Many of today's chief executives reached the apex of the corporate ladder despite their humble college beginnings. But the route to the top is changing, management experts say. That will force the next generation of company leaders to forge different career paths.

Future chief executives may require a broader liberal-arts education and wider international experience. They will also need to take charge of their own career development because companies are less likely to groom entry-level professionals for lifetime careers.

A number of today's CEOs graduated from state universities or little-known colleges with undergraduate degrees in subjects like business administration, engineering or accounting, according to a recent study of 500 big companies by Spencer Stuart, an executive-search firm. Some management professors think a liberal-arts degree may offer future chief executives a broader foundation to operate in an increasingly complicated, global and fast-moving business arena.

"I advise students all the time, 'You've got to have something you can do for a company now. That's what gets you in the door. But if you want to succeed long term, you've got to have a broader range of skills and problem-solving abilities,"" says Robert Kelley, an adjunct management professor at the Tepper School of Business at Carnegie Mellon University in Pittsburgh.

The recent slew of corporate scandals will intensify scrutiny of management recruits' ethics, suggests Peter Veruki, who spent about 25 years in corporate recruiting and training and now manages external relations at Vanderbilt University's Owen Graduate School of Management in Nashville.

"It's about maturity and leadership rather than how many accounting courses did you take," Mr. Veruki says. "Companies are going to start to look at the fundamental value set of an individual and their basic education. Did they study philosophy and culture and history rather than just accounting, finance and engineering? Fast-forward 20 or 30 years, we're going to find [business leaders] who maybe majored in philosophy rather than business."

Of course, once someone becomes seasoned enough to vie for a company's highest post, nobody really cares what college he or she attended, says Brian Sullivan, chairman and chief executive of Christian & Timbers, a New York executive-search firm. Though elite colleges can help propel people into
prestigious investment-banking and consulting jobs, businesses judge top-level candidates on what they have accomplished in their careers, he notes.

Another box that aspiring CEOs increasingly will have to check off: international experience. It is already growing in importance for current leaders, says William Sullivan, chief executive of Agilent Technologies Inc., a maker of test and measurement equipment in Palo Alto, Calif., that Hewlett-Packard Co. spun off in 1999.

Mr. Sullivan, named CEO last month after serving as chief operating officer, spent three years in Singapore as an operations manager for Hewlett-Packard between 1989 and 1992. "It was a real career changer," he says. "In today's environment, having that overseas experience is a big deal."

CEO wannabes also will have to take greater charge of their own careers than their predecessors. Companies are looking outside for top talent more than they once did. But many employers have slashed training budgets and expect new hires to hit the ground running.

For new hires, "There's just an expectation that you know an awful lot more about business than you did before," says Peter Cappelli, a management professor at the University of Pennsylvania's Wharton School in Philadelphia.