contexts. When rereading *The Grey Book* in preparation for this application, I was reminded of Nunn's emphasis on the necessity of essentially balancing the demands of all three pillars. The three pillars need not stand apart, but can reinforce one another. Labor positions can be exhausting, both mentally and physically, and were part of the founding vision (e.g., four hours of labor a day). The labor pillar creates a feeling of connection, both within the student body and between the student body and the community. Labor further provides an opportunity for students to reflect on academics and governance in a unique context, to formulate arguments, develop new insights, and apply what they learn in ways that aren't possible in other collegiate contexts. The self-governance pillar is also fundamental to the founding vision. Learning to govern is an invaluable but often slow and tedious experience for students (e.g., extended SB meetings). Ideally, knowledge gained in the classroom informs both the process and the products of student governance. Finally, the academics pillar provides essential contributions to the journey a student takes to prepare for a life of service. The knowledge and skills gained through academic engagement in the sciences, humanities, and social sciences, together contribute to an intellectual foundation for all aspects of a student's life.

I want to take a paragraph to more broadly introduce myself. I have a lifelong enjoyment of many forms of exercise, including hiking, cycling, running, and yoga. This Spring, I completed a 200-hour course on yoga teacher training and, if there was interest, could potentially lead yoga and meditation classes at Deep Springs. My two children are grown. Nick (DS '13) is working in LA in the studio of Lauren Halsey and Kate is a third-year doctoral student in Clinical Psychology at Indiana State University. If I were offered the position, my husband of over 30 years, Chris Barton, is planning to retire from his position as Professor of Earth and Environmental Sciences at Wright State University and join me at Deep Springs. He has a Yale PhD in geology with expertise in Death Valley structural geology and mapping, natural disasters, petroleum resources, and nonlinear analysis.

He is a sought-out mentor; he acts upon each student's aspirations to help hone and nurture their strengths.

While I have applied to several positions at Deep Springs, it is the only academic institution I have applied to since joining Wright State University in 2004. I feel drawn to Deep Springs and it would be my privilege to work collaboratively with students, other faculty, and staff. I would dedicate myself to the multiple demands of the position, including working to develop a science-rich curriculum and then inspiring students to participate in classes of scientific merit and scholastic interest. If selected for this position, I do not plan to apply for other academic positions in the future, so I anticipate my time could be wholly focused on teaching, service, research, and life at Deep Springs College.

I'll close by sharing a story. I have a small connection to Herbert Reich. On the day I arrived at Deep Springs in the summer of 2018 to teach a course, I was met with an unusual request. Bob and Don Reich, sons of Herb Reich (DS 1917), had come to campus to fulfill their father's wish to have his ashes spread on Chocolate Mountain, beside those of their mother. The brothers, then in their eighties, needed a companion for the hike. The DS President put out a call, and I volunteered. Together, a travelling companion and I set out with the brothers. With some tenacity and good fortune, we located the area where their mother's ashes had been spread years earlier. There we held a small ceremony and carried out Herb's wish, returning him to rest beside his wife. Though the hike was only a few miles, it lasted most of the day. The journey was filled with warmth: playful banter, Bob's pauses to photograph wildflowers, and panoramic views westward across Deep Springs valley. I had thought this would be a day of service. In truth, I gained more than I gave. To walk with the Reich brothers and share in their remembrance was a privilege. To me, this hike exemplifies the unique experiences that can only be found and Deep Springs, which I cherish and hope to contribute to in the future.

I hope to have the opportunity to discuss this position with you further. I can best be reached by email at <u>sarah.tebbens@gmail.com</u> or by cell at 727-804-2361.

Best wishes,

Sarah F Tebbens, PhD

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Professor of Physics