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Hospitality Leadership Through Learning



The Job Compatibility Index: A New Approach to Defining the Hospitality Labor Market

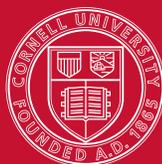
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by William J. Carroll, Ph.D., and Michael Sturman, Ph.D.



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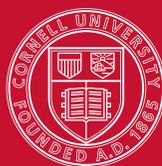
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EXECUTIVE SUMMARY

Both employers and employees usually look within the confines of their own industry when they are thinking about filling or taking a job. When the labor market is tight, however, hotel operators might be better off if they could consider workers from other industries who have skills that would fit them for hotel jobs. By the same token, when the job opportunities are rare, job seekers can look outside of their current industry for positions that match their skill set. (This would include unemployed hospitality workers, who could seek compatible jobs in other industries.) Because existing sources that give listings of comparable jobs do not explain how or why they match up various jobs, it makes sense to use a human-capital approach to comparing jobs. This means analyzing and matching the individual skills, knowledge, and abilities needed for each position. The Job Compatibility Index presented here provides a method for comparing jobs based on their component skills. The index compiles the compatibility score and importance rating of each of 35 skills for the job in question. To arrive at a single index score, the compatibility of each skill is weighted by its importance. By adding up the resulting scores one can see how a seemingly unrelated job is in fact a potential source of hospitality employees. Taking the example of a hotel front-desk clerk, the index identifies nine jobs that involve most of the same skills, only three of them in the hospitality industry, expanding the reach of the potential labor pool by ten fold. Non-hospitality jobs that require skills similar to the front-desk job including personal and home-care aides, nursery workers, and life guards. Thus, the JCI identifies opportunities for both employers and workers.

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Regardless of economic conditions, businesses will always be concerned with where to find necessary talent. When the economy is difficult, moreover, job seekers may need to expand their employment search beyond familiar locations and businesses. The issue for both employers seeking workers and workers seeking jobs is how they define the potential employment market. Labor markets (including hospitality markets) are traditionally defined in terms of the way business views the demand for labor.¹ Thus, job seekers may have more opportunities than they perceive—provided they look beyond the constraints of their current industry. Traditional economics typically defines labor markets on the basis of industry, occupation, geography, or job character. This is a relatively narrow definition that is usually based on the job titles or industry. Although this definition has served labor economics well and seems to describe the way many people consider potential job opportunities, we believe this unduly limits the labor market. We say this because job titles do not fully reflect the types of knowledge, skills, and abilities that the job requires. We point out here that dissimilar job titles in seemingly unrelated industries may actually have similar human capital requirements.

¹ R. G. Ehrenberg and R.S. Smith, *Modern Labor Economics*, 9th edition (New York: Pearson, 2008).

Using the hospitality industry as an example, this report explores the idea of defining labor markets (and jobs specifically) on the basis of their human capital characteristics, as opposed to the traditional economic definition.² By considering the work-related characteristics of a particular job, hospitality employers may discoverer untapped supplies of labor among workers who have the right skills to perform a job but have heretofore not been considered. By focusing on the human capital requirements of jobs and comparing those requirements across industries, occupations, and geographical markets, we feel that opportunities can be identified both for employers and employees. Ultimately such an approach could yield a valuable tool for helping employers who are seeking workers and for individuals seeking employment.

Applying the Human Capital Approach to the Labor Market

Taking the human capital approach of defining potential labor markets from a skills perspective rather than an industry perspective, employers may have the opportunity to consider a wider range of candidates whose previous experience comes from different occupations or even industries. Making skills comparisons of applicants across many different industries increases the potential for hiring better people, and potentially even pay less for higher qualified applicants. In this report, we explain how we developed an index to allow such comparisons.

² The Bureau of Labor Statistics (BLS) definition most appropriate for the hospitality sector includes two industry sectors: "Hotels and Other Accommodations" or North American Industry Classification System (NAICS) code numbers 721 (Accommodation) and 722 (Food Services and Drinking Places). In the fourth quarter of 2008 BLS estimated the number of individuals employed in those segments as 11,607,500 with a 9 percent unemployment rate (U.S. Department of Labor Statistics, www.bls.gov/iag/tgs/iag72). Assuming that the unemployment rate represents those actively seeking employment in those segments, the size of the hospitality labor market, from an economic perspective, is 12.65 million individuals or 5.4 percent of the total U.S. labor force. BLS derives these estimates from two sources: *Establishment Data* and the *National Household Survey*. *Establishment Data* is a random survey of firms in the above defined segments, where employment levels by occupation are determined from establishment submitted survey forms. The *National Household Survey* is also a random stratified survey collected at the household level. Employment by occupation and industry segment for household members is determined by responses to phone survey questions. Data from the two surveys are combined using various statistical techniques to develop segment employment estimates. See BLS, "Business Employment Dynamics technical Note," www.bls.gov/bdm.

Our index is based on the data found in O*NET,³ which covers 812 occupations and gives detailed information on those jobs' characteristics. For each job, the database provides information segmented into the following six dimensions: worker characteristics (including abilities, occupational interests, work values, and work styles), worker requirements (e.g., skills, knowledge, and education), experience requirements (comprising experience and training, entry requirements, and licensing), occupational requirements (stating generalized work activities, detailed work activities, organizational content, and work content), workforce characteristics (including labor market information and occupational outlook), and occupation-specific information (e.g., tasks, tools, and technology). Altogether, there are 277 descriptors for each job. This wealth of information makes it possible to compare the human capital requirements of jobs across a wide range of industries. This information also enables the creation of an index that compares the congruence of seemingly different jobs.

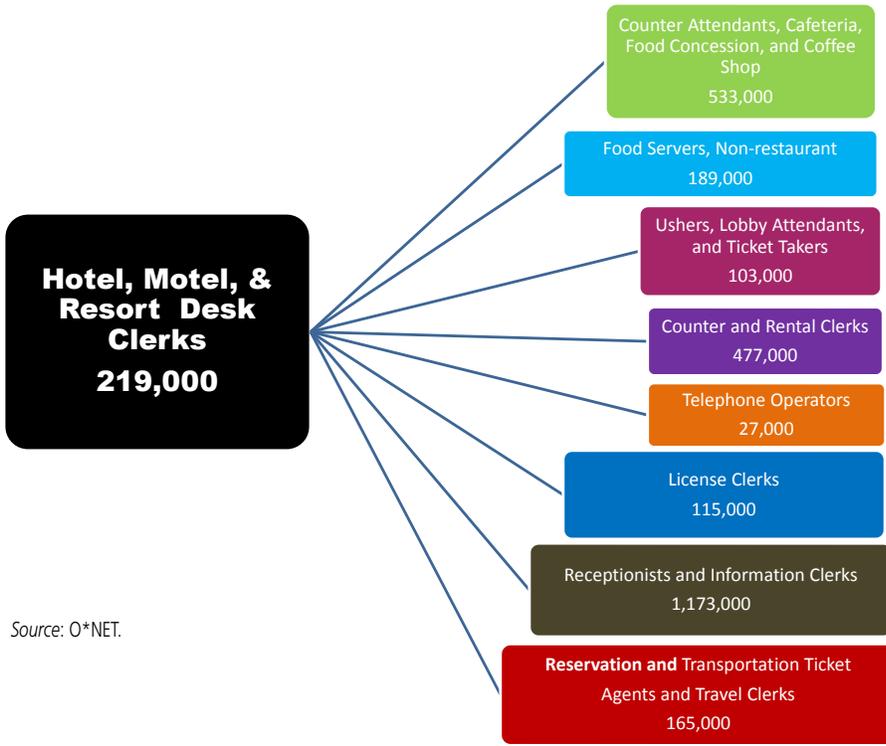
We illustrate the development of our index with the job of a lodging front desk clerk,⁴ using both national data and data from Florida, as an example of a geographical market. For the nation as a whole, O*NET in 2006 (the most recent complete data) showed 218,800 employees in the front-desk position, with an anticipated growth rate (at the time) of 17 percent to 2016. Hotels in Florida employed 15,840 front-desk clerks (using 2004 data, the most recent available), with an anticipated 17-percent growth rate to 2014. Despite the current economic slowdown, the expectation is that the need for employees in this position will grow faster than the national average for labor in general both nationwide and in Florida. If hotel operators only look at individuals with previous hospitality industry experience, the pool of potential employees will be limited. Due to economic misfortune, the labor market currently has many potential candidates for work, but not all of those people have been in occupations that require comparable human capital skills and attributes. That is, despite the many people who have become unemployed, not all are potential future recruits for the hotel industry. Some may be candidates, though, and the question is how to identify them.

³ www.onetcenter.org/.

⁴ In the O*NET database, this job is formally called "Hotel, Motel, and Resort Desk Clerks," occupation code 43-4081.00.

EXHIBIT 1

Occupations related to front-desk clerk, with U.S. potential labor market sizes



Source: O*NET.

One source of information is O*NET’s listing of related occupations for each position. As shown in Exhibit 1, O*NET identifies the following eight occupations that are related to front-desk clerk: counter attendants; non-restaurant food servers; ushers, counter, and rental clerks; telephone operators; license clerks; receptionists and information clerks; and reservation and transportation ticket agents. Although four of these positions are in hospitality, four jobs are (or could be) outside of the hospitality industry (and two positions are double classified, in hospitality and another industry).⁵ We also note that some of the related jobs, telephone operators for instance, are jobs with shrinking demand. Altogether, the number of job holders in these nine positions (the front-desk clerk and the eight related occupations) totals 3,001,000 individuals, well over ten times the number of front-desk clerks nationwide. In Florida, the total for all nine positions is 204,760, compared to 15,840 lodging front-desk clerks.

⁵ Some jobs are classified as being in more than one industry. So, of the eight positions, five are classified as hospitality and five are classified in other than hospitality, meaning two positions are classified as being in more than one industry.

Match game. Unfortunately, this list of related occupations does not provide sufficient information to help with hiring decisions. The O*NET listing does not specify the way in which these jobs are related to that of a front-desk clerk, or whether experience as, say, a counter and rental clerk is notably different from that of a telephone operator. Indeed, it is also not clear how O*NET classified jobs as related. Our index seeks to specify the extent to which jobs are comparable.

Introducing the Job Compatibility Index

The Job Compatibility Index (JCI) that we develop here is intended to address the issue of evaluating the “relatedness” of job experience. For our front-desk clerk example, we need to know whether the best

match for the position is, for instance, a telephone operator with two years experience or a counter attendant from the hospitality industry with six months experience. The index is intended to permit comparisons of the job skills in these occupations by examining the compatibility of their skill sets. The index compares hospitality-specific job characteristics with the characteristics of jobs that could potentially be transferable to the hospitality industry. In effect, it identifies the potential labor supply in several occupations in diverse industries and locations.

Building the JCI. The index is calculated as follows. For every job in the database, O*NET provides information on thirty-five skills by providing a numerical estimate of the level of importance of the skill needed for a job, with 1 meaning not important and ratings from 2 through 5 indicating increasing importance.⁶ For any skill not marked as “not important” (that is, for all skills rated 2 or above) the needed level of each skill is rated on a 7-point scale.⁷ To

⁶ 1 means “not important,” 2 means “somewhat important,” 3 means “important,” 4 means “very important,” and 5 means “extremely important.” Final scores for each job were determined by taking an average from a survey of such jobs.

⁷ The scale has anchors at 2, 4, and 6, with examples of importance at these levels that relate to the specific skill in question. For more information, the specific survey can be found at www.onetcenter.org/questionnaires.html.

EXHIBIT 2

Analysis of job compatibility with front-desk clerk, as calculated by the JCI

Job Title	Job Compatibility Index (JCI)	Mean Hourly Pay
Reservation and Transportation Ticket Agents and Travel Clerks	1.20	\$14.48
Personal and Home Care Aides	1.20	\$8.74
Nursery Workers	1.14	\$8.48
Cooks, Short Order	1.08	\$8.99
Child Care Workers	1.08	\$9.05
Service Station Attendants	1.07	\$9.21
Receptionists and Information Clerks	1.05	\$11.45
Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	1.04	\$8.85
Food Servers, Nonrestaurant	1.02	\$9.48
Hotel, Motel, and Resort Desk Clerks	1.00	\$9.37
License Clerks	0.99	\$15.66
Cooks, Fast Food	0.98	\$7.67
Food Preparation Workers	0.92	\$8.88
Farmworkers and Laborers, Crop	0.91	\$8.48
Telephone Operators	0.88	\$15.73
Packers and Packagers, Hand	0.88	\$9.30
Laundry and Dry-Cleaning Workers	0.87	\$9.08
Amusement and Recreation Attendants	0.87	\$8.43
Waiters and Waitresses	0.85	\$8.27
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	0.84	\$8.15
Cashiers	0.82	\$8.62
Dishwashers	0.81	\$7.78
Bartenders	0.81	\$8.91
Parking Lot Attendants	0.79	\$8.87
Combined Food Preparation and Serving Workers, Including Fast Food	0.75	\$7.66
Ushers, Lobby Attendants, and Ticket Takers	0.74	\$8.41
Gaming Dealers	0.73	\$8.18
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	0.72	\$8.10
Maids and Housekeeping Cleaners	0.68	\$8.99
Dining Room and Cafeteria Attendants and Bartender Helpers	0.66	\$7.84
Pressers, Textile, Garment, and Related Materials	0.65	\$8.88
Counter and Rental Clerks	0.57	\$11.22
Graders and Sorters, Agricultural Products	0.52	\$8.95

Note: Jobs highlighted in yellow were identified by O*NET as being related occupations.

We identified nine jobs from outside the hotel industry as having high compatibility with the front-desk position, including lifeguards and child-care workers.

compute the index for each skill, we looked at the compatibility ratio of the job being evaluated to the target job and multiplied this ratio by the importance rating of that skill for the target job (thus weighting the skill's compatibility by its importance). We summed the resulting thirty-five products to create the index score. An index score of 1.00 means the job is of average compatibility. In that regard, the index is set so that a particular job will have a compatibility index of 1.00 with itself. Scores above 1.00 indicate that the job is highly compatible, and its required skills are greater on average than those of the target job. In contrast, compatibility scores less than 1.00 indicate that job being evaluated lacks some skill requirements of the target job. Other factors being equal, those jobs with a higher index value would have a higher probability of transferability than ones with a lower index value. At this point, we must point out that compatibility of one job to another does not determine whether a particular individual would be a good hire. Instead, a high score suggests that persons holding the compatible job have been using skills similar to those of the target job and thus might be considered as employment candidates.

Applying index scores to a particular market gives an indication of potential search areas for employers seeking human capital outside of the hospitality and in other geographical markets. It also serves as a measure of potential employment and (if combined with financial information about relative wages, benefits, and occupational mobility) pecuniary and non-pecuniary returns for individuals evaluating whether to take a job in the industry. In effect, the index can be used to help quantify the expected value of a mobility choice; that is, a relative reach-determined probability of jobs match in a regional or distant hospitality or non-hospitality labor market.

Desk-clerk matches. Let's return to our example of the front-desk clerk to illustrate the index. First, we computed the skills compatibility index for the eight related occupations identified by O*NET. Then we computed the index for every other job in the O*NET database with an average pay level lower than that of front desk clerk. We reasoned that if a job has comparable skills and is in a lower paying field, it is a

field ripe for recruitment. Exhibit 2 (previous page) lists the evaluated jobs, sorted by the compatibility index, with the average hourly wage for those jobs as reported by O*NET.

Our analysis expands on O*NET's definition of "related occupations." We identified nine jobs as having high compatibility with the front-desk position, but only three of these are found on O*NET's list of related occupations, and all three of those jobs have higher average pay than that of the front-desk position. On the other hand, the other six positions that we identified as highly compatible averaged lower pay. Beyond that, we spotted two positions that were closely compatible (one notch lower), one of which also has a lower average pay level. These jobs might be valuable targets for potential future recruits.

To look into these jobs further, Exhibit 3 shows the skills levels associated with these eleven compatible jobs and the importance of each dimension for the front-desk clerk position. This analysis highlights potential skill gaps among the compatible jobs. Let's look at the job with the top score for potential compatibility (and a lower average pay), which is personal and home care aide. This job is classified in the personal care services industry, not hospitality, and paid an average of \$8.74 per hour, compared to the average of \$9.37 per hour for the front-desk clerk. This job has high rated skills on the five most important dimensions for the front-desk position (namely, active listening, critical thinking, service orientation, social perceptiveness, and speaking). While demand for this job also is projected to have high growth (21 percent or higher), there are currently 767,000 such employees in the United States, and 10,250 specifically estimated to be in Florida.

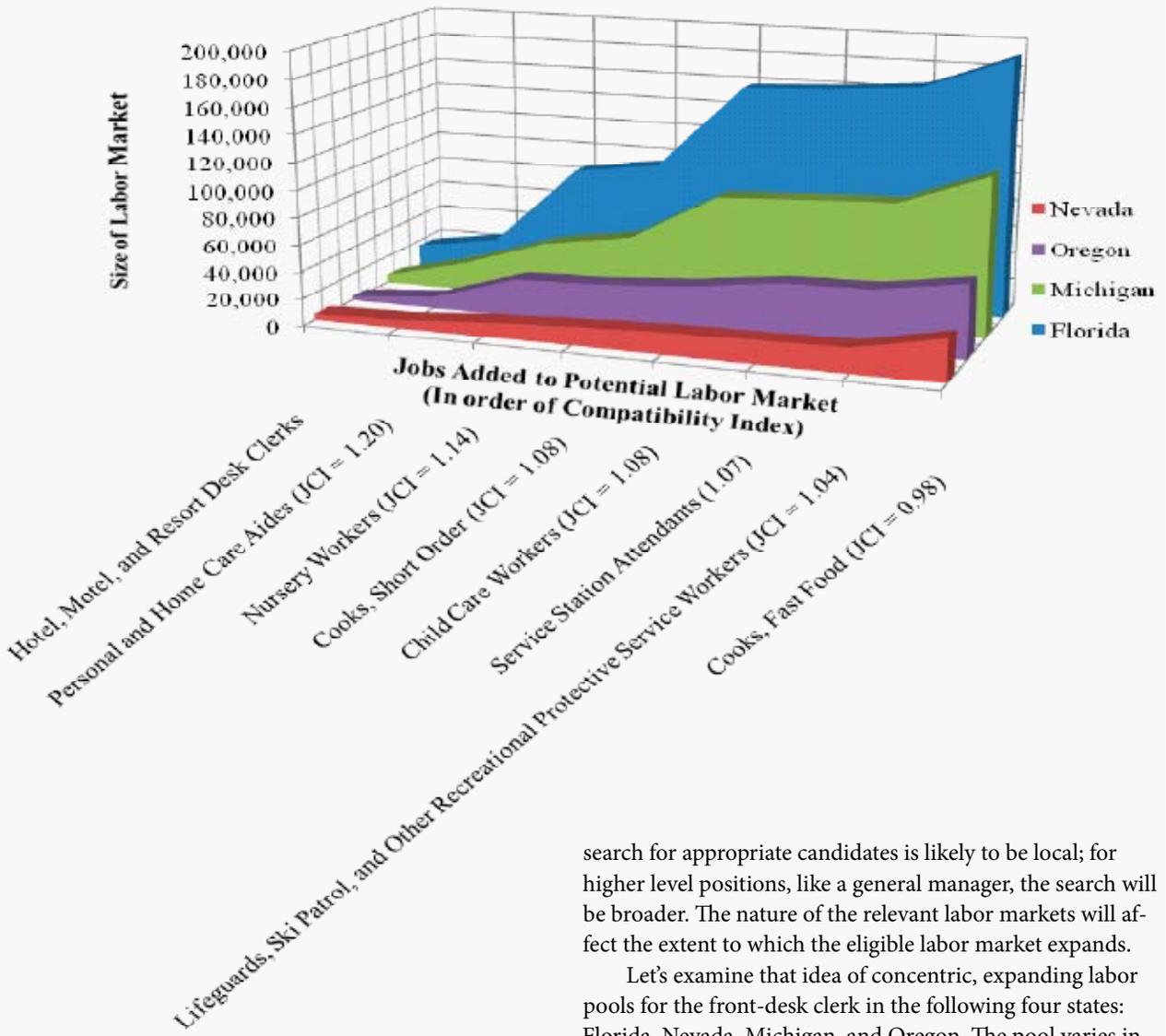
Looking at the other relatively compatible jobs shown in Exhibit 3, we note that many jobs have strong overall compatibility. While certainly there are some projected deficiencies, information about those potential issues highlights the sort of additional information that should be sought regarding a would-be job changer. So, for example, an employer who is considering a former child care worker for a front-desk clerk (compatibility of 1.08; with a mean

EXHIBIT 3

Skill analysis of jobs potentially compatible with front-desk clerk

Skills	Importance of skill to front-desk clerk position	Hotel, Motel, and Resort Desk Clerks	Reservation and Transportation Ticket Agents and Travel Clerks	Personal and Home Care Aides	Nursery Workers	Cooks, Short Order	Child Care Workers	Service Station Attendants	Receptionists and Information Clerks	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	Food Servers, Nonrestaurant	License Clerks	Food Preparation Workers
Mean Hourly Pay	NA	9.37	14.48	8.74	8.48	8.99	9.05	9.21	11.45	8.85	9.48	15.66	7.67
Job Compatibility Index (JCI)	NA	NA	1.20	1.20	1.14	1.08	1.08	1.07	1.05	1.04	1.02	0.99	0.98
Active Learning	3.14	3.44	3.98	4.27	3.34	4.06	3.53	3.15	3.24	2.77	3.92	3.7	3.03
Active Listening	4.51	4.05	4.42	4.73	3.3	3.27	3.8	3.59	4.6	3.78	3.31	4.37	2.84
Complex Problem Solving	2.33	2.44	3.67	3.08	2.2	2.9	2.69	2.01	2.24	2.21	2.16	2.4	1.96
Coordination	3.19	3.07	4	4.57	3.8	3.86	3.23	2.91	2.94	3.11	3.42	3.07	2.68
Critical Thinking	3.52	4.19	3.89	4.68	3.19	3.06	4.24	3.62	4.12	4	3.55	4.16	3.34
Equipment Maintenance	1.43	0.68	2.25	1.79	3.9	2.78	1.89	3.02	1.31	2.88	2.46	1.49	2.57
Equipment Selection	2.07	2.16	3.1	3.58	3.5	2.97	2.24	2.69	2.34	2.09	2.82	1.86	2.77
Installation	1.8	1.47	1.27	1.37	2.72	1.31	0.77	2.28	1.46	1.07	1.36	1.13	2.19
Instructing	3.23	3.8	4.38	4	3.51	4.2	3.55	3.6	3.36	4.09	3.21	4.16	3.24
Judgment and Decision Making	2.94	2.89	3.21	2.17	2.94	4.05	3.38	2.35	3.12	3.47	2.51	2.56	2.82
Learning Strategies	3.16	3.7	3.97	4.58	2.77	4.05	4.52	3.46	3.68	3.92	3.82	3.69	3.54
Management of Financial Resources	1.83	1.41	1.74	1.33	2.05	1.23	2.09	2.63	2.08	1.29	1.13	0.7	2.22
Management of Material Resources	1.68	1.13	1.87	2.01	3.32	2.46	2.35	2.41	1.28	1.98	1.69	1.09	2.39
Management of Personnel Resources	2.37	2.09	2.53	2.14	2.45	3.49	2.21	2.14	2.13	2.28	2.24	1.58	1.96
Mathematics	3.23	2.67	3.23	1.9	3.18	2.75	2.06	2.78	2.68	1.78	2.1	2.56	1.88
Monitoring	3.21	3.22	3.86	4.48	3.38	3.42	4.11	3.02	2.93	4.57	2.78	3.43	2.77
Negotiation	2.85	2.53	2.52	3.13	2.44	1.28	3.54	2.71	2.57	2.42	2.5	1.99	2.07
Operation and Control	2.05	1.71	3.11	1.79	2.86	3.08	1.4	3.14	1.32	2.51	2.28	1.8	2.63
Operation Monitoring	1.5	0.81	2.63	1.78	3.35	2.5	0.89	2.92	0.77	2.74	2.51	0.82	1.78
Operations Analysis	2.09	2.2	2.83	1.52	2.24	2.19	1.26	2.16	2.15	1.66	2.38	1.36	1.55
Persuasion	2.68	2.92	3.36	4.58	2.33	1.25	3.42	1.42	3.05	2.29	2.6	2.41	1.89
Programming	1.53	0.94	1.29	0.6	1.54	0.41	0.52	0.75	1.3	0.03	0.73	0.73	1.2
Quality Control Analysis	2.03	1.34	2.46	1.42	3.18	2.74	1.65	2.28	1.48	1.85	2.24	1.84	1.95
Reading Comprehension	3.42	4.15	4.36	4.28	3.31	2.8	4.19	3.27	4.45	3.43	3.44	4.49	3.26
Repairing	1.69	1.2	1.56	1.07	3.06	1.6	1.52	2.83	0.9	1.76	1.35	1.29	1.62
Science	1.5	0.88	0.95	1.49	2.79	1.81	1.16	0.76	1.25	2.34	1.9	0.27	1.97
Service Orientation	3.85	4.13	4.64	4.38	2.85	3.64	3.78	3.05	3.76	3.46	3.29	3.61	2.73
Social Perceptiveness	3.74	3.35	3.57	5.36	2.68	3.01	4.25	2.95	3.98	4.12	3.41	3.21	3.41
Speaking	4.16	3.43	4.12	4.17	3.06	2.47	3.79	3.91	4.01	3.59	3.12	3.98	3.02
Systems Analysis	1.93	1.58	2.17	1.28	1.69	2.49	1.33	2.42	1.8	0.95	1.86	1.39	3
Systems Evaluation	2.03	2.05	2.36	1.29	1.91	2.85	1.92	1.66	1	1.52	1.94	1.25	2.73
Technology Design	1.86	1.48	1.68	2.52	1.85	0.62	1.54	1.89	1.81	1.38	1.81	1.62	1.38
Time Management	2.76	2.87	3.21	3.99	3.68	4.4	3.89	2.64	3.47	2.69	3.65	3.11	2.73
Troubleshooting	2.01	1.57	1.75	1.69	2.69	3.95	1.25	3.55	1.24	1.81	1.7	1.72	2.69

Geographic labor market size of jobs comparable to front-desk clerk



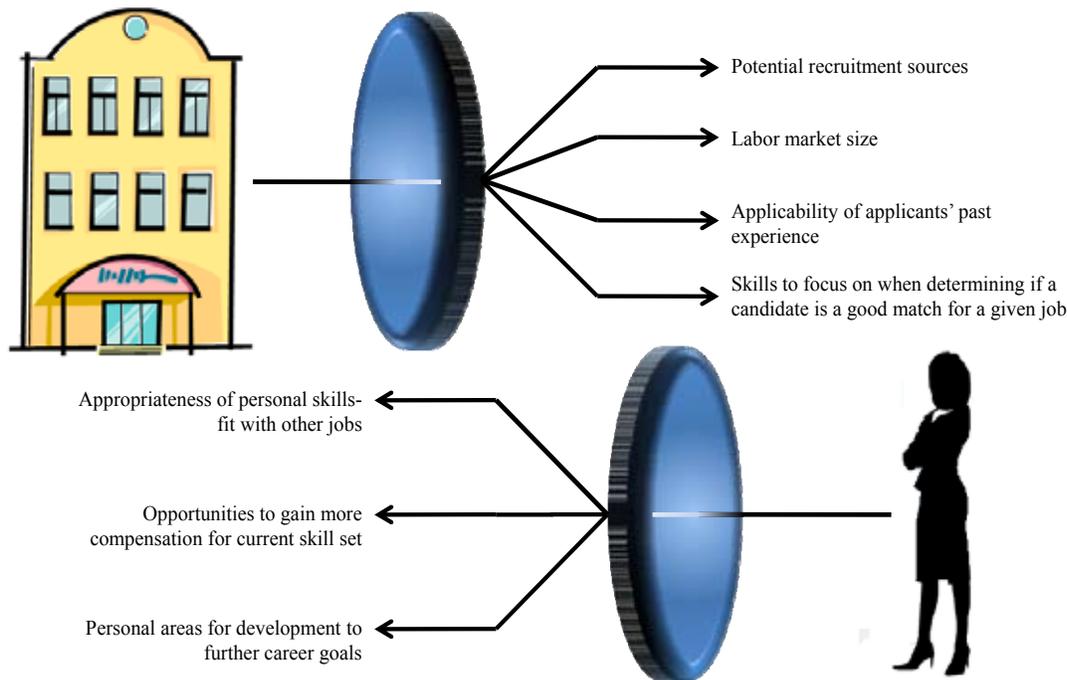
hourly pay of \$9.05) should evaluate the potential new hire’s active listening and service orientation abilities.

Geographical application. It is also possible to consider the jobs identified by the JCI as potential concentric labor markets. That is, as one considers labor markets based on the degree of desired compatibility, the labor market expands to the extent that one is willing to accept potentially less compatible jobs. In this example, one can expand the market substantially by considering industries that seem removed from hospitality but still involve highly compatible jobs. The size of the labor market, though, depends on the scope of potential job searches. For a front-desk clerk, the

search for appropriate candidates is likely to be local; for higher level positions, like a general manager, the search will be broader. The nature of the relevant labor markets will affect the extent to which the eligible labor market expands.

Let’s examine that idea of concentric, expanding labor pools for the front-desk clerk in the following four states: Florida, Nevada, Michigan, and Oregon. The pool varies in each location. In expanding the potential pool, we add jobs in descending order of their projected compatibility scores, stopping at a lower boundary of .98. As shown in Exhibit 4, different areas have different concentrations of individuals in specific jobs. For example, considering personal and home care aides as a potential labor source adds 42 percent to the potential labor market in Nevada, but adds 283 percent in Michigan. Looking at child care workers adds a significant number to the potential labor markets in Florida (adding 67 percent) and Michigan (expanding by 69 percent), but adds little in Nevada (adding 17 percent) and Oregon (16 percent more). One could continue this process, potentially considering additional, less compatible jobs, thereby increasing the total size of the potential labor market.

The job market for businesses and individuals, as seen through the Job Compatibility Index lens



While the JCI does not speak to the capabilities of a particular job candidate, it may assist with evaluating applicants by pointing to applicants whose experience or skills are likely compatible. The relative value of applicants' experience from jobs that may not at first appear compatible can be more objectively evaluated. So, if a former personal home care aide applied for a front-desk clerk position, a manager can know that indeed this person has experience in a position that is actually quite relevant to the front-desk position. For candidates who have held jobs that are less compatible, the index should point managers to examine where likely gaps exist in skills or experience.

The extent to which a manager would want to consider expanding the search will depend on how difficult it is to recruit employees. One might also consider recruiting workers from somewhat compatible jobs to take advantage of the potential availability of relatively low paid workers who may possess many of the needed skills but may be in a position that does not fully compensate them for their skills. We are certain that some hotel managers are already considering jobs outside of the hospitality industry because they recognize the compatibility of specific skills. For those managers and for those who have not attempted this strategy, this report provides a specific index that can be used to create an objective measure of the degree of compatibility, and

an algorithm that can ultimately be used to systematically evaluate hundreds of jobs.

Although we applied the analysis of our index to the position of front-desk clerk, it can be repeated for almost any job. For any given position, a manager can determine highly compatible jobs that offer lower pay, thereby expanding the potential labor pool. Furthermore, as we explained, potential skill deficiencies can be identified to help focus the selection process. Similarly, if an applicant from an unexpected background applies for a given job, the compatibility of the experience can be evaluated objectively. This process works in reverse for those seeking to change industries by applying for a job that offers greater pay but requires similar skills and abilities.

Conclusions and Next Steps

We believe that the information provided by the Job Compatibility Index can be a powerful tool in the battle to attract and retain the best talent at all levels of the hospitality industry. We see the JCI as having potential value to both employers and employees because of the information it provides on seemingly diverse jobs. By looking at jobs through the lens of this index, a business or employee can now more clearly see an expanded universe of opportunities (see Exhibit 5). By using the JCI, a business can identify potential

The Job Compatibility Index will be part of a web-based job search and employer selection tool.

recruitment sources, get a better idea of the relevant labor market size, evaluate the applicability of a candidate's past experience, and help tailor a selection system to determine whether a given applicant with a specific background has the necessary skills to perform the job in question. For individuals, the JCI can identify other jobs with compatible skills, reveal opportunities where one's current skills set can gain more compensation, and help identify areas for necessary personal improvement.

The hospitality industry has a significant potential reach and economic importance in the U.S. beyond traditional economics-based measures of its size like those published by the Bureau of Labor Statistics. The JCI provides a means to evaluate applicants based on the human capital characteristics of their experiences rather than generalizations assumed based on the industry of previous jobs. This approach creates a mechanism to expand the potential recruitment pool size by identifying jobs with compatible skills that some may not have previously considered to be relevant. By considering the computability of skills across jobs, employers can redefine the labor market from the perspective of the human capital, as opposed to the economic industry classification. Through this approach, employer needs (i.e., the extent to which they require skills compatibility) define the size of the labor market. This definition then helps employers consider how far they may intrude into another industry in their search for quality and affordable talent.

We close by underlining the important point that the JCI, as currently developed, considers only the match of various jobs' occupational components. It says nothing about a particular employee's suitability for a specific position opening. The process of successfully matching employees and employers is obviously more complex than simply identifying whether an employee has the right skills for a given job. The JCI says nothing about how various jobs compare with a firm's specific culture, objectives, or purposes. Nor can it assess the fact that individuals have different temperaments, personalities, desires, and needs, even when they have similar skill sets. These differences across firms and people underscore the element of judgment in employee search and selection by hospitality firms and in the decision process and success of job seekers and changers. Our goal with the JCI is to provide additional information to allow would-be employers and job candidates to assess the employment picture. Both groups can see the JCI as a component of a total employee selection or job search strategy. This is particularly important since the hospitality industry has a vast array of accommodation and food and beverage enterprises and business models, each with objectives and cultures designed to produce different experiences for its guests. It is our hope to, in the near future, take this next step and introduce the JCI as a part of a web-based job search and employer selection tool. Then we can test the match of culture in addition to that of job skills as an expansion of JCI concept. ■

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