A big, hairy problem...

Given the size and complexity of the workforce at UC Berkeley, it is important for departments to understand their employee data in order to plan for the future, be it from the perspective of increasing diversity, better succession planning or uncovering trends. While a number of databases and reporting systems exist to run reports for planning purposes, few managers understand how to use them to get relevant and intelligent data. Our goal was to provide data which could be accessed easily and intuitively, and which would be tracked on a half yearly basis (April and October each year).

.. calls for an intuitive, agile solution.

Our solution was to create two innovative new dashboards - **Staff Retirement Metrics** and **At a Glance** - that would pull relevant data and present it in an easy, intuitive format. The idea was to make it so simple that no training would be required to let any level of user access the data.

First, we had to select the right platform to build our dashboards. We chose CalAnswers, an Oracle Business Intelligence Enterprise system which integrates data from different systems and runs queries to generate reports of common interest.

**Second**, we had to identity the specific needs of campus managers and match them to the available data feeds, before deciding the specifics of the dashboards we wanted to create. To do this, we examined the kinds of questions the analytics team had been receiving from..
campus managers and based on that, we identified the metrics that would be most useful for workforce planning. This resulted in the creation of two dashboards - one focused on succession planning (Staff Retirement Metrics) and the other on providing a bird’s eye view of the unit’s demographics data (At a Glance).

Third, we had to ensure both dashboards were easy and intuitive to use, and would provide a positive user experience that would encourage engagement by the largest number of managers across campus. A lot of user feedback was obtained at the start of the process, and at subsequent points, to ensure that the solutions would fit real needs. And yes, it worked beyond our wildest dreams!

**Staff Retirement Metrics dashboard user experience:**

1. The dashboard features an easy to use interface and compelling visualizations
2. 4 organizational filters to help you find the right employee segment
3. Job fields to help you further refine your search
4. And a pipeline view for future scenario planning

**At a Glance dashboard user experience:**

This interactive and intelligent interface also allows the user to choose a snapshot date, and then to drill down into demographic data via a dynamically generated employee type listing.

The resulting colorfully designed chart can be exported via pdf for use in presentations and reports.
Measuring Impact

The ‘Staff Retirement Metrics’ dashboard was launched in June 2015. Within weeks of its launch, the traffic on the dashboard rose to 7000 queries, making it the second most visited dashboard on CalAnswers. The team was invited to present the making of the dashboard on Cal Assessment Network - a body of data geeks. Feedback on the dashboard and insights gained from it have been overwhelmingly positive.

The ‘At a Glance’ dashboard was launched in March 2017, and while the communication around its launch is slowly ramping up, the dashboard has already received over 17k queries, making it one of the most visited dashboards on the CalAnswers platform.

Feedback from our community.

“This tool is a really big step in helping to understand more specifically what kind of changes we will be facing in the next few years. It’s a huge win.”

“It’s very intuitive and the visualization immediately made sense to me when I first saw it.”

“I had a chance this morning to briefly play around with the dashboard and it’s awesome! Thanks so much for developing this easy to use tool, I love it!”

“You have moved the needle on HR’s value to the campus.”

“It will be a huge help to me as I prepare units for future succession scenarios and budget/program planning.”

The Power of Design Thinking and Collaboration.

Clearly, launching business intelligence tools for workforce planning is not a one-person or even a one-unit task. It requires HR, EDW and OBIEE domain knowledge, interface design skills, communications and project management skills.

Both the dashboards were treated as individual projects, and a cross-functional project team was assembled constituting members from IST, HR, Communications and CalAnswers. The teams were led by the Analytics Program Manager, doubling up as project manager.
Staff Retirement Metrics
The goal was to put a powerful tool in the hands of decision makers, which would allow them to a) understand their staff employee composition and b) assess risk of employee attrition through retirement. Firstly, we had to establish the predictors of retirement. Past analysis on staff retirements had yielded age and years of service as the two key determinants, with a combination of 60+ years and 10+ years of service being the tipping point for high retirement likelihood. We decided to create suitable buckets for age and years of service, so we could put every staff employee into their appropriate bucket.

The next step was to visualize a way to present the data in an intuitive and engaging manner. An initial mock up for the dashboard was drawn keeping the two principles in mind. It was unlike any other dashboard that had been done before. Translating it to reality required not only an expert understanding of ETL and expert knowledge of OBIEE, but a close collaboration between all the project members. We started with weekly meetings and moved on to daily standing meetings at the latter part of the project. As a result, the team was able to deliver the project on time and a dashboard that stayed pretty close to the initial mock-up.

At a Glance
The dashboard was conceived based on feedback that it was not easy to get basic demographic metrics on units. The fact is that the data was already available on CalAnswers through our first Workforce Planning offering - ‘HR Census’ launched over 4 years ago. While the tool provides a lot of good data, users need to have a good understanding of how to look for the information. The feedback we received during informal feedback sessions was that users found the navigation on ‘HR Census’ too daunting - with multiple tabs, filters and hidden data variables. Our primary goal with ‘At a Glance’ therefore, was to surface relevant demographic information with the ‘click of a button’. We applied design principles to brainstorm requirements, did an initial mock-up, layered it with feedback from potential users, and worked collaboratively, using Agile to iterate through several versions, until we were satisfied with the final product. We also learnt in the process that building an easy to use dashboard is surprisingly hard! Nevertheless, our belief was all the initial time and resources on building an intuitive tool would not only enhance the user experience, but would ultimately pay off - in that no resources would need to be deployed towards training.

Technology
The chart below provides a bird’s eye view of the technology behind the two dashboards.
Timeframe for deployment.

Both projects were managed like skunkworks, and took about 4 months from concept to release.

Above: The timeline for the Staff Retirement Metrics dashboard.

Future impact.

The principles behind the development of the two dashboards, can be applied to development of more workforce planning tools for UC Berkeley as well as other UC campuses. The sky’s the limit for our Berkeley team effort.