

As filed with the Securities and Exchange Commission on January 27, 1999

Registration No. 333-_____

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

APPLIED MATERIALS, INC.
(Exact name of issuer as specified in its charter)Delaware 94-1655526
(State or other jurisdiction (I.R.S. employer identification number)
of incorporation or organization)3050 Bowers Avenue, Santa Clara, California 95054
(Address of principal executive offices) (Zip Code)APPLIED MATERIALS, INC.
EXECUTIVE DEFERRED COMPENSATION PLAN
(Full title of the plan)Joseph J. Sweeney
Applied Materials, Inc.
3050 Bowers Avenue, Santa Clara, California 95054
(Name and address of agent for service)
Telephone number, including area code, of agent for service: (408) 727-5555Copy to:
John E. Aguirre
Orrick, Herrington & Sutcliffe LLP
400 Sansome Street
San Francisco, California 94111

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per share	Proposed Maximum Aggregate Offering Price*	Amount of Registration Fee*
Deferred Compensation Obligations**	\$20,000,000.00	100%	\$20,000,000.00	\$5,560.00

* Estimated solely for the purpose of calculating the registration fee.
 ** The Obligations are unsecured obligations of Applied Materials, Inc. to pay deferred compensation in the future in accordance with the terms of the Applied Materials, Inc. Executive Deferred Compensation Plan.

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following documents are incorporated by reference in this registration statement: (i) the latest annual report of Applied Materials, Inc. (the "Registrant") filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"); (ii) all other reports filed by the Registrant pursuant to Sections 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the annual report referred to in clause (i) above; and (iii) the description of the Registrant's common stock set forth in the Registrant's Registration Statement on Form 8-A relating thereto, including any amendment or report filed for the purpose of updating such description. All documents filed by the Registrant after the date of this registration statement pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment (that indicates all securities offered have been sold or deregisters all securities then remaining unsold), shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such documents.

ITEM 4. DESCRIPTION OF SECURITIES

The securities being registered represent obligations (the "Obligations") of the Registrant to pay deferred compensation in the future in accordance with the terms of the Applied Materials, Inc. Executive Deferred Compensation Plan (the "Plan"), which is filed as Exhibit 4.1 to this Registration Statement.

The Obligations are general unsecured obligations of the Registrant to pay deferred compensation in the future according to the Plan from the general assets of the Company, and rank equally with other unsecured and unsubordinated indebtedness of the Registrant.

The amount of compensation to be deferred by each participant is determined in accordance with the Plan based on elections by the participant. Amounts credited to a participant's account are credited at the end of each pay period with deemed interest equal to 1/26th of (a) the yield-to-maturity of five-year U.S. Treasury Notes as of the first business day of the December immediately preceding the Plan year, plus (b) 1.50%. The Obligations are payable upon termination of employment or on a date selected by the participant in accordance with the terms of the Plan, subject to limited exceptions for severe financial hardship, death, disability or a change of control. The Obligations are payable in the form of a lump-sum distribution or in installments, at the election of the participant made in accordance with the terms of the Plan.

Participants or beneficiaries may not sell, transfer, anticipate, assign, hypothecate or otherwise dispose of any right or interest in the Plan. A participant may designate one or more beneficiaries to receive any portion of Obligations payable in the event of death.

In the event of a severe financial hardship, the Registrant may accelerate and pay all or a part of a participant's Obligations or suspend a participant's deferral election prospectively. The Registrant also reserves the right to amend or terminate the Plan at any time and for any reason, including an amendment that would accelerate the payment of Obligations.

The Obligations are not convertible into any other security of the Registrant. The Obligations will not have the benefit of a negative pledge or any other affirmative or negative covenant on the part of the Registrant. No trustee has been appointed to take action with respect to the Obligations and each participant in the Plan will be responsible for enforcing his or her own rights with respect to the Obligations.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL

Inapplicable.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law (the "Delaware Law") authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933, as amended. The Registrant's Certificate of Incorporation provides for indemnification of the Registrant's directors, officers, employees and other agents to the maximum extent permitted by Delaware Law.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED

Inapplicable.

ITEM 8. EXHIBITS

- 4.1 Applied Materials, Inc. Executive Deferred Compensation Plan, as amended (incorporated by reference to Exhibit 10.24 to the Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 1995, Commission File No. 0-6920 and Exhibit 10.1 and Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended July 26, 1998, Commission File No. 0-6920).
- 5.1 Opinion of Orrick, Herrington & Sutcliffe LLP.
- 23.1 Consent of PricewaterhouseCoopers LLP.
- 23.2 Consent of Orrick, Herrington & Sutcliffe LLP is included in Exhibit 5.1 to this Registration Statement.
- 24.1 Power of Attorney of Directors.

ITEM 9. UNDERTAKINGS

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-3 or Form S-8 and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the Registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

Signatures

THE REGISTRANT

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Santa Clara, State of California on the 27th day of January, 1999.

APPLIED MATERIALS, INC.
(Registrant)

/s/ James C. Morgan

James C. Morgan
Chairman of the Board and
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature

Title

Date

Principal Executive Officer:

/s/ James C. Morgan

James C. Morgan

Chairman of the Board and
Chief Executive Officer

January 27, 1999

Principal Financial Officer:

/s/ Joseph R. Bronson

Joseph R. Bronson

Senior Vice President,
Office of the President,
Chief Financial Officer and
Chief Administrative Officer

January 27, 1999

Principal Accounting Officer:

/s/ Michael K. O'Farrell

Michael K. O'Farrell

Vice President, Global
Controller, Chief
Accounting Officer and
Assistant Secretary

January 27, 1999

Directors:

* ----- James C. Morgan	Director	January 27, 1999
* ----- Dan Maydan	Director	January 27, 1999
* ----- Michael H. Armacost	Director	January 27, 1999
* ----- Deborah A. Coleman	Director	January 27, 1999
* ----- Herbert M. Dwight, Jr.	Director	January 27, 1999
* ----- Philip V. Gerdine	Director	January 27, 1999
* ----- Tsuyoshi Kawanishi	Director	January 27, 1999
* ----- Paul R. Low	Director	January 27, 1999
* ----- Alfred J. Stein	Director	January 27, 1999

*By /s/ James C. Morgan

James C Morgan
Attorney-in-Fact

A majority of the members of the Board of Directors.

EXHIBIT INDEX

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- 24.1 Power of Attorney of Directors.

January 20, 1999

Applied Materials, Inc.
3050 Bowers Avenue
Santa Clara, California 95054

Re: Registration Statement on Form S-8/
Applied Materials, Inc. Executive Deferred Compensation Plan

Ladies and Gentlemen:

At your request, we are rendering this opinion in connection with the proposed issuance pursuant to the Applied Materials, Inc. Executive Deferred Compensation Plan (the "Plan") of up to \$20,000,000 in aggregate amount of deferred compensation obligations (the "Obligations") of Applied Materials, Inc. (the "Company"). The Obligations are unsecured obligations of the Company to pay deferred compensation in the future in accordance with the terms of the Plan.

We have examined instruments, documents, and records which we deemed relevant and necessary for the basis of our opinion hereinafter expressed. In such examination, we have assumed the following: (a) the authenticity of original documents and the genuineness of all signatures; (b) the conformity to the originals of all documents submitted to us as copies; and (c) the truth, accuracy and completeness of the information, representations and warranties contained in the records, documents, instruments and certificates we have reviewed.

Based on such examination, we are of the opinion that the \$20,000,000 of Obligations to be issued by the Company pursuant to the Plan are binding obligations of the Company and, when issued and paid for in accordance with the Plan, will be legally issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to this Registration Statement on Form S-8 and to the use of our name wherever it appears in said Registration Statement. In giving such consent, we do not consider that we are "experts" within the meaning of such term as used in the Securities Act of 1933, as amended, or the rules and regulations of the Securities and Exchange Commission issued thereunder, with respect to any part of the Registration Statement, including this opinion as an exhibit or otherwise.

Very truly yours,

/s/ Orrick, Herrington & Sutcliffe LLP

ORRICK, HERRINGTON & SUTCLIFFE LLP

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated November 17, 1998, except as to Note 14, which is dated as of December 23, 1998, which appears on page 66 of the 1998 Annual Report to Stockholders of Applied Materials, Inc., which is incorporated by reference in Applied Materials, Inc.'s Annual Report on Form 10-K for the year ended October 25, 1998. We also consent to the incorporation by reference of our report on the Financial Statement Schedule, which appears on page 19 of such Annual Report on Form 10-K.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
San Jose, California
January 20, 1999

POWER OF ATTORNEY OF DIRECTORS

KNOW BY ALL PERSONS BY THESE PRESENTS:

Each of the undersigned directors of Applied Materials, Inc., a Delaware corporation (the "Company"), hereby constitutes and appoints James C. Morgan, Joseph R. Bronson and Michael K. O'Farrell and each of them with power to act alone, his or her true and lawful attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to execute a Registration Statement or Registration Statements on Form S-8 or other appropriate form, under the Securities Act of 1933, as amended, relating to \$20 million general unsecured obligations of the Company to pay deferred compensation in accordance with the Company's Executive Deferred Compensation Plan and any and all amendments (including post-effective amendments) to such Registration Statements, and to file such Registration Statements and any and all amendments thereto, with exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact full power and authority to do and perform each and every act and thing necessary or desirable to be done in and about the premises, as fully to all intents and purposes, as he or she might or could do in person, thereby ratifying and confirming all that said attorney-in-fact or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, I have hereunto set my hand this 11th day of December, 1998.

/s/ Michael H. Armacost

/s/ James C. Morgan

Michael H. Armacost

James C. Morgan

/s/ Deborah A. Coleman

/s/ Dan Maydan

Deborah A. Coleman

Dan Maydan

/s/ Herbert M. Dwight, Jr.

/s/ Alfred J. Stein

Herbert M. Dwight, Jr.

Alfred J. Stein

/s/ Philip V. Gerdine

/s/ Paul R. Low

Philip V. Gerdine

Paul R. Low

/s/ Tsuyoshi Kawanishi

Tsuyoshi Kawanishi