REPORT ON THE FINANCIAL SITUATION
OF FRATERNITIES, SORORITIES, AND INDEPENDENT LIVING GROUPS
September 14, 2004

The *MIT Task Force on Fraternities, Sororities, and Independent Living Groups: Status and Future Development* asked me to prepare a report examining the financial situation of the FSILGs and to recommend ways to improve it. This report appropriately breaks down into two main sections: Research and Recommendations. The Research section itself has three parts. First, I will describe the housing stock, demographics, and dynamics at MIT as background material. Second, I will describe the current state of FSILG finances and financial management. Third, I will examine the question of price competition between FSILGs and dormitories. The Recommendations section includes, naturally, my personal recommendations to improve the financial situation of the FSILG system, including a detailed transition funding proposal.

Much of the information contained in the Research section was new to me or different than what I had accepted as conventional wisdom. I imagine that many readers will have a similar experience reading through the report. Some of the information will be new in that it has not been previously published. The inclusion of such information was possible only because of the trust and cooperation between MIT and FSILG participants that have contributed to this research project. Some of the information will be news because of the dynamic nature of the system; something that was true in 1993 (or 2003) may not be true in spring 2004.

I have gone to some lengths to ensure the accuracy, fairness, and comprehensiveness of this report. Frank Salamone, Will Anderson, and Ken Goldsmith have reviewed the dormitory finance sections on behalf of the Division of Student Life. Dan Geer (TDC) and Dave Burmaster (ET) have reviewed the FSILG finance sections on behalf of the Association of Independent Living Groups. This document has also been reviewed (and review does not necessarily imply endorsement) by Lisa Tatterson (ACO), Paul Kirby & Mark Thompson (ADP), Jim Bueche & Tom Holtey (CP), Tim Collins (DTD), Bob Greene & Bruce Wedlock (PKS), Duane Dreger (SN), Bob Ferrara (TC), Susan Woodmansee (WILG), Beth Garvin (Alumni Association), and the members of the FSILG Task Force. Their help has been invaluable but I take responsibility for any errors or omissions that remain. One of my goals is for the first three sections of this document serve as a common set of shared facts that FSILGs and MIT can use as a foundation for further discussion and cooperation, and as a starting point for future research. That said, this document is only a snapshot and I anticipate that it will become a living document, updated based on new information and on comments and suggestions from readers.

The recommendations were informed by my research and what I learned from the individuals listed above, but they are my own and should not be construed as the recommendations of the Task Force or of the financial working group that shaped the research sections of the report or of the individuals named above. Some of the recommendations I could have made before I started the research project, and some of them are just common sense, but others grew from my increased understanding of the financial situation and dynamics of the FSILGs and dormitories that compose the MIT residence system.

I anticipate that the recommendations will find support, but I also expect that new eyes will find any flaws and I welcome comments and suggestions from all readers. There is no perfect solution to the financial plight of the FSILG system but there are many misguided or damaging "solutions" that may tempt inadequately informed decision-makers. I hope that my contributions will help guide us towards the former and away from the latter.

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EXECUTIVE SUMMARY

The FSILG system faces real financial challenges. The central challenge has been and continues to be this: for most houses, revenue from current rent collections is not sufficient to cover the full costs: capital, operations, and programming.

The change in housing policy as houses adjust from four-year to three-year residences is the major cause: the total estimated shortfall over ten years from this policy change alone is estimated at $110K-$455K/house or $3.9M-$15.9M for the system. Moreover, the change reduces the time available to develop new leaders and introduces greater sensitivity to the variations in year to year recruitment.

In the background lurks the demographic challenge: MIT is approaching a 50/50 gender ratio while FSILG housing remains at 85/15. The percentage of men that join FSILGs must increase to 65%+, or some fraternities must become coed, or several houses must close to restore the balance.

Other potential causes for the discrepancy between expense and revenue have been suggested and can be divided into two main groups. Recruitment challenges, aside from the change in housing policy, include price competition from dormitories, a constantly changing recruitment environment, and low facility quality due to deferred maintenance. Financial management challenges include inadequate financial planning, poor rent setting and rent collection procedures, and lack of coordination between alumni/ae and undergraduates. These factors existed prior to the requirement that all first-year students live on campus but were hidden by a favorable recruitment environment and the delayed effects of deferred maintenance. All were revealed and exacerbated by the new policy.

These factors are addressable; some are already being addressed. Dormitory prices are rising annually because the housing system no longer receives subsidies from general MIT revenue, giving houses the comfort to raise prices to cover their capital costs. The recruitment environment is stabilizing as FSILGs and MIT learn what works and what does not. The fixes for financial management are easy to describe but difficult to implement: FSILG students and alumni/ae will need to increase their contributions of volunteer time (and money) to stabilize their houses.

The FSILG Task Force firmly establishes that FSILGs are a critical part of the Institute's educational offerings. If MIT intends for FSILGs to continue at or near their current strength then it must make the decisions necessary to make it happen. The project to create educational-operational grants should be completed, dormitory rents should continue to rise appropriate to their costs, the financial transition funding program should be completely revised, and the policy-makers must consider the financial impact that potential decisions would have on the FSILG system. A financial transition plan designed to fund the real fixed costs of FSILGs without forcing them to decapitalize will not be inexpensive, perhaps more than $10M over several years, but even at that level would still cost less than building a new dormitory and it will help preserve the educational value the FSILGs provide.

Some fraction of the FSILG system may survive regardless of the details of transition planning. After the dust settles from the major changes in demographics (both the gender ratio and the change from four-year to three-year residences) the FSILGs may re-assert their independence or embrace the opportunities of interdependence. But for the next several years serious cooperation with, and support by, the Institute will help minimize the costs borne by all parties involved and enable the FSILG system to thrive.

Note: The terms "house" and "FSILG" are sometimes used to refer to the undergraduate organization only and sometimes to refer to the combined student/alumni/ae organization. I hope context makes the meaning clear.

I. BACKGROUND

Institute owned and operated residence halls and independently owned and operated fraternities, sororities, and independent living groups are the homes of more than 95% of all undergraduate students at MIT. The first fraternity was founded in 1873 and the first dormitory completed in 1916. As of fall 2002, first-year students are required to live in dormitories, but second-year undergraduates are presented with a basic choice of living situations: FSILG or dorm.

Some students apply to MIT knowing they will want to live in an FSILG or a residence hall, and some apply with open minds. Some will move from one category to the other as their knowledge of the residence system grows. Any examination of FSILG recruitment naturally concerns itself with the decisions of students who consider both FSILG and dormitories to be acceptable and comparable housing options; this group of consumers is most affected by marginal differences in price and value.

The undergraduate-designated housing stock owned by MIT is currently ~2900 beds in eleven residence halls. Of these, ~250 are female-only and the remaining ~2650 are mixed-gender housing. There are no male-only residence halls.

The FSILG housing stock is ~1500 beds in thirty-five residential organizations. Of these, ~1200 are in male-only housing, ~150 are in female-only housing, and ~150 are in mixed-gender housing. If we assume a 50/50 distribution in the mixed-gender houses this gives us ~1275 beds for men and ~225 beds for women.

FIGURE 1: HOUSING STOCK

	FSILG	Dorm
Male-only	1180	0
Female-only	167	238
Mixed	167	2687
Total	**1514**	**2925**

Source: FSILG Office and http://web.mit.edu/housing/undergrad/

MIT intends to provide all undergraduates four years of housing as long as they remain within the housing system (students who study abroad, for example, should not expect re-entry into the dormitories). If there are more than 2900 undergraduates seeking housing on campus, the Institute has three main options. In the short term it can lease space owned by third parties, compress undergraduates into existing space, or house additional undergraduates in graduate-designated residences through the "senior segue" or other program. In the longer term it can construct additional residence halls. This last option is not cheap, not flexible, and involves a significant lead time and commitment. In practice the Institute compresses undergraduates into undergraduate and graduate residences and would mostly likely continue to do so until the volume of surplus undergraduates was large enough to justify a new dormitory.

In any particular year the two major inputs in calculating the number of undergraduates that must be housed in dormitories (undergraduate- or graduate-designated) are (1) the population of FSILGs and (2) the size of each class year. The mathematical relationship is simple: the size of each class, minus the residents of that class in FSILGs, is the number of students that must be housed in the MIT residence halls. This is the basic dynamic; this equation must always balance.

The FSILG population is affected by many factors, including price and value relative to the residence halls and the ability of FSILGs to market that value to incoming and new students. The FSILG population will increase and stabilize if students perceive that they are of higher quality than dormitories, less expensive than dormitories, or a mix of both. If students perceive that FSILGs are expensive or that FSILGs are not desirable places to live, then naturally the FSILG population will decline. Of the two factors, first year students have reported in surveys for two years that the value question was more dominant in their thinking than the price question. This question of price and value, and the effective communication of that information to potential members, is the basic market dynamic for the FSILGs, and it feeds directly into the basic dynamic of the residence system.

The dynamic that determines class size is more complicated. The Institute can control the size of each class with a great deal of accuracy, plus or minus a few percentage points. The demand for an MIT education from qualified students outstrips supply so class size is the result of the policies of the Institute. Pressures to increase class size include the goal of providing an MIT education to as many individuals as possible, the desire to increase the size of individual departments, and the recognition that tuition is one of the few unrestricted sources of revenue for the Institute. Class size is pushed down primarily by the limited capacity of the Institute to absorb more students, particularly into the housing system due to the four-year housing guarantee for undergraduates. The Institute has an interest in reducing class size if undergraduates put pressure on graduate housing. If the basic residence system equation is in balance there is little pressure to reduce class size and real pressure to increase it.

We can see these dynamics at work between 1994 and 2004. The only five places for undergraduates to live are FSILGs, standard dormitory rooms, crowded dormitory rooms, graduate housing, and off-campus. Three policy changes and two disciplinary decisions between 1994 and 2004 drive the population changes seen in the chart.

- First-year students are required to live in residence halls and Simmons Hall is constructed
- The practice of "crowding" undergraduates was ended and the "senior segue" program created
- Class size is reduced in anticipation of reduced success in FSILG recruitment
- Sigma Alpha Epsilon and Phi Gamma Delta were closed.

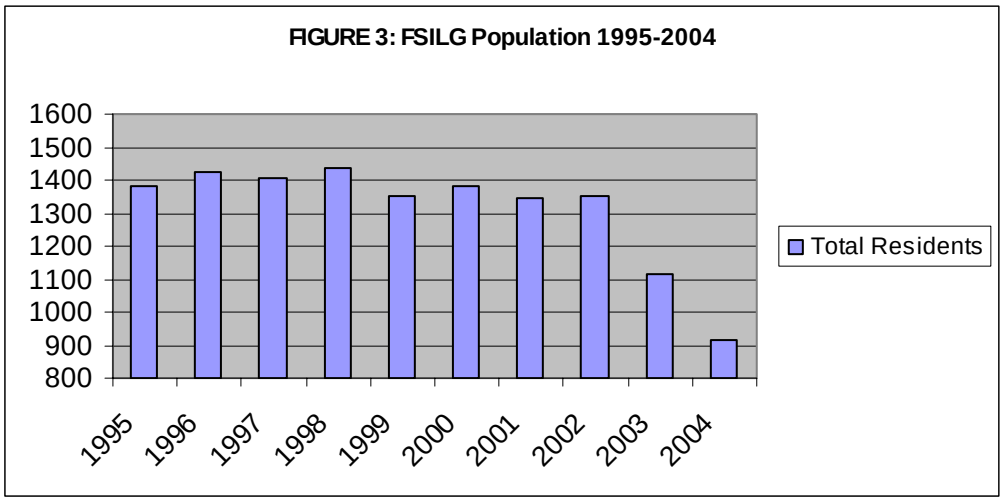
The first change produced a direct increase the dormitory population by 350 and a reduction of the FSILG population by 350. The second change represented a policy shift: the "senior segue" program was created to allow fourth-year students continuing as graduate students at MIT to move into graduate housing as seniors and the policy of housing more than the standard number of students in each residence ("crowding") was discontinued. The reduction in class size balanced the books by accounting for the change in FSILG recruitment from 350/year to 250/year due to reduced yields across the system and the removal of two fraternities from the system for disciplinary reasons.

FIGURE 2: BALANCING THE EQUATION: 1994 vs. 2004

	1994		2004	
FSILG	1312	31%	918	22%
Dorm	2682	64%	2963	73%
Undergrads in Dorm "crowds"	101	2%	0	0%
Undergrads in Grad Housing	0	0%	123	2%
Off-campus	83	2%	77	2%
Total	4178	100%	4081	100%

Source: FSILG Office & MIT Housing

The four-year FSILG system had a fairly stable population of 1300-1400 students until the implementation of the requirement that all first year students live in dormitories. Below is a chart of the total FSILG population 1995-2004. The drop after the three-year system was implemented is dramatic.



If the three-year FSILG system stabilizes at the current recruitment rate of 250 students/year, then

- The system will stabilize at 750 students,
- Up to half of the FSILGs will close, and
- MIT will approach the FSILG-residence numbers typical of other universities: ~15% at most.

One suggested method for shrinking the system is to close the FSILGs with the largest discipline problems. Even if this method resulted in the closing of three additional FSILGs, the FSILG system will need a population of 1200 students to be stable. This would mean that 400 students move into FSILGs each year, a 60% increase compared with the 2004 yield and a 14% increase compared with the 1994 yield.

The challenges of such increases in recruitment yields are significant. Aside from any challenges relating to the change from four-year to three-year residences, FSILGs are faced with the tension between two facts:

- The MIT undergraduate population is approaching a 50/50 male-female ratio
- Available beds in the FSILG system is fairly static at 85/15

There are not many ways to balance this equation. The basic options are to

- Reduce the number of male-only fraternities through closure, merger, or change to coed
- Add additional female-only houses (sorority or otherwise) or convert coed houses to female-only
- Increase in class size significantly (20% or more)

FIGURE 4: CHANGES IN GENDER RATIO FOR CLASSES ENTERING MIT IN 1994 VS. 2004

	1994	2004
Men	664 (61%)	625 (58%)
Women	433 (39%)	458 (42%)
Total	1097	1086
FSILG spots for men	334 (84%)	420 (83%)
FSILG spots for women	63 (16%)	84 (17%)
Total	397	504
% of men that must move in each year to fill houses	50%	67%
% of women that must move in each year to fill houses	15%	18%

Source: FSILG Office and MIT Admissions

The three factors of class size, gender ratios, and dormitory stock are major drivers of the future demographics of the FSILG system.

II. FINANCIAL SITUATION

There are almost as many financial models in the FSILG system as there are FSILGs. The three basic challenges for any sound FSILG financial model are to

- Include all expenses, including allocations for future capital needs
- Provide sufficient revenue to cover costs
- Integrate financial information from alumni/ae and undergraduates.

The financial model described below and in Appendix A is one way to track and plan for costs. This section was developed with information provided by alumni/ae from ADP, CP, ET, PKS, PSK, and TDC, and Frank Salamone, Will Anderson, and Ken Goldsmith from the Division of Student Life.

II. A. Current Financial Situation

The current financial situation for FSILGs is challenging; the revenue from current rent collections is not sufficient to cover the full costs: capital, operations, and programming. The major cause is the change in housing policy as houses adjust from four-year to three-year residences. Several other potential causes for the discrepancy between expense and revenue have been suggested and can be divided into two main groups:

- Recruitment challenges, aside from the change in housing policy, include
    - Price competition from dormitories,
    - A constantly changing recruitment environment,
    - Low facility quality due to deferred maintenance.
- Financial management challenges include
    - Inadequate financial planning,
    - Poor rent-setting and -collection procedures,
    - Lack of coordination between alumni/ae and undergraduates
    - Lack of alumni/ae involvement partly due to concern about personal legal/financial liability.

Several of these causes interact and can exacerbate or offset each other. All existed prior to the requirement that all first-year students live on campus and all were exacerbated by the new environment. Price competition is addressed in III and the others are examined below.

II. B. The Impact of Three-Year Residences

The requirement that all first-year students reside in dormitories has meant that FSILGs must change from a four-year residential experience to a one-year non-residential, three-year residential experience. This provides recruiting and financial management challenges. The basic recruitment challenge has been that each FSILG must increase the size of each new class by one-third while interaction with potential students has been restricted, the rules and schedules of recruitment change each year, and FSILGs are working through a process to re-invent themselves to fit the three-year model. In addition, the inertia that is a result of first-year residence in dormitories means that students who are recruited as freshmen are less likely to actually move into the FSILG.

The financial management challenges are mainly due to two factors. The first is the direct loss of revenue due to the one-year "bubble" of missing housebills, which began to pass through houses in academic year 2002-2003 and will continue through 2006-2007. The second is strongly related to the recruitment challenges. FSILGs cannot instantaneously adapt to the new system and even swift evolution will result in significant financial hardship and closures.

Before the implementation of the requirement that all first-year students live in residence halls, forecasts were made about the financial shortfalls that houses would face. The charts below examine a house that had a pre-implementation stable population of 40 members and fixed costs/member of $200K. The first year drop is the same for all scenarios because in the first year of transition a house would lose its senior class without that class being replaced by a new class. The smooth trend lines in the scenarios below are the inevitable artifact of a simple model based on a typical house. In practice there has been (and will continue to be) significant variations among the houses. For example, in 2004, the populations of six houses were already within 3 residents of their populations in 1999, while fifteen houses are short ten or more residents. I have also chosen to use an even distribution of classes sizes (equal numbers of freshmen, sophomores, etc.). In practice, houses have varying move-out rates which would results in a disproportionate number of younger members compared to older.

Almost all scenarios were based on an annual increase in class size from the pre-implementation levels. Two such typical scenarios:

FIGURE 5: RAPID INCREASE IN CLASS SIZE

	2002	2003	2004	2005	2006	
Freshmen	10	0	0	0	0	
Sophomores	10	10	12	14	14	
Juniors	10	10	10	12	14	
Seniors	10	10	10	10	12	**TOTAL**
Total	40	30	32	36	40	**DEFICIT**
Deficit	$0	$50K	$40K	$20K	$0	**$110K**

FIGURE 6: GRADUAL INCREASE IN CLASS SIZE

	2002	2003	2004	2005	2006	2007	2008	
Freshmen	10	0	0	0	0	0	0	
Sophomores	10	10	11	12	13	13	13	
Juniors	10	10	10	11	12	13	13	
Seniors	10	10	10	10	11	12	13	**TOTAL**
Total	40	30	31	33	36	38	39	**DEFICIT**
Deficit	$0	$50K	$45K	$35K	$20K	$10K	$5K	**$165K**

More accurate predictions would have reflected an initial drop in class size because such a drop has been observed in the first two years of implementation. The initial drop was caused through a combination of a poorly designed recruitment system and the delay in FSILGs adapting to the new system.

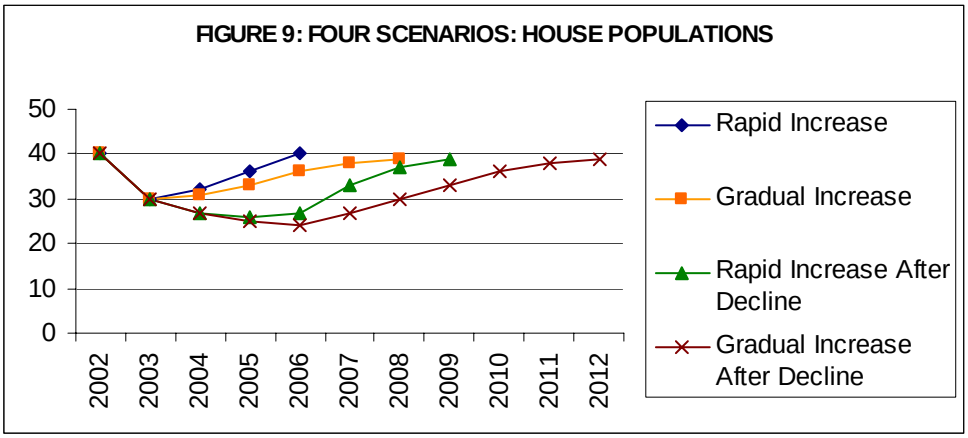
FIGURE 7: INITIAL DROP WITH RAPID INCREASE IN CLASS SIZE

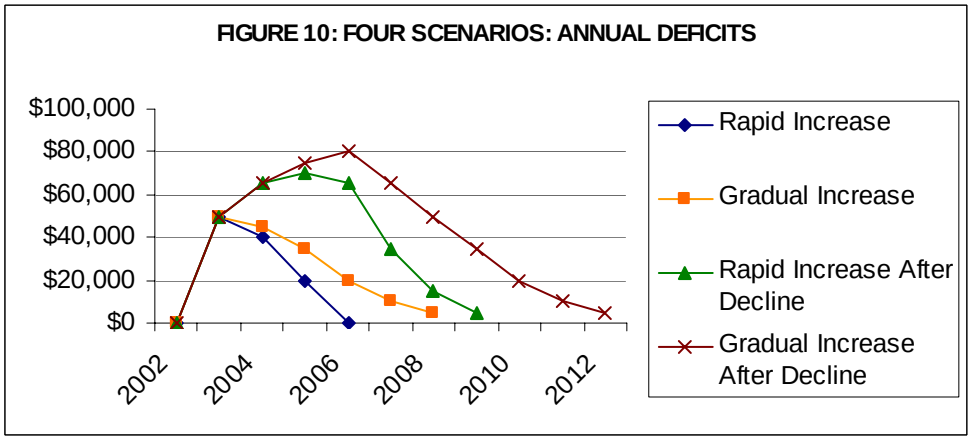
	2002	2003	2004	2005	2006	2007	2008	2009	
Freshmen	10	0	0	0	0	0	0	0	
Sophomores	10	10	7	9	11	13	13	13	
Juniors	10	10	10	7	9	11	13	13	
Seniors	10	10	10	10	7	9	11	13	**TOTAL**
Total	40	30	27	26	27	33	37	39	**DEFICIT**
Deficit	$0	$50K	$65K	$70K	$65K	$35K	$15K	$5K	**$305K**

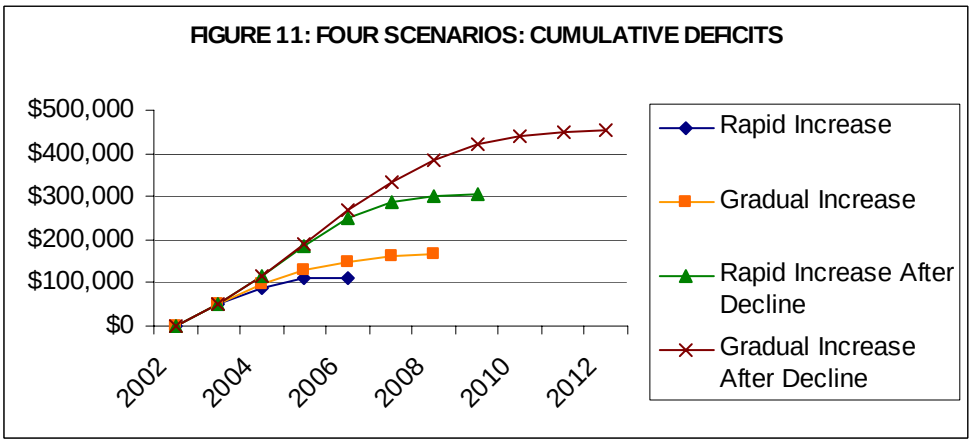
FIGURE 8: INITIAL DROP WITH GRADUAL INCREASE IN CLASS SIZE

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	
Freshmen	10	0	0	0	0	0	0	0	0	0	0	
Sophomores	10	10	7	8	9	10	11	12	13	13	13	
Juniors	10	10	10	7	8	9	10	11	12	13	13	
Seniors	10	10	10	10	7	8	9	10	11	12	13	**TOTAL**
Total	40	30	27	25	24	27	30	33	36	38	39	**DEFICIT**
Deficit	$0	$50K	$65K	$75K	$80K	$65K	$50K	$35K	$20K	$10K	$5K	**$455K**

The financial shortfalls are significant in all scenarios. The total cumulative deficits for this model house range from $110K in the most optimistic scenario to $455K in the most pessimistic. The scenarios are perhaps better appreciated graphically:







If we multiply these numbers by 35 to represent the scenarios across the whole system we get a cumulative deficit range of $3.9M to $15.9M.

We already know that the first two scenarios are counterfactual because we have hard population numbers from the first two years of transition; recruitment yields did not steadily increase from the baseline but began with a significant drop. This means that the cumulative transition costs are likely between $10.7M and $15.9M and may be higher still since the rate of adaptation for the system is yet uncertain.

The initial financial transition plan compensated houses for a limited set of fixed expenses and provided for $1.5M over three years: $750K for 2002-2003, $500K for 2003-2004, and $250K for 2004-2005. A financial transition plan sufficient to bridge the actual revenue gap would need significantly more resources; all scenarios show a deficit of $1.8M for the first year alone.

The change to three-year residences has a significant impact on house leadership. First, it reduces the pool of students available for leadership training and positions by one-fourth. Second, it reduces the amount of time available to cultivate and train future leaders. This is likely to reduce the quality of officers holding positions with major impact on finances: treasurer, house manager, kitchen manager, and recruitment chair.

The transition from four-year to three-year residences also decreases the population stability; each house is more sensitive to a particularly good or bad year for recruitment. In a four-year residence total population is based on four-year moving average; in a three-year residence the population is based on a three-year moving average. This inevitably leads to increased volatility in house population as the "weighting" of each recruited class is increased by one-third.

II. C. Recruitment Environment

The schedule and rules for recruiting new members have changed significantly every year, starting in 1996. This is the source of two kinds of challenges. The first kind is related to a lack of stability – even if any particular configuration of recruitment is successful, houses cannot optimize performance because the structures are different every year. The second kind is related to the nature of the structures themselves, which have been far from optimal.

Change has been continual and unpredictable, and often on short notice. Stability can be improved in part by having a defined process for changes in recruitment that involves all stakeholders. A structured process involving all stakeholders should allow the recruitment environment to evolve and adapt in a systematic way.

II. D. Facility Quality

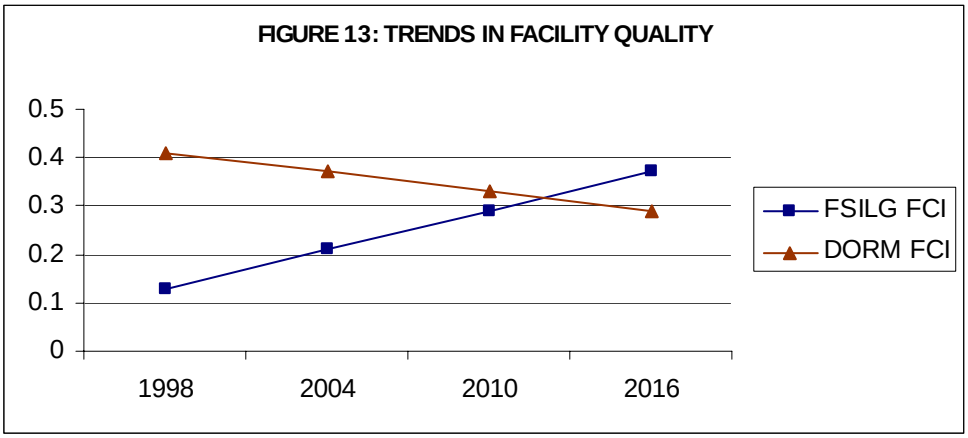
Most FSILGs have been under-investing in their buildings. The Institute-funded Vanderweil Facility Advisors (VFA) to produce a facilities conditions assessment in 1998, contemporaneously with a similar audit of all MIT campus facilities. The conditions of the individual facilities have changed between then and now. Gordon King from the MIT Facilities Department created an updated set of values in April 2004, which are reproduced in Figures 11 and 12. The FCI index is the Cost of Deficiencies / Current Replacement Value. MIT's target for facility quality is an FCI of .2. High values are bad, lower values are good.

FIGURE 12: FACILITY INFORMATION

	Dormitories	FSILGs
1998	.41	.13
2004	.37	.21

Source: VFA Study and MIT Facilities

The FCI for the FSILGs is increasing and the FCI for the dormitories is declining. Current trends are extended in the chart below:



MIT has begun re-investing in its residence halls while FSILGs defer maintenance at an increasing rate. The two main causes of this under-investment in FSILGs are uncertainty and under-pricing.

It is difficult for FSILGs to invest significant capital in their buildings when their financial future is highly uncertain and their current revenues are reduced. All three houses that have engaged in major renovation projects initiated their projects before the changes in the recruiting environment were announced in 1998.

Some of this uncertainty comes from the unpredictability of recruitment – both the recruitment environment/systems and the ability of individual houses to adapt.

Another source of uncertainty is the nature of the current financial transition plan. This uncertainty is a separate issue from the particular formula or method used for the program: it is present because in the current plan MIT has guaranteed a fixed expense for itself for each year of the plan regardless of demonstrated need. This effectively shifts the cost of uncertainty from MIT to the FSILGs, who are much less able to bear such risks. Houses cannot make their financial plans based on the current financial transition plan because they do not know what fraction of their costs will be supported.

Even if the financial transition plan was funded to cover the full fixed costs of empty beds, and even if the recruitment process was stable and optimized, houses would still be under-investing in their facilities because they are not charging enough to cover their costs. Under-pricing has two main sources: perceived price competition from dormitories and a failure to recognize the need to save for capital renewal as a current expense.

Many FSILG members do not believe that they can charge the prices necessary to cover expenses without real damage to recruitment. The price competition issue is addressed in section III. Here we will briefly note three reasons that this concern should be on the wane and that houses should have more confidence to set rents at levels that cover costs.

First, post-orientation surveys show that freshmen rank facility quality before price in making their decisions. This suggests that there is room in the market for houses to increase facility quality and charge a correspondingly higher price. This option to move up market is available to most, but not all, FSILGs, particularly those, like Student House, that have made low-cost living part of their core value system.

Second, dormitories will continue to raise prices and reinvest in their facilities for at least the next several years. This suggests that, if houses are coupling their prices to the dormitory rates, that there is room to raise prices as dormitory rents rise.

Third, there are significant opportunities for houses to improve the quality of their marketing to potential members. Some of these opportunities suggest changes to the structure of recruitment, but others are in the full control of the houses individually and collectively.

II. E. Capital Renewal Obligation

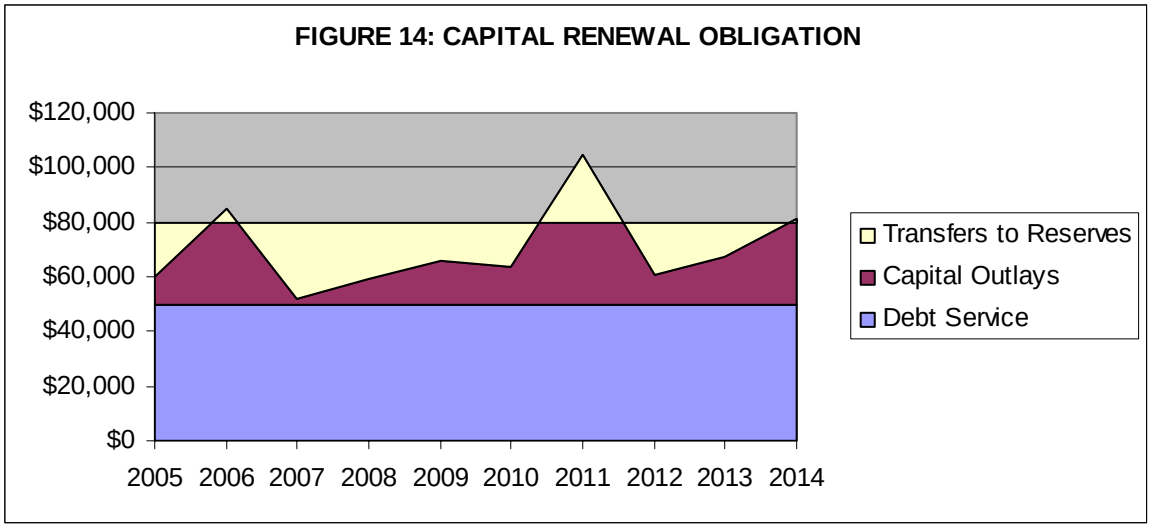
The integrated financial entity of undergrad residence and alumni/ae house corporation must recognize all of its expenses, including those for capital needs. For many houses, the capital budget includes only debt service and lacks (or has minimal) allocations for depreciation and capital renewal.

It is important to distinguish saving for capital renewal and depreciation. Capital renewal means setting aside cash every year in anticipation of capital expenses and has a real impact on cash flow. Depreciation is the allocation of the cost of an asset over a period of time for accounting and tax purposes and does not affect cash flow.

Including capital renewal obligation as a line item in the capital budget is a prudent way to smooth the cash flow related to capital needs while establishing a cash reserve. The idea is this: determine an appropriate level for capital renewal (MIT uses the 2% of replacement value as the basis) and budget a uniform amount every year. The level should be chosen to be sufficient to cover expected capital outlays, as well as the desired reserve.

For example: House ABC has a 40-person capacity, giving it an approximate replacement value of $4M ($100K/bed). It has $50K in debt service due each year, from a previous $1M Independent Residence Development Fund (IRDF) loan. It has set the goal of saving one year of operating expenses ($100K) at the end of ten years. Using the MIT house system standard of 2% gives House ABC a capital renewal obligation of $80K/year. $50K would be reserved for debt service, $10K for increasing the invested reserve, leaving $20K as the expected annual average for capital expenditures. The graphic below is based on House ABC and uses randomized values for capital outlays. The peaks above $80K in 2006 and 2011 indicate that monies were withdrawn from reserves to pay for current spending.

FIGURE 14: CAPITAL RENEWAL OBLIGATION



Setting a uniform capital allocation is not designed to reduce average cost (though there may be benefits in terms of investment income and less frequent borrowing) but to produce a predictable annual cost. For a 40-person house using a uniform renewal obligation the cost per person would be a steady $2000/year. Without a flat renewal obligation budgeted each year the cost person would vary from $1550 in 2007 to $2875 in 2011.

$20K was chosen as the "average" capital outlay for this example using the 2% standard. Houses can use this rule of thumb or determine the annual amount as part of developing a facility maintenance plan.

II. F. Budgeting & Billing Methods

The FSILGs use a large variety of methods for creating budgets and billing members.

A basic requirement of any budgeting or billing method is that it exists. The basic elements of a budgeting process include

- Comparing past budgets to actual expenditures
- Adjusting proposed budget to account for external costs increases (such as inflation)
- Adjusting proposed budget to account for internal decisions about changes in expenses (such as a decrease in the recruitment budget)

The basic elements of a billing process include

- Reliable delivery of bills to members
- Reliable processing of payments received
- Systems in place to handle delinquency (alumni/ae debt)

There are many opportunities for improvement and optimization, yet many FSILGs lack one or more of even the basic elements. There are a variety of solutions that work. This is not a question of standardization; it is about achieving a base level of competency in the accounting needed for successful financial management. All houses need systems for executing the elements described above to be financially stable and successful, and there are a variety of ways to do so. The Accounting 101 course sponsored by the AILG is one opportunity for members to learn basic accounting practices and about the practices used around the system.

One barrier to successful financial planning is the lack of integration of alumni/ae and undergraduate organizations. Appendix A provides one framework for planning and it pointedly does not specify which items are managed by alumni/ae and which by undergraduates. Each house must decide for itself the allocation of expenses for each category. Regardless of how any particular house divides responsibility for expenses or revenue, the two groups must develop their budgets in coordination.

There are many ways to divide responsibility for financial management. In some houses, the corporation is responsible for capital costs and the undergraduates for operational and programming costs. In others, the corporation is responsible for managing fixed costs and the undergraduates for variable costs. In others, the corporation is responsible for any expense over a certain dollar amount (such as $10K). All of these methods are constructive ways of addressing the question. No doubt there are other systems that work: the key is to have a system.

On the billing side, there are two main models. In the first, the undergraduates pay rent to the house corporation, distribute the bills, deposit the checks, and follow-up on unpaid bills. In the other, the house corporation provides an allowance to the undergraduates, distributes the bills, deposits the checks, and follows-up on unpaid bills. Both models can work and both have their benefits and drawbacks.

One option available in either model is to use a service company for the logistics of sending bills and receiving payments. This is a mechanical, uninteresting process that tends to languish when done by volunteers. Seven houses currently use Omega Financial to manage the logistics of billing. Such a company can enable a house to outsource the mechanics of billing while retaining full control over any collection efforts. The basic service is to send monthly bills to members based on the housebill level set by the organization. The company can participate more directly in collections management, including referrals to

commercial collections agencies, but houses have generally preferred to retain that work for themselves. Such agencies reduce the direct interaction of members with regard to billing issues and avoid the related friction that can result. This has positives (less personal conflict over collections) but also negatives (members feel less personally responsible for house finances).

Another aid to collections is that MIT has provided FSILGs with the ability to block registration or graduation for member who have delinquent accounts. Many houses have elected to exercise this ability while others have not.

III. PRICE COMPETITION

Many FSILG alumni/ae and students are concerned about price competition from dormitories (and, naturally, from other houses as well). This section of the document examines the major concerns about price competition and was developed with FSILG data from ADP, CP, ET, PKS, PSK, and TDC and dormitory data from Frank Salamone, Will Anderson, and Ken Goldsmith in the Division of Student Life. FSILGs and dormitories are not designed to turn a profit, therefore prices should be highly coupled to expenses, and the analysis below takes this approach.

Before we examine the information on price competition, we should note that the 2003 first-year surveys conducted by the Student Life Programs Office, given to all members of the class of 2007, students who did not join FSILGs ranked price as the 7th most important reason, after social atmosphere, live-in interest, time commitment, location, values, and interest in other activities. Students who did join FSILGs ranked price last out of all 14 factors. This is a strong indication that prices, at least their current levels, are not a particularly encouraging or discouraging factor for students deciding to join an FSILG. The full survey data are available in the appendices to the Task Force report.

The FSILG concerns can be broken down into six major areas:

- Property Taxes [advantage: MIT]
- Debt [advantage: FSILGs]
- Donations [advantage: MIT]
- Dining [advantage: FSILGs]
- Operations [advantage: unclear]
- Programming [advantage: FSILGs]

The origins of these differences can also be broken down into

- Federal law [property taxes & donations]
- External funding [donations & subsidies]
- Labor [volunteer vs. paid staff]
- Food [mandatory meal plans vs. no meal plans]

The origin of each difference suggests varying opportunities of influence.

Federal law is static in the short term and unlikely to change even in the long term. That said, the IRDF program is one way to adapt to the restrictions of federal law (which are interpretable) and there are opportunities to lobby Congress to change the underlying tax status of FSILGs.

External funding sources are subject to constant change related to the policies of MIT, the FSILGs, and the external fundraising climate. As an auxiliary organization, the MIT housing system must be self-supporting and has been cut off from future subsidies, while the FSILGs still have opportunities to lobby the Institute

for additional funds, particularly an extension of the financial transition program. The FSILGs are able to borrow from the IRDF at significantly more attractive rates than the dormitory system from MIT funds.

MIT's dormitories have always relied solely on paid staff. Over the last century the reliance of FSILGs on professional staff has varied. Currently most houses have one staff person: a cook. In the future FSILGs may add additional staff for cleaning or property management, but will continue to be run primarily by volunteers. Generally, FSILGs have significantly more flexibility in the acquisition, management, and dismissal of employees than the Institute.

Most FSILGs have required meal plans since their inception. Currently MIT does not require students to participate in meal plans, with the exception of a limited reduced-rate dining program in certain dormitories. The future of meal plans at MIT has been in a state of fairly constant flux for the last several decades (though changes have accelerated in the last few years).

The news on price competition is mixed but the basic message to FSILGs is that, when all factors are taken into account, the need to be concerned about price competition should decrease. The main complaint of FSILGs – that the dormitories received direct subsidies from the general revenue of the Institute (including tuition and grants to professors) – has been addressed: dormitories must carry their full expenses (capital, operations, & programming) solely from rents starting in 2004. MIT's remaining advantages are primarily a matter of federal law; there are few additional policy changes MIT could make to further level the playing field aside from direct transfers to FSILGs.

III. A. Property Taxes

MIT pays property taxes on its revenue-generating real estate ($19M in 2004) but does not pay property taxes on its academic and residential real estate. MIT does pay Cambridge an annual "payment in lieu of taxes" (PILOT) ($1.2M in 2004) but no portion of this cost is attributed to the residence system. FSILGs pay property taxes on all of their property.

Property tax rates in Boston/Brookline/Cambridge are ~1% of assessed value each year. For FSILGs this is a $10K-20K/year expenses approximately 10% of total expenses costs. At present assessed value is about half replacement value so if the FSILGs were assessed at their replacement values then this cost would approximately double. The current property tax treatment of FSILGs is at least partly due to the recognition of their educational mission and houses that rent to non-students may endanger that treatment.

If we use a commonly used value for each dormitory bed ($100K) and a 1% tax rate, dormitory rents would need to increase by $1000/year to match the FSILG real estate burden. Attributing three months to summer rents this leaves us with a property tax substitution value of $375/term.

If FSILGs did not have to pay property taxes they could charge significantly less, or charge the same and reinvest in their facilities. It is unlikely that this would come about.

III. B. Debt

MIT borrows externally at AAA bond rates, currently ~3% for 10-year terms. This rate is not available for departments that are borrowing internally from MIT general funds, including the residence system. The residence system must borrow internally at 7.5% for 10-year terms.

FSILGs can borrow from the Independent Residence Development Fund (IRDF) at ~3% for terms of 5-30 years. The term is negotiable based on the financial carrying capacity of the house. Loans under $100K are usually financed over 15 years or less, while larger loans are usually financed over 20-30 years. Equity loans

from commercial lenders are ~6% for 30-year terms, also more favorable than the borrowing costs for the residence halls.

One accumulated historical advantage of the residence system over the last 50 years is that it has not borne the full cost of related debt. The difference had been made up from MIT general revenue and tax deductible donations. Since July 2003 the residence system has to cover the full costs of its remaining (and any new) debt.

MIT Housing underwent a comprehensive internal refinancing of all its debt in FY2004, consolidating all centrally and locally paid debt. The pieces had varying rates of interest and were of varying duration. Blending them together produced a single vehicle at 5% for 30 years. This produced a dilemma: the residence system must bear the full cost of its debt starting in FY2004, but if the costs of this simple flat-payment structure were directly passed to dormitory rents, there would have been a significant jump in costs between 2003-2004 and 2004-2005, which would be intolerable from an admissions and financial aid perspective. The vehicle was modified in two ways to accommodate a moderate limit on annual increases of dormitory rents. The first modification was that half of the debt related to Simmons Hall was absorbed by MIT general revenue for three reasons: The cost of the dorm far exceeded the $100K/bed standard for dorm construction, the dorm contributes to general MIT aesthetics, and the dorm contains significant non-dorm-specific programming space including a theatre and faculty-in-residence apartments. The second modification is that the debt would be back loaded, with rapidly increasing annual payments until 2010, when payments would be flat with the interest rate at 5.5% (rather than 5%). It is important to note that the cost of this ramp-up is being supported by additional MIT Housing debt and is not being covered by general Institute revenues.

Due to this vehicle, which accommodates the need for the residence system to cover its debt costs without exceeding the tolerance for annual price increases, residence halls will be cheaper than they would be if they had to borrow the way FSILGs do in 2004-2005, but cost more after 2006-2007.

Aside from borrowing, FSILGs have received financial transition funding in 2002-2003 and 2004-2005 and a revised program should extend this support. The new financial transition plan should more closely reflect the actual costs of FSILGs, including capital costs such as depreciation. Such a plan is described in the recommendations sections of this report.

For new borrowing, the playing field significantly favors the FSILGs. For past borrowing, however, the residence halls have an improved position but FSILGs still have a more favorable capital cost structure.

III. C. Donations

All donations to MIT are tax deductible; most donations to FSILGs are not. This is a significant and real barrier to any FSILG fundraising efforts. In addition, the Institute has a full-time fundraising staff, while FSILGs are run by part-time volunteers.

FSILGs have a few options to offset this structural disadvantage. Some have separate 501(c)3 organizations, either locally or nationally, that can raise tax-deductible donations for explicitly educational purposes. FSILGs that wish to create such a structure can benefit from the institutional knowledge from houses that have gone through the process in the recent past.

The IRDF was created in part to offset the tax-disadvantaged way FSILGs would otherwise raise funds. The IRDF earns interest as part of the MIT general endowment, and all returns are rolled over into the IRDF. Donations to the IRDF are tax deductible, and there are three ways for houses to use these funds.

First, there is the loan program. FSILGs can borrow at ~3% with the term is negotiable based on the carrying capacity of the house. Loans under $100K are usually financed over 15 years or less, while larger loans are usually financed over 20-30 years. Second, there is a grant program for academic-related and ADA-related capital investments. This allows tax-deductible donations for house renovations related to educational purposes such as in-house libraries, study rooms, or ADA compliant elevators. Third, there is a new program (approved by the MIT Corporation) that will allow educational operating grants to cover education-related operational expenses.

The new program for educational operating grants is still in development and has the potential to be a source of substantial financial support for houses. Given current IRS case law, it appears that these grants could amount to $15K-$30K annually for each house. For the first year or two of the program the grants will be supported through earned interest in the IRDF fund, but in future years alumni/ae donations will be an important factor in determining the funds available to each FSILG.

For all three uses, MIT retains discretion over how to allocate funds, as it must by law. In practice, MIT has been courteous about releasing funds donated by a particular house's alumni/ae back to that particular house. More generally, FSILGs have the restriction that the educational value of tax-deductible-donation-funded projects must be demonstrated each time, while MIT is able to treat all of its projects as education-related and thus they can be funded through tax deductible donations.

On the staffing side, fundraising at FSILGs will continue to be done by volunteers. There are a few ways this disadvantage can be addressed. First, houses can retain the services of professional alumni/ae relations companies such as Stewart Howe. Second, houses can take advantage of the newly created position of Director of FSILG Alumni/ae Relations (who reports to the Executive Vice President of the Alumni/ae Association and the Dean for Student Life) as support for fundraising campaigns, as well as continue to draw on Alumni/ae Association resources such as lists of house alumni/ae and donor financial data. Third, the Association of Independent Living Groups (or an individual house) can decide to directly employ staff to serve such purposes. Fourth, MIT can offer courses on fundraising to interested alumni/ae.

The difference in tax status between MIT and FSILGs is a matter of federal tax law and not Institute policy. That said, there are opportunities for MIT to help compensate for such differences through policy (such as approving the new educational operating grant program) and opportunities to coordinate the lobbying of the Congress to change the relevant federal tax statutes.

MIT retains a significant advantage in fundraising due to its tax status and its permanent professional fundraising staff.

III. D. Dining

Nearly all FSILGs include a mandatory dining program for all members. Dormitories that include dining halls require all students that entered the Institute in fall 2004 or later to participate in the Residential Dining Discount Program described below, but otherwise there is no required meal plan for dormitory residents.

The Residential Dining Discount Program requires that all residents of Baker, Next, and Simmons to contribute $200 (non-refundable) in exchange for the ability to purchase dinners at half price at any of the three halls. First-year students must participate regardless of their plans to move into an FSILG for their second year. This provides a disincentive for non-resident members, particularly first-year students, to dine with their houses. Aside from this program, dormitory residents are currently free to purchase meals at MIT Dining facilities, cook for themselves, or eat off-campus.

FSILGs offer different dining plans but generally resident members are required to participate. A typical dining plan includes 5 hot dinners/week plus an open pantry for breakfast (cereal/oatmeal). About half of the houses include lunch as part of their dining plan.

The data on comparative food cost below was based on reasonable estimates.

All but one FSILG offer five dinners each week and half of the allocation of board costs by the MIT Financial Aid Office can be attributed to dinner. This means that the substitution value of five dinners/week is $750 ($2100 * 5/7 * 1/2). Approximately half of the FSILGs offer only dinner – the other half offer a varying combination of breakfasts, lunches, and open pantry systems. Therefore I used $375 to represent this value ($2100 * 5/7 * 1/2 * 1/2). This produces a defensible food-substitution value of $1125/term for a typical FSILG and $750 for a dinner-only FSILG.

On the expense side, such meal plans cost houses significantly less than the $1125 or $750 they would cost on the open market. There are several factors that create this cost advantage, but the main difference is that a mandatory meal plan where everyone eats the same dinner means stable food ordering and little waste, compared to an MIT dining facility (or a commercial restaurant) obligated to handle whoever shows up and offer a variety of selections. One factor that pushes costs up is that most houses retain a full- or part-time chef who cooks only thirty or forty meals/day. Such a chef could prepare food for twice as many (or more) in the same time if the delivery/coordination problems were solved. Some neighboring houses are already exploiting this opportunity.

The FSILG Cooperative, Inc. (FCI) has created an additional option to reduce meal costs, combining the economies of scale of a commercial kitchen with the reduced overhead of single-menu mandatory meal plans. The dining program, operated by Sodexho/Tech Catering, will offer hot dinners for <$9/plate and bag lunches for <$5/each, a savings over both the on-campus and dedicated-chef dining models. There are significant differences between a catered meal plan and a dedicated chef, but the program offers another opportunity to reduce costs.

In general, FSILGs are advantaged in terms of meal plans compared with dormitories.

III. E. Operations

Both FSILGs and residence halls cover operational costs through rents. Each operations model has advantages and disadvantages and it is unclear where the net advantage lies.

Residence halls benefit from economies of scale, both because the individual facilities are larger (averaging 270 beds) and because the residence system is able to set up purchasing agreements and service contracts for the full 2900-person system. FSILGs are beginning to achieve economies of scale of purchasing through the FSILG Cooperative, Inc. The Cooperative works by leveraging the collective purchasing power of multiple houses (currently 23 of 35 residential FSILGs) and a small full-time staff (currently two) to improve the quality, and lower the cost, of goods and services purchased by the houses. The Cooperative is a member-owned corporation, separate from the AILG and MIT but supported by both.

FSILGs benefit from the significant contributions of volunteer labor from alumni/ae and undergraduates. These contributions, often unrecognized, enable FSILGs to run much leaner than the residence halls, which must support significant staff costs, including full-time house managers for each dormitory and central MIT Housing maintenance and administrative staff. All FSILGs also receive free T1 Internet connections from MIT and those closer to campus have higher-bandwith connections. Given the Institute's commitment to providing courseware and tools online, the bandwidth of those houses with only T1 lines is increasingly inadequate.

As the purchasing Cooperative grows the cost disadvantage of the FSILGs will decline, while the structural staffing differences are likely to remain. The FSILGs could hire several full-time support staff before approaching the base staffing costs of the residence halls.

And, as for capital costs, FSILGs may receive additional financial transition funding over the next few years. Any such program should reflect the actual costs of FSILGs, including operational costs related to the management of each location.

On balance it is unclear if either the residence system or the FSILGs has an operations cost advantage.

III. F. Programming

A significant change on the expense side for the residence halls is that all programming costs are now covered by rents. This includes Housemaster & GRT stipends, Residence Life Programs central staff, and the dormitory social fees. The student governments of each residence hall determine the dormitory social fee, which is billed by MIT to each resident of that dormitory. These fees average $120/year.

FSILGs have always borne the full costs of programming, including social, service, scholarship, and recruitment programs. FSILGs have two advantages here: first, that such programming is organized by volunteers, and secondly, that the FSILG staff at MIT is not expensed to the houses, as is dorm-related staff. The Institute currently pays for a portion of the cost for each Residence Advisor and the remainder is borne by the house.

As with operations, FSILGs benefit from their volunteer-run nature, and the non-expensed MIT staff dedicated to the system, currently four full-time positions (up from just one in 1994 and down from five in 2003).

FSILG programming is of higher value, and costs less, than programming in the residence halls, a significant advantage.

III. G. Comparing Revenues & Expenses

It is difficult to compare the cost-of-living in an FSILG and a residence hall. Prices vary considerably between different dormitories and FSILGs due to a large variety of factors, but the dominant factors are meal plans, capital costs, and tax status.

III. G. 1. Revenues

The MIT Financial Aid Office allocates $4550 each semester for room and board. $2450 is for the room portion and equals the average price of a place in an MIT residence hall, exclusive of dormitory social fees which average $60/term. $2100 is for food and equal the amount the office estimates students will spend on food during the term.

I set aside any specific attribution of value due to programming or difference in educational experience, because I felt that any monetary value I placed on this aspect of the living experience would be indefensibly arbitrary. This left me with a need to create a food-substitution value: how much it would cost for a dormitory resident to procure the equivalent in meals available in an FSILG. The analysis in III.D. suggests a food-substitution value of $1125/term or $2250/year. Combined with the average room cost of $4900/year in the residence halls and the $120/year social fees this gives us a cost-of-living comparison value of $7270/year or $3635/term. That said, several individuals have asserted that, with care, a person can eat all

meals at an FSILG and have no external food costs. This would suggest using the direct Financial Aid food allocation of $4200/year or $2100/term. In practice the actual cost will no doubt lie somewhere between these two numbers and that is reflected in the chart below:

FIGURE 15: COST-OF-LIVING COMPARISON

	Dorms	FSILGs
Room	$4,900	$3,750
Board	$2250-$4200	$2,000
Social Fees	$120	$0
TOTAL	**$7270-$9,220**	**$5,750**

The chart demonstrates clearly that FSILGs are the more economical living alternative at current prices. Given that dormitory prices are rising, and FSILGs need to increase income to cover expenses, the data suggests that FSILGs can raise prices without severe impact on their market position.

III. G. 2. Expenses

The expense side is even more difficult to compare point-by-point. I struggled with several different methods during the drafting of this document. I think the chart below captures the essential information:

FIGURE 16: EXPENSE DISTRIBUTION COMPARISON

	Dorms (system)		FSILGs (ABC House)	
Capital (excluding debt)	$3,200,000	9%	$20,000	7%
Debt Service	$8,800,000	25%	$50,000	19%
Operating (excluding taxes)	$16,500,000	47%	$67,000	25%
Overhead (central staff)	$4,800,000	14%	$0	0%
Taxes	$0	0%	$20,000	7%
Programming (excluding Board)	$2,140,000	6%	$33,000	12%
Board	$0	0%	$80,000	30%
TOTAL	**$35,440,000**	**100%**	**$270,000**	**100%**

Source: Division of Student Life

IV. RECOMMENDATIONS

For FSILGs to survive and thrive they must simultaneously ensure that

- Revenue and expenses match up (including capital allocation)
- They are price competitive in the undergraduate housing market

FSILG prices are set through a combination of factors, but the market side of the dynamic has dominated the pricing model. Prices are strongly affected by the pricing of dormitory rents and by the perceived value FSILGs offer to students.

On the expense side, prices are affected by the cost of doing business. The FSILG financial model, developed jointly by the Division of Student Life and the FSILGs, suggests an "actual" (covering all capital/operational/programming needs) of $7500/year.

The average housebill for 2004-2005 is $6,100 because many houses price-to-market more than they price to cover the actual expenses of the FSILGs, and because they have lacked the confidence to price themselves at a higher markup relative to dormitories.

There are several options to increase FSILG revenue:

- Increase revenue through better billing and collection methods
- Fundraise from alumni/ae
- Raise prices because facility quality improves
- Raise prices because their marketing improves
- Raise prices because dormitory prices increase
- Fundraise from MIT

All six are viable options and the first three are entirely within the control of the FSILGs themselves. The fourth is largely within their control, and the Institute is already planning to implement the final two.

There are also several options to reduce FSILG expenses:

- Reducing programming
- Defer maintenance
- Spend down reserves
- Reduce operational costs by joining FCI [disclosure: author is Executive Director of Cooperative]
- Reduce borrowing costs by improved capital planning

All five options are within the direct control of FSILGs. The first three are short-sighted and undesirable. Some FSILGs have felt forced into them by price competition from the residence halls and by inadequate financial transition funding. The fourth is a new opportunity – the FSILG Cooperative, Inc. was created through cooperation of the FSILG alumni/ae and the Institute – and provides real opportunities to reduce operational costs. The final option is attractive but involves a serious investment of time for the initial plan development and ongoing investments to ensure smooth transitions as officers change.

So, eliminating the short-sighted alternatives, I recommend that the FSILGs and MIT, respectively, adopt the following:

FSILGs should

- Improve capital planning
- Improve budgeting & billing practices
- Improve marketing to potential members
- Join the FSILG Cooperative, Inc.

MIT should

- Match dormitory rents to dormitory expenses
- Work with alumni/ae to improve fundraising
- Provide additional financial transition funding
- Assist with and remove barriers to FSILG marketing

These recommendations are described more thoroughly below.

IV. A. FSILGs: Improve Capital Planning

FSILGs should develop long-term plans for their facilities. Such plans should be created with the assistance of professional accountants and architects or general contractors. A facilities assessment for all FSILGs was done in 1998 and paid for by the Institute. These assessments need updating but they can serve as a place to begin.

Once such plans are developed they should be reflected in the financial planning of the organizations. Such planning should involve the undergraduates and house corporations, and should include, at a minimum, 2% of the replacement value of the house allocated for capital renewal obligations.

Some plans may reveal that significant capital investment must be made in the near future. The IRDF has significant funds available to finance such expenditures.

IV. B. FSILGs: Improve Budgeting & Billing Practices

Houses must create reliable systems for executing all elements of budgeting and billing. At a minimum such systems should include

- Comparing past budgets to actual expenditures
- Adjusting proposed budget to account for external costs increases (such as inflation)
- Adjusting proposed budget to account for internal decisions about changes in expenses (such as a decrease in the recruitment budget)
- Reliable delivery of bills to members
- Reliable processing of payments received
- Systems in place to handle delinquency

Many processes will work; I recommend the following. Houses should

- Send at least two undergraduates and one alum to each session of Accounting 101 (perhaps the current and future treasurers)
- Use annual budgets that integrate all expenses of the organization – house corporation and undergraduate house (Appendix A provides one such model)
- Explicitly define which expenses will be managed by the corporation and which by the undergraduates (for example, that the corporation manage capital & fixed operational, while the undergraduates manage variable operational costs and programming)
- Hold an annual budget meeting for both parts of the organization in the April of each year (the corporation may develop its budget first, and bring it to the relevant house meeting and explain the corporation side of the budget before the undergraduates set their budgets)
- Use budget documents that include:
    - The budgeted/actual expenses and income in each category for the previous two years
    - Line item for capital allocation at 2% of the replacement value of the building
    - Line item for bad debt to reflect the cost of unpaid housebills
- Designate the house corporation responsible for the logistics of billing and disbursement
- Ensure that the house corporation work with the undergraduates to ensure smooth collections
- Use a professional billing service such as Omega Financial, Inc. to handle the mechanics of billing, which should include at least one statement each month
- Set housebills for the following periods:
    - Fall Term
    - IAP (probably zero, but otherwise should reflect only fixed costs)
    - Spring Term
    - Summer (non-member should be charged higher rents to generate revenue)

IV. C. FSILGS: Join Cooperative

The FSILG Cooperative, Inc. offers houses a chance to reduce costs and improve vendor service. In addition the Cooperative's accounting system makes it easier for houses to track their expenditures and the Cooperative retains records for at least seven years.

Houses can save money in three ways:

- Pre-invoice price discounts
- Post-invoice price discounts
- Less bill padding from vendors

Pre-invoice discounts are available from many vendors. House receive these discounts when they make a purchase. These discounts are the result of price negotiation with vendors. At a minimum, all Cooperative vendors guarantee contractually that no member will pay more through the Cooperative than they would pay retail. For example, the pre-discount savings on waste management for the first eight months of operations were $150/month for the member houses.

Post-invoice discounts are required for all participating vendors. The minimum post-invoice discount is 5% and the average, dollar-weighted discount for the Cooperative's first eight months was 7%. The post-invoice discounts go into a separate account for each house, which are pooled to cover the operational expenses of the Cooperative. Each summer, the after-expenses pool remainder is rebated to each house in proportion to the amount they spent through the Cooperative the previous year.

The Cooperative provides a long memory and professional staff attention. In addition, the Cooperative regularly surveys members about their satisfaction with vendors in the categories cost, service, quality, and delivery. Vendors are aware of this and are less likely to pad an invoice then they would be with the typical undergraduate or alumni/ae volunteer.

In addition to strictly monetary savings, the Cooperative offers the benefit of full-time staff to address emergency issues, help with negotiations, and manage contracts. (disclosure: author is Executive Director of FCI)

IV. D. FSILGs/MIT: Increase Perceived FSILG Value

Increasing the perceived value of the FSILG experience is another way to increase the price students are willing to pay to live in an FSILG. There are two main options:

- Improved marketing of existing value
- Addition of new value-added services with margins high enough to cover the added cost

Offering additional services with high margins is a real possibility but is unlikely to cover the gap. That said, investment in the physical plant of the house can produce a real return on recruitment: non-joining students ranked facility quality as the 4th most important factor that led them to choose a dormitory while they ranked price 7th.

Improving the perceived value of the FSILG experience is the core of an improved recruitment program for the FSILGs, but re-designing the marketing system of the FSILGs is beyond the scope of this document. Included below are a few basic recommendations for improvements in two areas: FSILGs must investigate and recognize their value, and they must communicate that value effectively to students

The first step may be superfluous for some students but for many it would represent significant progress. At a minimum, all FSILG students and alumni/ae should be able to

- Compare the cost of their dining plan to the cost of eating on-campus
- Describe the 3-5 core differences between living in an FSILG and living in a dormitory
- Communicate the 3-5 things that distinguish their house from other houses

The second step is to communicate this information effectively to new students and, increasingly, their parents. Some brief ideas:

- Before the main recruitment period
    - Conduct alum/student meetings at post-admission events to speak with students and parents
    - Communicate with admitted students via MIT email addresses
    - Contact students when they are considering dormitories raise awareness of options
    - Increase alumni/ae involvement in the role of Educational Counselor
    - Send printed or hand-written material to admitted students and parents
- Ensure that the main recruitment period is
    - Before classes start to avoid conflict with academic responsibilities
    - Long enough to allow due consideration of options
    - Short enough to reduce impact on academic responsibilities
    - Simultaneous for all FSILGs (including sororities) to enable students to consider all options
- After main recruitment period
    - Encourage higher participation in student activities
    - Increase number of dorm-FSILG events

IV. E. FSILGs/MIT: Increase alumni/ae giving

Alumni/ae giving is another source of revenue for FSILGs. It is beyond the scope of this document to explore the potential in full, but some brief comments below:

FSILG fundraising can be aimed at one or more of several major goals:

- Direct gifts for current operational funds
- Endowing scholarship-grant programs for members
- Immediate-past or near-future major renovation projects
- Permanent "endowment" for house with interest available for operational/programming expenses

Houses have very differing abilities to raise funds. The prime external factors are the age and wealth of alumni/ae. The major internal factors are the interest and ability of the current house corporations to raise funds. Alumni/ae service firms such as Stewart Howe and the Institute's professional development and alumni/ae staff can be instrumental in increasing the ability of house corporations to seek funds for alumni/ae. MIT can facilitate giving by sharing contact and financial data on donors with houses and offering training sessions to interested alumni/ae.

The lack of tax deductible donations to FSILGs is a real issue and is being addressed in two ways: the development of IRDF educational grant programs (capital and operating) that would allow alumni/ae to donate indirectly to their FSILG, and the advocacy of a change to federal tax law that would expand tax-deductible-donation status to 501(c)7s such as FSILGs. It is important to realize that, unless the law is changed, FSILGs must also raise funds that will not be tax deductible to alumni/ae, with which to pay for the approximately 75% of capital improvements that will not qualify under federal law as educational or handicap access.

IV. F. MIT: Couple Dormitory Rents and Costs

Building on the above information and analysis we can see that this recommendation is already being implemented by the Institute: dormitory prices are set to increase moderately each year as they move towards the flat phase of their debt vehicle.

If the goal for FSILGs is to reach full-cost coverage in 2009-2010, and the anticipated annual increase in costs are 1%/year, then FSILGs should increase prices 5%/year through 2009-2010, and 1%/year thereafter. The FSILG-dorm price difference in 2009-2010 will be then very close to the current market price difference and the FSILGs will be covering their full costs.

If FSILG costs are anticipated to rise 3%/year, then FSILGs should increase their prices 7%/year through 2009-2010, and 3% thereafter. If food prices rise 3%/year, the FSILG-dorm price difference in 2009-2010 will be higher than the current price difference but less than the value added for food alone and about the same as the value added for food alone if food prices rise 1%/year.

This analysis suggests that if FSILGs decide to cover their full costs and dormitory prices increase as planned, and FSILG costs increase 1%/year, then the price competition equilibrium will be the same in 2009-2010 even if FSILGs fail to improve their perceived market value. If the FSILGs improve their perceived market value the field would strongly tilt in their favor.

If FSILG costs increase 3%/year, they can maintain the price competition equilibrium simply by improving their perceived value just enough to cover the value of the food alone; the equilibrium is stable even if they fail to improve the market value of the FSILG experience.

If FSILGs improve the perceived value of the FSILG experience in either FSILG-cost-increasing scenario the equilibrium will tilt in their favor and FSILG recruiting yields will improve.

IV. G. MIT: Increased Financial Transition Funding

All of the numbers above are based on a steady-state system and steady-state occupancy rates. The FSILG system, however, is not in a steady-state; it is in the process of a major period of evolution.

Please see the Financial Transition Plan Proposal below for details.

V. FINANCIAL TRANSITION PROPOSAL

The goal of any financial transition plan is to enable the FSILGs to adapt to the new recruitment environment without depleting their financial reserves and without creating long-term dependencies on financial support. The plan should be of limited duration, reward FSILGs that successfully adapt, support FSILGs that continue to adapt, encourage FSILGs to consider non-standard residents, and reflect the actual fixed costs of operating an FSILG.

The plan proposed is for a six (6) year transition period (2 years already past, 4 remaining), uses the pre-turmoil new member recruiting baseline of 1992-97, reviews the current standards for fixed vs. variable costs, and provides incentives for success and support for those in need. The plan would be administered by SLP/FSILG staff and overseen by a joint alum/student/staff committee.

V. A. Background

The MIT administration recognizes the valuable role FSILGs play in life and learning at the Institute. The new recruiting schedule/environment is significantly different than the old system and adapting is not a simple or easy task. The purpose of providing transition assistance is to provide FSILGs with the time and tools needed to adapt from four-year-residences to three-year-residences without forcing FSILGs to spend down their financial reserves. FSILGs cannot serve their members, alums, or the Institute if they are forced to close due to financial shortfalls. Funding is only one way MIT is supporting the evolution of the FSILG system. Other ways include the financial (and non-financial) support of the Cooperative, the increase of FSILG staff in the Student Life Programs (SLP) office from one to four, the provision of education seminars for FSILG officers each term, and increased funding for joint-FSILG events.

The two goals of the plan – to shift houses from four-year to three-year residences and to avoid reserve depletion – suggest two run-time metrics of success: the number of empty beds in the system and the magnitude of FSILG reserve depletion. A system that survives only through the spend-down of the savings accumulated by FSILG alumni over the last century will be a substantially weaker system, and a plan that does not cover the costs of transition will require the spending of reserves. A system that is successfully evolving will reduce the number of empty beds each year; a failing system will see the number of empty beds increase each year.

A financial transition plan should reward the successful, aid the struggling, and avoid creating a dependency on outside financial support. Creating a plan that meets all three criteria is a challenge. A plan that provides funding based solely on the number of empty beds fails to reward success. A plan that provides funding regardless of the number of empty beds fails to aid those most in need. A plan that continues indefinitely would indefinitely postpone evolution of the system.

A successful plan should be based on the accurate understanding of the cost structures of FSILGs – which costs are fixed and which are variable. Fixed costs must be covered by houses regardless of occupancy and failure to treat them as such would force them to spend down their reserves. Variable costs depend on the number of members and discretionary choices, and funding them would provide an unneeded subsidy for the existing members.

Another concern is to ensure that the new member recruitment baseline is based on the right dataset. The timeline for the dataset should be long enough to smooth out short-term variations, recent enough to be obtainable, and stable enough to be a good representation of a steady-state system. The options for length are similar for those for the transition duration – 3-6 years. The most recent, steady-state data ends in 1997, well before the events in and changes to the FSILG system led us to the current state. The years between Fall 1997 and Spring 2001 are more recent but are less representational because the near-annual changes to the recruitment and residence system have created a rather unpredictable recruitment environment.

The duration of the plan should be long enough to allow the system to evolve, but no so long as to delay evolution or to create dependencies on exterior support. At a minimum the plan should cover the three years it will take the "missing-housebill" gap created by the requirement that all freshmen live in residence halls to pass. An additional three years would provide an additional "student generation" for evolution. Three years more would mean that two generations of students have lived on support – perhaps time for dependency to develop.

The application, allocation, and appeal processes should be transparent, efficient, and equitable. The SLP/FSILG staff is the natural implementer of the plan. The natural oversight group would be a committee composed of alumni/ae, students, and staff.

V. B. The Proposed Plan

V. B. 1. Duration: 6 years total (2 past, 4 remaining)

Six years is a compromise between the minimum three-year plan and the maximal nine-year plan. The extension of support from three to six years is justified by the two years of performance data in-hand – houses are adapting but more slowly than initially expected. Six years is not an arbitrary length of time – it is two new-length student generations. At the end of that time period, everyone in the system will been recruited by someone who was also recruited in the new system – a full turnover. Nine years is excessive – everyone would have "grown-up" in a supported system and dependencies could have taken hold.

V. B. 2. Baseline: Theoretical Empty Beds (TEBs) = (average new members 1992-97)

The options under consideration are 1992-1997 and 1997-2002. The years 1992-97 is the best timeframe for the baseline because it includes enough years to smooth out short-term variation, and because those five academic years precede the turmoil that brought us to the current situation - a true baseline from a steady-state system. Using the immediately pre-transition years of 1997-2002 is less attractive because recruitment had already started to decline, it would not reflect a steady-state system, and would necessarily result in an under-funding of the FSILGs (in many cases FSILGs were already drawing down reserves to cover the costs of lower recruitment).

V. B. 3. Fixed vs. Variable Costs: Review and improve based on experience

The support provided should reflect the actual costs of operating houses and organizations. Anything less would require a spend-down of accumulated reserves (or additional borrowing) by FSILGs. Anything more will create an inequitable, unpalatable, and unnecessary subsidy. The current division of fixed vs. variable expenses should be reviewed by the new FTP committee, utilizing the knowledge base of alums/students/staff and the experience of first two years of implementation, and new application forms developed based on this review.

V. B. 4. Formula: All houses receive 33% of fixed costs for TEBs as a baseline of support, plus either an additional 33% for each non-traditional student (5th year/grad/exchange) or an additional 66% for each actual empty bed.

The most crucial part of this formula is that 100% of the fixed costs for each empty bed are covered. Fixed costs must be paid regardless of occupancy. Covering less than 100% would mean that houses would be forced to spend down their reserves – short-term survival purchased at the expense of long-term viability.

The baseline support is intended to provide incentives for successful adaptation. If there is no baseline of support, houses that are successful at "earning" their housebills through recruitment are effectively penalized for their success. At the same time, providing them with 100% support seems lavish and unnecessary. 33% seemed a reasonable compromise but is inevitably arbitrary.

The 33% provided (66% total) for beds filled by non-traditional students is an incentive for houses to experiment with non-standard recruitment, and also help alleviate the housing crunch at MIT and in Cambridge more generally. This is a policy-based incentive, not directly related to the survival of the FSILGs. Some of the other policy incentives that have been discussed include event funding to encourage dorm-FSILG interaction and educational funding to support the continuing education of FSILG officers.

V. B. 5. Process: Implemented by SLP/FSILG staff, overseen by alum/student/staff committee, and completed before the end of each term

The SLP/FSILG staff is the logical group to implement the financial transition plan. The oversight group should be composed two alums, two students, and three staff members. The alums would be appointed by the AILG, one student by the IFC and one by the LGC, and the three staff by the DSL. This committee will review/approve all application forms and handle allocation appeals, as well as provide general oversight of the plan and process.

The process must allow sufficient time for each stage, but be complete before the end of each term. Three weeks for each phase fits tightly into the semester calendar. Applications for support would be due within the first three weeks of each term (e.g. Sept 15, 2004). The FSILG office would review the submissions and announce initial allocations within three weeks of that date (10/6). Houses would have three weeks to review their allocations and decide whether to accept or appeal (10/27). Final allocations would be announced three weeks later (11/17) and distributed before the end of the term.

V. C. Example for ABC House

ABC house had an average of ten new members each year in the period 1992-1997. This means its baseline for theoretical empty beds (TEBs) is ten. ABC house, according to the finance documents in Appendix A, has annual fix costs of $206K, or $5,150 fixed cost per bed (FCPB). This means the minimum transition funding received by ABC house would be $17,167 (1/3 * FCPB * TEB) or (1/3 * $5,150 * 10) even if there were no empty beds or non-traditional students (NTSs). The formula for calculating funding, as long as the number of theoretical empty beds is equal to, or greater than, the number of empty beds (NEBs) is would be:

((TEB - (NEB + NTS)) * FCPB * 1/3) + (FCPB * 2/3 * NTS) + (FCPB * NEB)

A key part of this plan is that the actual fixed costs of houses are covered, so if the number of empty beds exceeds the number of theoretical empty beds the formula becomes simply:

(FCPB * 2/3 * NTS) + (FCPB * NEB)

Figure 17 illustrates several scenarios:

FIGURE 17: Transition Funding Scenarios for ABC House

Empty Beds	Non-Traditional	Funding
0	0	$17,167
0	5	$25,750
0	10	$34,333
5	0	$34,333
5	5	$42,917
5	10	$51,500
10	0	$51,500
10	5	$60,083
10	10	$68,667
15	0	$77,250
15	5	$94,417
15	10	$111,583

V. D. Projected Cost

The projected cost of any financial transition plan depends primarily on four factors. The two fixed factors are the support formula and the average fixed cost expense for the FSILGs. The formula is described above and I used a fixed cost of each bed is $5K.

The two variable factors are the annual percentage change in empty beds, and the percentage of non-standard students living in the FSILG system. Below we assume 15% of the residents are non-standard and use the data from Figures 5-8.

FIGURE 18: FTP COST PROJECTIONS

Scenario	Rapid Increase	Gradual Increase	Initial Drop/ Rapid Increase	Initial Drop/ Gradual Increase
2004-2005	$1,388,960	$1,480,080	$1,844,560	$1,844,560
2005-2006	$1,024,480	$1,297,840	$1,935,680	$2,026,800
2006-2007	$0	$1,024,480	$1,844,560	$2,117,920
2007-2008	$0	$842,240	$1,297,840	$1,844,560
2008-2009	$0	$0	$933,360	$1,571,200
2009-2010	$0	$0	$0	$1,297,840
6-year total	**$2,413,440**	**$4,183,500**	**$7,856,000**	**$10,702,880**
Additional Years to Adjust	2	4	5	6

Even the highest cost estimate, $10.7M, is dwarfed by the cost of building even one additional undergraduate residence, approximately $35M. A fully-funded financial transition plan is a prudent investment of the Institute's funds on this comparison alone. If we add in the valuable contributions of the FSILGs to the Institute described in the main Task Force report the case is overwhelming.

Appendix A: FSILG Finance Documents

The following financial documents are intended to serve as an illustration of the finances of a typical FSILG, which I will refer to as ABC house. ABC house was constructed based on financial information from Alpha Delta Phi, Chi Phi, Epsilon Theta, Phi Kappa Sigma, Phi Sigma Kappa, and Theta Delta Chi but does not represent any one house directly. The document represents the integrated financial entity of undergrad residence and alumni/ae house corporation.

The basic characteristics of ABC house are

- Capacity for 40 beds
- Owned by the house corporation
- Professional cook providing five lunches and five dinners each week
- House is full each summer

A few more characteristics round out the model:

- The original purchase/renovation costs are fully depreciated
- No significant income from investments, donations, or leases to outside entities
- The budget balances each year without withdrawals from reserves
- Summer rent is set at $1000/bed, equal to (Capital + Operating Expenses)/40

Houses each have their unique financial situations. Two houses own and operate vans. A few houses rent space in their houses to non-member to generate revenue. Some houses have recently invested hundreds of thousands in renovations and upgrades, while others have decades of deferred maintenance. To an extent, ABC house is a common-denominator house, representative of no house in particular but illustrating the basic principles at work.

The first page shows the house prior to the decision to move all freshmen into dormitories. The budget balances with a term housebill of $2875/semester, of which $2075 is for fixed expenses and $800 is for variable expenses (marginal food cost & dues).

The second page shows the house immediately following the decision to move all freshmen into dormitories. If the housebill remained at $2875/semester then there would be an immediate $41,500 shortfall. This shortfall, if translated directly into rents would be almost $1400 per resident.

The documents that follow focus on the annual budget cycle and do not incorporate the data that would be part of a long-term maintenance and financial plan.

NOTE: The percentage of total costs that are fixed is approximately 80%. I suspect that the 80% figure discussed for FTP was originally meant to represent the proportion of total costs that are fixed, but that over time this morphed into 80% of fixed costs, which would require deficit spending by houses, an unlikely purpose for any transition plan.

FSILG Finances Prior to Freshmen-on-Campus Decision (40 Residents)

EXPENSES				Fixed	
	Capital	Depreciation	$0	Y	
		Debt Service	$50,000	Y	
		Reserve Allocation	$10,000	Y	
		Construction	$10,000	Y	
	Total Capital		$70,000		
	Operating	Lease	$0	Y	
		Utilities	$35,000	Y	
		Property Taxes	$20,000	Y	
		Insurance	$12,000	Y	
		Maintenance Supplies	$5,000	Y	
		Maintenance Services	$10,000	Y	
		Professional Services	$5,000	Y	
		Other	$0		
	Total Operating		$87,000		
	Programming	Food (labor)	$20,000	Y	
		Food (supplies)	$60,000		
		Recruitment	$15,000	Y	
		New Member Education	$4,000	Y	
		Social	$2,000	Y	
		Alumni/ae Relations	$6,000	Y	
		Dues	$4,000		
		Philanthropy	$1,000	Y	
		Scholarship	$1,000	Y	
		Other	$0		
	Total Programming		$113,000		
	TOTAL (40 Residents)		**$270,000**		
	TOTAL (FIXED)		$206,000	76%	
REVENUE					
	Alumni/ae	Donations	$0		
		Reserve Withdrawal	$0		
		Investment Income	$0		
	Total Alumni/ae		$0		
	Rent	Summer Rent	$40,000		
		Term Rent	$230,000	$2,875	housebill
	Total Rent		$270,000		
	TOTAL (40 Residents)		**$270,000**		
	Margin/(Loss)		$0		

FSILG Finances After to Freshmen-on-Campus Decision (30 Residents)

EXPENSES				Fixed	
	Capital	Depreciation	$0	Y	
		Debt Service	$50,000	Y	
		Reserve Allocation	$10,000	Y	
		Construction	$10,000	Y	
	Total Capital		$70,000		
	Operating	Lease	$0	Y	
		Utilities	$35,000	Y	
		Property Taxes	$20,000	Y	
		Insurance	$12,000	Y	
		Maintenance Supplies	$5,000	Y	
		Maintenance Services	$10,000	Y	
		Professional Services	$5,000	Y	
		Other	$0		
	Total Operating		$87,000		
	Programming	Food (labor)	$20,000	Y	
		Food (supplies)	$45,000		
		Recruitment	$15,000	Y	
		New Member Education	$4,000	Y	
		Social	$2,000	Y	
		Alumni/ae Relations	$6,000	Y	
		Dues	$3,000		
		Philanthropy	$1,000	Y	
		Scholarship	$1,000	Y	
		Other	$0		
	Total Programming		$97,000		
	TOTAL (30 Residents)		**$254,000**		
	TOTAL (FIXED)		$206,000	81%	
REVENUE					
	Alumni/ae	Donations	$0		
		Reserve Withdrawal	$0		
		Investment Income	$0		
	Total Alumni/ae		$0		
	Rent	Summer Rent	$40,000		
		Term Rent	$172,500	$2,875	housebill
	Total Rent		$212,500		
	TOTAL (30 Residents)		**$212,500**		
	Margin/(Loss)		-$41,500		