As filed with the Securities and Exchange Commission on April 21, 2000

Registration No. 333-_____

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

> FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

APPLIED MATERIALS, INC. (Exact name of issuer as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 94-1655526 (I.R.S. employer identification number)

3050 Bowers Avenue, Santa Clara, California 95054 (Address of principal executive offices) (Zip Code)

> APPLIED MATERIALS, INC. 1995 EQUITY INCENTIVE 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) 727-5555

Copy to: John E. Aguirre Wilson Sonsini Goodrich & Rosati, PC 650 Page Mill Road Palo Alto, California 94304

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**
1995 Equity Incentive Plan Common Stock*** and Options to Purchase	38,200,000 shares	\$83.16	\$3,176,712,000	\$838,651.97

Common Stock

- ______ This Registration Statement shall also cover any additional shares of Registrant's Common Stock that become issuable under the Applied Materials, Inc. 1995 Equity Incentive Plan by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the Registrant's receipt of consideration that results in an increase in the number of the Registrant's outstanding shares of Common Stock.
- * * Estimated solely for the purpose of calculating the registration fee on the basis of \$83.16 per share, the average of the high and low prices for the Common Stock on April 14, 2000, as reported by Nasdaq.
- *** Includes associated rights (the "Rights") to purchase preferred or common stock. Until the occurrence of certain prescribed events, none of which has occurred, the Rights are not exercisable. _____

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

Inapplicable.

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. In addition, the Registrant has entered into indemnification agreements with its directors and certain of its officers.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED

Inapplicable.

ITEM 8. EXHIBITS

4.1 Applied Materials, Inc. 1995 Equity Incentive Plan, as amended (incorporated by reference from the Registrant's Preliminary Proxy Statement, Commission file No. 0-06920, filed on February 4, 2000).

- 4.2 Form of Nonqualified Stock Option Agreement for Employees (incorporated by reference from Exhibit 10.5 of the Registrant's report on Form 10-Q, Commission File No. 0-06920, filed on June 15, 1999).
- 4.3 Form of Nonqualified Stock Option Agreement for Consultants (incorporated by reference from Exhibit 4.3 of the Registrant's Registration Statement on Form S-8, Commission file No. 333-71245, filed on January 27, 1999).
- 5.1 Opinion of Wilson Sonsini Goodrich & Rosati, PC.
- 23.1 Consent of Independent Accountants.
- 23.2 Consent of Wilson Sonsini Goodrich & Rosati, PC 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 posteffective 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 21st day of April, 2000.

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
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Principal Executive Officer:

/s/ James C. Morgan

	Chairman of the Board and	April 21, 2000
James C. Morgan	Chief Executive Officer	

Principal Financial Officer:

/s/ Joseph R. Bronson

757 Juseph R. Brunson	Senior Vice President,	April 21, 2000
Joseph R. Bronson	Office of the President, Chief Financial Officer and Chief Administrative Officer	

Principal Accounting Officer:

/s/ Patrick Crom

	Vice President, Global	April 21, 2000
Patrick Crom	Controller, Chief Accounting Officer and Assistant Secretary	r ,

Directors:

Directors: *	Director	March 22, 2000
James C. Morgan		
*	Director	March 22, 2000
Michael H. Armacost		
*	Director	March 22, 2000
Deborah A. Coleman		
*	Director	March 22, 2000
Herbert M. Dwight, Jr.		
*	Director	March 22, 2000
Philip V. Gerdine		
*	Director	March 22, 2000
Tsuyoshi Kawanishi		
*	Director	March 22, 2000
Paul R. Low		
*	Director	March 22, 2000
Steven L. Miller		
*	Director	March 22, 2000
Stan Shih		
*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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- 5.1 Opinion of Wilson Sonsini Goodrich & Rosati, PC.
- 23.1 Consent of Independent Accountants.
- 23.2 Consent of Wilson Sonsini Goodrich & Rosati, PC is included in Exhibit 5.1 to this Registration Statement.
- 24.1 Power of Attorney of Directors.

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

> Re: Registration Statement on Form S-8/Applied Materials, Inc. 1995 Equity Incentive Plan

Ladies and Gentlemen:

At your request, we are rendering this opinion in connection with the proposed issuance of an aggregate of 38,200,000 shares of common stock (the "Common Stock") of Applied Materials, Inc., a Delaware corporation (the "Company") and related options under the Applied Materials, Inc. 1995 Equity Incentive Plan (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 38,200,000 shares of Common Stock to be issued by the Company pursuant to the Plan are validly authorized shares of Common Stock and, when issued in accordance with the provisions of 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/ Wilson Sonsini Goodrich & Rosati

WILSON SONSINI GOODRICH & ROSATI, PC

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, 1999 relating to the financial statements, which appears in the 1999 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 31, 1999. We also consent to the incorporation by reference of our report dated November 17, 1999 relating to the financial statement schedule, which appears in such Annual Report on Form 10-K.

/s/ PricewaterhouseCoopers LLP

San Jose, California April 18, 2000 KNOW 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 Joseph J. Sweeney 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 up to 38,200,000 shares of Common Stock issuable under the Applied Materials, Inc. 1995 Equity Incentive 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 22nd day of March, 2000.

/s/ Michael H. Armacost	March 22, 2000
Michael H. Armacost	
/s/ Deborah A. Coleman	March 22, 2000
Deborah A. Coleman	
/s/ Herbert M. Dwight, Jr.	March 22, 2000
Herbert M. Dwight, Jr.	
/s/ Philip V. Gerdine	March 22, 2000
Philip V. Gerdine	
/s/ Tsuyoshi Kawanishi	March 22, 2000
Tsuyoshi Kawanishi	
/s/ Paul R. Low	March 22, 2000
Paul R. Low	

Dan Maydan

/s/ Steven L. Miller ----- March 22, 2000

Steven L. Miller

/s/ James C. Morgan

James C. Morgan -----

/s/ Stan Shih - -----

Stan Shih

March 22, 2000

March 22, 2000