Hello Gina,

We'd like to invite the Academic Senate to participate in the following review under the 200-45 Administrative Computing Policy:

Project: **I&R Faculty Tracking System (FacTrac)**
Author: **Office of Budget and Institutional Analysis**
Details: http://admincomputing.ucdavis.edu/projects/factrac.cfm

Overview:

- The Office of Budget and Institutional Analysis (BIA) is responsible for managing the costs associated with recruitment, hiring and retention of Instruction and Research ladder-rank faculty FTE. This responsibility requires gathering a large amount of data from various sources to process into reports. Currently, these data are stored in campus data systems such as DaFIS, PPS, Open Provision, and numerous locally maintained Excel spreadsheets, and the information compiled from these data is distributed mostly through Excel spreadsheets.

- The project proposed here is designed to replace local Excel spreadsheets with a relational database, streamline the processes by which data are collected, and develop an online user interface for data entry and report delivery. The application will benefit the campus by streamlining business processes, reducing staff time in data entry and communications, providing more accurate and timely information to assist budgetary decisions on I&R FTE and related funds, among others.

Status:

- We are just now initiating the conceptual 200-45 review process for this project, and we are seeking a brief statement summarizing the Academic Senate's feedback/position. You can send any Senate feedback directly to me, in whatever electronic format (Word, PDF, etc.) is most convenient for you.

- As with other projects, 200-45 provides a venue for ongoing review and discussion. In addition to a formal Academic Senate response, direct comments from Senate members are always welcome. (As previously discussed, we are careful to distinguish between individual comments and the official positions of campus organizations.)

Best Regards,

Jeff

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If members wish to comment directly, we have established a SmartSite for 200-45 project reviews. For those who have not yet joined, directions for signing up and participating are as follows:

To access the 200-45 Review SmartSite

1. Go to SmartSite (http://smartsite.ucdavis.edu) and select the **Log In** button in the top right corner.
2. Enter your UC Davis LoginID and password.
3. The first time you access the site, you will need to join the 200-45 Review site so you can participate in the discussion forum.

   - To join, click **Membership** under the My Workspace tab in the top left corner.
   - Select **Joinable Sites** at the top of the Membership window.
   - Select **Join** under the **200-45 Review** entry. (The site list is alphabetical, so it should be near the top.)
   - You now should see a **200-45 Review** tab to the right of the My Workspace gold tab (or in the More pull-down menu in the upper right corner).

4. Click on the **200-45 Review** tab to enter the site.

To provide feedback or ask questions regarding a project under review

1. Within the 200-45 SmartSite, choose **Project Forums**.
2. **Select the specific project** (called a Topic in SmartSite) that you would like to discuss.
3. Within a Topic, you can choose **Post New Thread** to add new comments or questions.
4. To contribute to an existing discussion or respond to a question, select the item of interest and choose **Reply**.

You can also pose questions directly to the project contacts; they are listed on the project page referenced above.

(For examples of previously submitted projects and feedback, please see http://admincomputing.ucdavis.edu/projects/.)

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I&R Faculty Tracking System (FacTrac)

Policy 200-45 Standard Review

Prepared by: Yuhang Shi

12/2/2010

Overview

The Office of Budget and Institutional Analysis (BIA) is responsible for managing the costs associated with recruitment, hiring and retention of Instruction and Research ladder-rank faculty FTE (hereafter, I&R FTE). This responsibility requires gathering a large amount of data from various sources to process into reports. Currently, these data are stored in campus data systems such as DaFIS, PPS, Open Provision, and numerous locally maintained Excel spreadsheets, and the information compiled from these data is distributed mostly through Excel spreadsheets.

The project proposed here is designed to replace local Excel spreadsheets with a relational database, streamline the processes by which data are collected, and develop an online user interface for data entry and report delivery. The application will benefit the campus by streamlining business processes, reducing staff time in data entry and communications, providing more accurate and timely information to assist budgetary decisions on I&R FTE and related funds, among others. Contact Yuhang at 752-8261 or yuhshi@ucdavis.edu for more information.

Business Need

The total number of instruction and research ladder-rank faculty full time equivalent (I&R FTE) we have is a finite resource. These FTE are utilized for faculty appointments. The Provost has allocated the majority of I&R FTE to Dean's but also holds some in the campus provision reserve. Each Dean uses most of their allocated I&R FTE for filled positions but also hold some vacant FTE in a provision reserve.

BIA, together with the Office of Academic Personnel (AP), manages I&R FTE because these FTE, along with their budgeted salaries, are subject to budget control. Normally faculty appointments with such FTE have a consolidation object code of SB01, paid out of an account with a GENFND fund code. The Provost also provides additional funds for the hiring and retention of I&R ladder-rank faculty, and these funds, known as startup fund and upgrade fund, both part of the general fund (19900), are also subject to BIA budget control.

To manage I&R FTE and related funds, BIA does the following:

- Monitor faculty recruitment requests and activities and document new hires and startup costs including costs incurred for salary upgrade and research support and/or space renovation.
- Document faculty retention and related costs incurred for salary upgrades and research support and/or space renovation.
- Monitor current and project future faculty separations due to retirement, resignation, and death.
- Keep track of increases, decreases and movements of I&R FTE as a result of new allocation, new commitment, new loan, separation, loan repayment, returns for other reasons, and so on.
- Initiate or approve DaFIS transactions involving I&R FTE, startup fund, and upgrade fund.

BIA manages a significant amount of data in Excel spreadsheets with respect to the following activities:

- Requests for recruitment submitted by Dean's.
- Approval by the Provost for such requests.
- Updates on hires of new faculty and startup costs, submitted by Dean's.
- Updates on retention of faculty and related costs, submitted by Dean's.
- Faculty separation due to retirement, resignation or death.
- Change and movement of I&R FTE due to a variety of reasons.

These data are gathered from Deans' offices, Academic Personnel, PPS, DaFIS, and other sources; some of the data are reconciled with Staffing List and PPS reports. The data are transmitted to BIA via Excel spreadsheets, memos, emails, data reports, and other means.

BIA currently gathers most of the data on an ongoing basis and a small portion periodically. For this reason, BIA is continuously updating multiple detailed spreadsheets.

BIA produces various periodic and ad hoc reports for decision makers. These include but are not limited to:

- FTE balance
- Recruitment log
- Startup costs
- Successful retention
- Separation
- Future retirement

BIA posts some of the periodic reports at MyUCDavis for use by approved staff including Assistant Deans.

Stakeholder Value and Business Impact

- Streamline business process with respect to data gathering and reports in faculty recruitment, faculty retention, and FTE management
- Save staff time in data entry and reporting
- Deliver more accurate and consistent information in a timely fashion

Architecture, Infrastructure and Security

The purpose of this project is to create an online application so that some of the work described above can be mechanized and, to the extent possible, automated. Briefly, the I&R FacTrac application will have the following modules with certain features:

1. Data Entry Module

This module consists of two processes. One is an automatic process that extracts data from campus systems such as DaFIS, PPS, and Open Provisions. The data extracted from these sources are:

- FTE allocated to Deans, filled by Deans for appointment
- Provision FTE kept in the Provost or a Dean's reserve
- Faculty separation due to retirement, resignation and death
- Others

The second process consists of a number of Web forms designed for use by Deans' offices, BIA and Office of Academic Personnel (AP). Each of these forms is directed at a specific activity involved in the management of I&R FTE and related funds, such as:

- Faculty Recruitment Request
- Provost Authorization for Recruitment
- Recruitment Status Update
- Hiring Level Upgrade
- Planned FTE Changes
- New Initiative
- Faculty Retention

Through this project, BIA and AP will combine their respective processes in collecting recruitment status and retention data from Deans' offices.

2. Data Reporting Module

I&R FacTrac will provide a number of standard data reports to assist in managing I&R FTE. These include:

- I&R Ladder-Rank Faculty FTE Report (distribution, provision, vacancy, and balance)
- Planned FTE Changes (future commitment, loan repayment, etc.)
- Faculty Recruitment Activities (requests, authorization, hiring, etc.)
- Startup Cost
- Faculty Separation
- Faculty Retention

All these reports will be organized on an annual basis at the Campus and Dean's levels, while allowing for a drill-down to detailed records.

Wherever possible, historical data will go back to fiscal year 1999-2000, though the latest organizational structure will be used in data aggregation.

The user will be able to choose year or unit for a report.

The user will be able to download a report into Excel spreadsheet for further analysis.

Ad hoc data reports can be generated upon request.

3. User Management Module

The end-users of this application are staff and administrators responsible for faculty FTE management in BIA, AP, and Deans' offices. Only authorized user will have access to the application. Users from a dean's office will submit a request for access endorsed by an assistant dean responsible for budget and faculty FTE management.

It is hoped that this application will eventually be able to utilize the campus' id and access management system.

Before that system becomes available, this application will provide functionalities for BIA analysts to add a new end-user, remove an end-user, and set and change an end-user's access privilege, and so on.

A user's access privilege will vary depending on business needs. Super user is for programmers, BIA user for BIA analysts with responsibility to manage I&R FTE, campus user for authorized campus users who can enter and change data, and limited campus user for other authorized users who can view the reports but not change data. Campus user groups will be able to access the data and reports associated with their units.

All users will use Kerberos id to log into the application and their identity and access level will be verified by the user management module.

4. Administration Module

This module provides functionalities for programmers to load data from the campus data systems such as DaFIS and PPS and manage other aspects of the application. It also contains links to technical documentation of the application.

5. Documentation

The I&R FacTrac project will provide online documents for end-users in the form of User Guide's and FAQ's.

6. Additional Security Checklist

The database will contain employee id and date of birth. The date of birth field will be encrypted. The risk is acceptable to the management.

Before production migration, the application will be scanned for security vulnerabilities using Watchfire, and will require no Cyber-safety policy exceptions.

The application will be hosted on ARM's database and Web servers and will not involve any external vendors.

The application's backup and recovery will be consistent with the protocol adopted by the Data Center

Integration with Other Systems

Refer to item 1 in the previous section.

Accessibility

To be determined after the user requirements are gathered.

Scalability

Not applicable.

Timeline

The project will have the following deliverables:

- An online I&R faculty tracking system equipped with capabilities outlined above and deployed in production, development and testing environments.
- An online User's Guide.
- A series of User demonstrations prior to the launch of the application.
- A complete set of technical documents.
- A plan for administration and on-going application maintenance.

The project will be initiated after the proposal is reviewed through the 200-45 process and approved by the executive sponsor. Feedback from the 200-45 review will be incorporated into the project wherever appropriate. The project will go through the following phases, with an implementation timeframe before fiscal year 2011-12.

Winter quarter, 2010:
- Develop a project plan
- Gather user requirements
- Design the application
- Build a prototype of the application
- Review the prototype with the representatives of end-users
- Refine the prototype with the user input
- Evaluate the data model

Spring quarter, 2011:
- Develop the application
- Review the codes
- Test the application by the representatives of end-users
- Test the application's compliance with Cyber Safety standards
- Deploy the application
- Conduct training for all the application's end-users

Post-deployment enhancements will be conducted as issues are reported by end-users. User support will be provided by BIA analysts and programmers.

Budget

One and half programmer FTE has been budgeted for this project. BIA analysts will serve as business analysts for this project. No additional FTE is required at this point.

All the hardware and software needed for this project are to be provided by ARM's IT team.

Risks / Mitigations

The biggest risk is missing the project's deadline. Additional programming resources may be needed.

Governance and Communication

The executive sponsor of this project is Associate Vice Chancellor Kelly Ratliff of BIA. The project manager is Yuhang Shi of BIA. The project team will consist of analysts and programmers from BIA and other offices and representatives of other end-users.