OE RESOURCE REQUEST APPLICATION

University of California, Berkeley

I. SPONSORSHIP

A. Initiative

Initiative	Student Services		
Initiative Manager	Anne de Luca		
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B. Sponsorship

Sponsor Name	Harry Le Grande		
Sponsor Signature		Date	
Sponsor Name	Cathy Koshland		
Sponsor Signature		Date	
OE Program Office Signature		Date	

C. Give the title of the resource

Technology and Tools to Support Excellence in Advising (Creation of an Advising Tool Kit)

II. PROBLEM STATEMENT/CASE FOR CHANGE

A. Identify and describe what needs the proposed solution is seeking to address.

Advisors must limit their time with students in order to complete communication and administrative tasks that could be streamlined if the necessary technological tools were available. In particular, Berkeley has three glaring gaps in advising technology:

1. Unshared Advising Records

a. Students lack consistent information and coordination of advice and service from advisors in schools, colleges, academic departments, co-curricular advising units and administrative offices.

b. Advisors lack a single, integrated interface through which to view and share information critical to consistent, effective advising.

c. Records of advising meetings are either non-existent or kept exclusively at the unit level and therefore not accessible to other advisors, making follow up on advising sessions and coordination across campus problematic. Students fall through the cracks as reported concerns are not tracked. Staff do not build trust among each other nor shared authority for student issues.

2. Paper-based Document and Petition Submittal and Processing

a. Cycle time for manual petition processing can take weeks as forms are walked or mailed between offices and data is entered manually in various places. Such delays cause students to miss deadlines and suffer consequences including registration blocks, inability to get into needed classes, and failing courses that were not dropped in time.
b. Approval of class schedules each semester must be done in person or via back-and-forth emailing, causing long waits in line and delays.
c. Time spent on manual petition processing limits advisors' time for substantive interactions with students, which can lead to costly mistakes such as lack of crisis intervention and delayed graduation.
d. Staff and faculty signatures on paper forms are difficult to verify, especially on forms that move across campus units.
e. Paper records are difficult to share broadly with advising colleagues who fall within the Family Educational Rights and Privacy Act's (FERPA) "educational need to know".
f. Paper documents are easily damaged, lost or mis-filed, hard to revise, require secure storage, require disposal and in some cases require costly shredding.
g. Paper documents are costly for both the amount of paper used and the environmental impact.

3. Inconsistent/Nonexistent Appointment Scheduling Methods and Tracking

a. Students must phone or visit advising offices during limited open hours to request, verify, and cancel appointments. If all appointments are booked, students must try again later. Some students try to schedule appointments using email, which requires at least two transactions, and often many more, as emails are sent back-and-forth between students and advisors.
b. Once scheduled, advising appointments are not posted to students' calendars.
c. Staff must go through a time-consuming, inefficient process to schedule appointments with students. Steps include coordinating advisor availability, accommodating student scheduling preferences, and fulfilling requests to confirm, cancel and reschedule appointments.
d. Advising offices that do not offer appointments force students to spend hours during peak periods waiting for drop-in (first come, first served) advising. Some students fail to seek out help from advisors due to the long wait.
e. Advisors do not have an easy or reliable way to track appointment data, such as number of visits, duration, and topics discussed. This makes follow-up contacts (e.g., for surveying satisfaction) difficult and collection of accurate statistical data cumbersome.

B. Describe the solution that is being proposed to meet the identified need(s).

Advisors and students require a web-based, unified, single sign-on advising system to view critical advising-related information and to access tools that enable productive advising interactions. Information provided in the advising technology tool kit will include advising-related records such as degree audits, transcripts, academic profiles, registration blocks and class schedules; petition-related work flows such as submission and status checks on major declaration, change of college and incomplete grade requests (see Penn State's system for a model); and appointment-related information such as online appointment scheduling and access to advisor notes and campus-wide advising histories. In the Student Services Initiative survey, students ranked these services in the top three in terms of importance. The Student Portal / Academic Commons (see Academic Commons Resource Request Application for details) will be used as the point of entry to this shared interface, and access will be provided based on advisor roles. The tool proposed in the Academic Planning and Registration Resource Request Application will be used to integrate web services and interactions between students' schedule planners and advisor dashboards. All information will be available for reporting needs through the Student Data Warehouse, including such information as demographics and processing times.

This solution aims to expand and centralize the best advising technology already available in various units on campus, e.g., the College of Letters and Science's eTriever shared notes system (see Appendix 1 for screenshots) and ISYS advising technology system (Appendix 2). Existing systems offer an excellent source of business requirements and may be scalable to the entire campus. Our design phase will include both functional and technical fit-gap analyses of major existing advising tools.

ADVISING TOOL 1: ACADEMIC RECORDS SHARING

Advisors and advising support staff need an integrated interface through which to view and share critical advisee information and access tools that enable better and more consistent interaction with students. The best solution leverages existing campus systems such as the student portal, data warehouse , eTriever, and ISYS to provide:

1. Appointment details and associated advising notes to document contact and advice history for reference at subsequent sessions and by other advisors and departments, as well as by the students themselves.
2. Demographic profiles accessible by both students and advisors. In addition to the basic Student Profile data from the official record, this will also include student photos, issues such as disabilities, and self-identified elements shared by students that help advisors better understand the holistic goals and experiential approach of each student.
3. Online student academic records, including: enrollment records, official transcripts, degree audits, transfer credit and articulation, student learning plans, and a reporting tool offering a variety of standard reports as well as an ad hoc report builder to facilitate analysis of advising activities based on a number of variables, such as student characteristics, reasons for contact, comparison of advisors across units or within a unit, and demand for advising per unit during different periods of time.
4. Pertinent student financial information that informs issues such as access and helps advisors advise students about the basics of the charges that show up on their student bills and understand the different kinds of university support students receive such as Graduate Student Instructor (GSI) and Researcher (GSR) appointments, fellowships, and workstudy.
5. Instant messaging capability so that advisors can see when other advisors are online and send them a question.
6. A Family Educational Rights and Privacy Act (FERPA) decision tree that students can use to decide who has viewing rights to different aspects of their records (parents, coaches, tutors, co-curricular advisors, friends, etc.)

Development of this Advising Tool Kit must pay careful attention to the goal of creating a paperless environment by incorporating online advising notes, referrals, document processing/workflow (details in Advising Tool 2 below) and appointment scheduling (details in Advising Tool 3 below). A paperless environment won't happen overnight -- there will be a transition period where new students will take advantage of online-only advising tools while continuing students will stay with their current systems until they graduate or until their advisors move their information online (the data conversion cost is not included in this application). A high degree of flexibility is also crucial. For example, advisors will not only be able to view student online files, but also be able to add information/documents and dynamically generate and request documents such as enrollment verifications, family visit visa letters, qualifying exam reports, filing fee verifications, certificates of completion, etc. Students will be automatically notified when an update is made to their record and department advisors will be auto-notified of certain events (petition decisions, etc.). By instituting the principle "once and done", supported by web services and well-designed user interfaces, the effort to input data will be expended **one time only** after which the data, understood as a campus community asset, will be conveniently available for use by anyone on campus with a legitimate need for access. This tool also should look to the tech future with possible integration with mobile applications and elements of web 2.0 and beyond.

Comprehensive Solution:

Develop a genuine academic commons by leveraging the ongoing work on a student portal to provide advisors with a corresponding integrated interface through which to access the tools described above. Development of this solution will:

1. Take advantage of the portal to provide access and act as a user interface integration layer.
2. Integrate appropriate functionality from systems to which the University is committed such as ProSAMs financial aid system, DARS degree audit system, SAKAI learning management system, Student Data Warehouse, and some of the Graduate Division's systems.
3. Integrate appropriate functionality from aging applications that must be rebuilt or replaced such as BearFacts (the current student "pseudo-portal"), TeleBears (the class registration system), eGrades (the online grade submission system), and the Online Schedule of Classes.

4. Provide and integrate the tools to document and share student contact and advice history, preferably by enhancing and scaling out existing systems such as eTriever and ISYS. For example, an appointment made through the proposed online appointment system (e.g., ISYS) will automatically generate a new entry in the advisor notes system.

ADVISING TOOL 2: ONLINE DOCUMENT AND PETITION SUBMITTAL AND PROCESSING

Advisors and students need to be able to fill out, submit and authorize documents and petitions online 24/7. There are hundreds of forms in use on campus, some accessible through websites and others used internally within one advising unit. Examples of common forms that need to be moved online include:

1. The Office of the Registrar: http://registrar.berkeley.edu/current_students/elecforms.html
2. Graduate Division: http://www.grad.berkeley.edu/policies/forms.shtml
3. The College of Letters and Science Office of Undergraduate Advising: http://ls-advise.berkeley.edu/fp/fp.html

Comprehensive Solution:

Replace all paper forms with web-based, electronic versions. Create "smart" forms to save time by not re-entering the same data on multiple forms. Install an electronic forms design tool and a workflow engine - these two tools are sometimes bundled together or as part of a customer relationship management suite. While there is a wide range of workflows present on campus, most have four basic steps: origination, review and initial approval, final approval, and recording in the system of record.
The forms design and workflow tools will:

1. Be simple enough for every user (students, faculty, and advisors) to be able to manage their step in the workflow (typical workflows have 3-4 steps).
2. Be simple enough for analysts, not technical staff, in the schools, colleges and departments to design new forms.
3. Decrease the amount of time it takes for a form to be processed from weeks to, in some cases, seconds.
4. Include parallel "courtesy copies" for parties who need to be informed of the transaction but don't have approval responsibility.

There is a wide range of tools currently in use on campus and at other universities, some of which are open source. Rather than specify the tools to be used in this business case, our work plan includes a tool selection stage early in the project. Tool selection depends on the number and range of forms to be automated -- the more forms to be automated, the easier the tool must be to use by non-technical people.

ADVISING TOOL 3 : ONLINE APPOINTMENT SCHEDULING

Advisors and students need the ability to fill, reschedule, cancel and view histories of advising appointments online 24/7. The proposed appointment system and the student notes system will be tightly integrated with a common look and feel. The tool will be designed so that integration with the student portal is possible , thereby creating one location where students make and view appointments with all campus advising offices. Working applications exist on campus with most the functionality described below that can be used as models, thus minimizing the need for requirements gathering and process analysis.

Comprehensive Solution:

Implement an online appointment system that includes:

1. Ability for students to schedule, reschedule and cancel appointments with advisors.
2. Automatic student calendar populating.
3. Automatic entry in the shared advising notes system when an appointment is scheduled.
4. Confirmation reminders via email or text message (SMS) at time appointment is scheduled.
5. Appointment reminders day before confirming time and location.
6. Ability for staff to check-in students.
7. Kiosks for students to schedule appointments and check themselves in.
8. Time limit on check-in (i.e., students can't check in for appointments more than 5 minutes past appointment start time).

9. Advisor alerts via email or pop-up message that student has checked in.
10. Two way sync with staff calendar (currently CalAgenda) such that the tool can read advisor's calendar and write in appointment data.
11. Ability to limit appointment data that populates calendar to free/busy, or to student's name (not details of every appt or any confidential data about student).
12. Ability for staff to block unavailable times or reserve times for drop-in advising.
13. Option to make reasons for time blocks viewable or not viewable.
14. List of reason(s) for the appointment from which students select at least one .
15. Option for students to leave information in a content box about their situation and reasons for the appointment.
16. Ability to set limits on appointment length with ability for advisors to increase length if necessary (e.g., default appointment length is 15 minutes but advisor, upon seeing reason for appointment, increases the time slot to 30 minutes).
17. Ability to limit how far in advance students can schedule appointments.
18. Ability to limit how close to an open appointment a student can schedule (ie, 5 minutes in advance, 45 minutes, one day).
19. Business logic design which applies parameters for appointment eligibility (e.g., College and/or major codes, registered students, new students).
20. Ability to re-fill appointments cancelled the same day.
21. Business logic that applies rules for who can be seen (for example, who can see a Dean).
22. Administrative rights for advisors to schedule appointments for students who do not meet automated criteria or to grant access to ineligible students.
23. Administrative interface that allows staff to assign students to particular advisors.
24. Website interface for advisors to manage appointments including views of upcoming appointments and student information ncluding reasons for appointment.
25. Functionality for surveying student with short questions about advising experiences.
26. Reporting features, such as:
    a. Summary reports that include, among other data, number of students seen, reasons for visits and length of visits.
    b. Student email lists for upcoming appointments, searchable by date range, so that students can be notified of an advisor's absence.

Note: Aspects of the Advising Tool Kit, in particular, a shared notes system, may overlap with the Customer Relationship Management (CRM) proposal being submitted as part of the Student Services Initiative.

Please see Appendix 3 for details about partial solutions that provide less functionality at a lower cost.

C. Describe the alternate approaches you evaluated in the process of developing this proposal and why those alternatives were not selected.

Add functionality to existing systems (low cost, some new functionality): Modify existing campus-wide system(s) that do not include advising tools —e.g., the Office of the Registrar's Student Database in DB2, BearFacts, Grad Link on the Web (GLOW)—to allow advisors to enter notes about advising meetings and referrals. This could be information that students and other advisors could view when they log into one of our existing systems. Although better than nothing, this solution would probably not come close to providing the functionality truly needed to modernize our procedures and move us toward a paperless environment. It would not provide any progress toward an online academic commons for the campus, and wouldn't be amenable to incorporating other online functionalities that are desired from the OE Student Services Initiative totally within existing systems. Also, we expect BearFacts to be retired in the near term as the portal comes online, and GLOW does not address undergraduate advising needs.

Use a hybrid electronic/paper process (low cost, improved functionality for some): Some departments on campus have adopted a hybrid electronic/paper process, where students have the option to complete a PDF and email it to the advisor. The proposed academic planning and registration tool also allows students and advisors to email class schedule drafts back and forth. Such processes do not achieve the cycle-time reductions that could be achieved by fuller automation, and in fact such processes at other institutions (such as Cornell) are being discontinued. In addition, advisors using such a process continue to spend too much of their time on essentially clerical tasks, such as printing forms for signature approvals, scanning and uploading forms to student records, and shredding forms. None of this is environmentally friendly.

III. IMPACT AND STRATEGIC ALIGNMENT

A. Describe how the proposed solution aligns with the OE goals:

- Reduce administrative costs and enable the campus to direct more resources to teaching and research
- Advance an effective and efficient operating environment
- Instill a culture of continuous improvement that leads to high quality performance and outcomes

Cost Reduction:

- Reduce sadvisor time spent on administrative tasks (logging into multiple places to gather information, entering data manually, scheduling appointments by phone, playing email tag) and increase time spent on substantive advising interactions, allowing for early crisis intervention and enabling students to make the most of their time at Berkeley.
- Reduces IT labor over time by having one system to maintain/develop rather than multiple systems across campus.
- Reduces costs associated with copying, mailing, faxing, scanning and shredding paper.
- Reduces the amount of space needed to access current paper files and archive old paper files.

Efficiency/Effectiveness:

- Streamlines and document scommunications between advisors from different advising units and between advisors and students.
- Provides a single location for pertinent and accurate information, such as notes from other advisors, which will reduce instances of students obtaining conflicting instructions or advice from different offices or advisors, thereby alleviating confusion and stress for students while simultaneously freeing staff FTE for more critical functions.
- Significantly reduces petition processing time from weeks to, in some cases, seconds thereby reducing the negative consequences of petitions not being processed on time. Advisors will be able to push a certain percentage of petitions to the front of the queue for expedited processing.

- Enable advisors to view, comment, collaborate and iterate on students' class schedules online instead of in person or in back-and-forth email exchanges.
- Eliminates lost paperwork, the need for hand-written signatures, and secure paper file storage problems.
- Eliminates the problem of paperwork that is stored within a unit and therefore inaccessible to colleagues.
- Provides immediate print access to key documents such as those available on GLOW, including qualifying exam application approvals and advancement to candidacy certificates.
- Allows students to submit petitions and schedule appointments 24/7, eliminating unnecessary office visits and phone calls.
- One location (portal) provides vehicle for all appointment scheduling activities.
- Increases number of appointments filled and decreases appointment no-shows due to automatic reminders and posting of appointments to students' calendars.
- Reduces student wait time in lines for drop-in advising.
- Allows advisors to prepare in advance for scheduled appointments, thereby accomplishing more during the appointment.
- Allows advisors to maintain only one calendar.

Continuous Improvement:

- Allows renewed focus on one-on-one advising which will encourage advisors to focus on improving their advising skills.
- Allows academic and co-curricular departments to gather more online data, resulting in more options for evaluation and analysis necessary to improve services.
- Gives advisors more time to commit to the mission critical activity of advising, resulting in higher quality performance and student learning outcomes; advisors will be able to assist students in getting the most out of their degrees and embrace the richness that is Berkeley.
- Requests to enhance system functionality help guide continuous improvement; students and others can be encouraged or paid to develop additional apps/add-ins/extensions to add functionality to the tool kit.
- Greater efficiency allows advising staff more time to think about ways to improve advising.

Please see Appendix 4 for details about the impact and strategic alignment of a partial solution.

B. Identify any other anticipated benefits in implementing the proposed solution.

- Provides an expected service for computer-literate students.
- Provides a seamless advising experience for students who expect excellent service for their tuition dollars.
- Promotes greater collaboration and cooperation between advising units.
- Allows advisors to increase time spent attending to faculty, thereby supporting the university's mission of teaching and research.
- Facilitates future expansion to online faculty office hours scheduling.
- Facilitates future expansion to online tutoring appointment scheduling.
- Facilitates future expansion to online conference room scheduling.
- Facilitates future expansion of online forms/petitions processing to non-advising units, such as Financial Aid, Housing and Billing Services.
- Facilitates future expansion of appointment scheduling kiosks to include event advertising.
- Facilitates future expansion of the Tool Kit to the entire UC system.
- Focuses required job skills on advising and counseling instead of knowledge of student systems.
- Promotes career development by lessening the learning curve for advisors who move to other departments on campus that share the same online advising system.
- Encourages the hiring of qualified external candidates who are now passed over due to the amount of time needed to learn current technology.

- Increases job satisfaction and morale for advisors due to less time being spent on routine administrative tasks.
- Lowerw the barriers to access for interested and authorized parties to build on the tools to meet evolving needs as they arise.
- Increases control over access and security of student records and electronic signatures, providing higher assurance of authenticity.
- Increases student satisfaction and resulting alumni donations because, as a recent survey* said, "The single biggest determinant of the generosity of alumni donations is satisfaction with one's undergraduate experience."

** "Patterns of Giving to One's Alma Mater Among Young Graduates From Selective Institutions" (2003)*

C. Identify the risks of not implementing the solution.

Entire Advising Tool Kit

- The world is quickly moving forward with online files and systems. The risk of not implementing a modern system will mean that UC Berkeley, the world's premier public institution, will continue to have an increasingly ancient system that requires substantial FTE for maintenance and is not transparent from office to office. Reputation and ranking as a top public institution will suffer.
- As other units on campus move to electronic solutions, student services will lag and negatively impact other areas.
- Inequities between departments will remain; departments with resources will continue to build and support in-house technology solutions while those with fewer resources will continue to rely on paper versions of student files and petitions.
- Departments will continue to spend substantial funds and resources on the development and maintenance of unique shadow systems in attempts to fill voids created by lack of advising technology. The collective resources currently being directed towards these efforts will not be combined and leveraged into new tools that assist the whole campus, and in particular, small departments with fewer resources.
- Students will feel they are not getting value for their tuition dollars due to the difficulty of navigating the Berkeley systems and take their money to other institutions with better service.
- Students will complain that advising experiences are below their expectations, dissuading future students from applying and costing the university alumni donations.
- Students negatively impacted by poor advising services will experience course enrollment issues and delayed graduation.

Unshared Advising Records

- With no option for a good online file system, advisors will continue to print out what is available online and place it in a student's file in order to ensure that the pieces of a student's record exist together in one place.
- Advisors will not be able to identify students in crisis because they cannot read notes written by previous advisors and do not have time to communicate with other advisors by phone or email to obtain needed information.
- Advisors will not be able to provide holistic advice to students because they are unaware of the students' other advising contacts, such as advisors in the Disabled Students Program, Athletic Study Center, and Financial Aid Office.
- Advisors and students will waste time trying to locate advising information and following up on issues.
- Advisors will continue to need an extensive amount of time to learn departmental or college shadow systems as they move from job to job on campus.
- Students will not receive a seamless advising experience. They will not understand the authority of different types of advisors, or the fact that advisors do not share information. They will realize (sometimes, too late) that although they've been meeting weekly with one advisor, this may not satisfy the requirements of another advisor (for example, a dismissed student applying for readmission met with his advisor in the Transfer Student Reentry Center weekly for several months, but the student's college did not have this information and thus denied readmission).
- Students will keep visiting offices in person or emailing/calling to get work done.
- Student and staff dissatisfaction will increase.

Paper-based Document and Petition Submittal and Processing

- Student requests will be delayed, resulting in missed deadlines, increased requests for exceptions, registration blocks and other problems.
- Documents will be received in numerous formats, including email attachments, faxes, imaged documents, paper forms, letters and handwritten notes from students, faculty and staff.

Inconsistent/Nonexistent Appointment Scheduling Methods and Tracking

- Students, encumbered by classes, work, research, and other obligations, will spend hours waiting in line to see an advisor to schedule an appointment or for first come, first served advising.
- Students will miss appointments since they will not receive reminders, resulting in lost time and productivity for students and advisors alike.
- The advising timeline will slow down because students and advisors cannot view appointment histories containing information about dates of previous advising appointments and names of advisors seen.

D. Describe the constituency that is intended to benefit from the proposed solution (e.g. students, faculty, staff, 1-many units)

- Undergraduate students.
- Graduate students.
- Professional school students.
- College advising staff.
- Departmental advising staff.
- Student Services advising staff (e.g., advisors in Student Life Advising Services/EOP, Disabled Students Program, Career Center, Berkeley Programs for Study Abroad, Berkeley International Office, Academic Achievement Program, Athletic Study Center, Center for Educational Partnerships, Multicultural Student Development, New Student Services, Summer Sessions, UC Extension Fall Program for Freshmen, SAGE Scholars, Professional Development Program, Transfer, Re-entry and Student Parent Center, Graduate Diversity Program, Office of Student Development, University Health Services, Scholarship Connection, UCDC, Undergraduate Research Apprenticeship Program, Residency Office, Veterans Services, Cal Corps, Greek Life, Student Conduct, Student Leadership, Student Legal Services, Student Omsbud, Gender Equity Resource Center, Incentive Awards Program, Biology Scholars Program, Fellowships, GSI Teaching and Resource Center, etc.).
- Faculty Advisors.
- Peer advisors.
- Student Services offices (Registrar, Undergraduate Admissions, Graduate Division, Billing and Payment Services).
- Advising deans.
- IST.

E. Describe the extent to which this proposed solution is a collaborative effort either within campus or with external partners.

In order to achieve the desired results, this will need to be a collaborative effort between IST, Student Affairs, Educational Technology Services (ETS), Graduate Division, all schools, colleges, academic departments, student service units, graduate advisors, undergraduate advisors, co-curricular advisors, groups like the Advising Network Council and functional owners of student systems on campus. We will also want to consult with UCB faculty in relevant fields (computer science, education, iSchool, etc.) who may be able to provide cutting-edge ideas and help conceive what is possible.

F. If applicable, describe how the proposed solution may enable additional projects to be considered.

- This solution will contribute significantly toward the development of a genuine academic commons (i.e., portal) through which not only students, but staff and faculty, may engage with each other and campus systems.
- The petition processing tool can be used by other units, such as Human Resources, Housing, and the University Health Service, for their own paper-based processes. Forms often fill the void where no software application exists.
- Electronic forms are low-cost data capture methods that could address the need for better data reporting.

- This solution could be an impetus for the replacement of aging applications such as BearFacts.
- This solution could be an impetus for providing a calendaring system for students.

G. What is the impact of the proposed solution on the existing systems and processes? Does it eliminate the need for existing systems and processes?

An Advising Tool Kit:

- brings existing systems into greater collaboration (such as DARS, BearFacts, TeleBears and academic planning tools).
- eliminates the need for existing, redundant systems by choosing one current solution to enhance and scale out to the entire campus.
- speeds up processes.
- eliminates manual data entry.
- makes substantial progress towards a paperless environment by eliminating the need for paper filing systems.
- eliminates some front desk and phone advising needs.

H. What is the impact on the proposed solution on the workload?

Profile/Impact in hours	Current Workload	1-time workload requirement	Ongoing workload requirement
Students: 36,000			
A. Shared Advising Records	A. 420,000-840,000 hrs/yr (1-2 hrs/mo)	A. None	A. 210,000-420,000 hrs/yr (.5-1 hr/mo)
B. Online Petition Processing	B. 216,000-432,000 hrs/yr (.5=1 hr/mo)	B. None	B. 35,000-70,000 hrs/yr (5-10 min/mo)
C. Online Appt. Scheduling	C. 36,000-72,000 hrs/yr (5-10 min/mo)	C. None	C. None
TOTALS:	**= 672,000-1,344,000 hrs/yr**	**= 0 hrs/yr**	**= 245,000-490,000 hrs/yr**
Staff: 400 Advising FTE, 500 Advisors (some are part-time)			
A. Shared Advising Records	A. 104,000-208,000 hrs/year (5-10 hrs/week)	A. 800 hrs for training + significant time converting paper files to online	A. 20,800-104,000 hrs/yr (1-5 hrs/week)
B. Online Petition Processing	B. 80,000-120,000 hrs/yr (4-6 hrs/week)	B. 500 hrs for training	B. 40,000-80,000 hrs/yr (2-4 hrs/week)
C. Online Appt. Scheduling	C. 13,000-26,000 hrs/yr (1-2 hrs/week for the 250 advisors who offer scheduled appts.)	C. 250 hrs for training + 4 hours per dept. for initial set-up	C. None for scheduling; variable for reports and maintenance depending on unit
TOTALS:	**= 197,000-354,000 hrs/yr (midpoint = 275,500)**	**= 1550 hrs**	**= 60,800-184,000 hrs/yr (midpoint = 122,400; equivalent to 59 FTE - *not whole jobs*)**
Faculty: 315 Advisors			
A. Shared Advising Records	A. 3780-7560 hrs/yr (1-2 hrs/mo)	A. 630 hrs for training (roll out to faculty will begin after roll-out to students and staff)	A. 1890-3780 hrs/yr (.5-1 hr/mo)
B. Online Petition Processing	B. 945-1890 hrs/yr		B. 315-630 hrs/yr

C. Online Appt. Scheduling **TOTALS:**	(15-30 min/mo) C. None **= 4725-9450 hrs/yr**	B. 315 hrs for training C. None **= 945 hrs**	(5-10 min/mo) C. None **= 2205-4410 hrs/yr** **(midpoint = 3308; equivalent to 1.6 FTE- *not whole jobs*)**
Technical Staff: A. Shared Advising Records B. Online Petition Processing C. Online Appt. Scheduling **TOTALS:**	(Campus staff) A. 4160-8320 hrs/yr (eight .25- .50 FTE supporting shadow systems) B. None C. 200-250 hrs/yr **= 4360-8570 hrs/yr**	(Combination of contract and campus tech staff) A. 26,120 hrs B. 25,670 hrs C. 2400 hrs **= 54, 190 hrs**	(Campus staff) A. 6240-8320 hrs/yr (3-4 FTE) B. 9690-10,400 hrs/yr (4.66 -5 FTE) C. 400-450 hrs/yr **= 16,330-19,170 hrs/yr** **(midpoint = 18,020; equivalent to 8.7 FTE - *not whole jobs*)**

IV. WORK PLAN AND PROPOSED SOLUTION DESIGN

A. Provide a statement of:

- Deliverables — results the solution must deliver to achieve the stated objectives.
- Constraints — factors that may limit the options for providing the solution (*e.g., an inflexible deadline*).

Deliverables

1. The Advising Records Sharing tool will:
   - Provide advisors access to a system that allows advisors to view advising notes across units.
   - Bring together the pertinent information for advisors that is available from various existing campus systems in a unified, organized and intuitive way.
   - Be a hub for many needed features including:
     - online appointment scheduling
     - smart documents and petitions
     - advisor education and training
     - student data report builder.
   - Have all of the functionality needed to move us to a truly paperless student records system.
   - Help the campus make significant strides towards reducing the amount of time that advisors spend on routine administrative tasks.

2. The Online Petition Processing tool will:
   - Use electronic forms to replace the most frequently used paper forms and forms where the manual process introduces unacceptable delay.
   - Define workflows to transmit electronic forms from students to advisors, faculty members, or other approvers.

3. The Online Appointment Scheduling tool will*:
   - Provide scheduling, re-scheduling and cancelling of appointments 24/7.
   - Collect appointment data, such as number of visits, duration, and advising topics.

Constraints

- Solution depends on the completion (or at least parallel development) of the Student Portal / Academic Commons.
- Solution depends on the adoption of the academic planning and registration tool proposed in a separate resource request application as the official student learning plan and semester schedule tool for UCB.
- Solution depends on the creation of an advising leadership infrastructure or Council to manage implementation and on-going functionality.
- Solution depends on mapping data from disparate systems to a common operational store.
- Solution depends on the ability to update data in central student systems directly. For example, a declaration of major process will result in the changing of the student's major designation in the Office of the Registrar's Student Database.
- Demands placed on IST by existing systems operations and other projects (including other OE projects) could interfere with a timely implementation of this electronic solution.
- The availability of advising staff to work as subject matter experts may be limited due to current workloads.
- Solution will be augmented by completion of the student/advisor knowledge base.

** See Appendix 5 for technical requirements.*

B. Provide a work plan for the proposed solution with high-level steps to complete the solution, including timeline. (Try to limit your plan to no more than seven steps.)*

	MILESTONE	**TIMELINE (18 months)**
1.	CHARTER PROJECT TEAM Select project manager, identify and recruit team members including subject matter experts assigned to interact with technical team members (both contract and in-house staff) weekly throughout the development and implementation phases. Take advantage of free consulting services offered by Kaiser. Establish high-level requirements for the tool kit to inform initial architectural and design decisions. Establish governance bodies and conduct stakeholder expectation interviews. Research best practices.	Jul - Aug 2011 (2 months)
2.	HIGH-LEVEL DESIGN Determine high-level architecture and design of advising tools based on the high-level requirements identified in Milestone 1. Perform functional and technical fit gap analyses on existing systems under consideration for enhancing and scaling out to the campus -- e.g., eTriever and ISYS. Select forms designer tool and workflow tool.	Sep - Nov 2011 (3 months)
3.	TECHNICAL SET-UP AND TRAINING Select, procure, and configure development tools. Set up development, quality assurance, and production environments. Train developers and analysts in use of new tools including the forms designer and workflow tools. Timeline assumes that most selected tools will not require a Request for Proposal (RFP), i.e., that they are either in use on campus or available through open source.	Dec - Jan 2011 (2 months)
4.	ITERATIVE DESIGN, AGILE DEVELOPMENT, AND TESTING System modules, workflows, and forms are developed, tested, and accepted by stakeholders. Application architecture review is completed. Campus specialists conduct usability, accessibility, and security reviews, with revisions made as needed. Full quality assurance procedures are run after all revisions. Designs are piloted in departments and colleges as they become ready.	Feb 2011 - Aug 2012 (7 months)

5.	ROLL-OUT AND REFINEMENT Solutions are implemented campus-wide. Online help materials are prepared and hands-on training sessions are organized, published, and conducted.	Sep - Nov 2012 (3 months)
6.	RESULT (ADVISING TOOL KIT DEPLOYMENT) Tools allow student records, selected forms and appointment scheduling to become fully electronic and paperless.	Dec 2012 (1 month)
7.	ASSESSMENT, ON-GOING REFINEMENT AND ENHANCEMENT Initial assessment and evaluation of advising tools complete. Cycle of on-going evaluation, revisions and agile development continues. Additional workflows and forms are automated. There is seamless incorporation of all online tools in development through the OE Student Services Initiative (SSI).	On-going

** The timeline begins when the advising infrastructure or Council is created to act as the functional owner of the Advising Tool Kit. Please see Appendix 6 for each individual tool's milestones.*

C. What are the data requirements for the proposed solution?

A new, adaptive data model, capable of storing the artifacts of all student advising activities, is required. This model can be implemented initially as a relational database. For most "smart" forms, data requirements include student ID, college, department, major, and student email address. For more complex forms such as the Program Plan, an integration to the new "course" database (KUALI Student Curriculum Management Implementation) may be required. For "smart" workflows (workflows for which common data elements do not have to be repeatedly input; an auto-populate function), it would be helpful to have "look up" tables of academic departments and departmental advising contacts. Such tables may be needed for other OE SSI projects as well. Role-based security will also require a table of bona fide advisors or student service providers with appropriate authorization for FERPA compliance. For appointment scheduling, student demographic and academic data is needed to determine eligibility which varies widely per service provider. Also, read/write access to calendar data belonging to faculty and staff providers and student consumers will be needed.

D. What are the technical requirements for the proposed solution?

The Tool Kit as a whole requires a functional student portal upon which to build, including role-based authentication. The petition processing tool requires a Forms Designer and a Workflow engine. (Several forms designers are currently in use on campus, while most work flow tools on campus are rudimentary.) If the selected tools are not already in use on campus, then it will be necessary to create supporting environments for the new tools: Development, Test, and Production. These may require their own servers. Given that the proposed solution is to be campus-wide, we foresee housing these in the campus data center. To fully automate some processes, we may need to update existing student systems (integration). The appointment scheduling tool would require access via service or API to faculty/staff and student calendaring systems and a web application server available nearly 24/7.

E. What are the greatest risks for the proposed solution and the plan to reduce or eliminate the risks.*

	RISK	**MITIGATION PLAN**
1.	The Advising Tool Kit does not have a functional owner. Mandates to use the tools fail as a result.	OE SSI proposal for an advising infrastructure charged with advising technology oversight is approved. If proposal is not funded, a high-level campus advising leader is given the authority and responsibility for advising tech tools.

2.	Sufficient resources are not provided. Tool development stalls due to lack of dedicated technical and advising staff and computing resources.	Functional owner acquires necessary resources, or scope changes to fit available funding. Student portal project and partnering units in IST are appropriately resourced.
3.	Dependencies are not well-defined. The impact of the tools on campus units are not understood.	In-depth business process analysis reveals all contingencies. Stakeholders are brought on board early. Iterative design includes frequent review by advisors and students.
4.	Data is not secure.	Appropriate protective measures are implemented to secure student data against unauthorized access. IST establishes application-level security to meet FERPA requirements as determined by the Office of the Registrar.
5.	Family Educational Rights and Privacy Act (FERPA) regulations are not enforced.	Access will be granted with CalNet authentication only. Permissions will be built into the system based on title and job functions, as they are now in many student systems. (Requires role-based security.) FERPA records will not be stored on third-party systems absent review and approval by appropriate campus officials.
6.	System crashes or has poor response time - lack of access to student records when system goes down.	Campus fully invests in hardware and personnel to keep system going and attend to problems promptly. Major issues (such as recent outages with the grad admissions application or the slowness of BearFacts during high-traffic periods) are anticipated and dealt with. System is extremely reliable and can be depended on for core advising tasks. Service level agreements are set, appropriately resourced, and followed.
7.	Implementation is difficult. Staff and students do now know the tools are available and how to use them.	Communication and training plans are developed. Training needs are minimized through intuitive user-centered interface design. Frequently-requested and most-needed changes are implemented first to build trust and momentum.

** See Appendix 7 for additional risks.*

F. How does the proposed work plan allow for evaluation and course correction to ensure the outcomes meet the campus needs?

A stakeholder group consisting of both students and student service providers will actively participate throughout the design and development stages, allowing constant, agile re-tuning of the tools to meet newly discovered requirements. The system builds in maximum flexibility and requires regular evaluation, course corrections, changes, incorporation of new tools and campus processes in order to perform well and adjust to future needs. After the initial tools are rolled out, assessment takes place to ensure the system is meeting its objectives. Feedback is solicited from both student services staff and students. Assessment continues as bits of functionality are implemented. Roll-out is adjusted as needed. The project team and stakeholders balance "continuous refinement" of initial iterations against the need to deliver new functionality. The tools are considered a permanent work in progress, evolving over time to meet the changing needs of students and advisors.

V. CHANGE MANAGEMENT

A. What is the change management plan to successfully implement the outcomes of the proposed solution?

Successful implementation of the technology and tools to support student advising will require significant change in how advisors manage their advising-related tasks. When the project is successful, advisors will:

- use the proposed tools.
- work with more collaboration and transparency.
- document their interactions with students.
- see one another's notes.

We expect initial resistance from advisors for a variety of reasons, including:

- feeling uncomfortable at the thought of others seeing their notes (notes may be cursory, advisors may feel their relationship with students is confidential and would be violated if documented, supervisors will be able to view their notes, etc.).
- feeling protective of their turf.
- feeling their jobs are being eroded.
- not wanting to work through the transition period where new students' files are online but continuing students' files are in their original format (paper or shadow database).

The change management plan outlined in Appendix 8 identifies those who will be impacted by the introduction of the new tools, the behavior changes required and how these will be reinforced, anticipated resistance and plans for mitigation, and the implementation plan.

B. What incentives and/or disincentives are proposed to influence behavioral changes necessary for the successful outcome of the proposed solution?

Incentives:

1. Ease of use since the Advising Tool Kit will be the hub for all advising-related technology, including DARS, BearFacts, etc.
2. Trainers will sit down with each advisor at their desk to demonstrate the tools, set up access, and train the user.
3. Users will be rewarded for use through intuitive design (green for proper input, red for errors).
4. Fun touches will be added to the tools such as a social networking/forum component, IM groups and daily campus coupons/groupons.
5. A video-game like interface will maintain interest.
6. Students will see document processing time decrease as they no longer need to wait in lines to submit documents.
7. Advisors will see document processing time decrease due to elimination of manual data entry, copying, scanning and shredding.
8. A paper file conversion team will assist offices who wish to move existing paper files online by helping them turn documents into pdf's and adding them to the new tool.
9. Shared metrics for comparison may be motivating (for example, in speed of petitions processed).
10. A $1,000 prize will be awarded to the three advising units with the highest usage of the Tool Kit which they can award as scholarships to students or use for professional development.
11. ech tools are "green", supporting campus-wide greening initiatives.
12. Positive performance appraisals and promotions will reward new users.

Disincentives:

1. Students will not be able to schedule advising appointments by phone or email; they must either use the online scheduling tool or come to the advising office.
2. Students in advising units that are not using the online tool will complain that they don't have the ease afforded other students. thereby motivating advisors to use the scheduling tool.

3 .When campus requests hard data on the number of students seen by an office (to support FTE), offices not using the online appointment system to record visits will be at a significant disadvantage and may see funding drop.
4. Advising offices that do not use the online tools will still be required to fund them and thus will waste their own resources.
5. Advising offices that do not use the tools will have to print and store copies of records and petitions themselves.
6. Advising offices that do not use the tools must develop their own paper forms and pay to continue their own shadow systems.
7. Negative performance appraisals and disciplinary actions will be the consequences for staff who refuse to adopt the tools.

For the campus to achieve maximum savings:

1. The Shared Advising Records tool will be mandatory for professional advisors with opt-out by permission so that advisors with entrenched paper or electronic systems have an extended timeline for adoption. The tool will be phased in with the largest consumers (colleges and schools) first, academic departments second, co-curricular advising units third, faculty advisors fourth and peer advisors last. Permission to opt out will be granted by the Advising Council. A list of advisors who have opted out will be available to advisors and students so they understand the gap in the student's advising record. Annual renewal of opt-out permission will be required.
2. The Online Document and Petition Processing tool will be mandatory and the only tool acceptable for creating forms. As each form is automated, its use will be mandatory and the corresponding manual process will be retired. The documents will have a phased roll-out with those used within one unit deployed first to test the system (e.g., reduced course load requests in the College of Letters and Science), documents used by 2-3 units second (e.g., intent to graduate verification requests involving one college and one academic department) and documents involving many units last (e.g., late add requests involving faculty, major advisor, college advisor, registrar and cashier's office).
3. The Online Appointment Scheduling and Tracking tool will be mandated for advising units that offer scheduled appointments in order for students to receive consistent service across campus.

C. Who has been identified as the change leaders and implementers to carry out the changes necessary for the successful outcome of the proposed solution?

Change Leaders:

1. The Advising Council (see Resource Request Application titled "Advising Council")
2. Sponsors of the Student Services Initiative: Harry LeGrande and Cathy Koshland
3. Council of Undergraduate Deans (they were very supportive in Nov. 2009 when Russ Connacher and Katie Dustin discussed ISYS with them; ISYS has the same proposed functionality as the Advising Tool Kit)
4. ISYS Sponsors Dean Tyler Stovall, Associate Dean Genaro Padilla and Director Lourdes Miranda of the Letters and Science Office of Undergraduate Advising
5. Advising Directors, Supervisors, Analysts: Anne Aaboe, Mary Howell, Rebecca Miller, Katie Dustin
6. High Performing Advisors: Christina Yasi, Dana Jantz
7. Shel Waggener
8. Student Systems Policy Committee
9. Student Systems 2012 Community Council

Implementation Team Member Recommendations:

1. Innovative Academic Advisors: The Advising Network Council, L&S Departmental Advisory Group, Academic Advisors Supervisors Group
2. Innovative Co-Curricular Advisors: Julian Ledesma (Student Life Advising Services/EOP), Cristobal Olivares (New Student Services), Lorena Valdez or Ron Williams (Transfer, Reentry and Student Parents), Derek Van Rheenan (Athletic Study Center), Haydee Lindgren (Disabled Students Program)
3. Innovative Faculty Advisors: Niko Kolodny (Philosophy), Victoria Robinson (Ethnic Studies)
4. Project Managers with Student Services Technology Backgrounds: David Scronce, professional technical project managers

5. IT Specialists (applications developers, user experience designers, info systems analysts): Russ Connacher, Matt Wolf, James Collins, John Keller, Jan Pardoe, Nancy Schimmelman, IT person in Political Science, Allison Bloodworth, Rachel Hollowgrass
6. Business Process Analysts: James Dudek, Shelley Sweet
7. Instructional Designers / Trainers: Inette Dishler, Lance Page
8. Students: Peer advisors, undergraduates, graduates, professional school students, disabled students, student-athletes
9. Skeptic: Someone who is an advocate of paper processes who can become a champion of the new tools

The people chosen from the above lists will work part-time except for the project manager, business analysts, user experience designer and application programmers.

VI. FUNDING MODEL AND BUDGET

A. Could the proposed solution move forward with partial funding? If yes, describe the revised scope, including the associated savings impact.

Yes.

The proposed Advising Tool Kit consists of three inter-related but distinct components, so partial funding could provide for implementation of one or two of them. Which to fund will depend on priorities. The shared advising records tool would have the greatest impact on the quality and efficiency of advising on campus and, as the comprehensive repository for advising-related information such as appointment details and notes, is a foundation of the entire Tool Kit. Online advising records systems have been successfully implemented on campus, and design work for a complete and configurable version suitable for campus-wide adoption has been completed in at least one unit (e.g., L&S's eTriever). The appointment-scheduling tool has the fewest technical and governance dependencies, and many units on campus have already implemented tools that are good candidates for adoption and expansion for campus-wide use. It is the "quick-win" among the components. Implementing an online petition processing tool is likely to result in the most overall savings to the campus in the form of reduced staff time, printing and copying, and storage space. It would be the easiest to roll out over a longer period in a staged manner.

Partial funding could also support roll out to a subset of campus units rather than the entire campus (of the entire Tool Kit or of selected components). Pilot groupings could be based on undergraduate or graduate, college or school, or academic or co-curricular advising units. For the online petition processing tool in particular, partial but effective implementation could target the most widely used forms or processes.

Appendix 3 contains further details about partial solutions that involve leveraging development of the student portal to provide advisors with secure and integrated access to the Advising Tool Kit.

B. What is the plan for sustainable funding to support ongoing operations of the proposed solution?

Local savings generated primarily through the adoption of online petition processing and to a lesser extent by the other two tools can be aggregated to fund on-going support for the entire Tool Kit. The capture of these savings is likely to occur over an extended period of time to allow for redistribution of work roles among campus advising staff and normal attrition.

C. Please download and fill out the OE Resource Request Budget Template located and follow the instructions on the first worksheet in the workbook to complete the budget ant line descriptions. Include both completed sheets with the Resource Request.

VII. ASSESSMENT PLAN

Please use the table below to detail your metrics.

METRIC CATEGORY	SPECIFIC MEASURE	MEASURE BASIS	DATA COLLECTION METHOD	DATA COLLECTION FREQUENCY	FUNCTIONAL OWNER OF DATA COLLECTION	LARGER GOAL TO WHICH METRIC RELATES
FINANCIAL PERFORMANCE						
1 Reduction in cost per appointment scheduled	Avg cost	Per appointment	Unit and central campus expenditures (staff time spent, other costs)	Annually	Proposed Advising Council	90% decrease in cost per appointment scheduled
2 Reduction in cost per petition processed	Avg cost	Per petition	Unit and central campus expenditures (staff time spent, other costs)	Annually	Proposed Advising Council	50% decrease in cost per petition processed
3 Reduction in cost of paper, toner, and copy machine repair costs	Avg price	Per item	Unit and central campus expenditures (staff time spent, other costs)	Annually	Procurement Director	20% decrease in overall cost
4 Reduction in cost of scanning equipment	Avg price	Per item	Unit and central campus expenditures (staff time spent, other costs)	Annually	Procurement Director	10% decrease in overall cost
5 Reduction in FTE in efforts that are currently duplicated and/or could be centralized	Person hours	Per transaction	Business process analysis	Annually	Proposed Advising Council	15% decrease in FTE
OPERATIONAL PERFORMANCE						
1 Reduction in process time of scheduling and cancelling appointments	Minutes	Per appointment	Tools' built-in time tracking and reporting features; student survey	Annually	Proposed Advising Council	90% of appointments are scheduled with the online tool; 90% decrease in overall time spent scheduling appointments

2 Reduction in staff hours spent scheduling and cancelling appointments	Person hours	Per department	Staff survey; individual before-and-after case studies	Annually	Proposed Advising Council	90% decrease in time spent scheduling appointments
3 Increase in number of appointments completed / students advised	Appointments completed	Per semester	Tools' built-in time tracking and reporting features	Annually	Proposed Advising Council	20% increase in number of appointments completed / students advised
4 Reduction in student wait time for advising appointments (currently, some students wait two weeks for an open appt.)	Days	Per appointment	Tools' built-in time tracking and reporting features; student survey	Annually	Proposed Advising Council	20% decrease in wait time for open advising appointments
5 Reduction in processing time per petition	Minutes	Per petition	Tools' built-in time tracking and reporting features	Annually	Proposed Advising Council	80% of petitions are electronic; 50% decrease in average petition processing time
6 Reduction in staff hours spent processing petitions	Person hours	Per department	Staff survey; individual before-and-after case studies	Annually	Proposed Advising Council	50% decrease in time spent processing petitions
7 Reduction in student wait time for drop-in advising (since staff time is freed by not spending time scheduling appointments, processing petitions and tracking down information from fellow advisors)	Minutes	Per appointment	Student survey; staff survey; individual before-and-after cases	Annually	Proposed Advising Council	20% decrease in student wait time for drop-in advising
8 Increase in number of advisors using tools	Number of staff	Per college	Tools' access logs	Bi-annually	Proposed Advising Council	80% of advisors use the tools within the first six months
PRODUCT / SERVICE QUALITY						
1 Tools are available 24/7 with 1 hour maintenance time per week	Minutes	Per week	Tools' built-in time tracking and reporting features	Monthly	IST	99% availability of tools

2 When unexpected outages occur, tools are brought back within 1 hour	Minutes	Per outage	Tools' built-in time tracking and reporting features	Monthly	IST	1 outage per year
EMPLOYEE SATISFACTION						
1 Advisors' job satisfaction increase as they spend more time advising and less time scheduling appointments and processing paperwork	Likert scale	Per advising unit	Satisfaction survey (could be included in campus climate surveys done by Equity and Inclusion)	Annually	Proposed Advising Council	20% increase in job satisfaction scores
2 Advisors' job satisfaction increase as the shared advising notes tool results in fewer repeat student visits for the same issue and less follow-up time	Likert scale	Per advising unit	Satisfaction survey (could be included in campus climate surveys done by Equity and Inclusion)	Annually	Proposed Advising Council	20% increase in job satisfaction scores
3 Advising units exceed delivery outcomes, such as student wait time and appointments completed	Minutes	Per advising unit	Tools' built-in time tracking and reporting features	Annually	Proposed Advising Council	Pre-selected targets exceeded
CUSTOMER (STUDENT) SATISFACTION						
1 Students feel they are getting value for their tuition dollars	Likert scale	Per department or college	Student survey (could be included in UCUES)	Annually	Proposed Advising Council	20% increase in student satisfaction scores
2 Students maximize the learning that Berkeley provides by achieving greater learning outcomes	Likert scale	Per department or college	Student survey (could be included in UCUES); departmental academic program reviews	Annually	Proposed Advising Council	20% increase in student satisfaction scores; learning outcome targets met
3 Student satisfaction increases as processes are streamlined and they spend less time scheduling appointments, filling out paper forms, and repeating their stories to successive advisors	Likert scale	Per department or college	Student survey (could be included in UCUES)	Annually	Proposed Advising Council	20% increase in student satisfaction scores

4 Student satisfaction increases as their ability to meet with advisors improves	Likert scale	Per department or college	Student survey (could be included in UCUES)	Annually	Proposed Advising Council	20% increase in student satisfaction scores
5 Alumni satisfaction increases	Likert scale	Per department or college	Alumni survey; alumni giving report	Every two years	Proposed Advising Council	5% increase in alumni satisfaction scores; 2% increase in percentage of alumni who donate (from 18% to 20%)
PUBLIC RESPONSIBILITY						
1 Cal's rankings increase					U.S. News and World Report	2 point increase in rankings
2 Cal's reputation increases						2% increase in percentage of alumni who donate (from 18% to 20%)
BEHAVIORAL MEASURES						
1 Advisors provide appropriate content in advising notes	Shared notes screens	Per advisor	Audits by supervisors	Annually	Proposed Advising Council	99% of advisors write appropriate, legally-defensible notes
2 Advisors determine appropriate viewing access rights for their notes	Shared notes screens	Per advisor	Audits by supervisors	Annually	Proposed Advising Council	99% of advisors share notes with appropriate staff
3 Advisors build trust with each other since advising tools encourage transparency	Shared notes screens	Per advisor	Staff survey	Annually	Proposed Advising Council	10% increase in level of trust

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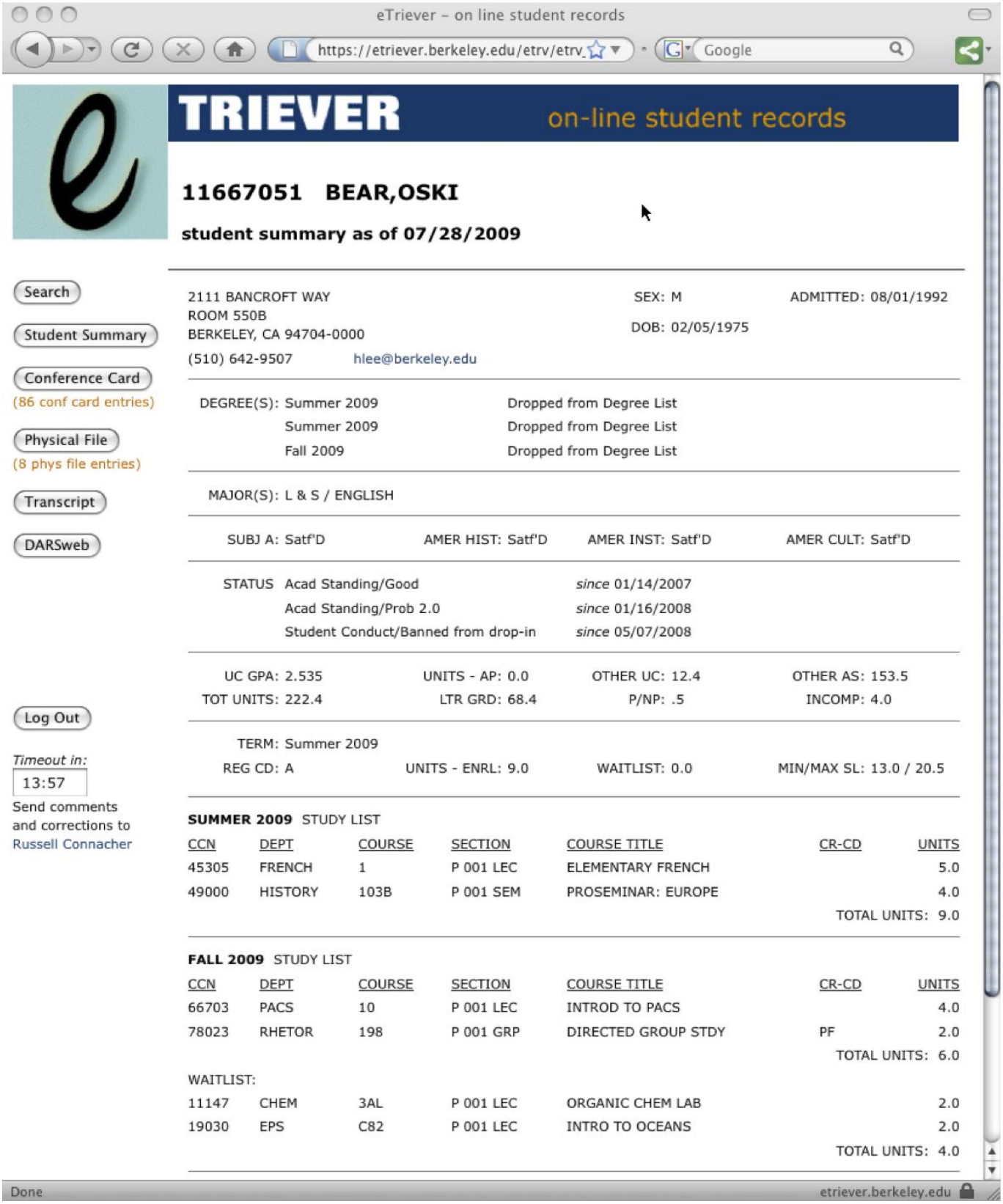
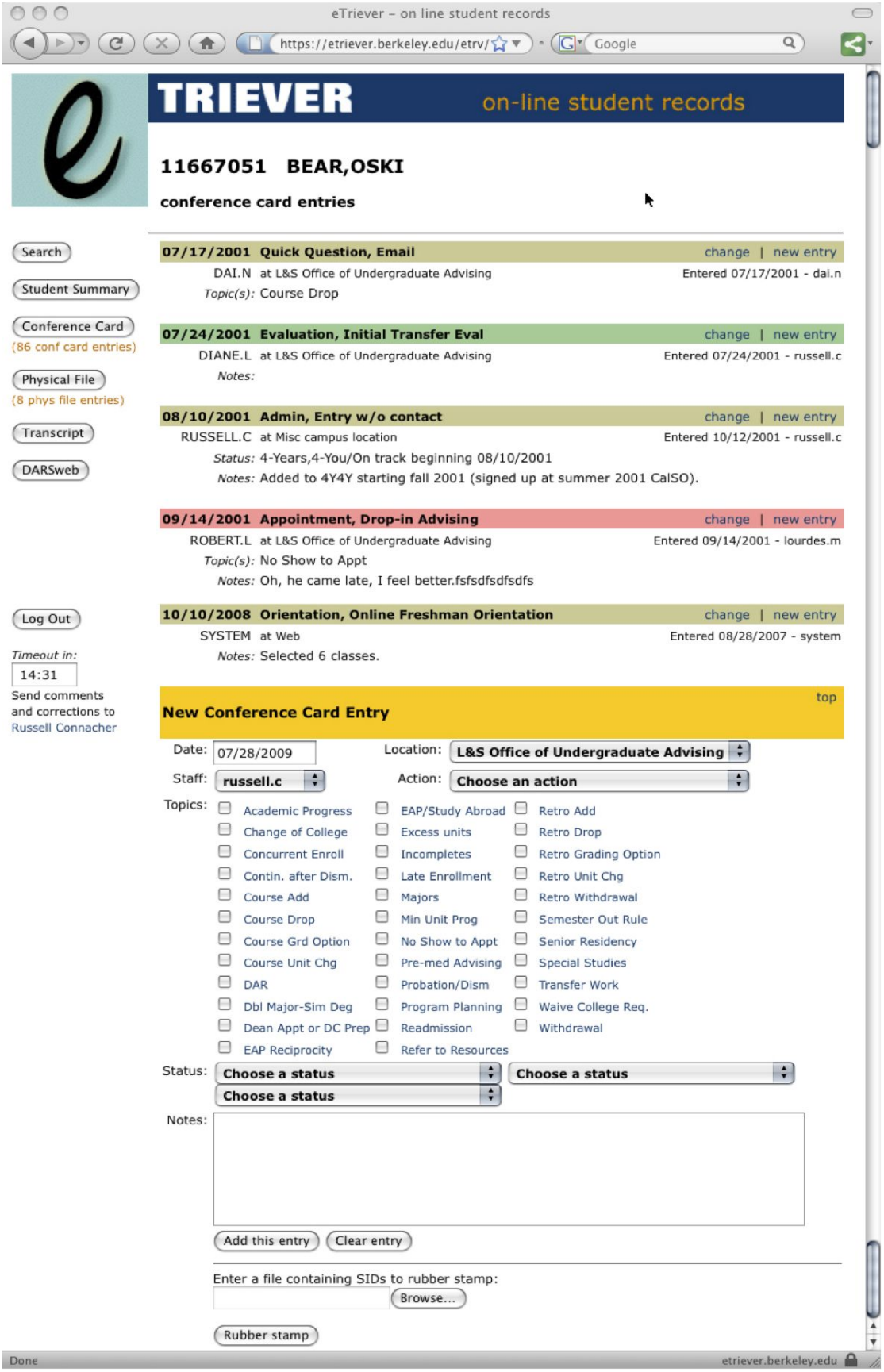
APPENDIX 1: CURRENT ADVISING TECHNOLOGY TOOL IN THE COLLEGE OF LETTERS AND SCIENCE - ETRIEVER SHARED NOTES SYSTEM (referenced in Section II B)

eTriever is a web-based advising records application that has been in use in the Letters & Science Office of Undergraduate Advising since 2001. It offers a consolidated summary of academic status derived from BearFacts data ("Student Summary"), a chronological list of contacts and actions with related topics and notes ("Conference Card"), and a chronological list of scanned documents submitted by or relating to the student. Having been written in an aging proprietary Apache/IIS module (WiTango), it could not easily be scaled-up for campus use, but its features and domain design are worth referring to.

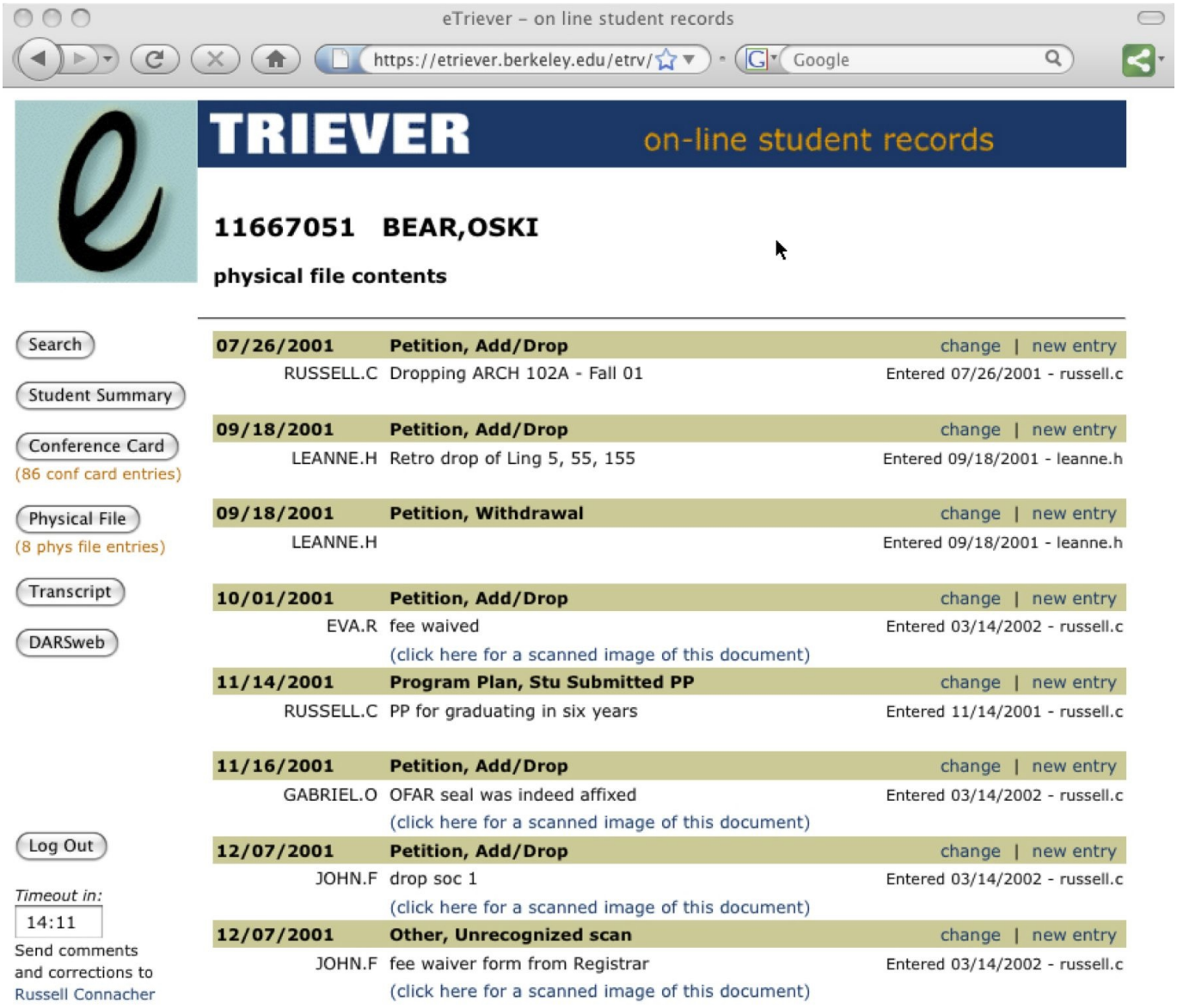
Student Summary:



Advising notes:



Scanned documents:



APPENDIX 2: IN-DEVELOPMENT ADVISING TECH TOOL IN THE COLLEGE OF LETTERS AND SCIENCE - ISYS (referenced in Section IIB)

ISYS has been in development for three years and is about to release its first module, web-based scheduling of advising appointments. It interacts with CalAgenda (and with Bedework calendaring) and can be configured for use with drop-in advising, workshops and faculty office hours. The bulk of the work completed on ISYS so far has been in the business process analyses of Letters and Science Undergraduate Advising Office functions and in the creation of an Adaptive Object Model (see http://st-www.cs.illinois.edu/users/johnson/papers/dom/DynamicObjectModel.pdf) as a configurable domain on which to build student service applications. These both would make good foundations for further work on an Advising Tool Kit.

ISYS Uniting the On-line Student Experience in L&S

ISYS is a project to coordinate and streamline undergraduate academic services in the College of Letters & Science. For L&S students and the staff & faculty who serve them, ISYS will deliver a suite of configurable web applications that provide timely and comprehensive information, improve access to guidance, and ease processing of special requests.

Improved Student Service

Personalized Information

ISYS will know who a student user is and automatically display information pertinent especially to her, such as a list of recent requests, upcoming advising appointments, and applicable deadlines. Staff users will find a student by SID or name and immediately see a snapshot of her academic status, as well as links to all relevant activity.

Seamless Request Processing

Students will see prompts to make on-line requests and display request status, e.g.:

- For undeclared juniors, "click to declare a major"
- For seniors (110+ units): "click to add to the degree list"
- Based on a request: "your request to drop Econ 1 has been denied – click to make an advising appointment to discuss your options."

Advisers will have more time to advise

- Fewer phone calls
- Automatic email or text notifications
- No paperwork
- No need to double-check student-supplied data
- No need to open several screens to process a petition

Streamlined Shared Processes

Currently, students act as the "network" when making a request such as declaring a major. They must physically carry a paper petition between several units for review and signatures, then wait days for processing.

ISYS will become the new network. The request will be reviewed, authorized, and recorded by the necessary parties, all on-line without further effort by the student. Automated email messages will inform all involved parties when the request has been processed.

sponsors:
Tyler Stovall, Dean of the L&S Undergraduate Division
Lourdes Miranda, Director of Student Policy, lourdesm@berkeleu.edu

project manager:
Katie Dustin, L&S Advising, kdustin@berkeley.edu

Increased Data Utility

The L&S Office of Undergraduate Advising regularly accesses data for:

- Analyzing policy effectiveness
- Assessing operational efficiency
- Continuously improving service
- Ad hoc reporting

Examples include:

- Do students who are denied late drops later withdraw?
- Have students' grades changed over the last five years?
- How long do students spend with advisers during drop-in advising sessions?
- Do students who attend academic probation workshops succeed at a great rate than those who don't?

Currently, these data live in eleven separate databases, including distinct systems used to track appointments, workshop attendance, and petitions. ISYS will consolidate this information into easily-accessible reports, not only improving internal operations but also providing valuable information to our campus partners.

Integration with Campus Systems

ISYS has adopted campus technical standards from its very beginning, ensuring easy integration as new central systems come on-line and easy reuse & support by other interested units across campus. In fact, integration and reuse of its modules by other campus units is a foundation of its design.

ISYS is an enthusiastic partner with Student Systems 2012, local Kuali implementation efforts, and the myBerkeley project. It is pushing forward into the realms of web services, configurable workflow, and mobile/portal access in anticipation of the improvements sought by Operational Excellence initiatives.

implementation team:
Jennifer Cullison, L&S Advising, cullison@berkeley.edu
Russell Launer, L&S Advising, rlauner@berkeley.edu

developer:
Russell Connacher, russellc@berkeley.edu

APPENDIX 3: PARTIAL SOLUTIONS IN DETAIL (referenced in Section II B)

ADVISING TOOL 1: ACADEMIC RECORDS SHARING

Partial Solution / Medium Cost:
As with the comprehensive solution, the partial solution involves leveraging development of the student portal to provide advisors with a corresponding integrated interface for the Advising Tool Kit. However, existing applications would not be replaced or rebuilt, but only modified to provide a facility to document and share student contact and advice history.

ADVISING TOOL 2: ONLINE DOCUMENT AND PETITION SUBMITTAL AND PROCESSING

Partial Solution / Medium Cost:
Create electronic forms for petitions with the highest volume, as well as petitions for which there is a high negative impact if not processed in a timely manner. Start with the simplest forms first. Reach agreements for multiple departments and colleges to use the same electronic forms and approval processes, which would streamline the business process for staff and students and facilitate the delivery of shared services. Approximately 10 forms will be replaced.

Low Cost Solution:
Replace the paper-based declaration of major petition with an electronic version that can be used by all the Colleges and that incorporates a work-flow engine and the flexibility for adaptability by individual departments. 1 form will be replaced.

ADVISING TOOL 3 : ONLINE APPOINTMENT SCHEDULING

Partial Solution / Medium Cost:
Online system includes all of the functions of the comprehensive solution except:

- Two-way staff calendar sync changed to one-way.
- No ability to limit appointment data on staff calendar.
- No complex business logic to apply rules for who can be seen.

Low Cost Solution:
Online system includes all of the functions of the comprehensive solution minus the three functions in the medium cost system and:

- No kiosks.
- No student calendar populating.

APPENDIX 4: IMPACT AND STRATEGIC ALIGNMENT OF PARTIAL SOLUTIONS (referenced in Section III A)

Cost Reduction:

- Begins to reduce the number of advisor house spent on administrative tasks, but not as significantly as the comprehensive solution since advisors will still need to make and keep paper student files.
- Reduces some IT labor time as a few multiple systems are consolidated.
- Partially reduces the amount of space and resources necessary to keep paper files (storage, office supplies, shredding, etc.) because the files will be smaller.

Efficiency/Effectiveness:

- Begins to improve and better document communications between advising units and between advisors and students.
- Reduces processing time of the 10 petitions chosen to be put online.
- Begins to mitigate -- but not eliminate -- the problem of paperwork stored in a unit being inaccessible to colleagues.
- Shortens lines a bit as some students no longer submit petitions in person or attend drop-in advising.

Continuous Improvement:

- Hours saved allow advisors to have a renewed job focus on advising and to concentrate on improving professional advising skills.
- Allows some data to be accessible online for evaluation and analysis.

APPENDIX 5: DELIVERABLES FOR ONLINE APPOINTMENT SCHEDULING (referenced in Section IV A)

The Online Appointment Scheduling Tool will include:

- An authorization module that will read a student user's demographic and academic data, or a faculty/staff user's unit and position data, and use this data to determine which appointments are accessible.
- A calendar data access module that will read and update both faculty/staff and student calendars.
- A filled-appointment search and display module that will allow a user to find appointments in which s/he is already a participant.
- An appointment update module that will allow changes to filled appointments (e.g., notes, topics, and cancelling).
- An available appointment search and display module that will show appointments available to a student user based on eligibility and user-entered criteria.
- An appointment-filling module that will lock a selected appointment slot from other users, allow entry of notes and topics to be discussed, and confirm and set the appointment.
- A check-in module that will allow a student user to indicate arrival at the physical location of the appointment at the proscribed time.
- A messaging module that will send email, SMS, and IM communications to participants in the appointment at specified stages (e.g., filling, cancelling, checking-in, appointment missed).
- A reporting module that will find and display appointment data based on user-entered criteria. (This could also be handled by storing appointment data in an enterprise data warehouse and using its associated reporting tools.)

APPENDIX 6: WORK PLAN AND PROPOSED SOLUTION (referenced in Section IV B)

Milestones for each of the three tools are listed below..

TOOL 1: SHARED ADVISING RECORDS (18 MONTHS)

	MILESTONE	TIMELINE
1.	(Model: Jazzee working group) Under the direction of a project manager, working group carefully researches all the functionality that this complex system would require, including features of a user interface, what systems must feed into the staff interface and "talk" to each other, how this system would support best practices in advising, and what other projects (i.e.m student portal & rest of OE Student Service Initiative online tools) this system would need to work in tandem with. Group should also look at what other schools have in place and how that might inform what we want.	6 months (suggestion: for maximum advisor bandwidth, consider having bulk of work in summer)
2.	After scope of project has been well-defined, the group/project manager should price out different options for accomplishing the goal, with special attention paid to whether or not there can be an initial targeted/partial roll out and if system needs to be developed in tandem with other projects (student portal). The group might also consider rolling out an optional, low-cost intermediate solution if the best solution will take awhile.	1-2 months

3.	Product development including initial product demos to different advising groups (graduate advisors, undergraduate advisors, departmental advisors, college advisors, co-curricular advisors (DSP, Athletic SS, etc.) for more feedback.	6 months
4.	Product revision and possible piloting to a small group of advisors.	3 months
5.	Campus-wide roll-out and training sessions.	18 months after start (consider rolling out in mid-May/early June so advisors have ample time to get used to a system during a period with lower student traffic)
6.	Campus goes paperless - all student files online.	within 5 years
7.	Ongoing Eealuation, revisions and development, seamless incorporation of all online tools in development through the OE Student Services Initiative.	ongoing

TOOL 2: ONLINE PETITION PROCESSING (12 MONTHS)*

	MILESTONE	**TIMELINE**
1.	SELECTION: Select Forms Builder and Workflow tools.	1 month
2.	IMPLEMENTATION/STEP UP/TRAINING: Implement tools; set up DEV, TEST and PROD environments. Train designers in use of tools.	1 month
3.	DESIGN: Design initial "e-forms" and associated workflows. ROLL-OUT: Begin roll-out and user acceptance of 1st e-forms.	4 months
4.	DESIGN PHASE II: Continue to design and roll out additional forms and workflows. Train additional advisors on how to create forms and workflows.	3 months
5.	REFINEMENT: Refine early forms as necessary.	3 months
6.	All applicable forms and corresponding business practices are electronic.	12 months after start

**Any forms that cannot be completed within 1 year may be too complex for forms processing and may require software development. Add 4-6 months to start date if Request For Proposal (RFP) is required.*

TOOL 3: ONLINE APPOINTMENT SCHEDULING (11 MONTHS)

	MILESTONE	**TIMELINE**
1.	Stakeholder group organized (service providers and consumers).	1 month
2.	Overall design and architecture determined.	3 months
3.	System modules developed, tested, accepted by stakeholders.	4 months
4.	Integrated system tested by external quality assurance.	1month

5.	Solution implemented as a pilot.	3 months
6.	Solution implemented fully.	11 months after start

APPENDIX 7: ADDITIONAL RISKS (referenced in Section IV E)

	RISK	MITIGATION PLAN
1.	There are start-up delays due to RFP process.	Select tools already in use on campus or open source tools with low or no up-front costs to procure. Leverage Office of the President and UCB site licenses where possible.
2.	IST may not support selected software tools	Confirm IST support upfront and/or outsource to another provider with appropriate contractual safeguards to meet FERPA requirements.
3.	Some forms or workflows may be too complex for the proposed solution.	Establish criteria for good candidate forms. Declare up front the most complex forms may have the lowest priority and take the longest to convert. Follow the 80/20 rule and automate the most frequently used forms.
4.	Approval flows may differ from department to department or form to form.	Design a few standard flows (e.g., student to advisor to faculty) and constrain approvals to the most common workflows. Negotiate up-front with advisors and deans that we will design to an "80% solution" and not accommodate all existing practices.
5.	Existing Student Systems are not well-documented or widely known.	This is a potential risk for both the data needs of "smart" forms and the "update" needs of central systems. (This is not a risk for "dumb" forms, in which students and staff repeatedly enter common data elements). Gain IST agreement upfront to reserve some time from the most knowledgeable tech staff for this project. Where such staff are not available, business analysts can reference the metadata created for the Student Data Warehouse for info on source system, etc.
6.	Appointment eligibility rules too complex to model.	Human review of appointments added as a step in filling process.
7.	Calendaring system (Bedework) is inaccessible or inadequate.	Additional resources applied to developing adequate data bridge or obtaining workable calendaring system.
8.	Tool is too dependent on another tool's implementation (student portal) before it can be rolled out.	Tool is created with a good modular design that can be scaled out quickly with some key functions and with the ability to grow to accommodate future tools and functionality.
9.	Department processes and corresponding online databases are so specific that departments still need shadow systems in order to function optimally. New	This is a hard one! People that have developed department/unit databases [such as Jan Pardoe/John Keller in EECS, Russ Connacher in L&S, Nancy Schimmelman in Summer Sessions (creator of Our Unit), Karin Hansen inMCB, Judy Dobry in Grad Division] are included in the design team. Their experience translating unit processes to online systems provide good ideas about what customers must have

	tool is just something additional but not central to their work.	and would like to have in the future. Departments have a way to develop their own modules/extensions and share them with the rest of campus (like a Thunderbird add-in). This kind of creativity and flexibility achieves the 80% solution.
10.	Service providers are unwilling to use a single, externally controlled system.	Providers represented strongly as stakeholders during design and development; service quality attracts reluctant providers over time; student demand pushes providers toward single solution; governance over student service brought to bear.
11.	Some advisors will use this system and some won't, creating uneven online record keeping.	Groups of advisors are involved from the beginning. Necessary time is taken to research the project well and incorporate advisors all the way along the process, ensuring maximum buzz and buy in. Tool Kit incorporates some things that MUST be used (such as online petitions/smart documents, admissions files), making the rest of the features more likely to be used (online advising notes). This will especially be so if paper files can be eliminated and online files are the only option or if a critical mass of people use the system.
12.	Student consumers fail to use the tools.	Students represented strongly as stakeholders during design and development; resources applied to advertising.
13.	A lot of time/effort/money is invested into a system that won't allow us to ultimately go paperless.	Design group examines why people use paper files now and what goes into them and puts that functionality into the design of the new tool. People who love paper files are asked what, if anything, would convince them to switch.
14.	Work plan has overlapping steps.	Either spread the plan out so that there are no overlapping steps or staff appropriately for parallel work. For example, initial forms and workflow designs can begin (even on paper) while software tools are being selected if (a) the project has sufficient business analysts for both tasks and (b) we are open to some revision to designs that cannot be accommodated by the selected tool.

APPENDIX 8: CHANGE MANAGEMENT PLAN (referenced in Section V-A)

I. Impacted Groups: The following campus constituencies will be impacted by the change and must be included in the change process.

A. 36,000 Students: 25,000 undergraduate, 11,000 graduate and professional school students

B. 720 Advisors, Advising Directors and Advising Supervisors: 325 academic, 80 co-curricular, 315 faculty plus unknown number ofpeer advisors

C. IT Staff: Project managers, technical analysts, application developers

II. New Competencies Required: With the new tools, roles will change.

A. Advisors will create e-notes that are shared.

B. Advisors will review each student's online record prior to appointments which might involve building prep time into the advising schedule.

C. Advisors will view others' queues and see where petitions are stalled.

D. Students will use online systems to schedule appointments and enter petitions.
E. Leaders will focus on supporting 80% of the common cases, not the 20% edge cases.
F. The user community will relay their most critical needs to the technical team.

To be successful with the new tool, advisors must be able to:
A. Modify work flows.
B. Write crisp and legally defensible advising notes in addition to using a common set of basic responses.
C. Work hand-in-hand with technical staff to learn each others' needs and constraints.

III. How New Competencies Will Be Attained:

A. Due to their intuitive design, the tools will be easy to learn and training should not be necessary. However, for less technically-oriented users and other staff and students who require it, we will create training, including:
   1. How-to videos.
   2. Screencasts.
   3. Streamed and archived workshops posted to the Campus Learning Center.
   4. 1-on-1 coaching.
   5. Group trainings.
   6. Training on analytic tools, like building work flows and petitions, for more technically-oriented users.

B. Strong early adopters will be used as role models of the benefits of the system. They will be encouraged to demonstrate to their peers how they have used the tools and encourage others to replicate their results.
C. Staff and students will have the same tool interfaces whenever possible. When not possible, advisors will have access to student views so that they can better answer students' questions about how to use the tools.
D. Supervisors will be required to set expectations for use of the tools and follow-up with coaching, positive performance feedback and accountability to ensure appropriate use of the tools.
E. Job descriptions will be changed to reflect the new job responsibilities of utilizing advising technology.
F. Where appropriate, advising staff will be re-classed.

IV. Communication Plan: Students and advising staff will be engaged from the beginning and will be asked for their input, recommendations on drafts, feedback on iterations, and verification of the proposed solutions.

A. The implementation planning team will engage students and advising staff during the business process analysis and technical requirements gathering phases through various means including facilitated focus groups, phone interviews, community forums, and online surveys.
B. The implementation planning team will create a detailed communication plan which includes appropriate messages to different populations of users (undergraduate advisors, graduate advisors, students, etc.) using various media (email, Daily Cal, text messages, websites, videos, advisor meetings like the L&S advisor reception, etc.).
C. Messages will begin early to build excitement about the coming tools, include timelines, and be positive and inspiring.

V. Resistance Mitigation Plan: Even though the implementation team will clearly show the tools' benefits, as well as any trade-offs, they realize there will be resistance and that it will differ from group to group. Anticipated types of resistance include:

A. Dissatisfaction with early iterations of tools. Mitigation Plan: Users will be informed up-front that an iterative design methodology will be used. Delightful additions will be rolled out weekly. Prompt responses will be sent concerning the most common problems early users face.
B. Lack of motivation to learn a new tool. Mitigation: The benefits of the tools will be clearly demonstrated, such as: having complete knowledge of a student's advising history; no longer worrying about misplacing a file or petition; having an easy transfer of information to a back-up person in case of illness, vacation or retirement; improved ability to transfer

to a new advising department since the tool will be the same everywhere; etc. Advisors will be told that students will expect them to use the tools since they will have advisors in other areas using them, and students will hear about the tools from friends. Advisors will be informed that, after spending one hour learning the tools, they will save many hours of time. The tools will be rolled-out in the summer when advising duties are lighter. Motivated volunteers and high-end users will be asked to use the tools first so that they can champion the tools to others.

C. Dissatisfaction during the transition period where new students' records are online while continuing students' records are in their original paper format or shadow system database. Mitigation: Inform staff upfront that they will need to have patience during the transition period (typically 2-4 years for undergraduates, 2-10+ years for graduate students). Inform staff that as more students' records are built online, less space will be needed to store paper files and less time will be devoted to determining if a student has an online or paper file. Help very resistant staff move paper files online by converting them to pdf's and adding them to online files.

D. Refusal to use the new tool. Mitigation: Supervisors will be able to tell if the tools are not being used and will be expected to follow up. Units on campus that previously accepted paper petitions will no longer accept them. Students will pressure advisors to use the tools.

E. Fear of making mistakes. Mitigation: A subset of users will be alllowed a trial-and-error period where mistakes are OK to build individual confidence in the tools.

F. Skepticism that the tool will work properly. Mitigation: Users will be informed about the design process (thoughtful business analysis, the best advisors worked in tandem with developers) and the amount of usability testing conducted.

G. Fear that system won't work or will crash. Mitigation: Quality assurance tests and application scans will be conducted to work out the kinks. Service-level agreements will be in place (i.e., the system cannot be down for more than 1 hour between 2-6 am, management has strict enforcement of agreements with sufficient resources) and appropriate back-up systems will be designed. Users will be informed what to do if a tool doesn't work (enter work ticket, wait one hour and try again, move advisor to phone to schedule appointments, type advising notes in Word and cut and paste into notes tool when it comes back online, back-up information to local storage) and the tech team will be quickly responsive.

H. Fear that system is too slow. Mitigation: Load testing will be conducted to determine necessary memory needs, especially during peak periods such as class registration times. High volume times will be clearly defined and acceptable performance levels will be communicated to IT staff.

I. Students do not like the idea of multiple advisors knowing what they've said to a specific advisor. Mitigation: Students will be informed by advisors that if they want to keep something confidential, it will be. In the Student Portal, a FERPA authorization form will be available for students to indicate what groups of people (parents, faculty, friends) can view different pieces of their student records. Students will also be informed of the benefits of shared advising notes, such as the elimination of having to repeat their story or issue to the next advisor they see and a more seamless advising experience.

J. Ergonomic complaints by staff who do not want to spend more time using a computer. Mitigation: Users will be directed to University Health Services' ergonomic resources and provided funding for ergonomic equipment like keyboard trays.

VI. Implementation Roll-out: The tools will be available first to undergraduate students and their advisors, then graduate students and advisors, then co-curricular advisors, then professional school students and advisors. All three tools in the Advisor Tool Kit expect the ultimate end-state to be 90% participation of advisors and students. To reach this goal, a tiered approach will be used:

A. The first group of users will be by special invitation to participate in a pilot. The ones selected will be those most able to work with new technology and have patience with inevitable roll-out glitches.

B. The second group will include volunteers clamoring to be early adopters and on the leading edge.

C. The third group will be an expansion of the tools to the entire campus.

D. The fourth group will be mandated use of the tools.

1. Roll-out Priorities:

a. Appointment Scheduling will roll-out first, since there are existing systems on campus that could be easily scalable at minimal cost. This tool could be one of the first functions on the advisor dashboard of the portal, or could be implemented independently.

b. Petition Processing will begin roll-out concurrently with appointment scheduling and will begin by addressing petitions with the biggest pain points and usage (such as 4,000+ L&S declarations of major) for the biggest workload savings.

c. Records Sharing will roll-out last, as it is the most complex and comprehensive of the three tools and will require the most resources and time to develop. It will be rolled out in colleges and academic departments first, then co-curricular units.

2. Processes: Advisors (especially those using paper files and petitions) will need to change their processes. Examples include:

a. Note-taking. Advisors who currently do not take notes at all will be required to do so.

b. Electronic note-taking. Advisors who currently record advising notes on paper will need to input them electronically and in an appropriate format such that students can view their individual records and other advisors can understand their jargon.

c. Viewing rights. After inputting notes, advisors will need to determine what other advisors should have access to them.

d. Appointment preparation. Advisors will be expected to view the advising note histories of students before meeting with them.

e. E-forms. Advisors will need to learn how to access, fill out, approve and submit forms online. Advisors who batch process now will want to process more frequently as other advisors will be able to view their progress on forms that require sequential approvals.

f. Appointment scheduling. Advising units will need to modify their current methods of scheduling appointments and seeing students. Advisors will need to be diligent about entering their availability into the online appointment system. Advising units that currently only offer drop-in service will need to make certain hours of each day available by appointment. Advisors accustomed to seeing students on a drop-in basis with no limit to the time block given to each student will need to adjust to scheduled appointment time limits on visits to stay on schedule.

3. Governance: The new advising tools will need to have two types of governance:

a. Advising Council. The technology will need to have leadership specialized in the field of advising to determine advising-related policies and goals, set standards of use and practice, and hold advisors accountable for appropriate use of the technology. This body will also be the functional owner of the technology, with day-to-day management and oversight.

b. Technical Owner. IST will have oversight of the hardware (servers), software, and technical support staff.

4. Policies: Advising policies will require new interpretations and modifications in order to achieve the best use of the technology. Examples include:

a. Acceptance of electronic signatures. Currently, only hand-written signatures are accepted.

b. Access level guidelines. Clearly defined roles will need to be established to abide by FERPA regulations and to determine which types of advisors have legitimate educational needs to view advising records.

c. Consequences of inappropriate use. The proposed Advising Council will need to create and enforce ethical standards and legal obligations.

d. Narrowing or broadening authority over decision-making. Due to ease of use, the tool could provide new types of access for implementing policies. For example, approvals of reduced study loads are currently the purview of academic advisors but co-curricular advisors like those in Student Life Advising Services (SLAS) might provide better student service by sharing this authority.

e. Content of advising notes. Guidelines will need to be created to define appropriate content of advising notes such that they can be easily understood by advisors (no acronyms) and students.
f. Defining who can schedule an appointment with a particular office: Advising units will need to establish criteria about appointment eligibility.

5. Roles: Staff roles will need to change, be re-classifiied, or new ones created to accommodate the new technology. Examples include:

a. Advisors: All advisors will need to be comfortable with technology. Tech-savvy advisors will be trained to build new forms and define work flows. The emphasis on building personal networks with key staff on campus to expedite processes will decrease. The reliance on specific individuals for historical knowledge or expediting processes will decrease. The ability to subvert or work-around another unit's process will decrease as processes move online and become more transparent.
b. Supervisors: Supervisors will be able to more closely hold staff accountable through use of tracking tools that indicate lack of advising notes recorded, petition processing hold-ups, number of appointments completed, etc.
c. Business Process Analysts: Business process specialists will need to be hired to work with advisors and similar subject matter experts to build the new tools.
d. Assessment Specialist. An assessment specialist will need to be hired to track and report on success metrics to ensure continuous responsiveness and improvement of the tools.
e. Security Officers: IT professionals will be needed to oversee access to the new tools.
f. Advising Council: A leadership structure will need to be formed from existing and new staff to oversee the implementation and continuing use of the new tools.

6. Organizational/Team Structure: Campus units with advising authority will need to change.

a. The advent of the Advising Council (see the Resource Request Application titled "Advising Council" for details) will require a re-organization of key parts of Student Affairs and Academic Affairs.
b. A new team of staff that reports to the Advising Council will need to be created to continually iterate and troubleshoot the tools.

7. Work Load: Work load for advising staff will change.

a. Work load will increase for advisors who currently do not record notes about advising sessions.
b. Work load will shift from time spent on tasks related to appointment scheduling (phone tag/email back-and-forth) to time spent on quality face-to-face advising. In offices where an administrative staff person handles scheduling of appointments, work load will shift to more critical mission functions.
c. Time spent processing petitions will decrease.
d. Prep time before student appointments will increase as advisors read each student's advising history, but this time will be offset by less time spent in appointments obtaining an advising history from the student.

Total Initiative (all projects)		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
HIGH COST BUDGET	Centrally Recapturable Savings	$0	$0	$0	$0	$0	$0	$0
	+ All Other Funding	$0	$2,828,000	$2,542,000	$1,412,000	$1,412,000	$10,217,000	$1,390,000
	- Expenses	$0	($2,828,000)	($2,542,000)	($1,412,000)	($1,412,000)	($10,217,000)	($1,390,000)
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings	$0	$0	$4,042,500	$6,542,000	$6,542,000	$17,127,000	$0
	= Total impact to UCB	$0	$0	$4,042,500	$6,542,000	$6,542,000	$17,127,000	$0

Project 1		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
Advising Records Sharing and On-line Appt. Scheduling	Centrally Recapturable Savings						$0	
HIGH COST BUDGET	+ All Other Funding	$0	$1,456,000	$1,401,000	$823,000	$823,000	$6,526,000	$801,000
	- Expenses	$0	($1,456,000)	($1,401,000)	($823,000)	($823,000)	($6,526,000)	($801,000)
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings			$2,499,500	$4,999,000	$4,999,000	$12,498,000	
	= Total impact to UCB	$0	$0	$2,499,500	$4,999,000	$4,999,000	$12,498,000	$0

Project 2		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
Document/Petition Processing	Centrally Recapturable Savings						$0	
HIGH COST BUDGET	+ All Other Funding	$0	$1,372,000	$1,141,000	$589,000	$589,000	$3,691,000	$589,000
	- Expenses	$0	($1,372,000)	($1,141,000)	($589,000)	($589,000)	($3,691,000)	($589,000)
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings			$1,543,000	$1,543,000	$1,543,000	$4,629,000	
	= Total impact to UCB	$0	$0	$1,543,000	$1,543,000	$1,543,000	$4,629,000	$0

Project 3		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
[Title of Project]	Centrally Recapturable Savings						$0	
	+ All Other Funding	$0	$0	$0	$0	$0	$0	$0
	- Expenses	$0	$0	$0	$0	$0	$0	$0
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings						$0	
	= Total impact to UCB	$0	$0	$0	$0	$0	$0	$0

Project 4		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
[Title of Project]	Centrally Recapturable Savings						$0	
	+ All Other Funding	$0	$0	$0	$0	$0	$0	$0
	- Expenses	$0	$0	$0	$0	$0	$0	$0
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings							
	= Total impact to UCB	$0	$0	$0	$0	$0	$0	$0

Multi-Year Sustainable Funding Model a

Advising Technology Advising Records Sharing and On-line Appt. Scheduling	(HIGH COST BUDGET)							
Funding Model: Sources (Sums rounded to nearest $1,000)	PROJECTED					Cumulative Total	Annual Run Rates	LINE ITEM DESCRIPTIONS
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			Briefly describe the sources and uses specified below. Explain significant changes over time.
OE Funding		$1,456,000	$1,401,000	$823,000	$823,000	$6,526,000	$801,000	Years 1 and 2 requires 1.0 FTE to build tool, maintenance will be folded into cost of Student Portal.
Dept/Unit: Specify						$0		
Dept/Unit: Specify						$0		
Centrally-capturable Savings[1]						$0		
Other (specify)[2]						$0		
Total funding	**$0**	**$1,456,000**	**$1,401,000**	**$823,000**	**$823,000**	**$6,526,000**	**$801,000**	
Other savings (not centrally-capturable)*			$2,499,500	$4,999,000	$4,999,000	$12,498,000		Projected to reduce advisor workload for administrative tasks by approximately 18% or 7 hours per week (+/- 50%). Does not include elimination of clerical staff responsible for petition processing and appointment scheduling. (Some have already been eliminated due to earlier budget cuts.)
** Calculated by taking hours from the high end of the ranges reported in section IIIH (difference between "current workload" and "ongoing workload) and multiplying by mid-point of hourly wage for Student Academic Advisor III ($37, includes benefits) and Academic Senate Faculty Step 5 ($50).*								
Expenses (Sums rounded to nearest $1,000)		PROJECTED				Cumulative Total	Annual Run Rates	
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			Note: Staffing levels for the development phase are based on that for the Student Portal, an analogous project, and were developed in consultation with the Director of Student Services Systems.
Technical Project Manager 3		$140,000	$140,000	0	0	$280,000	$0	1 FTE.
User Experience Designer 4		$100,200	$100,200	0	0	$200,000	$0	1 FTE for requirements gathering phase; assumes service not required during deployment/training phase.
Business Analyst/Info Systems Analyst 3		$239,400	$239,400	0	0	$479,000	$0	3 Business Analysts for requirements gathering & analysis, data modeling, identity management, etc.
Applications Programmers 4		$400,800	$400,800	$200,400	$200,400	$1,202,000	$200,400	4 FTE for development (outside contractors and/or IST): Includes Requirement Gathering & Analysis, Quality Assurance, Security Evaluation, Programming + establishment of Dev/QA/PROD environments + database support + network support. 2 FTE for on-going support.
Subject Matter Expert/Academic Advisor		$76,440	$76,440	0	0	$153,000	$0	Subject Matter Expert for requirements gathering through deployment/training phase; ideally a campus advisor would be recruited for the role and the project would backfill their position.
Assessment Specialist (Principal Admin Analyst I)		$54,754	$54,754	$54,754	$54,754	$219,000	$54,754	2/3 PAA (shared with a other advising tech tool).
Application Programming Manager 1		0	0	$82,962	$82,962	$166,000	$82,962	2/3 FTE shared w/ petition processing tech tool. (Based on BearFacts team).
Total Salaries		$1,011,594	$1,011,594	$338,116	$338,116	$2,699,420	$338,116	Salary mid-points used; tech positions could also be costed at the IST re-charge rate of $82/hour.
Benefits @30% or actual rate		$303,478	$303,478	$101,435	$101,435	$810,000	$101,435	
Supply & Expense		$61,980	$61,980	$21,960	$21,960	$168,000		Estimate $6K/professional FTE for phone, internet, supplies & expenses.
Software licenses/upgrades/maintenance		$18,900	$3,780	$3,780	$3,780	$30,000	$3,780	This project assumes that all requisite infrastructure is in place--i.e., a functional student portal upon which to build, including enterprise data services, role-based authentication, etc. Costs cover Kiosk software initial purchase & annual maintenance.
Hardware purchase and refresh		$60,100	$15,025	$15,025	$15,025	$105,000	$15,025	Cost reflects purchase of servers ($16K) + kiosks for each advising unit ($700/ea).
Hardware maintenance			$5,000	$5,000	$5,000	$15,000	$5,000	Assumes existing servers for portal infrastructure will be used.
Contract/consulting services (non-salary) - external vendors/programmers		$0	$0	$0	$0	$0	$0	
Office space		$0	$0	$0	$0	$0	$0	Assumes office space will be contributed by the campus.
Training & Travel		$0	$0	$0	$0	$0	$0	
Other costs[3]		$0	$0	$0	$0	$0	$0	
Total expenses	**$0**	**$1,456,000**	**$1,401,000**	**$823,000**	**$823,000**	**$6,526,000**	**$801,000**	
FUNDING LESS EXPENSES	$0	$0	$0	$0	$0	$0	$0	
Carryforward		$0	$0	$0	$0			
Cumulative Total	$0	$0	$0	$0	$0			

Multi-Year Sustainable Funding Model ar

Advising Technology	(HIGH COST BUDGET)							
Document/Petition Processing								
Funding Model: Sources (Sums rounded to nearest $1,000)	PROJECTED					Cumulative Total	Annual Run Rates	LINE ITEM DESCRIPTIONS
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			Briefly describe the sources and uses specified below. Explain significant changes over time.
OE Funding		$1,372,000	$1,141,000	$589,000	$589,000	$3,691,000	$589,000	
Dept/Unit: Specify						$0		
Dept/Unit: Specify						$0		
Centrally-capturable Savings[1]						$0		
Other (specify)[2]						$0		
Total funding	**$0**	**$1,372,000**	**$1,141,000**	**$589,000**	**$589,000**	**$3,691,000**	**$589,000**	
Other savings (not centrally-capturable)*			$1,543,000	$1,543,000	$1,543,000	$4,629,000		Time savings of 41,260 hours/year.

** Calculated by taking hours from the high end of the ranges reported in section IIIH (difference between "current workload" and "ongoing workload) and multiplying by mid-point of hourly wage for Student Academic Advisor III ($37, includes benefits) and Academic Senate Faculty Step 5 ($50).*

Expenses (Sums rounded to nearest $1,000)	PROJECTED					Cumulative Total	Annual Run Rates	
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			
Technical Project Manager 3		$140,000	$140,000	0	0	$280,000	$0	1 FTE. Tool managed within a line operation after deployment.
User Experience Designer 4		$100,200	$100,200	$50,100	$50,100	$300,600	$0	1 FTE for requirements gathering phase; 1/2 FTE as additional forms are rolled out.
Business System Analysts 3		$240,000	$240,000	$120,000	$120,000	$720,000	$120,000	Yr 1 and 2: 3.0 FTE Business Analysts @ $80K/year: to develop e-forms and workflows (2.0 FTE), analyze data requirements (.25 FTE), and specify roles and permissions (.25 FTE). Thereafter, 1.5 FTE for the same functions. BA staff would also be responsible for raining/helpdesk functions as needed. Excludes merit increases in out years.
Applications Programmer 4		$200,400	$200,400	$100,200	$100,200	$601,200	$100,200	2 FTE
Subject Matter Expert/Academic Advisor		$76,440	$76,440	$38,220	$38,220	$229,320	$0	Subject Matter Expert for requirements gathering through deployment/training phase; ideally a campus advisor would be recruited for the role and the project would backfill their position. SME will need to continue at reduced (half) time as additional forms are rolled out.
Assessment Specialist (Principal Admin Analyst I)		$27,368	$27,368	$27,368	$27,368	$109,472	$27,368	1/3 FTE shared with other advising tech tools.
Application Programming Manager 1		0	0	$37,710	$37,710	$75,420	$37,710	1/3 FTE shared with other advising tech tools.
Total Salaries		$784,408	$784,408	$373,598	$373,598	$2,316,012	$373,598	Salary mid-points used; tech positions could also be costed at the IST re-charge rate of $82/hour.
Benefits @30% or actual rate		$235,322	$235,322	$112,079	$112,079	$695,000	$112,079	Benefits associated with FTE above.
Supply & Expense		$51,960	$51,960	$33,600	$33,600	$171,000	$33,600	Estimate $6K/professional FTE for phone, internet, supplies & expenses.
Software licenses/upgrades/maintenance		$183,000	$33,000	$33,000	$33,000	$282,000	$33,000	Purchase costs could range from $50-150K; this scenario assumes $150K purchase with maintenance @ 22%.
Hardware purchase and refresh		$29,596	$36,272	$36,272	$36,272	$138,000	$36,272	Includes Servers and DBAs for Prod, QA, Test, Training; and infrastructure services. Provision for additional Prod Server ($6,676) after first year.
Hardware maintenance						$0	$0	Included in figures on line above.
Contract/consulting services (non-salary)		$88,000	$0	$0	$0	$88,000	$0	440 hours @ $200/hr. for vendor installation (40 hrs) and forms setup (400 hrs).
Office space		$0	$0	$0	$0	$0	$0	Assumes office space will be contributed by the campus.
Training & Travel		$0	$0	$0	$0	$0	$0	Some vendor training included in consulting services above.
Other costs: IST recharges[3]						$0		
Total expenses	**$0**	**$1,372,000**	**$1,141,000**	**$589,000**	**$589,000**	**$3,691,000**	**$589,000**	
FUNDING LESS EXPENSES	$0	$0	$0	$0	$0	$0	$0	
Carryforward		$0	$0	$0	$0			
Cumulative Total	$0	$0	$0	$0	$0			

Total Initiative (all projects)		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
MEDIUM COST BUDGET	Centrally Recapturable Savings	$0	$0	$0	$0	$0	$0	$0
	+ All Other Funding	$0	$1,896,000	$1,361,000	$856,000	$856,000	$4,969,000	$856,000
	- Expenses	$0	($1,896,000)	($1,361,000)	($856,000)	($856,000)	($4,969,000)	($856,000)
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings	$0	$0	$3,690,475	$5,853,700	$5,853,700	$15,398,000	$0
	= Total impact to UCB	$0	$0	$3,690,475	$5,853,700	$5,853,700	$15,398,000	$0

Project 1		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
Advising Records Sharing and On-line Appt. Scheduling	Centrally Recapturable Savings						$0	
MEDIUM COST BUDGET	+ All Other Funding	$0	$1,100,000	$765,000	$468,000	$468,000	$2,801,000	$468,000
	- Expenses	$0	($1,100,000)	($765,000)	($468,000)	($468,000)	($2,801,000)	($468,000)
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings			$2,163,225	$4,326,450	$4,326,450	$10,816,000	
	= Total impact to UCB	$0	$0	$2,163,225	$4,326,450	$4,326,450	$10,816,000	$0

Project 2		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
Document/Petition Processing	Centrally Recapturable Savings						$0	
MEDIUM COST BUDGET	+ All Other Funding	$0	$796,000	$596,000	$388,000	$388,000	$2,168,000	$388,000
	- Expenses	$0	($796,000)	($596,000)	($388,000)	($388,000)	($2,168,000)	($388,000)
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings			$1,527,250	$1,527,250	$1,527,250	$4,582,000	
	= Total impact to UCB	$0	$0	$1,527,250	$1,527,250	$1,527,250	$4,582,000	$0

Project 3		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
[Title of Project]	Centrally Recapturable Savings						$0	
	+ All Other Funding	$0	$0	$0	$0	$0	$0	$0
	- Expenses	$0	$0	$0	$0	$0	$0	$0
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings						$0	
	= Total impact to UCB	$0	$0	$0	$0	$0	$0	$0

Project 4		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
[Title of Project]	Centrally Recapturable Savings						$0	
	+ All Other Funding	$0	$0	$0	$0	$0	$0	$0
	- Expenses	$0	$0	$0	$0	$0	$0	$0
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings						$0	
	= Total impact to UCB	$0	$0	$0	$0	$0	$0	$0

Project 5		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
[Title of Project]	Centrally Recapturable Savings						$0	

Multi-Year Sustainable Funding Model an

Advising Technology	(MEDIUM COST BUDGET)							
Advising Records Sharing and On-line Appt. Scheduling								
Funding Model: Sources (Sums rounded to nearest $1,000)	PROJECTED					Cumulative Total	Annual Run Rates	LINE ITEM DESCRIPTIONS
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			Briefly describe the sources and uses specified below. Explain significant changes over time.
OE Funding		$1,100,000	$765,000	$468,000	$468,000	$2,801,000	$468,000	Years 1 and 2 requires .33 FTE to build tool.
Dept/Unit: Specify						$0		Years 1 and 2 requires 1.0 FTE to build tool, maintenance will be folded into cost of Student Portal.
Dept/Unit: Specify						$0		
Centrally-capturable Savings[1]						$0		
Other (specify)[2]						$0		
Total funding	**$0**	**$1,100,000**	**$765,000**	**$468,000**	**$468,000**	**$2,801,000**	**$468,000**	
Other savings (not centrally-capturable)			$2,163,225	$4,326,450	$4,326,450	$10,816,000		Projected to reduce advisor workload for administrative tasks by approximately 15% or 6 hours per week (+/- 50%). Does not include elimination of clerical staff responsible for petition processing and appointment scheduling. (Some have already been eliminated due to earlier budget cuts.)
** Calculated by taking hours from the mid-point of the ranges reported in section IIIH (difference between "current workload" and "ongoing workload) and multiplying by mid-point of hourly wage for Student Academic Advisor III ($37, includes benefits) and Academic Senate Faculty Step 5 ($50).*								
Expenses (Sums rounded to nearest $1,000)	PROJECTED					Cumulative Total	Annual Run Rates	
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			Note: Staffing levels for the development phase are a scaled back iteration of those developed in consultation with the Director of Student Services Systems for the high cost records sharing solution.
Technical Project Manager 3		$93,240	$46,620			$140,000		2/3 FTE (shared with other advising tech tool) for 18 mo development period.
User Experience Designer 4		$100,200	$50,100			$150,000		1 FTE for 1st year; .5 FTE for 2nd.
Subject Matter Expert/Academic Advisor		$79,800	$39,900			$120,000		Subject Matter Expert for requirements gathering through deployment/training phase; ideally a campus advisor would be recruited for the role and the project would backfill their position.
Business Analyst/Info Systems Analyst 3		$159,600	$119,700			$279,000		3.5 FTE for requirements gathering & analysis, data modeling, identity management, etc.
Applications Programmers 4		$300,600	$250,500	$200,400	$200,400	$952,000	$200,400	3 FTE for 18 mo. development period (outside contractors and/or IST): Includes Requirement Gathering & Analysis, Quality Assurance, Security Evaluation, Programming + establishment of Dev/QA/PROD environments + database support + network support. 2 FTE for on-going support.
Assessment Specialist (Principal Admin Analyst I)		$54,754	$54,754	$54,754	$54,754	$219,000	$54,754	2/3 PAA (shared with a other advising tech tool).
Application Programming Manager 1		$0	$0	$82,962	$82,962	$166,000	$82,962	2/3 FTE shared w/ petition processing tech tool. (Based on BearFacts team).
Total Salaries		$788,194	$561,574	$338,116	$338,116	$2,026,000	$338,116	Salary mid-points used; tech positions could also be costed at the IST re-charge rate of $82/hour.
Benefits @30% or actual rate		$236,458	$168,472	$101,435	$101,435	$608,000	$101,435	
Supply & Expense		$58,920	$31,440	$24,000	$24,000	$138,000	$24,000	Estimate $6K/professional FTE for phone, internet, supplies & expenses.
Software licenses/upgrades/maintenance						$0		
Hardware purchase and refresh		$16,000	$4,000	$4,000	$4,000	$28,000	$4,000	Includes purchase of servers for DEV/QA/PROD. This project assumes that all other requisite infrastructure will be in place--i.e., a functional student portal upon which to build, including enterprise data services, role-based authentication, etc.
Hardware maintenance						$0		Assumes existing servers for portal infrastructure will be used.
Contract/consulting services (non-salary) - external vendors/programmers						$0		
Office space						$0		Assumes office space will be contributed by the campus.
Training & Travel						$0		
Other costs: specify[3]						$0		
Total expenses	**$0**	**$1,100,000**	**$765,000**	**$468,000**	**$468,000**	**$2,801,000**	**$468,000**	
FUNDING LESS EXPENSES	$0	$0	$0	$0	$0	$0	$0	
Carryforward		$0	$0	$0	$0			
Cumulative Total	$0	$0	$0	$0	$0			

Multi-Year Sustainable Funding Model ar

Advising Technology	(MEDIUM COST BUDGET)							
Document/Petition Processing								
Funding Model: Sources (Sums rounded to nearest $1,000)	PROJECTED					Cumulative Total	Annual Run Rates	LINE ITEM DESCRIPTIONS
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			Briefly describe the sources and uses specified below. Explain significant changes over time.
OE Funding	$0	$796,000	$596,000	$388,000	$388,000	$2,168,000	$388,000	
Dept/Unit: Specify						$0		
Dept/Unit: Specify						$0		
Centrally-capturable Savings[1]						$0		
Other (specify)[2]						$0		
Total funding	**$0**	**$796,000**	**$596,000**	**$388,000**	**$388,000**	**$2,168,000**	**$388,000**	
Other savings (not centrally-capturable)			$1,527,250	$1,527,250	$1,527,250	$4,582,000		Time savings of 40,945 hours/year.

** Calculated by taking hours from the low end of the ranges reported in section IIIH (difference between "current workload" and "ongoing workload) and multiplying by mid-point of hourly wage for Student Academic Advisor III ($37, includes benefits) and Academic Senate Faculty Step 5 ($50).*

Expenses (Sums rounded to nearest $1,000)	PROJECTED					Cumulative Total	Annual Run Rates	
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			
Technical Project Manager 3		$140,000.00	$70,000.00	$0.00	$0.00	$210,000.00		1.00 FTE Yr1, .5 FTE Yr2
User Experience Designer 4		$25,050	$12,525			$38,000		.25 FTE (could be shared with other student services projects)
Subject Matter Expert/Academic Advisor		$39,900	$19,950			$60,000		.50 Subject Matter Expert for requirements gathering through deployment/training phase; ideally a campus advisor would be recruited for the role and the project would backfill their position.
Business Analyst/Info Systems Analyst 3		$159,600	$119,700			$279,000		2.0 FTE for requirements gathering & analysis, data modeling, identity management, etc. Drops to 1.5 in 2nd year.
Applications Programmers 4		$200,400	$200,400	$200,400	$200,400	$802,000	$200,400	2 FTE for 18 mo. development period: Includes IST-AS Costs (Req. Gathering & Analysis, QA, Security Eval., Programming) + IST-PS SA for Dev/QA/PROD + IST-DS (for DBAs) + IST-IS-NS for network design. 2 FTE for on-going support (based on current BearFacts team).
Assessment Specialist (Principal Admin Analyst I)		$54,754	$54,754	$54,754	$54,754	$219,000	$54,754	2/3 PAA (shared with a other advising tech tool).
Total Salaries		$479,704	$407,329	$255,154	$255,154	$1,398,000	$255154	
Benefits @ 30% or actual rate		$143,911	$122,199	$76,546	$76,546	$419,400	$76546.2	
Supplies & Expenses		$30,000	$24,000	$13,980	$13,980		$13980	
Software licenses/upgrades/maintenance		$122,000	$22,000	$22,000	$22,000	$188,000	22000	Assumes mid-level software tools @ $100K with 22% maintenance/year.
Hardware purchases/maintenance/refresh		$20,716	$20,716	$20,716	$20,716	$82,864	$20716	Includes servers and DBAs for Prod and Test, but not QA or Train. Would QA in Test and Train in Prod.
Office space						$0	$0	Assume office space will be contributed by campus.
Training & Travel						$0	$0	Some vendor training included in consulting services above.
Other costs: IST recharges[3]		$0	$0	$0	$0	$0	$0	
Total expenses	**$0**	**$796,000**	**$596,000**	**$388,000**	**$388,000**	**$2,168,000**	**$388,000**	
FUNDING LESS EXPENSES	$0	$0	$0	$0	$0	$0	$0	
Carryforward		$0	$0	$0	$0			
Cumulative Total	$0	$0	$0	$0	$0			

Total Initiative (all projects)		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
LOW COST BUDGET	Centrally Recapturable Savings	$0	$0	$0	$0	$0	$0	$0
	+ All Other Funding	$0	$918,000	$169,000	$169,000	$169,000	$1,425,000	$169,000
	- Expenses	$0	($918,000)	($169,000)	($169,000)	($169,000)	($1,425,000)	($169,000)
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings	$0	$0	$3,338,450	$5,165,400	$5,165,400	$13,670,000	$0
	= Total impact to UCB	$0	$0	$3,338,450	$5,165,400	$5,165,400	$13,670,000	$0

Project 1		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
Advising Records Sharing and On-line Appt. Scheduling	Centrally Recapturable Savings						$0	
LOW COST BUDGET	+ All Other Funding	$0	$592,000	$72,000	$72,000	$72,000	$808,000	$72,000
	- Expenses	$0	($592,000)	($72,000)	($72,000)	($72,000)	($808,000)	($72,000)
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings			$1,826,950	$3,653,900	$3,653,900	$9,135,000	
	= Total impact to UCB	$0	$0	$1,826,950	$3,653,900	$3,653,900	$9,135,000	$0

Project 2		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
Document/Petition Processing	Centrally Recapturable Savings						$0	
LOW COST BUDGET	+ All Other Funding	$0	$326,000	$97,000	$97,000	$97,000	$617,000	$97,000
	- Expenses	$0	($326,000)	($97,000)	($97,000)	($97,000)	($617,000)	($97,000)
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings			$1,511,500	$1,511,500	$1,511,500	$4,535,000	
	= Total impact to UCB	$0	$0	$1,511,500	$1,511,500	$1,511,500	$4,535,000	$0

Project 3		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
[Title of Project]	Centrally Recapturable Savings						$0	
	+ All Other Funding	$0	$0	$0	$0	$0	$0	$0
	- Expenses	$0	$0	$0	$0	$0	$0	$0
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings						$0	
	= Total impact to UCB	$0	$0	$0	$0	$0	$0	$0

Project 4		FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	TOTAL	Run Rate
[Title of Project]	Centrally Recapturable Savings						$0	
	+ All Other Funding	$0	$0	$0	$0	$0	$0	$0
	- Expenses	$0	$0	$0	$0	$0	$0	$0
	= NET	$0	$0	$0	$0	$0	$0	$0
	+ Other savings						$0	
	= Total impact to UCB	$0	$0	$0	$0	$0	$0	$0

Multi-Year Sustainable Funding Model a

Advising Technology Advising Records Sharing and On-line Appt. Scheduling	(LOW COST BUDGET)							
Funding Model: Sources (Sums rounded to nearest $1,000)	PROJECTED					Cumulative Total	Annual Run Rates	LINE ITEM DESCRIPTIONS
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			Briefly describe the sources and uses specified below. Explain significant changes over time.
OE Funding		$592,000	$72,000	$72,000	$72,000	$808,000	$72,000	
Dept/Unit: Specify						$0		
Dept/Unit: Specify						$0		
Centrally-capturable Savings[1]						$0		
Other (specify)[2]						$0		
Total funding	**$0**	**$592,000**	**$72,000**	**$72,000**	**$72,000**	**$808,000**	**$72,000**	
Other savings (not centrally-capturable)*			$1,826,950	$3,653,900	$3,653,900	$9,135,000		Projected to reduce advisor workload for administrative tasks by approximately 10% or 4 hours per week (+/- 50%). Does not include elimination of clerical staff responsible for petition processing and appointment scheduling. (Some have already been eliminated due to earlier budget cuts.)

** Calculated by taking hours from the low end of the ranges reported in section IIIH (difference between "current workload" and "ongoing workload) and multiplying by mid-point of hourly wage for Student Academic Advisor III ($37, includes benefits) and Academic Senate Faculty Step 5 ($50).*

Expenses (Sums rounded to nearest $1,000)	PROJECTED					Cumulative Total	Annual Run Rates	
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			Note: Staffing levels for the development phase are based on that for the Student Portal, an analogous project, and were developed in consultation with the Director of Student Services Systems.
Technical Project Manager 3		$93,240				$93,000		2/3 FTE (shared with other advising tech tool)
User Experience Designer 4		$50,100				$50,000		1/2 FTE
Subject Matter Expert/Academic Advisor		$39,900				$40,000		1/2 FTE Subject Matter Expert for requirements gathering through deployment/training phase
Business Analyst/Info Systems Analyst 3		$39,900				$40,000		1/2 FTE
Applications Programmer 4		$200,400	$50,100	$50,100	$50,100	$351,000	$50,100	2 FTE for development (outside contractors and/or IST): Includes Requirement Gathering & Analysis, Quality Assurance, Security Evaluation, Programming + establishment of Dev/QA/PROD environments + database support + network support. 1/2 FTE for on-going support. Assumes management responsibilities will be added to portfolio of an existing Application Services Manager.
Total Salaries		$423,540	$50,100	$50,100	$50,100	$574,000	$50,100	Salary mid-points used; tech positions could also be costed at the IST re-charge rate of $82/hour.
Benefits @30% or actual rate		$127,062	$15,030	$15,030	$15,030	$172,000	$15,030	
Supply & Expense		$24,960	$3,000	$3,000	$3,000	$34,000	$3,000	Estimate $6K/professional FTE for phone, internet, supplies & expenses.
Software licenses/upgrades/maintenance						$0		
Hardware purchase and refresh		$16,000	$4,000	$4,000	$4,000	$28,000	$4,000	Includes purchase of servers for DEV/QA/PROD
Hardware maintenance						$0		
Contract/consulting services (non-salary) - external vendors/programmers						$0		
Office space						$0		
Training & Travel						$0		
Other costs: specify[3]						$0		
Total expenses	**$0**	**$592,000**	**$72,000**	**$72,000**	**$72,000**	**$808,000**	**$72,000**	
FUNDING LESS EXPENSES	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	
Carryforward		**$0**	**$0**	**$0**	**$0**			
Cumulative Total	**$0**	**$0**	**$0**	**$0**	**$0**			

Multi-Year Sustainable Funding Model a

Advising Technology	(LOW COST BUDGET)							
Document/Petition Processing								
Funding Model: Sources (Sums rounded to nearest $1,000)	PROJECTED					Cumulative Total	Annual Run Rates	LINE ITEM DESCRIPTIONS
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			Briefly describe the sources and uses specified below. Explain significant changes over time.
OE Funding		$326,000	$97,000	$97,000	$97,000	$617,000	$97,000	
Dept/Unit: Specify						$0		
Dept/Unit: Specify						$0		
Centrally-capturable Savings[1]						$0		
Other (specify)[2]						$0		
Total funding	**$0**	**$326,000**	**$97,000**	**$97,000**	**$97,000**	**$617,000**	**$97,000**	
Other savings (not centrally-capturable)*			$1,511,500	$1,511,500	$1,511,500	$4,535,000		Time savings of 40,630 hours/year.

** Calculated by taking hours from the low end of the ranges reported in section IIIH (difference between "current workload" and "ongoing workload) and multiplying by mid-point of hourly wage for Student Academic Advisor III ($37, includes benefits) and Academic Senate Faculty Step 5 ($50).*

Expenses (Sums rounded to nearest $1,000)	PROJECTED					Cumulative Total	Annual Run Rates	
	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY14-15			Note: Staffing levels for the development phase are based on that for the Student Portal, an analogous project, and were developed in consultation with the Director of Student Services Systems.
Salaries		$26,666	$0	$0	$0	$27,000	$0	.33 FTE to design 1 form and associated workflow.
Benefits @30% or actual rate	$0	$8,000	$0	$0	$0	$8,000	$0	Associated benefits.
Supply & Expense		$2,000	$0	$0	$0	$2,000	$0	
Software licenses/upgrades/maintenance		$61,000	$11,000	$11,000	$11,000	$94,000	$11,000	Assumes low-end forms tool with minimal workflow @ $50K with 22% maintenance.
Hardware purchase and refresh		$20,176	$20,716	$20,716	$20,716	$82,000	$20,716	Servers and DBAs for PROD and TEST (will QA in TEST and train in PROD). No provision for additional servers to address increase in load.
Hardware maintenance						$0	$0	Hardware refresh covered in line above.
Contract/consulting services (non-salary)		$20,000	$0	$0	$0	$20,000	$0	100 hrs @ $200/hr for vendor installation and minimal training of forms designer.
Office space		$0	$0	$0	$0	$0	$0	Assume campus will provide space at no charge.
Training & Travel		$0	$0	$0	$0	$0	$0	Minimal training to be provided by vendor.
Other costs: IST Recharges[3]		$188,600	$65,600	$65,600	$65,600	$385,000	$65,600	.25 project mgr. (full-time 4 months), AS/DS implementation support (1600 hrs); .5 Prod support ongoing (ongoing costs could be lower).
Total expenses	**$0**	**$326,000**	**$97,000**	**$97,000**	**$97,000**	**$617,000**	**$97,000**	
FUNDING LESS EXPENSES	$0	$0	$0	$0	$0	$0	$0	
Carryforward		$0	$0	$0	$0			
Cumulative Total	$0	$0	$0	$0	$0			