

**REPUBLIC OF THE MARSHALL ISLANDS
SOCIAL SECURITY ADMINISTRATION**

**ACTUARIAL VALUATION
AS OF OCTOBER 1, 2006**

**PREPARED BY:
PACIFIC ACTUARIAL SERVICES
JULY 2007**

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SECTION I

FOREWORD

This report contains the results of the seventh actuarial valuation of the Republic of the Marshall Islands Social Security Administration. The valuation was conducted as of October 1, 2006 and the results contained herein report costs applicable to the plan and fiscal years ending September 30, 2007.

Section 126 of the Social Security Act of 1990 stipulates that the Board shall appoint an actuary to make actuarial valuations of the Social Security Administration not less frequently than every three years.

The purpose of the annual valuation is to:

- Compare the accrued liabilities to the trust assets in order to determine the current funded status.
- Provide a basis for determining the effect of any future proposed changes to the system.

SECTION II

ACTUARIAL VALUATION RESULTS

A. Introduction

This section contains the detailed results of the actuarial valuation. These results are classified in subsections B through F as noted below:

- B. Actuarial Certification
- C. Summary of Valuation Results
- D. Unfunded Accrued Liability and Funded Percent
- E. Discussion of the Unfunded Accrued Liability
- F. Comments and Suggestions to Control and Reduce the Unfunded Accrued Liability

B. Actuarial Certification

This report presents the results of the actuarial valuation as of October 1, 2006, of the Republic of the Marshall Islands Social Security Administration. This actuarial valuation was performed using participant data and asset information supplied by the Republic of the Marshall Islands Social Security Administration. This data was not audited, but was checked for reasonableness and consistency with the prior year's data when possible. The valuation results presented are dependent on the accuracy of the participant and asset information.

This valuation has been completed in accordance with generally accepted actuarial principles and practices. The valuation has been prepared under the supervision of Michael W. Spaid, a Fellow of the Conference of Consulting Actuaries, an Associate of the Society of Actuaries, an Enrolled Actuary under ERISA, a Member of the American Society of Pension Actuaries, a Member of the American Academy of Actuaries, and a Member of the College of Pension Actuaries.

Certified by:



Michael W. Spaid, F.C.A., A.S.A.

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C. Summary of Valuation Results

The principal results of this valuation are the calculation of the accrued liability, the funded percent (market value of trust assets divided by accrued liability), and the deficiency.

The accrued liability, (also sometimes referred to as the actuarial accrued liability) represents the current value of benefits already earned, or accrued, as of the valuation date including benefits currently in pay status. The funded percent is an indication of how well funded the Administration is at any point in time with respect to benefits already earned. A funded percent of 100% would indicate that the Administration's liability for benefits already earned was fully funded by current trust assets. A funded percent of 25% would indicate that current trust assets were only great enough to cover 25% of the benefits already earned. The greater the funded percent, the better funded the Administration is with respect to benefits already earned. The deficiency is calculated as the unfunded accrued liability further reduced by the estimated value of future employee contributions in excess of that needed to fund future benefits and expenses.

The 2003 valuation assumed that the minimum benefits, indexed covered earnings, bend points, and maximum taxable wages would increase by 8% every five years. This valuation does not anticipate any future increases because the last increase in indexed covered earnings was in 1994 and currently there are no anticipated increases in these items. If, as in the 2003 valuation, this valuation were to assume an 8% increase in the minimum benefits, indexed covered earnings, bend points, and maximum taxable wages every five years, the total accrued liability as of October 1, 2006 would be \$227,084,000. However because this valuation assumes no increases in these items the total accrued liability as of October 1, 2006 is \$207,653,000.

Subtracting the market value of assets on October 1, 2006, \$61,179,000, from the accrued liability as of that date, \$207,653,000 results in an unfunded accrued liability of \$146,474,000.

In addition, as of October 1, 2006 the estimated value of future employee contributions in excess of that needed to fund future benefits and expenses was \$65,228,000. Once this is subtracted from the unfunded accrued liability this means that the deficiency is \$81,246,000. The deficiency represents the value of benefits already earned that are not covered by existing assets and are not anticipated to be covered by expected future contributions.

The unfunded accrued liability is greatly affected by the level of trust assets which, in return is affected by the investment performance of the trust. The trust experienced a positive return for FY2006 of 10.39%. Fluctuations in investment returns can by themselves increase or decrease the unfunded accrued liability by millions of dollars. This positive return for fiscal year 2006 means that although a deficiency remains, the Administration is able to pay current benefits into the near future.

The funded percent as of October 1, 2006 is 29%. However, if the October 1, 2006 valuation were to incorporate the same 8% increase in the minimum benefits, indexed covered earnings, bend points, and maximum taxable wages every five years as the prior valuation did, the funded percent as of October 1, 2006 would have been 27%.

D. Unfunded Accrued Liability and Funded Percent

The accrued liability represents the liability of the Administration for benefits already earned including those in pay status as well as benefits earned as of the valuation date for workers who are earning future benefits. One can think of this liability as the amount needed today to pay for all benefits earned as of today that are either already being paid or will be paid in the future.

This determination of the accrued liability does not include former workers who are no longer contributing to the Administration and are not fully insured and therefore are not entitled to a future benefit. Should these workers re-enter the workforce in the future, their benefits will then be included in the category of workers currently earning benefits.

Accrued Liability For:	Accrued Liability and Market Value of Assets as of October 1	
	2003	2006
Workers Earning Benefits	\$ 120,978,000	\$ 99,713,000
Retirees, Spouses, Children, and Disabled Workers Receiving Benefits	73,640,000	94,660,000
Fully Insured Inactive Workers Entitled to a Future Benefit	11,129,000	13,280,000
Total Accrued Liability	\$ 205,757,000	\$ 207,653,000
Market Value of Assets	(41,549,000)	(61,179,000)
Unfunded Accrued Liability	\$ 164,198,000	\$ 146,474,000
Funded Percent	20% 20.198	29% 29.462

The unfunded accrued liability is the excess of the accrued liability over the market value of assets. The funded percent is calculated as the market value of assets divided by the total accrued liability.

The prior valuation assumed that minimum benefits, indexed covered earnings, bend points and maximum taxable wages increased by 8% every five years. This valuation does not assume any increases in these items and this has decreased the accrued liability from what it would be otherwise (please see the Summary of Valuation Results in the previous section). This change was made because the last increase in Indexed Covered Earnings was in 1994 and currently there are no anticipated increases in these items.

Accrued Liability by Worker's and Beneficiary's Nearest Age

<u>Nearest Age</u>	<u>Accrued Liability</u>	<u>Nearest Age</u>	<u>Accrued Liability</u>
20	3,893,000	50	30,347,000
25	1,740,000	55	39,601,000
30	4,831,000	60	34,608,000
35	9,423,000	65	22,550,000
40	16,113,000	70 & Older	21,584,000
45	22,963,000	Total	207,653,000

The unfunded accrued liability can also be further reduced by considering the current value of future employee and employer contributions that are in excess of that needed to pay for future benefits earned and future expenses. Currently we estimate that a combined employer and employee contribution rate of approximately 8% would pay for future benefits earned by new workers who would enter the Administration in the future and would cover future expenses. Since the current combined tax rate is 14% of covered earnings, this excess can be used to reduce the unfunded accrued liability as shown below.

	<u>Determination of the Total Deficiency as of October 1, 2006</u>
Total Accrued Liability	\$ 207,653,000
Market Value of Assets	(61,179,000)
Current Value of Active Employee Excess Contributions	<u>(65,228,000)</u>
Total Deficiency	\$ 81,246,000

E. Discussion of the Unfunded Accrued Liability

The unfunded accrued liability is the excess of the accrued liability over the market value of assets. The funded percent indicates what percent of the accrued liability is covered by the market value of assets.

When the market value of assets equals or exceeds the accrued liability there is no unfunded accrued liability and the retirement system is said to be fully funded. Although it is not critical that the Administration be fully funded, it is important that there is a positive trend in the funded percent from year-to-year. If the funded percent were to decrease, this would indicate that the current level of employee and employer contributions is not sufficient to fund benefits already promised and those that will come due in the future.

It is important to note that the funded percent can also decrease due to poor performance by the trust assets as has been the case for the past few years. In fact, one of the most pressing issues to most retirement systems in the first years of this millennium was the loss of trust income due to negative returns (losses) on trust assets. Thankfully the trust has experienced positive returns since FY 2003. In fact, the total level of trust assets has increased by almost 50% since the last valuation.

Past valuations have gone into great detail describing the danger of an ever increasing unfunded accrued liability and this report agrees that this is a continuing and serious issue. The unfunded accrued liability is the amount needed as of the valuation date to fund benefits already earned but not covered by the market value of assets as of that day. If the Administration were to cease operations with an unfunded accrued liability, there would not be enough money in the trust at that time to fully provide benefits already in pay status or promised in the future. Therefore it is important that benefits are not increased until a long-term trend of increasing the funded ratio has been established.

The unfunded accrued liability will increase if the value of future benefits earned is greater than the contributions received to pay for these benefits and this could occur if large benefit increases are granted. Investment earnings can somewhat offset this imbalance but because there already exists a large unfunded accrued liability representing the value of benefits already earned, outstanding investment returns are first needed to reduce the existing unfunded accrued liability.

The Board may wish to implement a funding policy to bring the funded percent from its existing level of 29% to 50% over the next 10 years. It is difficult to make progress without a plan and a clear-cut plan like this would serve to keep all interested parties focused on the continued long-term viability of the Administration.

F. Comments and Suggestions to Control and Reduce the Unfunded Accrued Liability

Contributions received during fiscal years 2004 through 2006 have been between \$11 million and \$12 million compared to \$13 million in fiscal year 2003. It appears that at least for the moment, one may expect contributions to remain at roughly \$12 million each year.

It is highly desirable to reduce the unfunded accrued liability in order to further improve the funded status. While the funded percent has increased from 20% to 29% from the 2003 to the 2006 valuation, it is important to note that two-percentage points of this increase resulted from the elimination of the assumed future increases in the minimum benefits, indexed covered earnings, bend points and maximum taxable wages. Because the current funded percent indicates that the trust has only 29% of what it should have to cover all benefits earned as of the valuation date, this increase in the funded percent should not be used to justify immediate benefit increases.

The ultimate goal of the Administration must be to remain viable and with this in mind steps need to be taken to insure that income will support the level of benefits provided. By viable, we mean that the Administration will continue to exist and be able to pay promised benefits well into the future. Although the Administration has realized an average return of 9% over the past five fiscal years, due to the funded status this should not be used to justify immediate benefit increases of any kind. Large benefit increases that are not accompanied with a means to pay for them could cause the Administration to pay more in benefits each year than it realizes in contributions and earnings and should this situation persist long enough, trust assets could be completely exhausted and the Administration could become unable to continue to pay benefits. The inability of the Administration to pay promised benefits would be a great loss to the people of the Republic of the Marshall Islands and would certainly have a negative effect on almost every sector of the local economy.

In order to improve the funded percent, the Administration may want to consider implementing a maximum benefit to limit the size of the benefit that may be earned. The maximum benefit could be set at 90% to 100% of the workers greatest covered earnings or greatest indexed covered earnings during the workers most recent past 20 to 40 quarters, or the maximum could be a set dollar amount, just as the minimum benefit is a set dollar amount. Most would find it fair that benefits paid to a beneficiary should not exceed what he was earning prior to retirement and a benefit maximum is well within the overall philosophy of social security benefits whereby wealthier individuals will, by having their benefits capped, help fund the benefits of others. For reference, the United States Social Security System imposes a maximum benefit to limit the amount of payments to high income earners.

The Administration may want to consider revising the current benefit formula which can produce very large benefits in relation to an individual's earnings for low-wage earners. If this is done, the existing formula could be frozen as of the date of the change and the new benefit formula could be applied only to future benefits to be earned.

The Administration may also want to consider combining a maximum benefit with increasing the age at which a fully insured worker is eligible to retire, which is currently 60 (service insured workers are eligible for reduced early retirement benefits commencing at age 55). Unreduced retirement benefits could be made available to fully insured workers born before a certain date at

age 60 (no change here) and others born after that date would see their retirement age increase from 60 to 61, 62, 63, 64, and 65, depending on their date of birth. Increasing the retirement age, combined with a cap on the maximum benefit that may be paid can reduce the accrued liability and increase the funded percent. An increase in the retirement age like this was implemented by the Social Security System in the United States some years ago.

It may also be prudent to extend the earnings test beyond age 62. Social security retirement benefits are designed to provide income to those who are no longer working and as retirees continue to work, those with large incomes are really not in need of social security benefits to sustain them.

B. Statement of Changes in Net Assets

<u>Income and Expense for Fiscal Years Ended:</u>	<u>9/30/2004</u>	<u>9/30/2005</u>	<u>9/30/2006</u>
Additions:			
Contributions			
Private Employees	\$ 7,510,551	\$ 7,968,979	\$ 7,487,349
Government Employees	3,311,504	3,704,239	3,642,155
Penalties and Interest	535,386	248,004	314,022
Total Contributions	<u>\$ 11,357,441</u>	<u>\$ 11,921,222</u>	<u>\$ 11,443,526</u>
Investment Income			
Net Increase in Fair Value Of			
Investments	5,006,452	6,542,638	4,023,719
Dividends	761,283	938,346	1,234,072
Interest	191,941	217,367	229,068
Total Investment Income	<u>\$ 5,959,676</u>	<u>\$ 7,698,351</u>	<u>\$ 5,486,859</u>
Less Investment Expense			
Investment Management &			
Custodial Fees	84,668	101,388	115,117
Net Investment Income	<u>5,875,008</u>	<u>7,596,963</u>	<u>5,371,742</u>
Other	136,493	272,370	409,031
Total Additions:	<u>\$ 17,368,942</u>	<u>\$ 19,790,555</u>	<u>\$ 17,224,299</u>
Deductions:			
Benefit Payments			
Retirement	\$ 5,285,456	\$ 5,880,146	\$ 5,995,686
Survivors	3,250,176	3,476,577	3,675,112
Disability	1,175,556	1,275,140	1,262,293
Lump Sum	36,662	41,797	85,860
Total Benefit Payments	<u>\$ 9,747,850</u>	<u>\$ 10,673,660</u>	<u>\$ 11,018,951</u>
Bad Debts	729,780	-	-
Administrative Expenses	859,676	826,840	896,473
Total Deductions:	<u>11,307,306</u>	<u>11,500,500</u>	<u>11,915,424</u>
Change In Net Assets	6,031,636	8,290,055	5,308,875
Net Assets At Beginning Of Year	41,548,753	47,580,389	55,870,444
Net Assets At End Of Year	<u>\$ 47,580,389</u>	<u>\$ 55,870,444</u>	<u>\$ 61,179,319</u>

SECTION III

A. Statement of Net Assets

<u>Market Value of Assets as of:</u>	<u>9/30/2004</u>	<u>9/30/2005</u>	<u>9/30/2006</u>
ASSETS:			
Cash and Cash Equivalents	\$ 2,023,763	\$ 1,092,394	\$ 1,474,481
Time Certificates of Deposit	<u>3,680,934</u>	<u>3,865,788</u>	<u>4,060,743</u>
Receivables, Net:			
Contributions	1,867,027	2,251,928	2,088,814
Other	<u>189,906</u>	<u>243,493</u>	<u>90,373</u>
Total Receivables, Net	<u>2,056,933</u>	<u>2,495,421</u>	<u>2,179,187</u>
Due From Affiliates, Net	<u>1,043,122</u>	<u>807,223</u>	<u>546,809</u>
 Investments:			
Cash Management	\$ -	205,540	112,795
Stocks	9,158,921	12,887,219	14,770,070
Mutual Funds	<u>30,486,218</u>	<u>35,105,892</u>	<u>38,623,258</u>
Total Investments	<u>39,645,139</u>	<u>48,198,651</u>	<u>53,506,123</u>
Fixed Assets, Net	<u>224,983</u>	<u>163,464</u>	<u>104,279</u>
Total Assets	<u>\$ 48,674,874</u>	<u>\$ 56,622,941</u>	<u>\$ 61,871,622</u>
 LIABILITIES:			
Accounts Payable	293,275	89,463	99,600
Other Liabilities And Accruals	163,467	147,002	157,031
Due To Ministry Of Health & Education	<u>637,743</u>	<u>516,032</u>	<u>435,672</u>
Total Liabilities	<u>1,094,485</u>	<u>752,497</u>	<u>692,303</u>
 NET ASSETS:			
Held In Trust For Retirement, Disability, And Survivors' Benefits	<u>\$ 47,580,389</u>	<u>\$ 55,870,444</u>	<u>\$ 61,179,319</u>

C. Trust Asset History

Fiscal Year	Beginning of Year Market Value of Assets	Prior Year Adjustment	Contributions	Trust Gain or (Loss)	Benefit Payments	Administrative Expenses	Transfer Out
91-92	\$ 11,411,827		5,203,926	919,006	(3,045,791)	(370,141)	
92-93	\$ 14,118,827		5,551,741	1,585,653	(3,650,861)	(576,256)	
93-94	\$ 17,027,104	N/A	N/A	N/A	N/A	N/A	N/A
94-95	\$ 18,621,286		6,552,290	1,212,527	(4,498,091)	(686,210)	
95-96	\$ 21,201,802	N/A	N/A	N/A	N/A	N/A	N/A
96-97	\$ 24,018,126		7,250,596	6,932,967	(6,232,641)	(776,334)	(550,597)
97-98	\$ 30,624,117	192,504	5,941,895	(372,743)	(6,864,677)	(957,129)	
98-99	\$ 28,581,967		6,152,415	7,703,934	(7,385,202)	(970,091)	
99-00	\$ 34,083,023		6,857,536	7,065,277	(7,657,881)	(742,942)	
00-01	\$39,605,013		9,756,368	(5,296,995)	(8,229,021)	(802,040)	
01-02	\$35,033,325		9,907,862	(1,428,655)	(8,564,016)	(685,476)	
02-03	\$34,263,040	277,812	13,035,585	4,032,258	(9,276,506)	(783,436)	
03-04	\$41,548,753		11,357,441	5,281,721	(9,747,850)	(859,676)	
04-05	\$47,580,389		11,921,222	7,869,333	(10,673,660)	(826,840)	
05-06	\$55,870,444		11,443,526	5,780,773	(11,018,951)	(896,473)	
06-07	\$61,179,319						

D. Trust Investment Experience History

Fiscal Year End	Return	
9/30/1992	7.47%	
9/30/1993	10.73%	
9/30/1994	-0.93%	- Estimated
9/30/1995	6.28%	
9/30/1996	8.09%	- Estimated
9/30/1997	29.05%	
9/30/1998	-1.25%	
9/30/1999	28.03%	
9/30/2000	21.21%	
9/30/2001	-13.25%	
9/30/2002	-4.04%	
9/30/2003	11.24%	
9/30/2004	12.60%	
9/30/2005	16.47%	
9/30/2006	10.39%	

Historical asset and trust investment experience information up to and including the plan year that ended 9/30/2001 was taken from prior actuarial valuations prepared by the prior actuary.

Average Annual Return

Five-Year Average	9.09%
Ten-Year Average	10.24%

SECTION IV

ACTUARIAL ASSUMPTIONS, AND SUMMARY OF KEY FEATURES

A. Actuarial Assumptions

Actuarial Cost Method: Individual Entry Age Method, Level Percent of Pay

Investment Income: 7.5% per year

Expenses: 0.75% of Covered Wages

Salary Increase: 4.5% per year

Cost-of-living Adjustments: None

Mortality: 1984 Unisex Pension Mortality Table. For participants not yet in receipt of a benefit, males are considered to be two years older than they actually are and females are assumed to be two years younger than they actually are. For beneficiaries in receipt of benefits, males are considered to be four years older than they actually are with no adjustment for females.

Disabled Mortality: PBGC Mortality Table for Disabled Persons receiving Social Security

Retirement Age: According to the following table if eligible, otherwise when eligible. Active workers who are older than 62 are assumed to retire at the end of the next fiscal year if they have earned 4 quarters of coverage during the fiscal year that just ended.

Age	Probability of Retirement
55	0.025
56	0.050
57	0.075
58	0.100
59	0.125
60	0.500
61	0.200
62	1.000

Pre-retirement
Spouse Benefit:

80% of the workers are assumed to be married and males are assumed to be 3 years older than their spouses.

Surviving male spouses are assumed to remarry 2 years after death of the worker and surviving female spouses are assumed to remarry 6 years after death of the worker.

Representative percentages of those with a spouse benefit who remarry are shown in the following table.

Age	Male Spouse Remarry within 2 years		Female Spouse Remarry within 6 years	
	Remarry	Does not Remarry	Remarry	Does not Remarry
20	39.22%	60.78%	76.71%	23.29%
30	32.35%	67.65%	48.92%	51.08%
40	20.70%	79.30%	26.80%	73.20%
50	14.44%	85.56%	9.75%	90.25%
60	7.40%	92.60%	2.52%	97.48%

Surviving spouse benefits continue if the spouse is employed and has not remarried but the benefits are subject to the earnings test.

Pre-retirement
Children's Benefit:

Married workers are assumed to have 3 children and each child is assumed to be age 13 at the time of death of the worker.

Post Retirement
Survivor's Benefit:

80% of active workers are assumed to be married when they retire. Males are assumed to be 3 years older than their spouses. It is assumed that 60% of female spouses and 5% of male spouses will receive a survivor's benefit. In addition, 40% of female spouses and 90% of male spouses will also be entitled to a retirement benefit based on their own earnings record, but the survivor's benefit will be 15% greater than this benefit.

Disability:

Rates are from the 2003 U.S. Social Security Trustees Report Intermediate Assumptions.

Turnover:

None for citizens of the Republic of the Marshall Islands

5% of citizens of countries other than the Republic of the Marshall Islands are assumed to leave each year, except for that 80% are assumed to leave in their third year of employment. It is also assumed that 80% of workers who are not citizens of the Republic of the Marshall Islands leave when they retire.

Earnings For
The Earnings Test:

Retirees: 80% of what the retiree was earning prior to retirement

Surviving Spouses of Active Workers: 75% of what the worker was earning prior to death.

Surviving Spouses of Inactive Workers: Quarterly earnings of twice the quarterly benefit plus \$300.

Children: None

Disabled: None

Earnings For
Employed Retirees:

80% of the retiree's salary projected to the later of age 62 or one year beyond retirement if later than age 62.

Workers included
In the Valuation:

Workers who have covered quarters in at least one of the last three years, are not currently indicated in the data files supplied by the administration as actively receiving a benefit or closed with no future benefits payable and who are age 21 or older are assumed to continue working and earn 4 quarters of coverage until they become disabled, die, or retire. Workers who have not earned any quarters of coverage during the last three years are assumed to stay out of the work force. Salary used as a basis to project future salaries is the greatest of the salary earned during the last three years. If this salary is based on less than four quarters of coverage, it is converted to an annual salary. In order to be included in the valuation, fully insured inactive workers over 70 must have earned at least one quarter of coverage in the past 40 quarters.

B. Summary of Key Features

Applicable Laws

The Social Security Act of 1990, as amended several times, most recently by Public Law 1996-29.

Workers and Employer's Contributions

Workers, self-employed workers and employers each pay 7% of earnings up to a maximum of \$5,000 of earnings per quarter.

Coverage

All employees who are citizens or nationals of the Republic of the Marshall Islands and all other employees working in the Republic are covered. U.S. citizens who are exempt from taxation in the Marshall Islands are exempted from coverage, as well as those non-citizens who are exempt from taxes imposed by the Republic pursuant to any other Act (i.e. Diplomats and other non-citizens working in embassies, etc.)

Eligibility for and Computation of Benefits is based on the following definitions:

Quarters of Coverage: A calendar quarter in which contributions were made for at least \$250 of earnings. Prior to October 1, 1990, a Quarter of Coverage was earned for a calendar year in which contributions were made for at least \$50 of earnings.

Currently Insured: Credited with at least 6 quarters of coverage during the previous 40 calendar quarters.

Fully Insured: Credited with at least one quarter of coverage for each year since the later of attainment of age 21 or June 30, 1968. A worker who attains retirement age, or becomes disabled after September 30, 1983 must have a minimum of 12 quarters of coverage. Workers who attained retirement age or became disabled prior to October 1, 1983 needed a minimum of 8 quarters of coverage. However, no more than 38 quarters of coverage are required to be Fully Insured.

Service Insured: Credited with at least 80 quarters of coverage.

Maximum Covered Earnings: Earnings up to a maximum of \$5,000 each quarter.

Minimum Benefit: \$128.99 per month as of October 1, 1994.

Cost of Living Adjustments

A cost of living adjustment, not to exceed the consumer price index, may be adopted every two years. This adjustment applies to the amount of the Minimum Benefit and is used to calculate Indexed Covered Earnings. Two adjustments have been implemented prior to this valuation.

October 1, 1992	16.1%
October 1, 1994	11.1%

Wage Index Adjustment

A Wage Index Adjustment may be adopted periodically but may not exceed the government index. The Wage Index Adjustment is used to increase the Basic Benefit bendpoints and/or the Maximum Covered Earnings. So far, no wage index adjustments have ever been implemented.

Basic Benefit

A worker's Basic Benefit is calculated as 1/12 of:

1. 2% of Indexed Covered Earnings, plus
2. 14.5% of the first \$11,000 of total Maximum Covered Earnings for which contributions have been made, plus
3. 0.7% of the next \$33,000 of total Maximum Covered Earnings for which contributions have been made.

Early Retirement Old Age Insurance Benefit

Eligibility: Age 55 and Service Insured

Amount: Greater of the Basic Benefit reduced $\frac{1}{2}$ % for each month prior to age 60 that benefits commence, and the Minimum Benefit. Benefits paid before attainment of age 62 are reduced by \$1 for every \$3 of earnings in excess of \$1,500 received each quarter.

Normal Retirement Old Age Insurance Benefit

Eligibility: Age 60 and Fully Insured

Amount: Greater of the Basic Benefit and the Minimum Benefit

Deferred Old Age Retirement Benefit

Eligibility: Older than age 60 and fully insured

Amount: Greater of the Basic Benefit increased $\frac{1}{2}$ % for each month past age 60 that benefits commence, and the Minimum Benefit.

Disability Benefit

Eligibility: Disabled and both Fully and Currently Insured at time of disability

Amount: Unreduced Basic Benefit earned at time of disability. Sum of disability benefit and workers compensation benefit may not exceed 80% of the highest covered compensation earned in the year of disability and the prior five years. The benefit ceases should the worker recover from the disability.

Survivor Benefits

Eligibility: Worker must have been Fully or Currently Insured at time of death.

Amount

Spouse: 100% of the Basic Benefit earned at the time of death. Paid until the earlier of the date the spouse remarries or dies. If the spouse works, this benefit may be reduced by the application of the earnings test upon his or her earnings.

Children: 25% of the Basic Benefit for each dependent child under the age of 18 or 22 if a student. The benefit ceases if the child marries, is adopted by a close relative or dies.

Parents: 15% of the Basic Benefit earned at the time of death.

The Minimum total Survivor benefit is \$128.99 per month.

The sum of all survivors' benefits cannot exceed 100% of the Basic Benefit earned at the time of death.

No person can receive more than one type of benefit at the same time; and the beneficiary receives the benefit that receives the highest return subject to the earnings test.

Benefits Paid to Employed Retirees

If a person who is receiving an old age insurance benefit accepts covered employment, the benefit shall be recomputed at the end of the calendar year and the recomputed benefit shall be paid beginning with the first month of the subsequent calendar year.

Earnings Test

Benefits paid before attainment of age 62 are reduced by \$1 for every \$3 of earnings in excess of \$1,500 received each quarter.

Payment to Non-Citizens Overseas

No more than six months of benefit payments shall be made to any beneficiary who is not a citizen or national of the Republic of the Marshall Islands while the beneficiary is outside the Republic of the Marshall Islands. However, benefit payments will be made to citizens and nationals of the Federated States of Micronesia, the Republic of Palau, and the United States as if they were citizens or nationals of the Republic of the Marshall Islands if such countries extend the same reciprocal benefits to citizens of the Marshall Islands.

Lump Sum Death Benefit

Eligibility: After the death of any covered worker and rights to all survivors benefits have ceased.

Amount: Four percent of total Maximum Covered Earnings for which contributions have been paid, less the value of any benefits already paid.

Lump Sum Benefit (other than death)

Eligibility: Worker permanently ceases work due to old age or disability and has not earned the right to any other benefit.

Amount: Four percent of total Maximum Covered Earnings for which contributions have been paid, less the value of any benefits already paid.

SECTION V

AGE, SERVICE, BENEFIT, AND COMPENSATION

A. **Summary of Characteristics of Workers and Beneficiaries Included in the October 1, 2006 Valuation**

Active Workers – Average Age, Completed Years of Service, and Compensation

Worker	Number of Workers	Average Age	Average Completed Years of Service	Average Valuation Compensation
Men	7,447	38.29	8.74	\$ 9,086
Women	3,892	37.48	7.11	\$ 7,435
Total	11,339	38.01	8.18	\$ 8,519

Average Accrued Benefit as of October 1, 2006 based on Covered Compensation through September 30, 2006

Status	Number	Average Age	Average Annual Accrued Basic Benefit
Active	11,339	38.01	\$ 2,709
Inactive and Fully Insured	906	51.09	\$ 3,644
Retired	1,328	66.78	\$ 4,955
Disabled	262	53.17	\$ 4,171
Spouse	799	58.92	\$ 3,633
Child	897	15.22	\$ 903

Active workers are not in pay status and are currently earning additional future benefits.

Inactive fully insured workers are also not currently in pay status but are entitled to a benefit in the future but are not currently earning additional future benefits.

B. Average Compensation Distribution by Nearest Age and Covered Service

ACTIVE EMPLOYEES – Men

Nearest Age	Nearest Completed Years of Service										Total
	1	5	10	15	20	25	30 & More	Total			
20	192	11	0	0	0	0	0	0	0	203	\$3,379.07
	\$3,217.86	\$6,192.96	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
25	773	296	3	0	0	0	0	0	0	1,072	\$4,951.31
	\$3,983.54	\$7,397.15	\$12,989.72	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
30	497	638	152	7	0	0	0	0	0	1,294	\$6,734.89
	\$4,648.10	\$7,241.58	\$11,163.69	\$12,547.28	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
35	251	477	355	146	5	0	0	0	0	1,234	\$8,565.83
	\$5,500.06	\$7,198.60	\$9,793.53	\$15,194.09	\$12,188.14	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
40	142	243	287	297	129	3	0	0	0	1,101	\$9,415.90
	\$6,629.86	\$6,254.34	\$7,678.10	\$12,083.23	\$15,814.59	\$24,415.97	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
45	103	152	179	201	249	78	3	0	0	965	\$11,268.32
	\$7,700.86	\$7,737.67	\$8,386.49	\$10,733.97	\$14,685.40	\$19,706.46	\$17,380.24	\$0.00	\$0.00	\$0.00	\$0.00
50	73	112	105	135	172	143	35	0	0	775	\$11,854.38
	\$8,699.41	\$8,545.66	\$6,113.01	\$9,572.17	\$13,169.12	\$19,097.73	\$18,994.28	\$0.00	\$0.00	\$0.00	\$0.00
55	33	69	82	82	85	90	120	0	0	561	\$14,353.15
	\$11,742.36	\$11,406.27	\$9,717.88	\$10,521.54	\$12,169.89	\$17,567.47	\$21,687.01	\$0.00	\$0.00	\$0.00	\$0.00
60	20	37	30	28	19	23	30	0	0	187	\$17,252.09
	\$14,586.37	\$19,353.05	\$12,615.39	\$11,364.88	\$13,816.27	\$27,528.16	\$20,867.15	\$0.00	\$0.00	\$0.00	\$0.00
65	8	12	3	5	3	2	5	0	0	36	\$12,854.01
	\$9,067.59	\$16,288.96	\$8,406.05	\$7,238.90	\$9,884.11	\$18,595.32	\$22,160.17	\$0.00	\$0.00	\$0.00	\$0.00
70 & Older	2	9	1	2	5	0	0	0	0	19	\$11,454.77
	\$2,872.43	\$14,721.89	\$3,200.00	\$5,002.50	\$13,238.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total	2,094	2,056	1,197	903	667	339	191	7,447			
	\$5,021.45	\$7,682.71	\$8,991.61	\$11,707.46	\$14,116.30	\$19,447.60	\$21,004.59	\$9,086.28			

B. Average Compensation Distribution by Nearest Age and Covered Service (continued)

ACTIVE EMPLOYEES – Women

Nearest Age	Nearest Completed Years of Service										Total	
	1	5	10	15	20	25	30 & More					
20	129	13	0	0	0	0	0	0	0	0	0	142
	\$3,311.52	\$3,122.68	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,294.23
25	462	197	5	0	0	0	0	0	0	0	0	664
	\$3,816.96	\$7,193.24	\$9,027.52	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,857.89
30	261	309	77	6	0	0	0	0	0	0	0	653
	\$4,943.28	\$8,288.88	\$12,173.78	\$12,677.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7,450.08
35	191	247	160	51	2	0	0	0	0	0	0	651
	\$3,839.39	\$7,069.04	\$10,230.46	\$13,315.92	\$19,937.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7,427.40
40	110	161	123	85	55	1	0	0	0	0	0	535
	\$3,546.30	\$5,437.67	\$7,634.24	\$12,041.80	\$15,224.68	\$26,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7,647.63
45	82	101	101	85	76	34	0	0	0	0	0	479
	\$5,466.20	\$5,622.64	\$7,123.82	\$8,860.51	\$13,263.20	\$16,076.39	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,441.26
50	58	82	67	79	55	41	28	0	0	0	0	410
	\$7,539.99	\$4,989.91	\$7,163.42	\$9,371.92	\$11,017.65	\$17,597.16	\$13,030.89	\$0.00	\$0.00	\$0.00	\$0.00	\$9,168.64
55	36	41	36	41	21	28	37	0	0	0	0	240
	\$6,623.01	\$6,691.56	\$7,257.92	\$7,984.09	\$11,345.94	\$17,979.47	\$19,416.84	\$0.00	\$0.00	\$0.00	\$0.00	\$10,673.03
60	13	15	22	15	10	7	11	0	0	0	0	93
	\$3,981.13	\$8,310.52	\$8,515.72	\$6,567.59	\$14,999.95	\$16,828.75	\$16,696.55	\$0.00	\$0.00	\$0.00	\$0.00	\$9,825.11
65	2	5	7	1	0	0	0	0	0	0	0	15
	\$6,057.94	\$10,208.22	\$4,200.67	\$400.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6,197.44
70 & Older	4	2	4	0	0	0	0	0	0	0	0	10
	\$9,581.65	\$2,575.17	\$9,717.18	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,234.57
Total	1,348	1,173	602	363	219	111	76	3,892				
	\$4,325.23	\$6,882.10	\$8,762.06	\$10,188.75	\$13,148.26	\$17,255.02	\$16,670.40	\$7,435.28				

B. Average Compensation Distribution by Nearest Age and Covered Service (continued)

ACTIVE EMPLOYEES – Everyone

Nearest Age	Nearest Completed Years of Service										Total		
	1	5	10	15	20	25	30 & More			Total			
20	321	24	0	0	0	0	0	\$0.00	\$0.00	\$0.00	0	345	\$3,344.15
25	1,235	493	8	0	0	0	0	\$0.00	\$0.00	\$0.00	0	1,736	\$4,915.58
30	758	947	229	13	0	0	0	\$0.00	\$0.00	\$0.00	0	1,947	\$6,974.76
35	442	724	515	197	7	0	0	\$0.00	\$0.00	\$0.00	0	1,885	\$8,172.66
40	252	404	410	382	184	4	0	\$14,402.15	\$15,638.25	\$24,811.98	4	1,636	\$8,837.65
45	185	253	280	286	325	112	3	\$7,931.02	\$14,352.83	\$18,604.47	3	1,444	\$10,330.54
50	131	194	172	214	227	184	63	\$6,522.18	\$9,498.25	\$12,647.85	63	1,185	\$10,925.14
55	69	110	118	123	106	118	157	\$8,967.39	\$9,675.72	\$12,006.66	118	801	\$13,250.49
60	33	52	52	43	29	30	41	\$10,408.55	\$16,167.71	\$14,224.43	41	280	\$14,785.27
65	10	17	10	6	3	2	3	\$8,465.66	\$14,500.51	\$9,884.11	2	51	\$10,896.20
70 & Older	6	11	5	2	5	0	0	\$7,345.24	\$12,513.39	\$13,238.75	0	29	\$10,344.35
Total	3,442	3,229	1,799	1,266	886	450	267	\$4,748.79	\$7,391.87	\$13,877.03	\$18,906.76	\$19,770.89	\$8,519.59

Now let's say that you don't put \$200 in the box a few times. After 3 years you should have made 36 payments of \$200 and there should be \$7,200 in the box. This \$7,200 represents the "accrued liability" associated with your efforts to save money after 3 years. But when you count the money in the box you find that there is only \$6,800. The amount that is actually in the box represents the "market value of assets" at that point in time. When we subtract the market value of assets from the accrued liability, we arrive at the "unfunded accrued liability", which in this example is \$400 ($\$7,200 - \$6,800$). In other words, you have \$400 less than you would have if you had made each \$200 payment as was scheduled.

To follow the first definition of the accrued liability described above, we can calculate the current value of the future benefits as the value today of what you must pay in the future. This is still \$12,000, what you must pay in two more years. The current value today of what you should deposit in the future is 24 more payments of \$200 each, or \$4,800. We can now calculate the accrued liability as the value of what you need to pay in the future, less the value today of the remaining 24 month payments of \$200 each, which is \$7,200 ($\$12,000 - \$4,800$). In this very simple example, the accrued liability is the same either way it is calculated.

Now the \$400 shortfall may not be a bad thing. Maybe you missed two payments because you had other more pressing expenses and the next month you plan to put \$600 in the box. If you do, your accrued liability will be \$7,400 (one more month will have gone by so it has increased by \$200) but the market value of assets will be \$7,400 and the unfunded accrued liability has gone away.

Although it would be best if you made all of your payments exactly on time so that at any time there was no unfunded accrued liability, the most important thing to you is that at the end of 5 years there is exactly \$12,000 in the box. A problem comes up if for some reason, there is not enough money in the box to pay off the debt when it comes due. This is the danger of an unfunded accrued liability that does not decrease over time, or even worse, one that increases over time. In our example, you could borrow more money each year (increasing the accrued liability with each loan) until you have borrowed so much that you simply don't earn enough money to put sufficient funds in the box to ever pay it off. This would be like increasing and increasing benefits in a retirement system without a clear-cut plan on how to pay for the increases.

C. Average Accrued Benefit Distribution by Nearest Age, Sex and Status

Nearest Age	ACTIVE EMPLOYEES				INACTIVE, FULLY INSURED EMPLOYEES			
	Men		Women		Men		Women	
	Number	Avg Acc Ben	Number	Avg Acc Ben	Number	Avg Acc Ben	Number	Avg Acc Ben
20	203	\$525.00	142	\$550.12	0	\$0.00	0	\$0.00
25	1,072	\$1,132.46	664	\$1,119.51	0	\$0.00	0	\$0.00
30	1,294	\$1,860.92	653	\$1,863.95	0	\$0.00	1	\$3,401.60
35	1,234	\$2,570.53	651	\$2,199.79	16	\$3,480.57	7	\$3,125.27
40	1,101	\$3,256.26	535	\$2,669.08	81	\$3,474.50	39	\$3,623.46
45	965	\$3,900.67	479	\$3,105.36	118	\$3,816.04	42	\$3,338.18
50	775	\$4,327.22	410	\$3,538.36	147	\$3,886.55	83	\$3,494.77
55	561	\$5,093.71	240	\$3,963.70	137	\$3,775.96	74	\$3,399.13
60	187	\$4,669.44	93	\$3,668.53	59	\$3,611.82	33	\$3,267.18
65	36	\$3,682.67	15	\$2,196.42	24	\$3,531.20	6	\$3,933.99
70 & Older	19	\$3,303.83	10	\$1,996.84	28	\$3,654.09	11	\$4,168.24
Total	7,447	\$2,891.05	3,892	\$2,359.26	610	\$3,731.49	296	\$3,465.10

SECTION VI

EXPLANATION OF THE UNFUNDED ACCRUED LIABILITY

Although the accrued liability is often discussed, not very many people, other than actuaries, really understand the ins and outs of what it is. The accrued liability can be a fairly complicated concept to explain.

However, one can think of the accrued liability as the current value of benefits already earned including benefits that are already in pay status. The unfunded accrued liability is just the accrued liability less the market value of assets. Both of these numbers change depending on when they are measured and the accrued liability changes depending on the actuarial assumptions and method used to calculate it.

An active worker will earn the right to a future retirement benefit along with other future benefits such as disability and survivor benefits. The dollar amount of each of these benefits depends on the total amount of his earnings on which social security tax has been paid. When the valuation is performed, the worker's current pay is projected into the future (up to the wage base) until his retirement age and then the dollar amount of the various benefits that he may become entitled to in the future is calculated. As part of the valuation process a theoretical annual payment on behalf of this worker is calculated, known as the "normal cost". The normal cost is the theoretical annual payment that, if made each year during the worker's years of employment, would be sufficient to fund all of his future potential benefits. It is important to note that the normal cost is calculated separately for each worker and that it is not necessarily equal to the amount contributed each year by the employee and his employer.

The accrued liability for someone who is still working is calculated as the current value of all benefits that he might receive in the future, less the current value of his future normal costs (not the employee and employer contributions actually collected).

But more simply the accrued liability for an active worker can be approximated as the current accumulated value of all of his past normal costs (again, not employee and employer contributions actually collected).

For someone who is no longer working but is entitled to future benefits, the accrued liability is just the current value of all benefits that he might receive in the future and for someone who is currently receiving a benefit, the accrued liability is the current value of the benefits that are currently being paid and will continue into the future.

Having said all of this, perhaps a very simple example of something else that will illustrate the concept of the accrued liability for an active worker would be helpful.

Suppose you borrow \$12,000 from a good friend who is not going to charge you any interest and you promise to pay it back, all \$12,000, at once in 5 years. You plan to put a little bit aside each month and will keep the money in a box, not a bank and so your savings will not earn any interest. (This example has been simplified by not assuming any interest to be paid or earned but it works with interest too.) Five years is 60 months, so if you put exactly \$200 into the box each and every month you will have accumulated exactly \$12,000 in 5 years. Think of this \$200 payment as the normal cost as described above.

Now let's say that you don't put \$200 in the box a few times. After 3 years you should have made 36 payments of \$200 and there should be \$7,200 in the box. This \$7,200 represents the "accrued liability" associated with your efforts to save money after 3 years. But when you count the money in the box you find that there is only \$6,800. The amount that is actually in the box represents the "market value of assets" at that point in time. When we subtract the market value of assets from the accrued liability, we arrive at the "unfunded accrued liability", which in this example is \$400 ($\$7,200 - \$6,800$). In other words, you have \$400 less than you would have if you had made each \$200 payment as was scheduled.

To follow the first definition of the accrued liability described above, we can calculate the current value of the future benefits as the value today of what you must pay in the future. This is still \$12,000, what you must pay in two more years. The current value today of what you should deposit in the future is 24 more payments of \$200 each, or \$4,800. We can now calculate the accrued liability as the value of what you need to pay in the future, less the value today of the remaining 24 month payments of \$200 each, which is \$7,200 ($\$12,000 - \$4,800$). In this very simple example, the accrued liability is the same either way it is calculated.

Now the \$400 shortfall may not be a bad thing. Maybe you missed two payments because you had other more pressing expenses and the next month you plan to put \$600 in the box. If you do, your accrued liability will be \$7,400 (one more month will have gone by so it has increased by \$200) but the market value of assets will be \$7,400 and the unfunded accrued liability has gone away.

Although it would be best if you made all of your payments exactly on time so that at any time there was no unfunded accrued liability, the most important thing to you is that at the end of 5 years there is exactly \$12,000 in the box. A problem comes up if for some reason, there is not enough money in the box to pay off the debt when it comes due. This is the danger of an unfunded accrued liability that does not decrease over time, or even worse, one that increases over time. In our example, you could borrow more money each year (increasing the accrued liability with each loan) until you have borrowed so much that you simply don't earn enough money to put sufficient funds in the box to ever pay it off. This would be like increasing and increasing benefits in a retirement system without a clear-cut plan on how to pay for the increases.