AUDIT AND ADVISORY SERVICES

Supporting International Research
Audit
Project No. 15-660

May 5, 2017

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UNIVERSITY OF CALIFORNIA, BERKELEY

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May 5, 2017

Paul Alivisatos
Vice Chancellor
Research

Vice Chancellor Alivisatos:

We have completed our audit of campus support for international research as per our annual service plan in accordance with the Institute of Internal Auditors' *Standards for the Professional Practice of Internal Auditing* and the University of California Internal Audit Charter.

Our observations with management action plans are expounded upon in the accompanying report. Please destroy all copies of draft reports and related documents. Thank you to the numerous faculty and staff members across multiple units who participated in this audit for their cooperative efforts throughout the audit process. Please do not hesitate to call on Audit and Advisory Services if we can be of further assistance in this or other matters.

Respectfully reported,

Wanda Lynn Riley
Chief Audit Executive

cc: Interim Executive Vice Chancellor and Provost Carol Christ
        Interim Vice Chancellor Scott Biddy
        Associate Vice Chancellor and Chief Financial Officer Rosemarie Rae
        Interim Associate Vice Chancellor Pat Schlesinger
        Assistant Vice Chancellor and Controller Delphine Regalia
        Interim Executive Director Pamela Miller
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University of California, Berkeley
Audit and Advisory Services
Supporting International Research

Table of Contents

OVERVIEW

Executive Summary

Audit and Advisory Services (A&AS) completed our audit of campus support for international research as part of our annual service plan for FY 2015 with additional work performed in FY 2016. Campus global engagement is multi-dimensional ranging from campus and school/college partnerships and collaborations with foreign universities to contracts and activities managed by individual principal investigators as part of their research projects.

Based upon our preliminary risk assessment and the fact that separate audit projects were recently performed pertaining to other areas of campus global activities, we narrowed our scope to primarily focus on the requirements and risks faced by the individual principal investigator, researcher, or graduate student conducting research fieldwork in foreign locations and to examine the adequacy of the administrative support these individuals receive to effectively and efficiently conduct their research as well as to promote compliance with campus and systemwide policies and relevant local, state, federal, and foreign laws and regulations.

In fiscal year 2015, activities related to sponsored research projects were conducted in over 110 different countries by over 1,600 faculty members, staff, and students.

There are a number of operational and regulatory requirements associated with foreign fieldwork that arguably entail a greater administrative workload than domestic projects. These include, but are not limited to, the need to obtain visas and work permits; export control and customs requirements for transported materials; and adherence to local labor laws/customs when engaging the services of local vendors. It is not feasible to expect that the campus would be able to fully anticipate or address in advance all foreign project needs and requirements. However, we noted certain opportunities for the campus to formalize and strengthen its engagement as follows.

- Define the appropriate level of campus engagement and investment to assess and address the project-related risks of conducting research abroad. These decisions impact faculty and graduate student recruitment, resource allocation, supported areas of research and study, as well as campus infrastructure.
- Proactively engage central campus research and administrative support offices to help ensure that programmatic, operational, financial, and compliance risks are addressed, such as
  - identifying and tracking projects that entail foreign fieldwork to facilitate early resolution of potential issues or concerns;
  - developing resources to assist faculty and researchers in navigating the unique needs of foreign research projects;
  - expanding current campus procurement, credit card, and banking programs to facilitate in-country expenditures; and
  - evaluating procedures and resources related to contracting with foreign collaborators and service providers.

Source and Purpose of the Audit

A&AS completed our audit of campus support for international research as part of our annual service plan for FY 2015 with additional work performed in FY 2016. The overall objective of our audit was to assess the extent to which the unique administrative requirements involved in conducting research abroad are effectively addressed by existing campus services.

This audit was included in our annual service plan based, in part, upon campus leadership's articulated priority of deepening campus global engagement as well as inherent increased financial, operational, and compliance risks when conducting research fieldwork internationally.

Scope of the Audit

Based upon our preliminary risk assessment, we narrowed our scope to primarily focus on the requirements and risks faced by the individual principal investigator, researcher, or graduate student conducting research fieldwork in foreign locations. We assessed the adequacy of the administrative support these individuals receive to: (i) effectively and efficiently conduct their research and (ii) promote compliance with campus and systemwide policies as well as relevant local, state, federal, and foreign laws and regulations. Campus and school/college level global activities were addressed as part of three recent prior audits performed by A&AS, Globalization and International Engagement, Blum Center for Developing Economies, and Berkeley Education Alliance for Research in Singapore.

In the absence of other identifying data, we analyzed campus travel reimbursement data for FY 2015 to develop an understanding of the frequency with which faculty, staff, and students travel internationally in connection with research and to identify the countries in which research activities are being conducted. Our audit procedures entailed the review of existing campus policies, procedures, and other materials available to the research community. We also conducted interviews with selected faculty members who perform research involving foreign fieldwork, as well as with staff from central campus units that provide related support services or information, including the Sponsored Projects Office, the Controller's Office, the Office of Legal Affairs, Business Contracts and Brand Protection, the Global Engagement Office, Supply Chain Management, and Risk Services. The faculty members we interviewed were selected through our analysis of travel reimbursement data and were among those travelers who, based on trip descriptions, appeared to lead research projects with extensive on-the ground fieldwork activities. The list of faculty member interview topics is included as an appendix to this report. We also examined the types and level of administrative services provided to researchers conducting fieldwork abroad at peer institutions by reviewing public-facing websites.

Our procedures were designed to provide a current state assessment of the extent to which the unique administrative requirements involved in conducting research abroad are effectively addressed by existing campus services. Our procedures did not entail a review of all research support services, but instead were focused on those needs articulated by the faculty members interviewed and/or otherwise assessed by A&AS to be important specifically to the conduct of foreign fieldwork. Further, although regulatory compliance represents one area of need, our procedures were not designed to provide an assessment of individual country or project regulatory requirements and compliance.

Background Information

The campus has a long tradition of broad engagement in the global community. In 2011, campus leadership, under then Chancellor Birgeneau, convened an International Strategy Task Force to consider new approaches to further enhance campus international research, teaching, and service activities. This commitment and priority has been furthered under Chancellor Dirks, as is reflected in the inclusion of global engagement as one the articulated pillars of his administration.

Campus global engagement is multi-dimensional ranging from campus and school/college partnerships and collaborations with foreign universities to contracts and activities managed by individual principal investigators as part of their research projects. Each of these dimensions represents an important cornerstone to the campus in fostering its portfolio of global relationships, knowledge, and reach. In 2012, the campus established the Global Engagement Office to help coordinate campus international initiatives; however, its current scope of activity is primarily limited to assisting with a subset of non-binding relationships with foreign institutions, hosting official visits from foreign delegations, and supporting executive leadership foreign activities when requested.

The ability to conduct fieldwork outside of the United States is central to individual principal investigator research across many disciplines. The campus is home to a number of researchers whose work is rooted in fieldwork performed in foreign locations. In addition, foreign fieldwork increasingly represents an area of emerging interest and activity for disciplines that have not traditionally been internationally focused. In fiscal year 2015, activities related to sponsored research projects were conducted in over 110 different countries by over 1,600 faculty members, staff, and students. The following table represents the countries most frequently visited in connection with sponsored research activities in 2015.

Country	Visit Count	Country	Visit Count
Canada	315	Hong Kong	64
United Kingdom	255	Mexico	62
France	253	Australia	60
Germany	252	Israel (tie)	53
Italy	211	Taiwan (tie)	53
China	189	Singapore	50
Japan	131	Brazil	48
Switzerland	122	Belgium	46
Spain	93	Chile	41
India	89	Sweden	39
Austria	76	Kenya	35
South Korea	74	Denmark (tie)	32
The Netherlands	73	Turkey (tie)	32

There are a number of operational and regulatory requirements associated with foreign fieldwork that arguably entail a greater administrative workload than domestic projects. These include, but are not limited to, the need to obtain visas and work permits; export control and customs

requirements for transported materials; and adherence to local labor laws/customs when engaging the services of local vendors. The campus provides a number of services that are of particular benefit to faculty members and project teams performing foreign fieldwork, including cash advances, travel insurance and emergency services, and field safety training programs. Other needs and requirements are addressed by each individual principal investigator and project team, or by the campus on an ad hoc basis if requested by the principal investigator.

Summary Conclusion

There are a number of operational and regulatory requirements associated with conducting foreign fieldwork that are in addition to the already extensive fiduciary responsibilities principal investigators and their teams may bear from sponsors. These requirements vary by project and country and can be complex to identify and comply with. It is not feasible to expect that the campus would be able to fully anticipate or address needs and requirements for all international projects in advance. However, we noted opportunities for the campus to formalize a framework for its engagement with principal investigators to support their foreign research projects and enhance specific support services to better align with needs and risks, as follows.

- The foreign fieldwork needs of many faculty can be managed effectively through existing campus processes. However, there is a population of researchers with more complex project needs involving activities that are difficult, if not impractical, to support at the campus level. In these cases, faculty members typically administer their projects with limited involvement by central campus. The campus has not yet explicitly addressed the questions of what is the appropriate level of campus engagement to assess and address specific project risks, nor how much of an investment should be made to develop campuswide solutions given each project's unique needs. These questions are critical because their answer entails assuming a level of residual risk that should be acceptable to senior leadership.

- Although it is not practical or desirable for the campus to directly manage individual project planning, we noted certain specific opportunities for more proactive engagement by central campus research and academic support offices to help ensure that programmatic, operational, financial, and compliance risks are addressed. These include the assessment of projects at the proposal stage to identify needs, make programmatic adjustments if warranted, and ensure adequate budgets; the development of resources to assist faculty and researchers in navigating the unique needs of foreign research projects; and foreign visa application support.

- Foreign projects may entail in-country expenditures to cover a wide range of travel-related and project-related needs that must be transacted in cash and/or in the foreign location. Current campus practices may be leveraged to ease project-related administration such as expansion of campus procurement/credit card programs and campus support of in-country banking needs and the enhancement of resources related to travel report preparation and review.

- Foreign collaborators and service providers are often of central importance to the success of foreign research projects and are contracted with for a variety of technical and non-technical project needs. Contracting with foreign partners was identified as an area of particular difficulty given that these relationships can be multi-faceted and difficult to classify, as well as have lengthy contracting timelines. Although these difficulties may be unavoidable due to the complexities associated with vetting and negotiating with foreign

parties, we note an opportunity for the campus to evaluate procedures and resources related to foreign contracting activities, in particular the potential to identify a central campus contact for all foreign contracting needs and the potential to develop or leverage campuswide or systemwide agreements with foreign "trusted partners" to facilitate contracting for certain types of common project support services.

Management agrees with the observations noted in the report and has developed action plans to address the risks noted. Specifically, in addition to activities already underway to assess and improve campus support for research administration, management will solicit additional input from faculty regarding options for addressing the specific needs of the types of projects covered in this audit and will implement procedures for identifying and tracking foreign research projects in campus systems.

SUMMARY OF OBSERVATIONS & MANAGEMENT RESPONSE AND ACTION PLAN

Overall Framework for Campus Engagement

Observation

The ability to conduct fieldwork outside of the United States is of central importance to the campus research mission, with more than 1,600 faculty members, staff, and students across many disciplines participating in research activities abroad in fiscal year 2015 alone. The travel and project needs of many faculty can be managed effectively through existing campus processes. However, there is a population of researchers with more complex project needs involving activities that are difficult, if not impractical, to support at the campus level due to the number of countries where research is performed and their varying levels of development; the uniqueness of the needs for each project; and faculty member interest in maintaining their autonomy in project oversight and planning. In these cases, faculty members typically administer their projects with limited involvement by central campus; however, it is unclear that these on-the-ground solutions adequately address potential operational, financial, and compliance risks to the project and the campus.

Two fundamental questions that the campus has not yet explicitly addressed are

- what is the appropriate level of campus engagement to assess and address specific risks associated with projects with foreign fieldwork, including how to coordinate such assessments; and

- how much of an investment should be made to develop campuswide solutions to reduce compliance, operational, financial, and programmatic risks given that each project is unique and a common solution may not be available for all researchers.

These decisions are critical in that they impact faculty and graduate level recruitment, resource allocation, supported areas of research and study, as well as campus infrastructure. It should be noted that these challenges and opportunities are not unique to the Berkeley campus or to the University of California. Over the past two years, the UC campuses have developed a community of interest to jointly discuss and begin to address these same needs and challenges with support from the Office of the President. These activities should also be taken into consideration by campus management in assessing the path forward.

Management Response and Action Plan

Campus support for research is an area of current management concern and focus. A project (the Research Administration Improvement Initiative) is currently underway to review the entire research administration lifecycle to evaluate and redesign key processes and administrative support models. This project will address processes related to support for foreign research projects as a later phase of the project; however, a specific date for completion has not yet been set. Management will provide an update to A&AS in January 2018 regarding the timing for this project phase. In addition, the Vice Chancellor for Research will host a faculty roundtable event

to obtain additional input from faculty regarding options for better addressing needs for projects with significant foreign fieldwork. This roundtable will be held in the current or next academic year, by January 1, 2018. The level of campus involvement and investment, and specific process changes, will be determined, in part, by the results of this roundtable, in addition to the results of the research administration process review project already underway.

Management will also proactively engage with the UC Office of the President to identify opportunities for systemwide (versus campus-level) action to enhance administrative and compliance support for researchers abroad. Interim Executive Vice Chancellor and Provost Carol Christ raised the topic of UC support for international research at the October 2016 UC Council of Executive Vice Chancellors meeting for discussion, and management will continue to identify similar opportunities to promote systemwide coordination and response.

Research Organization Support Activities

Observation

For those projects with administrative needs that are beyond the typical research support services provided by campus, faculty members typically manage the identification of requirements and solutions with limited involvement by central campus, and with limited assurance that relevant risks are adequately addressed. Although it is not practical or desirable for the campus to directly manage project planning, there are certain high priority areas of programmatic, operational, financial, and compliance risk identified through our work that central campus research and academic support offices are better positioned to address. These opportunities include the following.

1. There is currently no process in place to proactively and systematically identify projects that entail foreign fieldwork at the proposal stage. One option would be to collect certain data elements for projects involving foreign fieldwork as part of the proposal submission process, with data provided through a checklist form and/or directly entered to and maintained in Phoebe, the campus proposal routing and tracking system. There are three key benefits that such identification would likely provide.
   a. The early identification of such projects would allow for making programmatic adjustments if warranted and ensure adequate budgets given project needs and anticipated administrative support requirements. It would also allow for the consideration and mitigation of potential regulatory issues that could impact project feasibility if not proactively addressed. Some principal investigators cited difficulties in transporting research samples and other materials across country borders that they had not anticipated and that could have potentially jeopardized their project.
   b. There were a number of concerns raised by faculty regarding the lead times required for certain administrative processes necessary for foreign research (e.g., contracting with foreign parties). Identifying such projects and their attendant administrative requirements as early as possible in the project lifecycle would provide an opportunity for the campus to anticipate and initiate project support activities earlier to achieve better and timelier outcomes.

c. The campus does not currently collect or maintain data regarding where foreign research is performed. Such data would enable the campus to assess potential foreign country risks associated with the broader research portfolio and prioritize potential enhancements to campus services.

2. The campus provides a number of helpful resources to researchers and research administration staff regarding research compliance and operational considerations; however, resources addressing the unique needs of foreign research projects are not as fully developed.

   a. Such guidance would be helpful to researchers and support staff in building awareness around key issues that should be considered in proposal development and project planning. Examples of issues that such guidance might address include: export control and customs requirements related to the transport of research materials across borders; cybersecurity and data protection in foreign locations; foreign subrecipient requirements; and fieldwork site conduct and safety preparedness. In addition, such guidance could address opportunities to ensure that budgets fully reflect the range of project costs that may be required, including opportunities to specifically budget for certain administrative project support activities and ease the direct burden on faculty members who now perform many of these tasks themselves in the absence of department administrative support.

   b. Such guidance could also identify central campus subject-matter experts to facilitate researcher/staff member contact in case of questions. Many faculty members interviewed were not aware of many of the support services/resources currently provided by the campus.

3. We noted a specific opportunity for the campus to provide direct assistance to research teams in securing visas for project travel. Although the campus provides inbound visa assistance for visiting scholars and researchers, outbound visa assistance is not currently provided. Because of the importance of obtaining the correct visa type and because of changing country requirements, managing this activity centrally through the Berkeley International Office or in conjunction with other UC campuses should be considered.

Management Response and Action Plan

See prior response. In addition, Assistant Vice Chancellor Patrick Schlesinger and Assistant Vice Chancellor and Controller Delphine Regalia will implement procedures for flagging foreign research projects in campus systems. Specifically, a flag to identify foreign-denominated research contracts and grants will be implemented in the campus contract and grant accounting system by January 1, 2018. Other fields of data to be collected and the system where the data will be flagged/maintained (i.e., in the campus proposal system or in the contracts and grants accounting system) will also be determined by the same date.

Finance Support Activities

Observation

Foreign projects may entail in-country expenditures to cover a wide range of travel-related and project-related needs that must be transacted in cash and/or in the foreign location due to the nature of the purchases and/or the local country infrastructure. Because of current limits on campus travel and procurement card use, these transactions are often made on an out-of-

pocket/reimbursement basis or using cash advance funds. There are two key impacts related to current practices.

- Faculty members do not generally engage central campus support in evaluating options for facilitating access to cash in-country. As a result, it is unclear whether current practices are acceptable given US and foreign banking rules and/or whether they adequately mitigate the risk of loss of funds (e.g., by theft, currency conversion, etc.).

- There is necessary administrative work associated with the project accounting and expense reimbursement process for in-country cash payments due to regulatory and internal control objectives. This impact can be substantial for faculty members with projects lasting over a longer duration. Although it is likely not feasible to adjust procedures or requirements, many faculty members cited perceived inconsistencies in travel report reviewer criteria regarding acceptable documentation for expenses that appear to exacerbate processing timelines and workload.

We note the following opportunities to address these risks/challenges.

- Consider the expansion of the campus procurement/credit cards program to enable allowable in-country project purchases and/or in-country cash withdrawals. This would allow project teams to charge directly to project funds (versus on an out-of-pocket basis), minimizing exchange rate risks and errors and simplifying project accounting and reporting through the automated capture of purchase transaction data. Appropriate procedures to mitigate risks (in addition to those already in place for procurement card purchases), such as PI certifications that cards are used only for allowable project expenses and clear reporting requirements for cash withdrawals, should also be implemented.

- Consider opportunities to further expand campus support of in-country banking needs (in cases where procurement/credit card programs cannot be used).

- Enhance resources and/or training and communication related to travel report preparation to ensure a consistent understanding of issues unique to and/or more frequently encountered with foreign expenditures. Specific areas noted to clarify include: the acceptable alternative documentation in cases when receipts cannot be obtained due to foreign vendor or country norms, appropriate uses of the per diem reporting option, and the setting/use of partial per diem rates. While the future role of Campus Shared Services is unclear, the centralized review of travel expenses provides an opportunity for consistency in the application of the travel policy.

Management Response and Action Plan

See prior response.

Foreign Collaborator and Service Provider Classification and Contracting

Observation

Foreign collaborators and service providers, whether an individual, a university, or another organization, are often of central importance to the success of foreign research projects. The faculty members we interviewed depend on foreign collaborator consultation and logistical support for a wide range of project needs, including but not limited to: navigating and adhering to local country rules/requirements, translation, project oversight, and coordination of local banking needs and payments for local goods and services. Faculty members also described a frequent need to engage local service providers for non-technical project assistance.

Many of the faculty members interviewed stated that campus contracting processes with foreign collaborators/service providers (through the Sponsored Project Office, Supply Chain Management, or Business Contracts and Brand Protection depending on the nature of the relationship) represent an area of particular difficulty with potential negative impact on project timelines (contracting timelines of six months to a full year were cited).

We acknowledge that lengthy timelines in some cases may be unavoidable due to the complexities associated with vetting foreign parties and negotiating acceptable business and legal terms across different languages and legal frameworks. However, based on the degree and frequency of concern raised by faculty members and the criticality of their foreign partners, we note an opportunity for management to evaluate procedures and resources related to foreign contracting activities.

Given our understanding of the nature of services provided by third-parties for these projects, it is likely that a key driver for these delays may pertain to difficulties in classifying the scope of work uniformly as that of independent contractor, subrecipient, business contract, vendor, or employee. As such, processes that often are already complex are complicated even further.

Potential solutions for management to consider in addressing this area of concern might include the following.

- Enhancement of resources to assist faculty members in identifying and articulating the roles and tasks that will determine the correct contracting pathway and terms and conditions. A significant amount of work has been completed in recent years to educate and assist the campus community in understanding which office to route contracting requests to; however, once an initial determination is made, the specific scope of work can have further bearing on how the work is classified and what contractual terms and conditions may be required. To further streamline the contracting process and timelines, it may be helpful for the campus to consider identifying a central contact for foreign contracting needs (potentially within one of the central campus contracting offices or in partnership with other UC campuses) to work with faculty members. In addition, it may also be helpful for divisional finance leaders to serve as a point of early contact in evaluating project contracting needs.

- Development or leveraging of existing campus or systemwide agreements with institutions or individuals in countries/regions where research is most frequently performed in order to provide principal investigators with a "trusted partner" option and facilitate contracting for certain types of non-technical project support services commonly needed (e.g., translation services, coordination with local country governments, the hiring of and/or contracting with lower level project service providers).

Management Response and Action Plan

See prior response.

APPENDIX

List of Faculty Member Interview Topics

1. Foreign project characteristics
    a. Locations
    b. Duration
    c. Staffing
    d. Types and complexity of administrative activities required
    e. Infrastructure/equipment requirements
2. Greatest areas of administrative challenge and/or concern
3. Specific examples of issues encountered and how resolved
4. Approach to understanding and addressing foreign country risks and compliance requirements
5. Greatest opportunities for additional central campus support
6. Areas of strength/ease of use in current campus processes
7. Additional discussion of project requirements, challenges, and solutions
    a. Use of foreign subrecipients and/or vendors
    b. Payment for goods and services in foreign location
    c. Dealings with local country officials or agencies
    d. Research data collection and transport
    e. Transport of research materials
    f. Field safety
    g. Travel needs
8. Other input