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September 2, 2022

Ron Cohen, *Chemistry* (Chair) Adrian Aguilera, *Social Welfare* David Bamman, *School of Information* Josh Bloom, *Astronomy* John DeNero, *EECS* Meredith Fowlie, *Agricultural & Resource Economics* David Harding, *Sociology and D-Lab* Haiyan Huang, *Statistics* Jennifer Listgarten, *EECS and CCB* Ziad Obermeyer, *Public Health* Aaron Streets, *Bioengineering* Tim Tangherlini, *Scandinavian and New Media*

RE: Invitation and Charge to Proposal Committee for the formation of a Department of Data Science

Dear Colleagues,

I write to invite you to serve on a committee to draft a proposal for the formation of a Department of Data Science within the future College of Computing, Data Science, and Society (CDSS) at the University of California, Berkeley. This proposal should be built in partnership with the campus community. It will ultimately be reviewed by appropriate committees of the Academic Senate and by campus leadership to help make a decision on whether to proceed with establishing such a department.

The impetus for considering a Department of Data Science is that such a department would serve to promote and advance the frontiers of data science; play a role in leading collaborative interactions and joint appointments across the campus; and provide the Data Science major a home within CDSS. In building the proposal, I request that your committee make a deliberate effort to reach out broadly for input and seek ideas from diverse perspectives across our campus community.

I kindly ask that your proposal address the following issues and questions:

- Berkeley is committed to excellence; hence, it should only establish units that can be global leaders. What are the prospects that Berkeley can be in the top five programs in data science and how will this be achieved?
- How would a Department of Data Science go beyond what has already been proposed through the establishment of CDSS as a college to serve students, graduate and undergraduate?
- I envision that a Ph.D. program would be a key component of the Department of Data Science. In the proposal, please provide a sketch of such a program, addressing: academic scope; distinguishing features in reference to peer institutions; unique opportunities for Berkeley in this area; and, a high level timeline for program development and launch. (Note that launching a Ph.D. program and associated graduate group will require a separate proposal, as described in the Berkeley Compendium).
- Berkeley's newest academic department should embed diversity, equity, inclusion, belonging, and justice (DEIBJ) into its foundation. How would a Department of Data Science ensure and measure success with a DEIBJ lens? How are the perspectives of underrepresented groups (e.g., by race, gender, disability, LGBTQ+)

included and considered in the proposal development process?

- What resources will be required for the department to succeed? How realistic are those resource requirements within the current situation of campus austerity? Please detail a realistic plan for faculty FTE, departmental staffing, a temporary academic support (TAS) budget, space, and equipment. With respect to faculty FTE, please keep in mind that the campus has struggled budgetarily to maintain 1,500 state-funded FTE over the course of this century. That number is, I note, far below what the campus needs overall. Hence, most, if not all, the state-funded faculty FTE for this new department will need to come from existing units (i.e., via transfer of existing FTE) rather than via net new additions to the campus or CDSS. With respect to space, please include detailed information and floorplans, such as any space commitments from CDSS or central campus to the department, including but not limited to the forthcoming Gateway building.
- In addition to state-funded FTE, what might be the new department's capacity to grow via philanthropicallysupported FTE or other non-state funding? What, more generally, might be the new department's capacity to obtain other funding via philanthropy and other sources?
- What implications would establishing a Department of Data Science have for existing augmented graduate groups (AGGs) within CDSS and for future AGGs contemplated in the proposal to establish CDSS as a college? Are there opportunities to revert any of these groups to regular graduate groups and house faculty FTE presently held by these AGGs within a new Department of Data Science?
- Existing academic departments, undergraduate majors, and graduate groups should only be strengthened—rather than weakened—by a new department. How would this be achieved?
- A new academic department that draws faculty from existing departments should reduce barriers to collaboration and encourage multidisciplinary work across departmental lines. What structures and incentives do you propose for the Department of Data Science to achieve this?
- How would a Department of Data Science expand the faculty and provide student support through philanthropy?

I summarize the review process as follows (please also refer to the Berkeley Compendium for the full <u>process</u> regarding the establishment of new departments):

- 1) Your committee drafts a proposal for review and provides it to the Dean of the College of Engineering, Executive Dean of the College of Letters & Science, and Associate Provost for CDSS for preliminary feedback.
- 2) Your committee provides a revised proposal to the Associate Provost for CDSS to submit, with her letter of endorsement, to the Vice Provost for Academic Planning (VPAP) with additional copy to the:
 - a. Dean of the College of Engineering
 - b. Executive Dean of the College of Letters & Science (EDLS)
 - c. Vice Provost for Faculty (VPF)
 - d. Office of Planning & Analysis (OPA)
 - e. Vice Provost for Undergraduate Education (VPUE)
 - f. Vice Provost for Graduate Studies (VPGS)
 - g. Executive Vice Chancellor & Provost (EVCP)

- 3) The VPAP refers the proposal to the OPA and the Office of Financial Planning & Analysis (FP&A) for administrative review and revision, as described in the Berkeley Compendium.
- 4) The VPUE reviews the updated proposal and identifies any substantive changes that would be needed for WSCUC accreditation and assists the committee in filling out the substantive change form as needed.
- 5) The VPAP requests any clarifications or changes that are needed based on the administrative review and then, upon clarification or correction, refers the proposal and comments and analysis from administrative review to the Academic Senate's Divisional Council (DIVCO) for review by the:
 - a. Committee on Budget and Interdepartmental Relations (BIR)
 - b. Committee on Academic Planning and Resource Allocation (CAPRA)
 - c. Graduate Council (GC)
 - d. Undergraduate Council (UGC)
 - e. Committee on Diversity, Equity, and Campus Climate (DECC)
- 6) The DIVCO reviews input from the Senate committees and provides a recommendation to the VPAP
- 7) The VPAP reviews the collective feedback from the Academic Senate and campus leaders and makes a final decision in consultation with the Chancellor and the EVCP.

Establishing an academic department is a rare and special event. The most recent department to be established at Berkeley was the Department of Film and Media in 2010. A proposal to establish a Department of Neuroscience is also presently under review. I invite your review of both proposals that were submitted as possible models for the proposal structure.

While it is, as this letter would indicate, my expectation that your committee will endorse the formation of a Data Science Department, that is not a foregone conclusion. Should your committee instead decide that forming such a department at this time would not be in Berkeley's best interests, I would appreciate receiving a report explaining why you came to that conclusion and your recommendations for what alternative structures would be serve Berkeley in terms achieving and maintaining leadership in Data Science; delivering the highest quality education in the field; and promoting interdisciplinary work.

The committee will be convened and organized by the chair, Ron Cohen. Because many strategic efforts are already underway in this space, it is strongly advisable that we move quickly on establishing this department—if that is the best path forward. For that reason, my hope is that you can have a robust draft ready to circulate for decanal and stakeholder input by the end of the fall 2022 term. My office, the VPAP, the OPA, and Senate leadership are available to answer questions you may have about the process or other connected matters.

Sincerely,

Benjamin E. Hermalin Executive Vice Chancellor and Provost

cc: The Council of Deans Carol T. Christ, Chancellor Lisa Alvarez-Cohen, Vice Provost for Academic Planning Maximilian Auffhammer, Vice Chair, Berkeley Division of the Academic Senate Jennifer T. Chayes, Associate Provost, Division of CDSS Lisa García Bedolla, Vice Provost for Graduate Studies Marti Hearst, Head, School of Information Haiyan Huang, Chair, Department of Statistics Jennifer Johnson-Hanks, Executive Dean, College of Letters & Science Oliver O'Reilly, Vice Provost for Undergraduate Education Victoria Plaut, Vice Provost for the Faculty Mary Ann Smart, Chair, Berkeley Division of the Academic Senate Claire Tomlin, Chair, Department of Electrical Engineering & Computer Science Kathy Yelick, Vice Chancellor for Research Chris Yetter, Senior Advisor to the Provost