

Women as Current and Future CIOs

The higher education chief information officer (CIO) has a very complex role. CIOs are required to have technical knowledge, higher education experience, communications skills, and political savvy—just to name a few attributes. In the past, CIOs have come to the role with a wide variety of professional experiences and educational degrees. Yet a large number of this current generation of CIOs are projecting their departure from the profession within the next ten years. This coming retirement exodus is cause for concern and raises questions about the people in the next layer down from the CIO in the IT organization: do they want to become CIOs, and are they preparing for this job? What can factors related to the current generation of CIOs tell us about future CIOs? In particular, do female CIOs and IT leaders differ significantly from their male counterparts?

Two surveys conducted in 2009 by the Center for Higher Education Chief Information Officer Studies (<http://www.checs.org>) may help answer these questions. The first, a study of higher education CIOs, is the latest edition of a study that has been conducted annually since 2004. The second, which focuses on higher education technology leaders (TLs) excluding CIOs, was launched this year.¹

Women as IT Leaders

Two years ago, Rachel Rosmarin reported that 9 percent of corporate CIOs were women, up from 7 percent in 2000. In 2008, a *Harvard Business Review* research report found that women held only 3 percent of the C-suite positions in technology corporations. According to the

Bureau of Labor Statistics, across different industries in the United States in 2008, 27 percent of IT managers were women.² By contrast, the 2009 CIO survey received 352 CIO responses, and of that group, 86 of the respondents, or 24 percent, were women. The 2009 TL survey received 222 responses, and of that group, 73 of the respondents, or 33 percent, were women. If the gender ratios of these survey respondents accurately represent the gender ratios of the populations from which they are drawn, higher education seems to have better representation of women in IT leadership roles than is typical of the IT profession in general.

Age

The percentage of female CIO respondents was fairly consistent (between 23 and 28 percent) across the different age brackets in the CIO survey, with two exceptions: there were no female respondents in the 26-to-30-year-old range; and women composed only 9 percent of the group in the 36-to-40-year-old range. However, it is difficult to apply a major significance to this finding based on the small number of respondents in each age range.

Among TLs, the percentage of female respondents was higher in the 36-to-40, 41-to-45, and 46-to-50 age groups than it was for CIOs. Nevertheless, the percentage of female TLs began to decline with the 46-to-50 age group. We do not know how much of the decrease in the percentage of women after age 45 is due to fewer women entering the higher education technology field twenty years ago or to a higher proportion of women exiting the profession at this time.

Retirement Plans

Of the female CIO respondents, 53 percent projected retirement during the next ten years, a higher percentage than their male counterparts who projected retirement within ten years (42 percent)—a statistically significant difference. Since women as a percentage of the total CIO group held constant at 25 percent for the 56-to-60, 61-to-65, and 66-to-70 age groups, their plans to retire at a higher rate could exacerbate an existing gender imbalance for higher education CIOs.

Planning for the CIO Position and Assistance

In the TL survey, 74 percent of the male respondents said they wanted to become CIOs, but a much lower percentage (59 percent) of women aspired to the CIO role—a statistically significant difference. Of all those wanting to be CIOs, 72 percent were men and only 28 percent women. The much smaller percentage of TL women wanting to become a CIO is not a positive sign, and it may be important to understand the reasons for it. In the corporate world, for instance, interview results suggest that diverse elements of corporate culture—including the lack of mentors, the macho culture, and the often extreme elements of IT jobs, as well as differences between men and women in leadership style and the burdens of family responsibilities—led to female departures from the field, especially in the key “flight or fight” time around 35 to 40 years old.³

The TLs who expressed an interest in becoming a CIO were also asked several questions about the activities they were engaging in to prepare for the role and

about the efforts that were being undertaken for them by mentors. The number-one answer to the question “Who is helping you prepare to become a CIO?” was “no one” (38 percent). But when we separate the responses from men and women, the “no one” answer increases to 43 percent for the men and drops to 23 percent for the women (see Figure 1)—a statistically significant difference. The two most likely groups to provide help to a TL in his or her pursuit of the CIO position are the TL’s own CIO or a CIO from another institution: totaling 79 percent for women and 41 percent for men. This mentoring difference, almost twice as much for women as for men, was statistically significant.

Conclusion

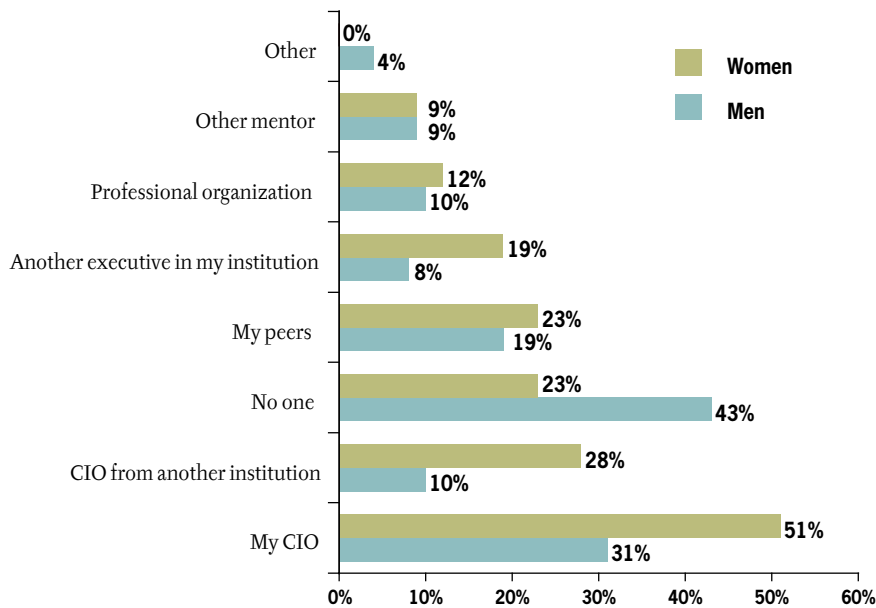
Higher education appears to be a more favorable environment for the development of female IT leaders than the technology field in general. Those of us in higher education should guard this success and try to better understand the reasons for it, both to share with the larger technology community and to ensure that we can continue to improve even further. If more female technologists in higher education are staying in the profession and becoming CIOs, it may be due to a somewhat different culture within higher education that makes the workplace more comfortable for women.

On the other hand, the factor of more female CIOs predicting retirement in the

mentors (47%), and sponsors (84%).⁴

In higher education, as noted, most female TLs report having a mentor to help them prepare for their CIO ambition. This difference between higher education and corporate technology in willingness to mentor young women may contribute to the higher percentage of women in the CIO role in higher education and may also help boost the percentage of women even further. At the same time, we may need to pay greater attention to mentorship for young male leaders in higher education. We should be sure they all—men and women—understand the importance of sponsorship by a senior leader to their career progression. Furthermore, and not to be overlooked, current CIOs must accept this responsibility of leadership.

FIGURE 1. Sources of Preparation Assistance, by Gender



Of course, mentorship is only one factor that can contribute to the success of women in achieving their career goals. We know that advanced degrees, positive perceptions by peers of the CIOs’ effectiveness, and the arrangement of reporting structures are all also important. This research examined those three factors, comparing male and female CIOs, and found that in all cases, there were small differences in favor of women (though none of them statistically significant). Again, this is a positive sign for further improvement in the gender balance at the CIO level.

next ten years, combined with the declining number and percentage of women in the TL ranks past age 40 and their lack of ambition for CIO positions, may result in the percentage of female CIOs declining in the future. Several studies have indicated the positive role of a significant number of women in top positions on the retention decisions of young women in the profession, so it is important that we not allow female leadership to drop. The 2008 *Harvard Business Review* research report found that one aspect of isolation reported by women in corporate technology was the lack of role models (40%),

Notes

- Wayne Brown, 2009 *Study of the Higher Education Chief Information Officer Roles and Effectiveness* (Albany, N.Y.: Center for Higher Education Chief Information Officer Studies, 2009); Wayne Brown, 2009 *Higher Education Technology Leadership Study: The Chief Information Officers of the Future* (Albany, N.Y.: Center for Higher Education Chief Information Officer Studies, 2009). CHECS would like to recognize the 2009 research sponsors—Excelsior College, SunGard Higher Education, and Thanos Partners—for their generous support of this important work.
- Rachel Rosmarin, “Tough, Tech-Smart—and Female,” *Forbes.com*, May 17, 2007, <http://www.forbes.com/2007/05/16/power-women-technology-tech-cx_rr_0517techwomen.html>; S. A. Hewlett, C. B. Luce, L. J. Servon, L. Sherbin, P. Shiller, E. Sosnovich, and K. Sumberg, *The Athena Factor: Reversing the Brain Drain in Science, Engineering, and Technology*, Harvard Business Review Research Report (Boston, Mass.: Harvard Business Review, 2008); Bureau of Labor Statistics, “Household Data Annual Averages: Employed Persons by Detailed Occupation, Sex, Race, and Hispanic or Latino Ethnicity” (Washington, D.C.: U.S. Department of Labor, 2008), p. 209.
- See Hewlett et al., *The Athena Factor*, and Alice H. Eagly and Linda L. Carli, “Women and the Labyrinth of Leadership,” *Harvard Business Review*, September 1, 2007.
- Hewlett et al., *The Athena Factor*; Eagly and Carli, “Women”; Kathleen Melymuka, “Why Women Quit Technology,” *Computerworld*, June 16, 2008.

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