Registration No. 333-69675

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3

REGISTRATION STATEMENT Under THE SECURITIES ACT OF 1933

OMEGA HEALTHCARE INVESTORS, INC.

(Exact name of registrant as specified in its charter)

Maryland

(State or other jurisdiction of incorporation or organization)

38-3041398

(I.R.S. Employer Identification No.)

9690 Deereco Road, Suite 100 Timonium, Maryland 21093 (410) 427-1700

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

C. Taylor Pickett
Chief Executive Officer
Omega Healthcare Investors, Inc.
9690 Deereco Road, Suite 100
Timonium, Maryland 21093
(410) 427-1700

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of communications to:

Eliot W. Robinson, Esq.
Powell, Goldstein, Frazer & Murphy LLP
Sixteenth Floor
191 Peachtree Street, N.E.
Atlanta, Georgia 30303
(404) 572-6600

f delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.		
f this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier registration statement for the same offering.		
If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.		
f any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.		
f the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.		
Approximate date of commencement of proposed sale to the public: From time to time based on market conditions.		

Omega Healthcare Investors, Inc. has filed this post-effective amendment in order to reflect and document our return to Form S-3 eligibility and to ensure the incorporation by reference into this Form S-3 registration statement of our most recent periodic reports under the Securities Exchange Act of 1934. As a result and pursuant to Form S-3, this Form S-3 registration statement automatically incorporates our Annual Report on Form 10-K for the year ended December 31, 2002, and our subsequent and future filings under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange of 1934 (other than documents furnished rather than filed or otherwise expressly not to be incorporated by reference) until we sell all the registered securities. Accordingly, the consent of our independent auditor to the incorporation by reference of its report with respect to our consolidated financial statements and schedules included in our Form 10-K for the year ended December 31, 2002 is filed as an exhibit hereto.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Post-Effective Amendment No. 1 to the Form S-3 Registration Statement to be signed on its behalf by the undersigned, hereunto duly authorized, in the City of Timonium, State of Maryland, on this 26th day of January, 2004.

OMEGA HEALTHCARE INVESTORS, INC.

By: /s/ C. TAYLOR PICKETT

C. Taylor Pickett Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints C. Taylor Pickett and Robert O. Stephenson and each or any of them, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) and supplements to this Post-Effective Amendment No. 1 to the Form S-3 Registration Statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 1 to the Form S-3 Registration Statement has been signed by the following persons in the capacities indicated on January 26, 2004.

Signature	Title
/s/ C. TAYLOR PICKETT C. Taylor Pickett	Chief Executive Officer (Principal Executive Officer)
/s/ ROBERT O. STEPHENSON	Chief Financial Officer
Robert O. Stephenson	(Principal Financial and Accounting Officer)
/s/ DANIEL A. DECKER	Director
Daniel A. Decker	
/s/ THOMAS W. ERICKSON	Director
Thomas W. Erickson	
/s/ THOMAS F. FRANKE	Director
Thomas F. Franke	
/s/ HAROLD J. KLOOSTERMAN	Director
Harold J. Kloosterman	
/s/ BERNARD J. KORMAN	Director
Bernard J. Korman	

/s/ EDWARD LOWENTHAL	Director
Edward Lowenthal	
/s/ CHRISTOPHER W. MAHOWALD	Director
Christopher W. Mahowald	
/s/ DONALD J. MCNAMARA	Director
Donald J. McNamara	
/s/ C. TAYLOR PICKETT	Director
C. Taylor Pickett	
/s/ STEPHEN D. PLAVIN	Director
Stephen D. Plavin	

QuickLinks

Explanatory Note
SIGNATURES
POWER OF ATTORNEY

Exhibit 23.2

We consent to the incorporation by reference in Post-Effective Amendment No. 1 to the Registration Statement (Form S-3 No. 333-69675) of our report dated February 10, 2003, except for the seventh paragraph of Note 19, as to which the date is February 28, 2003, with respect to the consolidated financial statements and schedules of Omega Healthcare Investors, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2002, filed with the Securities and Exchange Commission.

/s/ ERNST & YOUNG LLP

Chicago, Illinois January 22, 2004

QuickLinks

Exhibit 23.2