Continuing Care Retirement Communities

An Empirical, Financial, and Legal Analysis

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To our children:
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Chapter Eleven

Financial Management Statements

■ In the preceding chapter, several issues were raised regarding the limited usefulness of typical financial statements for management decision-making in a CCRC. The purpose of this chapter is to develop modifications to existing statements for improving their usefulness. This chapter, which focuses on income statements for CCRCs,[1] covers two types of statements. The first type comprises actuarial income statements based on the principles used to perform actuarial valuations. The second type comprises income statements prepared according to generally accepted accounting principles (GAAP).

INCOME STATEMENTS

An income statement reflects the results of an organization's operations during a one-year period on an accrual accounting basis (i.e., one that attempts to match revenues with expenses). The income statement, as opposed to the cash flow statement, attempts to reflect more fairly the results of prior years' operations by spreading the recognition of some cash receipts over future years in an attempt to match the incidence of expenses. If proper matching can be achieved, management could use the income statement (and the projected budget for the next year) as a guide to annual fee adjustments.

[1] These statements, which are also known as profit and loss (P&L) statements, are also referred to as statements of revenues and expenses by CCRCs.

In order to effect the matching of revenues and expenses for a CCRC, a statement is developed that compares budgeted monthly revenues and entry fee amortization with budgeted expenses. If, for the next year, budgeted revenues fall short of budgeted expenses, then revenues must be adjusted to eliminate the shortfall. This process is repeated annually, with revenues being adjusted to equal budgeted expenses. A disadvantage of using income statements as the primary basis for determining fee adjustments is that, if fees are not initially in actuarial balance, it may take several years before this deficiency flows through the income statement. Hence, income statements do not provide management with sufficient information on how to adjust fees in the current year to place the community in actuarial balance. This can only be determined from an actuarial valuation. Nevertheless, income statements, properly prepared, are useful for explaining how the community achieved its current financial position from its position in the prior year.

ACTUARIAL INCOME STATEMENTS

The term *actuarial income statements* is used to describe the theoretically correct management statements for CCRCs. Actuarial income statements are derived by applying the concepts underlying actuarial valuations for a CCRC. Revenues consist of monthly fees and the amortization of entry fees. The amortization of entry fees is determined such that the amortization amounts are expected to be equal to the difference between monthly revenues and total expenses during each resident's lifetime. Expenses consist of operating expenses and capital expenses, where capital expenses are set equal to the actuarial expenses associated with fixed assets.

Two issues associated with actuarial income statements are: (1) the development of correct methods for amortizing entry fees and (2) the calculation of actuarial expenses for fixed assets. Both of these issues require that imputed interest be recorded on the actuarial income statement. This procedure, while consistent with the present value methodology used to develop actuarial fees, is not consistent with generally accepted accounting principles. Statements that meet GAAP standards are discussed in the following section.

The basic premise of actuarially correct entry fee amortization schedules is that the annual amortization amounts should increase per life. This premise is a logical deduction from the actuarial pricing objective that limits increases in monthly fees to the inflation experience of the community. Since expected expenses will increase faster than inflation-constrained monthly fees (due to the increasing probability of higher health care costs as the resident ages), entry fee amortizations

for surviving residents must necessarily be increased on a per life basis if they are to cover the difference between expenses and monthly fees. The exact pattern of this increase depends on the underlying assumptions for mortality, morbidity, and inflation.

Given that the entry fee amortization should be an increasing amount per life, it is relatively simple to develop the correct amortization schedule. The amount recorded on the actuarial income statement for a given year will equal a portion of the entry fee principal amount plus interest income on the unearned balance. In some cases, the unamortized balance may increase for a few years after entry, implying that total interest earnings on the unamortized balance may exceed the amount that should properly be amortized. This excess revenue (over what should be amortized) is not recorded on the actuarial income statement but is instead added to the unamortized entry fee balance used as the basis for determining the amortization amount in the following year. This means that, in order to generate an actuarial income statement, separate accounting for the unamortized entry fee balance must be maintained.

The second issue related to the development of actuarial income statements is the expenses associated with fixed assets. These expenses are based on the actuarial expense methodology described in Chapter 7, an approach that results in greater expenses than those generated by historic-cost depreciation.

The illustrative actuarial income statement presented in Table 11–1 is based on the cash flow projection associated with actuarially adequate fees (refer to Chapter 9 and Table 9–1) and is in exact actuarial balance throughout the projection.[2] Revenues consist of two components: monthly revenues and entry fee amortizations. Monthly revenues include the normal monthly fees paid by continuing care contractholders that are increasing with inflation plus per diem charges paid by outside patients in the health care center. Entry fee amortizations are derived by subtracting monthly fee revenues from total expenses.[3] No interest revenue is explicitly shown on this statement, since interest income is automatically included in the annual amount recorded for entry fee amortizations. Total revenues are increasing from nearly $5 million to nearly $20 million for this illustrative CCRC.

Total expenses, which include operating and capital expenses, range from nearly $5 million to nearly $20 million by the end of 20 years. Net income, equal to the difference between total revenues and expenses,

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[2] Actually, projected valuations show the community to be in a slight surplus position; however, for pedagogic purposes, it is assumed that the surplus is negligible.

[3] In practice, a theoretically correct amortization schedule would be applied. Since it is somewhat complicated to develop such a schedule, a simpler approach was used to determine entry fee earnings in this example. Under this approach, entry fee amortization is set equal to the difference between total expenses and monthly revenues.

TABLE 11–1

Twenty-Year Projection of Actuarial Income Statements Using Actuarial Fees *($000)*

Fiscal year	Monthly revenues	Entry fee amortizations	Total revenues	Operating expenses	Capital expenses	Total expenses	Net income	Actuarial fund balance
1983	$ 3,775	$1,164	$ 4,939	$ 2,628	$2,311	$ 4,939	$0	$0
1984	3,893	1,349	5,242	2,891	2,351	5,242	0	0
1985	4,043	1,533	5,576	3,180	2,396	5,576	0	0
1986	4,217	1,726	5,943	3,498	2,445	5,943	0	0
1987	4,383	1,964	6,347	3,848	2,499	6,347	0	0
1988	4,616	2,175	6,791	4,232	2,559	6,791	0	0
1989	4,939	2,341	7,280	4,656	2,624	7,280	0	0
1990	5,267	2,550	7,817	5,121	2,696	7,817	0	0
1991	5,636	2,772	8,408	5,633	2,775	8,408	0	0
1992	5,993	3,066	9,059	6,197	2,862	9,059	0	0
1993	6,481	3,084	9,565	6,816	2,749	9,565	0	0
1994	7,050	3,281	10,331	7,498	2,833	10,331	0	0
1995	7,688	3,486	11,174	8,248	2,926	11,174	0	0
1996	8,403	3,697	12,100	9,072	3,028	12,100	0	0
1997	9,148	3,973	13,121	9,980	3,141	13,121	0	0
1998	9,907	4,335	14,242	10,978	3,264	14,242	0	0
1999	10,948	4,527	15,475	12,075	3,400	15,475	0	0
2000	12,071	4,762	16,833	13,283	3,550	16,833	0	0
2001	13,341	4,984	18,325	14,611	3,714	18,325	0	0
2002	14,675	5,292	19,967	16,072	3,895	19,967	0	0

is defined to be zero since fees for this CCRC are actuarially adequate and experience is assumed to follow the underlying assumptions. The actuarial fund balance is also zero throughout the projection.

While the actuarial income statement has the advantage for showing a fair financial picture of the community, it does not contribute information for setting fees beyond that generated by an actuarial valuation. One disadvantage of the actuarial income statement is that it requires an additional set of books to be maintained, since the community will undoubtedly continue to develop GAAP statements. Moreover, detailed accounting for interest earnings on fixed assets and entry fees must be monitored. Finally, the actuarial income statement is quite distant from GAAP statements, which are the accepted standards of comparison. Therefore, an approach that modifies GAAP statements to reflect a position reasonably consistent with the results of the actuarial income statement is desirable. Such an approach is discussed in the following section.

MODIFIED GAAP INCOME STATEMENTS

Because of the wide use of GAAP statements and because of the unique aspects of CCRCs, it is desirable that GAAP statements be modified in order to reflect more accurately the actuarial position of a community. Adjustments in statements that conform to GAAP standards are required in two areas: (1) the amortization schedules for entry fees and (2) expenses for fixed assets. In addition, the separation of statements by cost center (i.e., apartment versus health care) and the development of a separate health care reserve fund for continuing care contractholders would improve the picture presented by GAAP statements. Each of these topics is discussed in subsequent sections.

Entry Fee Amortization

The primary position adopted by the American Institute of Certified Public Accountants (AICPA) is that entry fees should be amortized in accordance with the future expenses they are to cover. However, because of the difficulty in determining these future expenses, the secondary position of the AICPA is that it is acceptable to amortize entry fees based on the resident's life expectancy, or in the case of refundable entry fees, in accordance with the refund provision. Not surprisingly, it is the current practice of many CCRCs to amortize entry fees on one of these two bases. These methods, however, earn entry fees too rapidly, because entry fees are completely earned prior to the death of all residents in the original entrant cohort. The resulting income statements will generate an overly optimistic view of the CCRC's fi-

nancial position. Hence, using these statements to confirm pricing policies might lead to erroneous decisions. The following section presents income statements based on life expectancy amortizations to illustrate this problem.

Current Practice. The entry fee amortization methods commonly employed include: (1) the life expectancy method, (2) refund methods, and (3) immediate recognition. The life expectancy method is the most prevalent, being used by slightly less than 50 percent of all CCRCs. Under this method, an equal portion of the entry fee is recognized as revenue on the income statement. This amount is predetermined by dividing the initial entry fee by the life expectancy of the resident (or group of residents), and the same amount is amortized for a period equal to the life expectancy.[4]

Amortizations under the refund methods are based on the reduction in the amount to be refunded if the resident leaves the community. For example, if the resident is entitled to receive a refund of 80 percent of the original entry fee for withdrawal after one year in the community, then 20 percent of the entry fees would be recognized as income during the first year. This method is used by approximately 25 percent of all CCRCs. A few communities recognize all entry fee income immediately, and the amortizations under this approach are the same as the amount recorded on cash flow statements.

The general acceptance of the life expectancy method on GAAP statements is no doubt explained by the ease of its implementation, because the method does not adhere to the "revenue and expense matching" tenet as explained in Chapter 10. This approach does have a desirable characteristic in that amortizations increase on a per life basis (as is the case for the theoretically correct method), since the same dollar amount is earned each year, while the number of surviving residents from the original entry cohort decline over time. Entry fee amortizations become zero after the life expectancy period. Hence, there are no revenues to support the surviving residents (approximately equal to 50 percent of the original number of residents) and their associated expenses will be increasing, ranging from 20 to 40 percent of the total expected expenses at entry.

The impact of this premature entry fee earning is illustrated in the statement of revenues and expenses (or income statement) given in Table 11–2. The revenues in this example are based on a CCRC with

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[4] The 1981 CCRC survey indicated that communities apply the life expectancy method on an individual basis three times more often than on a group basis. The individual application requires the community to develop amortization schedules for each resident, so that the total amortization is the sum of individual amounts. Group application of this method is done in one of two ways; either the life expectancy for the average age of the group is used or the individual life expectancies are summed and their average is used to amortize aggregate entry fees received from the cohort entrant group.

TABLE 11–2

Twenty-Year Projection of Statements of Revenues and Expenses Using Actuarial Fees and Group Life Expectancy Amortization of Entry Fees *($000)*

Fiscal year	Operating revenues	Entry fee amortizations	Interest income	Total revenues	Operating expenses	Depreciation expense	Interest expense	Total expenses	Net income	End-of-year fund balance
1983	$ 3,775	$1,373	$1,181	$ 6,329	$ 2,628	$ 608	$1,600	$ 4,836	$1,493	$ 1,493
1984	3,893	1,436	1,292	6,621	2,891	630	1,593	5,114	1,507	3,000
1985	4,043	1,508	1,411	6,962	3,180	653	1,584	5,417	1,545	4,545
1986	4,217	1,590	1,535	7,342	3,498	679	1,575	5,752	1,590	6,135
1987	4,383	1,686	1,667	7,736	3,848	708	1,565	6,121	1,615	7,750
1988	4,616	1,785	1,794	8,195	4,232	739	1,553	6,524	1,671	9,421
1989	4,939	1,899	1,944	8,782	4,656	774	1,540	6,970	1,812	11,233
1990	5,267	2,021	2,095	9,383	5,121	812	1,525	7,458	1,925	13,158
1991	5,636	2,148	2,255	10,039	5,633	854	1,509	7,996	2,043	15,201
1992	5,993	2,309	2,447	10,749	6,197	900	1,490	8,587	2,162	17,363
1993	6,481	2,471	2,644	11,596	6,816	818	1,470	9,104	2,492	19,855
1994	7,050	2,248	2,874	12,172	7,498	861	1,446	9,805	2,367	22,222
1995	7,688	1,406	3,090	12,184	8,248	907	1,420	10,575	1,609	23,831
1996	8,403	1,563	3,362	13,328	9,072	959	1,391	11,422	1,906	25,737
1997	9,148	1,685	3,653	14,486	9,980	1,015	1,359	12,354	2,132	27,869
1998	9,907	1,861	3,970	15,738	10,978	1,077	1,322	13,377	2,361	30,230
1999	10,948	2,059	4,333	17,340	12,075	1,146	1,281	14,502	2,838	33,068
2000	12,071	2,262	4,787	19,120	13,283	1,221	1,236	15,740	3,380	36,448
2001	13,341	2,434	5,242	21,017	14,611	1,303	1,185	17,099	3,918	40,366
2002	14,675	2,659	5,778	23,112	16,072	1,394	1,127	18,593	4,519	44,885

actuarially determined fees. Column 3 contains entry fee amortizations based on the life expectancy associated with the average age of each cohort entrant group.[5] This statement shows that entry fee amortizations will increase almost 2 times in 20 years, from $1.4 million to $2.7 million. Since amortization amounts for the initial group of entrants cease at the end of their life expectancy (12 years), there is a drop in entry fee amortizations at that time (1994).

Depreciation (column 7) and interest (column 8) expenses replace capital expenditures on a cash flow statement to reflect more accurately the consumption of fixed assets. The excess of revenues over expenses (this item is referred to as net income in subsequent text and tables) is given in column 10 and shows a $1.5 million "profit" during the first year. This apparent profit increases to $4.5 million in 20 years. Judging from the GAAP income statement, management and other financial analysts might arrive at the erroneous conclusion that fees are too high and residents are being overcharged. Column 11 contains the end-of-year fund balance, equal to the cumulative total of excess revenues over expenses. For a nonprofit organization, this balance would be expected to be zero; however, it increases to $45 million after 20 years, implying that the community has a net worth equal to that amount.

Obviously, GAAP income statements present a misleading picture of the community's financial position. The GAAP accounting position is significantly different from the actuarial position, the latter having a $0 fund balance. Not only do GAAP income statements misrepresent the financial picture for a community using actuarial fees; they also overstate projections based on fees that are not actuarially sound. Table 11–3 shows the projected net income and fund balance using the four pricing policies discussed in Chapter 4—pay-as-you-go method, short-term cash balance method (or simply short-term method),[6] open-group method, and closed-group method—and life expectancy amortizations.

Net income for the pay-as-you-go method is negative for six years before becoming positive for the next six years. Since net income is increasing annually, management might feel that its pricing policy is appropriate even though monthly fees are required to increase substantially more than inflation. After the entry fees from the original group of

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[5] Many communities using the life expectancy method base earnings on a rounded value for the life expectancy. This example does not round the life expectancy, and there are earnings in the fractional year (i.e., if the life expectancy is 13.5 years, then 7.4 percent is earned for the first 13 years and 3.7 percent is earned during the 14th year).

[6] This term is used to refer to the fact that a short-term outlook (i.e., five to seven years) was used to determine the adequacy of fees, as is done in many feasibility studies. It is *not* meant to imply that feasibility studies generate actuarially deficient fees.

TABLE 11–3

Comparison of Net Income and Fund Balances under Four Pricing Policies *($000)*

	Pay-as-you-go fees		Short-term fees		Open-group fees		Closed-group fees	
Fiscal year	**Net income**	**End-of-year fund balance**	**Net income**	**End-of-year fund balance**	**Net income**	**End-of-year fund balance**	**Net income**	**End-of-year fund balance**
1983	$(426)	$(426)	$1,006	$1,006	$1,336	$ 1,336	$1,493	$ 1,493
1984	(647)	(1,073)	945	1,951	1,313	2,649	1,507	3,000
1985	(722)	(1,795)	892	2,843	1,304	3,953	1,545	4,545
1986	(555)	(2,350)	832	3,675	1,295	5,248	1,590	6,135
1987	(390)	(2,740)	736	4,411	1,258	6,506	1,615	7,750
1988	(274)	(3,014)	652	5,063	1,240	7,746	1,671	9,421
1989	7	(3,007)	634	5,697	1,298	9,044	1,812	11,233
1990	28	(2,979)	564	6,261	1,313	10,357	1,925	13,158
1991	44	(2,935)	471	6,732	1,316	11,673	2,043	15,201
1992	64	(2,871)	339	7,071	1,298	12,971	2,162	17,363
1993	277	(2,594)	386	7,457	1,471	14,442	2,492	19,855
1994	121	(2,473)	(22)	7,435	1,167	15,609	2,367	22,222
1995	(564)	(3,307)	(1,038)	6,397	206	15,815	1,609	23,831
1996	(458)	(3,495)	(1,155)	5,242	267	16,082	1,906	25,737
1997	(476)	(3,971)	(1,397)	3,845	221	16,303	2,132	27,869
1998	(535)	(4,506)	(1,705)	2,140	138	16,441	2,361	30,230
1999	(420)	(4,926)	(1,836)	304	262	16,703	2,838	33,068
2000	(337)	(5,263)	(2,000)	(1,696)	390	17,093	3,380	36,448
2001	(359)	(5,622)	(2,247)	(3,943)	462	17,555	3,918	40,366
2002	(436)	(6,058)	(2,545)	(6,488)	530	18,085	4,519	44,885

entrants have been amortized (fiscal year 1995), net income becomes negative again. The fund balance is negative for the entire projection.

The income statement associated with short-term fees shows positive net income for 11 years. This statement, coupled with projected increases in cash flow for the eight years, does not give any indication of future problems if management continues with its current pricing policies. The projections based on open-group and closed-group fees also show a sound financial position. For the open-group method, net income is expected to be slightly more than $1.3 million during the first 11 years and is positive throughout the projection. For the closed-group method, net income increases to $2.5 million within 11 years. The fund balances by the end of 20 years accumulate to $18 million and $45 million for the open- and closed-group methods, respectively. Since the cash flows for these projections are also positive for each year, there is no way for management to identify the actuarial imbalance from GAAP income statements.

Theoretical Amortization Characteristics. The basic characteristics of the theoretically correct method of amortizing entry fees have already been described. These characteristics are derivatives of the revenue/expense matching tenet and the inflation-constrained monthly fee objective.[7] The first characteristic is that if members of a new entrant cohort are expected to survive beyond their life expectancy, then the amortization schedule should reflect earnings after that period. This characteristic will be referred to as earnings over the resident's *potential* lifetime. The second characteristic is that entry fee amortizations on a per life basis must be increasing since the expenses assumed to be covered by entry fees are also increasing. This characteristic is referred to as the *increasing-dollar per life* amortization schedule. It does not mean that if the earnings for a group of residents were traced over the residents' lifetime in the community, their aggregate amortization amounts would be increasing; what it means is that if annual amounts amortized were divided by the number of survivors, the earnings *per life* would be increasing.

The third and final characteristic is that if costs increase for changes in living status, then the amortization schedule should reflect the expected cost differentials weighted by the probability of change in living status. Hence, the per life amortization amounts will be increasing by more than the inflation assumption. This characteristic is referred to as the *cost differential adjustment*.

Given these characteristics, a theoretically correct amortization schedule consistent with GAAP (i.e., excluding imputed interest) can be developed. Certain trade-offs are necessary to generate a schedule

[7] If the inflation constraint objective were removed, it would be possible to set monthly fees so that entry fee earnings could be a level amount per life.

that can be easily implemented. The two questions that must be addressed are (1) whether the schedule should be implemented on a group or individual basis and (2) how the amortization amounts should vary if the community's experience does not match the underlying assumptions used to derive entry fees (referred to as adjustments for experience deviations).

If the amortization schedule is developed on a group basis, it must weight the ages and sexes of the cohort new entrant group. Aggregate amortization schedules are derived by amortizing the sum of the fees for a cohort group according to the group-based schedule. Individual implementation is more complicated, since this requires separate schedules that vary for age and sex as well as the number of occupants. The following discussion is based on a group amortization schedule. Also, it is initially assumed that experience follows the underlying assumptions, so there is no adjustment incorporated for experience deviations. This constraint will be removed in a later discussion.

Two new amortization methods are analyzed with regard to the three theoretically correct amortization characteristics. The first method, which was recently introduced, is described as a "level-dollar per life" amortization.[8] This means that the amortization amount per life is constant. The second method, developed by the authors, is characterized as an "increasing-dollar per life" method and generates increasing amortization payments per life over time. Table 11–4 presents a matrix comparison of these two methods, along with the immediate recognition, refund, and life expectancy methods, as they relate to the theoretically correct characteristics.

TABLE 11–4
Comparison of Expense-Matching Characteristics for Five Generic Methods of Amortizing Entry Fees on GAAP Income Statements

	Characteristics		
Method of amortization	**Amortization over potential lifetime**	**Matches increasing expense pattern**	**Reflects higher health care costs**
Immediate recognition	No	No	No
Refund	No	No	No
Life expectancy	No	No	No
Level-dollar per life	Yes	No	No
Increasing-dollar per life	Yes	Yes	Yes

[8] Hershel D. Sosnoff and Jack E. Blumenthal, "Accommodation Fees: Have You Earned Them?" *American Health Care Journal,* January 1980, p. 23.

Level-Dollar per Life Method. This method spreads entry fee amortizations over the resident's potential lifetime. In essence, the amortization curve follows the expected survivorship curve, but this method does not address the other characteristics since it is derived from the assumption that amortizations on a per life basis should be level and there is no adjustment for a change in living status. Although some CCRCs may initially set entry fees to cover "bricks and mortar" (implying constant earnings), it is doubtful that these communities have been able to adhere to this policy, since nearly all communities increase entry fees for inflation. Therefore, this method generally would not be appropriate except for a few isolated cases, yet it does eliminate the concern over a premature cutoff of entry fee amortization.

A comparison of the percentage of the original entry fee that is amortized annually under the level-dollar per life method with the amortization percentage under the life expectancy method is given in Table 11–5. These percentages are based on an age-75 female entrant.

TABLE 11–5
Entry Fee Amortization Schedules for Age-75 Female Entrant

		Amortization method		
Year (t)	**Age (x)**	**Life expectancy**	**Level-dollar per life**	**Increasing-dollar per life**
0	75	7.364%	7.364%	2.509%
1	76	7.364	7.268	2.774
2	77	7.364	7.154	3.061
3	78	7.364	7.018	3.369
4	79	7.364	6.858	3.695
5	80	7.364	6.669	4.035
6	81	7.364	6.447	4.381
7	82	7.364	6.190	4.725
8	83	7.364	5.893	5.053
9	84	7.364	5.556	5.350
10	85	7.364	5.178	5.596
11	86	7.364	4.760	5.771
12	87	7.364	4.305	5.851
13	88	4.267*	3.821	5.815
14	89	0.000	3.318	5.649
15	90	—	2.812	5.349
16	91	—	2.322	4.927
17	92	—	1.865	4.408
18	93	—	1.457	3.830
19	94	—	1.108	3.233
20	95	—	0.821	2.656
25	100	—	0.127	0.679
30	105	—	0.009	0.077
35	110	—	0.000	0.001

* This percentage represents earnings for expected survivorship for fractional year.

Entry fee amortizations are determined by multiplying the percentage given in this table by the original entry fee. Columns 3 and 4 show that the life expectancy and level-dollar per life methods amortize the same percentage in the first year, but thereafter the level-dollar amortization declines.[9] The decline reflects a decreasing number of survivors in future years (dividing the percentage by the number of survivors will generate a constant amount). The level-dollar per life method amortizes 84 percent of the entry fee at the end of 14 years (life expectancy); the remaining 16 percent is amortized over the next 21 years.

Increasing-Dollar per Life Method. This method incorporates the concept of amortization over the resident's potential lifetime as well as increasing amortization amounts per life based on the annual cost differential for the probability of survival in the health care center. In order to develop an amortization schedule employing these characteristics, assumptions must be made on the rate of increase and the additional cost differential for living in the health care center. Table 11–5 contains the amortization percentages for a schedule based on a 10 percent per year rate of increase and a 1.75 ratio of health care to apartment costs. In practice, the assumptions for these two values should be based on the community's pricing philosophy regarding expenses to be covered by entry fees and their rate of increase, and may vary according to a specific community's experience. The increasing-dollar per life method shows substantially less amortization during the first year than do the other two methods (2.509 percent compared with 7.364 percent). Beginning in the 11-th year, the increasing-dollar per life amortizations exceed the level-dollar per life amortizations. Aggregate amortizations for a group of entrants increase for 13 years despite a decreasing number of survivors. At the end of 14 years, 62 percent of the original entry fees has been amortized.

Figure 11–1 graphically illustrates entry fee amortization schedules under three GAAP amortization methods for a group of entrants who paid a total of $10 million in entry fees. This figure shows that amortization amounts under the increasing-dollar per life method initially start at $250,000 and increase for 13 years before declining. Amortization amounts under the other two methods, life expectancy and level-dollar per life, are at their highest right after entry.

Comparison of Income Statements. In order to determine the financial impact of these alternative amortization schedules, the community's income was projected using each method. Table 11–6 presents net income and the end-of-the year fund balance for the life expectancy

[9] These percentages are based on the assumption that deaths occur at the end of the year. This is done for pedagogic purposes only, and implementation of this method for an actual case would reflect a percentage that assumed midyear deaths.

FIGURE 11–1
Annual Entry Fee Earnings under Three GAAP Amortization Methods

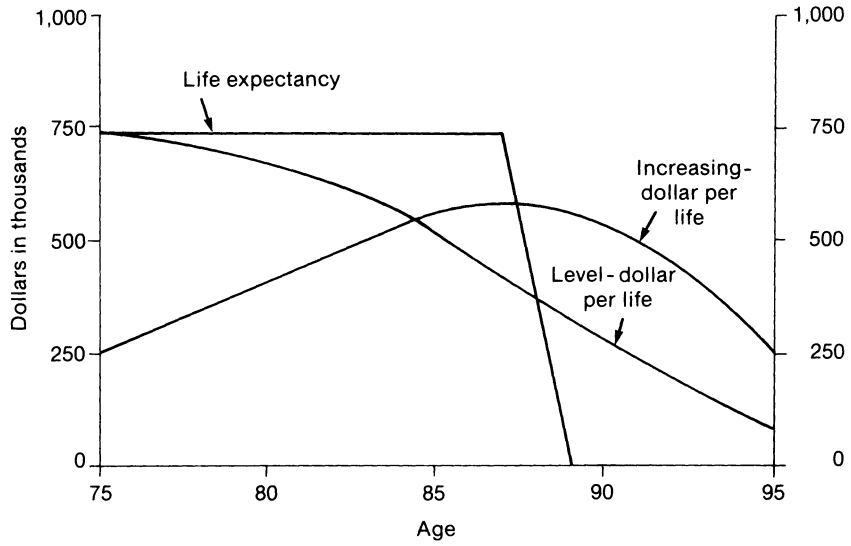

TABLE 11–6
Comparison of Net Income and Fund Balances for Three GAAP Amortization Schedules *($000)*

	Net income			End-of-year fund balance		
Fiscal year	Life expectancy	Level-dollar per life	Increasing-dollar per life	Life expectancy	Level-dollar per life	Increasing-dollar per life
1983	$1,493	$1,492	$ 658	$ 1,493	$ 1,492	$ 658
1984	1,501	1,482	693	3,000	2,974	1,351
1985	1,545	1,485	747	4,545	4,459	2,098
1986	1,590	1,487	809	6,135	5,946	2,907
1987	1,615	1,462	846	7,750	7,408	3,753
1988	1,671	1,455	913	9,421	8,863	4,666
1989	1,812	1,524	1,058	11,233	10,387	5,724
1990	1,925	1,552	1,167	13,158	11,939	6,891
1991	2,043	1,572	1,272	15,201	13,511	8,163
1992	2,162	1,578	1,346	17,363	15,089	9,509
1993	2,492	1,787	1,621	19,855	16,876	11,130
1994	2,367	1,936	1,820	22,222	18,812	12,950
1995	1,609	2,045	1,980	23,831	20,857	14,930
1996	1,906	2,243	2,192	25,737	23,100	17,122
1997	2,132	2,408	2,354	27,869	25,508	19,476
1998	2,361	2,540	2,458	30,230	28,048	21,934
1999	2,838	2,913	2,785	33,068	30,961	24,719
2000	3,380	3,398	3,191	36,448	34,359	27,910
2001	3,918	3,880	3,613	40,366	38,239	31,523
2002	4,519	4,422	4,077	44,885	42,661	35,600

method and the two alternative methods. A comparison of the net income for the three methods (columns 2 through 4) shows similar amounts for the life expectancy and level-dollar per life methods. The level-dollar method *does* eliminate the drop in income associated with the cessation of amortization amounts from the initial cohort of entrants under the life expectancy method. At the end of 20 years, the difference in net income under the two methods is less than 2 percent. On the other hand, net income for the increasing-dollar per life method is less than half that of the other two methods during the first year. Net income for this method increases constantly for 20 years and is approximately 10 percent less than net income under the life expectancy method at the end of 20 years.

The fund balances for the life expectancy and level-dollar methods are also similar. In fact, at the end of 20 years, they are within $2 million of each other. The increasing-dollar fund balance is $9 million less than the life expectancy fund balance at the end of 20 years. While the increasing-dollar per life method does offer substantial improvements over the other two, all three methods are distant from the true actuarial position of the hypothetical CCRC. This means that additional modifications are in order—either a more drastic reduction in entry fee amortizations or corrections in the other elements of the income statement, such as an alternative to cost-basis depreciation. The methodology for dealing with gains and losses is described before these modifications are considered.

Gains and Losses. The implementation of the preceding amortization schedules is accurate if experience exactly follows the underlying assumptions. This situation is unlikely to occur, and management may wish to adjust its amortization schedule to reflect the variations. Gains and losses will also occur if the utilization assumptions are changed and/or if the residents' contracts are altered. The methodology for dealing with experience deviations can be applied to any of the five types of amortization schedules. It requires that the methods be applied on an individual basis rather than a group basis (i.e., separate entry fee amortization schedules are developed for each entrant based on his or her age and sex, and the total amortization amounts for a given year are a weighted sum of the individual amounts).[10] Thus, as the experience of the community unfolds, the amortization schedules reflect deviations away from the expected survivorship and transfer patterns.

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[10] This methodology is explained in more detail in David L. Hewitt, "Actuarial Amortization of Entry Fees for Life Care Communities," *1981–82 Proceedings of the Conference of Actuaries in Public Practice*, pages 506–23. This paper presents an application of the gain and loss methodology using the life expectancy earnings method.

Depreciation

In an inflationary environment, historic-cost depreciation does not fairly reflect the consumption of fixed assets. Therefore, an income statement using historic-cost depreciation would overstate net income and show an overly optimistic financial picture. An even more important concern is that if a community funds the depreciation expense, it will not generate sufficient revenues to replace fixed assets even if interest earnings on the funded depreciation expense are included. An alternative method for depreciating fixed assets is replacement-cost depreciation. The pros and cons of this procedure are discussed extensively in the accounting literature, and it is not the purpose of this section to determine whether this procedure is reasonable from a GAAP viewpoint. However, replacement-cost depreciation is a useful method for preparing internal statements that will better represent the community's financial position. A description of the two methods for expensing fixed assets is given below.

Under historic-cost depreciation, the cost of the asset is expensed over its assumed useful lifetime. Thus, if a building cost $15 million and is expected to last 40 years, the historic-cost depreciation expense would be $375,000 for each of the 40 years. Replacement-cost depreciation is based on the premise that the depreciation expense is derived from the replacement value of the asset each year. Thus, if the building is assumed to appreciate in value at an inflation rate of 10 percent, the depreciation expense would be $375,000 in the first year, $412,500 (375,000 × 1.1) in the second year, $453,700 (412,500 × 1.1) in the third year, and so forth.[11]

Table 11–7 shows an income statement that implements both replacement-cost depreciation and increasing-dollar per life entry fee amortizations (revenues are based on actuarial fees). This statement shows that net income never exceeds $1 million, and the fund balance at the end of 20 years is only $13 million, or $2 million more than the actuarial statement fund balance. The inclusion of replacement-cost depreciation appears to eliminate some of the discrepancies associated with GAAP income statements. However, it should be pointed out that the implementation of this procedure is less straightforward than it seems to be in the example. One of the major issues is the appropriate inflation measure for determining depreciation expenses. There must be controls on the inflation assumption since it could be used to manipulate the financial picture presented by a community. A second issue is that a community would have to keep two sets of financial statements, one based on historic-cost depreciation and the other on replacement-

[11] This is a rather simplified example; in practice, midyear adjustments would be made and the actual depreciation expense would be the average of beginning- and end-of-year asset values.

TABLE 11–7
Twenty-Year Projection of Statements of Revenues and Expenses Using Actuarial Fees, Increasing-Dollar per Life Amortization, and Replacement-Cost Depreciation *($000)*

Fiscal year	Total revenues	Depreciation expense	Total expenses	Net income	End-of-year fund balance
1983	$ 5,495	$ 608	$ 4,837	$658	$ 658
1984	5,806	691	5,174	632	1,290
1985	6,165	783	5,548	617	1,907
1986	6,561	887	5,961	600	2,507
1987	6,966	1,005	6,417	549	3,056
1988	7,438	1,137	6,922	516	3,572
1989	8,028	1,285	7,480	548	4,120
1990	8,625	1,451	8,098	527	4,647
1991	9,267	1,638	8,780	487	5,134
1992	9,933	1,848	9,535	398	5,532
1993	10,725	1,741	10,027	698	6,230
1994	11,625	1,937	10,881	744	6,974
1995	12,555	2,154	11,822	733	7,707
1996	13,614	2,395	12,859	755	8,462
1997	14,708	2,663	14,002	706	9,168
1998	15,835	2,961	15,261	574	9,742
1999	17,287	3,291	16,648	639	10,381
2000	18,930	3,658	18,177	753	11,134
2001	20,713	4,066	19,862	851	11,985
2002	22,671	4,518	21,718	953	12,938

cost depreciation, because it is unlikely that third-party reimbursement agencies would allow replacement cost to be used as a basis for determining expenses.

Health Care Reserve Fund

One of the unique characteristics of continuing care retirement communities is that they combine residential units with nursing care beds. This often leads to a combined financial statement for both of these cost centers. Such a combination may be confusing. During the early years of the community, when the health care beds are occupied by outside residents who pay full costs and the community experiences the rich cash flow associated with the initial entry fees, it may be difficult for management to determine whether the continuing care fees are building up the proper health care reserves. Due to this robust financial position and no cost center separation, management may depress monthly fees while health care utilization is low, thus having to raise fees more than inflation as health care utilization matures.

A method for eliminating this potential confusion is to develop separate statements for the apartment and health care centers, with fees

allocated proportionally to cover apartment-related expenses and health care–related expenses. If an actuarial pricing analysis has been performed, this separation is a by-product of the fee structure. The portion of fees allocated to health care expenses can be credited to a third statement, a health care reserve fund, which would be debited for 100 percent of the per diem costs for health care utilization by continuing care contractholders. The amount debited from the health care reserve can be reflected as revenues for the health care center statement. In addition to revenues from the health care reserve fund to cover per diem costs, the health care center can have as revenues fees from outside patients. Completing the system, the apartment center statement can show monthly fees and entry fee amortizations for those funds designated for residential costs.

The size and cash flow of a health care reserve must be carefully monitored by performing annual actuarial valuations to determine whether the reserve is at the proper level. The size of the reserve may seem excessive, since it should greatly exceed health expenses for any one year. Once the community's health care utilization matures, the growth in the reserve should match inflation, but prior to that time it should increase faster than inflation. The advantage of this approach is that if for any reason the community chooses to modify or cease offering continuing care contracts, it would have the necessary funds identified to cover its contractual obligations to its existing continuing care contractholders.

Summary

This chapter discussed the usefulness of income statements for assessing the financial position of a CCRC. Income statements were developed to rectify the major problem inherent in the cash flow statement (i.e., revenues not matching expenses). An actuarial income statement was developed amortizing entry fees in the theoretically correct fashion and requiring that interest be imputed for revenues and expenses associated with investments in fixed assets. This statement presented a fairly realistic financial picture; however, it was seen that even if the actuarial statement is consistent with the actuarial valuation methodology, it does not solve the problems associated with GAAP statements. Three issues discussed in this chapter were: (1) the method for amortizing entry fees, (2) the depreciation of fixed assets, and (3) fund accounting for health care costs.

The major issue was the manner in which entry fees were amortized. A method was developed that better matched revenues with expenses by amortizing entry fees over the resident's potential lifetime and increasing earnings per life to match the ever-increasing gap between

expenses and inflation-constrained monthly fees. It was found that this method, in combination with replacement-cost depreciation, painted the most realistic picture of the community's financial position, but even this method did not capture the true picture.

In summary, the appropriate tools for setting fees are the combination discussed in Chapters 7 through 9: actuarial valuations, new entry pricing analyses, and cash flow projections. These tools tell management where its pricing policy will lead the community, as opposed to where the community has been. Income statements and the budgeting process can be improved to reflect more fairly the community's actuarial position, but they are not sufficient for explaining the reasons for fee increases since they only tell the community where it has been, not where it is going. ■