

- 8.29 This exercise is intended for classes consisting of mostly computer science or engineering majors. At the beginning of the 21st century, only about 28% of students earning college degrees in computer science were women. Why do you think there are so few women in computer science? Have you observed or experienced any behavior or treatment in classes, computer labs, or at work that would discourage women?<sup>50</sup>
- 8.30 Have a mock trial in class for an RSI lawsuit against a computer-keyboard manufacturer. Assign teams of students to be lawyers for the plaintiff and the defense. Assign some to be medical expert witnesses and ergonomics specialists for each side. Assign the rest of the class to be the jury.

## NOTES

- <sup>1</sup> CPU: Working in the Computer Industry (an electronic publication for workers in the computer industry), Feb. 15, 1995.
- <sup>2</sup> Associated Press, "Electronic Dealings Will Slash Bank Jobs, Study Finds," *Wall Street Journal*, Aug. 14, 1995, p. A5D. W. Michael Cox and Richard Alm, *Myths of Rich and Poor: Why We're Better off Than We Think*, Basic Books, 1999, p. 129. G. Pascal Zachary, "Service Productivity Is Rising Fast—and So Is the Fear of Lost Jobs," *Wall Street Journal*, June 8, 1995, p. A1. The quote is from Frank Zashen, in "Big Board to Lay Off All 150 Floor Couriers" *Wall Street Journal*, July 25, 2001, p. A6.
- <sup>3</sup> Cox and Alm, *Myths of Rich and Poor*, p. 129. Alejandro Bodipo-Memba, "Jobless Rate Skidded to 4.4% in November," *Wall Street Journal*, Dec. 7, 1998, pp. A2, A8.
- <sup>4</sup> Robert Fox, "Newstrack," *Communications of the ACM*, Apr. 1996, p. 9. Cox and Alm, *Myths of Rich and Poor*, p. 113. The Commerce Department projections and other employment data are from several *Wall Street Journal* articles: "Chip-Industry Study Cites Sector's Impact On U.S. Economy," Mar. 17, 1998, p. A20; "High-Tech Help Wanted," Nov. 16, 1998, p. R6; Bruce Ingersoll, "High-Tech Industries, Led by Internet, Boost U.S. Growth and Rein In Inflation," Apr. 16, 1998, p. B7; "High-Tech Added 200,000 Jobs Last Year," May 19, 1998.
- <sup>5</sup> J. M. Fenster, "Seam Stresses," *Great Inventions That Changed the World*, American Heritage, 1994.
- <sup>6</sup> Nick Gillespie, "Change Is Good," *Reason*, April 1995, p. 15.
- <sup>7</sup> Cox and Alm, *Myths of Rich and Poor*, p. 136.
- <sup>8</sup> W. Michael Cox and Richard Alm, *Myths of Rich and Poor: Why We're Better off Than We Think*, Basic Books, 1999, pp. 7, 55.
- <sup>9</sup> Theodore Caplow, Louis Hicks, and Ben J. Wattenberg, *The First Measured Century: An Illustrated Guide to Trends in America*, AEI Press, 2001, p. 160. Cox and Alm, *Myths of Rich and Poor*, pp. 18–19.
- <sup>10</sup> Cox and Alm, *Myths of Rich and Poor*, pp. 60, 59, 10.
- <sup>11</sup> The cost, in work time, of some products and services increased in the same time period. Increases for tax-preparation fees, Amtrak tickets, and the price of a first-class-mail stamp perhaps result from more complex tax laws and monopolies. Increases in the average cost of a new house or car are partly due to the increase in size of new homes and the increase in features of new cars.
- <sup>12</sup> Paul Wallich, "The Analytical Economist," *Scientific American*, Aug. 1994, p. 89.
- <sup>13</sup> Cox and Alm, *Myths of Rich and Poor*, p. 43.
- <sup>14</sup> Salgado's powerful photographic tribute to workers, many who work in extremely harsh conditions, was published as Sebastião Salgado, *Workers: An Archaeology of the Industrial Age*, Aperture, 1993. The photos described here, and several others, also appear in Miles Orvell, "A Tribute to the World's Workers," *Technology Review*, Oct. 1995, pp. 62–69.
- <sup>15</sup> Reprinted in *British Labour Struggles: Contemporary Pamphlets 1727–1850*, Arno Press, 1972.
- <sup>16</sup> Phillip J. Longman, "The Janitor Stole My Job," *U.S. News & World Report*, Dec. 1, 1997, pp. 50–52. Caplow et al., *The First Measured Century*, p. 31.
- <sup>17</sup> Longman, "The Janitor Stole My Job."
- <sup>18</sup> "Work Week," *Wall Street Journal*, Jan. 6, 1998, p. A1. "Looking Good: Where the Fast Growth Is and Will Be," *Wall Street Journal*, Feb. 27, 1995, p. R5.
- <sup>19</sup> Zachary, "Service Productivity Is Rising Fast—and So Is the Fear of Lost Jobs."
- <sup>20</sup> Kemba J. Dunham, "Telecommuters' Lament," *Wall Street Journal*, Oct. 31, 2000, p. B1. Definition of telework vary considerably, so estimated numbers do also.
- <sup>21</sup> Jack Nilles, "Teleworking: Working Closer to Home," *Technology Review*, April 1982, p. 56–62.
- <sup>22</sup> Nilles, "Teleworking: Working Closer to Home."
- <sup>23</sup> Joel Kotkin, "Commuting Via Information Superhighway," *Wall Street Journal*, Jan. 27, 1994, p. A14.
- <sup>24</sup> David Rubins, "Telecommuting: Will the Plug Be Pulled?" *Reason*, Oct. 1984, pp. 24–32. The quote is from Dennis Chamot.

- <sup>25</sup> "The Incredible Shrinking Company," *The Economist*, Dec. 15, 1990, pp. 65–66. Cox and Alm, *Myths of Rich and Poor*, p. 115.
- <sup>26</sup> These trends, with several examples, are described in James B. Trece, "Breaking the Chains of Command," *Business Week*, special issue on the Information Revolution, 1994, pp. 112–114.
- <sup>27</sup> David D. Redell, "Safeguard Employees' Privacy," *San Diego Union-Tribune*, Oct. 13, 1993, p. B5.
- <sup>28</sup> Louis Harris and Associates, "Privacy and Fair Employer Monitoring Practices," April, 1994.
- <sup>29</sup> Calmetta Coleman, "As Thievery by Insiders Overtakes Shoplifting, Retailers Crack Down," *Wall Street Journal*, Sept. 8, 2000, p. A1.
- <sup>30</sup> "A Conversation With Lewis Maltby" (director of the ACLU's Task Force on Civil Liberties in the Workplace), *Privacy and American Business*, Sept. 1994, pp. 9, 12.
- <sup>31</sup> Stuart F. Brown, "Trucking Gets Sophisticated," *Fortune*, July 24, 2000, pp. 270B–270R.
- <sup>32</sup> Quoted in *Connecticut Law Tribune*, Dec. 18, 1995.
- <sup>33</sup> Alex Markels, "I Spy: Wall Street Gets Sneaky Software To Keep an Eye on Broker-Client E-mail," *Wall Street Journal*, Aug. 21, 1997, pp. C1, C23.
- <sup>34</sup> Rick Raber, "When Does Surveillance Turn to Intrusion?" *Chicago Tribune*, May 2, 1995, p. 3.
- <sup>35</sup> Anne Wells Branscomb, *Who Owns Information?*, Basic Books, 1994, reports that Federal Express, American Airlines, Pacific Bell, and United Parcel Service do this, p. 94. IBM and Citicorp provide similar reminders.
- <sup>36</sup> *McLaren v. Microsoft*, Texas Court of Appeal No. 05-97-00824CV, May 28, 1999 ([www.gigalaw.com/articles/gall-2000-01-p5.html](http://www.gigalaw.com/articles/gall-2000-01-p5.html)).
- <sup>37</sup> *Leinweber v. Timekeeper Systems*, 323 NLRB 30 (1997), "E-Mail Law Expands," [www.info-war.com/law/99/law\\_072099a.j.shtml](http://www.info-war.com/law/99/law_072099a.j.shtml).
- <sup>38</sup> Joan Rigdon, "Curbing Digital Dillydallying on the Job," *Wall Street Journal*, Nov. 25, 1996, p. B1. *Wired*, Jan. 2001, p. 80. Michael J. McCarthy, "Now the Boss Knows Where You're Clicking," *Wall Street Journal*, Oct. 21, 1999, pp. B1, B4.
- <sup>39</sup> Claudia Graziano, "'Nintendo Thumb' Points to RSI," *Wired*, Dec. 3, 1998 ([www.wired.com/news/culture/0,1284,16579,00.html](http://www.wired.com/news/culture/0,1284,16579,00.html)).
- <sup>40</sup> Edward Felsenthal, "An Epidemic or a Fad? The Debate Heats Up Over Repetitive Stress," *Wall Street Journal*, July 14, 1994, pg. A1. R. L. Linscheid and J. H. Dobyms, "Athletic Injuries of the Wrist," *Clinical Orthopedics*, Sep. 1985, pp. 141–151. *American Annals of the Deaf*. David M. Rempel, Robert J. Harrison, Scott Barnhart, "Work-Related Cumulative Trauma Disorders of the Upper Extremity," *Journal of the American Medical Association*, 267:6, Feb. 12, 1992, pp. 838–842.
- <sup>41</sup> Sara Kiesler and Tom Finholt, "The Mystery of RSI," *American Psychologist*, Dec. 1988, 43:12, pp. 1004–1015. Felsenthal, "An Epidemic or a Fad?"
- <sup>42</sup> *Investors Business Daily*, June 28, 1994.
- <sup>43</sup> Joan E. Rigdon, "How a Plant Handles Occupational Hazard With Common Sense," *Wall Street Journal*, Sept. 28, 1992, p. A1.
- <sup>44</sup> Edward Felsenthal, "Ergonomics Guidelines Lack Solutions," *Wall Street Journal*, July 19, 1994, pg. B7.
- <sup>45</sup> Mark Ragg, "Plague of RSI Suddenly 'Disappears,'" *The Australian*, Sept. 7, 1987. Sara Kiesler and Tom Finholt, "The Mystery of RSI," *American Psychologist*, Dec. 1988, 43:12, pp. 1004–1015. Emil Pascarelli and Deborah Quilter, *Repetitive Strain Injury: A Computer User's Guide*, John Wiley & Sons, Inc., 1994, p. 11.
- <sup>46</sup> Kiesler and Finholt, "The Mystery of RSI," p. 1012.
- <sup>47</sup> Jeremy Rifkin, "New Technology and the End of Jobs," in Jerry Mander and Edward Goldsmith, eds., *The Case Against the Global Economy and For a Turn Toward the Local*, Sierra Club Books, 1996, pp. 108–121.
- <sup>48</sup> Bob Davis and David Wessel, *Prosperity: The Coming 20-Year Boom and What It Means to You*, Random House, 1998, p. 95.
- <sup>49</sup> Steven Philips, quoted in Felsenthal, "An Epidemic or a Fad?"
- <sup>50</sup> One can find data and speculation in popular articles, research papers, and on the Web. A few samples: Charles Piller, "The Gender Gap Goes High-Tech," *Los Angeles Times*, Aug. 25, 1998, p. A1; Paul De Palma, "Why Women Avoid Computer Science," *Communications of the ACM*, June 2001, pp. 27–29; Brandice J. Canes and Harvey S. Rosen, "Following in Her Footsteps? Women's Choices of College Majors and Faculty Gender Composition," National Bureau of Economic Research, Working Paper No. 4874, Oct. 1994; *Journal of Women and Minorities in Science and Engineering*.

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