

# Demand for Certified Human Resources Professionals in Internet-Based Job Announcements

Herman Aguinis\*, Sarah E. Michaelis, and Nicole M. Jones  
University of Colorado at Denver and Health Sciences Center

We tested empirically whether potential employers require and/or prefer human resources (HR) professionals who hold an HR certification. We analyzed each of 1873 HR job announcements available over a 1-week period on <http://monster.com>, <http://hotjobs.yahoo.com>, <http://careerbuilder.com>, and <http://shrm.org>. Results showed that only nine (i.e., .48%) job announcements stated that there was a requirement and only 70 (i.e., 3.73%) job announcements stated that there was a preference for job applicants with any type of HR certification. In spite of the low overall demand for certified HR professionals, results indicated that the demand is slightly higher for jobs posted on <http://shrm.org>, certain job titles (e.g., HR Director, HR Generalist), HR specialty areas (e.g., employee relations, general HR), industries (e.g., manufacturing), and for jobs requiring more years of HR job experience. Overall, results suggest that the field of HR needs to do a better job of gathering evidence about validity, utility, and lack of adverse impact regarding the use of certification in selection and assessment decision making. Once this evidence is collected, employers may perceive HR certification as a more critical signal of a job applicant's future contributions.

Professional certifications are often highly recognizable and provide a great deal of credibility to the individual bearing the designation. Examples of certifications that are widely recognized include the Certified Public Accountant (CPA), Certified Internet Webmaster, Certified Internal Auditor, and Critical Care Registered Nurse, among others.

Signaling theory provides a conceptual framework to understand why certifications, degrees, grade point average, and other educational credentials are used as predictors in employee selection and assessment systems (e.g., Howard, 1986; Roth & Bobko, 2000). Spence (1973, 1974) argued that when job applicants provide information regarding their educational achievements, they are giving employers a *signal* regarding their potential productivity. Employers then use this signal, together with others (e.g., experience, test scores) to make a hiring

decision. Signaling theory also posits that employers use signals provided by job applicants in anticipating the marginal utility of a hiring decision and, therefore, offer a wage based on that expectation (Spence, 1973).

Earning certification in a particular field usually sends a signal to potential employers that an individual has mastered a specific body of knowledge. Consequently, as is predicted by signaling theory, holding a professional certification is typically linked to higher levels of employability and compensation. For example, a recent survey of information technology (IT) professionals indicated that 83% of study participants reported that certification helped them acquire a new position (Campbell, 2004). Another recent survey showed that IT professionals holding a Cisco Internetworking Expert certification receive salaries 37% higher (i.e., \$26,200) than uncertified network technicians (Roberts, 2002). Also, IT professionals holding four other popular certifications receive salaries about 30% higher than non-certified professionals in the same area of specialization (Roberts, 2002). Thus, certification in the IT field seems to be a valuable signal to employers and, therefore, certification is associated with greater employability and compensation.

\*Address for correspondence: Herman Aguinis, Mehalchin Term Professor of Management, The Business School, University of Colorado at Denver and Health Sciences Center, Campus Box 165, P.O. Box 173364, Denver, CO 80217-3364, U.S.A. Email: [Herman.Aguinis@cudenver.edu](mailto:Herman.Aguinis@cudenver.edu). Internet: <http://www.cudenver.edu/~haguinis>.

Another field in which certification is an important signal to potential employers in the hiring process is accounting. In accounting, professional certification is regulated by a professional organization (i.e., the American Institute of Certified Public Accountants (AICPA)) and governed by law. As such, the certification process serves incumbent members of the profession as well as the public interest. From a signaling theory perspective, certification in the field of accounting serves as a signal to both potential employers and the public at large. Accounting certification formally began with the passage of the first CPA law and the administration of the first CPA examination in December 1896 (Flesher, Previts, & Flesher, 1996). The passage of the first CPA law was preceded by political activity on the part of accountants and professional organizations seeking to demonstrate respectability and the establishment of common professional practices. The late 1800s were a time of extreme corruption in business and politics in the United States, and statements by accountants were important sources of information for investors and bankers. Establishing a certification system was seen as a way to endorse a minimum level of competence and ethical conduct on the part of the certification holder. At present, the term CPA is recognized widely and conveys a status beyond that of "Accountant." To become a CPA, one must pass a lengthy series of exams and meet education and experience requirements. According to the 2003 *Robert Half and Accountemps Salary Guide* cited on the AICPA Web site, CPAs earn 10% more than those without certification (*Accounting Salaries*, 2003, n.d.). This result also provides support to the prediction by signaling theory that certification in the field of accounting is a signal of value added as perceived by employers.

## Human Resources (HR) Management Certification

The field of HR management follows what seems to be a general trend in professional fields towards increasing certification (Wiley, 1999). The increased visibility of HR certification programs is evident in several countries including the United States, Canada, and the United Kingdom (Wiley, 1992). In the United States, certification in HR began in 1976 with what is now known as the Human Resource Certification Institute (HRCI) (Cher-rington & Leonard, 1993; see Wiley, 1992, for a historical description and comparison of HR certification programs in the United States, Canada, and the United Kingdom). Certification had its roots in the American Society for Personnel Administration (ASPA), the forerunner of the Society for Human Resource Management (SHRM; For-man & Cohen, 1999) that formed in 1948 (Leonard, 1998). The founders of ASPA aimed at achieving a positive

professional image and believed that certification would be instrumental in achieving this goal. Although HRCI began certifying HR professionals in 1976, HRCI (under its former name of ASPA Accreditation Institute) began its work in 1973 when ASPA's board of directors voted to approve the creation of a professional accreditation program for HR managers (Leonard, 1998).

The initial certification program had separate exams in each of six specialty areas and four different designations. In 1988, the certification program was simplified into a general exam with the current two designations: Professional in HR (PHR) and Senior Professional in HR (SPHR). The PHR is intended for those whose primary function involves technical and operations aspects and the SPHR is intended for those who have a strategic role.

According to the HRCI Web page, there are 65,614 individuals who are certified (as of December 2003; HRCI (n.d.), *Certification count, by area*). The popularity of HR certifications has increased substantially given that only 43,000 individuals were certified in June 2000 (HRCI (n.d.), *Certification count, by area*), a remarkable increase of over 50% in 3½ years. Fran Gauer, HRCI's president in 1989, stated that "Jim Wilkins (the Institute's director from 1986 to 1992) always told me that the Institute would hold its own when 2,000 or more people would take the exam in a year; he was right about that, but I don't think he or I could ever have imagined the success the certification program is experiencing today" (Leonard, 1998, p. 112). In fact, the certification program is so successful that HRCI launched a new International HR Certification program in Spring 2004 (*HRCI to Offer Global HR Certification in 2004*, 2003).

SHRM supported HRCI in its earlier years and currently HRCI is an affiliate of SHRM (Forman & Cohen, 1999, p. 159); but HRCI and SHRM are two separate organizations with their own Boards of Directors, by-laws, staff, and budgets (Forman & Cohen, 1999). However, SHRM and HRCI are closely related given that HRCI resides within the SHRM building and the HRCI Director reports both to the HRCI Board and to the Director of SHRM's Knowledge Development Division. At present, because of the increasing number of HR professionals seeking certification, revenue generated by examination fees is highly profitable and SHRM has direct and indirect financial benefits associated with this success. For example, SHRM sees a direct financial benefit from HRCI's certification program because sales figures for SHRM's Learning System™ (SHRM, n.d. b), which is a learning tool used as an HR primer and in studying for the certification examination, have increased dramatically over the last few years (Forman & Cohen, 1999). In 1998, for example, more than 12,000 HR professionals used SHRM's Learning System™ (SHRM, n.d. b) and the growth of HRCI's certification program has had a major impact on the system's success (Forman & Cohen, 1999, p. 157). SHRM also benefits indirectly because the SHRM Foundation has

received important donations from HRCI. For example the total donation that HRCI gave to the SHRM Foundation in 1996 and 1997 combined is nearly \$1.5 million (Leonard, 1998).

The number of individuals seeking HR certification is likely to continue to increase at a fast pace given that HRCI and SHRM are actively promoting the presumed recognition and career advancement that accreditation provides to HR professionals. In fact, HRCI's Web site describes HR certification as "an aid for career advancement" (HRCI (n.d. a), *Why is certification desirable?*). In addition, PHR and SPHR holders are encouraged to "proudly display their certificates and use the credentials on business correspondence" (HRCI (n.d. c), *Use of certification*). SHRM is also actively promoting the certification program among students. Although students cannot be certified without 2 years of exempt-level HR experience, students are advised to take the test and write "passed PHR exam" on their resumes to demonstrate their knowledge to prospective employers. A discussion that occurred on the SHRM student chapter advisor listserv suggests that many faculty advisors also encourage students to take the certification exam (Northeastern State University Management Club Newsletter, 2001). In general, there is the perception that HR certification is considered a valuable signal by employers and that students who pass the certification exam may have an advantage in the job market. Consider, for instance, the following statements about HR certification by SHRM student chapter faculty advisors (Northeastern State University Management Club Newsletter, 2001):

It is extremely valuable for students just graduating with limited experience. I talk with many recruiters during the course of the year and they all say that if they see a person who has "Passed the HRCI exam" on their resume it makes that person really stand out.

David Wheeler, Robert Morris College SHRM chapter advisor

... our graduates ... who have passed the certification exam find HR positions at a much greater level than those who do not pass the certification exam. In the last three years we have had all of our students who pass the certification exam find jobs in HR either before they graduate or shortly after they graduate (a total of ten), and only two who have not passed the exam have found jobs in HR.

Glynn N. English, Oswego State University of New York SHRM chapter advisor

## Present Study

The increasing visibility and promotion of HR certification is based on the untested assumption that being certified allows individuals to secure jobs more easily. Using signaling theory terminology, HR certification is marketed

as a signal that employers recognize, value, and appreciate. In addition, there is also the assumption that employers use HR certification information in establishing compensation levels. In fact, the International Public Management Association for Human Resources' Web site makes these assumptions explicit when it states that "certified professionals often find that their credentials translate into increased earning power, and greater opportunities for promotion" (International Public Management Association for Human Resources (n.d.), *What are the advantages of certification?*). However, although HRCI and SHRM are actively promoting certification and thousands of professionals have taken the exams, there currently is no empirical evidence indicating that these assumptions are in fact true. Thus, the goal of the present study was to test the following hypotheses using signaling theory as the conceptual framework:

*Hypothesis 1:* Potential employers will consider HR certification as an important signal in the hiring process and will therefore require or prefer job applicants holding an HR certification designation.

*Hypothesis 2:* Because HR certification is assumed to be an important signal in the hiring process, HR job vacancies for which HR certification is required or preferred will be associated with higher salary levels as compared with HR job vacancies for which HR certification is not required or preferred.

In addition, the goal of this study was to provide answers for each of the following exploratory questions for which we did not have specific hypotheses:

*Question #1:* Does the interest of potential employers in HR-certified job applicants covary with other job requirements such as years of HR job experience and level of education?

*Question # 2:* Does the interest of potential employers in HR-certified job applicants differ depending on the type of HR position vacant (e.g., HR Manager, HR Processor, HR analyst, etc.)?

*Questions #3:* Does the interest of potential employers in HR-certified job applicants differ depending on the status of the vacant position (e.g., full-time vs. part-time)?

*Question #4:* Does the interest of potential employers in HR-certified job applicants differ depending on the HR specialty area for the vacancy (e.g., employee relations, general HR, HR information systems, etc.)?

*Question #5:* Does the interest of potential employers in HR-certified job applicants differ depending on the employer's geographic location?

*Question #6:* Do potential employers in some industries value HR certification more than potential employers in other industries?

To test our two hypotheses and answer our six questions, we conducted an empirical study in which we analyzed the content of HR job announcements. Although job announcements may not necessarily include all the qualifications required for a job, they include the most central components. Thus, if HR certification is indeed a valued signal that has an important place in the hiring process, information on HR certification should be present in the job announcements.

## Method

### *Selection of Job Announcements*

Our study included all job announcements in the general "Human Resources" category from Monster (<http://www.monster.com>), Yahoo! HotJobs (<http://hotjobs.yahoo.com/>), and CareerBuilder (<http://www.careerbuilder.com>). We selected these career Web sites because they are consistently rated as the top three in terms of number of unique visitors. For example, a May 2003 report released by Nielsen/NetRatings for number of unique visitors during April 2003 shows that Monster was the most popular career site (10,774,000 visitors), followed by Yahoo! HotJobs (3,545,000 visitors), and CareerBuilder (3,342,000 visitors) (Nielsen/NetRatings, 2003). In addition, we also included all announcements posted on <http://shrm.org> because of its exclusive focus on HR. The study included all HR job announcements posted on Monster, Yahoo! HotJobs, and CareerBuilder, and all job announcements posted on <http://shrm.org> during a 1-week period from January 27, 2002 to February 2, 2002. This search resulted in 629 job announcements from Monster, 496 from Yahoo! HotJobs, 587 from CareerBuilder, and 161 from SHRM. Thus, the total number of job announcements content analyzed was 1873. Each of these job announcements was printed from the four Web sites prior to the implementation of the coding procedure described below.

### *Content Analysis Procedure*

First, the three authors constructed a coding matrix including each of the features to be recorded for each of the 1873 job announcements. The variables coded were the following:

- Is PHR certification required? (yes/no)
- Is PHR certification preferred? (yes/no)
- Is SPHR certification required? (yes/no)
- Is SPHR certification preferred? (yes/no)
- Is any type of non-specified HR certification required? (yes/no)

- Is any type of non-specified HR certification preferred? (yes/no)
- Salary offered
- Required years of HR job experience
- Required level of education
- Job title (e.g., assistant, manager, director, consultant)
- Job status (e.g., full-time, part-time, contract)
- HR specialty area (e.g., general HR, benefits, training, employee relations)
- Geographic location (i.e., state or country if outside of the United States)
- Industry type (e.g., mining, manufacturing, retail trade, finance & insurance)
- Recruiting source (i.e., hiring organization or search firm)

Then, the three authors selected a random set of 20 job announcements, discussed the content of each announcement, and reached consensus on the values assigned based on each of the focal study variables. This second step served the purpose of calibrating and refining a common frame of reference for the coding process. Third, the second and third authors coded a random set of 50 job announcements independently. Results showed an average inter-rater agreement of  $r = .98$  across all variables coded. The very few discrepancies found were resolved by a subsequent discussion also including the first author. Given the high level of inter-rater agreement, the remaining job announcements (i.e., 1803) were approximately evenly distributed for coding between the second and third authors.

## Results

### *Job Announcements: Descriptive Information*

Before we describe results pertaining to each of the hypotheses and questions included in the Introduction, we offer descriptive information obtained from the job announcements. This information serves the purpose of providing an overview of various key features of the HR job market.

Table 1 shows summary information regarding the job announcements' requirements for years of HR job experience. This table shows that, on average, HR jobs require over 4 years of job experience. Table 1 also shows that the mean salary offered is \$51,072, and the median salary is \$41,800.

Table 2 summarizes information regarding required level of education, job titles, job status, HR specialty area, geographic location, and industry type. Of the job announcements that included information on education requirements, approximately 70% of announcements required or preferred an undergraduate degree, whereas approximately 23% of announcements preferred a master's degree. Thus, an undergraduate degree is the modal category regarding required level of education. Regarding

**Table 1. Descriptive statistics for required years of HR job experience and salary offered in job announcements**

|          | Required years of HR job experience | Salary offered |
|----------|-------------------------------------|----------------|
| <i>N</i> | 1166 (62%)                          | 516 (28%)      |
| <i>M</i> | 4.29                                | \$51,072       |
| Median   | 4                                   | \$41,800       |
| SD       | 2.65                                | \$32,333       |

Note: *N* = number of announcements (and percent out of the total of 1873) that provided information for each variable. *M*, mean; SD, standard deviation; HR, human resources.

job titles mentioned in the job announcements, the most popular categories include (a) Manager (27.6%), (b) Recruiter (11.7%), (c) Specialist (8%), (d) Director (6.4%), and (e) Assistant (5.9%). These five job titles combined comprise approximately 60% of the 1824 announcements including job title information. Regarding job status, the table shows that the vast majority of vacancies (i.e., 92%) entail full-time positions. Table 2 also shows which are the HR specialty areas that are in highest demand. Specifically, the two most popular areas are general HR (31.2%) and recruiting (23.6%), which together comprise more than half of all announcements that included specific information regarding the particular HR area vacant. None of the remaining HR areas were included in more than 9% of the announcements. Regarding geographic location, Table 2 shows that the majority of HR vacancies are located in California (16.3%), New York (9.2%), Texas (8.2%), Illinois (6.1%), and New Jersey (5.4%). The table also includes information regarding the distribution of HR jobs across industries. In compiling the information shown in the table, we classified each job announcement according to industry type by using the North American Industry Classification System (NAICS), which was adopted in 1997 to replace the old Standard Industrial Classification system (U.S. Census Bureau, n.d.). Table 2 shows that the following industries are the most popular for HR jobs: (1) professional, scientific, and technical services (44.6%), (2) manufacturing (11.4%), (3) health care and social assistance (11.4%), (4) retail trade (9.3%), and (5) finance and insurance (8.0%), which together account for approximately 85% of all HR vacancies. Finally, although not shown in Table 2, 1831 of the total 1873 announcements specified whether the recruiting agent was the hiring organization or a search firm. Of these, 1488 (81.3%) directed candidates to contact the hiring organization, whereas 343 (18.7%) directed applicants to contact a search firm.

In sum, the descriptive information extracted from the job announcements indicates the following regarding the HR job market: Median annual salary is \$41,800; most

positions require or prefer an undergraduate degree; the most popular job titles are HR Manager, Recruiter, and HR Specialist; most positions are full-time; the two most popular specialty areas are general HR and recruiting; most positions are available in California, New York, and Texas; and the types of industries seeking most HR professionals are (1) professional, scientific, and technical services, (2) manufacturing, (3) health care and social assistance, (4) retail trade, and (5) finance and insurance. Next, we describe results pertaining to each of the hypotheses and questions posed in the Introduction.

### *Hypothesis 1: Requirement and Preference for HR Certified Job Applicants*

Hypothesis 1 stated that potential employers would require or at least prefer candidates holding an HR certification. Table 3 shows results pertaining to the test of this hypothesis. Much to our surprise, only 9 (0.48%) of the 1873 job announcements stated that HR certification (i.e., PHR, SPHR, or any type of non-specified HR certification) was *required* for the position. And, only 70 announcements (3.73%) included a statement of *preference* for a candidate who holds any type of HR certification. As shown in Table 3, a total of 54 announcements (2.88%) included a statement of requirement or preference for non-specified HR certification, whereas 19 (1.01%) mentioned the PHR and seven (0.37%) mentioned the SPHR designation specifically. Finally, only one job announcement stated that candidates should be “working towards” certification. Thus, the data do not provide support for Hypothesis 1. In fact, the data indicate the opposite: Very few job announcements mention HR certification of any type.

Although the overall demand for HR certification is very low, we investigated possible differences across job announcement sources. To do so, we conducted a Kolmogorov–Smirnov (KS) two-sample test to determine if the sample distributions (i.e., certification vs. no certification) come from the same population. The KS test has the advantage of making no assumption about the distribution of data. Thus, this is a test that is non-parametric and distribution free (Chakravarti, Laha, & Roy, 1967). These features make the KS test appropriate given the categorical nature of both the dependent variable (certification preference or requirement) and the independent variable (i.e., job announcement source). We found a statistically significant difference across sources (i.e., KS  $Z = 2.16, p < .001$ ). Although the demand for HR-certified professionals is overall very low, a perusal of the frequencies in each cell indicated that the SHRM site included the largest percentage of job announcements stating either preference or requirement for HR certification (16/161 = 9.94%), followed by Monster (36/629 = 5.72%), Yahoo! HotJobs (19/496 = 3.83%), and CareerBuilder (8/587 = 1.36%). These percentages suggest that, although there is a statistically significant

**Table 2. Frequency of job announcements classified based on required level of education, job title, job status, HR specialty area, geographic location, and industry type**

|                                  |  |   |  |                                 |                                     |                                   |  |   |
|----------------------------------|--|---|--|---------------------------------|-------------------------------------|-----------------------------------|--|---|
| Education level <sup>a</sup>     | Undergraduate degree required<br>446 (41.7%)                   | Undergraduate degree preferred<br>272 (25.4%) | Master's preferred<br>248 (23.2%)                | Associate's degree<br>30 (2.8%) | High school<br>25 (2.3%)            | Some college<br>17 (1.6%)         | Master's Required<br>16 (1.5%)               |   |
| Job title <sup>b</sup>           | Manager<br>504 (27.6%)   | Recruiter<br>213 (11.7%)                      | Specialist<br>149 (8.0%)                         | Director<br>116 (6.4%)          | Assistant<br>107 (5.9%)             | Administrator<br>90 (4.9%)        | Generalist<br>74 (4.1%)                      | Processor<br>71 (3.9%)                      |
| Job status <sup>c</sup>          | Consultant<br>62 (3.4%)  | Coordinator<br>57 (3.1%)                      | Analyst<br>55 (3.0%)                             | Representative<br>54 (2.2%)     | Supervisor<br>41 (2.2%)             | Clerk<br>26 (1.4%)                | Senior analyst<br>20 (1.1%)                  |   |
|                                  | Full-time<br>1724 (92.0%)                                      | Contract<br>94 (5.0%)                         | Temporary<br>26 (1.4%)                           | Part-time<br>23 (1.2%)          | Internship<br>3 (.2%)               | Full-time or part-time<br>3 (.2%) |  |   |
| HR specialty area <sup>d</sup>   | General HR<br>572 (31.2%)                                      | Recruiting<br>433 (23.6%)                     | Administration<br>159 (8.7%)                     | Payroll<br>152 (8.3%)           | Benefits<br>144 (7.9%)              | Training<br>59 (3.2%)             | Compensation<br>53 (2.9%)                    | Sales<br>51 (2.8%)                          |
|                                  | HR information systems<br>46 (2.5%)                            | Employee relations<br>28 (1.5%)               | Organizational development<br>24 (1.3%)          |                                 |                                     |                                   |  |   |
| Geographic location <sup>e</sup> | California<br>298 (16.3%)                                      | New York<br>168 (9.2%)                        | Texas<br>150 (8.2%)                              | Illinois<br>111 (6.1%)          | New Jersey<br>99 (5.4%)             | Pennsylvania<br>81 (4.4%)         | Florida<br>76 (4.2%)                         | Georgia<br>71 (3.9%)                        |
|                                  | Virginia<br>63 (3.4%)  | Massachusetts<br>60 (3.3%)                    | Michigan<br>53 (2.9%)                            | Maryland<br>44 (2.4%)           | N. Carolina<br>44 (2.4%)            | Washington<br>40 (2.2%)           | Ohio<br>37 (2.0%)                            | Colorado<br>36 (2.0%)                       |
|                                  | Indiana<br>34 (1.9%)   | Connecticut<br>32 (1.7%)                      | Wisconsin<br>32 (1.7%)                           | Arizona<br>31 (1.7%)            | Kentucky<br>31 (1.7%)               | Washington, DC<br>29 (1.6%)       | Minnesota<br>25 (1.4%)                       | Missouri<br>20 (1.1%)                       |
| Industry type <sup>f</sup>       | Professional, scientific and technical services<br>696 (44.6%) | Manufacturing<br>178 (11.4%)                  | Health care and social assistance<br>178 (11.4%) | Retail trade<br>146 (9.3%)      | Finance and insurance<br>125 (8.0%) | Telecommunication<br>33 (2.1%)    | Accommodation and food services<br>32 (2.0%) | Transportation and warehousing<br>21 (1.3%) |
|                                  | Government<br>21 (1.3%)  | Educational services<br>20 (1.3%)             | Other services<br>21 (1.3%)                      |                                 |                                     |                                   |  |   |

Note: <sup>a</sup>Percentages are calculated based on the 1069 announcements that provided information on education requirements. <sup>b</sup>Percentages are calculated based on the 1824 announcements that provided a job title. <sup>c</sup>All job announcements (1873) included information regarding job status and, therefore, percentages are calculated based on the total number of announcements. <sup>d</sup>Percentages are calculated based on the 1832 announcements that specified HR specialty area. <sup>e</sup>Percentages are calculated based on the 1830 announcements that specified a location; locations outside of the United States: Brazil = 2 (.1%), Great Britain = 1 (.1%), and India = 2 (.1%). <sup>f</sup>Percentages are calculated based on the 1562 announcements that specified industry type. For all variables, categories including less than 1% of the total are not shown in this table; this information can be obtained by contacting the authors. HR, human resources.

**Table 3. Number of job announcements stating that HR certification is required or preferred**

|                | HR certification<br>(non-specified) | PHR        | SPHR     | Total      |
|----------------|-------------------------------------|------------|----------|------------|
| Required       | 6 (3.20%)                           | 3 (.16%)   | 0 (0%)   | 9 (.48%)   |
| Preferred      | 47 (2.51%)                          | 16 (.85%)  | 7 (.37%) | 70 (3.74%) |
| Working toward | 1 (.05%)                            | 0 (0%)     | 0 (0%)   | 1 (.05%)   |
| Total          | 54 (2.88%)                          | 19 (1.01%) | 7 (.37%) | 80 (4.27%) |

Note: Percentages are calculated based on the total number of announcements coded (i.e., 1873). HR, human resources; PHR, professional in HR; SPHR, senior professional in HR.

difference across sources, the overall conclusion remains the same: The demand for HR-certified professionals, as indicated by the information provided in job announcements, is very low. Thus, given the overall low demand and the small practical differences across sources (albeit statistically significant), we decided not to conduct further analyses using job announcement source as a potential moderator variable of each of the relationships investigated next (cf. Aguinis, 2004, Chapter 6).

### *Hypothesis 2: HR Certification and Salary*

Hypothesis 2 stated that job announcements mentioning that HR certification is required or preferred would offer higher salaries compared with job announcements not mentioning HR certification. To test this hypothesis, we conducted an ANCOVA regressing salary on HR certification requirement or preference and using geographic location and industry type as covariates (i.e., control variables). Because the control variables are categorical, we set up dummy coded vectors where each vector had a 1 for one geographic location or industry type and 0 for all others.

We conducted the analyses using ordinary least squares (OLS) regression as well as OLS regression with the Huber/White correction that adjusts the variance-covariance matrix to produce robust standard errors (this procedure corrects for possible heteroscedasticity). Both types of analyses yielded results almost identical, so we report results from OLS regression without the Huber/White correction. The regression coefficient for certification was not statistically significant,  $b = -2784.469$ ,  $F_{\text{change}} (df = 1, 328) = .09$ ,  $p = .76$ , and 95% CI ranging from  $-21,006.34$  to  $15,437.41$ . In short, the data did not provide support for Hypothesis 2: Jobs requiring or stating a preference for HR certification are not associated with higher levels of compensation as compared with jobs not requiring or stating a preference for HR certification.

### *Question #1: HR Certification, HR Job Experience, and Required HR Job Experience*

Question #1 asked whether there is a relationship between (a) HR certification and HR years of job experience required

and (b) HR certification and level of education required. Regarding the question about the relationship between certification and required years of HR job experience, similar to the test of Hypothesis 1, we conducted an ANCOVA regressing years of HR job experience on HR certification requirement or preference using geographic location and industry type as covariates. The regression coefficient for certification was statistically significant,  $b = 1.34$ ,  $F_{\text{change}} (df = 1, 898) = 14.50$ ,  $p < .001$ , and 95% CI ranging from .65 to 2.03. Specifically, the mean number of years of HR job experience required of HR-certified applicants was 5.35, whereas the required number of years of experience required of applicants who are not HR certified was 4.21. In terms of Cohen's  $d$ , this represents a difference of .46 standard deviation units.

Regarding the possible relationship between certification and level of education required for the position, we conducted a KS two-sample test to determine if the sample distributions come from the same population. Level of education required was coded using categories found in the announcements as follows: High school, associate's degree, some college, undergraduate degree preferred, undergraduate degree required, master's preferred, and master's required. The KS test was preferred over a general linear model-based analysis given the categorical nature of both the criterion and predictor variables. Results showed that the relationship was not statistically significant (i.e.,  $KS Z = .58$ ,  $p > .05$ ).

### *Question #2: HR Certification and Position Type*

Question #2 asked whether a statement of preference or requirement regarding HR certified applicants would be more prevalent for specific types of HR positions. Results based on the KS test showed that the relationship was statistically significant,  $KS Z = 2.23$ ,  $p < .001$ . Table 4 shows the nature of this relationship. As noted in describing results pertaining to Hypothesis 1, HR certification is overall not frequently required or preferred. However, Table 4 shows some differences across job titles. Relative to other positions, HR certification is most frequently required or preferred for the position of HR Director (i.e., 12.1%), followed by HR Generalist (9.5%), HR Manager (6%), HR Representative (5.6%), and HR

**Table 4. HR certification requirement or preference across job titles**

| Job titles     | HR certification required of preferred <i>N</i> (%) | No HR certification mentioned <i>N</i> (%) | Total <i>N</i> |
|----------------|---|--|----------------|
| Director       | 14 (12.1)   | 102 (87.9)                                 | 116            |
| Generalist     | 7 (9.5)   | 67 (90.5)                                  | 74             |
| Manager        | 30 (6.0)  | 474 (94.0)                                 | 504            |
| Representative | 3 (5.6)   | 51 (94.4)                                  | 54             |
| Analyst        | 3 (5.5)   | 52 (94.5)                                  | 55             |
| Consultant     | 3 (4.8)   | 59 (95.2)                                  | 62             |
| Specialist     | 6 (4.1)   | 140 (95.9)                                 | 146            |
| Supervisor     | 1 (2.4)   | 40 (97.6)                                  | 41             |
| Assistant      | 1 (.9)  | 106 (99.1)                                 | 107            |
| Recruiter      | 1 (.5)  | 212 (99.5)                                 | 213            |
| Administrator  | 0 (0)   | 90 (100)                                   | 90             |
| Processor      | 0 (0)   | 71 (100)                                   | 71             |
| Coordinator    | 0 (0)   | 57 (100)                                   | 57             |
| Clerk          | 0 (0)   | 26 (100)                                   | 26             |
| Senior Analyst | 0 (0)   | 20 (100)                                   | 20             |

*Note:* Percentages are calculated based on the total number of announcements in each job title (i.e., each Table row). HR, human resources.

Analyst (5.5%). In contrast, 0% or near 0% of announcements stated a requirement or preference for HR certification for the positions of HR Assistant, Recruiter, HR Administrator, HR Processor, HR Coordinator, HR Clerk, and HR Senior Analyst.

#### *Question #3: HR Certification and Job Status*

Question #3 asked whether there is a relationship between a requirement or preference for HR certification and job status. Job status was coded using categories found in the announcements as follows: full-time, contract, temporary, part-time, internship, and full-time or part-time. Results based on the KS test showed that the relationship was not statistically significant (i.e.,  $KS Z = .38, p > .05$ ).

#### *Question #4: HR Certification and HR Specialty Area*

Question #4 asked whether HR certification would be required or preferred more frequently for vacancies in some HR specialty areas than others. Results based on the KS test showed that the relationship was statistically significant,  $KS Z = 4.04, p < .001$ . Table 5 shows the nature of this relationship. Approximately 10% of announcements for employee relations and general HR positions required or preferred HR certification, followed by benefits (4.9%) and organizational development (4.2%). In contrast, several areas including recruiting, administration, payroll, training, and HR information systems included 0% or near 0% of announcements requiring or preferring HR certification. The result regarding the lack of preference for

certified professionals for HR information systems positions is consistent with Gilster's (2000) conclusion about the lack of technology content in HR certification examinations. Given that HR certification exams are missing "a bridge to technology for the nonspecialist" (Gilster, 2000, p. 72), there is no reason why HR information systems positions should require or even prefer HR-certified applicants.

#### *Question #5: HR Certification and Geographic Location*

Question #5 asked whether the demand for certified HR professionals would be higher in some geographic regions than others. Geographic location was coded using State or country if the location was outside of the United States. Results based on the KS test showed that the relationship between demand for certification and geographic location was not statistically significant (i.e.,  $KS Z = 1.15, p > .05$ ).

#### *Questions #6: HR Certification and Industry Type*

Question #6 asked whether the requirement or preference for HR certification varies across industry type. To answer this question, we classified each job announcement according to industry type by using the NAICS (U.S. Census Bureau, n.d.). Results based on the KS test showed that the relationship was statistically significant,  $KS Z = 1.39, p < .05$ . Although the demand for certified HR professionals is overall very low, Table 6 shows that some industries value HR-certified applicants more than others. Specifically, approximately 10% of jobs in manufacturing and



**Table 5. HR certification requirement or preference across HR specialty areas**

| HR specialty area          | HR certification required or preferred<br><i>N</i> (%) | No HR certification mentioned<br><i>N</i> (%) | Total <i>N</i> |
|----------------------------|--|---|----------------|
| Employee relations         | 3 (10.7)   | 25 (89.3)                                     | 28             |
| General HR                 | 59 (10.3)  | 513 (89.7)                                    | 512            |
| Benefits                   | 7 (4.9)  | 137 (95.1)                                    | 144            |
| Organizational development | 1 (4.2)  | 23 (95.8)                                     | 24             |
| Compensation               | 1 (1.9)  | 52 (98.1)                                     | 53             |
| Recruiting                 | 3 (.7)   | 430 (99.3)                                    | 433            |
| Administration             | 1 (.6)   | 158 (99.4)                                    | 159            |
| Payroll                    | 0 (0)  | 152 (100)                                     | 152            |
| Training                   | 0 (0)  | 59 (100)                                      | 59             |
| Sales                      | 0 (0)  | 51 (100)                                      | 51             |
| HR information systems     | 0 (0)  | 46 (100)                                      | 46             |

*Note:* Percentages are calculated based on the total number of announcements in each HR specialty area (i.e., each Table row).

HR, human resources.

**Table 6. HR certification requirement or preference across industries**

| Industry  | HR certification required or preferred<br><i>N</i> (%) | No HR certification mentioned<br><i>N</i> (%) | Total <i>N</i> |
|---|--|---|----------------|
| Manufacturing                                   | 17 (9.6)   | 161 (90.4)                                    | 178            |
| Accommodation and food services                 | 3 (9.4)  | 29 (90.6)                                     | 32             |
| Health care and social assistance               | 13 (7.3)   | 165 (92.7)                                    | 178            |
| Finance and insurance                           | 7 (5.6)  | 118 (94.4)                                    | 125            |
| Educational services                            | 1 (5.0)  | 19 (95.0)                                     | 20             |
| Other services                                  | 1 (5.0)  | 19 (95.0)                                     | 20             |
| Telecommunication                               | 1 (3.0)  | 32 (97.0)                                     | 33             |
| Professional, scientific and technical services | 20 (2.9)   | 676 (97.1)                                    | 696            |
| Retail trade                                    | 1 (0.7)  | 145 (99.3)                                    | 146            |
| Transportation and warehousing                  | 0 (0)  | 21 (100)                                      | 21             |
| Government                                      | 0 (0)  | 21 (100)                                      | 21             |

*Note:* Percentages are calculated based on the total number of announcements in each industry (i.e., each Table row).  
HR, human resources.

accommodation and food services included a statement that HR certification was required or preferred. These industries were followed by health-care and social assistance (7.3%) and finance and insurance (5.6%). In contrast, none of the announcements in transportation and warehousing and government included such a mention to HR certification, and only .7% of announcement in retail trade mentioned that HR certification was required or preferred.

## Discussion

The primary goal of the present study was to investigate a prediction based on signaling theory that employers would

consider HR certification as a relevant enough predictor to include it in their job announcements. Contrary to our expectation, results showed that only 79 (i.e., 4.22%) of the 1873 job announcements we analyzed included a statement that any type of HR certification was either required or preferred. In other words, contrary to Hypothesis 1, demand for certified HR professionals is extremely low and does not even reach 5% of all HR job vacancies advertised. Apparently, employers do not consider HR certification as a signal of employee value-added and future productivity.

Hypothesis 2, which was also based on signaling theory, did not receive support either. Specifically, HR certification does not seem to be used as a signal used to set wages

differentially. Jobs requiring or stating a preference for HR certification are not associated with higher levels of compensation as compared with jobs not requiring or stating a preference for HR certification.

Obviously, these results are likely to be disappointing news for the thousands of HR professionals who have invested their money, time, and effort in obtaining their PHR or SPHR designations. For example, each year over 30,000 HR professionals utilize SHRM's Learning System™ in preparation to take the certification exams (SHRM, *The SHRM Learning System*). HR professionals who are SHRM members pay about \$600 (about \$700 for non-members) for the self-study version and about \$1100 (about \$1200 for non-members) for the version administered by local colleges and universities. Also, SHRM members pay examination fees that are \$250 (\$300 for non-members) for the PHR and \$375 (\$425 for non-members) for the SPHR. Although possibly not good news for those who already went through the expense and effort to become certified, the information presented in this article is useful because it provides an empirical basis to judge the extent to which potential employers value job applicants who are HR certified. Our results indicate that, overall, they do not. Given this information and the known financial and time cost involved in taking the exams, HR professionals who are not yet certified need to evaluate whether certification will benefit them personally.

The present study also provided answers to six questions regarding whether the demand for certified HR professionals is related to other variables. Under which circumstances do employers see HR certification as a signal worth considering in the selection process? Although the overall demand for certified HR professionals is very low, results show that the demand is highest for:

- job announcements posted on SHRM's Web site compared with Monster, Yahoo! HotJobs, and CareerBuilder;
- jobs requiring more years of HR job experience;
- certain positions such as HR Director and HR Generalist;
- HR specialty areas such as employee relations and general HR; and
- industries such as manufacturing and accommodation and food services.

Alternatively, the demand for HR-certified applicants is close to non-existent or non-existent for HR positions that have the following characteristics:

- positions requiring fewer years of HR job experience;
- positions such as HR Administrator, HR Processor, HR Coordinator, HR Clerk, and HR Senior Analyst;
- HR specialty areas such as recruiting, administration, payroll, training, and HR information systems; and
- industries such as transportation and warehousing, government, and retail trade.

So, why is it that employers do not see HR certification as a critical signal of employee value added in the hiring process as indicated by lack of mention of certification in the job announcements? We speculate this situation is caused by several factors. First, those responsible for writing the job announcements may feel legally restricted. For example, an organization may face a legal challenge if HR certification is required in the job announcement, there is no evidence that certification is an essential duty for the position in question, and adverse impact is found against members of protected classes (e.g., ethnic minorities, applicants with disabilities).

Second, we are not aware of any professional organization related to the selection and assessment field (e.g., Society for Industrial and Organizational Psychology, European Association of Work and Organizational Psychology) that recommends using HR certification credentials in hiring HR professionals. Ironically, although HRCI promotes its certification program quite actively, it falls short of recommending that organizations require certification for either initial employment or career advancement. Rather, HRCI explicitly states that "organizations or individuals incorporating PHR and SPHR certification as a condition of employment or advancement do so of their own volition" (HRCI (n.d. c), *Use of certification*). HRCI seems to distance itself possibly in part for legal reasons so as not to be liable for how certification credentials are used in employment decisions. So, on the one hand there is an active promotion of the certification program among HR professionals. But, on the other hand, there is a lack of endorsement of certification credentials as a tool for selection decision making. This ambivalence on the part of the organization responsible for administering the HR certification program may be, in part, accountable for the lack of competitive marketplace advantage of HR professionals who are certified.

A third reason for the lack of demand for certified HR professionals as found in this study is that SHRM would put itself in an awkward position if it pushed employers to require certification at the present time (Elswick, 2001). According to the most recent edition of the *Occupational Outlook Handbook*, HR, training, and labor relations managers and specialists held about 677,000 jobs in 2002 (U.S. Department of Labor, 2004–2005). SHRM currently includes approximately 180,000 members (SHRM (n.d. a), *About SHRM*). Compare these figures with the 65,614 individuals who currently hold a PHR or SPHR designation. These figures suggest that fewer than 10% of professionals in HR and related fields and fewer than 37% of SHRM members hold PHR or SPHR designations. Given these relatively low percentages of certified HR professionals, it would be difficult for many organizations to require certification without severely restricting their applicant pool. Also, SHRM would be in a difficult political predicament by endorsing the use of certification credentials in the selection process given that the majority of its members are not certified.

A final and yet crucial reason for the lack of demand for HR-certified professionals is that we are not aware of any validation, utility, or adverse impact studies regarding HR certification designations. An argument could be made that certification is attained through passing a job knowledge test and that such tests provide content validity evidence. Given such job knowledge tests, an argument could be made that there may be no need for criterion-related validation studies. However, it seems that if HR certification is to be perceived as an important signal by employers, then empirical validation as well as investigations of financial utility and potential adverse impact are necessary.

### *Study Limitations and Future Research*

We acknowledge two potential limitations of the present study. First, our study did not include the entire population of HR vacancies. Instead, our study included job announcements from the three most popular career Web sites (i.e., Monster, Yahoo! HotJobs, and CareerBuilder). In addition, because of its relevance, we included all of the announcements posted on SHRM's Web site. Our study included all announcements advertised over a 1-week period, resulting in a total of 1873 HR positions. Although we analyzed only a sample of the entire population of HR vacancies, we have no reason to believe our sample of 1873 job announcements is biased regarding the inclusion of statements about HR certification. Specifically, announcements posted during 1 specific week (i.e., late January to early February) should not differ substantially from announcements posted during another week regarding HR certification requirements. However, for the sake of the argument, assume the scenario where our sample is so extremely biased that the actual number of announcements requiring or preferring HR certification is actually *twice* as large as the one found in the present study (i.e., 158 as opposed to 79). Our substantive results would still remain unchanged: Still fewer than 9% of announcements would state that any type of HR certification is required or preferred. Additional evidence against the potential threat that our sample is biased is shown in Tables 1 and 2, which summarize the substantial variability regarding each of the job announcement characteristics examined. For example, Table 1 shows that the SD for required years of HR job experience is 2.65 ( $M = 4.29$ ), and the SD for annual salary is \$32,333 ( $M = \$51,072$ ). Table 2 indicates that about 42% of announcements stated that an undergraduate degree was required, whereas approximately 25% preferred an undergraduate degree and approximately 23% preferred a master's degree. Similarly, this table shows that job announcements included a variety of job titles such as HR Manager, Recruiter, Specialist, Director, Analyst, Clerk, Assistant, and so forth. The table shows that job announcements included a variety of HR specialty areas such as general HR, training, compensation, HR information systems, payroll, and so forth. Finally, Table 2 also

shows that jobs were advertised for a large variety of geographic locations and that the announcements also included jobs in a variety of industries including manufacturing, health care and social assistance, retail trade, finance and insurance, and so forth. Although not the main impetus for the present study, information included in these tables offers useful information regarding the state of the HR job market.

A second potential limitation of this study is that we based our analysis on whether HR certification was mentioned in the job announcements. We acknowledge that if HR certification is not mentioned in an announcement, it does not necessarily mean that HR certification does not matter in the selection process. Given space constraints in the job announcements regarding number of words, not every job requirement may be included in every job announcement. Also, it may be the case that given two candidates with identical credentials, the one with HR certification may have a relative advantage. It may also be the case that certification is not used as a screening device but is used as a hurdle in later stages in the selection process (e.g., interviews). However, most announcements include the information deemed most critical by the potential employer posting the vacancy. If HR certification is not included, then it still may be an important signal, but not perceived as sufficiently important to be included in the job announcement. This discussion leads to at least two specific directions for future research. First, a policy-capturing study could be conducted including members of HR departments in charge of recruiting and hiring new employees. Study participants would be asked questions regarding the need for applicants to hold a certification designation and the extent to which they prefer certified applicants compared with others one who are not. They would also be asked about the use of various signals in the hiring process (e.g., other educational credentials, job experience, and so forth). Such a study could shed some light on the relative value of HR certification compared with other signals used by job applicants in the selection process. Second, future research could survey HR professionals who have attained a certification designation regarding their perceived value-added of certification. Study participants would be asked such questions as whether HR certification has helped them secure a job, gain a promotion, or obtain an increase in pay. Given the increasing popularity of HR certification in countries other than the United States (Wiley, 1992), it would be appropriate to conduct both of these types of studies on an international scale.

In closing, HRCI and SHRM are well-recognized organizations with high standards in the industry. HRCI and SHRM have served as catalysts for very positive advancements in the field of HR for several decades. The present results suggest that more effort is needed to convince organizations that are recruiting HR professionals of the benefits of certification, assuming that such benefits actually

exist. Recently, Cohen (2001) noted that “not only is [HR] certification here to stay, it is likely to increase in importance and stature with each passing year” (p. 296). However, for this to happen, efforts should now be directed toward employers and toward gathering evidence about HR certification’s value added (i.e., validity, utility, and lack of adverse impact). Until this evidence is collected and shared with employers, they are not likely to consider HR certification as an important signal in making selection decisions based on a job applicant’s expected future contribution to the organization.

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