

Office of Planning & Analysis Strategic Plan, 2018-2020

Mission Statement

The Office of Planning & Analysis (OPA) supports data-informed decision making to help UC Berkeley better fulfill its goals of access and excellence through teaching, research, and public service. We engage with and promote success within our campus community by producing analyses that are objective, actionable, and creative. We strive to convey the Berkeley story in clear, innovative ways by making institutional data accessible and intelligible.

Summary of OPA's Strategic Priorities

As UC Berkeley's central institutional research office, OPA performs a variety of work within six major strategic areas of focus: analytics for campus decision support, stewardship of the Enterprise Data Warehouse, collaborative analytical projects, campus committees and initiatives, campus surveys, and general campus reporting. Although our work in each of these areas includes numerous ongoing responsibilities, this strategic plan also describes new initiatives and major enhancements that we plan to pursue over the next two years.

1 - Conduct Data Analysis and Presentation for Campus Decision Support

OPA conducts objective, rigorous, and actionable data analyses, and disseminates findings through clear, creative presentations of the results. We support decisions at all levels of the campus, through both solicited and exploratory analyses, employing tools and models designed to enhance understanding of complex issues. Our major new initiatives planned for the next two years in this area include:

- Completing initial development and operationalizing maintenance of the *Our Berkeley* data digest
- Using new tools and techniques (e.g., custom Tableau dashboards) for analysis and presentation

2 - Provide Stewardship of Student Data in the Enterprise Data Warehouse

OPA works closely with the IST Enterprise Data Warehouse team to ensure data quality in the EDW's academic-focused subject areas. We also participate in all aspects of the EDW's Cal Answers reporting system, such as data governance, validating data loads, testing enhancements and fixes, and supporting advanced users across campus. Our major new initiatives planned for the next two years in this area include:

- Enhancing and expanding software tools used with the EDW (Tableau Server and Oracle BI)
- Supporting the implementation of a new data governance process for the EDW

3 - Support Collaborative, Cross-Campus Analytical Projects

OPA provides analyses and visualizations in support of critical campus-wide initiatives that require extensive facilitation and coordination among multiple units, holistic knowledge of the campus, and a variety of data sources, including academic, financial, and human resources systems. Our major new initiatives include:

- Creating Analyses, Visualizations, and Models in Support of the Enrollment Management Process
- Creating Analyses, Visualizations, and Models in Support of the Finance Reform Initiative
- Refining the Process for Reporting Professional Degree Supplemental Tuition (PDST) Enrollment Data
- Developing a Faculty FTE Planning Dashboard

4 - Increase Involvement in Staffing Campus Committees and Initiatives

OPA's depth of experience and breadth of expertise make us a natural fit to provide staff support for various campus-wide committees and projects. Our knowledge of campus and familiarity with applicable data enable us to provide timely and actionable decision support. Our major new initiatives planned for the next two years in this area include:

- Serving on the Campus Climate Survey Working Group
- Providing support for VC-EI demographic data collection and reporting working groups
- Providing support for UC Berkeley's Diversity Initiative
- Identifying new opportunities for supporting other campus initiatives and committees

5 - Provide Support for Selected Campus Surveys

Following organizational changes in OPA, our level of engagement with some campus surveys changed. We will, however, continue to provide essential services (e.g., project management, survey samples) for selected student surveys. Our major new initiatives planned for the next two years in this area include:

- Improving the accessibility of results (e.g., dashboards, briefing notes) for surveys managed by OPA
- Assisting campus leadership with the evaluation of survey administration tools

6 - Provide Accurate and Timely Data for Mandated/Requested Reporting

In our role as UC Berkeley's central institutional research office, OPA responds to myriad requests from both internal and external sources, in addition to providing numerous reports mandated by the UC System, the State of California, and the federal government. In this work, we are dedicated to providing accurate, contextualized data in a timely manner. Although we will continue to perform this work on behalf of the university, and as always, will strive to make this process more efficient and effective, we will also undertake the following new initiatives in this area:

- Ensuring continued effectiveness of reporting through cross-training and documentation
- Refining and automating processes used to fulfill recurring deliverables

1 - Conduct Data Analysis and Presentation for Campus Decision Support

OPA conducts objective, rigorous, and actionable data analyses, and disseminates findings through clear, creative presentations of the results. We support decisions at all levels of the campus, through both solicited and exploratory analyses, employing tools and models designed to enhance understanding of complex issues.

OPA analysts strongly believe in the value of data-informed decision making. We design our analyses and presentations to be forward-looking, actionable, and understandable, in order to support decision making across campus. All nine of the analysts affiliated with OPA do substantial work in this area, each dealing with a variety of audiences.

As one of our major areas of effort, OPA will continue to support campus decisions through the analysis and presentation of information. Some of our ongoing projects include:

- Responding to analytical requests from campus stakeholders on a variety of topics
- Supporting campus initiatives regarding the student experience and campus climate, through analysis and presentation of survey results
- Producing summaries of general interest analyses whenever appropriate, and continuing to seek opportunities to present findings in both on-campus and off-campus forums
- Creating interesting and informative data visualizations on topics of interest to campus
- Leveraging and continuing to develop expertise in a variety of software tools for analysis and presentation, including Tableau, D3, Python, Stata, and R.

Over the next two years, OPA will also undertake the following new projects and initiatives:

- **Complete Initial Development and Operationalize Maintenance of the *Our Berkeley* Data Digest**
 - OPA will complete the initial development phase of the *Our Berkeley* data digest project in late summer 2018, with about two dozen delivered dashboards. After completion of this initial phase, OPA will continue to monitor usage, make additions and enhancements, and replace existing dashboards as necessary.
 - OPA will operationalize maintenance of *Our Berkeley* by creating and refining the processes needed to load new data into the existing dashboards. This will help to minimize the time and effort required to ensure the ongoing operation of the *Our Berkeley* data digest.
- **Use New Tools and Techniques (e.g., Custom Tableau Dashboards) for Analysis and Presentation**
 - OPA will take a leading role in exploring ways to make use of Berkeley's new Tableau Server license consortium, in order to make data more visible and understandable to different groups on campus.
 - OPA analysts will continue to cross-train each other in all of the software tools that OPA utilizes (e.g., Tableau, D3, Python, Stata, and R), through our office's internal institutional research community of practice.

2 - Provide Stewardship of Student Data in the Enterprise Data Warehouse

OPA works closely with the IST Enterprise Data Warehouse team to ensure data quality in the EDW's academic-focused subject areas. We also participate in all aspects of the EDW's Cal Answers reporting system, such as data governance, validating data loads, testing enhancements and fixes, and supporting advanced users across campus.

The Enterprise Data Warehouse and Cal Answers reporting system provide the foundational data that informs much of OPA's work. From the beginning, we have collaborated very closely with the IST-EDW group to ensure that the best possible student-related data is available to campus. Over the coming years, OPA will continue to provide stewardship of student data in the EDW. Some of our ongoing projects include:

- Providing operational support for the EDW (e.g., validating data loads; conducting business analysis for new development and fixes; prioritizing tickets and advocating for enhancements; and coordinating with the IST-EDW and SIS Reporting teams)
- Supporting users of student data in Cal Answers (e.g., responding to help desk tickets escalated to Tier 2 status; supporting Learning & Engagement staff in the CFO's office with training, the super user group, and the Cal Answers Community of Practice; supporting updates to the Cal Answers functionally-oriented data dictionary)
- Helping to ensure curriculum data quality in SIS and the EDW by training departmental schedulers and refining new instructional activity validation reports

Over the next two years, OPA will also undertake the following new projects and initiatives:

- **Enhance and Expand Software Tools Used With the EDW (Tableau Server and Oracle BI)**
 - OPA will serve as the functional leads for design and validation of student data to be made available via Tableau Server, in addition to investigating and promoting Tableau's wider use as an analytical reporting tool on campus.
 - OPA will provide significant resources for testing an upgraded version of Oracle Business Intelligence (OBIEE), the software behind Cal Answers, which we will continue to use for more formal and complex reporting and querying needs. We will work closely with campus groups to help end users understand the advantages and best uses of both OBIEE and Tableau.
- **Support the Implementation of a New Data Governance Process for the EDW**
 - The current EDW Governance Group has difficulty prioritizing competing needs, given its membership level and voting structure. Following the recommendations of the recent *External IT Assessment*, OPA will support the transfer of the EDW prioritization process to a higher-level Enterprise Data group that will replace the Enterprise Applications & Data Committee.

3 - Support Collaborative, Cross-Campus Analytical Projects

OPA provides analyses and visualizations in support of critical campus-wide initiatives that require extensive facilitation and coordination among multiple units, holistic knowledge of the campus, and a variety of data sources, including academic, financial, and human resources systems.

Some of the most complex analytical projects on which OPA works involve facilitating work among several offices and analysts, integrating multiple data sources, and often deal with the financial impacts of campus policies. Given how important these initiatives are to UC Berkeley, OPA commits significant analyst resources to them in order to help ensure their success. Some of our ongoing projects in this area include:

- The Academic Program Review process for the Vice Provost-Academic Planning
- The Temporary Academic Support (TAS) process, in collaboration with Financial Planning & Analysis, the Vice Provost-Faculty, and others
- The Faculty FTE Planning process conducted by the EVCP and Vice Provost-Faculty
- The Undergraduate Enrollment Planning and Management process, with the Vice Chancellor-Undergraduate Education, the Vice Chancellor-Student Affairs, and others
- The campus accreditation process for the WASC Senior College and University Commission, in collaboration with the Vice Chancellor-Undergraduate Education, Graduate Division, and others

Over the next two years, OPA will also undertake the following new projects and initiatives:

- **Create Analyses, Visualizations, and Models in Support of the Enrollment Management Process**
 - Undergraduate enrollment planning and management involves multiple campus units, with OPA contributing analyses, visualizations, and models of enrollment data. In order to better support this process, OPA will gather requirements from stakeholders to refine what information would be most useful, when we should generate it, and who should receive it.
 - Using newly available data in the Student Information System, OPA will leverage Tableau and other tools to enhance analyses and data visualizations. We will cross-train OPA staff to support this process.
- **Create Analyses, Visualizations, and Models in Support of the Finance Reform Initiative**
 - OPA will provide data and analyses regarding student demographics, academics, and fees in order to support the Finance Reform project. In addition, we will create visualizations that help make Finance Reform presentations and results more understandable.
 - OPA will work with Financial Planning & Analysis to integrate currently metricized processes, such as TAS, into the new campus financial model.
- **Refine the Process for Reporting Professional Degree Supplemental Tuition (PDST) Enrollment Data**
 - OPA will collaborate with Financial Planning & Analysis colleagues to prepare PDST enrollment data for campus units to incorporate into their annual PDST submission to UCOP.
- **Develop a Faculty FTE Planning Dashboard**
 - As an enhancement to the Faculty FTE Planning process, OPA will create an interactive dashboard with relevant data for use by the EVCP, VP-Faculty, and the Budget Committee.

4 - Increase Involvement in Staffing Campus Committees and Initiatives

OPA's depth of experience and breadth of expertise make us a natural fit to provide staff support for various campus-wide committees and projects. Our knowledge of campus and familiarity with applicable data enable us to provide timely and actionable decision support.

Given our deep institutional knowledge and analytical viewpoints, OPA analysts often serve as staff support for committees and projects that have campus-wide impacts. We believe that nurturing and expanding that role could have important benefits for both campus and individual OPA analysts. OPA provides input, data, and analyses in support of various committees and initiatives, including the following:

- The Advising Council, Chancellor's Housing Initiative, and the Discovery Initiative/Digital Learning Strategies initiative (in collaboration with VC-UE analysts)
- Faculty Salary Savings Working Group (in collaboration with FP&A analysts)
- Coordinating the approval process of new academic programs, advising the Vice Provost-Faculty and other senior administrators on policy issues, and liaising with both Berkeley and UCOP stakeholders.

Over the next two years, OPA will also undertake the following new projects and initiatives:

- **Serve on the Campus Climate Survey Working Group**
 - OPA analysts will serve on the working group convened by the Division of Equity & Inclusion in preparation for the administration of the Spring 2019 campus climate survey.
 - OPA will provide expertise and feedback on outreach, messaging, testing, and data storage.
- **Provide Support for VC-EI Demographic Data Collection and Reporting Working Groups**
 - OPA will collaborate with VC-EI working groups and other analysts to provide an institutional research perspective on possible changes to demographic data collected about students, staff, and faculty, as well as the impact of policy decisions on reporting about specific populations. In both campus and UC-wide forums, OPA will recommend ways to standardize the collection, reporting, and integration of demographic data across populations.
 - OPA will provide guidance on creating a framework for easily expanding existing demographic fields and incorporating new fields into data systems and reporting structures, leveraging Tableau to develop prototypes.
- **Provide Support for UC Berkeley's Diversity Initiative**
 - OPA will provide data and analyses in collaboration with VC-EI and Chancellor's Office staff, in support of the campus Diversity Initiative.
- **Identify New Opportunities for Supporting Other Campus Initiatives and Committees**
 - OPA will examine the role it can serve in providing campus leadership with data and analyses in support of other important campus initiatives and committees (e.g., Coordination Board).

5 - Provide Support for Selected Campus Surveys

Following organizational changes in OPA, our level of engagement with some campus surveys changed. We will, however, continue to provide essential services (e.g., project management, survey samples) for selected student surveys.

For the past several years, OPA has been heavily involved in many campus surveys, as analysts have brought projects and expertise with them when they joined the OPA team. As a result of recent organizational changes, some survey support has now moved to other campus units, but OPA will continue to provide the following survey services:

- Creating staggered survey samples from the undergraduate population to support the administration of selected campus surveys and to help reduce survey fatigue and oversampling
- Supporting the system-wide Cost of Attendance Survey by providing the required stratified sample
- Supporting the Campus Climate Survey via the Working Group
- Providing project management for UC Berkeley's Fall 2018 Survey of New Students (SONS)
- Providing project management for the UC Undergraduate Experience Survey (UCUES)

Over the next two years, OPA will also undertake the following new projects and initiatives:

- **Improve the Accessibility of Results (e.g., Dashboards, Briefing Notes) for Surveys Managed by OPA**
 - OPA will investigate the use of interactive dashboards, static data tables, and reports/briefing notes, with the goal of increasing access to campus survey results for surveys that we manage.
- **Assist Campus Leadership with the Evaluation of Survey Administration Tools**
 - OPA will assist campus leadership in identifying potential new survey software platforms that could be leveraged to support the administration of ongoing campus surveys (e.g., Survey of New Students, Campus Climate Survey, and the Golden Bear Orientation Survey).

6 - Provide Accurate and Timely Data for Mandated/Requested Reporting

In our role as UC Berkeley's central institutional research office, OPA responds to myriad requests from both internal and external sources, in addition to providing numerous reports mandated by the UC System, the State of California, and the federal government. In this work, we are dedicated to providing accurate, contextualized data in a timely manner.

All OPA analysts have some ongoing responsibilities regarding the constant stream of mandated reporting and other requests for data. Although we don't anticipate any major new requests over the next couple of years in this area, we will continue to respond to many ongoing requests, such as the following:

- Mandatory external reporting (e.g., IPEDS, TRIO Student Support Services, Title VI Area Studies reporting, the Student Achievement Measure, the American Talent Initiative, Undergraduate Profile, Table 1, Faculty Instructional Activity annual reporting)
- Other external reporting (e.g., ranking surveys and college guides, Common Data Set, AAUDE, MLA, Fall Snapshot of Berkeley Undergraduates)
- Media/Public Affairs requests
- Requests from campus stakeholders

Over the next two years, OPA will also undertake the following new initiatives in this area:

- **Ensure Continued Effectiveness of Reporting Through Cross-Training and Documentation**
 - To support succession planning, OPA will begin cross-training multiple analysts in the processes used to fulfill selected recurring projects and mandated reporting.
 - OPA will leverage CalShare and other tools to thoroughly document the data sources and methodology used to complete key projects and deliverables, such as US News & World Report data components and UCOP's Faculty Instructional Activity report.
- **Refine and Automate Processes Used to Fulfill Recurring Deliverables**
 - OPA analysts will collaborate on automation strategies that facilitate accuracy and efficiency in generating standardized and recurring deliverables.