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ach fall entering enrollments make the Adventist educational system one of the largest parochial systems in the United States—indeed, in the world. But can the church continue to finance this growing enrollment?

The challenge facing the Adventist Church is more than simply financial. We must provide a Christ-centered, wellmanaged, masterfully taught, appropriate, and adequate education for a more and more diverse membership.

This article looks at the economic viability of the Adventist school system. Can we finance further school development? To determine this, we must analyze the relationship between church membership growth and giving patterns. Based on the theory that a membership that gives more can afford more schools, the church can work out a fiscal capacity indicator.

This article does not seek to answer every question about fiscal viability. Instead, the authors' purpose is to outline a general method by which church leadership can ensure that the Adventist Church meets its educational challenges.

Because our purpose is methodological, we have selected a period of rapid change—from the early 1960s through the late 1980s. We concentrated on the union conferences across the United States rather than upon the local conferences. And we looked at broad general indicators rather than at specific institutions and conference school systems.

This analysis will offer some insights into the future.

# Adventist Education in a Period of Rapid Change

While the U.S. population was increasing some 34 percent between 1960

and 1986, U.S. Adventist membership increased 205 percent. But Adventist church school enrollment went up by only 16.5 percent. Academy enrollment in that period grew by 13.4 percent. However, college enrollment outran the rest of the school system with a gain of 95.7 percent. That's the demographic setting for this article (Exhibit A).

The costs per student between 1970 and 1987 rose by more than 4.1 times. During the same period, however, public school costs at the elementary and secondary level climbed by a factor of nearly 4.5 times. Thus Adventist school costs did not increase as fast as public school costs.

Much more important is the evidence that while in 1965 the operating costs of Adventist elementary schools and academies was about 4.21 percent of the family median income, it had risen to 6.3 percent by 1985. So the burden of the Adventist school system on constituents grew while enrollment growth slowed. Tithe per member rose by 3.6 times from 1961 through 1987, and total contributions (tithe and offerings) rose by 3.3 times on a per-member basis.

Another way of looking at the matter is to compare SDA elementary-school operating expenses with total church offerings. In 1961, for every dollar given in the offering plate or paid in tithes in the North American Division, church school

expenses came to 11.7 cents. By 1987, church school expenses, measured in this way, took 15.3 cents of every dollar. It is the membership that is responsible for the school operations. School spending thus grew faster than tithe and offerings, even

though the amounts received by the church and the school increased substantially.

Indeed, in terms of non-tithe donations plus school outlays, by 1987 the typical Adventist household had significantly changed its giving and school expenses pattern. In 1961, for example, for every dollar of tithe, the average Adventist household was paying out or contributing \$1.01 to school expense. Over the next 26 years, tithe giving increased faster than school spending. So for whatever reason, school spending for Adventist families no longer formed as large a portion of family budgets as before.

# A Fiscal Capacity Indicator

The fiscal capacity index we have worked out compares membership growth with the growth in giving. An index value larger than 1 indicates that giving increased faster than membership. By the same token, an index value less than I indicates that membership growth outran giving. A church organization with greater financial resources should be able to devote a larger portion of these increased resources to Christian education.

Table A presents the fiscal capacity indicators for the eight union conferences in the United States in the 1980s. Table B compares these indicators with our estimates of average Adventist household incomes by union conferences. Two interesting observations emerge from Tables A

EXHIBI	TA	SDA Sc	hool Enrolln	nent as a perce	nt of Church	Membership,	1961-1987		***************************************
Year	Church Membership			Academy		College		Total	
		Enrollment	Percent	Enrollment	Percent	Enrollment	Percent	Enrollment	Percent
1961	343,664	44,790	13.0	13,099	3.8	8,576	2.5	66,465	19.3
1965	370,688	49,013	13.2			12,616	3.4		
1970	426,295	53,231	12.5	17,936	4.2	14,652	3.4	85,819	20.1
1975	503,689	54,567	10.8	19,515	3.9	18,109	3.6	92,191	18.3
1980	585,050	53,304	9.1	20,557	3.5	18,336	3.1	92,197	 15.7
1985	676,204	54,864	8.1	19,573	2.9	16,442	2.4	90,879	13.4
1987	704,515	52,192	7.4	14,860	2.1	16,878	2.4	83,839	11.9

	A Fiscal	Capacity	Index SD/	TABL Union Co	E A nferences,	United Sta	ites 1983	-1986
Conf.	AUC	CUC	LUC	MAUC	NPUC	PUC	SUC	SWUC
1983	1.03	1.01	1.01	1.03	1.02	1.04	0.99	0.95
1984	1.09	1.05	1.01	1.05	1.04	1.04	1.10	0.95
1985	1.10	1.11	1.02	1.04	1.02	1.05	1.03	0.90
1986	1.16	1.13	1.05	1.100	1.09	1.10	1.10	0.88
Cum. Avg. 1983- 86	1.095	1.075	1.0225	1.055	1.0425	1.0575	1.055	0.92
Rank by Cum. Avg.	1	2	7	4	6	3	5	8

and B. One is that Adventist household incomes are, on the average, lower than the estimated buying power for each of the union conferences. This reflects the fact that a relatively small share of such households are in the higher income brackets.

Analysis shows there is a direct and high correlation between estimated average Adventist household incomes and church fiscal capacity indicators. This suggests that we can use the fiscal capacity indicators with some assurance.

### **Fiscal Capacity and Enrollment Trends**

Table C compares elementary enrollment growth rates in the various unions. Over the 1980s, some unions had faster enrollment growth than others. The more fiscally capable the union, the faster the elementary enrollment growth. By the same token, in periods of declining enrollment, the decline was slowest where fiscal indicators were highest.

Table D examines the relation between fiscal capacity indicators and academy enrollment. Although elementary enrollment trends are well explained in terms of local membership, income, and giving changes, academy enrollment trends are not explained in those terms. One reason for the low rank correlation is academy enrollment in the Atlantic Union.

By contrast, as Table E shows, fiscal

capacity is a pretty good indicator of college entering enrollments across the nation's eight unions. Just why indicators based on giving patterns, membership, and income should do a better job of explaining college enrollment than academy enrollment deserves more attention than we can give here.

Yet it is possible to say that in general terms for the 1980s, enrollment, income, and giving along with membership trends tended to move in the same directions. We can thus say that one can predict the demand for Adventist education if one knows something of the membership, in-

come, and giving trends in the church as a whole.

# Applying the Results to Walla Walla College

In Table F, we apply the general results of our research to a specific school. We attempt to explain changes in Walla Walla College's enrollment over a period covering most of the 1970s and 1980s. Data about tithe income, membership changes, college tuition, and the number of seniors graduating from academies in the North Pacific Union combine to explain quite robustly the trends in Walla Walla College's enrollment over these years. Furthermore, each variable relates closely to the observed trends. To be sure, as tuition went up, enrollment tended to decrease, but this was offset by other factors in the enrollment prediction model. The tuition coefficient was quite large, suggesting that with a lower tuition increase, enrollment might have grown even more.

# **Demand Supply Relations**

The findings of this research are quite clear. Average family income, giving patterns, and membership growth readily explain the changes in the fiscal capacity of the North American Adventist Church in recent years. What is more, we have found that the performance of enrollment in elementary schools, in academies as well as in colleges and universities, is in

non .	Comparison of Estima	TABLE B ated Household Incomes, I and Fiscal Capacity	Buying Powe	r Estimates,
Union	Estimated Average Adventist Household Income (1)	Average Household Buying Power (2)	(1)/(2)	Fiscal Capacity (4)
AUC	\$22,531	\$25,324	84.0	1.16
CUC	22,382	24,984	89.0	1.13
LUC	19,807	24,693	80.2	1.05
MAUC	18,318	23,538	77.8	1.10
NPUC	22,503	23,735	94.8	1.09
PUC	21,885	24,566	87.5	1.10
SUC	19,135	22,336	85.7	1.10
SWUC	18,137	21,424	84.7	0.92

(Rank Correlation Between Incomes and Fiscal Capacity r2=.619)

Sources: • Sales and Marketing Management, 1986 • Survey of Consumer Buying Power

• Tithe and Offering Report, General Conference of SDA

En	Numbe	r of Stud	lents per	hools, G 1000 M nk as of	embers	-10
Union Conference	1982	1983	1984	1985	1986	1986 as a Percent of 1982
NPUC	95	95	90	86	86	91.5
PUC	92	88	84	83	83	91.2
AUC	88	88	83	80	82	93.2
SUC	86	81	74	69	69	80.2
SWUC	85	74	71	67	62	72.9
LUC	83	79	74	68	72	86.7
CUC	77	72	67	69	68	88.3
MAUC	62	59	57	62	51	82.3
NAD(U.S.)	84	80	75	73	72	85.7

Er		n Adventis er of Stude on Confere	ents Per Th	y Schools Iousand M	embers	ates
Union Conference	1982	1983	1984	1985	1986	1986 as a Percent of 1982
NPUC	38	38	37	35	33	86.8
PUC	37	35	34	33	32	86.5
LUC	31	29	29	28	26	83.9
CUC	27	28	27	25	25	92.6
SWUC	24	22	22	21	20	83.3
MAUC	23	23	21	20	20	87.0
AUC	21	18	18	17	17	81.0
SUC	20	20	21	20	20	100.0
NAD (U.S.)	28	27	26	25	24	85.7

large measure well explained by these fiscal capacity indicators.

We next extend the fiscal capacity indicators back through the 1960s. Since the fiscal capacity indicators measure the demand for Adventist education, we present these combined indicators for the eight U.S. union conferences in the "demand" column of Table G. These data are the average fiscal capacity indicators for each five-year period from 1960 forward.

The supply indicators are the operating costs of Adventist elementary schools in the United States. We determine the rates of change in these costs period by period. These are used as supply measures.

We postulate that during this almost 30-year period, the demand for Adventist education (measured by fiscal capacity indicators) equalled the supply of education. The figures tell us that demand and supply are very closely correlated. And the correlation improves if we lag the supply response to demand changes.

In short, the American Adventist Church, as it increased in fiscal capability. demanded and got more education. Its leadership responded to this increase in resources by dedicating a larger share of the church's extra funds to providing more schooling for the larger membership.

### Conclusion

The provision of church school educa-

tion depends on the resources of the church. This is no real surprise. Yet the fiscal capacity indicator approach is a way of determining the ability of the church to supply the level and quality of education that Adventist parents demand.

Certain red flags do stand out. Tuition makes a difference. Compared with the rate of growth of membership and the fiscal capacity indicator, tuition can get out of line.

The fiscal capacity varies significantly over time and between different conferences and unions, making school planning harder. Providing a relatively equal quality level across the Adventist school system is a challenge. The larger and better financed schools have a built-in advantage.

We have reason to be proud of the school system the church has built up over the years. But there is just as much reason to fear the far more difficult and complex challenge ahead. Thus far, God has led His church. Faith in God's leading in the past and good financial planning will offer an enormous advantage in dealing with the future.

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## TABLE E Students per 1000 Members by Union Entering Freshmen, Fall 1986 **U.S. Adventist Colleges**

Conference	Students per 1000 Members
CUC	24
PUC	22
LUC	20
AUC	19
NPUC	. 18
MAUC	; 13
SUC	12
SWUC	11
(Rank Correlation Between	tudents per 1000 Members and Fiscal Capacity: r2=.571)

### **TABLE F** Regression Analysis of Relationships Between Walla Walla College Enrollment, NPUC Membership Growth, Number of Seniors Graduating from Union Conference Academies, and Changes in Tithes and Offerings

	196	i9 to 1987	
Variables	Coefficient	Standard Deviation	T-Statistics
Dependent Enrimt.			
Independent Enrimt			
NPUC Membership	0.03	0.01	2.88
Number of Seniors	0.95	0.404	2.36
Tuition	-8.17	3.43	-2.38
Tithe	0.79	0.19	4.15
R <sup>2</sup> =.831 DF			
Regression 4			
Residual 13			
Total 17			

	TABLE G	
Adve	ntist Education, Supp	ly and Demand
Year	Supply	Deman
1965	146.8	1.250
1970	157.8	1.276
1975	179.6	1.409
1980	185.3	1,326
1985	126.9	1.087
1987	93.3	1.045
	link Relative of School Operating E	
Equations: (1) L	Is Fiscal Capacity Indicator RSOE <sub>t</sub> = 662 + 0.385FCIt	r <sup>2</sup> =0.8914
(2) L	RSOE <sub>t=1</sub> =.777 + 2.904 FCI <sub>t</sub>	r <sup>2</sup> =0.9814