

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 11-K

(Mark one)

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT
OF 1934

For the calendar year ended December 31, 1999

TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE
ACT OF 1934

For the transition period from _____ to _____

Commission File No.: 0-22175

A. Full title of the plan and the address of the plan, if different from
that of the issuer named below:

EMCORE Corporation 401(k) Savings Plan

B. Name of issuer of the securities held pursuant to the plan and the
address of its principal executive office:

EMCORE Corporation
394 Elizabeth Avenue
Somerset, NJ 08873
(732) 271-9090

REQUIRED INFORMATION

EMCORE Corporation 401(k) Savings Plan ("Plan") is subject to the Employee Retirement Income Security Act of 1974 ("ERISA"). Therefore, in lieu of the requirements of Items 1-3 of Form 11-K, the financial statements and schedules of the Plan for the two calendar years ended December 31, 1999 and 1998, which have been prepared in accordance with the financial reporting requirements of ERISA, are attached hereto as Appendix I and incorporated herein by this reference.

SIGNATURES

The Plan. Pursuant to the requirements of the Securities and Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

EMCORE Corporation 401(k) Savings Plan

/s/ Thomas G. Werthan

Thomas G. Werthan
Vice President-Finance
Chief Financial Officer
Trustee

June 26, 2000

Date

EMCORE Corporation
401(k) Savings Plan
Financial Statements as of and for the
Years Ended December 31, 1999 and 1998,
Supplemental Schedules as of and for the
Year Ended December 31, 1999 and
Independent Auditors' Report

EMCORE CORPORATION
401(k) SAVINGS PLAN

TABLE OF CONTENTS

	Page
INDEPENDENT AUDITORS' REPORT	1
FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 1999 AND 1998:	
Statements of Net Assets Available for Plan Benefits	2
Statements of Changes in Net Assets Available for Plan Benefits	3
Notes to Financial Statements	4-7
SUPPLEMENTAL SCHEDULES AS OF AND FOR THE YEAR ENDED DECEMBER 31, 1999:	
Schedule of Assets Held for Investment Purposes at End of Year	8
Schedule of Reportable Transactions - Aggregate by Issue	9

INDEPENDENT AUDITORS' REPORT

To the Trustees and Participants of the
EMCORE Corporation 401(k) Savings Plan

We have audited the accompanying statements of net assets available for plan benefits of EMCORE Corporation 401(k) Savings Plan (the "Plan") as of December 31, 1999 and 1998, and the related statements of changes in net assets available for plan benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the net assets available for plan benefits of the Plan at December 31, 1999 and 1998, and the changes in net assets available for plan benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedules of assets held for investment purposes and of reportable transactions are presented for the purpose of additional analysis and are not a required part of the basic financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. These schedules are the responsibility of the Plan's management. Such schedules have been subjected to the auditing procedures applied in our audit of the basic 1999 financial statements and, in our opinion, are fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

/s/ Deloitte & Touche LLP

Parsippany, New Jersey
June 16, 2000

EMCORE CORPORATION
401(k) SAVINGS PLAN

STATEMENTS OF NET ASSETS AVAILABLE FOR PLAN BENEFITS
AS OF DECEMBER 31, 1999 AND 1998

ASSETS	1999	1998
INVESTMENTS, AT FAIR VALUE		
Money Market:		
Prudential Government Securities Trust	\$ 210,645	\$ 152,021
Prudential Special Money Market Fund	990	-
Prudential Government Securities	17,866	-
Mutual Funds:		
Prudential Utility Class B	139,163	199,693
Prudential Utility Class A	516,117	454,725
Prudential Equity Class B	165,102	200,638
Prudential Small Company Class B	74,902	115,490
Prudential Equity Class A	936,754	695,781
Prudential Small Company Class A	560,233	486,439
Prudential Allocation Strategy Class A	-	7
Prudential Allocation Balanced Class A	249,711	140,309
Prudential Allocation Balanced Class B	44,169	54,206
Prudential Government Income Class B	1,250	5,319
Prudential Government Income Class A	36,262	35,697
Putnam Voyager Class A	449,668	106,763
Alliance Growth Class A	473,967	141,779
Mutual Beacon Class I	113,150	83,274
Aim Aggressive Growth	387,915	141,619
Oppenheimer Quest Opportunity Value Class A	216,819	109,562
Kemper-Dreman High Return Class A	253,248	178,899
EMCORE Corporation Stock Fund	1,661,869	481,284
Participants' Loans Fund	124,594	72,153
Total Investments	6,634,394	3,855,658
RECEIVABLES:		
Employer's contributions	27,012	51,667
Total receivables	27,012	51,667
NET ASSETS AVAILABLE FOR PLAN BENEFITS	\$ 6,661,406	\$ 3,907,325

The accompanying notes are an integral part of these financial statements.

EMCORE CORPORATION
401(k) SAVINGS PLAN

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR PLAN BENEFITS
AS OF DECEMBER 31, 1999 AND 1998

	1999	1998
ADDITIONS TO ASSETS ATTRIBUTED TO:		
Investment Income:		
Net appreciation (depreciation) in fair value of investments	\$ 824,217	\$ (43,562)
Dividends and interest income	441,085	257,140
Net investment income	1,265,302	213,578
Contributions:		
Participant	1,459,242	1,313,145
Employer	411,389	330,778
Total contributions	1,870,631	1,643,923
Total additions	3,135,933	1,857,501
DISTRIBUTIONS TO PARTICIPANTS	(381,852)	(76,428)
INCREASE IN NET ASSETS AVAILABLE FOR PLAN BENEFITS:	2,754,081	1,781,073
NET ASSETS AVAILABLE FOR PLAN BENEFITS		
Beginning of year	3,907,325	2,126,252
End of Year	\$ 6,661,406	\$ 3,907,325

The accompanying notes are an integral part of these financial statements.

1. DESCRIPTION OF PLAN

The following description of the EMCORE Corporation 401(k) Plan (the "Plan") provides only general information. Participants should refer to the Plan agreement for a more complete description of the Plan's provisions.

- a. General - The Plan is a defined contribution plan established to provide retirement benefits to eligible employees of EMCORE Corporation (the "Company"). The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).
- b. Participation - Individuals become eligible on the first day of the month immediately following their completion of one month of service provided they are 20 years of age or older. Each participant's account is credited with the participant's contribution and allocations of the Company's matching contribution and Plan earnings.
- c. Contributions - Participants may elect to contribute to the Plan through a salary reduction up to the maximum tax deferral amount allowed pursuant to IRS regulations. Participants may also contribute amounts representing distributions from other qualified defined benefit or contribution plans. The Company contributes 50 percent of the first 6 percent of base compensation that a participant contributes to the Plan. All employer contributions are invested in the Company's common stock. The Company may also at its discretion choose to make an additional profit sharing contribution to participants who are credited with more than 500 hours of service during the plan year and are employed by the Company on the last day of the year.
- d. Vesting - Participants are immediately vested in their contributions plus actual earnings thereon. Vesting in the Company's matching and discretionary contributions plus actual earnings thereon is based on years of continuous service. A participant becomes 100 percent vested after five years of credited service, with vesting taking place ratably over such period. A participant becomes 100 percent vested in all employer contributions upon reaching age 60, at death, if permanently and totally disabled, or upon termination of the Plan.
- e. Investment Options - Upon enrollment in the Plan, a participant may direct employee contributions in any percent increments in any of the available investment options. Participants may change their investment options at any time. Only employer contributions are invested in EMCORE Corporation common stock.

Description of investment options:

Money Market -

Prudential Government Securities Trust - Funds are invested in United States Government securities.

Mutual Funds -

Prudential Utility - Funds are invested in equity and debt securities of utility companies, including electric, gas, telephone and cable companies.

Prudential Equity - Funds are invested in common stocks of major and established corporations.

Prudential Small Company - Funds are invested in common stocks selected for their potential for high return on equity, increased earnings, increasing or expected dividends and low price/earnings ratios.

Prudential Allocation Balanced - Funds are invested in allocations between stocks, bonds, convertibles and cash.

Prudential Government Income - Funds are invested on bonds backed by the United States Government or by government-linked agencies.

Putnam Voyager - Funds are invested primarily in common stocks of mid-size firms.

Alliance Growth - Funds are invested in equity securities issued by companies with favorable earnings and long-term growth prospects.

Mutual Beacon - Funds are invested in common and preferred stocks and corporate debt.

Aim Aggressive Growth - Funds are invested in equity securities of small to medium-sized companies.

Oppenheimer Quest Opportunity Value - Funds are invested among stocks, bonds and cash.

Kemper-Dreman High Return - Funds are invested in common stocks that pay high dividends relative to the dividend yield of the S&P 500 index.

EMCORE Corporation Stock - Funds are invested in common stock of EMCORE Corporation.

- f. Payment of Benefits - The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account. On termination of service due to death, disability or retirement, a participant or their beneficiary may elect to receive either a lump-sum amount equal to the value of the participant's vested interest in his or her account or annual installments over a ten-year period. If an employee is terminated prior to age 60 for other reasons, the employee may request distribution of their vested account balance. Balances less than \$5,000 are distributed within 90 days of termination.
- g. Forfeitures - If a participant's employment terminates for reasons other than retirement before attaining age 60, disability or death, the unvested portion of the individual's account is forfeited. Forfeitures of employer matching contributions shall be used to reduce future employer contributions. Forfeitures were approximately \$11,100 at December 31, 1999 and \$11,000 at December 31, 1998.
- h. Continuity of Plan - Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of Plan termination, participants receive the value of the vested interest in his or her account as a lump-sum distribution.
- i. Participant Loans - Participants may borrow from their fund accounts a minimum of \$1,000 up to a maximum equal to the lesser of \$50,000 or 50 percent of their vested account balance. Loan transactions are treated as transfers to (from) the investment fund(s), from (to) the Participants' Loan Fund. Loan terms range from 1-5 years or up to 25 years for the purchase of a primary residence. Loans are collateralized by the balance in the participant's account and bear interest at a rate commensurate with local prevailing rates as determined quarterly by the Plan administrator. Interest rates in 1999 and 1998 ranged from 7.5 percent to 8.5 percent. Principal and interest is paid ratably through bi-weekly payroll deductions.
- j. Administrative Fees - All administrative expenses of the Plan are paid by the Company. Fees paid by the Company on behalf of the Plan amounted to approximately \$20,500 and \$18,000 for the years ended December 31, 1999 and 1998, respectively.

2. SUMMARY OF ACCOUNTING POLICIES

Basis of Accounting - The financial statements of the Plan are prepared under the accrual method of accounting.

Use of Estimates - The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and the reported amount of changes during the reporting period. The preparation of financial statements in conformity with generally accepted accounting principles also requires management to make estimates and assumptions that affect the disclosures of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

Investment Valuation and Income Recognition - The Plan's investments are stated at fair value. Shares in mutual funds are valued based on the quoted market prices of the underlying securities which represent the net asset value of shares held by the Plan. The Company stock is valued at its quoted market price. Participants' loans are valued at cost which approximates fair value.

The Plan presents in the statement of changes in net assets available for plan benefits the net appreciation (depreciation) in the fair value of its investments which consists of both realized gains or losses and the unrealized appreciation (depreciation) on those investments.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

Payment of Benefits - Benefits are recorded when paid. There were no outstanding benefits payable to terminated employees as of December 31, 1999 and 1998.

3. INVESTMENTS

The fair values of the individual investments that represent 5% or more of the Plan's assets as of December 31, 1999 and 1998 are as follows:

	1999		1998	
	Number of Shares	Fair Value	Number of Shares	Fair Value
Mutual Funds:				
Prudential Utility Class A	46,707	\$ 516,117	37,737	\$ 454,725
Prudential Utility Class B	12,594	139,163*	16,586	199,693

Prudential Equity Class A	48,562	936,754	35,212	695,781
Prudential Equity Class B	8,572	165,102*	10,169	200,638
Prudential Small Company Class A	44,569	560,233	36,247	486,439
Putnam Voyager Class A	14,524	449,668	4,871	106,763*
Alliance Growth Class A	8,407	473,967	2,774	141,779*
AIM Aggressive Growth	6,199	387,915	2,945	141,619*
EMCORE Corporation Stock Fund	48,879	1,661,869	27,502	481,284

Total \$ 5,290,789 \$ 2,908,721

* Included for comparative purposes only, as investment did not represent 5% or more of the Plan's net assets at respective date.

4. TAX STATUS

The Company adopted a standardized prototype plan which received an Internal Revenue Service opinion letter dated March 11, 1994 that stated that the Plan and related trust are designed in accordance with applicable sections of the Internal Revenue Code (the "Code"). The Plan has since been amended. However, the Plan administrator believes that the Plan is currently being operated in compliance with the applicable requirements of the Internal Revenue Code. Therefore, no provision for income taxes has been included in the plan's financial statements.

EMCORE CORPORATION 401(k) SAVINGS PLAN

SCHEDULE OF ASSETS HELD FOR INVESTMENT PURPOSES AT END OF YEAR AS OF DECEMBER 31, 1999

Investment Type	Description of Investment	Units	Cost	Current Value
Money Market:	Prudential Government Securities Trust	210,645	\$ 210,645	\$ 210,645
	Prudential Special Money Market Fund	990	990	990
	Prudential Government Securities	17,866	17,866	17,866
Mutual Funds:	Prudential Utility Class B	12,594	129,001	139,163
	Prudential Utility Class A	46,707	524,004	516,117
	Prudential Equity Class B	8,572	148,243	165,102
	Prudential Small Company Class B	6,640	87,700	74,902
	Prudential Equity Class A	48,562	943,349	936,754
	Prudential Small Company Class A	44,569	646,604	560,233
	Prudential Allocation Balanced Class A	20,138	257,400	249,711
	Prudential Allocation Balanced Class B	3,574	47,607	44,169
	Prudential Government Income Class B	148	1,332	1,250
	Prudential Government Income Class A	4,307	38,357	36,262
	Putnam Voyager Class A	14,524	394,455	449,668
	Alliance Growth Class A	8,407	444,707	473,967
	Mutual Beacon Class I	8,193	117,394	113,150
	AIM Aggressive Growth	6,199	305,814	387,915
	Oppenheimer Quest Opportunity Value Class A	6,292	232,563	216,819
	Kemper-Dreman High Return Class A	9,443	307,233	253,248
Common Stock:	EMCORE Corporation Common Stock	48,879	744,109	1,661,869
	Participants' Loans (1)	-	124,594	124,594

(1) Interest rates range from 7.5 percent to 8.5 percent, and loan terms range from one to five years, or up to twenty-five years upon purchase of a primary residence. Maturity dates range from 2000 through 2009.

EMCORE CORPORATION 401(k) SAVINGS PLAN

SCHEDULE OF REPORTABLE TRANSACTIONS
SERIES OF TRANSACTIONS - BY ISSUE
FOR THE YEAR ENDED DECEMBER 31, 1999

Description of Asset (Included Rate and Maturity in Case of a Loan)	Purchase Price	Sales Price	Expenses Incurred with Transaction	Cost of Asset	Current Value of Asset on Transaction Date	Net Gain (Loss)
Prudential Utility Class A	\$207,605	\$ -	\$ -	\$207,605	\$207,605	\$ -
	-	105,368	-	100,712	105,368	4,656
Prudential Equity Class A	426,720	-	-	426,720	426,720	-
	-	162,836	-	159,160	162,836	3,676
Prudential Small Company Class A	202,442	-	-	202,442	202,442	-
	-	96,511	-	113,533	96,511	(17,022)
Putnam Voyager Class A	283,359	-	-	283,359	283,359	-
	-	40,909	-	34,773	40,909	6,136
Alliance Growth Class A	392,651	-	-	392,651	392,651	-
	-	88,618	-	82,771	88,618	5,847
Aim Aggressive Growth	199,415	-	-	199,415	199,415	-
	-	28,989	-	26,699	28,989	2,290
Kemper-Dreman High Return Class A	225,685	-	-	225,685	225,685	-
	-	89,070	-	95,560	89,070	(6,490)
EMCORE Corporation Common Stock	436,082	-	-	436,082	436,082	-
	-	64,860	-	51,438	64,860	13,442

INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in Registration Statement Nos. 333-45827, 333-27507, 333-39547, 333-36445 and 333-37306 of EMCORE Corporation on Form S-8 of our report dated June 16, 2000, appearing in this Annual Report on Form 11-K of EMCORE Corporation 401(k) Savings Plan for the year ended December 31, 1999.

/s/ Deloitte & Touche LLP

Parsippany, New Jersey
June 28, 2000