Evaluation of Financing for U.C. Berkeley's California Memorial Stadium and Simpson Center for Student-Athlete High Performance

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Acronyms used in this report

AD Athletic Director.
CMS California Memorial Stadium.
ESP Endowment Seating Program.
FFE Funds Functioning as Endowment.
IA Department of Intercollegiate Athletics.
MOU Memorandum of understanding.
RSSP Residential and Student Services Programs
SAHPC Student-Athlete High Performance Center (now known as the Simpson Center).
TFIA Task Force on Intercollegiate Athletics.
TI Tenant improvement.
VCAF Vice Chancellor for Administration and Finance.
VCFS Vice Chancellor for Facilities Services.
VCSA Vice Chancellor for Student Affairs.

1 Introduction[1]

Designed by John Galen Howard with a neoclassical motif, the *California Memorial Stadium* (**CMS**) was built in 1923 on a prime site at the base of Strawberry Canyon and was dedicated as a memorial to the California citizens who gave their lives in World War I. It is now regarded as one of the most scenic venues for college football in the country, and is listed on the National Register of Historic Places. However, the stadium had been known for many years to have serious seismic and programmatic deficiencies. The Hayward fault runs through the middle of the Stadium along its north/south axis, and the stadium had a seismic rating of poor. The most obvious life-safety risk was a seismic event during the few hours of the year when the stadium bowl was occupied by tens of thousands of spectators. But there were also several hundred U.C. employees and student-athletes whose daily work or activity site were located under the western grandstands (though this is not the case since the renovation). There were many fewer people at risk here but the exposure period was much longer. The old press box atop the western grandstand posed such a serious seismic risk that it had to be demolished. Programmatic deficiencies included inadequate facilities, such as locker rooms and meeting rooms to support the 13 sports teams at the CMS hub. The facilities for some women's sports teams were so inadequate that the campus could possibly have been subject to being cited for Title IX deficiencies. The facilities for sports medicine and conditioning and training for student-athletes were inadequate and placed Berkeley last in the Pac Ten in terms of such facilities (on a square footage basis). Finally, game day amenities were wholly inadequate for either fan enjoyment or revenue generation.

In the Fall of 2004, newly arrived Chancellor Birgeneau appointed a joint Senate, Alumni and Administration task force to develop recommendations to improve life-safety in the stadium and to upgrade the athletic facilities. The group came up with a three phase plan:

1. The first phase was the construction of a building immediately west of CMS and partially underground, whose roof would form a plinth for the stadium. This facility, the *Student-Athlete High Performance Center* (**SAHPC**), now known as the Simpson Center, would house facilities, locker rooms, and offices for the sports teams operating out of the CMS hub as well as modern conditioning and training facilities and sports medicine facilities. This building would move the employees and student-athletes out from under the western grandstands of CMS to a safer location. The SAHPC was expected to be financed by donations to supplement the operating budget of the department of *Intercollegiate Athletics* (**IA**). This plan was subsequently amended to include bond financing.
2. Phase two was the seismic retrofit of the entire stadium and renovation and modernization of the western portions of the stadium. Phase two also included completely rebuilding the

[1] We are very grateful to Calvin Moore for writing this introduction.

western grandstand and creating about 3,000 premium seats and associated club facilities in prime areas on the western side of the stadium. Sales of these seats at a premium price over a long period of time under the *Endowment Seating Program* (**ESP**) was planned to create an income stream and a *Funds Functioning as Endowment* (**FFE**) balance to supplement the IA budget. The financial plan also included philanthropy and naming opportunities.

3. Phase three, which was optional as it did not involve any seismic work, would renovate and modernize the eastern portion of the stadium.

The campus also considered, and rejected, alternatives to these plans, such as abandoning the stadium and either building a new stadium elsewhere or renting a stadium for home football games.

Since the campus would be going back to the same supporters and donors for financial support for the three phases, it was judged that the three phases should be phased over time. Detailed planning and fund raising for phase one did begin right away. However the tree sitters and lengthy litigation in the courts concerning SAHPC slowed down progress on the project and also dulled the interest and enthusiasm of some potential donors. In addition, the Regents in 2008 instructed the campus to either do the seismic retrofit of the CMS right away or abandon the stadium. As a result, phase two of the project, including the fund-raising, had to start right away, so fund-raising for the two phases overlapped. Although significant funds had already been raised toward the cost of the Simpson Center, the tree sitters, the litigation, and the instruction from the regents really prevented the successful conclusion of the fund-raising for the Center. In effect phases one and two became a single project, and the financial models were merged with the understanding that the fund-raising for CMS had to be particularly robust to compensate for the shortfall in SAHPC fund-raising. Phase three has been deferred to the future.

ESP sales began in July 2009. The IA Director of Development reported very positive ESP sales figures to *Athletic Director* (**AD**) Sandy Barbour and to campus leadership. These figures were in turn relayed by VC Brostrom to the Academic Senate at its November 2009 meeting and by VC Yeary to the Senate *Task Force on Intercollegiate Athletics* (**TFIA**) in the Spring of 2010. The Director of Development in IA reported in a press release on June 30, 2010 that 1,854 seats with an up-front value of $157 million had been sold in the first year alone. These numbers gave a false sense of confidence to campus leadership and to the Senate and TFIA that the ESP program was very likely to meet its goals. It was not until several months later, after the IA Development Director had left U.C. employment, that it was discovered that these sales figures were vastly inflated. Indeed, using the current, much more conservative accounting, the 1,745 seats recorded as sold by June 30, 2012, was still over 100 less than the value originally reported two years earlier.[2]

[2]A seat is now recognized as sold only if both i. the seat holder is up-to-date in payments, and ii. the seat holder's paperwork is signed and on file in the IA office. If either of these does not hold, the seat is not considered sold, but

In April 2012, *Vice Chancellor for Administration and Finance* (**VCAF**) John Wilton requested that we undertake a review of the model developed by IA for financing the debt incurred by the University to finance the CMS and SAHPC projects.[3] This report, the result of our review, is organized as follows. Section 2 describes the debt financing associated with the stadium projects, the cash flows needed to service that debt, IA's current forecasts for sources of cash from which to pay off the debt, and the resulting FFE balances if these assumptions turn out to hold exactly. Section 3 analyzes the main assumptions in more detail and performs various sensitivity analyses to get a better understanding for the stadium's financial position under various modifications of the base assumptions. This section also draws attention to some serious structural problems in the decision-making process for real estate projects across the Berkeley campus (not just the stadium), which make it very difficult to achieve the financial results that the campus's large real estate holdings could, in principle, achieve. Section 4 concludes. There are also several appendices. Appendix A lists data sources used; Appendix B gives details of the current IA revenue projections; Appendix C is a copy of the February 2013 financing update from the ESP Web site, http://www.calbears.com/genrel/advancingCalAthletics_esp.html, which describes the process leading to the new revenue forecasts; Appendix D gives details of available CMS event and rental square footage; Appendix E presents a detailed analysis of the rate of return estimates used in this report; Appendix F gives details of the investment policies of the U.C. Berkeley Foundation and the U.C. Regents; and Appendix G contains the results of some market research on the project, conducted in September 2008.

2 Financing the Construction

2.1 Construction Costs and Stadium Debt

The total cost of the SAHPC, including both project and financing costs, will be approximately $153 million. Of this, approximately $126 million was funded through external financing[4] and the remainder was met from private gifts. To date, a total of $86 million has been pledged by donors, of which approximately $27 million was used for construction. The remaining philanthropy will be invested in a fund functioning as an endowment to support Cal Athletics over time. The total cost of the Memorial Stadium renovation, including both project costs and financing costs, will be

only in progress.

[3] During our work, IA staff significantly changed the approach to financing the new facilities, primarily by adding new sources of revenue not included in the original model (See Appendix C). Our analysis relates to the new, more-diversified revenue model.

[4] U.C. issued bonds for this project with a face value of $124 million in August 2009.

approximately $321 million, all financed externally,[5] bringing the total amount of debt for both projects combined to $445 million.

Table 1 gives details of each of the bond issues and Figure 1 shows the annual payments required to service this debt, showing the split between SAHPC vs. CMS debt (1a) and interest vs. principal (1b). With only interest payments due between 2013 and 2031, the annual payments during this period are a constant $18.1 million.[6] As principal starts to be paid back in 2032, payments rise to $26–37 million from 2032–2050, before falling to $6.9 million in 2051 (most of the debt is paid off by 2050), and then jumping up to $81.9 million in 2053 as the remaining $75 million principal on the 2112 bond is paid off.[7]

2.2 Projected Sources of Funds

The debt will be repaid from the budget of the Intercollegiate Athletics (IA) Department. To repay the debt, IA is relying on funds from six sources:

1. **The Endowment Seating Program (ESP).** Proceeds of selling 40- to 50-year interests in roughly 3,000 of the best seats in the stadium. These seats come with access to special club facilities at costs from $40K–$225K, payable up-front or over five or thirty years with an administrative rate of 6% per year. Figure 2 shows the location of the ESP seats in the stadium, and Table 2 shows the benefits associated with the different levels of seat. Table 3 shows the number of seats at each price level, along with the number sold as of June 2012 (the end of the fiscal year 2011–12) and forecast sales levels from 2013–2021. One important thing to note from this table is that even if every ESP seat were sold for cash up-front, the total raised, $311 million, would be well below the $445 million in outstanding debt for both the CMS and SAHPC facilities. Thus, to pay off the consolidated debt, some other source of revenue is required in addition to ESP seat sales.
2. **Other seat sales.** Short-term revenue raised from ESP seats, including corporate bundles, reduced-rate sales of single tickets to existing ESP seat-holders, and group bundles.
3. **Philanthropy.** Fund-raising, including other commercial revenue.
4. **New Media.** A portion of additional revenue to IA as a result of new post-season football and future new media revenue renegotiation or in-house structure.

[5] U.C. issued $276 million in bonds in August 2009, September 2010, and February 2012, with a further $44.6 million still to be issued.

[6] The payment due in 2013 is actually slightly lower than this because some of that year's payment will be paid using "capitalized interest" set aside for this purpose out of the original bond proceeds.

[7] Because the focus of our analysis is on how much money remains in the FFE account in 2053, we assume that the $75 million principal on the 2112 "century" bond is paid off in full in 2053, even though it does not have to be paid back until 2112. We also assume that the remaining $44.555 million in debt is issued in 2013, with a coupon rate of 4.0% and a maturity of 40 years, and paid off interest-only for 20 years, then in 20 equal payments over the next 20 years.

Table 1: **Bond details.** This table gives details of the bonds issued (and to be issued) between 2009 and 2013 to finance the SAHPC and CMS construction and retrofit.

Debt Issue	Principal ($ million)	Date Issued	Mat.[a]	Bond type	Coup. (gross)	Coup. (net)[b]
SAHPC						
1. GRB 2009 Series Q[c,d]	5.645	8/2009	2040	Tax-exempt	5.00%	5.00%
2. GRB 2009 Series R[e]	118.375	8/2009	2043	Build America[f]	5.77%	3.75%
Total SAHPC debt	124.020					
CMS						
1. GRB 2009 Series R[g]	22.945	8/2009	2043	Build America	5.77%	3.75%
2. GRB 2009 Series Q[h]	0.090	8/2009	2040	Tax-exempt	5.00%	5.00%
3. LPR 2010 Series F[i,j]	178.410	9/2010	2050	Build America	6.14%	3.99%
4. GRB 2012 Series AD[k]	75.000	2/2012	2112	Taxable	4.86%	4.86%
5. To Be Issued[l]	44.555	2013	2053	TBA	4.00%	4.00%
Total CMS debt	321.000					
Total debt	445.020					

[a] The maturity date listed in each case is the date of the last scheduled principal payment, but in most cases some principal will be paid back earlier. For example, most of the principal on the GRB 2009 Series Q bonds is due to be paid back in May 2032, the principal on the GRB 2009 Series R bonds is due to be paid back in increasing installments between 2032 and 2043, and the principal on the LPR 2010 Series F bonds is due to be paid back in increasing installments between 2039 and 2050. Principal on the 2112 "century bond" does not have to be repaid until 2112, but the university has the right to pay this off earlier.

[b] Build America bonds are taxable, but the university receives a rebate from the Federal government (see http://www.treasury.gov/initiatives/recovery/Pages/babs.aspx).

[c] GRB = General Revenue Bond.

[d] See http://emma.msrb.org/IssueView/IssueDetails.aspx?id=EP328212.

[e] See http://emma.msrb.org/IssueView/IssueDetails.aspx?id=EP328199.

[f] See http://www.treasury.gov/initiatives/recovery/Pages/babs.aspx for information on the Obama Administration's Build America Bonds program.

[g] See http://emma.msrb.org/IssueView/IssueDetails.aspx?id=EP328199.

[h] See http://emma.msrb.org/IssueView/IssueDetails.aspx?id=EP328212.

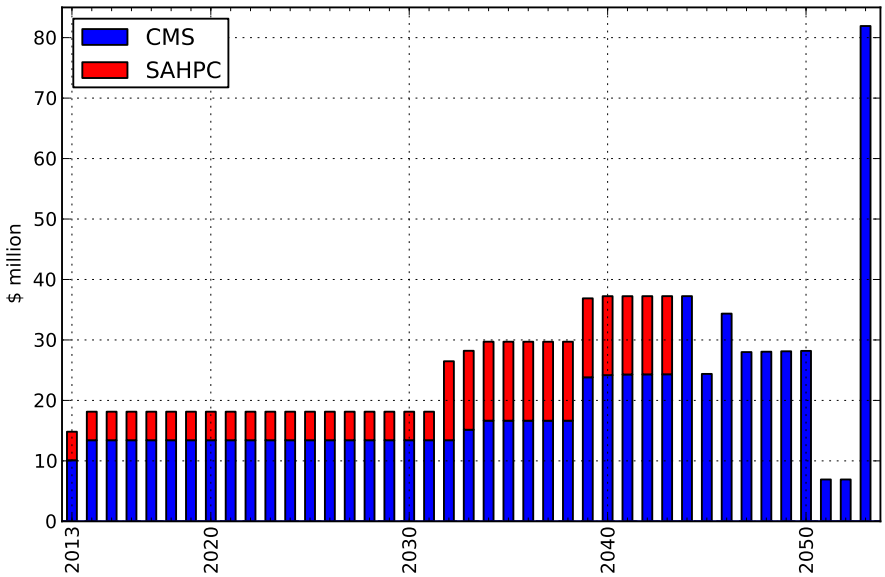
[i] LPR = Limited Project Revenue Bonds.

[j] See http://emma.msrb.org/IssueView/IssueDetails.aspx?id=EA338536.

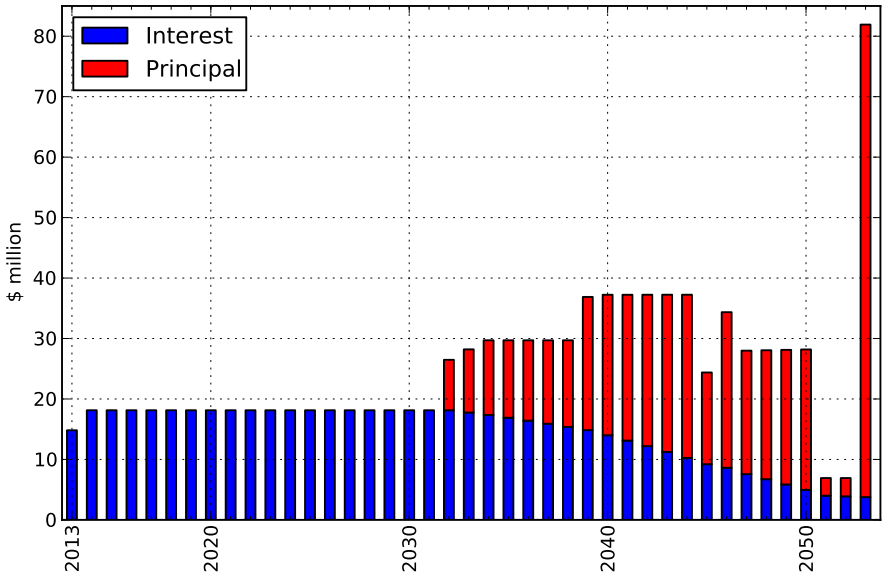
[k] See http://emma.msrb.org/IssueView/IssueDetails.aspx?id=ER348960.

[l] This debt has yet to be issued, so coupon rates are estimated.

Figure 1: **Bond payment schedule.** The figure shows scheduled annual payments required from 2013–2053 to service the debt (described in Table 1) issued to finance SAHPC and the stadium renovations. While the $75 million principal on the 2112 "century" bond is not due until 2112, for modeling purposes we assume it is paid off in 2053. We also assume that an additional $44.555 million in debt is issued in 2013 with a coupon rate of 4.0% and a maturity of 40 years, and paid off interest-only for 20 years then in 20 equal payments over the next 20 years.



(a) **CMS vs. SAHPC**



(b) **Interest vs. principal**

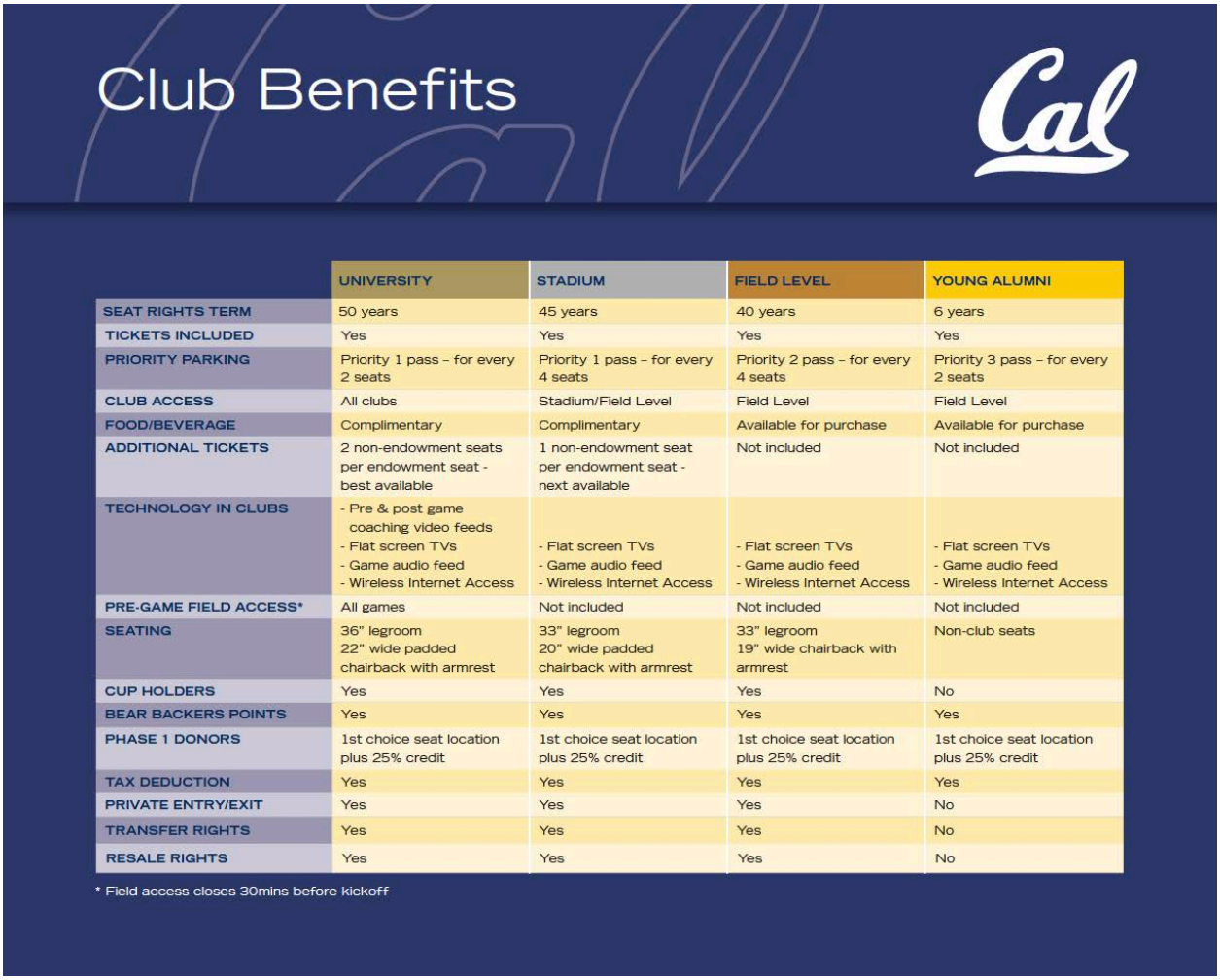
Figure 2: **ESP seating map**
http://grfx.cstv.com/photos/schools/cal/genrel/auto_pdf/2012-13/misc_non_event/13_cms_pricing_map.pdf

Section	Donation	Season Ticket Price	Total Price
Premium Seating/Clubs (ESP)	For pricing call (800) GO BEARS (462-3277)		
FF, H	$1400	$300	$1700
F, HH	$500	$300	$800
EE, I	$200	$300	$500
T, TT	$100	$300	$400
E, II, U	$50	$300	$350
D, DD, J, JJ, K, Q, PP, UU-VV	-	$300	$300
A,AA,B,BB,C,CC,W,WW,X,XX	-	adult/youth-senior** $225/$125	$225/$125
QQ (New Alumni)	$100	$99	$199
R, RR, SS, S (Students)	-	$98	$98
MM-P (Visitors)	-	-	-
White (KK-M)	Reserved for groups / single game tickets		

*Current UC Berkeley Faculty/Staff will receive a 20% discount on $300 price tickets (limit 2).
New Alumni are considered UC Berkeley graduates from 2004-13 (limit 2).
**Youth are considered 12th grade and under; seniors are considered ages 65 and above.
All patrons 24 months and older are required to have a ticket to all home football games.

ADA Accessible Seating

Table 2: **ESP seat benefits**
http://grfx.cstv.com/photos/schools/cal/genrel/auto_pdf/2012-13/misc_non_event/esp_benefits_chart.pdf



	UNIVERSITY	STADIUM	FIELD LEVEL	YOUNG ALUMNI
SEAT RIGHTS TERM	50 years	45 years	40 years	6 years
TICKETS INCLUDED	Yes	Yes	Yes	Yes
PRIORITY PARKING	Priority 1 pass – for every 2 seats	Priority 1 pass – for every 4 seats	Priority 2 pass – for every 4 seats	Priority 3 pass – for every 2 seats
CLUB ACCESS	All clubs	Stadium/Field Level	Field Level	Field Level
FOOD/BEVERAGE	Complimentary	Complimentary	Available for purchase	Available for purchase
ADDITIONAL TICKETS	2 non-endowment seats per endowment seat - best available	1 non-endowment seat per endowment seat - next available	Not included	Not included
TECHNOLOGY IN CLUBS	- Pre & post game coaching video feeds - Flat screen TVs - Game audio feed - Wireless Internet Access	- Flat screen TVs - Game audio feed - Wireless Internet Access	- Flat screen TVs - Game audio feed - Wireless Internet Access	- Flat screen TVs - Game audio feed - Wireless Internet Access
PRE-GAME FIELD ACCESS*	All games	Not included	Not included	Not included
SEATING	36" legroom 22" wide padded chairback with armrest	33" legroom 20" wide padded chairback with armrest	33" legroom 19" wide chairback with armrest	Non-club seats
CUP HOLDERS	Yes	Yes	Yes	No
BEAR BACKERS POINTS	Yes	Yes	Yes	Yes
PHASE 1 DONORS	1st choice seat location plus 25% credit	1st choice seat location plus 25% credit	1st choice seat location plus 25% credit	1st choice seat location plus 25% credit
TAX DEDUCTION	Yes	Yes	Yes	Yes
PRIVATE ENTRY/EXIT	Yes	Yes	Yes	No
TRANSFER RIGHTS	Yes	Yes	Yes	No
RESALE RIGHTS	Yes	Yes	Yes	No

* Field access closes 30mins before kickoff

Table 3: **ESP seat details and sales forecasts.** Revenue from these seats is dedicated to paying off the debt associated with the CMS/SAHPC construction and retrofit.

Section	Price	Total Seats	Seats sold 2010	2011	2012	Total seats	Total $M
Field C	40,000	356	62	101	25	188	7.52
Field B	50,000	404	211	57	51	319	15.95
Field A	60,000	824	283	115	110	508	30.48
Stadium C	75,000	238	143	36	30	209	15.68
Stadium B	100,000	154	84	24	23	131	13.10
Stadium A	125,000	776	177	43	63	283	35.38
University C	175,000	136	6	12	10	28	4.90
University B	200,000	100	3	8	−2[a]	9	1.80
University A	225,000	236	32	24	14	70	15.75
Total seats		3,224	1,001	420	324	1,745	140.55
Total $M		311.03	80.11	33.36	27.08	140.55	

(a) **Seat details and historical sales to June 30, 2012**

[a] A seat is recognized as sold only if both i. the seat holder is up-to-date in payments, and ii. the seat holder's paperwork is signed and on file in the IA office. If either of these does not hold, the seat is not considered sold, but only in progress. A seat recognized as sold in one year can revert to being in progress in a future year (*lowering* the number of seats sold), either because payments stop being up-to-date or because a change in paperwork has begun but has not not yet been completed.

Section	Price	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total seats	Total $M
Field C	40,000	20	4	0	0	0	0	42	0	0	66	2.64
Field B	50,000	20	16	20	10	0	0	0	0	0	66	3.30
Field A	60,000	10	30	30	40	50	50	8	0	0	218	13.08
Stadium C	75,000	10	0	0	0	0	0	0	0	0	10	0.75
Stadium B	100,000	10	0	0	0	0	0	0	0	0	10	1.00
Stadium A	125,000	20	50	40	40	20	0	0	0	0	170	21.25
University C	175,000	6	0	0	0	0	0	0	0	0	6	1.05
University B	200,000	6	20	20	20	20	0	0	0	0	86	17.20
University A	225,000	8	0	0	0	0	20	20	20	20	88	19.80
Total seats		110	120	110	110	90	70	70	20	20	720	80.07
Total $M		10.70	13.01	11.80	11.90	9.50	7.50	6.66	4.50	4.50	80.07	

(b) **Forecasted sales (2013–2021)**

5. **Rental revenue.** Rental of club spaces for events, as well as office space to other units on (and off) campus.
6. **Investment earnings.** Earnings on the cumulative balance in the FFE (Funds Functioning as Endowment) account associated with this project. The account contained $50 million on July 1, 2012, and any funds raised each year in excess of debt payments will also be put into this account. For forecasting purposes, it is assumed that funds in this account grow at 6% per year.

Figure 3 shows projected cash flows from each source from 2013–2053 under the current (February 2013) IA forecasts.[8] Figure 4 shows the net cash flow each year (sources from Figure 3 minus uses from Figure 1), along with the balance in the FFE account at the end of every year up to 2053. We shall discuss these forecasts in more detail in Section 3, but the two main things to take away from this figure are:

1. If seat sales, earnings rates and other assumptions turn out as IA has forecasted, the FFE account will have a balance of $319 million in 2053 (justifying the name *Endowment Seating Program*).
2. The two most important sources of funds are ESP sales and investment earnings. New media revenues, especially in the later years, are the next most important.

3 Analysis

As we just saw, under the assumptions described in Section 2, the FFE balance at the end of 2053 is $319 million. However, the exact value (and whether the balance is positive at all) depends heavily on how realized ESP sales, returns and other items compare with the forecasts. In this section, we try to shed more light on the range of likely outcomes by looking at the reasonableness of the IA assumptions and performing sensitivity analyses to understand how variations in the outcomes affect the final FFE balance.

[8] Details of the forecasts are given in a separate document provided by IA, attached to this document as Appendix B. Note that there is a minor timing approximation involved in calculating the cash flows from seat sales. We always assume that cash flows begin the year a sale is recorded. However, suppose a seat were sold (and recognized as sold) this year, that the seat stopped being recognized as sold next year (either because the payments were late or because a change in paperwork was initiated but not yet completed), and that it was recognized as sold again the year after, once everything is taken care of again. The seat would contribute $+1$, -1, and $+1$ to the realized seat sales this year and over the next two years, respectively, so in our calculations we would treat this as one set of seat cash flows beginning this year, a *negative* set of cash flows beginning next year, and another (positive) set of seat cash flows beginning two years from now. In reality, of course, there would just be one set of cash flows associated with this seat, beginning today.

Figure 3: **Sources of funds to repay stadium debt.** This figure shows the projected sources of funds from 2013–2053 used to repay debt issued to finance SAHPC and the stadium renovations. Seat sales are shown net of estimated cannibalization of existing sales.

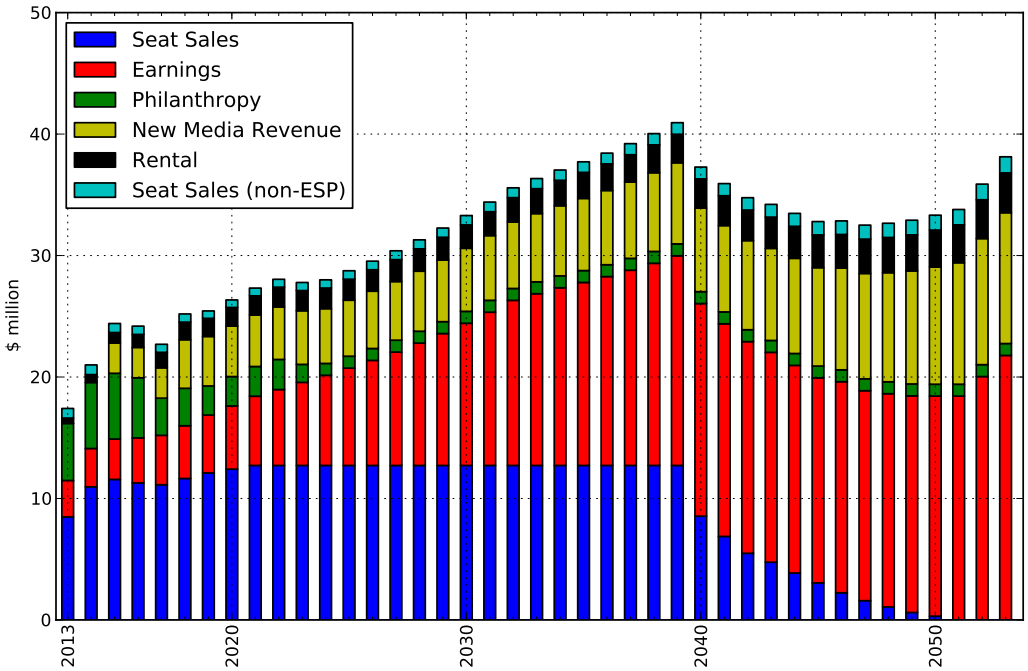
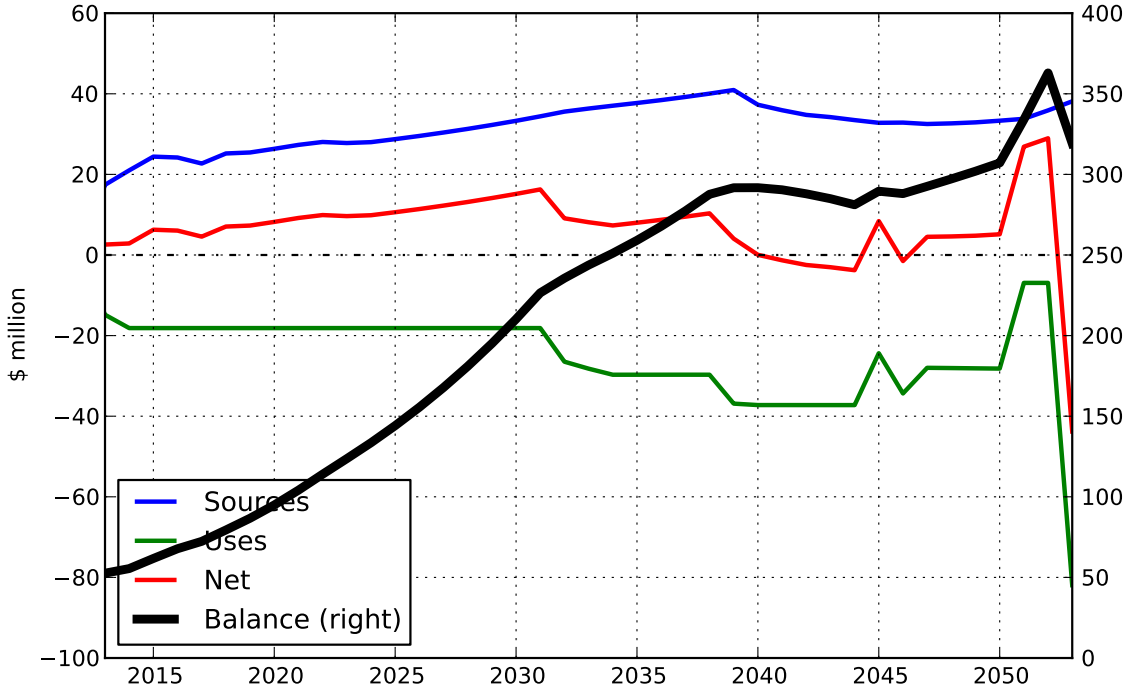


Figure 4: **Sources and uses of funds and FFE balances, 2013–2053.** This figure shows projected sources (from Figure 3) and uses (from Figure 1) of funds on the left axis and FFE balance on the right axis from 2013–2053.



3.1 ESP Sales

Under IA's projections, sales of ESP seats are the most significant source of cash to pay off the stadium debt, particularly in the early years. None of us knows anything about selling seats in football stadia, so to try to understand likely sales levels and the reasonableness of IA's projections, we asked IA to provide detailed background on all aspects of the forecasts (not just ESP sales), including:

- A detailed summary of each item in the current forecasts, explaining what all assumptions were and why each made sense.
- Results of any market research or other analysis providing feedback on likely sales levels.
- Process by which seat pricing at different levels was decided on.
- History of sales projections over time, how they compared with actual sales, reasons for any discrepancies, and how and why the projections were updated in response.
- Comments, reports or other feedback from outside experts or other parties.
- Comparisons with other similar projects.

Unfortunately, in part because most of the people currently responsible for managing the debt payments were not at U.C. Berkeley at the time the original decisions were made, we were unable to obtain many documents concerning the rationale behind the original decision or any of the detailed planning or forecasting documents associated with that decision. We did receive:

- Some additional details on the current forecasts, with IA's rationale behind each assumption and the name of the person at IA responsible for that assumption. This document, put together by Solly Fulp and Justin Panarese, is attached to this report as Appendix B.
- The financing update for the quarter ending 12/31/13, posted on the ESP Web site, http://www.calbears.com/genrel/advancingCalAthletics_esp.html, on Feb. 15, 2013. This contains a discussion of the process behind the new forecasts, and some explanation of the changes between the old and new forecasts. It is attached to this report as Appendix C.
- Historical ESP sales forecasts, dating back to before sales started, provided by Laura Hazlett.
- A Powerpoint presentation showing the results of a market research survey conducted by C&R Research in August and September 2008, and sent to 4,389 existing UCB donors, regarding their potential interest in the ESP program.

The current forecasts were put together under the direction of Solly Fulp at the end of 2012. We also have the prior set of forecasts, in use up to September 2012, but no details on how these forecasts were arrived at. We also consulted numerous press articles, published at various stages of the project. A common theme in these articles, often quoting Roger Noll, an outside expert in the field, is that the revenue and fund-raising forecasts for the stadium were very optimistic. For example,

- **New York Times, September 15, 2011**:[9] "It's ambitious, and it's optimistic," said Roger Noll, a Stanford economist and a leading academic authority on stadium financing. "And, unfortunately, they're going to have to commit to spending $350 million before they know whether they'll get the revenue..." The low percentage of donors who have paid up front worries Mr. Noll, the Stanford professor. "That strikes me as a warning sign," he said. "People have bought the right to have tickets for a few years, but they haven't really bought into the endowment part." Mr. Noll said he believes the E.S.P. will fall $50 million to $100 million short of plan.
- **Insidebayarea.com, April 20, 2012**:[10] Stanford economics professor Roger Noll, an expert in stadium financing..., consulted with Cal's faculty budget committee while the financing plan was being created. He believes the fund-raising goals were "extremely ambitious," especially when compared to similar projects at Texas and Michigan—huge state universities that have first-rate academic reputations but more football tradition than Cal. "Cal's proposal was based on the expectation of raising three-to-five times the amount of the other schools," Noll said. "That seemed implausible."
- **CBS news, May 9, 2012**:[11] "I feel really sorry for the faculty and students of Cal because there is going to be a huge financial hit a couple of years from now," said Roger Noll, a stadium financing expert and emeritus professor at Stanford University.... "At this point, being 15 percent there in terms of cash in the bank and half way there if you get everything you planned from those people who made the down payment, is really scary," Noll said.

A comparison of the historical forecasts with realized sales to date tells a similar story. Table 4 shows the history of ESP sales forecasts over time. Panel 4a shows the originally forecasted sales levels from before ESP sales began, Panel 4b shows the forecasts in use last year,[12] and Panel 4c shows actual sales realized from 2010–2012.[13] It can be seen that the total number of seats expected to be sold (2,878) remained constant between the two forecasts, though the forecasted revenue dropped from $278 million to $251 million as the mix of seats changed.[14]

[9] See "Skeptics Cast Wary Eyes on Plan to Finance Cal Stadium Upgrade" by Ryan Phillips, New York Times, September 15, 2011.

[10] See "Cal's Memorial Stadium financing faces challenge to meet lofty goals" by Jon Wilner, April 20, 2012, http://www.insidebayarea.com/ci_20438401/cals-stadium-financing-faces-challenge-meet-lofty-goals?IADID=Search-www.insidebayarea.com-www.insidebayarea.com.

[11] See "Concerns Mount over Financing of Cal Stadium", http://sanfrancisco.cbslocal.com/2012/05/09/concerns-mount-over-financing-of-cal-stadium-project/.

[12] Both sets of forecasts were provided by Laura Hazlett. Sales numbers for 2010 and 2011 in Table 4b are actual sales levels, not forecasts. Note that the 2011 forecast numbers are actually the most optimistic of five different scenarios considered (see Appendix C for details).

[13] These sales numbers reflect the amount that would be raised if all seats were sold for cash up-front. In practice, the majority of seats so far have been sold with payments due over 5 or (especially) 30 years.

[14] The original forecasts assumed that the same proportion of seats would sell at all price levels. The 2011 forecasts assumed that a higher fraction of lower-priced seats would sell, consistent with realized sales in the first two years.

Table 4: **Historical ESP sales forecasts**

Section	Price	2010	2011	2012	2013	Total seats	Total $M
Field C	40,000	209	52	52	0	313	12.52
Field B	50,000	244	61	60	0	365	18.25
Field A	60,000	488	123	122	0	733	43.98
Stadium C	75,000	137	34	34	0	205	15.38
Stadium B	100,000	94	23	23	0	140	14.00
Stadium A	125,000	464	117	116	0	697	87.13
University C	175,000	82	20	20	0	122	21.35
University B	200,000	67	17	17	0	101	20.20
University A	225,000	134	34	34	0	202	45.45
Total seats		1,919	481	478	0	2,878	278.25
Total ($M)		185.42	46.534	46.30	0	278.25	

(a) **Original forecasts**

Section	Price	2010	2011	2012	2013	Total seats	Total $M
Field C	40,000	62	101	140	17	320	12.80
Field B	50,000	211	57	134	0	402	20.10
Field A	60,000	283	115	224	182	804	48.24
Stadium C	75,000	143	36	41	2	222	16.65
Stadium B	100,000	84	24	21	23	152	15.20
Stadium A	125,000	177	43	0	524	744	93.00
University C	175,000	6	12	0	112	130	22.75
University B	200,000	3	8	0	30	41	8.20
University A	225,000	32	24	0	7	63	14.18
Total seats		1,001	420	560	897	2,878	251.12
Total ($M)		80.11	33.37	30.92	106.73	251.12	

(b) **2011 forecasts** (2010–2011 are actual sales)

		Seats sold			Total	Total
Section	Price	2010	2011	2012	seats	$M
Field C	40,000	62	101	25	188	7.52
Field B	50,000	211	57	51	319	15.95
Field A	60,000	283	115	110	508	30.48
Stadium C	75,000	143	36	30	209	15.68
Stadium B	100,000	84	24	23	131	13.10
Stadium A	125,000	177	43	63	283	35.38
University C	175,000	6	12	10	28	4.90
University B	200,000	3	8	−2	9	1.80
University A	225,000	32	24	14	70	15.75
Total seats		1,001	420	324	1,745	140.55
Total $M		80.11	33.36	27.08	140.55	

(c) **Actual sales to June 30, 2012**

Comparing the forecasts with realized sales, it can be see that cumulative seat sales every year have been well below the originally forecasted levels. In particular, total seat sales by June 2012 were at 60.6% of their originally forecasted levels.[15] These fractions are even lower in dollar terms, as the mix of seats sold was more heavily weighted than expected towards the less expensive seats. Total dollar sales as of June 2012 were only 50.6% of originally forecasted sales.[16] A similar picture emerges when we look at last year's forecasts for sales just in 2012; the actual number of seats sold, 324, was only 57.9% of the forecasted level, 560.

Comparing last year's forecasts with this year's (see Table 4b), there have been substantial changes. In particular, the number of seats forecast to be sold by 2013 has now been reduced substantially from 2,878 to 1,855. However, sales are now forecast to continue longer, until 2021, with a total of 2,465 seats sold by then.

Whether these forecasts are reasonable, we are not really qualified to judge. There have certainly been some significant improvements to the professionalism of ESP sales operations recently. Initially, sales of ESP seats were viewed by the university as philanthropy, and handled by the same people who solicit major gifts from campus donors. ESP sales are now being augmented by a recently hired, dedicated sales force within IA, with extensive experience in professional sports sales, backed up by a new computer system designed with help from professional teams outside Berkeley. This has to improve the chances that ESP sales will approach their potential, but without seeing details of exactly how these forecasts were arrived at, with detailed comparisons with comparable projects elsewhere, we cannot really comment one way or the other on whether these forecasts are realistic estimates of that potential.

IA believes these forecasts are achievable and has committed to monitoring and updating projections on a quarterly basis, though they are quick to note that the model is dependent on the economy and football performance, and there are a few reasons why one might have doubts. First, the forecast sales levels are still substantially higher than the levels that outside experts like Roger Noll are on record as believing reasonable. Second, the current forecasts shows an *increase* in the proportion of high-priced University Club seats sold relative to prior forecasts, even though the total number of forecast sales has gone down. In a market research survey conducted by C&R Research in August and September 2008, and sent to 4,389 existing UCB donors, of whom 1,666 replied (see Appendix G),

- 7% of respondents said they were "extremely interested" in the ESP program, of whom 7% were most likely to consider University Club seats.
- 22% of respondents said they were "very interested" in the ESP program, of whom 1% were most likely to consider University Club seats.

[15] The corresponding fractions for sales by June 2010 and June 2011 were 52.2% and 59.2%, respectively.
[16] The corresponding fractions for sales by June 2010 and June 2011 were 43.2% and 48.9%, respectively.

- 51% of respondents said they were "somewhat interested" in the ESP program, of whom 1% were most likely to consider University Club seats.

If we take the initial sample size (all Cal donors) as the universe of potential purchasers, and assume all of these people actually purchase, this translates into

- 7% x 7% x 4,389 = 21.5 UC purchases from those who are "extremely interested";
- 22% x 1% x 4,389 = 9.7 UC purchases from those who are "very interested";
- 51% x 1% x 4,389 = 22.4 UC purchases from those who are "somewhat interested";

a total of 53.5 purchases. If we assume each purchaser buys 2 tickets, we get to 107 seats sold, exactly equal to the total number of UC seats sold by June 30, 2012. IA currently forecasts selling an additional 180 University Club seats between 2013 and 2021, for a total of 297.

Despite our uncertainty, we acknowledge that the ESP sales team at IA knows a lot more about selling seats than we do, and that the number of seats sold in the half year between July 1 and Dec. 31, 2012 (128), is already significantly above the latest forecast for the total number of sales in the entire academic year 2012/13 (110).[17] We are also reassured by the fact that John Wilton and IA have committed to having a neutral outside expert evaluate the reasonableness of their stadium revenue assumptions in the near future. For now, we perform a sensitivity analysis to understand the impact of changes in these sales assumptions. Figure 5 shows the net cash flows and FFE balances that would result over time for different assumptions about the proportion of forecast ESP sales realized between 2013 and 2021, keeping all other assumptions as described in Section 2.2. It can be seen that there is substantial margin for error in the sales forecasts. In particular, the final FFE balance in 2053 remains positive as long as realized ESP sales exceed 54% of their current forecast levels. In other words, total sales between 2013 and 2021 would need to exceed 54% of the 720 seats ($80 million) shown in Table 4b, or 389 seats ($43 million.)

3.2 Investment Earnings

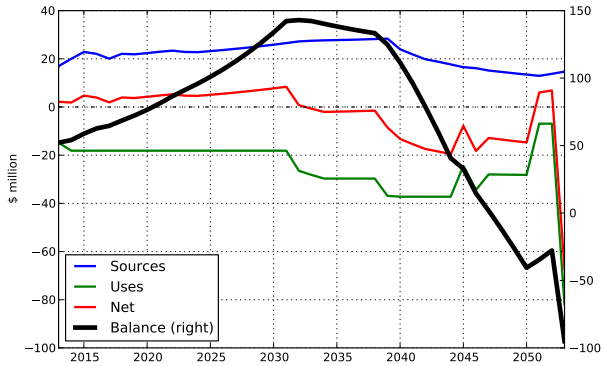
Besides selling the ESP seats, the most important component of the financial model is the assumed rate of return on invested funds. Some of the FFE balance is invested with the U.C. Regents investment pool, and some with the U.C. Berkeley Foundation (UCBF). The investment policies for both are attached to this report as Appendix F.

In the U.S., long-term average returns on equities and other risky securities have exceeded those on lower-risk assets such as bonds.[18] As a result, the expected payoff of borrowing at (close to) the riskless interest rate and investing the proceeds in equities is greater than zero. However,

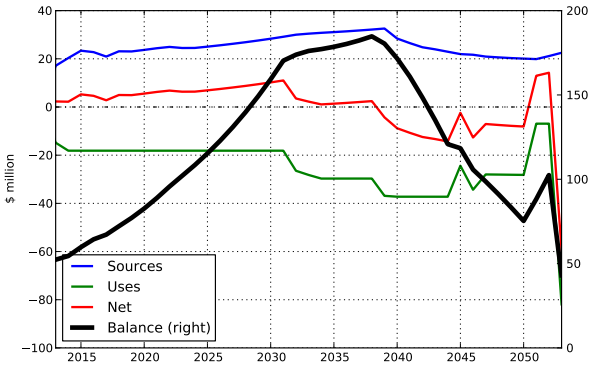
[17] These sales numbers provided by Justin Panarese, 2/14/13.

[18] For example, Berk and DeMarzo (2011, Table 10.3) report that the average annual return for the Standard & Poors 500 stock market index was 11.6% between 1926 and 2008, compared with 3.9% for Treasury bills over the

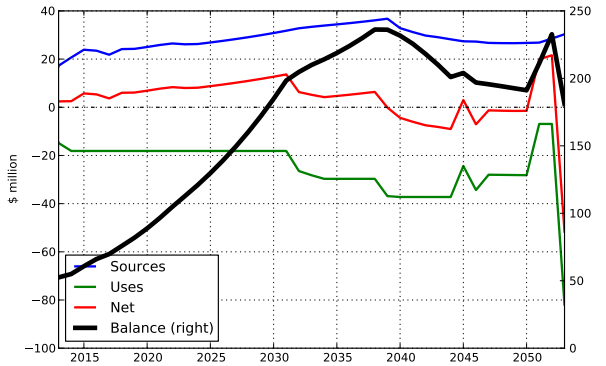
Figure 5: **FFE cash positions for different sales assumptions**.
This figure shows projected sources and uses of funds (left axis) and FFE balance (right axis) from 2013–2053.



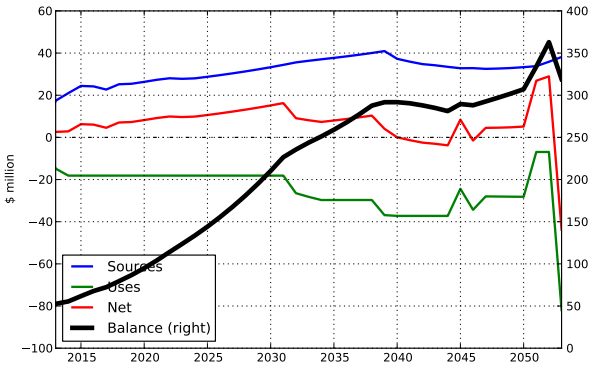
(a) **Sales fraction = 40%**



(b) **Sales fraction = 60%**



(c) **Sales fraction = 80%**



(d) **Sales fraction = 100%**

that does *not* mean that following such a strategy makes you better off today (in financial terms, the *Present Value* of your investment is not greater than the amount you borrowed).[19] It is true that *on average* you expect to make money by borrowing and investing the proceeds in securities with an expected return higher than the borrowing rate. However, this is a risky investment, and there is a possibility that it will lose money, sometimes over sizable periods. Moreover, the times when you do lose money will be the worst possible times to do so, since the whole market will have just gone down, so your chances of being able to fill the resulting budgetary hole from other sources will be small. The strategy makes money on average (equivalently, stocks have an expected return higher than bonds) precisely to compensate for this risk.[20]

As an example, despite the higher long-run average return on stocks than on bonds, in the ten years to the end of 2008, the average annual return for the Standard & Poors 500 stock market index was a mere 0.7%, compared with 3.2% for Treasury bills over the same period.[21] And this comparison substantially understates how much worse off you'd have been investing in the S&P 500, because the final value of a multi-year investment depends not on its *arithmetic average* return[22] over the period, but rather on its *geometric average* return.[23] The geometric average returns over the period were -1.4% for the S&P 500 versus 3.2% for T-Bills. In dollar terms, a $1,000 investment in the S&P 500 at the end of 1998 would have been worth only $870 10 years later, a cumulative *loss* of 13%. A $1,000 investment in Treasury bills instead would have grown to $1,370, a cumulative return of 37%. To put this another way, if you had borrowed $1,000 at Treasury rates at the end of 1998 and invested the proceeds in the S&P 500, then 10 years later, at

same period, a difference of 7.7%. Indeed, trying to explain why this difference in average returns is so large has occupied a large fraction of the academic finance literature since the *equity premium puzzle* was first noted by Mehra and Prescott (1985).

[19] Although it is common for financial institutions such as pension funds to use the expected return on their investments as the discount rate when calculating the present value of their liabilities (for state pension plans, this is dictated by Government Accounting Standards Board (GASB) ruling 25 and Actuarial Standards of Practice (ASOP) item 27), this practice is logically incorrect (see Petersen, 1996; Ippolito, 2002; Novy-Marx and Rauh, 2011; Gold, 2002; Bader and Gold, 2004). The present value of a liability depends on the size, timing, and risk *of the liability*. How the funds backing that liability are invested is irrelevant.

[20] This is the idea behind much of modern financial theory, including the *Capital Asset Pricing Model* of Sharpe (1964) and Lintner (1965).

[21] The numbers for this example are taken from Berk and DeMarzo (2011, Table 10.2).

[22] The arithmetic average return is what we usually think of as the "average" return,

$$\text{Arithmetic average return} = (r_{1999} + r_{2000} + \ldots + r_{2008})/10.$$

[23] The geometric average return in this case is given by

$$\text{Geometric average return} = \sqrt[10]{(1+r_{1999}) \times (1+r_{2000}) \times \ldots \times (1+r_{2008})} - 1.$$

The well-known *arithmetic-geometric mean inequality* tells us that the geometric average is always less than the arithmetic average, unless the returns are equal every year. Moreover, the more variable the returns, the bigger the difference.

the end of 2008, you would have owed $500 more than the value of your assets (or 50% of your initial investment).

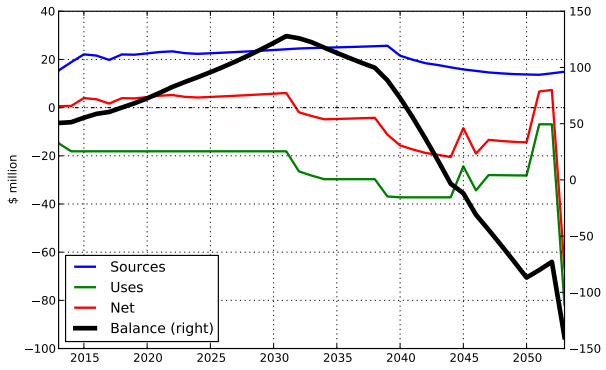
This example makes it clear that it is possible for funds invested in equities to earn less than the borrowing rate (and, in fact, less than zero) for substantial periods of time, though this does not occur very often.[24] Since it is impossible to know with certainty what returns will be earned on the university's investment portfolio over the next 30–40 years, we shall consider a range of possible returns, based on an analysis of historical returns (see Appendix E for details). Specifically, we use 6% as our benchmark annual return, and also consider returns of 2%, 4%, 8% and 10%. Figure 6 shows the net cash flows and FFE balances that would result over time for different assumptions about the annual FFE return between 2013 and 2021, keeping all other assumptions as described in Section 2.2. As with the sales assumptions, there is substantial margin for error in the return forecast. In particular, the final FFE balance in 2053 remains positive as long as the average FFE return exceeds 4.1%, almost exactly the average rate on the university's borrowing.

So far we have looked at varying either the sales levels or the FFE return, keeping the other, plus other revenue items, at the level described in Section 2. To investigate their impact in more detail, Table 5 shows the break-even return (the smallest FFE return at which the FFE balance in 2053 is positive) for various assumptions about the ESP sales levels, and Table 6 shows the break-even ESP sales level (the smallest realized proportion of the forecasted ESP sales from 2013–2021 at which the FFE balance in 2053 is positive) for various assumptions about the FFE return. These tables confirm that the FFE balance remains positive for a wide range of sales levels and FFE returns.

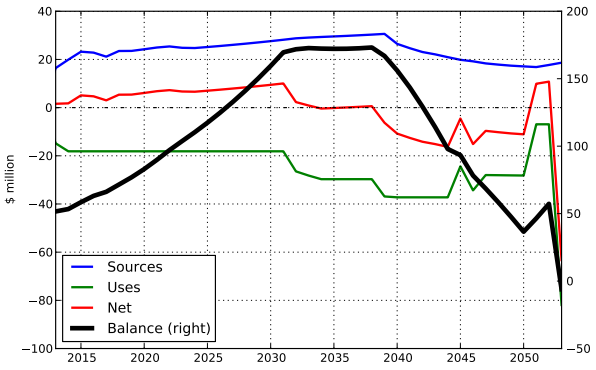
Finally, Table 7 shows the FFE balance in 2053 (Panel 7a) and the first year in which the FFE balance goes negative (Panel 7b). It can be seen that the final FFE balance can be substantially negative if both future sales fail to materialize and FFE returns turn out to be disappointing (correspondingly, if returns turn out higher than expected, the final FFE balance is much higher than the predicted $319 million). However, it is important to note that even under the worst set of assumptions (an extremely pessimistic combination of no further ESP sales at all after 2012, combined with an annual FFE return of 2% per year for 40 years), the FFE balance does not go negative until 2034, leaving at least 20 years to work out how to deal with this eventuality.

[24] For example, of the 77 (overlapping) 10-year periods between 1926 and 2011, there was a negative total return on the S&P 500 in only 1927–37, 1928–38, 1929–39, 1998–2008, and 1999–2009. In particular, we have to go back almost 70 years to find a 10-year period as bad as 1998–2008. Looking at longer-horizon returns, the *smallest* 20-year geometric average return realized since 1926 was 2.5% between 1928 and 1948, and the smallest 30-year geometric average return realized since 1926 was 7.9% between 1927 and 1957. For this analysis, S&P returns since 1926 are obtained from CRSP as series **vwretd**, restricted to S&P 500 stocks.

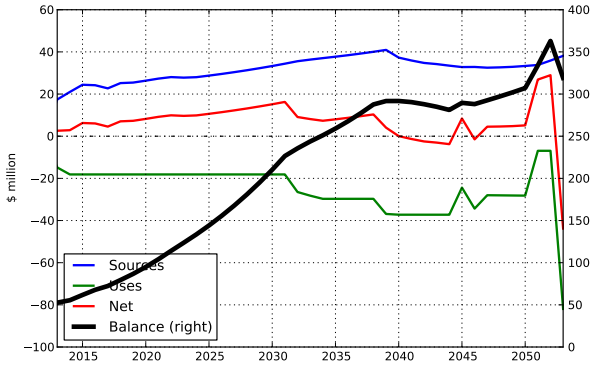
Figure 6: **FFE cash positions for different return assumptions.**
This figure shows projected sources and uses of funds (left axis) and FFE balance (right axis) from 2013–2053.



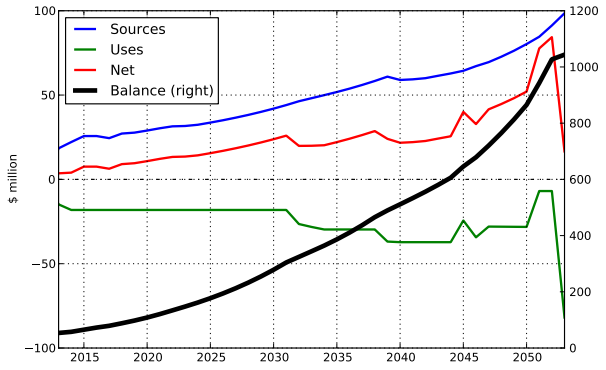
(a) **FFE return = 2%**



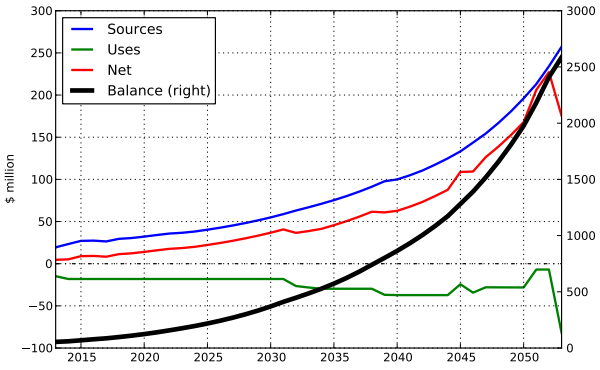
(b) **FFE return = 4%**



(c) **FFE return = 6%**



(d) **FFE return = 8%**



(e) **FFE return = 10%**

Table 5: **Break-even returns**
For various realized proportions of the ESP sales forecasts in 2013–2021 shown in Table 3, this table shows the minimum return that needs to be earned on FFE investments each year in order for the FFE balance in 2053 to remain positive.

Sales Proportion	Return (%)
0.0	8.44
0.1	7.97
0.2	7.51
0.3	7.06
0.4	6.61
0.5	6.16
0.6	5.73
0.7	5.30
0.8	4.88
0.9	4.46
1.0	4.06

Table 6: **Break-even sales**
For various realized returns on the FFE, this table shows the proportion of the ESP sales forecasts in 2013–2021 shown in Table 3 that needs to be achieved in order for the FFE balance in 2053 to remain positive.

Return (%)	Sales Proportion
2	1.54
3	1.27
4	1.01
5	0.77
6	0.54
7	0.31
8	0.09
9	0.00
10	0.00

Table 7: **SAHPC/FFE financing summary**
This table shows the first year the FFE balance goes negative and the final (2053) FFE balance for various assumptions about sales scenarios and investment returns.

Sales Fraction	**Return (%) 2**	**4**	**6**	**8**	**10**
0.00	−400.06	−425.88	−371.10	−108.57	638.19
0.25	−335.02	−320.91	−198.54	179.50	1,124.96
0.50	−269.98	−215.95	−25.98	467.56	1,611.73
0.75	−204.95	−110.98	146.58	755.62	2,098.49
1.00	−139.91	−6.01	**319.14**	1,043.68	2,585.26

(a) FFE balance in 2053 ($ million)

Sales Fraction	**Return (%) 2**	**4**	**6**	**8**	**10**
0.00	2034	2036	2040	2047	-
0.25	2037	2040	2044	-	-
0.50	2040	2043	2053	-	-
0.75	2042	2046	-	-	-
1.00	2044	2053	**-**	-	-

(b) First year FFE balance goes negative

3.3 Rental Revenue

3.3.1 Current forecasts

There are two primary rental revenue sources, discussed in Appendix B, *Details of IA Revenue Projections*: 1) Event marketing revenue for the University Club and the Field Club, and 2) Third party CMS leases and rentals of additional rentable square footage located on the plaza level of the stadium. On average, between 2013 and 2053, event and rental revenue represents 6% of the total projected income available to service the CMS/SAHPC debt.

Event marketing revenue As discussed in Appendix B, event marketing revenue includes rentals of spaces for campus and corporate events, weddings and other functions. The projections for event revenues assume that there will be an initial 25 rentals in 2013 at the current median gross price of $6,500 per rental, increasing to 50 rentals in 2014, 75 in 2015, 100 in 2016, 125 in 2017, and 150 from 2018 through 2053,[25] and they include a 3% annual escalator starting in 2019. The projections are based on realized bookings for year-to-date 2013 and qualitative assumptions based on the views from the University Club. Per Solly Fulp, these projections are also contingent on the completion of a two-story parking structure with up to 500 parking spaces at Maxwell Field by December 2014. Under these assumptions, the event income is projected to start at $162,500 in 2013 and grow to $2,743,516 by 2053.

Third-party leasing and rental The assumptions underlying third-party leasing and rental, again provided by the IA COO, are discussed in Appendix B. Currently there are two draft Memoranda of Understanding (MOUs) between IA and two prospective tenants: the University of California, Berkeley, Recreational Sports and the University of California, Berkeley, Haas School of Business. The spaces involved include: 1) the Recreational Sports Fitness Center (7,000 sq. ft.); 2) a Haas Innovation Lab (2,900 sq. ft.); and 3) projected lease revenue for the auditorium (4,000 sq. ft.) based on preliminary estimates from Residential and Student Services Programs (RSSP) and Haas (no lease agreements have been drafted for the auditorium to date). The IA-projected rental income included in this analysis is based on the rent per square foot calculations found in these draft MOUs and on the assumption that other available leasable square footage will achieve similar rents. Additional, currently vacant square footage includes: 1) the fourth floor rental space (5,400 sq. ft); 2) a Hall of Fame/Visitor Center; 3) the Field Club; 4) additional square footage on the Stadium Club floor (5,000 sq. ft.); 5) square footage at the University Club level adjacent to the wings of the Corporate Box (about 3,000–4,000 sq. ft.). With the exception of the kitchen, the Field Club, and the IA offices, a large amount of the plaza level square footage is currently

[25] Source: Solly Fulp, the IA COO.

unfinished. The costs required to finish this space, the *tenant improvements*, will either be borne by the tenants themselves, by some contractual sharing arrangement between IA and the tenant, or by IA itself, depending on the parties found to lease the space and on IA's property management and leasing expertise. Projected rental revenues start at $282,513 in 2013, grow to $531,419 in 2022, and then remain constant at this level until 2053.

3.3.2 Rentable space at the stadium

The University Club is a world-class facility with breath-taking views and high-quality finishings that include slatted wooden ceilings, drystone walls of Arizona sandstone, and a large wood and sandstone bar with backlit mirrors at the far end of the facility. The expanse of glass on both the eastern and western walls of the facility offer panoramic views of Berkeley, the Bay, and Mount Tamalpais as well as an unobstructed view of the Stadium seating and playing field below. The western glass wall features a series of glass doors that open onto a suspended balcony constructed from translucent decking material with a low exterior glass wall supporting a brushed aluminum railing. The overall effect is very beautiful, and for evening events the entire balcony is lit from below so that the views are unobstructed. These architectural features are shown in Figures 8–11 in Appendix D. The Field Club facility is located on the plaza level and the space is completely finished, though we have no photos available for this report.

Appendix D presents schematics for all of the available rental square footage on the plaza level of the stadium. Figure 12 shows the total available square footage accessed from the Lisa and Douglas Goldman Plaza level, or ground floor, of the stadium. Figure 13 shows the location of available square footage, identified as "storage" due to its lack of windows, that is located on the right-hand side of the stadium entrance tunnel. As shown in Figure 14, the square footage shown on the left-hand side of the tunnel is identified as "IA Office Space" and, despite its prime plaza location and large windows, it is currently not a part of the programmed leasable square footage. Figure 15 presents the programmed layout for the draft MOU space. This space includes the Haas Innovation Lab and the Recreational Sports Fitness Center. The auditorium is also shown in Figure 15 and currently there is no MOU in place for this space. Figure 16 presents the available square footage that is adjacent to the auditorium and the draft MOU space to the South. This space includes the only kitchen in the entire facility.[26] The kitchen is adjacent to the Field Club and the Hall of Fame area is located in front of the Field Club. The floor plan for the rentable square footage on the Stadium Club level is shown in Figure 17 and the floor plan for the rentable square

[26]The kitchen is accessible to the University Club by use of an elevator. The improvements for the kitchen were paid for with a loan from Cal Dining (reported to be $3 million) in exchange for perpetual and exclusive rights to all food service in the Stadium club spaces, the Field Club and the University Club. IA did retain the right to buy-out Cal Dining's position.

footage on the University Club level is presented in Figure 18.

Overall, the available CMS space is quite diverse and presents significant challenges in devising a coherent leasing strategy. Space with large windows that is close to the plaza should provide significant opportunities for retail leasing. However, under the current IA leasing plan this space is being used for IA offices. The configuration of the single kitchen and its distance from the University Club is a significant challenge to quality catering or restaurant quality services in the University Club. Finally, the food services facilities, the Field Club, the University Club and the Corporate Box, are primarily designed as "game day" facilities or facilities with infrequent usage. This strategy presents a challenge to achieving a vibrant year round community space in the Lisa and Douglas Goldman Plaza.

3.3.3 Potential rental revenue (and impediments to realizing it)

The U.C. Berkeley Foundation Real Estate Task Force, chaired by Bob Lalanne of the Lalanne Group, has recently studied the stadium complex in conjunction with IA, and has come up with an estimate of about $2.9 million per year in potential rental revenue. This substantially exceeds IA's current forecasts. Their recommendations, outlined in Table 8, include leasing IA office space for a Cal team store; creating a Field Club Café that runs year round; adding a Visitor Center to take advantage of the convenience and services such as the Maxwell Field parking structure, views of the campus, the Hall of Fame and Nobel Laureate Center, food service and stadium tours; and the operation of the University Club as a year-round restaurant and club facility using a private club operator.[27] As shown in Table 8, other revenue sources include a revenue-sharing agreement with the to-be-constructed Maxwell Field parking structure; estimated savings in IA overhead costs, such as marketing, accounting, maintenance, and operations, that would occur under the proposed private-club-operator contract for the University Club restaurant and special events; and other special events such as hosting the China National Team.

From the point of view of paying off the stadium debt, this is good news as it suggests that IA's forecasts for rental revenue are quite conservative. However, the Real Estate Task Force, in a separate report delivered to Chancellor Birgeneau this year, also provides many reasons why such conservatism may be warranted. In particular, they point out that the current decision-making structure for real-estate projects across the Berkeley campus (not just the stadium complex) makes it very difficult to achieve the financial results that the campus's real estate could, in principle, sup-

[27] This strategy would involve buying out Cal Dining's existing exclusive contract. The longer-run benefit of this strategy is additional rents to support the debt service, since Cal Dining currently pays no rent to IA, and a more consistent alignment of interests between the success of high quality club spaces that now exist within the stadium and a club operator who has a proven track record. Precedents for the successful operation of university clubs by rent-paying private operators currently exist at the University of North Carolina, the University of Texas, Boston College among others.

	Total Annual Rent ($)
Ground Floor	
Haas Innovation Lab	52,000
Recreational Sports	145,000
Auditorium	110,000
Vacant (Possible Team Store)	67,500
Hall of Fame (Tours)	25,000
Field Club Café	120,000
Stadium Club Floor	
Haas Executive Education (North End)	135,000
Press Club Floor	
Large Suite—South	75,000
Small Suite—South	56,000
Small Suite—South	56,000
University Club Floor	
Restaurant club and special events	1,250,000
Corporate Box	91,000
Corporate Box	91,000
Other Revenue Sources	
Maxwell Field Parking Revenue Share	50,000
DIA Overhead Savings with CC Deal	500,000
Special Events (e.g. China National Team)	50,000
Gross Potential Income	2,873,501

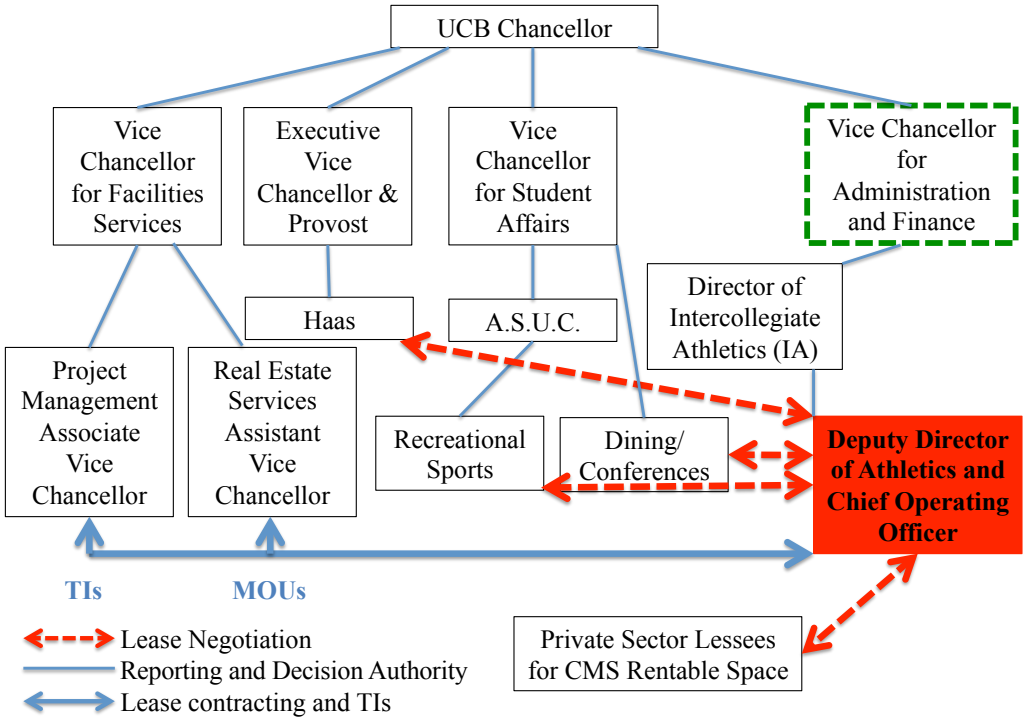
Table 8: **Projected CMS rental and auxiliary income**

port. They looked at the real-estate reporting structures at several peer institutions, both public and private, namely, Stanford, Michigan, Columbia, U. Washington and U. Virginia. They found that at each of these schools, all real-estate operations/operators report to the campus business/finance office (VP Finance, CFO, VC Admin. and Finance), including housing, retail, food service, athletic complexes, parking, project capital budgets, etc.

In contrast with all of these peer institutions, the management of revenue-generating real estate at U.C. Berkeley is highly decentralized, with different administrative units having overlapping management roles over the same property. Figure 7 portrays the operation of the SAHPC/CMS facility leasing strategy in the context of the current UCB real estate administrative structure. The most striking feature of Figure 7 is that major decisions are made by numerous staff reporting to three different Vice Chancellors, each of whom reports directly to the Chancellor, with *none* of these people reporting to the Vice Chancellor for Administration and Finance (VCAF). As shown in Figure 7, the UC Berkeley VCAF, who is charged with overseeing campus finances, is not functionally involved with either the financial and leasing management or the debt-related development decisions for revenue-generating real estate such as the SAHPC/CMS facility.

This organizational structure has already affected the implementation of a successful leasing strategy for the SAHPC/CMS project. As shown in Figure 7, under the current administrative

Figure 7: **U.C. Berkeley real-estate reporting structure**



structure, there is no single entity in place with the authority to develop and implement a coherent on-going leasing strategy, negotiate the tenant improvements, and lease the available space and thereby realize the potential revenues for servicing the CMS debt obligations. Instead, the IA Deputy Director of Athletics and Chief Operating Officer is currently functioning as the de facto property leasing manager in sourcing possible leasing opportunities and in negotiating with various Vice Chancellors to achieve their approval for these deals. Thus, for example, the possible lease negotiation with a private-club operator for the University Club space must first be negotiated with the Vice Chancellor for Student Affairs (VCSA), because currently Cal Dining holds exclusive rights to all food services under the conditions of their agreement to fund the buildout of the CMS kitchen on the Stadium Club Floor. This contract must be bought out before CMS could proceed with a private vendor. Any recreational sports lease, if it involves further fees to be passed on to students, would involve approvals from the A.S.U.C., who in turn reports to the VCSA. Similarly, the proposed leases with the Haas School of Business must gain approval from the Executive Vice Chancellor and Provost.

A final chain of approvals is required from the offices of the Vice Chancellor for Facilities Services (VCFS). These approvals involve the Memoranda of Understanding (MOUs), that set the

Tenant	Square Feet	Market-Rate TIs	UCB VCSF-Budgeted TIs
Haas Innovation Lab	2,900	\$200,000 (\$69/ft^2)	\$525,000 (\$181/ft^2)
Recreational Sports	7,000	\$1,250,000 (\$179/ft^2)	\$1,864,000 (\$266/ft^2)

Table 9: **Projected tenant improvement cost comparisons**

contractual terms for the leases, and the cost-sharing agreements for the Tenant Improvements (TIs), that are normally required to customize the space for lessees. As shown in Figure 7, the negotiation of the MOUs is under the control of the Real Estate Services Assistant Vice Chancellor and the negotiation of the TIs is under the control of the Project Management Associate Vice Chancellor. Both of these administrative entities receive overhead payments for their services and, in the case of TIs, the VCFS may also be compensated for the construction costs associated with with the buildout of the space.

The U.C. Berkeley Foundation Real Estate Task Force has found evidence that the cost structure of the tenant improvement proposals from the offices of the VCFS are significantly higher than expected market rate TIs for the same space, as shown in Table 9. For example, the expected market rate TIs for the 2,900 square foot space for the Haas Innovation Lab were \$200,000, or \$69 per square foot of rental space. The currently budgeted cost of the TIs from VCFS were \$525,000, or \$181 per square foot, for the same facility. Similarly, the tenant build-out for the Recreational Sports facility was authorized by the VCAF for \$1,250,000, or \$179 per square foot. However, the VCFS-budgeted TI costs are currently \$1,864,000, or \$266 per square foot. These important cost differentials for tenant improvements present a significant hurdle for campus tenants who are currently contemplating signing CMS leases. They are also likely to present a significant cost hurdle for prospective private-sector tenants, who are used to paying market rates for the improvements required to customize the real estate to their needs.

Finally, it is not at all obvious from Figure 7 how the various, possibly competing, operational objectives of three Vice Chancellors can be resolved in such a way as to consistently meet the IA objective of achieving a comprehensive, flexible, and revenue-maximizing leasing strategy for the CMS project. It is also not obvious why the offices of the VCAF do not have direct control authority over the design and implementation of the CMS leasing strategy, given the significant financial implications of not attaining the needed leasing revenues to IA and to the general financial welfare of the campus. The Deputy Director of Athletics and Chief Operating Officer is currently functioning as the sourcing agent for prospective tenants and as a mediator between the many and various lines of administrative authority who currently hold absolute veto power over the process with individual tenants. This is not an organizational structure that is likely to lead to the desired leasing revenues for the CMS project. The current structure simply does not adequately provide for the needed level of experience, responsibility, and authority to fully implement a complex

tenanting strategy involving food service, retail, education, and recreational services as envisioned for the Goldman Plaza and as required for CMS revenues.

The report of the U.C. Berkeley Foundation Real Estate Task Force recommends, and we completely agree, that to achieve anywhere close to the potential real estate revenues (as well as minimizing costs) associated with the stadium complex (and other major campus real estate projects), it is critical to significantly realign the management of real estate operations on the University of California, Berkeley campus. Specifically, it should be made consistent with standard practice at other universities by placing all decision making under the direct control of the Vice Chancellor for Administration and Finance. Only with such a realignment, is the CMS project likely to meet two key objectives: to maximize year round leasing revenue from the facility and to meet the requirements of the Lisa and Douglas Goldman naming gift for the plaza.

3.4 Philanthropy

An important part of the philanthropic goals for the CMS/SAHPC funding strategy is the Lisa and Douglas Goldman naming gift for the plaza outside California Memorial Stadium (which serves as the roof of the Student-Athlete High Performance Center). However, it is important to note that the same issues discussed above relating to rental revenue are also highly important here, as one of the conditions of the gift is that the university has committed to turning the CMS plaza level into a vibrant community space with the year round participation of students, faculty, and visitors. Achieving this depends critically on implementing a carefully designed tenanting strategy for the leasable square footage in the CMS/SAHPC facilities. The careful choice of tenants and the design of the CMS/SAHPC layouts for leasable space is essential to achieve the synergies needed to create a lively and appealing public space. It is likely that a successful strategy will involve retail, expansion of academic classroom facilities, such as Haas Executive Education, a new high quality student and faculty recreational and fitness facility, and food services. Unfortunately this is threatened by the weaknesses we identified above in the campus's real estate decision-making processes, in turn threatening the future success of philanthropic efforts for the CMS/SAHPC project (as well as the security of the associated rental revenue.)

3.5 New Media Revenue and Other Seat Sales

It is our understanding that IA is intending to negotiate new media revenues that are intended to be directed to new income for the CMS/SAHPC project. We have no further information concerning the forecasted revenues from that source, on average about 19% of overall projected revenue. Since mid-summer 2012, the new and very active ticket sales team has implemented a very aggressive new strategy of bundling tickets for shorter-term corporate clients. The strategy appears to be

working well and we have no further information on its future success.

3.6 Other Risks

All of the forecasts considered above (and by IA) assume that the stadium remains operable during the whole of the next 40 years. An earthquake could render the stadium unusable for some of this period. Moore, Conkey, Drummond, Firestone, Hlusko, Klein, Lutz, and Snyder (2010) state that,

> "According to United State Geological Survey (USGS) data, there is a 30 percent chance of a seismic event somewhere along the Hayward Fault in the next 30 years. Also using USGS data, campus staff and consultants in Facilities Services have estimated that during a 30-year period there is about a 6 percent chance of a seismic event occurring on the Hayward Fault and centered at or near the campus that could cause damage to a retrofitted CMS .... If damage does occur to the renovated CMS, it is estimated by Facilities Services that the CMS could be closed for four to eight months."

Moore et al. (2010) view the impact of such an earthquake on revenues as being relatively modest, since the football season could continue, for example, in AT&T Park. There would be some additional rental costs (say $5 million per year), but it seems reasonable to believe that most, if not all, of the ESP revenues would continue during this period, since ESP seat holders would presumably also receive the best seats at AT&T Park. However, the university would still need to repair any physical damage caused to the stadium, as well as to any other structures on campus damaged during such an earthquake. According to Erin Gore, the campus is currently "self-insured," meaning that it does not have any outside insurance to cover it in the event of a major earthquake. Given the amount of debt (both CMS-related and other) that the campus is committed to repaying, and the potentially huge costs of rebuilding and relocating in the event of a major earthquake, an earthquake could impose an enormous financial burden on the university, and we agree with Moore et al. (2010) that it would be prudent to pursue the purchase of external insurance to protect against such an event. While the stadium is not the most likely target in the Bay Area, a major terrorist attack could also render the structure unusable, and it might also be worth considering insurance against this eventuality.[28]

Another risk that should be considered is a sustained downturn in the fortunes of the football team. The 2012–13 football season, the first played in the renovated stadium, ended with a 3-9 record for the team. While Cal fans tend to be very loyal even when their teams are not doing very

[28] We note that the VCAF and CFO are currently investigating the costs, benefits and availability of business interruption insurance.

well, and while ticket sales this year have actually outpaced the most recent forecasts, continued poor performance would not bode well for future seat sales.

4 Summary

Taking as given IA's forecasts for revenue and investment returns, the current funds earmarked to pay off the stadium debt will achieve this goal by 2053, leaving an additional $319 million for other uses.

Of course, the actual results depend on how reality compares with these forecasts, especially on the realized sales levels of the roughly 3,000 ESP seats. These sales have so far been quite disappointing relative to the original forecasts. Whether this was a result of unexpected events since the forecasts were made (including, in particular, the recent financial crisis) or over-optimistic forecasting in the first place (as claimed by Roger Noll, an outside expert widely quoted in the press), we cannot tell because we have been unable to obtain detailed explanations of the process by which the original forecasts were made. We do note that IA has hired significant talent and invested substantial resources in upgrading their sales efforts for these seats, that the current forecasts are being made by individuals who were not involved in the original forecasts (and who have been very open with us in the preparation of this report), and that they are very confident in being able to meet their targets. At the same time, even the current forecasts look rather optimistic compared with Roger Noll's claims and also (especially for the most expensive seats) compared with the results of some early market research, which showed that even significant donors to Cal found the proposed price of the University Club seats rather high. We hope that some of this uncertainty will be resolved when IA bring in an outside expert to evaluate their forecasts in the near future, as they have promised. On the positive side, our sensitivity analyses show that quite large deviations from these forecasts can be sustained without the fund balance going negative, and that even in states of the world where the balance does go negative, this does not happen for at least 20 years.

Another area in the IA-forecasted revenues that raises substantial concern is the leasing and property-management strategy for the CMS/SAHPC facilities. Currently, forecasted rental and event revenues represent only a rather modest average of about 6% of the total from 2013 through 2053. These are rather conservative numbers, and there is good reason to believe that, properly managed, rental income for the CMS/SAHPC project could be substantially higher. However, we identify some serious structural problems in the decision-making process for real estate projects across the Berkeley campus, which make it much more difficult than it should be to achieve this potential. As stated in our report, it is not at all obvious that IA has a comparative advantage in developing and implementing a tenant-improvement and leasing strategy for the highly heterogeneous, and potentially challenging, leasable space available in the CMS project. Achieving full

potential rental revenue is likely first to require a significant realignment of real estate management on the Berkeley campus, gaining efficiency by placing all real estate leasing and management operations under the direct control of the Vice Chancellor for Administration and Finance. Second, there is a need for "best practice" reconsideration of the leasing and management strategy for the CMS/SAHPC facility, including potential partnerships with private club operators with proven track records running successful year round food service and club spaces.

While there are risks on the downside with respect to ESP seat sales, it is encouraging that IA is now considering a broader range of revenue-generating opportunities to supplement ESP revenues and ensure that the stadium generates the maximum possible financial benefits for the campus. It is also important to note that more efficient and strategic University leasing and management policies could generate important additional sources of rental income for the CMS/SAHPC project.

Finally, it is important to note that we have analyzed only the revenue items explicitly included in IA's debt-service model for the CMS/SAHPC project. While it is obviously important to understand the extra sources of cash specifically raised to pay off the debt, this model does not tell the whole story of IA's impact on the campus's overall financial position. For example, a shortfall of $1 million dollars in standard football season ticket sales (which are not on the debt-service budget, and are hence not part of our study) would reduce the overall money available to the campus by exactly the same amount as a $1 million shortfall in ESP sales (which we do consider). Just as important, while the debt-service model considers some of the revenues associated with the new construction, it does *not* include any of the costs associated with generating those revenues, which are likely to be large given the quality of the stadium construction. These costs, along with other revenues, appear on the general IA operating budget, which we have not seen, so we cannot comment on whether or not IA's assumptions here are reasonable. It is thus critically important to monitor closely every aspect of the financial health of IA, not just ESP sales, a task well begun by Moore et al. (2010).

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A Data Sources

In analyzing the stadium financing model, we have spent time meeting with John Wilton; Laura Hazlett, associate athletic director and IA CFO; Solly Fulp, deputy director of athletics and IA COO; Justin Panarese, Athletic Campaigns Manager, Athletic Development; Calvin Moore, Professor Emeritus and Chair of the Academic Senate Task Force on Intercollegiate Athletics, 2009–2010; Erin Gore, Associate Vice Chancellor and campus CFO; and Jean Yin, Financial Analyst, CFO's Office. We also consulted press articles and other documents, including:

- Bond amortization details, provided by Erin Gore and Laura Hazlett.
- California Memorial Stadium FAQ, 2012. http://www.calbears.com/genrel/advancingCalAthletics_CMS_FAQ.html.
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B Details of IA Revenue Projections

Source: Department of Intercollegiate Athletics, March 6, 2013.

Explanations and Projections for Revenue Sources Now Incorporated in to the Facilities Financial Plan – From 2013-2053

Item: Philanthropy
Explanation: Current commitments with signed pledges include: $714K for 7 years for the press box (with all but the first $714K being applied to this model beginning in 2013) and $10M over 10 years for the plaza (with $9M of the $10M being applied to this model starting in 2014). Starting in FY 14, we assumed we could generate an additional $5M over 10 years from other naming rights (concourse, club rooms, etc.).

Item: Other Commercial Revenue
Definition: Other Commercial Revenue represents additional revenue opportunities from commercial entities.
Explanation: Cal Athletics is currently reviewing opportunities with interested parties.

Item: Media Rights (Post-Season Revenue)
Definition: Media Rights (Post-Season Revenue) represents money that Athletics will put in to the model.
Explanation: We have set aside an estimated $2.5m of the overall annual uplift as a result of changes in post-season football.

Item: New Media Revenue
Definition: Dollars from additional, campus-specific new media revenues.
Explanation: Cal's current agreement in this area expires in 2017; therefore Cal Athletics anticipates re-negotiating current media revenue package or taking media revenues in house at a higher valuation than the existing contract based on analysis of contracts recently signed by PAC-12 conference peers. That anticipated revenue increase is what is represented in this revenue category.

20% of the total projected new media revenues have been dedicated to the model. The other 80% to the operating budget.

Item: Event Marketing Revenues
Definition: Event Marketing Revenues represents rentals of club spaces for weddings, corporate parties, etc.
Explanation: Based off bookings to date, and conservative projections for growth. Also contingent on the completion of a two story parking structure with up to 500 parking spaces at Maxwell Field by December 2014.

Item: Perk sales

Definition: Perks represents revenue from perk pricing for existing seat holders (currently $2,500 for each perk University Club season, $1,400 for each perk Stadium Club season, and $700 for each Field Club perk season).
Explanation: Based off existing sales results in 2012, which had a very narrow sales window, and very limited marketing. Since projected available seat quantity in this category is limited by future pledge sales growth, a 3% escalator is used here to show overall revenue growth projection.

Item: Corporate Bundle – Field Club (CB FC)
Definition: CB FC represents revenue from Field Club corporate bundles, which also includes tickets to men's basketball and other Cal Athletics events. Minimum 6 tickets in Row 2 of the Field Club on a 1 year commitment.
Explanation: Based off feedback from small business owners, who see this as a reasonable price point for their budget (in initial discussions), and their ability to reward employees. Revenue growth is limited by these seats eventually reverting back to regular pledges over time.

Item: Corporate Bundle – University Club (CB UC)
Definition: CB UC represents revenue from University Club corporate bundles, which includes a minimum of 6 seats locked in on a 2 year commitment at a discounted price.
Explanation: Based off initial sales results to date, and hiring of 3 premium sales reps focused on calling on corporate marketplace. Sales call activity has already yielded sale of 30 University Club corporate bundle seats to date in a 5 month period.

Item: University Club Groups
Definition: UC Group represents revenue from discounted pricing for University Club seats for groups. Minimum 20 seats at 1 game.
Explanation: Based off selling one group per game on average (7 of 14 slots). We have already sold 2 of 14 slots for the 2013 season (as of January 2013) before officially marketing the program, and over 8 months before the season opener.

Item: Stadium Club Groups
Definition: SC Group represents revenue from discounted pricing for Stadium Club seats for groups. Minimum 20 seats at 1 game.
Explanation: Based off growth and increased marketing, as well as demand from group inquiries. 2 groups sold in 2012 mid-season, solely off networking conversations, and no marketing.

Item: Revenue from Existing ESP Sales
Definition: Revenue from existing sales represents revenue already pledged for those on plans greater than 1 year that is expected to come in future years.
Explanation: Based off currently signed pledges, and natural wind down of 5 year, then 30 year scheduled payments.

Item: 3rd Party CMS Leases & Rentals (MOUs)
Definition: Outsourced rentals (MOUs) represents rental of other (currently unfinished) space in the stadium and high performance center.

Explanation: Based off current MOU's, and rent per square foot calculations contained in MOUs. For "to be sold" space, expects similar prevailing rates on existing agreements, all based of rent rate per square foot. MOU for Floor 1 of Wellness Center (5400 sq. ft) projected to be rented by Rec Sports. MOU Innovation Lab (2900 sq. ft) projected to be rented by Haas School of Business. Floor 4 (5400 sq. ft) projected to be rented by Haas School of Business for Executive Education or a dedicated Team Study Area. Theatre (3500 sq. ft) "to be rented" on a daily rate.

Current MOU's baseline is $2.25/ sq. ft. / month with rent credit.

Explanations for Seat_Sales Items – Cal Athletics CMS Revenue Forecasts

Given previous year sales totals, a revised projection of 110-120 seats per year is used in 2013-2016 in regards to new pledge seats.

For comparison, according to the model, previous year sales total have broken down as follows:

2010: 1001 seats (556 Field Club, 404 Stadium Club, and 41 University Club)

2011: 420 seats (273 Field Club, 103 Stadium Club, and 44 University Club)

2012: 324 seats (186 Field Club, 116 Stadium Club, and 22 University Club)

Starting in 2017, sections such as Field Club start to run out of available inventory, so new pledge sales decline further. By 2020, since we forecast being close to capacity in Stadium and Field Club for pledge seats, these projections just include new University Club pledge sales, where inventory is projected to still be available.

C Financing Update, February 2013

http://www.calbears.com/genrel/advancingCalAthletics_esp.html, Feb. 2013.

Athletics Facilities Financing Model
February 2013 Update

Introduction

Over the course of the past six months we have been engaged in a significant revision of the financing plan for the Simpson Center for Student-Athlete High Performance and the renovated California Memorial Stadium. The challenge was as complex as the goal is simple: Ensure we have a strong, responsive and reliable financial foundation for the facilities that will secure Intercollegiate Athletics' long-term ability to meet debt and principal obligations without drawing on central campus funds. While we cannot provide absolute certainty with respect to the future, we are pleased to announce that as a result of revisions and additions to the plan, we are now in a much better position to meet that goal.

At the same time, however, experience indicates that uncertainty is unavoidable with respect to capital projects where both expenses and revenues must be projected over a 40-year time frame. Our crystal ball is no better than anyone else's. Thus, there is no doubt that some of what is written below will prove to be inaccurate. So, we must and will continue to constantly monitor data, forecasts and assumptions, tap into the right expertise and remain constantly ready to adapt as best we can. Such is the nature of the enterprise.

Background

Before we go in to the details of the revisions, a bit of background is necessary. Most capital projects, whether in the private or public sector, are financed by long term debt. That is, the total amount of debt owed does not fall due in any one year. While one can express the total of the future debt service payments in terms of its current "net present value," the owner of the building only has to meet the debt service falling due in any given year to remain current. That is why most of us buy houses using long-term mortgages offset by expected future earnings. Consequently, when thinking about the financial feasibility of a particular capital project one should focus on the probability of meeting the debt service falling due each year, not the total outstanding.

When we talk about this sort of financial planning we often refer to a "financial model." Financial modeling is an approach that allows one to explore different outcomes within a well-defined interconnected framework that incorporates, among other things, projected revenues, costs and rates of returns on investments. The model allows decision-makers to examine a wide variety of scenarios to test the strength of a financial plan by plugging in different values for a wide range of variables.

In this case we have good information on our annual future costs in terms of debt service and principal repayment. The new athletic facilities were financed using philanthropy received before construction and fixed-rate 30-, 40- and 100-year debt issued at historically low interest rates. Both the long maturity and low interest rates help to lower the debt payments due in any one year. We have issued $276m in long-term debt for Memorial Stadium and $124m for the Simpson Center and there is approximately $45m

that remains to be issued. On the 30- and 40-year debt, interest-only payments are due until 2032, 2033 or 2038 depending on the bond issuances, at which point we will begin to pay down the principal. The 100-year debt will be paid off with a single payment in the last year. For modeling purposes we have assumed that the unissued debt is financed on the same terms as the existing 40-year debt. The long maturity structure of the debt affords us time to respond if we perceive a problem in the future in terms of how we raise revenue to meet our obligations – hence the need to be vigilant and adapt.

With predictable annual costs, we are well-positioned to anticipate if the resources available to Intercollegiate Athletics are likely to fall short of need in the years ahead. And that is where the additional revenues incorporated into the model come into play. It is misleading to look at one side of the ledger (costs) without simultaneously looking at the other side of the ledger (revenues). Before it was revised, the original financial model for the new athletics facilities relied on only three sources of revenue: philanthropy, naming rights, and the Endowment Seating Program (ESP), with the last source accounting for the bulk of anticipated revenue.

ESP is based on selling long-terms rights to premium seats at three different service levels, with escalating amounts of philanthropy built into the price. Buyers can opt to pay in full upfront or pay over time; a decision that is documented through a signed pledge agreement. If, for whatever the reason, a buyer stops payments, the seat returns to the available inventory to be re-sold.

Under both the original and revised financial plan, revenue raised through ESP sales, philanthropy, naming rights and other sources is deposited into investment accounts. These investment accounts are conservatively invested, generating additional revenue along the way. This, in turn, means that our financial model must also incorporate a range of possible future annual returns on investment so we can assess the model's strength under a variety of scenarios.

For the past year, we have posted on our website, on a quarterly basis, all of the financial information we have on total revenue received, seats sold, naming rights, and philanthropy. The first table below shows where we are, as of 12/31/12, in terms of ESP seat sales relative to the goals in the original financial model. The second table shows the original financial model with a range of possible scenarios and outcomes.

Table 1: Summary of ESP Seats Secured through 12/31/12

	Field Club Seats	Stadium Club Seats	Univ. Club Seats	Total FY 13
Total Seat Inventory for Sale	1,426	1,051	425	2,902
Seats Sold to Date	1,073	697	103	1,873
Seat Sales in Progress	12	3	4	19
Percent of Goal – Number of Seats Sold	75%	66%	24%	65%
Percent of Goal – Number of Seats Sold and Sales in Progress	76%	67%	25%	65%
Total Dollar Value of Seat Inventory for Sale	$84 million	$126 million	$63 million	$273 million
Dollar Value of Seats Sold*	$57.1 million	$72.6 million	$21.6 million	$151.3 million

*Based upon upfront price (a majority of the completed pledge agreements to date provide for payment over time).

Table 2: Summary of Original Model Scenarios

Scenario	Total Philanthropy ($M)	Seats Sold Relative to Goal	Seats Sold Relative to Total Inventory	Incremental Simpson Center Revenue ($M)	Market Return on investments	Projection of when combined balance becomes < 0
1	60	100%	90%	3	8.0%	Never
2	50	94%	84.6%	3	7.5%	Never
3	40	88%	79.2%	3	7.0%	Never
4	30	82%	73.8%	0	6.5%	2044
5	20	76%	68.4%	0	6.0%	2038

Revising the financial model

So, what led us to embark on a re-evaluation of the original financial model? First and foremost, it is our assessment there is an increasing probability that we will not reach the original fund raising/ESP sales targets by the anticipated date of June 2013. If we did not take corrective steps, this could result in a cash flow problem in future years. Given how different variables are interconnected this is best explained by looking at different "scenarios."

Table 2 above does this by showing a range of possible outcomes, with scenario 1 representing the "best" outcome and scenario 5 the "worst." Thus, what the old model was telling us was that if we were in scenario 5 (i.e. we sold 76% of the ESP seats relative to goal, philanthropy was $20m over the next 10 years, and the return on the investments averaged 6%) then IA could not meet its debt related financial obligation from this source in 2038.

Even though ESP sales have reached a value of over $150 million to date and new philanthropy is running ahead of projections, the tempo of sales and rate of return on investments have not kept pace with the original projections. Whether the sales figures are due to the economic recession, the football team's challenging season, or other factors is unclear. And, obviously, the return on the investment cannot be viewed over such a short period. However, what is clear is that the original model is over reliant on ESP seat sales. For that reason, it seemed prudent to develop a much more diversified financial model that was less susceptible to the vagaries of economic conditions and team performance.

New strategy, new tactics, new sources of revenue

The new financing plan reflects the work Intercollegiate Athletics has done over the past year on developing a more diversified and robust approach to revenue generation. This work was undertaken in close consultation with both potential partners and our stakeholders, and is based on relevant market research. While the same three revenue sources remain important, we have fundamentally revised our approach to enable us to reach a wider group of buyers and add new revenue sources.

Our first steps, in the fall of 2012, were designed to strengthen and expand the ESP program. Whereas in the past ESP had been handled solely by Intercollegiate Athletics' Development Office, they have now been joined by a dedicated sales staff that is focused on expanding our outreach beyond donors to a corporate market with significant potential. The corporate strategy for premium seating relies on offering to corporations and specific groups associated with the university shorter, two-year contracts for seat "bundles."

In the short time the corporate bundle program has been in effect we have already generated reservations for 26 University Club seats for the 2013 season from these customers. At the same time, the new sales team has also launched an ESP "perk pricing" program, which offers a very limited number of discounted, short-term seat contracts for purchase by current ESP participants as a way to let prospective buyers of long-term

contracts get a first-hand feel for the program's amenities and benefits. The perk pricing initiative has already generated over $200,000 in new revenue, and we anticipate that there will be strong demand for this product in the future.

In terms of the original ESP seat program, we have adjusted the number of seats we anticipate selling to individual buyers, the only mode of selling under the previous approach. Whereas the original model anticipated we would sell all of the ESP seats by June 2013 we are now projecting that sales will continue at a rate of 70-120 per year until all available seats are sold. Based on the pace of sales to date, we believe this to be a very conservative and attainable estimate.

Another new source of revenue now incorporated into the model comes as a result of the recently revised post-season system that will be implemented in 2014. Proceeds from the sale of media rights for the new system are being shared by all of the FBS member institutions, resulting in an estimated $2.5m annual uplift as a result of changes in post-season football.

We have also added to the model new revenue we expect to generate from the sale of additional new media revenue once our existing, campus-specific contract expires in 2017. We expect this to result in a multi-million dollar increase payment to athletics as a result. As with the post-season revenue, we have now earmarked a portion of these funds to pay for the new facilities.

While rental of the facilities was always envisioned, we have taken additional steps to enhance this source of revenue. Due to budget constraints, some of the space in the new facilities was left unfinished and is now being repurposed and improved as space available for lease or rent to third parties. We already have use agreements with a number of campus-based units, and welcome not only the new revenue, but also the increased usage of the buildings by a broader range of our campus community. In addition to these long-term use agreements, Intercollegiate Athletics will continue its successful efforts to rent space in the new facilities for events held by the university, corporations and individuals. Based on our experience to date, we are projecting a steady increase in this source of revenue.

In terms of other commercial revenue, we are incorporating a new, professionalized outreach to the corporate sector. Intercollegiate Athletics is already in the process of reviewing opportunities with a number of interested parties. One of the benefits of working with the corporate sector on other commercial revenue is that commercial agreements are usually time-bound, creating opportunities to re-sell these opportunities in the future.

Lastly, we will continue to pursue philanthropy specifically designated for the facilities. The last 12 months have yielded commitments of $15m and we are working on a number of additional prospects.

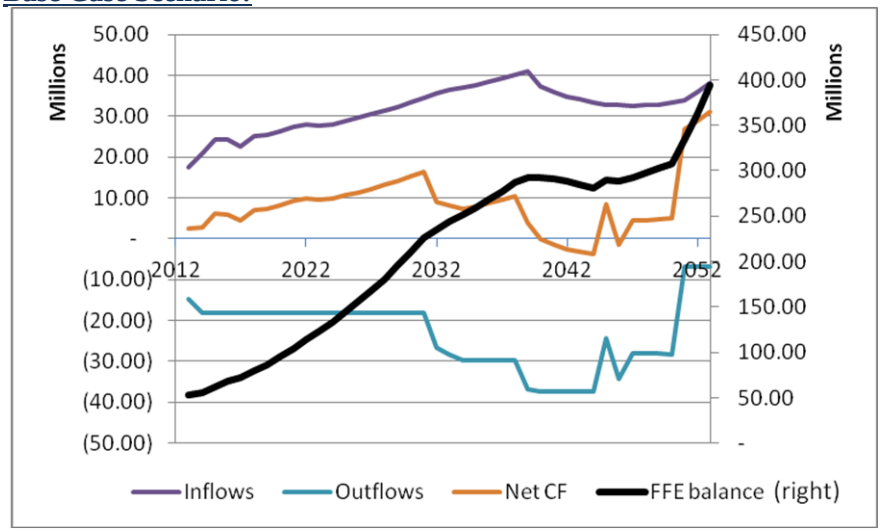
The New Model

While adding new sources of revenue and implementing a new approach to sales is clearly beneficial, it would all be for naught if we are failing to model outcomes correctly. For that reason we have been working closely with Professors Stanton, Wallace and Fuchs from the Haas School of Business, who all have a very high degree of experience and expertise in financial modeling. Initially we wanted to have them simply validate the original financial model, which they did. However, as it became clear that we needed to rewrite the model to capture the more diversified approach to revenue generation and the inherent uncertainty around both revenues and returns, we asked them to increase their involvement and help us build a new financial model from the ground up. We are very thankful to them for doing so. Obviously, the assumptions remain our responsibility, as does the implementation of the plan. At the same time, we believe that their independent analysis will help ensure we are being realistic with respect to our assumptions, projections and forecasts. We will also continue to be fully transparent through comprehensive quarterly reports on the Cal Athletics website.

Lastly, we have continued to work with Professor Calvin Moore, who has been involved in the estimation of the financial outlook from the beginning of the project several years ago, and Professor Alex Bell, who has kindly agreed to be our liaison to the wider faculty audience. They have both been very generous with their time and unstinting in sharing their insights and questions.

The result of everything described above is captured in the graph provided below. In contrast to the old approach, which showed there was a risk that Intercollegiate Athletics could face financing difficulties under some scenarios in the 2030's, the new approach indicates that the department will be able to meet its financial obligations under a range of scenarios. For example, under the new base case, which assumes that the invested funds have an annual return of 6%, the financial projections show a modest surplus, where available funds exceed obligations every year until the debt and principal is paid off.

Base Case Scenario:



Note: In 2053, Cal will still have $75M in bonds outstanding, which are due to be paid in 2112. if we choose to pay off this debt, the balance in the investment fund would decline from $400M to $325M under the base case scenario.

But, we did more than examine the model under a single, base case scenario. Using input and guidance from the aforementioned faculty, we tested the model against other plausible, but more challenging scenarios that, for example, incorporated lower rates of return on investments. As the table below indicates, under these more pessimistic scenarios Intercollegiate Athletics will be able to meet its financial obligations under most circumstances. For example, even if we pay-off the $75m in outstanding bonds in 2053, which is not a requirement, we would face a deficit only under the 4% scenario, a rate well below historical averages.

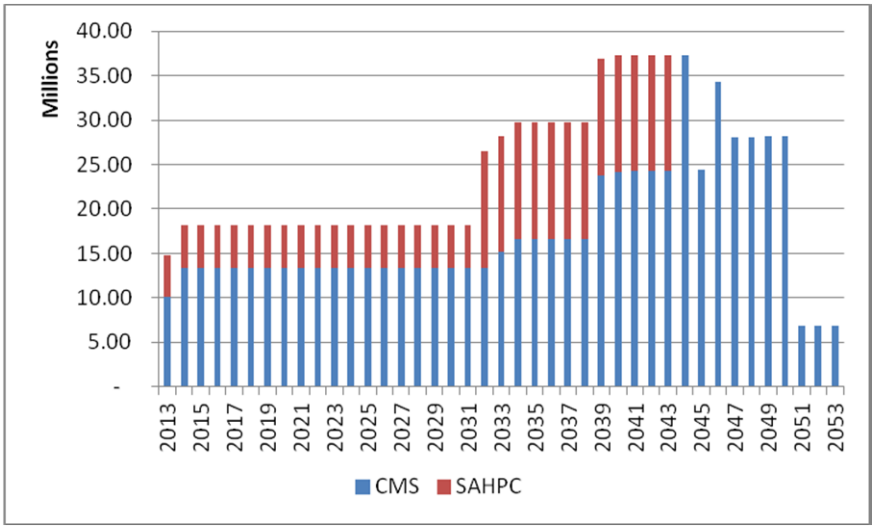
Assumed Earnings Rate	**4%**	**5%**	**6%**	**7%**
Ending Balance	$(-6,012,716)	$123,013,918	$319,141,487	$612,019,346
When balance goes negative	2053	Never	Never	Never

If we are in the upper end of the range of outcomes we will retire the debt early and use that debt capacity for other campus-wide priorities. If we are at the low end of the range of outcomes, IA will adopt new revenue measures to protect campus. However, these positive outcomes are likely only if we remain vigilant in terms of monitoring actual

outcomes and adapting to new opportunities and/or challenges. We are committed to do exactly that and will not lose sight of the fact that reality will, in one way or another, certainly differ from these projections.

Appendix

Bond Cash Flows



Debt Assumption Notes: 1) In 2053, Cal will still have $75M in bonds outstanding, which are due to be paid back in 2112. 2) There is approximately $45M in debt that remains to be issued. For modeling purposes, we assume this will be issued as 40 year debt, with 20 year delayed amortization at 4%.

Cash Received Summary

FY 10 ESP Revenue	$14,367,534
FY 11 ESP Revenue	$13,461,021
FY 12 ESP Revenue	$12,910,763
FY 12 Philanthropic Naming Revenue	$714,286
FY 13 ESP Revenue**	$2,064,874
FY 13 ESP "Perk Sales" Revenue	$210,755
FY 13 Philanthropic Naming Revenue	$0
Total Cash Received through December 31, 2012	$43,729,233

****Annual** ESP payments are due on April 1st.

D CMS Available Event and Rental Square Footage

Figure 8: **University Club interior view**

Figure 9: **University Club exterior balcony and Bay views**

Figure 10: **University Club exterior view: stadium seating and field**

Figure 11: **University Club interior event view**

Figure 12: **Total plaza level rental space**

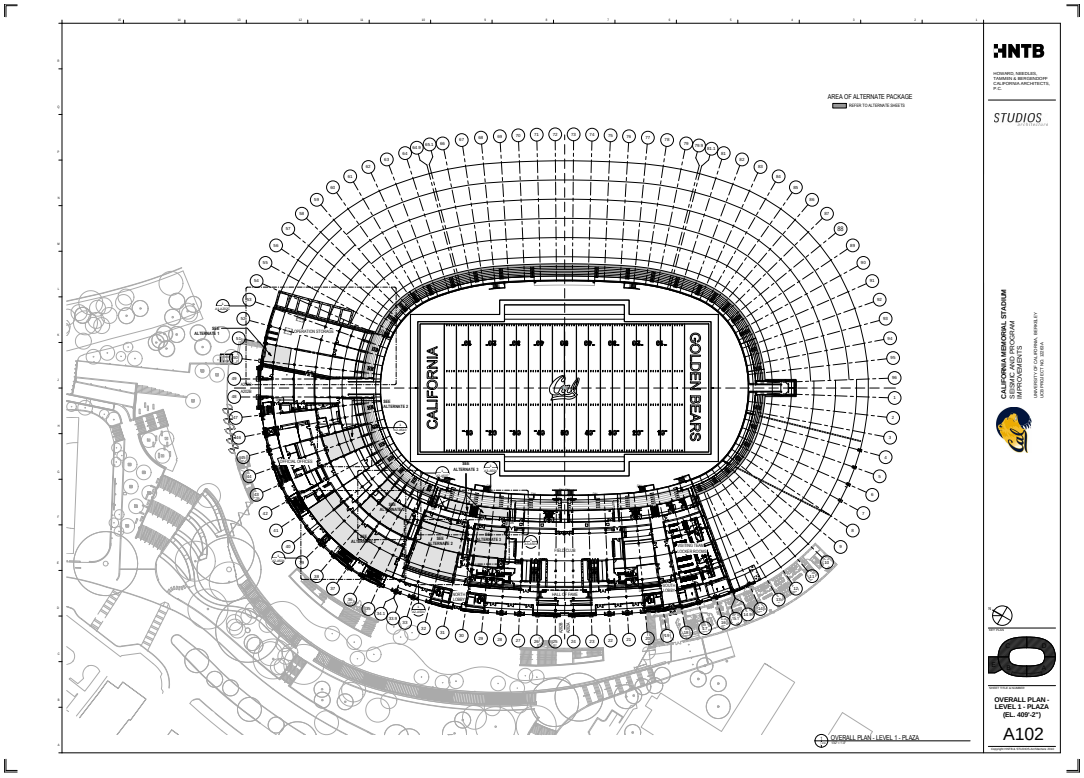


Figure 13: **Plaza level: storage**

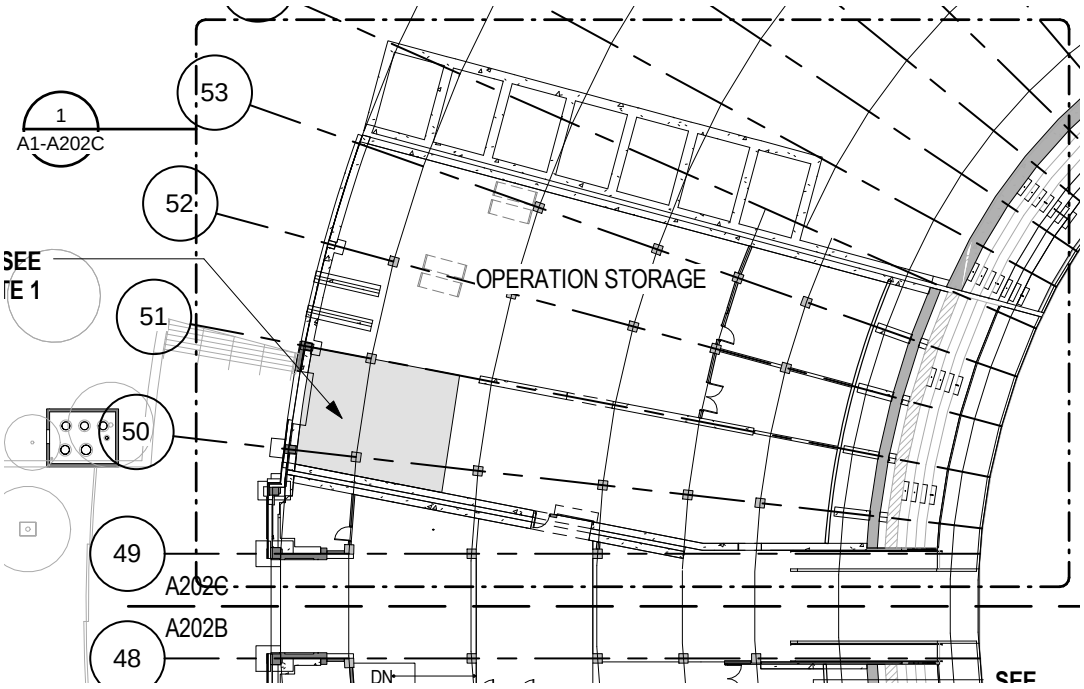


Figure 14: **Plaza level: Department of Intercollegiate Athletics office space**

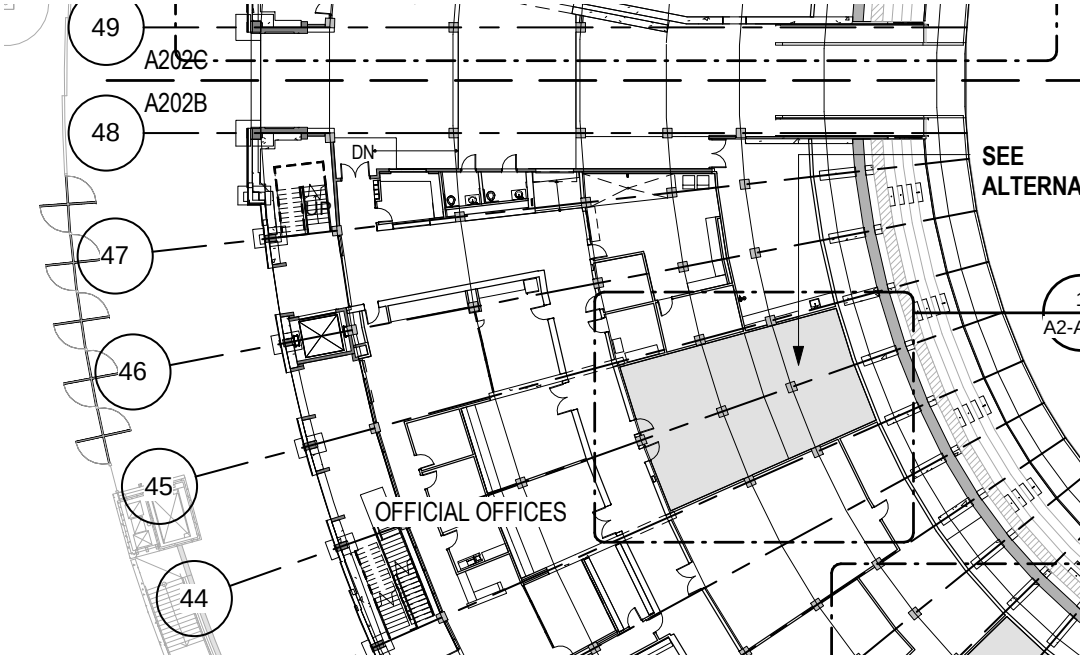


Figure 15: **Plaza level: Innovation Lab, Fitness Center and Auditorium**

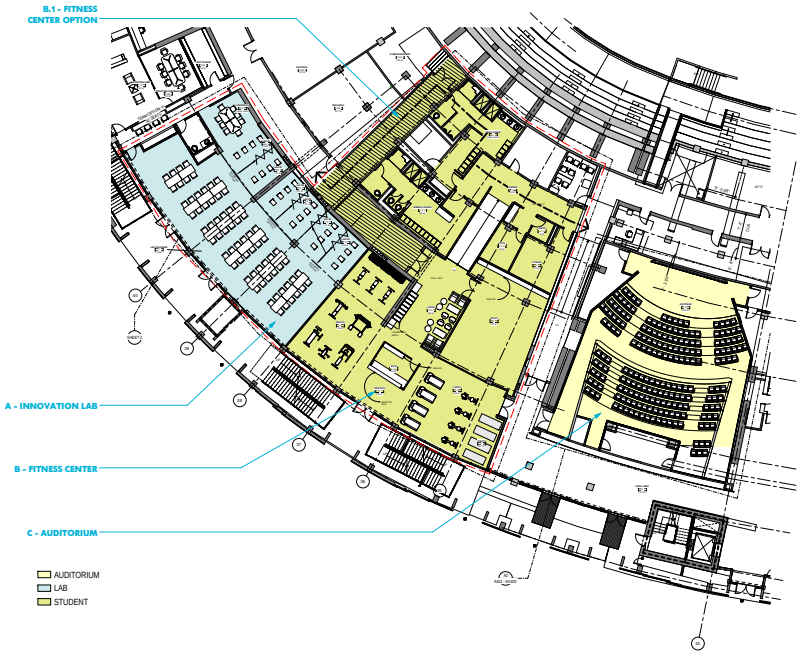


Figure 16: **Ground floor: kitchen, Field Club space and Hall of Fame space**

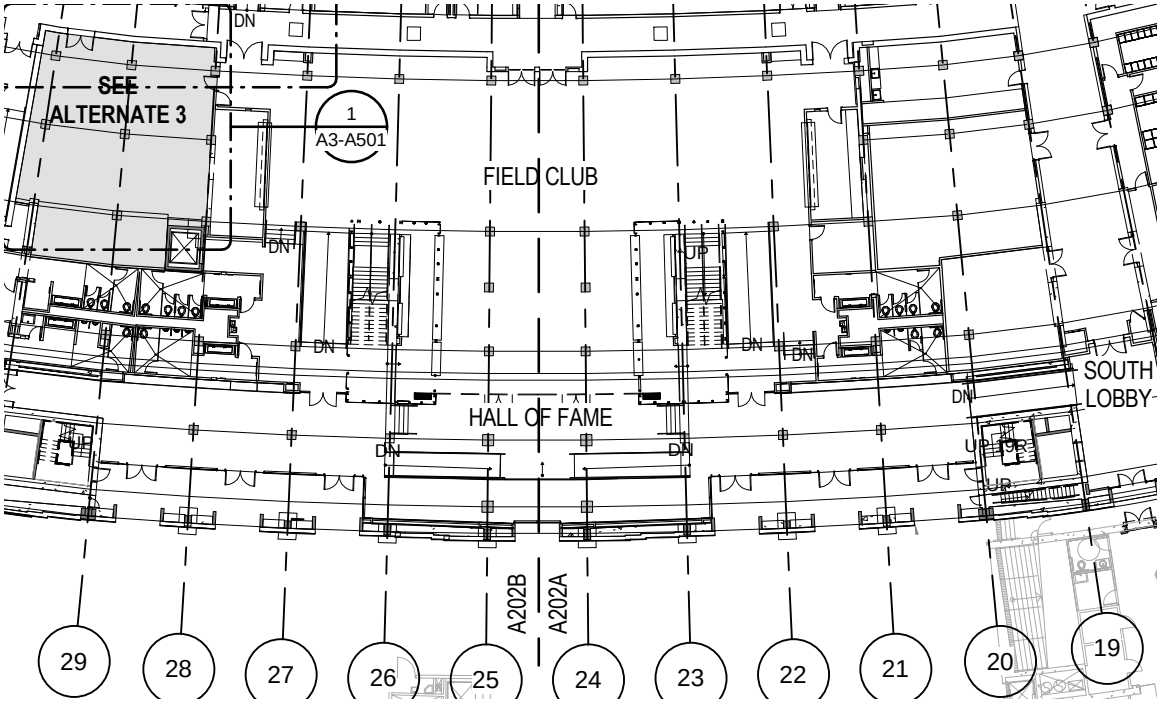


Figure 17: **Stadium Club space**

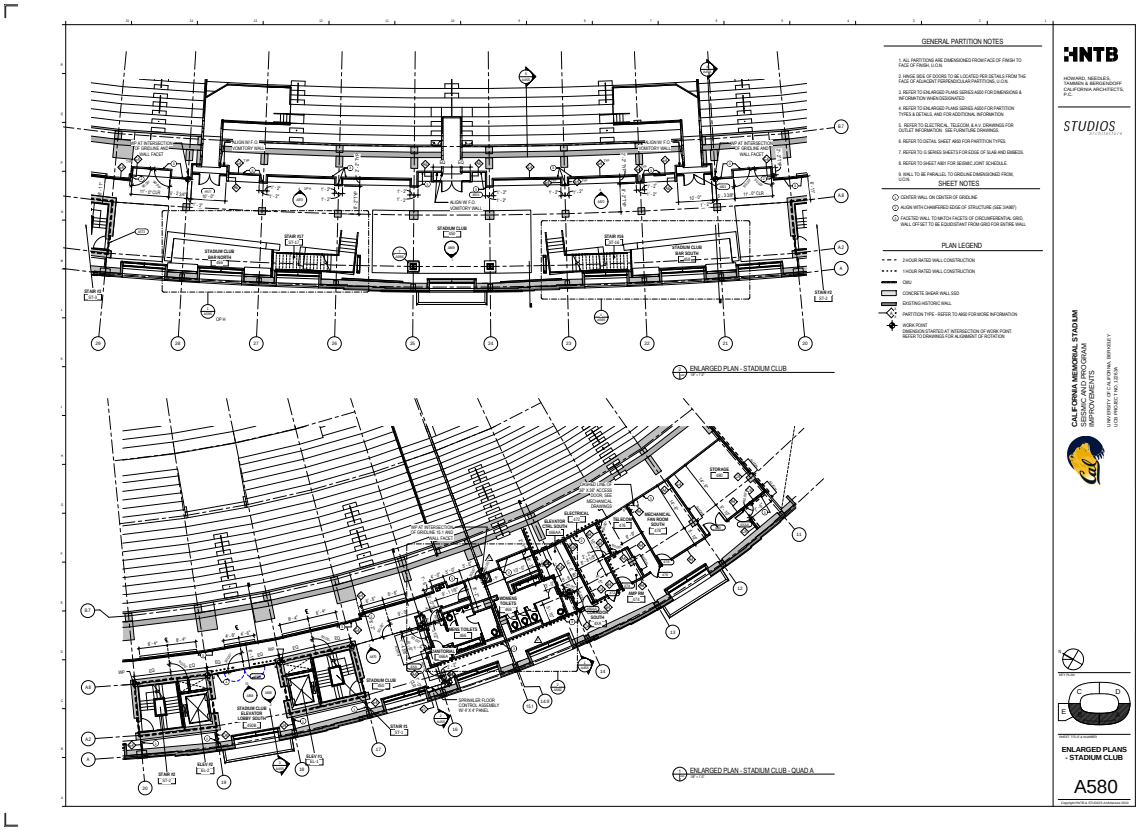
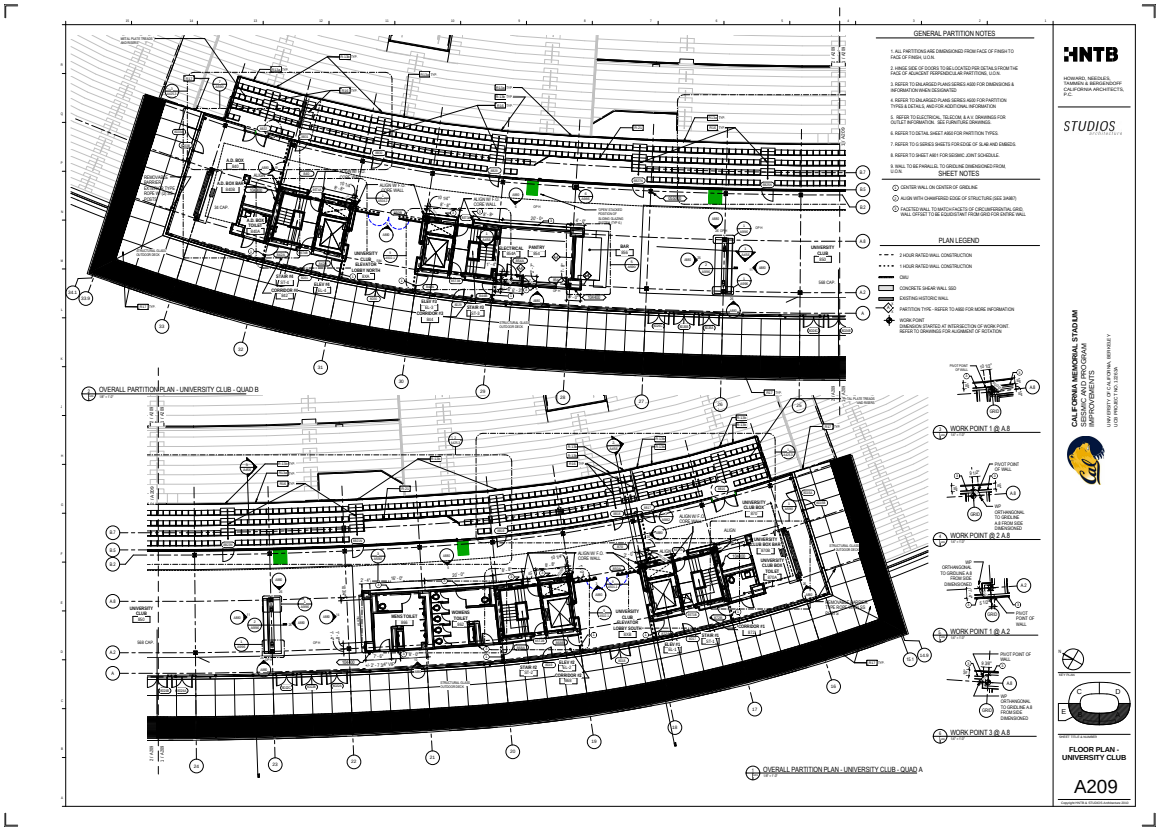


Figure 18: **University Club space**



E Rates of Return

Since it is impossible to know with certainty what returns will be earned on the university's investment portfolio over the next 30–40 years, we shall consider a range of possible returns, starting by estimating the *expected return*. It is standard (see, for example, Berk and DeMarzo, 2011, Chapter 12) to estimate the expected return on the stock market by adding the *riskless interest rate* to an estimate of the *market risk premium* (the expected return on the market in excess of that on risk-free securities). We therefore consider each of these quantities in turn.

Riskless Interest Rate: Table 10 shows Treasury yields (the usual measure of the riskless interest rate) on February 13, 2013. These range from 0.15% for one-year securities to 3.23% for 30-year bonds. Since the cash flows we are interested in extend over a long period, we shall focus on the long-term riskless rate of 3.2%.

Table 10: **Treasury yields, Feb. 13, 2013**

Maturity	Yield (%)
1 year[a]	0.15
10 year[b]	2.05
30 year[c]	3.23

[a] Datastream series `FRTCM1Y`.
[b] Datastream series `FRTCM10`.
[c] Datastream series `FRTCM30`.

Market Risk Premium: It is common to estimate the market risk premium by looking at historical average excess returns on the S&P 500.[29] Berk and DeMarzo (2011, Table 12.1) report that the average excess return on the S&P 500 over one-year Treasury securities was 7.1% from 1926–2009 and 4.7% from 1959–2009. Using longer-term Treasury securities, they report annual average excess returns (over a ten-year horizon) relative to ten-year Treasury securities of 5.7% from 1926–1009 and 3.7% from 1959–2009. While the standard errors over the 1959–2009 period are a lot larger (roughly $\pm 5.8\%$), there are two important things to notice:

[29] To get a reliable estimate via this approach, we need a surprisingly large amount of data. The standard *95% confidence interval* for the true expected return is the measured average $\pm$ twice the *standard error* of the mean (equal to the standard deviation of returns divided by the square root of the number of years in the sample). For example, if we use the historical standard deviation on the S&P 500 of 20.6%, then with 10 years of data, the 95% confidence interval is $\pm 2 \times 20.6\% / \sqrt{10} = \pm 13.0\%$! To get a more desirable confidence interval of, say, $\pm 1\%$ we need $(2 \times 20.6)^2 = 1,697$ years of data! Of course, even if we had 1,697 years of data, could we really be confident that expected returns in the year 315 AD were the same as they are today?

1. The excess return over long-term bonds is smaller than that over short-term bonds.
2. More recent excess returns are smaller than those over a longer horizon.

Another approach to estimating the market risk premium is to calculate the value that is consistent with the current price level of the market, given some estimate of future cash flows. Using this approach, Pástor, Sinha, and Swaminathan (2008) estimate a 2–4% *implied risk premium* over 10-year Treasuries.

Recent surveys of finance academics and practitioners[30] suggest, in the words of Berk and DeMarzo (2011, p. 382), that "Most researchers and analysts believe that future expected returns for the market are likely to be closer to these more recent historical numbers, in a range of about 4–6% over Treasury Bills (and 3–5% over longer term bonds)."

Expected Return on the Market: To estimate the expected return on the market, it is standard to add the riskless rate to an estimate of the market risk premium. The studies referred to above do not consider horizons as long as the 30 years we are interested in, but adding a long-term risk premium of 3–5% to either the 10- or 30-year Treasury rate gives a range of about 5–8% for the average long-term return on stocks, with a midpoint of 6.64%.

Expected Return on Investment Portfolio: The stadium funds, along with other University investments, are in a portfolio which is approximately 20% fixed income and 80% equity.[31] Given this mix and the midpoint result above, the portfolio's expected return is

$$(0.8 \times 6.64\%) + (0.2 \times 3.23\%) = 6.0\%,$$

which we shall use as the main benchmark return in our calculations.

Distribution of Returns: While we are comfortable with our estimate of 6% for the *expected* annual return on the university's investment portfolio over the next 30–40 years, it is by no means certain that this level of returns will actually be realized. We therefore consider a range of returns, including values both above and below 6%.

To determine a reasonable range of returns, we looked at the distribution of 40-year historical returns on the S&P 500 in excess of the long Treasury-bond yield since 1871, using data collected by Professor Robert Shiller and available at `http://www.econ.yale.edu/~shiller/data/chapt26.xls`. During this period, the annualized 40-year return on the S&P 500 was never

[30] See, for example, Welch (2000); Goyal and Welch (2008); Fernandez, Aguirreamalloa, and Corres (2011, 2012); Damadoran (2012); Graham and Harvey (2012).

[31] See Appendix F. The 80% "equity" piece of the portfolio includes primarily stocks, but also other asset classes, such as private equity and venture capital, whose expected return we assume is comparable with that of stocks.

lower than the 10-year Treasury yield at the start of the period.[32] Table 11 shows details of the distribution of 40-year excess returns since 1871. Based on these numbers, we perform our calculations assuming annual FFE returns of 2%, 4% 6%, 8% and 10%.

Statistic	40-year S&P excess return (%)
count	102
mean	5.36
std	2.39
min	0.91
max	9.75
Percentiles	
1%	0.95
5%	1.67
10%	2.36
25%	3.64
50%	5.54
75%	7.26
90%	8.74
95%	9.05
99%	9.63

Table 11: Distribution of excess 40-year returns on the S&P 500, 1871–2012

[32]The annualized 30-year return was lower than the 10-year Treasury yield in just two of the 112 30-year periods since 1871, but these were for the periods beginning in 1981 and 1982, where the 10-year Treasury rate hit levels of 12.57% and 14.50% respectively.

F Investment Policies

U.C. Berkeley Foundation

http://www.berkeleyendowment.org/wp-content/uploads/Investment-Policy.pdf

University of California, Berkeley Foundation
Investment Policy Statement

Adopted by BEMCO on January 4, 2011
Ratified by UCBF on February 25, 2011
Effective Date: March 1, 2011

The University of California, Berkeley Foundation ("UCBF") is the fiduciary for long term endowment assets (collectively, "General Endowment Pool" or "GEP") designated for the support of UC Berkeley. UCBF has delegated certain aspects of investment oversight to Berkeley Endowment Management Company ("BEMCO") pursuant to standing corporate resolutions and an Investment Management Services Agreement between UCBF and BEMCO.

In accordance with its delegated authorities, BEMCO serves as the investment manager with day-to-day oversight of investment activity and implementation through its Board of Directors ("BEMCO Board"), Chief Investment Officer ("CIO") and staff, while UCBF retains ultimate authority over BEMCO's policies and practices.

As of the date of adoption by UCBF, this document will become UCBF's current Investment Policy Statement ("IPS") and supersede all previous investment policy statements. BEMCO will thereafter carry out its responsibilities for the investment of the General Endowment Pool in a manner consistent with and subject to this IPS.

I. Objectives

Real Purchasing Power

The primary objective of the GEP is to generate returns sufficient to meet UCBF's desired payout target of 5% (net of new gifts) over the long term, while maintaining real purchasing power, sufficient liquidity and acceptable volatility. UCBF intends that the key terms used in the statement of the primary objective have the following meanings:

- "Long Term" means rolling ten year periods.
- "Real Purchasing Power" means UCBF's actual spending rate adjusted by the CPI-U.
- "Sufficient Liquidity" means holding assets:
  - That can be readily turned into cash to meet annual payout needs, and
  - Such that BEMCO can effectively rebalance the GEP's exposures.
- "Acceptable Volatility" means variations in payout are not unreasonably disruptive to the GEP's support of UC Berkeley's programs.

UCBF's Spending Policy, as adopted by UCBF's Finance Committee, is attached and incorporated herein as Exhibit A.

Market Returns

Another objective is for the GEP is to generate results that match or exceed the returns after all relevant expenses of a representative mix of investable assets, known as the Total Portfolio Benchmark, over rolling ten year periods. The Total Portfolio Benchmark should balance simplicity with completeness.

The initial Total Portfolio Benchmark is attached and incorporated herein as Exhibit B. The Total Portfolio Benchmark may be revised from time to time by the BEMCO Board.

Manager Selection

A final objective is for the GEP is to demonstrate success in selecting investments, as measured by comparing performance after all relevant expenses versus the return and volatility measures of other investable options at the manager and asset class level, over rolling five year periods. It is expected that each of the public equities managers would have results equivalent or superior to their relevant investable indices, both individually and collectively. These manager-specific and asset class-specific benchmarks should be stated at the time of investment, and shall be subject to revision from time to time by the Chief Investment Officer or the BEMCO Board, in a manner consistent with BEMCO's delegated authorities.

II. Asset Allocation

General Principles

BEMCO is expected to invest the GEP to meet the objectives stated above, while balancing prudent diversification and sufficient concentration. Diversification in asset classes, strategies, geographies and managers is meant to reduce the overall volatility of the portfolio. Concentration is meant to ensure the portfolio reflects BEMCO's best thinking, and the benefits of those insights are sized so as to meaningfully impact total portfolio performance.

BEMCO consists of a relatively small group of managers operating in complex, global financial markets. The level of complexity taken on by BEMCO in performing its responsibilities should be managed with considerable care. It is acknowledged that BEMCO's relatively more limited resources may lead to different portfolio construction outcomes than other peer institutions.

As a result of evolving capital markets, the asset allocation process is a dynamic one. BEMCO should set ranges to reflect a breadth of capital market circumstances, and should set targets based on its best judgment of how to meet the objectives. Targets should be reviewed and revised as necessary or appropriate but in any case no less than every two years. Ranges should be revised less frequently. The initial ranges and targets are attached and incorporated herein as Exhibit C.

Framework

The portfolio is to have an equity orientation, based on the belief that equity-like returns over the long term are the best method to generate returns that will meet the Objectives. A pure equity portfolio has a high level of volatility, and so a balanced approach using different investment types or strategies will be employed so as to dampen that volatility.

BEMCO will categorize assets into four groups:

1. **Equities**: Assets that are heavily tied to equity markets, and expected to generate equity like returns and volatility
2. **Diversifying Assets**: Assets that are intended to generate equity-like returns, but with less correlation to or volatility than the equity markets
3. **Excess Return**: Assets that are intended to meaningfully outperform equity markets, with similar or higher levels of volatility
4. **Defensive Assets**: Assets that are intended to preserve their value and liquidity across a variety of markets

III. Other Considerations

Allowable Investments

It is generally expected that BEMCO will invest the assets in funds or accounts managed by third party investment firms, and will not be involved in the day-to-day buying and selling of individual securities. BEMCO may utilize direct holdings of exchange traded funds, futures, options or swaps to create or alter market exposure within the total portfolio. All activity is conducted with the oversight of the BEMCO Board and administration by UCBF's Finance team. Direct holdings of derivatives require prior approval of the BEMCO Board.

Liquidity

The GEP has liquidity demands from its annual payout and in the management of its legal commitments to drawdown funds. Additionally, the portfolio needs to be able to respond to changing market conditions, and lean towards areas of absolute or relative attractiveness. To address all of these needs, care must be given to the level of liquid assets in the portfolio and the level of future funding commitments made. In particular, there should be an awareness of how liquidity can change in periods of tumult.

Nevertheless, the permanent nature of the GEP's capital should enable it to accept lower levels of liquidity in instances where the capital is likely to earn a sufficient premium.

Leverage

While BEMCO may invest in funds that utilize differing forms of leverage, the portfolio as a whole is to remain unlevered. Unlevered means that the total notional exposure of the portfolio should not exceed 100% of the assets. Exceptions to this policy are as provided below:

- **Line of Credit**: Subject to UCBF's approval and oversight, the BEMCO Board may approve a line of credit created to address temporary liquidity needs in an amount not to exceed 10% of assets.
- **Special Circumstances**: In instances where BEMCO may seek to adjust exposures in the portfolio in a way that exceeds the available liquid assets, the BEMCO Board must approve in advance transactions designed to reduce the net exposure of the portfolio. These circumstances should be exceedingly rare.

Review and Revision

The BEMCO Board should review and consider revisions to this IPS, including its objectives, asset allocation targets and other components, as necessary or appropriate, but in any case no less than every three years.

Implementation

The GEP is a complex mix of investment strategies, liquidity profiles, and asset types. It is recognized that making substantial changes to the portfolio's composition and hitting the targeted asset allocation levels will take years to accomplish in some categories.

IV. Corporate Governance

Proper oversight of investments includes being an informed, responsible participant in corporate governance matters affecting these investments, where reasonably possible and appropriate. BEMCO selects third party investment managers who are experts in their respective fields, including the use of tools such as proxy voting to seek maximization of financial returns for the companies in which they invest. BEMCO will delegate the authority related to proxies and other governance mechanisms to these third party managers, with the primary mandate to maximize financial returns. Modifications and/or enhancements to these practices may be approved by UCBF, in consultation with BEMCO, in keeping with UCBF's role of representing the interests of the GEP's many and diverse stakeholders.

V. Conduct

BEMCO is a representative of UC Berkeley to the investment community, and the community at large. As such, it should conduct itself in such a way as to reflect well on the institution it represents and seek to uphold the highest standards of professional conduct. The BEMCO Board and staff will adhere at all times to the then current Conflicts of Interest Policy, and actively avoid actual or potential conflicts.

As a California nonprofit public benefit corporation, UCBF is subject to the standards for investment or retention of assets set forth in the Section 5240 of the California Nonprofit Public Benefit Corporation Law. BEMCO will carry out its responsibilities in accordance with these standards and otherwise in good faith and in a manner consistent with the standard of care applicable to similar investment managers operating under similar circumstances.

Exhibit A

SPENDING POLICY

As Adopted by UCBF, May 15, 2009

A. The purpose of the University's endowments is to provide a permanent stream of income to support the donors' specified purposes. The spending policy objective is interlinked with the financial and investment objectives and has been formulated in the context of the overarching goal for prudent management of endowments: to optimize the balance between preserving the real (after inflation) long-term purchasing power of the endowment principal with the need to make annual distributions to campus beneficiaries. The Foundation has approved the spending policy for the GEP to balance these oft-times competing considerations.

B. The general spending policy for the GEP is to pay out annually 4.5% of the trailing twelve-quarter moving average market value of the GEP determined on March 31 of the fiscal year under consideration. However, the Board may, at its discretion, modify this spending percentage within a limited range as clarified below.

C. The Finance and Administration Committee shall be responsible for reviewing the spending policy formula, in consultation with the Berkeley Endowment Management Company, on an annual basis. The Finance and Administration Committee shall review the resultant payout dollar distribution, based on the existing formula, giving due and prudent consideration to other factors such as:

- ☐ Need to ensure stability of funding from one year to the next for planning purposes;
- ☐ Prevailing market conditions and their potential impact;
- ☐ Realized gains reserve;
- ☐ Other non-endowment sources of funding; and
- ☐ Overall funding environment for the Berkeley campus.

The Finance and Administration Committee may, at its discretion, recommend an alternate payout percentage, within a range of 4% to 5% for a specific fiscal year, and shall submit its recommendation to the Executive Committee. After further discussion and review, the Executive Committee will recommend for approval by the Board the annual payout percentage.

Exhibit B

TOTAL PORTFOLIO BENCHMARK

The initial Total Portfolio Benchmark is:

82.5% MSCI All Countries World Index
17.5% Barclays Capital Treasury Bond Index

Exhibit C

Asset Allocation Targets and Normal Ranges

Category		Target	*Min*	*Max*	Role	Includes:
Global Equities		39.5%	*30.0%*	*50.0%*	Equity Returns; Equity Vol.	Long-only and directional L/S strategies
Diversifying Assets		28.0%	*20.0%*	*35.0%*	Equity Returns; Lower Vol/Correl.	Absolute Return, Lower Vol/Correl Real Asset Strategies, Other
Excess Return		15.0%	*0.0%*	*20.0%*	High Returns	PE, VC, Higher Vol/Correl Real Asset Strategies, Other
Defensive		17.5%	*15.0%*	*35.0%*	Stable Value	Treasuries, Cash and other lower vol/correl strategies
Liquidity*		33.0%	*20.0%*	*n/a*		

* Liquidity: This is a total portfolio measure that is to capture assets that can be readily turned into cash within one month's time.

U.C. Regents

http://www.ucop.edu/treasurer/_files/invpol/GEP_IPS.pdf

UNIVERSITY OF CALIFORNIA
GENERAL ENDOWMENT POOL

INVESTMENT POLICY STATEMENT

Approved November 15, 2012
Replaces version dated March 29, 2012

UNIVERSITY OF CALIFORNIA GENERAL ENDOWMENT POOL
INVESTMENT POLICY STATEMENT

TABLE OF CONTENTS

PLEASE NOTE:

*** These Appendices and Guidelines are in separate documents and are incorporated by reference.** Appendices (4-8) to Investment Policy Statements of UCRP and GEP

UNIVERSITY OF CALIFORNIA GENERAL ENDOWMENT POOL
INVESTMENT POLICY STATEMENT

Introduction and Purpose

This Investment Policy Statement ("Policy" or IPS") provides the framework for the management of the investments of the University of California General Endowment Pool ("GEP"). The purpose of a policy statement is to document the investment management process by

- Identifying the key roles and responsibilities relating to the ongoing management of the GEP's assets;
    - Recognize and ameliorate the agency issues among the parties responsible for various aspects of investment management;
- Setting forth an investment structure for the GEP's assets;
    - This structure includes various asset classes and acceptable ranges that, in aggregate, are expected to produce a sufficient investment return over the long term while prudently managing risk;
    - This strategy should provide guidance in all market environments, and should be based on a clear understanding of worst case outcomes;
- Establishing formalized criteria to measure, monitor, and evaluate GEP performance results on a regular basis; and
- Encouraging effective communication among all fiduciaries, including external parties engaged to execute investment strategies.

The document is divided into five sections. There are also a number of Appendices, which are integral parts of this document.

1. Investment Goals, Key Responsibilities, and Philosophy

a. The **mission** of the GEP is to provide a common investment vehicle, which will generate a stable and continuously growing income stream, for (most but not all of) the University's endowments and quasi-endowments, for which the University is both trustee and beneficiary.

b. The overall investment **goal** of the GEP is to preserve the purchasing power of the future stream of endowment payout for those funds and activities supported by the endowments, and to the extent this is achieved, cause the principal to grow in value over time. Other goals include:
    - To maximize return within reasonable and prudent levels of risk
    - To maximize the value of the endowment while maintaining liquidity needed to support spending in prolonged down markets.

Key **responsibilities** in the oversight and management of the GEP are as follows:

c. Under the authority granted in University Bylaw Sections 10.1.b and 12.5.a, The Regents has appointed a standing Committee on Investments ("Committee"), which is charged with oversight responsibility for the management of investments on behalf of The Regents, which includes the establishment of investment policies for the GEP and oversight of the management of the GEP's assets.

d. Under the Bylaw Section 12.5.c, the Committee is directed to establish a system of custodianship for all securities.

e. Under University Bylaw Section 21.4, The Regents has delegated to the Chief Investment Officer general responsibility for all investment matters, including the implementation of investment policies established by the Committee for the GEP. References to the "Chief Investment Officer" below shall be understood, depending on the context, to mean the "Office of the Chief Investment Officer."

The **philosophy** for the management of the GEP assets is as follows.

f. The investment philosophy of the Committee is to create a management process with sufficient flexibility to capture investment opportunities as they may occur, yet maintain reasonable parameters to ensure prudence and care in the execution of the investment program.

g. The Committee seeks a return on investment consistent with levels of investment risk that are prudent and reasonable given medium- to long-term capital market conditions and the investment objectives of the GEP (see part 4 below). While the Committee recognizes the importance of the preservation of capital, it also recognizes that to achieve the GEP's investment objectives requires prudent risk-taking, and that risk is the prerequisite for generating excess investment returns. Therefore the Committee's policy regarding investment risk, consistent with modern portfolio theory, is that risk cannot be eliminated but should be managed, and that fiduciaries have the obligation to utilize risk efficiently. Risk exposures should be identified, measured, monitored and tied to responsible parties; and risk should be taken consistent with expectations for return. Further articulation of the Committee's risk policy, including appropriate budgets and ranges for various types of risk are found in Appendix 2.

The **principal risks** that impact the GEP, and the parties responsible for managing them are as follows:

h. *Capital market risk* is the risk that the investment returns (in excess of the risk-free rate) associated with the Committee's asset allocation policy are not sufficient to provide the required returns to meet the GEP's investment objectives. Responsibility for determining the overall level of capital market risk lies with the Committee.

i. *Investment style risk* is associated with an active management investment program. It is the performance differential between an asset category's market target and the aggregate of the managers' benchmarks within the asset category weighted according to a policy allocation specified by the Chief Investment Officer. This risk is an implementation risk and is the responsibility of the Chief Investment Officer.

j. *Manager value-added risk* is also associated with an active management investment program. It is the performance differential between the aggregate of the managers' actual (active) portfolios and the aggregate of the managers' benchmarks, both at policy allocation. This risk is an implementation risk and is the responsibility of the Chief Investment Officer (and indirectly the investment managers retained by the Chief Investment Officer).

k. *Tactical/strategic risk* is the performance differential between (1) policy allocations for the GEP's asset categories and its investment managers and (2) the actual allocations. This risk is the responsibility of the Chief Investment Officer.

l. *Total active risk* refers to the volatility of the difference between the return of the GEP policy benchmark (see Appendix 1) and the actual return. It incorporates the aggregate of the risks in (i), (j) and (k) above, and is thus the responsibility of the Chief Investment Officer.

m. *Total investment risk* refers to the volatility of the return of the total GEP assets. It incorporates all elements of investment risk as enumerated above, and is thus the joint responsibility of the Committee and the Chief Investment Officer.

n. *Peer risk* refers to the difference in GEP performance relative to peer institutions. The Committee acknowledges that similar institutions may have different objectives and different levels of investment risk. Comparisons of performance with other institutions are meaningful *only* after adjusting for differences in investment policy and risk among peers. This risk is the responsibility of the Committee.

2. Investment Policies

The policies of the investment program establish the investment strategy and guide its implementation.

a. The investment policies of the GEP shall be based on a financial plan that will consider:
   i. The financial condition of the GEP, i.e., the relationship between the current and projected assets of the GEP, projected donor contributions, and the desired spending policy [see Appendix 3]
   ii. Future growth of faculty and students; and both general and educational inflation
   iii. The expected long term capital market outlook, including expected volatility of and correlation among various asset classes
   iv. The range of possible investment outcomes associated with different policies
   v. The Committee's risk tolerance, that is, the trade-off between the desire to achieve high returns (and the associated high volatility) and the desire to avoid unacceptable outcomes (and the associated necessity for reduced volatility).

b. The Committee will consider alternative investment policies and will measure their potential impact on the financial condition of the GEP and assess their suitability in meeting the objectives of the GEP.

c. The Committee's financial plan will result in a risk budget, that is, an expected amount of volatility associated with a given expected level of investment returns offered by the capital markets including the expected active return.

d. Based on the risk budget, the Committee, with input from the Chief Investment Officer and other consultants, will approve a specific allocation of the investments (the asset allocation policy) among the various asset classes considered prudent given the GEP's objectives, time horizon, and constraints, and considering multiple measures of investment risk. The asset allocation policy shall be expressed in terms of a normal percentage allocation, and ranges for each asset class. These normal weights and ranges are found in Appendix 1. Criteria for including an asset class in the strategic allocation are also in Appendix 1.

e. The asset allocation policy shall be sufficiently diversified to enable the appropriate fiduciary to manage risk without imprudently sacrificing return. The Chief Investment

Officer is delegated the responsibility of managing total and active risk within the ranges set by the Committee (see Appendices 1 and 2). Within the limits of prudent diversification and established risk budgets, capital market and active risk exposures are fungible, and the Chief Investment Officer may allocate risk exposures within and between asset classes in order to optimize return. When necessary, the Chief Investment Officer may use appropriate risk management strategies to protect portfolio value.

f. The Committee will approve performance benchmarks for each asset class, based on a pre-approved set of criteria, which are found in Appendix 1, and will approve overall investment guidelines for each asset class, which are found in Appendix 7.

g. The GEP assets shall at all times avoid the use of economic leverage (subject to exceptions below). Economic leverage, in the context of portfolio management is defined as a net dollar exposure to assets in excess of the amount of invested capital, as measured by current market value. The term "net dollar exposure" is defined in the Derivatives Policy, Appendix 4. A very small, inadvertent, or temporary violation of this restriction that may occur in the normal course of portfolio management shall *not* be construed as leverage. Notwithstanding the general prohibition against leverage, leverage may be used in Private Equity, Real Estate, Real Assets, and Absolute Return strategies, per the limits and guidelines set forth in Appendix 7 and in the conduct of the Securities Lending Program (see section 2l. below). All leverage shall be non-recourse to the Regents, a public corporation, with respect to GEP investments.

h. The Chief Investment Officer will implement the asset allocation policy as approved by the Committee. The Chief Investment Officer will select investment professionals (or "managers") with demonstrated experience and expertise who will be responsible for managing specific portfolios consistent with the Guidelines in Appendices 6 and 7. Each investment manager will function under a formal contract that delineates its responsibilities, investment style and process, performance expectations, administrative requirements, and compensation. Where appropriate, each manager's contract will include a benchmark and range of probable outcomes relative to that benchmark. The Chief Investment Officer shall establish and implement procedures for the selection, monitoring, evaluation, and termination of investment managers, which are found in Appendix 6.

i. The Chief Investment Officer will allocate funds across managers to develop an efficient investment structure, within the constraints of the prudence requirement, for each asset class, and will monitor whether the aggregate characteristics of all portfolios in an asset class comply with the investment guidelines for that class. The Chief Investment Officer will determine a policy allocation for each manager to be used in the evaluation of the active management program.

j. The Chief Investment Officer shall establish and implement procedures to provide efficient management of liquidity (including timely payouts) for the GEP.

k. The Chief Investment Officer shall be responsible for administering the investments of the GEP at the lowest possible cost, being careful to avoid sacrificing quality. These costs include, but are not limited to, management and custodial fees, consulting fees, transaction costs and other administrative costs chargeable to the GEP. The Chief Investment Officer may establish directed brokerage arrangements with the custodian for the GEP or other qualified third parties in order to reduce overall commissions cost for the GEP.

l. The Chief Investment Officer may participate in securities lending programs, as a means to augment income, with the custodian or other qualified third parties. Cash collateral received from borrowers will be invested by the Chief Investment Officer or the lending agent, in a short term investment pool, in accordance with guidelines established by the Chief Investment Officer.

m. The Committee considers the active voting of proxies an integral part of the investment process. Proxy voting will occur in accordance with the Proxy Voting Policy found in Appendix 5.

n. The investment program shall comply with existing and future applicable state and federal laws and regulations and the prudence requirement.

o. All transactions undertaken on behalf of the GEP will be undertaken solely in the interests of the University and according to the direction of donors.

3. Fiduciary Oversight Procedures

The following procedures for the management of the GEP's assets outline the specific responsibilities of the Committee and other fiduciaries.

a. The Committee, in developing investment policy for the GEP assets, shall act with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims.

b. The Committee will exercise its fiduciary responsibilities in regard to the investment program in accordance with the GEP Mission [see section 1.a above] and University Bylaws.

c. The Committee shall review the asset allocation policy, asset class guidelines, and current capital market assumptions at least annually to ensure that the current asset mix can reasonably be expected to achieve the long-term goals of the GEP.

d. The Committee will review the GEP's financial condition annually, and recommend a Spending Policy for each year to the Finance Committee, which is responsible for approval.

e. The Committee may appoint investment consultants to review investment performance of the GEP in whole or with respect to specific asset classes, to assist in the development of the GEP's investment policies and asset allocation, to monitor and report on investment risks, and to provide independent assessment of investments proposed by the Chief Investment Officer.

f. The Committee has appointed a standing Investment Advisory Committee ("IAC") of selected Regents, investment professionals, faculty, and UC Foundation members to provide input to the Committee on decisions and assist in oversight of the Chief Investment Officer. The Chair of the Committee shall also be the Chair of the IAC.

g. The Committee shall review the investments of the GEP no less than quarterly to assess whether policy guidelines continue to be appropriate and are met. The Committee shall monitor investment risk, as well as monitor investment returns on an absolute and benchmark relative basis.

h. The Chief Investment Officer shall prepare quarterly and annual reports for the Committee and The Regents on the investment program, including
   i. The achievement of overall performance objectives
   ii. The type and amount of risk taken to achieve those objectives
   iii. Attribution of returns to various investment decisions and risks
   iv. Adherence to budgets set for total and active risk
   v. Compliance with policy guidelines, particularly asset allocation policy, and
   vi. The costs of managing the GEP's assets.

i. Investment performance results shall be calculated and verified at least monthly by an external, independent performance consultant.

j. The Chief Investment Officer, in conjunction with the various investment consultants, will monitor the investment managers for compliance with their investment guidelines, achievement of specific objectives, and individual risk exposures.

k. The Chief Investment Officer shall monitor the conduct of the custodian of the GEP.

l. The Chief Investment Officer shall adopt the CFA Institute Code of Ethics and Standards of Professional Conduct for all employees of the Chief Investment Officer and relevant consultants and managers. These are found at http://www.cfainstitute.org/cfacentre/pdf/English2006CodeandStandards.pdf and incorporated by reference. The Chief Investment Officer shall develop and enforce other ethics guidelines for the employees of the Chief Investment Officer as needed, consistent with other University policies and guidelines.

m. The Committee will review this Policy from time to time to determine if modifications are necessary or desirable.

4. Performance Objectives

Performance objectives shall be established for the total GEP, asset class composites and individual manager portfolios. These objectives will be incorporated in the quarterly reviews of the GEP's performance.

The investment strategy articulated in the asset allocation policy found in Appendix 1 has been developed in the context of long-term capital market expectations, as well as multi-year projections of contributions, spending, and inflation. Accordingly, the investment objectives and strategies emphasize a long-term outlook, and interim performance fluctuations will be viewed with the corresponding perspective. The Committee acknowledges that over short time periods (i.e. one quarter, one year, and even three to five year time periods), returns will vary from performance objectives and the investment policy thus serves as a buffer against ill-considered action.

There are four principal factors that affect an endowment fund's financial status: 1) contributions from donors, 2) annual payout to endowment recipients, 3) inflation, and 4) investment performance. Only the last factor is dependent upon the investment policy and guidelines contained herein. However, the Committee's level of risk tolerance will take into account all four factors. At certain levels of assets and a given spending policy, it could be impossible for

the investments to achieve the necessary performance to meet desired spending. The result is that either spending policy has to be changed, contributions increased or risk tolerance changed.

Rates of return will be calculated based on a time-weighted rate of return formula as recommended by the CFA Institute. Returns will be calculated by the performance consultant and will be reported net of all fees and costs.

The performance of the overall GEP will be measured relative to:

- Inflation
- Policy benchmarks

a. Total GEP return should exceed the Consumer Price Index on a consistent basis over time.
   - This objective is to achieve a positive return above inflation. The GEP's assets are invested with an infinite time horizon, and failure to keep pace with inflation may jeopardize the endowments' intended purposes.

b. Total GEP return should match or exceed the total GEP weighted benchmark return, net of all fees and expenses on a consistent basis over time. See Appendix 1 for the composition and calculation of the GEP policy weighted benchmark.
   - This objective is to match or exceed a passively managed fund with a similar asset mix, net of all fees and expenses. The value added above the policy benchmark measures the effectiveness of the Chief Investment Officer's implementation and management decisions. The policy benchmark should also be adjusted for the costs of passive investing.

Additional metrics with respect to risk are found in the Risk Policy Appendix 2.

5. Asset Class and Manager Guidelines

The general guidelines that apply to all investment managers are:

a. Subject to constraints and restrictions imposed by the manager guidelines, all decisions regarding sector and security selection, portfolio construction, and timing of purchases and sales are delegated to the investment manager.

b. The purchase of securities issued by tobacco companies is prohibited in separately managed accounts. The Regents have defined a tobacco company as "a company which derives its revenues from the manufacture and distribution of tobacco products or, if a diversified company, that no other business line contributes more revenues or earnings than tobacco products." The Chief Investment Officer will determine what constitutes a tobacco company based on standard industry classification of the major index providers (e.g., Russell, MSCI) and communicate this list to investment managers annually and whenever changes occur. The Committee recognizes that the establishment of social investing restrictions limits investment opportunities and should be accompanied by adjusting performance evaluation standards appropriately.

c. The direct purchase of property owned or a security issued by the University, its subsidiaries and affiliates, is prohibited
d. The purchase of non-negotiable securities is prohibited in the equity and fixed income asset classes.
e. The use of derivative securities or contracts to create economic leverage in the portfolio is prohibited. Acceptable and prohibited uses of derivatives are found in the derivatives policy in Appendix 4.
f. Transactions that involve a broker acting as a "principal," where such broker or an affiliate is also the investment manager, who is making the transaction, are prohibited.
g. Transactions shall be executed at the lowest possible total cost, which includes commissions, efficiency of execution, and market impact.
h. Any investment or action with respect to an investment not expressly allowed is prohibited, unless presented to and approved prospectively by the Committee. All guidelines must be adhered to; however, if from time to time a manager shall deem an exception to the guidelines appropriate, the Chief Investment Officer shall seek review and approval by the Committee to make such an exception.

Managers are required to inform the Chief Investment Officer of significant matters pertaining to the investment of GEP assets, including at a minimum, substantive changes in investment strategy and portfolio structure; significant changes in ownership, organizational structure, financial condition or professional staffing; litigation or violation of securities regulations; significant account losses or growth of new business. Managers must inform the Chief Investment Officer in the event of discovering an unintended or involuntary violation of their guidelines or of any of the Policies herein pertaining to them.

Managers are required to submit periodic reports to the Chief Investment Officer summarizing investment activity and strategy, as per Appendices 6 and 7 and individual guidelines. Managers are required to reconcile investment returns with the custodian each month.

Specific guidelines for each major asset class will be found in Appendix 7. Manager guidelines will contain specific provisions to ensure that performance objectives and risk exposures are consistent with their particular investment mandate, which may be a style or subset of their larger asset class. However, all individual manager guidelines will be consistent with broad asset class guidelines and this Policy.

UNIVERSITY OF CALIFORNIA GENERAL ENDOWMENT POOL
INVESTMENT POLICY STATEMENT

APPENDIX 1
Effective: July 19, 2012
Replaces Version Effective: January 1, 2012

ASSET ALLOCATION, PERFORMANCE BENCHMARKS, AND REBALANCING POLICY

Based on the risk budget for the GEP, the Committee has adopted the following asset allocation policy, including asset class weights and ranges, benchmarks for each asset class, and the benchmark for the total GEP.
Criteria for including an asset class in the strategic policy include:

- Widely recognized and accepted among institutional investors
- Has low correlation with other accepted asset classes
- Has a meaningful performance history
- Involves a unique set of investors

The Current Policy Allocation recognizes the current under-investment in illiquid asset classes (real estate, real assets) and the corresponding need to set rebalancing ranges around this effective policy allocation until such time as long-term policy weights in these classes are achieved. The allowable ranges for each asset class and in total have been chosen to be consistent with budgets and ranges for total and active risk.

A. Strategic Asset Allocation and Ranges

	Current Policy Allocation	Long-Term Target Allocation	Allowable Ranges	
			Minimum	Maximum
U.S. Equity	18.5%	13.5%	13.5	23.5
Developed Non US Equity	16.0	8.0	11.0	21.0
Emerging Mkt Equity	6.0	7.0	4.0	8.0
Global Equity	2.0	0.0	1.0	3.0
US Fixed Income	5.75	5.0	2.75	8.75
High Yield Fixed Income	3.0	2.5	2.0	4.0
Emerging Mkt Fixed Income	3.0	2.5	2.0	4.0
TIPS	4.0	2.5	2.0	6.0
Private Equity	9.0	9.0	6.0	12.0
Absolute Return – Diversified	23.5	23.5	18.5	28.5
Cross Asset Class	2.0	5.0	0.0	7.0
Opportunistic Equity	0.0	10.0	0.0	12.0
Real Assets	1.25	3.0	0.25	2.25
Real Estate	6.0	8.5	3.0	9.0
Liquidity	0.0	0.0	0.0	10.0
TOTAL	100%	100%		

Combined Public Equity	42.5	28.5	32.5	52.5
Combined Fixed Income	15.75	12.5	10.75	20.75
Combined Alternatives*	41.75	59.0	26.75	56.75

* Alternatives category including, but not limited to: Real Estate, Private Equity, Real Assets, and Absolute Return Strategies

B. Asset Class Performance Benchmarks

The Committee has adopted the following performance benchmarks for each asset class. Criteria for selection of a benchmark include:

- Unambiguous: the names and weights of securities comprising the benchmark are clearly delineated
- Investable: the option is to forego active management and simply replicate the benchmark
- Measurable: it is possible to readily calculate the benchmark's return on a reasonably frequent basis
- Appropriate: the benchmark is consistent with The Committee's investment preferences or biases
- Specified in Advance: the benchmark is constructed prior to the start of an evaluation period
- Reflecting Current Investment Opinion: investment professionals in the asset class should have views on the assets in the benchmark and incorporate those views in their portfolio construction

Asset Class	**Benchmark**
U.S. Equity	Russell 3000 Tobacco Free Index
Non US Eq. Devel.	MSCI World ex-US Net Tobacco Free
Emerging Mkt Eq.	MSCI Emerging Market Free Net
Global Equity	MSCI All Country World Index Net – IMI – Tobacco Free
Fixed Income	Barclays Capital US Aggregate Bond Index
High Yield Fixed Income	Merrill Lynch High Yield Cash Pay Index
Emg Mkt Fixed Income	Dollar Denominated: JP Morgan Emerging Markets Bond Index Global Diversified
Emg Mkt Fixed Income	Local Currency: JP Morgan Government Bond Index Emerging Markets Global Diversified
TIPS	Barclays Capital US TIPS Index
Private Equity	N/A (See below note 2.)
Absolute Return	Diversified: HFRX Absolute Return Index (50%) + HFRX Market Directional Index (50%)
Cross Asset Class	Aggregate GEP Policy Benchmark
Opportunistic Equity	To be determined by Regents' Investment Consultant
Real Assets	Commodities: S&PGSCI Reduced Energy Index All other: N/A (See below note 3.)
Real Estate	Public: FTSE EPRA NAREIT Global Index return
Real Estate	Private: NCREIF Funds Index – Open End Diversified Core Equity (ODCE), lagged 3 months

Notes on asset class benchmarks:
1. Global Equity: The Chief Investment Officer will determine what constitutes a tobacco company based on standard industry classification of the major index providers (e.g., Russell, MSCI) and communicate this list to investment managers annually and whenever changes occur.
2. Private Equity: *Long term* portfolio returns will be compared to investable public equity alternatives as well as non-investable peer group indices. There is no appropriate market benchmark to use for *short term* performance evaluation or decision making.
3. Real Assets (all strategies ex-commodities): similar to Private Equity

C. Total GEP Performance Benchmark

This is the composition of the total GEP performance benchmark referred to in the Investment Policy Statement, Part 4(b). The percentages below add to 100%.

Percentage	Benchmark
18.5%	× Russell 3000 Tobacco Free Index
16.0%	× MSCI World ex-US Net Tobacco Free
6.0%	× MSCI Emerging Market Free Net
2.0%	× MSCI All Country World Index Net – IMI – Tobacco Free
5.75%	× Barclays Capital US Aggregate Bond Index
3.0%	× Merrill Lynch High Yield Cash Pay Index
3.0%	× JP Morgan Emerging Market Bond Index Global Diversified
4.0%	× Barclays Capital US TIPS Index
9.0%	× Actual return of private equity portfolio
23.5%	× [HFRX Absolute Return Index × 50%] + [HFRX Market Directional Index × 50%] [Abs. Ret. - Diversified]
2.0%	× Aggregate GEP Policy Benchmark [Cross Asset Class]
0.0%	To be determined by Regents' Investment Consultant [Opportunistic Equity]
1.25%	× Aggregate Real Assets benchmark (see section B), with components weighted by their actual weights within the total real assets portfolio
6.0%	× Aggregate of Public and Private Real Estate benchmarks (see section B), with components weighted by their actual weights within the total real estate portfolio

Notes on Total Fund benchmark:
1. The benchmark for private equity is replaced by the private equity portfolio's actual performance. This has the effect of neutralizing the active performance of this class for purposes of total fund performance evaluation.
2. The calculation of the Total Fund benchmark will assume a monthly rebalancing methodology.
3. In the event of a significant change in asset allocation, The Regents' generalist consultant may specify an alternative weighting scheme to be used during a transition period.

D. Rebalancing Policy

There will be periodic deviations in actual asset weights from the long-term/current policy asset weights specified above. Causes for periodic deviations are market movements, cash flows, and varying portfolio performance. Significant movements from the asset class policy weights will alter the intended expected return and risk of the GEP. Accordingly, the Investment Committee authorizes the Chief Investment Officer to rebalance the GEP when necessary to ensure adherence to the Investment Policy.

The Chief Investment Officer will monitor the actual asset allocation at least monthly. The Committee directs the Chief Investment Officer to take all actions necessary, within the requirement to act prudently, to rebalance assets to within the policy ranges in a timely and cost effective manner when actual weights are outside the prescribed ranges. The Chief Investment Officer may utilize derivative contracts [in accordance with Appendix 4] to rebalance the portfolio.

The Chief Investment Officer shall assess and manage the trade-off between the cost of rebalancing and the active risk associated with the deviation from policy asset weights. With approval from the Chair of the Committee, the Chief Investment Officer may delay a rebalancing program when the Chief Investment Officer believes the delay is in the best interest of the GEP. Results of rebalancing will be reported to the Committee at quarterly meetings.

UNIVERSITY OF CALIFORNIA GENERAL ENDOWMENT POOL
INVESTMENT POLICY STATEMENT

APPENDIX 2

RISK MANAGEMENT POLICY

RISK PHILOSOPHY

In its broadest sense, risk refers to the unpredictability of future asset value, and specifically, the chance that assets may decrease, as well as increase, in value. Investment principles and practical experience both support the notion that expected returns are proportional to market risk taken. The Committee recognizes that the assumption of risk is necessary to meet GEP objectives; that is, there are no "risk free" assets, which are sufficient to generate the return needed to support planned spending. Thus GEP risk management does not require the elimination of risk, but the balancing of risk and expected return. Risk in itself is intrinsically neither good nor bad; it is a resource used to generate investment returns. The Committee recognizes that "The essence of investment management is the management of risks, not the management of returns."

RISK POLICY

The Committee's policy regarding investment risk, consistent with modern portfolio theory, is that risk cannot be eliminated but should be managed. That is, GEP fiduciaries are responsible for understanding the risks in various investment strategies, ensuring that they are properly compensated for these risks, and measuring and monitoring them continually. In particular, the level of risk taken should be consistent with the return objectives of the GEP.

Fiduciaries set the framework for risk management through the investment policy and guidelines, the strategic asset allocation, and the benchmarks used for performance objectives. However, tolerance for risk (alternatively, aversion to risk) may also be expressed in the form of various metrics for risk (volatility) and acceptable budgets and ranges for those metrics. Where appropriate, the Committee shall define these metrics and budgets for risk and establish acceptable ranges for them (see below).

The Chief Investment Officer is responsible for managing both total and active risk and shall implement procedures and safeguards so that the combined risk exposures of all portfolios in the aggregate are kept within limits established by the Committee (see definitions in section 1 of the Policy above). Further, within limits of prudent diversification and risk budgets, total and active risk exposures are fungible, that is the Chief Investment Officer may allocate risk exposures within and between asset classes in order to optimize return.

Although the management of investment portfolios may be outsourced, investment oversight and risk management are primary fiduciary duties of the Committee that are delegated to and performed by the Chief Investment Officer. The Chief Investment Officer shall report on risk exposures and the values of the several risk measures to the Committee, either quarterly or annually as required below.

RISK METRICS AND BUDGETS

There are different types of risk important at each level of GEP investment management and thus different risk metrics are appropriate at each level.

- GEP level
  - Spending Risk (insufficient assets to meet planned spending)
  - Measures the risk of inappropriate investment policy and strategy
- Asset class level
  - Total Investment Risk (volatility of total return)
  - Measures the risk of ineffective implementation of strategy
- Portfolio level
  - Active Risk or "Tracking Error" (volatility of deviation from style or benchmark)
  - Measures the risk of unintended exposures or inadequate diversification

- **Spending risk**

The Chief Investment Officer shall report on this measure to the Committee annually, in conjunction with endowment financial reviews. However, no objective levels (budget) will be set for this metric due to the separation of responsibility for investment management and spending policy, and the unpredictability of donor contributions. Thus results will be presented for information and use in policy reviews.

  - **Metric**: Projected year-to-year change in real spending per student, over a long term forecast horizon

- **GEP Total Investment risk**

The basis for the risk budget at the total asset level is the Policy benchmark, or neutral position. Thus the risk budget starts with the risk of the benchmark index. Assuming an expected benefit from active management, the impact of deviations from the benchmark is added to the benchmark risk to derive the total risk budget. The Chief Investment Officer shall report on this metric to the Committee quarterly.

  - **Metric**: GEP Total Investment Risk, defined as the annualized standard deviation of the monthly GEP returns, exponentially weighted over the previous 12 months. Benchmark Risk (i.e., the Capital Market risk of the strategic asset allocation) is measured similarly (using returns on the policy benchmark).
  - **Budget**: GEP Total Investment Risk shall be maintained at a level equal to the square root of the sum of the squares of Benchmark Risk and the Active Risk budget (see below).
  - **Range**: If GEP Total Investment Risk is greater (less) than 20% above (below) the budgeted level at any quarterly measurement date, the Chief Investment Officer will take appropriate steps to reduce (increase) total GEP risk to its budget level, including but not limited to rebalancing asset class weights within allowable ranges. (For example, if the risk budget is 12%, the allowable range is +/- 2.4% [20% x 12%].)

- **GEP Active Risk**

There is no neutral or natural budget for active risk. The budget for active risk is determined to be consistent with the tolerance for active risk and the expectation to earn active return due to market inefficiencies and/or investment skill. This budget for active risk includes *all of the following* types of variation from policy:

1. Temporary asset weights different from strategic policy, but within the allowed ranges [Tactical/strategic risk]
2. Aggregate manager benchmarks different than asset class benchmark [Investment style risk]

3. Aggregate active manager risks [Manager value-added risk], including
    - Aggregate portfolio systematic exposures different from the benchmark
    - Aggregate portfolio security selection decisions
    - Aggregate portfolio currency exposures different from the benchmark

The Chief Investment Officer shall report on this metric to the Committee quarterly.

- **Metric**: Tracking Error, defined as annualized standard deviation of the difference between monthly GEP returns and monthly policy benchmark returns, exponentially weighted over the previous 12 months
- **Budge**t: Tracking Error budget shall be 3.0% annual standard deviation. It is understood that this budget may change when there is a change in
    - asset allocation, or
    - risk tolerance
- **Range**: If Tracking Error is greater (less) than 1.0% (one percentage point) above the budget level at any quarterly measurement date, the Chief Investment Officer will take appropriate steps to reduce tracking error to its budget level, including but not limited to rebalancing asset class and/or manager weights within allowable ranges.

Both Total Investment Risk and Active Risk for the GEP shall be computed without the impact of Private Equity. For this calculation, it will be assumed that Total Fund performance excludes Private Equity performance and the Total Fund benchmark has no Private Equity component. Private Equity is the asset class defined in Appendix 7K.

APPENDIX 3

SPENDING POLICY

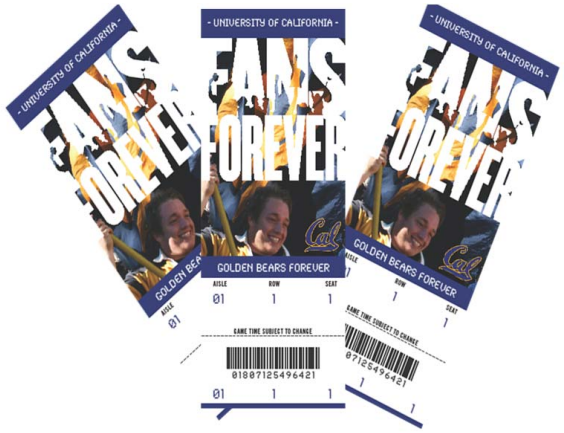
The Regents have adopted a Total Return Policy, that is, annual spending may be comprised of income, realized capital gains, or unrealized capital gains, or any combination thereof.

Annual spending shall be calculated as: a percentage times the average of the past 60 months market value of endowment assets, where the percentage may range between 4.35% and 4.75%, inclusive. Even with this smoothing of the impact of investment returns, there is a possibility that both nominal and inflation adjusted spending may experience year-to-year declines.

There are four principal factors that affect an endowment fund's financial status: 1) contributions from donors, 2) annual payout to endowment recipients, 3) inflation, and 4) investment performance. Only the latter is dependent upon the investment policy and guidelines contained herein. However, the Committee's level of risk tolerance will take into account all four factors. At certain levels of assets and a given spending policy, it could be impossible for the investments to achieve the necessary performance to meet the desired spending. The result is that either spending policy has to be changed, contributions increased or risk tolerance changed.

An Assessment of the Endowment Seating Program™

University of California



September, 2008

STADIUM CAPITAL FINANCING GROUP, LLC

C&R RESEARCH

Agenda

- **Background and Objectives**
- **Study Design**
- **Concept Evaluated**
- **Executive Summary**
- **Detailed Findings**

Background and Objectives

- **The University of California and Stadium Capital have been working on a program (Endowment Seating Program) to build an athletic department endowment at Cal and provide financial stability for all Cal Athletics.**

- **Prior to moving forward, Cal and Stadium Capital wanted to measure overall interest in this program among a broader group of 4,389 Cal donors.**

- **The primary objectives of this research were to:**
  - Understand both overall interest in the Endowment Seating Program and the individual elements associated with it,
  - Identify what can be done to increase donors' interest in the program,
  - Determine donors' interest in acquiring seats at each of the club levels offered,
  - Gauge corporate interest in the program, and
  - Provide a forum for donors to give feedback on the program.

Study Design

- **This study was conducted by C&R Research via the Internet**
- **Sample was provided by the University of California Athletic Department**
- **Respondent Qualifications:**
  - List of UCB donors (survey emailed to a total of 4,389 respondents)
- **Overall Sample Size: n=1,666 donors (extremely high response rate (38%); average for client sample is between 2-10%)**
  - Cal Club: n=444
  - Blue & Gold: n=178
  - Bear Club: n=188
  - Golden C: n=259
  - Coaches Club: n=283
  - Andy Smith: n=140
  - Waldorf: n=68
  - All other levels: n=106
- **Field dates: August 26 – September 9, 2008**
  - Due to the extremely high response rate, and meeting donor participation goals, the survey came out of field a few days earlier than expected.

Completes vs. Incompletes by Donor Level

- **Coaches Club and Waldorf donors were more likely than other clubs to participate in this research, while Cal Club donors were less likely than other club donors to participate.**

	Total Cal Donor List (4,389)	Completed (1,666)	Did Not Complete (2,723)
All levels	**100%**	**38%**	**62%**
Cal Club ↓	100	31	69
Blue & Gold	100	36	64
Bear Club	100	41	59
Golden C	100	40	60
Coaches Club ↑	100	47	53
Andy Smith	100	42	58
Waldorf ↑	100	48	52
All other levels	100	36	64

Concept Evaluated

Endowment Seating Program

Video from Sandy Barbour

90

GOAL OF CAL ATHLETIC DEPARTMENT ENDOWMENT CAMPAIGN

- The goal is to initially raise $250 million to provide the capital to fund Memorial Stadium renovation and build an endowment that will grow to $1 billion in 30+ years.

FUNDAMENTALS OF ATHLETIC DEPARTMENT ENDOWMENT CAMPAIGN

- New seating program will encompass approximately 3,000 seats, yet will fund the renovation that enhances the entire stadium.
- Commitments received via the program will be used to establish an endowment to fund future needs for all Cal sports and modernize Memorial Stadium and address its critical safety issues.

ATHLETIC DEPARTMENT ENDOWMENT CONCEPT

- All capital raised by this program will go into an endowment.
- When Athletics needs funds, it will issue debt.
- University earns investment income in excess of the rate on its debt.
- The income from the endowment will be used to repay the debt and leaves a significant balance to be used for Athletic department purposes for the foreseeable future.

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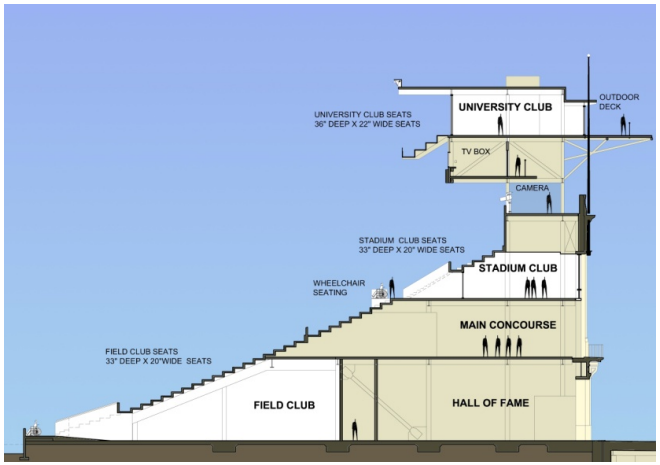
Endowment Seating Program (continued)

BENEFITS OF ENDOWMENT SEATING PROGRAM (ESP)

- Long-term guaranteed right (up to 50 years) to a defined seat – no reseating.
- No separate payment for tickets each year – no price increases ever.
- No further donation commitment required – ever. Whether you choose to make a commitment upfront or over up to 30 years, you will receive tickets for up to 50 years.
- Access to new, enhanced club areas with upgraded food and premium beverages.
- Free parking.
- Rights are transferable to children, grandchildren and friends.
- Right to receive a specified number of additional seats in non-ESP sections without future donation requirements.
- **A significant portion of the Endowment Seating Program commitment will be eligible as a charitable donation for tax purposes.**

NEW PROGRAM DETAILS

- Incorporates approximately 3,000 seats.
- Three new categories of more comfortable seats, including access to a club and other amenities.
- Flexible payment options – one-time, upfront payment or financing options.
- Incentive pricing for Young Alumni.



Executive Summary

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Executive Summary

- **Cal donors agree that the Endowment Seating Program is an effective way to build the athletic department's endowment to fund all Cal athletics.**
- **There is strong interest in the Endowment Seating Program among all Cal donors.**
  - In fact, only 5% of donors state that they are "not at all" interested in the program, leaving 95% as potential participants.
- **Nearly one-third of donors are "very comfortable" with their past donation levels (with only 5% stating they are "not comfortable").**
- **Likewise, nearly one-third of donors would be willing to make a reasonable increase in their annual giving. Nearly two-thirds of donors may be willing to make a reasonable increase if provided more information.**
  - This is great news, as an increase in donors' giving level may be necessary for this program.
- **Moreover, 8 in 10 donors would be willing to make a long-term monetary commitment to Cal athletics.**

Executive Summary (continued)

- **Donors are most interested in the Field Club seating option, followed by the Stadium Club and Young Alumni options.**
  - A strong opportunity to fill the University and Stadium Club sections still exists as those donors who are "extremely" or "very" interested in the program are much more likely to consider University Club and Stadium Club seats than are those who are "somewhat" interested.
    - These highly interested donors are likely to be high level donors.
- **All donor levels agree on the most important elements of the Endowment Seating Program, including:**
  - The creation of state-of-the-art athletic facilities (including improved/additional stadium bathrooms, increased seismic safety, and wider seating rows, concourses and aisles),
  - The guaranty of a seating program that won't change every few years,
  - The flexibility to pay via a long-term payment plan or an upfront commitment, and
  - The expansion of an athletic endowment for scholarships and program needs.
- **It is crucial that Cal follows up with the 306 donors who have requested a phone call.**
  - These donors are more interested in the program than those who have not requested a phone call.

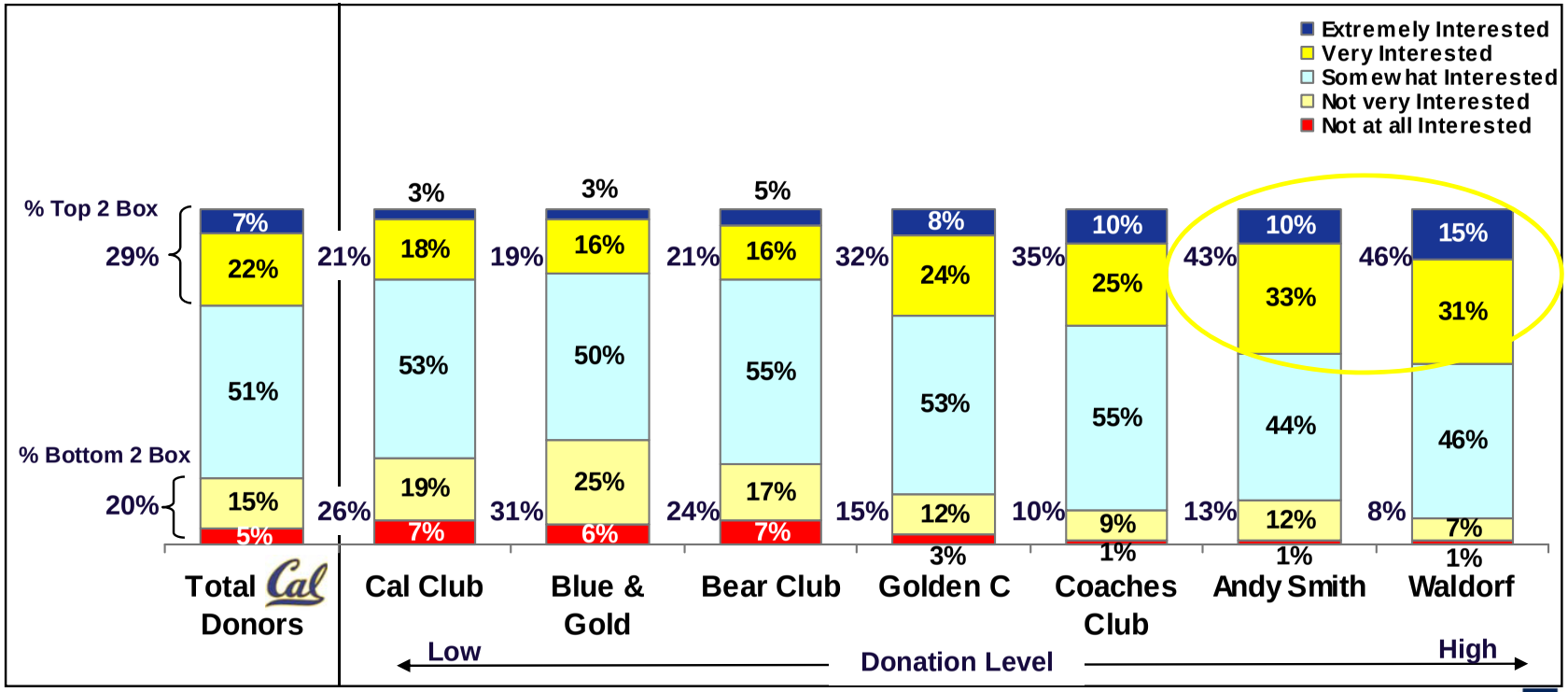
Recommendations

- **In order to increase interest in the Endowment Seating Program, Cal should focus on two things:**
  - **Provide more information**: One-third of donors would be more interested if they simply had more information.
    - This is great news as the program has just recently been introduced to donors.
    - This is particularly true among higher level donors who may be interested in the University or Stadium Club options as they are accustomed to personal contact rather than emailed surveys.
    - Donors at all levels want more information on the pricing structures and seat locations.
    - Through **follow-up phone calls and overall marketing tailored towards the wants and needs of each specific donor level**, interest in the program could increase.
      - Cal should speak to lower level donors about the pricing options and higher level donors about the seating options, as these are their primary concerns.
  - **Price**: Due to the price of the seating options associated with ESP, this program is not meant to appeal to all donor levels.
    - However, one-third of donors (particularly lower level donors) would be more interested in the program if it were less expensive or included lower priced options.
      - **Informing lower level donors of the various pricing structures and payment plans** could convert them into higher level donors who are willing to make a long-term commitment to the athletic department.
      - Moreover, **providing more information on the Young Alumni seating option** (including who qualifies for it) could alleviate some concern surrounding prices among recent graduates.

Detailed Findings

Overall Interest in the Program

- **Overall, Cal donors are interested in the Endowment Seating Program as a way to build the athletic department's endowment to fund all Cal athletics.**
  - In fact, virtually all donors are open to the idea and willing to learn more about what it entails, while only 5% of donors are "not at all interested" in the program.
- **The program resonates strongest among donors who currently contribute the most each year.**



Base: Total Cal Donors
Q.4: How interested would you be in participating in this Endowment Seating Program?

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How to Increase Donor Interest

- **Cal and Stadium Capital can dramatically increase donor's interest in the ESP by lowering the seating option prices and supplying donors with more information about the program.**
  - Lower level donors are more concerned about the prices while higher level donors simply want more information before moving forward.

	Total Cal Donors (1549)	Cal Club (430)	Blue & Gold (173)	Bear Club (179)	Golden C (238)	Coaches Club (255)	Andy Smith (126)	Waldorf (58)
% Something can be done	90%	87%	91%	92%	91%	91%	95%	90%
% Nothing can be done	10	13	9	8	9	9	5	10
Price (total)	**32%**	**36%**	**39%**	**35%**	**32%**	**27%**	**26%**	**16%**
Expensive/Price too high	16	17	25	21	18	14	10	7
Need more money/make more money/have a higher paying job	6	6	8	6	5	4	5	2
Incentives (offer loyalty programs/rewards)	4	5	3	2	4	2	4	7
Lack of information (total)	**31**	**24**	**27**	**28**	**33**	**38**	**37**	**40**
Lack of information on price (need to know the buy-in/pricing structure)	14	14	16	15	14	14	10	19
Give me more information/more detailed information	12	7	9	10	13	20	15	17
Lack of information on seating location/arrangements (need to know location of seats)	6	6	5	4	6	6	10	5
Infrastructure/Seating	13	12	11	9	14	12	16	22
Need/Usage (too old/retired/near to retirement/reduce my age)	6	3	9	7	6	9	6	10
Team success (if team were better/went to Rose Bowl)	3	3	2	2	5	3	3	2
Start/Continue construction	3	1	1	1	5	4	3	7

Base: Total Cal Donors who are not extremely interested in the program
Q.6: What, if anything, can be done to increase your interest in participating in this program?

How to Increase Donor Interest (Sample of "Price" Related Verbatims)

- "As an out of area bear backer and donor, I only utilize my season tickets for roughly half the games. The added cost of the program is not realistic for me."
- "I cannot currently afford any of the prices listed with two children in college next year. We are Gold Zone people, just adjusting to fixed seating this year."
- "The biggest deterrent to me is cost because I am recently retired and nervous about the long term effects of what George Bush has done to our economy. Making as much of the donation as possible a charitable tax deduction would be important to me."
- "As a young alumni, it is extremely difficult to put up that much money upfront or to even guarantee payment in the future. Perhaps an even lower donation cost for young alumni?"
- "Lower the price and/or reasonable payments over time. Price individual benefits so that you don't pay for what you don't use - such as no discount on food would decrease the price."
- "Cost is just too high. No way I could afford any amount other than the young alumni level. We have a family and need 6 seats. Even $6000 a year would be almost 10% of our income."
- "Looks like a good program but at significant cost during these particularly difficult times."

Base: Total Cal Donors who are not extremely interested in the program
Q.6: What, if anything, can be done to increase your interest in participating in this program?

How to Increase Donor Interest (Sample of "More Information" Related Verbatims)

- "It seems like a good program. I just need a financial breakdown of what the total cost would be and how much would be a tax write off."
- "Understand more the actual cost, financing terms and percentage of the cost that would be deductible."
- "More information as to the location of the seating area...which side of the stadium, parking location, etc."
- "More specific information about seating options. We assume the schematic is not to scale. How many rows would the field section actually have? we are currently in row 36, which we feel is perfect for us."
- "Provide detailed, printed information that I can review and thoughtfully consider."
- "What I've heard sounds very interesting - would just need more information."
- "Program seems well thought out. I would still need more clarity on seating details (added info on seating location) and payment terms and conditions."
- "Information on how to change levels if no longer can sustain payment levels or if unable to continue payments. Are there grace periods?"

Base: Total Cal Donors who are not extremely interested in the program
Q.6: What, if anything, can be done to increase your interest in participating in this program?

Interest in Individual Seating Options

- **The Field Club Seats are the most desired option among all donors who are interested in the program, followed by the Stadium Club and Young Alumni Seating.**

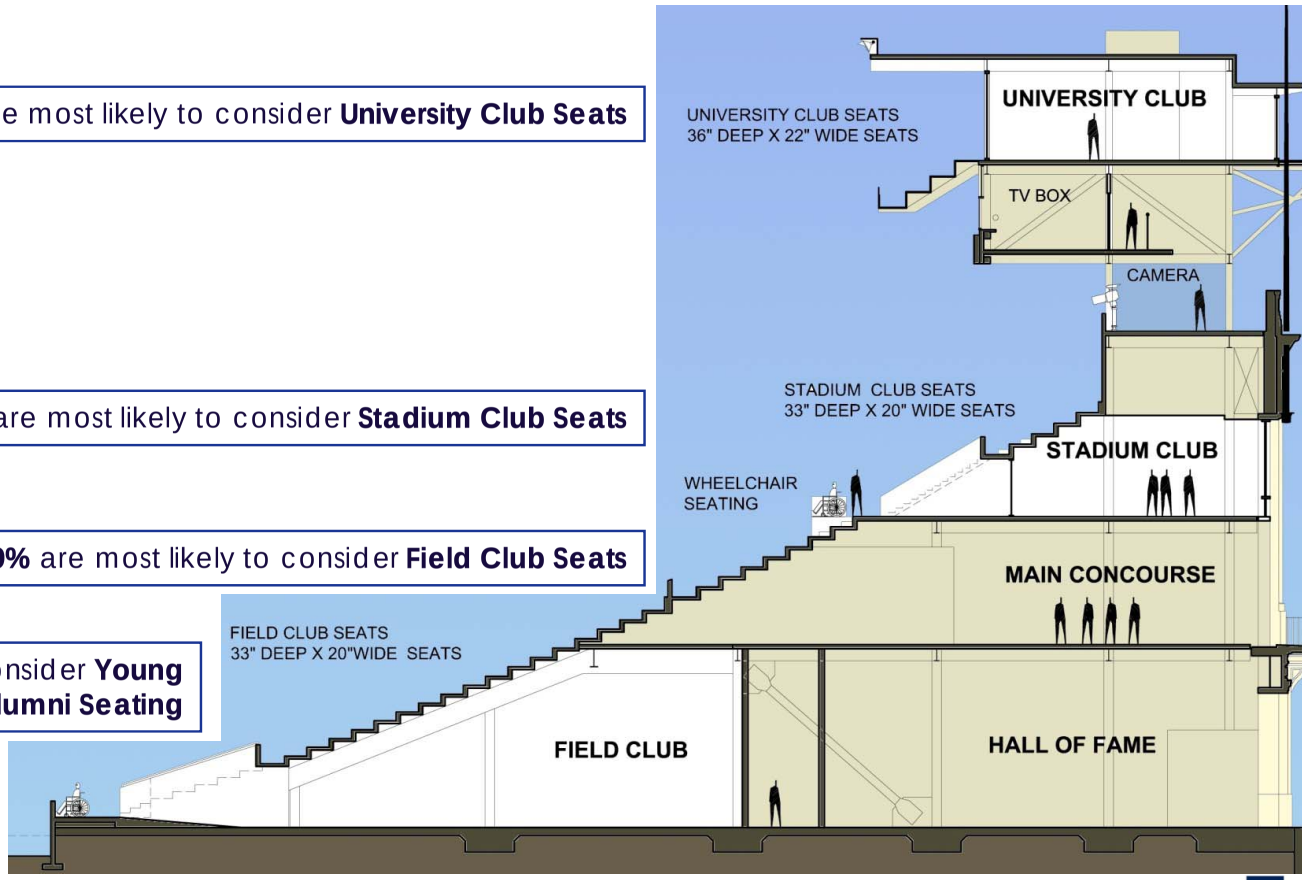
2% are most likely to consider **University Club Seats**

14% are most likely to consider **Stadium Club Seats**

49% are most likely to consider **Field Club Seats**

13% are most likely to consider **Young Alumni Seating**

22% are not interested in any of the levels



Base: Total Cal Donors who are somewhat/very/extremely interested in the program
Q.5: At which of these levels would you be most likely to consider an ongoing commitment (combined ticket, club access and donation) in the Endowment Seating Program?

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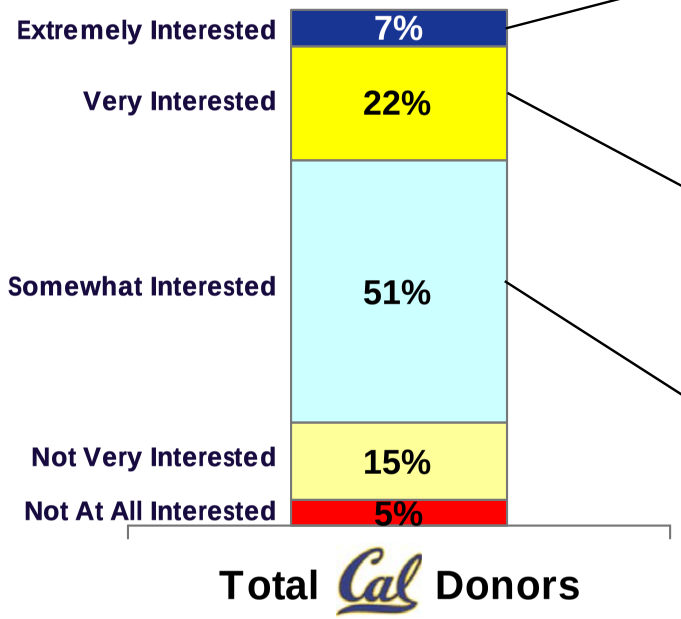
Interest in Individual Seating Options (Among Overall Interest Levels)

- **The Field Level Club Seats is the preferred seating option among donors, regardless of their interest level in the overall program.**
- **The University Club and Stadium Club Seats are most appealing to donors who are "extremely interested" in the program.**



Among those who are "Extremely Interested" in this program….
7% are most likely to consider **University Club Seats**
37% are most likely to consider **Stadium Club Seats**
47% are most likely to consider **Field Level Club Seats**
7% are most likely to consider **Young Alumni Seats**
2% are not interested in any of the levels

Among those who are "Very Interested" in this program….
1% are most likely to consider **University Club Seats**
22% are most likely to consider **Stadium Club Seats**
57% are most likely to consider **Field Level Club Seats**
13% are most likely to consider **Young Alumni Seats**
7% are not interested in any of the levels

Among those who are "Somewhat Interested" in this program….
1% are most likely to consider **University Club Seats**
7% are most likely to consider **Stadium Club Seats**
46% are most likely to consider **Field Level Club Seats**
14% are most likely to consider **Young Alumni Seats**
32% are not interested in any of the levels

Base: Total Cal Donors
Q.4: How interested would you be in participating in this Endowment Seating Program?
Base: Total Cal Donors who are somewhat/very/extremely interested in the program
Q.5: At which of these levels would you be most likely to consider an ongoing commitment (combined ticket, club access and donation) in the Endowment Seating Program?

Interest in Individual Seating Options (Among Donor Levels)

- **The Field Club Seats are the most appealing seating option among every donor level.**
- **However, higher level donors are also very interested in the Stadium Club Seats and show some interest in the University Club Seats.**

	Total Cal Donors (1,338)	Cal Club (328)	Blue & Gold (123)	Bear Club (143)	Golden C (220)	Coaches Club (253)	Andy Smith (121)	Waldorf (62)
University Club Seats	2%	1%	--	1%	--	--	2%	3%
Stadium Club Seats	14	6	8%	6	9%	13%	30	42
Field Club Seats	49	39	38	46	62	65	59	48
Young Alumni Seating	13	24	18	15	9	7	1	2
Not interested in any level	22	30	36	32	20	15	8	5

Base: Total Cal Donors who are somewhat/very/extremely interested in the program
Q.5: At which of these levels would you be most likely to consider an ongoing commitment (combined ticket, club access and donation) in the Endowment Seating Program?

Importance of Program Elements

- **Donors at every level agree on the most important elements of the ESP:**
  - State-of-the-art athletic facilities – including improved/additional bathrooms, increased seismic safety, and the wider rows, stadium concourses and aisles.
  - Guaranteed seating program that will not change every few years
  - Flexibility to pay via a long-term payment plan or an upfront commitment.
  - Athletic endowment for scholarships and program needs.

- **Interestingly, lower level donors tend to be less concerned with the extra amenities such as free parking, cushioned seats with chair backs and special privileges to basketball games than higher level donors to whom these benefits are more important.**

- **However, lower level donors find a few of the "pricing" elements such as "fixed" seat prices and the "all-in" price more important than do higher level donors.**

Base: Total Cal Donors
Q.1: Please rate the following elements of this program. In other words, which are most important to you when considering participation in this Endowment Seating Program?

Importance of Program Elements (continued)

	Total Cal Donors (1,666)	Cal Club (444)	Blue & Gold (178)	Bear Club (188)	Golden C (259)	Coaches Club (283)	Andy Smith (140)	Waldorf (68)
State-of-the-art athletic facilities	91%	88%	89%	90%	89%	93%	95%	92%
Improving/adding stadium bathrooms	84	86	83	86	83	83	78	85
Guaranteed seating program that would not change every few years	84	84	83	80	85	85	89	79
Increasing seismic safety	82	85	81	84	84	79	74	77
Flexibility to pay via a long-term payment plan or an upfront commitment	81	80	85	83	80	84	79	70
Athletic endowment for scholarships and program needs	81	77	80	81	81	82	85	82
Significant tax deduction	79	74	80	77	78	85	83	76
Widening seating rows, stadium concourses and aisles	78	79	73	75	79	79	74	83
Ability to transfer your seats to family and friends	74	76	76	67	70	77	77	77
Seat prices that will never increase	69	78	73	68	66	67	66	51
The "all-in" price that includes tickets and donations	69	70	74	68	69	65	67	66
Expanding the base of large donors	68	62	61	67	72	71	72	70
Credit being provided for Bear Backer account	67	57	67	63	71	75	72	73
Special privileges to post-season games	66	68	63	62	63	71	67	58
Funding for non-revenue sports	64	64	60	61	65	68	62	55
Minimizing the need for campus funding	61	61	58	57	62	65	62	47
Improving sightlines to the field	58	62	58	61	56	56	55	52
Free parking	58	49	46	47	63	69	70	61
Creating a long-term bond with alumni	57	61	54	50	56	56	60	55
Cushioned seats with chair backs	55	54	48	50	54	59	57	72
Access to food services	40	42	36	37	37	42	35	48
Access to video replays	33	36	34	32	35	31	36	25
Special privileges to basketball games	32	31	29	25	31	32	44	47
Complimentary upgraded food and beverages	30	34	23	27	29	29	27	32
Special access to the coaching staff and team	24	27	18	20	20	27	22	29

Indexes at 115 or higher (individual club significantly more interested)

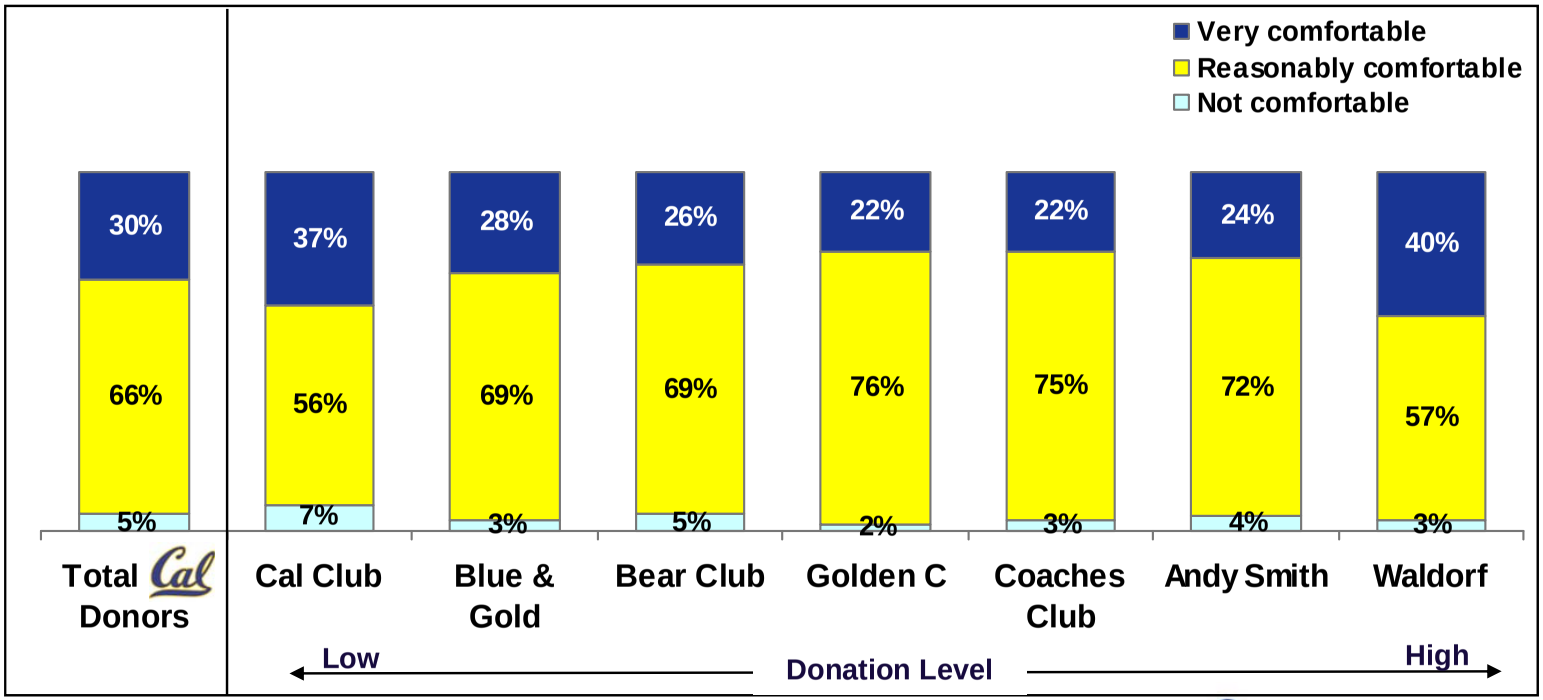
Indexes at 85 or lower (individual club significantly less interested)

Base: Total Cal Donors

Q.1: Please rate the following elements of this program. In other words, which are most important to you when considering participation in this Endowment Seating Program?

Level of Past Donations

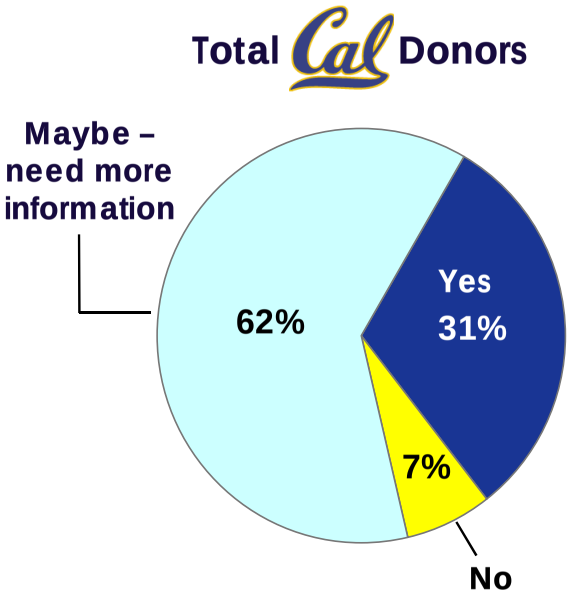
- **There is a definite opportunity for the Endowment Seating Program among current donors.**
  - Nearly a third of donors are "very comfortable" with their past donations.
  - This implies that they could be willing to increase their level of giving (which may be required in order to participate in this program).

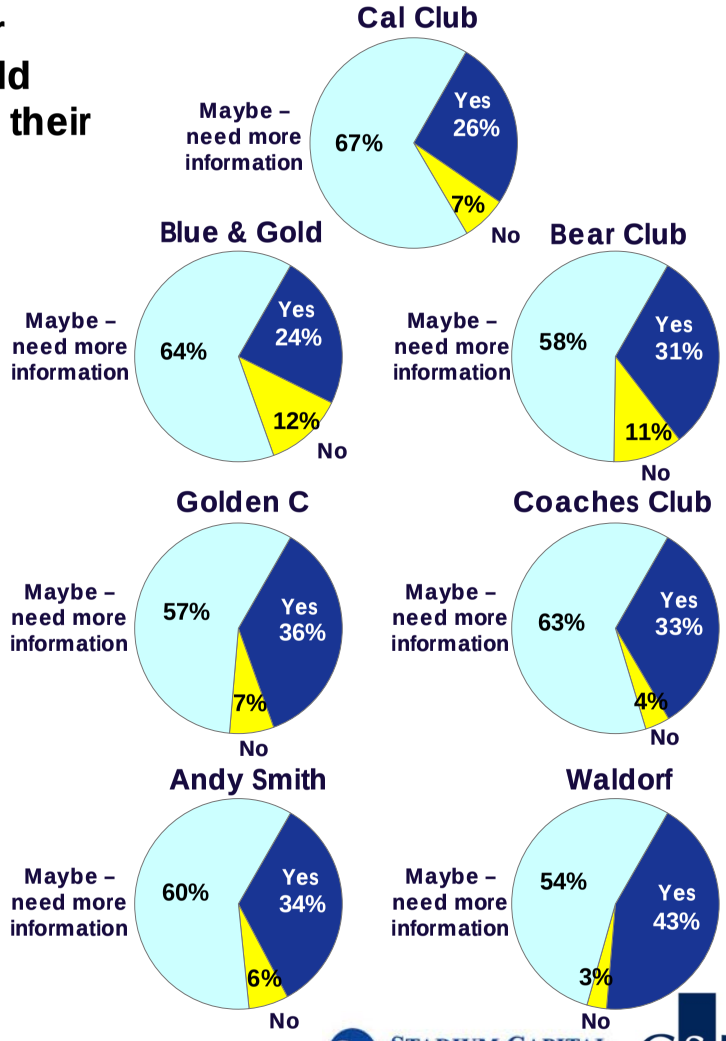


Base: Total Cal Donors
Q.8: How would you characterize the amount of your past donations to Cal Athletics?

Consideration of Annual Giving Increase

- **Donors are not opposed to increasing their present donation levels as virtually all would consider making a reasonable increase in their present giving!**
  - A majority would need more information however.





Base: Total Cal Donors

Q.3: Given the enhanced personal benefits previously highlighted, including providing the Athletic Department with a means for long-term financial stability, would you consider a reasonable increase in your present annual giving?

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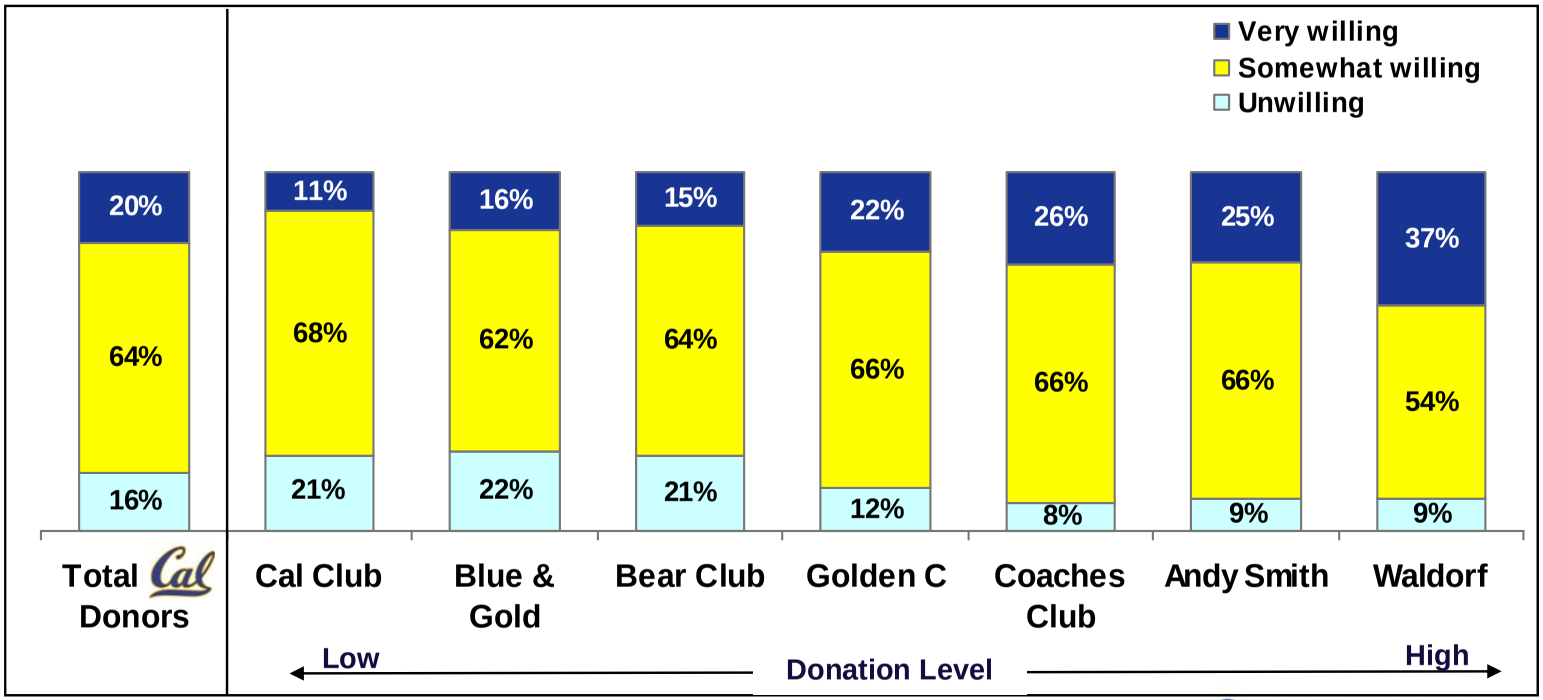
Willingness to Long-Term Commitment

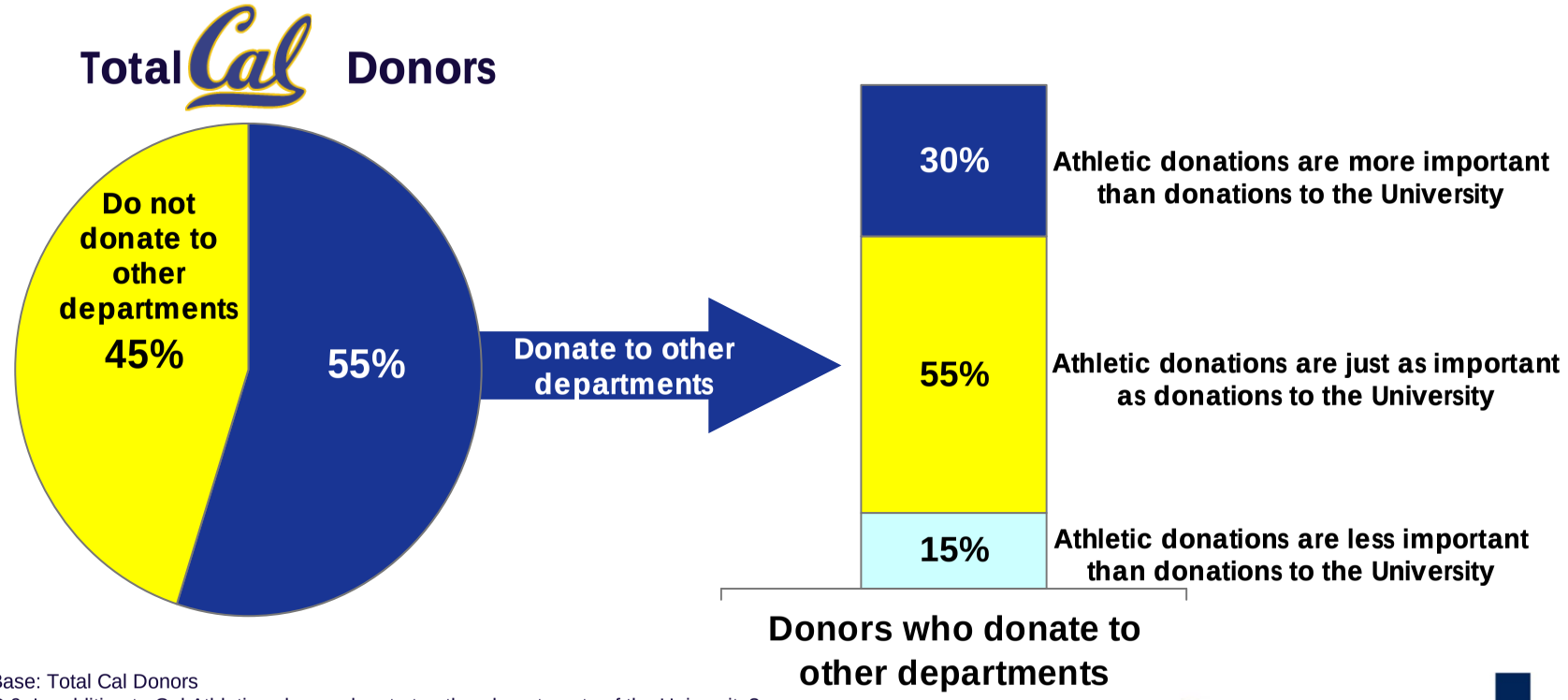
- **Similarly, donors are willing to make a long-term commitment to Cal Athletics.**
  - This is particularly true among the high level donors.
- **However, lower level donors are less comfortable in making a long-term commitment.**
  - By focusing on attracting these donors, Cal can create a long-term bond through the ESP.



Base: Total Cal Donors
Q.11a: How willing are you to make a long-term commitment of your giving to Cal Athletics?

Athletic Donations vs. University Donations

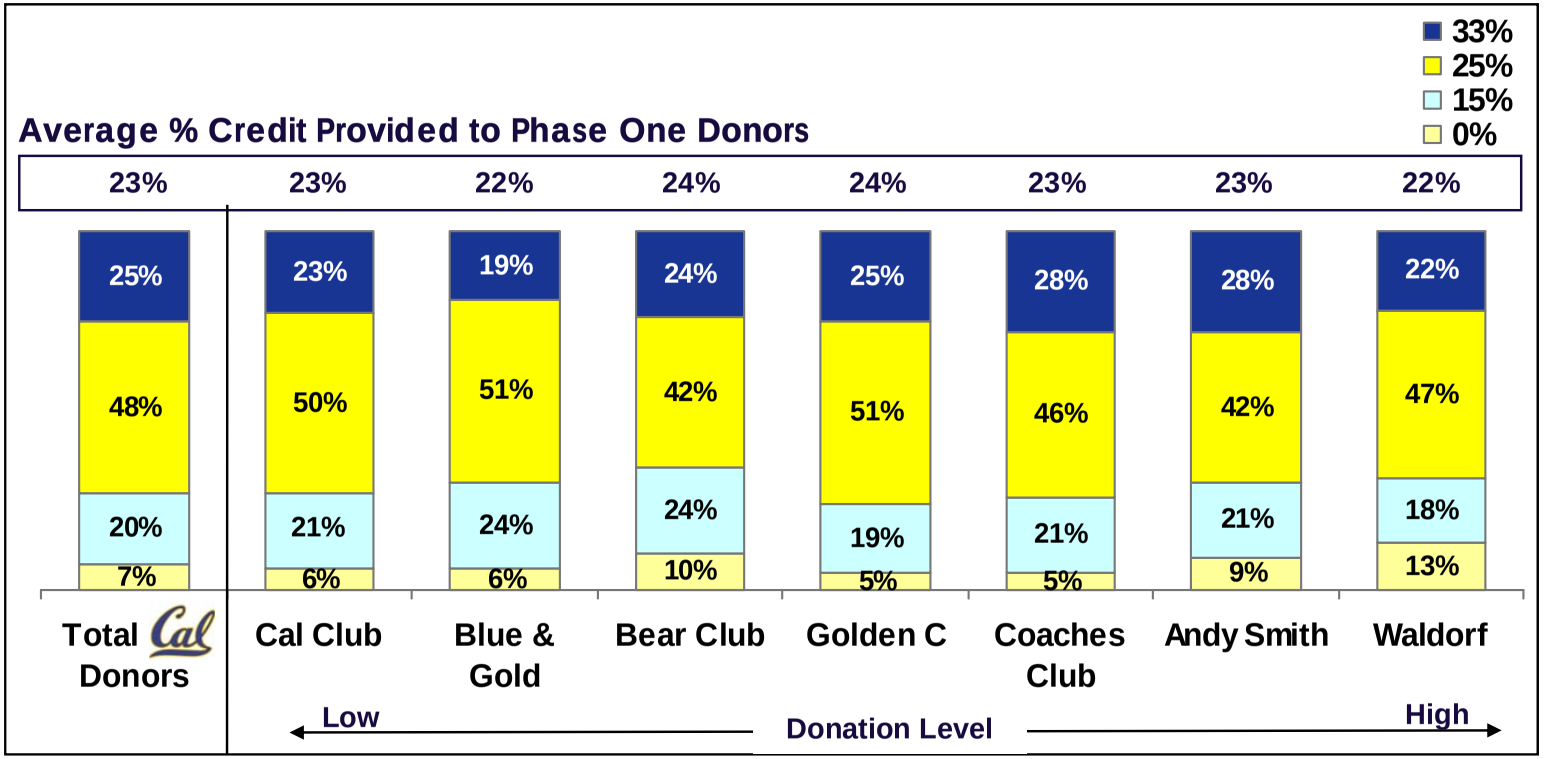
- More than half of Cal athletic donors give to other university departments.
- One-third of these donors classify their athletic donations as more important than their other university donations.



Base: Total Cal Donors
Q.9: In addition to Cal Athletics, do you donate to other departments of the University?
Base: Total Cal Donors who donate to other departments
Q.10: Compared with your University giving, how would you rate your Athletics donations?

Credit Given to Phase One Donors

- **Donors across all levels agree that phase one donors should receive a 25% credit for this program.**
  - Half of donors believe a 25% credit should be given, while the other half of donors split between less than 25% and more than 25%.



Base: Total Cal Donors

Q.2: In order to balance the Athletic Department's need to raise the necessary capital for the endowment with the Phase 1 donors for the Student-Athlete High Performance Center, what percentage credit should be provided to Phase 1 donors who commit to this Endowment Seating Program? Please note that Phase 1 donors will also have priority in selecting the location of the Endowment Seats.

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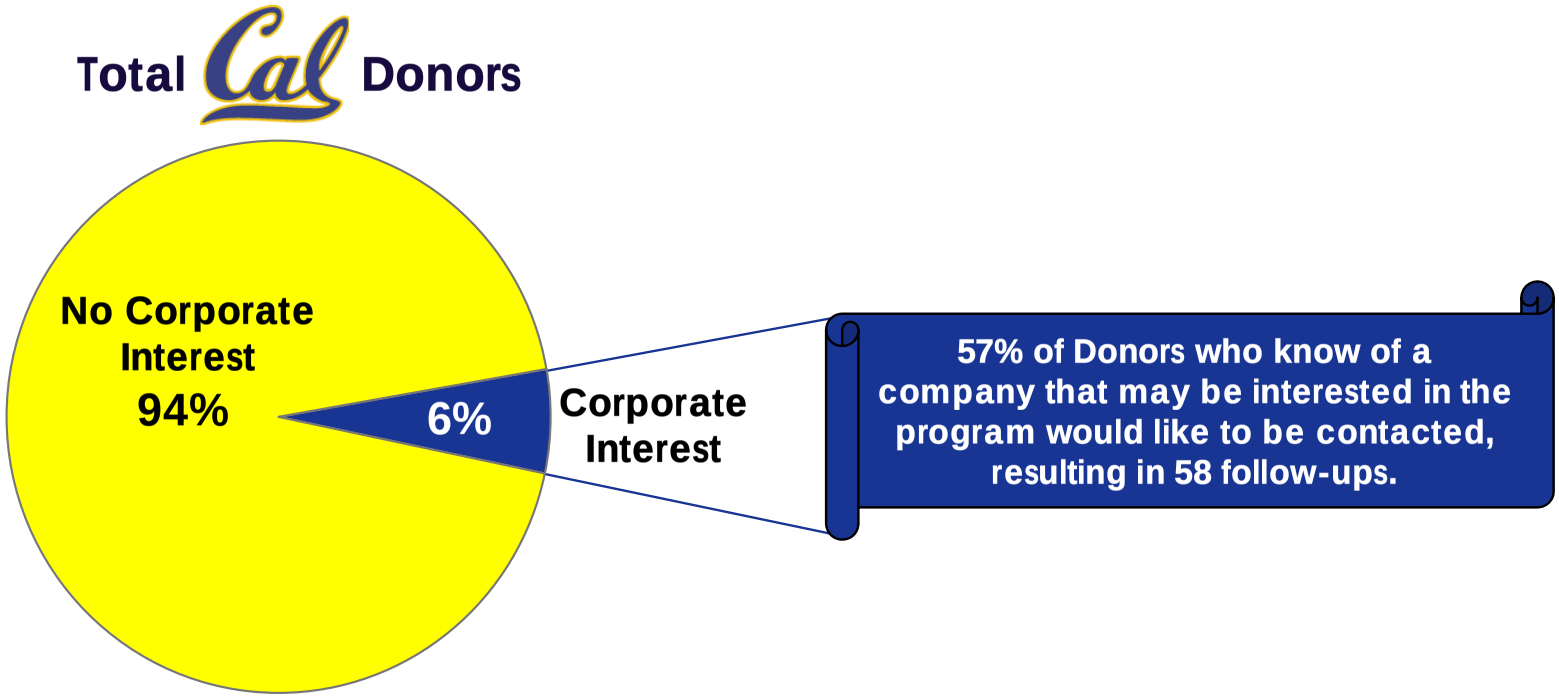
Corporate Interest

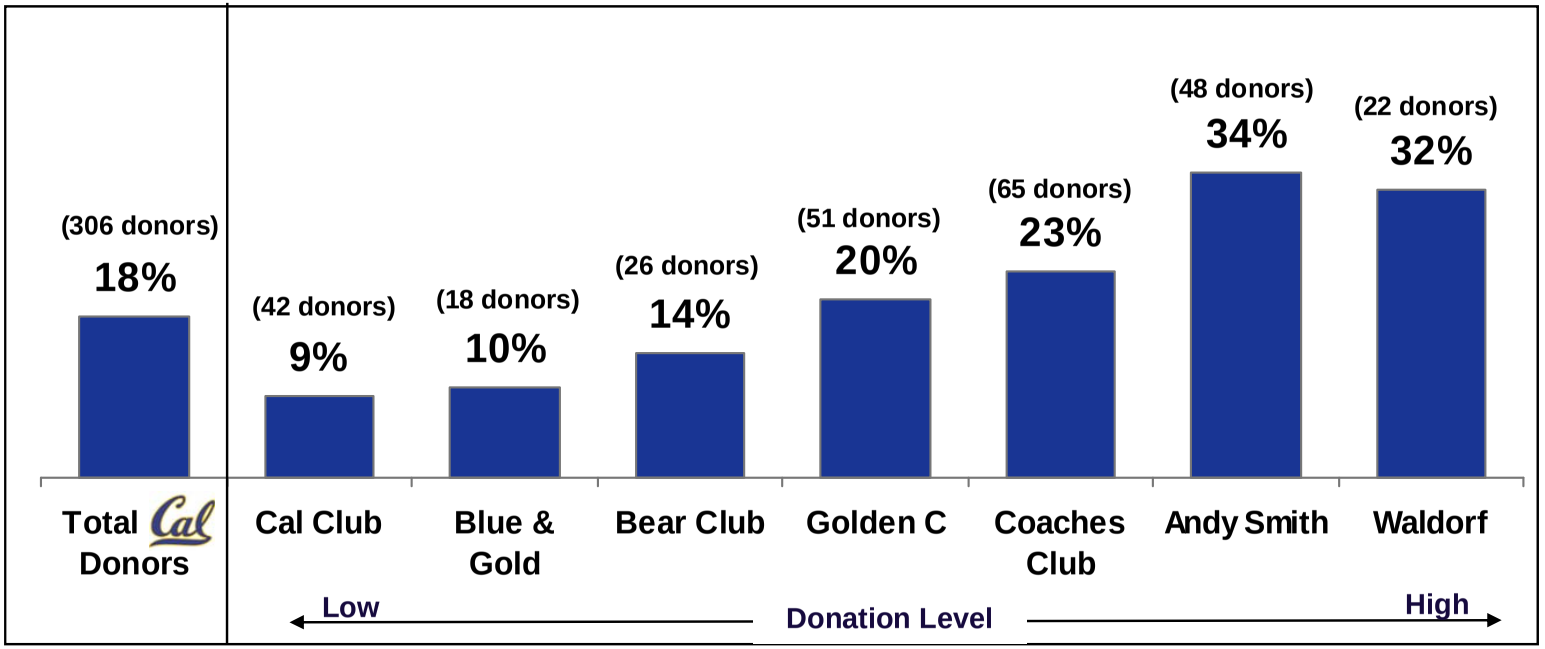
- **There is moderate corporate interest among donors in the program, resulting in 58 potential corporate leads.**



Base: Total Cal Donors
Q.7a: We are also looking to gauge corporate interest. Do you know of anyone whose company may be interested in participating in this program?
Base: Total Cal Donors who know of a company that may be interested in the program
Q.7b: May we contact you to discuss more details regarding corporate interest in this Endowment Seating Program?

Donor Follow-Up Requests (% Yes)

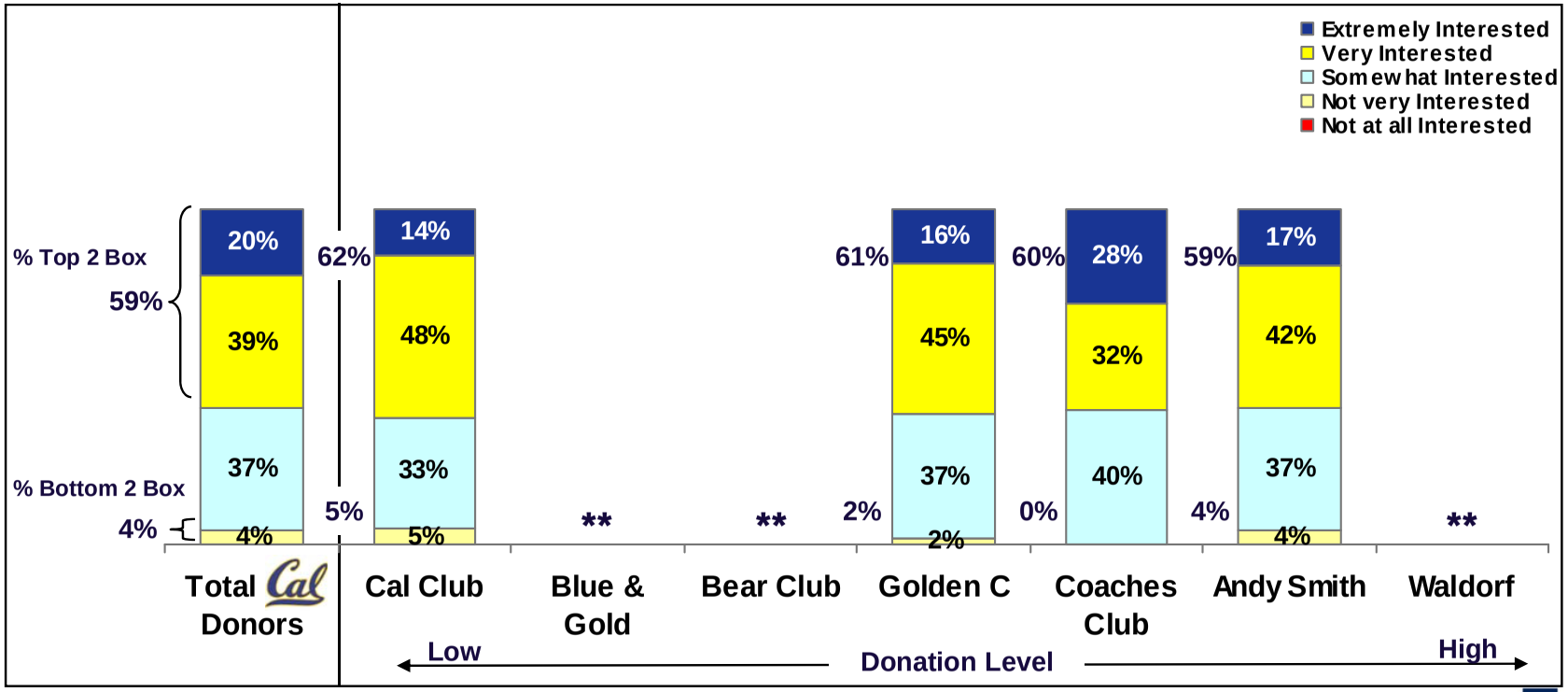
- **306 donors wish to be contacted directly to discuss the program in more detail.**
  - Not surprisingly, higher level donors were more likely to request a follow up phone call.



Base: Total Cal Donors
Q.12: Would you like to have someone call you to discuss the program in more detail?

Overall Interest in the Program (Among Donors who Requested a Follow Up Call)

- **It is extremely important to follow-up with those donors who wish to be contacted.**
  - Donors who requested a follow up phone call are more interested in the Endowment Seating Program than those who did not request a phone call.



**: Extremely small base size; too small to analyze
Base: Total Cal Donors
Q.4: How interested would you be in participating in this Endowment Seating Program?

Additional Comments

- **Comments left by donors were most likely to surround their lack of information in the program.**

	Total Cal Donors (434)	Cal Club (96)	Blue & Gold (43)	Bear Club (40)	Golden C (82)	Coaches Club (72)	Andy Smith (37)	Waldorf (22)**
Positive (total)	**28%**	**31%**	**35%**	**30%**	**23%**	**22%**	**32%**	**
Appeal (total)	**13**	**15**	**19**	**15**	**9**	**10**	**16**	**
Good idea	9	13	14	8	6	7	14	**
Creative	1	--	2	5	--	--	3	**
Hope program in successful	2	1	5	3	2	--	--	**
								**
Neutral (total)	**44%**	**35%**	**44%**	**28%**	**49%**	**54%**	**38%**	**
Lack of information (total)	**28**	**19**	**33**	**23**	**30**	**35**	**22**	**
Need information about cost/financial structure	8	7	12	8	5	10	5	**
Prefer written detail info instead of verbal info/prefer to receive info in the mail	7	6	12	3	5	6	11	**
Need more/detailed information	6	3	5	3	10	6	5	**
Need information regarding the seating location/arrangements	4	1	2	5	5	8	--	**
Seating	7	9	7	5	5	7	8	**
Have a definite timeline/schedule	3	2	--	3	2	4	8	**
								**
Negative (total)	**36%**	**40%**	**30%**	**48%**	**37%**	**32%**	**38%**	**
Price (total)	**15**	**17**	**14**	**28**	**16**	**10**	**8**	**
Expensive	5	3	5	13	5	4	5	**
Only appeals to wealthy people	3	4	5	3	2	4	3	**
Can't afford	2	4	--	5	2	1	--	**
Too old/retired/near retirement	5	4	7	5	2	6	11	**
Better parking facilities	1	2	--	--	--	6	--	**

**: Extremely small base size; Too small to analyze
Base: Total Cal Donors
Q.14: Are there any other additional comments you would like to share with us about your thoughts on the Endowment Seating Program? Please use the space below for any additional comments.