

Emotional and social competency inventory (ESCI)

A user guide for accredited practitioners

HayGroup



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Hay Group, June 2011

The emotional and social competency inventory (ESCI) user guide

The purpose of this user guide is to provide accredited EI practitioners with background information about the ESCI. The guide complements the materials that practitioners receive during their accreditation program and it summarizes relevant statistical analyses and research studies – conducted by Boyatzis and others – to which practitioners can refer.

About Hay Group

Hay Group is a global management consulting firm that works with leaders to transform strategy into reality. We develop talent, organize people to be more effective and motivate them to perform at their best. Our focus is on making change happen and helping people and organizations realize their potential.

We have over 2600 employees working in 85 offices in 49 countries. Our clients are from the private, public and not-for-profit sectors, across every major industry. For more information please contact your local office through www.haygroup.com.

Accreditation with Hay Group allows coaching and development specialists to deliver expert feedback using our powerful assessments tools. It also provides:

- membership of the Hay Group accredited network
- direct support from our diagnostic processing teams
- access to Hay Group's wide range of learning resources
- research findings and benchmarking drawn from the data from thousands of managers.

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What is emotional and social intelligence?

Emotional intelligence is the capacity for recognizing our own feelings and those of others, for motivating ourselves and for managing emotions effectively in ourselves and others. An emotional and social competency is a learned capacity, based on emotional intelligence, which contributes to effective performance at work.

The measurement of emotional and social intelligence

The emotional and social competency inventory (ESCI) is a 360^o survey designed to assess 12 competencies that differentiate outstanding from average performers. The ESCI measures the demonstration of individuals' behaviors, through their perceptions and those of their raters, making it distinct from measures of EI that assess ability or personality preferences.

The emotional and social intelligence competency model

The 12 competencies cover four distinct areas of ability:



The competencies measured by the ESCI

Each emotional and social competency is carefully defined so that it is distinct from the others, easy to comprehend and properly summarizes its behavioral indicators. The definition of each competency is as follows:

Self-awareness

- **Emotional self-awareness:** the ability to understand our own emotions and their effects on our performance.

Self-management

- **Emotional self-control:** the ability to keep disruptive emotions and impulses in check and maintain our effectiveness under stressful or hostile conditions.
- **Achievement orientation:** striving to meet or exceed a standard of excellence; looking for ways to do things better, set challenging goals and take calculated risks.
- **Positive outlook:** the ability to see the positive in people, situations and events and our persistence in pursuing goals despite obstacles and setbacks.
- **Adaptability:** flexibility in handling change, juggling multiple demands and adapting our ideas or approaches.

Social awareness

- **Empathy:** the ability to sense others' feelings and perspectives, taking an active interest in their concerns and picking up cues to what is being felt and thought.
- **Organizational awareness:** the ability to read a group's emotional currents and power relationships, identifying influencers, networks and dynamics.

Relationship management

- **Influence:** the ability to have a positive impact on others, persuading or convincing others in order to gain their support.
- **Coach and mentor:** the ability to foster the long term learning or development of others by giving feedback and support.
- **Conflict management:** the ability to help others through emotional or tense situations, tactfully bringing disagreements into the open and finding solutions all can endorse.
- **Inspirational leadership:** the ability to inspire and guide individuals and groups to get the job done, and to bring out the best in others.
- **Teamwork:** the ability to work with others towards a shared goal; participating actively, sharing responsibility and rewards and contributing to the capability of the team.

The education version of the emotional and social competency inventory (the ESCI-U)

An additional two competencies cover areas of cognitive ability relevant to the performance of students in further and higher education: **systems thinking** and **pattern recognition**.

The emotional competency inventory (the ECI)

The ECI (the earlier version of the ESCI) measures 18 competencies. These are broadly the 12 measured by the ESCI plus accurate self-assessment, self-confidence, transparency, initiative, service orientation and change catalyst. As a result of ongoing statistical analysis, the behaviors captured by these six have been integrated within the 12 ESCI competencies.

Development of the ESCI

Hay Group has pioneered the understanding of work, organizational context and the role of human motivation, competencies and self-image in performance and development. Hay Group's McClelland Center, founded as McBer by David McClelland, maintains strong relationships with key research partners to further this understanding.

Our partnership with Richard Boyatzis and Daniel Goleman (students of McClelland) has resulted in the development of two 360⁰ tools to assess emotional intelligence: the emotional competency inventory (ECI) and the emotional and social competency inventory (ESCI).

Key events in the development of the ESCI

1973	David McClelland's seminal article <i>Testing for competence rather than intelligence</i> initiates interest into the research of competencies and their application in organizations.
1982	Richard Boyatzis publishes <i>The competent manager</i> , an empirical approach to identifying the characteristics which enable managers to be effective in various management jobs.
1985	Hay/McBer's <i>Generic competency dictionary</i> is first developed by Richard Boyatzis <i>et al.</i>
1991	Richard Boyatzis develops a self and external assessment questionnaire for use with MBA and executive students to assess managerial competencies.
1993	Signe and Lyle Spencer develop and document the generic dictionary in their book <i>Competence at work</i> .
1998	Daniel Goleman's <i>Working with emotional intelligence</i> draws on Boyatzis' work and the Hay/McBer generic dictionary to identify core emotional competencies.
1998	The <i>Emotional competence inventory</i> (ECI) is developed by Boyatzis and Goleman, in partnership with Hay Group, measuring 22 competencies.
2002	Ongoing testing, analysis, development and validation results in version 2 of the ECI measuring with a reduced number of competencies (18).
2007	Boyatzis <i>et al</i> re-conceptualize the ECI as a measure of emotional and social intelligence competencies. A review of all competencies and items, along with factor analysis, lead to the <i>Emotional and social competency inventory</i> (ESCI) with a reduced number of competencies (12) and a higher psychometric standard.
2009-2011	Ongoing item review, testing and analysis of the ESCI.
2010	ESCI norms derived from a data set consisting of 4,014 participants, 42,092 respondents and 273 organizations.
2011	Version 2 of the ESCI launched with 12 competency scales and 68 items.

Measuring competencies in preference to intelligence

20 years of research, initiated by McClelland in 1973 with his seminal article, *Testing for competence rather than intelligence*, led to an understanding that competencies provided a reliable way of differentiating performance in a variety of organizations. This work was captured in the Hay/McBer *Generic competency dictionary* and provided the basis for Boyatzis' *Self- and external assessment questionnaire* (Boyatzis et al, 1995), developed to assess the competencies of MBA and executive students against the generic model of management at the Weatherhead School of Management, Case Western Reserve University.

Measuring emotional intelligence – development of the ECI

Expanding upon Boyatzis' well-established measure and Daniel Goleman's *Working with emotional intelligence* (1998a), Boyatzis and Goleman developed a pool of items designed to capture the full spectrum of emotional competencies. Together with Hay/McBer consultants they further refined these items to form the *emotional competency inventory* (Hay Group, 2006), drawing upon expert opinion and prior studies to include developmental scaling and target levels.

Target levels were established through a modeling process in which the behaviors of effective and outstanding performers were differentiated. The levels of behavioral complexity that each group demonstrated revealed 'tipping points' along the competency scales. These points became indicators of strength; target levels for those participants wanting to work towards high performance across the ECI.

A sample of over 10,000 ECIs, taken between March 1999 and May 2001 and providing 'total others' scores on over 4,000 managers and professionals, was compiled and analyzed.

The result was version 2 of the ECI (the most recent version is the ECI2002), with:

- fewer, clearer and more distinct competency scales
- improved factor differentiation between the competency scales
- competencies organized into distinct clusters
- a reduced number of items (in response to client feedback)
- increased validity
- high scale reliability.

Measuring emotional and social intelligence – development of the ESCI

In response to the professional research communities' requirement for high psychometric standards, Boyatzis and Goleman re-conceptualized the ECI as a measure of emotional and social intelligence competencies (2006). They reviewed every item and competency scale, applying factor analyses and revising them as necessary to ensure that they identified specific behaviors and were understandable and concise. This resulted in fewer competencies (12 instead of 18) and replaced the ECI algorithm, based on developmental levels, with a measure based on consistency of behavior.

The new instrument resulting from this work, the emotional and social competency inventory (ESCI), was piloted with a total of 116 participants and 1,022 raters in the US and the UK. The psychometric standards achieved in the resulting statistical analyses provided reassurance that the ESCI focuses on observable, recognizable and distinct behaviors (Boyatzis, 2007). The removal of developmental levels delivered a behavioral model which can be applied more satisfactorily to a wide range of work contexts, job roles and levels.

Further detailed analyses to verify the scale and factor structure of the ESCI, with 5,700 self-assessments and 62,000 other assessments, has further improved the factor loading (Boyatzis, 2010), resulting in version 2 of the ESCI with slight changes to the items.

A choice of EI measures

The outcome of these developments is that there is now a choice of instruments. While the ESCI has attained an even higher psychometric standard than the ECI, practitioners can choose between the ECI or the ESCI according to the needs of their clients and the contexts they are working within. The following table can help you work through this choice.

	ECI	ESCI
Number of competency scales	18	12
Number of items	72	68
Measures and reports	Level of complexity of observed behavior (levels range from 1 to 4).	Frequency of observed behavior.
Grouping of competencies	An algorithm generates clusters, within which the competencies are complementary, compensatory and alternate manifestations.	Competencies clustered according to the four quadrants of the model, allowing participants to identify key behaviors according to their personal preferences and their work contexts.
Strength indicators	A stretching target, appropriate to leaders and key talent. Strength is indicated by a participant's achievement of a mix of competencies at the appropriate levels to meet the algorithm criteria.	A more widely applicable target, appropriate to a range of roles, based on consistency of behavior and compared with the 25 th to 75 th percentile range of the norm group. Strength is indicated when participants' scores are \geq 85% of the scale (a score of 4.3) which means that others perceive them to be demonstrating that competency often or consistently.
Psychometric standard	Acceptable reliability and validity. Some instability between competency scales.	Research standards of reliability, validity and stability.

How EI assessment has grown

During this period of development, the use of both the ECI and the ESCI has grown internationally. Hay Group's clients include business organizations, education institutions, researchers and independent consultants and coaches.

To date around 160,000 EI assessments have been processed for over 3,000 clients.

Using the ESCI

The ESCI can be used by practitioners for assessment and development and by researchers for studying the role of emotional intelligence in learning and performance. ESCI feedback can benefit individuals and groups in different roles and in a range of contexts.

In organizations

At a group level, in business, not-for-profit and public sector organizations, the ESCI can provide valuable data about human resource capability. It can be used to establish workforce strengths and development needs. Repeat use of the ESCI (e.g. retesting every two years) enables organizations to respond quickly to capability issues.

At an individual level the ESCI, often combined with coaching, can help leaders and key contributors to determine what outstanding performance means for them within their role and decide which competencies they want to work on.

The ESCI is not intended for use in administrative applications: selection, promotion, salary decisions, etc. Each competency measured by the ESCI may or may not be relevant to a specific job, therefore it is inappropriate to use for administrative purposes without first validating it against the performance requirements for that job. In addition, the collection of 360⁰ data can be problematic when respondents – participants and other raters – know that assessment is being conducted in relation to these administrative issues.

The ESCI is best suited to development. The range of competencies that it measures is broad, providing feedback that participants can interpret in terms of their work context and their wider view of their own personal characteristics.

In education

Students' emotional and social competencies can be measured using the ESCI-U, the education version of the ESCI. This assessment is widely used in colleges and universities by educators who see EI competencies as the building blocks of students' capacity to understand and work with others, understand and motivate themselves and learn effectively. Some institutions have used the ESCI-U as an outcome assessment across their student population. Others have used it to help students to become more self-aware and engaged learners and to help teaching staff to respond more effectively to students' needs.

In research

We welcome research proposals from those using the ESCI with staff or the ESCI-U with students. If your proposal meets our criteria you will be offered electronic copies of the assessment, scoring instructions and a score key – to facilitate low cost printing and distribution – in return for a copy of the research data and results. More information is available in the **Tools for educators** section on www.haygroup.com/landtdirect

There are a number of issues that need to be understood in order to use the ESCI appropriately and to best effect. The following sections cover these in more detail.

How the ESCI is scored

ESCI data is scored against a frequency range. Respondents are asked to assess the behaviors captured within each item on a 5 point scale ranging as follows:

never **rarely** **sometimes** **often** **consistently**

Each rater perspective is scored equally and averaged across the relevant rater group (i.e. direct reports, peers, etc). The ‘total others’ score for each competency is the average across all rater groups (except self). The ESCI also uses norm data, allowing individuals to compare their scores to those of other participants.

This approach gives participants a broad perspective of how they are behaving across a situation, as perceived by the different individuals and groups with whom they interact.

Use of self-assessment scores

The ESCI is intended to be used to gather 360⁰ feedback data. Self-assessment data alone may be useful as the basis for developmental discussion, but they do not provide valid and reliable measures of emotionally and socially intelligent behavior.

Our findings show that there is often a significant difference between self and other ratings. People high in self-awareness tend to have smaller gaps (Carulli & Com, 2003). The higher a participant’s level in the organization and the lower his or her performance, the more the self-rating tends to be inflated.

Using valid data

When using the ESCI it is important to recognize that not all of the data collected may be useable. When the instrument is scored by Hay Group we discard data from a rater if the number of ‘don’t know’ responses exceeds 25 per cent. The rationale for this is that the high level of ‘don’t know’ responses appears to indicate that the rater does not have enough information to accurately assess the participant. We therefore recommend that participants choose raters who they work with on a regular basis, or who know them well.

To preserve raters’ confidentiality we also insist on a minimum of two raters in each rating category. If there is only one rater in a category, we do not include that category of rater in the final scores. Rater categories can also be combined to preserve confidentiality, if appropriate.

Finally, securing an accurate assessment of a participant’s emotional intelligence requires multiple raters. Each rater sees different aspects of the participant, which means any one individual's ratings may be skewed. We recommend a minimum of 4 to 5 raters, preferably with different perspectives of the participant drawn from different contexts.

Delivering ESCI feedback

The ESCI shows participants how others experience their behavior in terms of the consistency with which they demonstrate emotional and social competencies. It helps participants to appreciate their strengths, to recognize how consistently they do certain things and to identify what they can do to be even more effective.

ESCI feedback can only be delivered by accredited practitioners. For information on how to become accredited, go to the **Accreditation** section on www.haygroup.com/landtdirect. The ESCI accreditation program helps practitioners to gain a thorough understanding of the assessment and the feedback report, and to experience best practice in delivering ESCI data. The following is a summary; more detail is provided in the accreditation program materials.

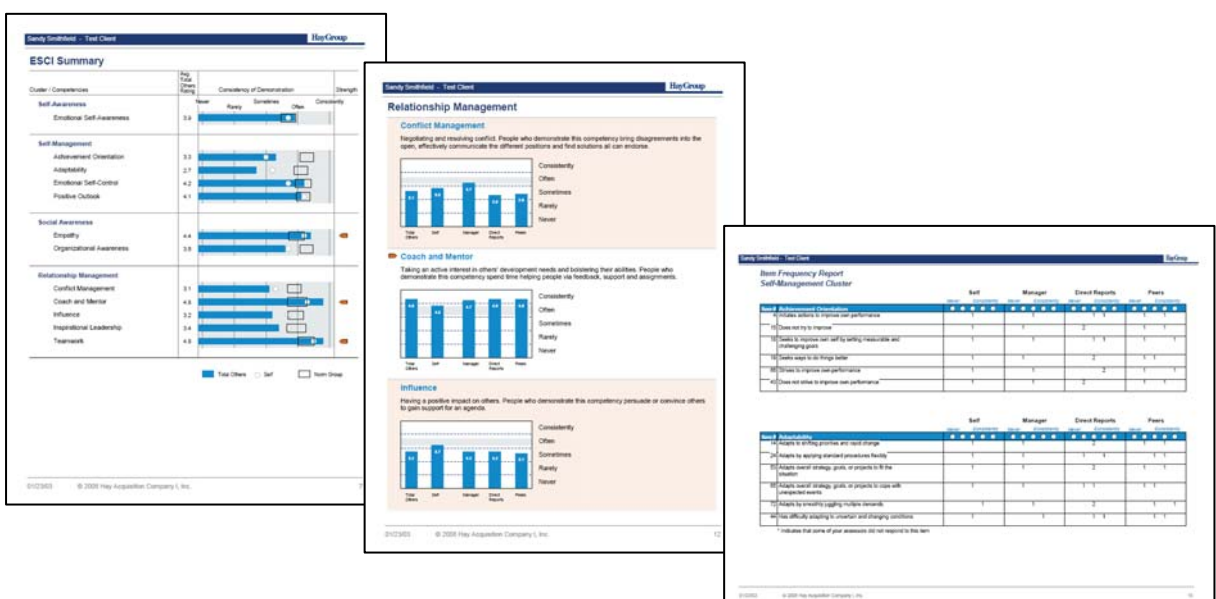
Interpreting the ESCI feedback report

The ESCI feedback report provides an overview of the emotional and social competency model and detailed descriptions of each competency.

It helps participants to make sense of their feedback and form a judgment about its validity for them, based on their raters' familiarity with their behavior and the level of agreement between their raters.

It presents feedback data in a number of ways to support participants' understanding of how they demonstrate their emotional and social competencies:

- **Summary data:** a summary of self and total others' scores for each competency.
- **Detailed data:** detailed competency scores, by rater group, with competency definitions.
- **Item frequency reports:** a distribution of ratings, by rater group, for each ESCI item.
- **Verbatim comments:** feedback, as written by raters, about a participant's behavior and performance.



Sharing ESCI feedback

Accredited practitioners are encouraged to use the following coaching framework when sharing ESCI feedback:

1. Introducing the process

The participant and coach to discuss how they will work together and contract on important issues, e.g. confidentiality.

2. Setting the context

A discussion about the participant's role, current challenges, career and life aspirations, in order that both understand what the participant hopes to gain from the feedback process.

3. Explaining EI

The coach observes and builds the participant's understanding of EI and the ESCI model.

4. Encouraging self-assessment

A discussion of the participant's own view of his or her strengths and development needs. The coach assesses the participant's self-awareness and identifies any potential blind spots.

5. Explaining the ESCI report

An explanation of the ESCI assessment and report format. A discussion about the people the participant approached for feedback and his or her relationship with them.

6. Exploring the data

The coach helps participants to make sense of their feedback data in relation to their perceptions of their personal characteristics, the demands of their work contexts and the priorities of their roles. Discussing a participant's ESCI feedback involves open exploration and the testing of any hypotheses that the coach has formed when reviewing the data, in particular:

- any areas of surprise or concern at the summary level
- any gaps between the participant's self-assessment and raters' perceptions (total others)
- any patterns in responses between rater groups
- the potential reasons for different perceptions
- any areas of detail that a participant wants to explore, or that are critical to his or her role.

Coaching using the ESCI

Boyatzis' and others' research (Boyatzis, 2001; Boyatzis, Stubbs & Taylor, 2002; Boyatzis, Smith & Blaize, 2006; and Boyatzis, 2008), which offers insight into effective approaches to coaching for EI and leadership development, provides a reminder that adults learn what they want to learn. Our learning process is a self-directed one, driven by our perception of the person we want to be. A great coach helps by enabling participants to identify their personal vision, values or calling and by 'reality testing' their perceptions of their behavior, asking for real-life examples and offering appropriate support and challenge.

ESCI feedback supports self-directed learning by offering participants choices in the behaviors they want to develop – choices that are relevant to individuals' aspirations and preferences and to the demands of leadership and professional roles. And the emotional intelligence workbook (Hay Group, 2008) includes development tips for each competency.

Reliability

Reliability refers to the consistency or stability of observations and measures. When assessing the reliability of survey instruments, two indicators are typically provided:

1. **Internal consistency** refers to the average of the intercorrelations among all the single test items. Cronbach's alpha is the most commonly used indicator of internal consistency. This procedure estimates reliability from the consistency of item responses from a single assessment.
2. **Test-retest reliability** refers to the stability of a measure over time. For example, a survey is administered twice to the same individuals with a period of time between assessments (typically two weeks to four months), and correlations are computed to determine how stable the test is from one administration to another.

Detailed results from the most recent statistical analysis of the ESCI, across the assessment as a whole and the individual items, are reported by Boyatzis & Gaskin (2010).

Internal consistency

Cronbach's alphas for each scale in the ESCI and ESCI-U.

	ESCI	ESCI-U
	Others (n=52,363)	Others (n=21,288)
Emotional self-awareness	.83	.80
Emotional self-control	.91	.80
Achievement orientation	.86	.71
Adaptability	.85	.76
Positive outlook	.88	.83
Empathy	.86	.77
Organizational awareness	.86	.77
Influence	.84	.81
Teamwork	.89	.86
Coach and mentor	.92	.84
Conflict management	.79	.77
Inspirational leadership	.89	.85
Systems thinking	na	.82
Pattern recognition	na	.83

Test-retest reliability

No specific test-retest reliability studies have been conducted with the ESCI. Participants who undertake the ESCI on two occasions typically undertake some form of development activity between assessments, and would therefore anticipate a change in their scores over time.

However, other pre- and post- assessment research provides reasonable evidence for adequate levels of test-retest reliability. A sample of 20 Brazilian executives from a large consumer retail organization was assessed twice on the ECI with seven months between assessments (Sala, 2001a). This period of time is longer than typically recommended (Anastasi, 1982) and the executives did participate in an EI development program between assessments, therefore the results should be interpreted with caution.

The resulting data suggest that the ECI may be sensitive to change; stability coefficients for the total others' ratings were moderately high, for self-scores they were very low.

ECI cluster	Competency	Total others rating
Self-awareness	Emotional self-awareness	.55
	Accurate self-assessment	.58
	Self-confidence	.69
Self-management	Self-control	.49
	Trustworthiness	.67
	Conscientiousness	.92
	Adaptability	.52
	Achievement orientation	.60
	Initiative	.45
Social awareness	Empathy	.62
	Organizational awareness	.82
	Service orientation	.41
Social skills	Developing others	.75
	Leadership	.56
	Influence	.19
	Communication	.56
	Change catalyst	.69
	Conflict management	.39
	Building bonds	.72
	Teamwork and collaboration	.57

Validity

During the 15 years of development leading to the ESCI, research into EI has been widespread. Alongside Boyatzis' and Hay Group's ongoing reviews and studies, EI has become a focus for investigation in many post-graduate theses. Around 160,000 participants around the world in business organizations and education institutions have received EI feedback, providing a rich source of data.

This research base enables us to continue to validate the ESCI and ensure that it:

- remains relevant and acceptable to clients, researchers and participants (face validity)
- measures the behaviors it sets out to measure (content validity)
- correlates appropriately with other similar tests (construct validity)
- predicts desired performance outcomes (criterion validity).

Within this period of time the nature of this research work has changed. Early studies focused on the ECI and ESCI's validity in a general sense; its capacity to measure what it sets out to. Recent work has focused on two areas:

1. Ongoing reliability improvements in EI assessment.
2. Key findings in the application of EI assessment in leadership development, professional development, individual learning and change, coaching and education.

EI practitioners are able to access this research in a number of ways. Those accredited in the ECI or ESCI (or other Hay Group assessment tools) can access Hay Group's L&T direct **networking area** at www.haygroup.com/landtdirect. This gives EI practitioners access to news, research findings, articles, client brochures, presentations and other resources. And the website of the **EI consortium** provides a comprehensive range of research findings and practitioner experiences.

This section of the user guide presents a selection of research summaries, chosen to describe different aspects of the ESCI's validity in support of your conversations with your clients. The papers referred to are either in the public domain or available from Hay Group.

Does the ESCI feel relevant and acceptable to clients, researchers and participants?

Our diagnostic assessments are informed by Hay Group's understanding of behavior at work, organizational context and performance. This focus, rather than a focus on clinical measures, enables us to respond to clients' needs for relevant tools which measure behavior in work settings.

We monitor and improve the face validity of our EI measurements through an ongoing process of version development based on both statistical analysis and client feedback. And the use of the ESCI and ESCI-U in education institutions – as a research tool and in support of students' learning – provides academic feedback.

Does the ESCI relate directly to the behaviors it sets out to measure?

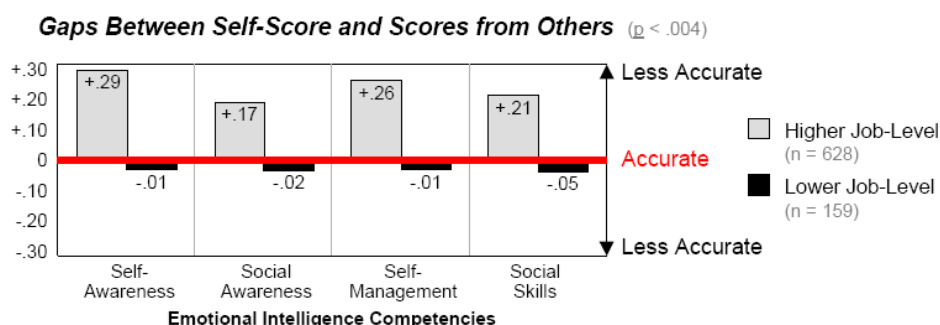
For those engaged in helping others to develop their emotional and social intelligence competencies, EI assessment raises useful questions about the role of self-awareness in building capability. Do people who are perceived by others as high in self-awareness assess their strengths and limits more accurately than those who are perceived by others to be lacking in self-awareness?

This question was explored through a study of 427 individuals from different organizations (Burckle, 2000a). Multi-rater assessments (self, manager, peer, direct reports) were obtained using the ECI. Participants were categorized as either high (top 25 per cent) or low (bottom 25 per cent) in accurate self-assessment based on their total others scores. (Note: ‘accurate self-assessment’ has been integrated into the ‘emotional self-awareness’ scale in the ESCI.)

The differences between participants’ total others scores and self scores for each competency were calculated. The results showed that those who were low in accurate self-assessment demonstrated a significantly larger mean gap between their self and total others scores on each competency, compared with those who were high in accurate self-assessment. They also overrated themselves on every competency; seeing themselves as more emotionally intelligent than others observed them to be. Conversely, those who were high in accurate self-assessment rated themselves slightly less emotionally intelligent than others observed them to be, demonstrating a more realistic view of themselves.

A subsequent review of the assessment data of 1,214 participants in the Hay Group ECI database (Sala, 2001b) showed that individual contributors and lower level managers showed no significant gaps between how they rated themselves and how others rated them. However, the higher individuals were in their organizations, the wider the gap between how they rated themselves and how their peers, direct reports and managers rated them.

This finding suggests that as managers rise through the ranks, they can lose touch with the perceptions of those they lead, becoming less able to see themselves as others see them.



At the point at which it becomes harder for managers to experience open dialogue and honest feedback, 360⁰ EI assessment can help to overcome ‘blind spots’, build self-awareness and sustain managers’ ability to use the more effective leadership behaviors.

Does the ESCI correlate with other tests designed to measure similar constructs?

EI and psychological type

Burckle (2000b) demonstrated good convergent validity for the ECI by conducting an analysis of 18 paramedics from an organization providing medical care and transportation. Multi-rater assessments (manager, peer, direct reports) were obtained on the ECI and participants self-rated using the Myers-Briggs Type Indicator® (MBTI). The MBTI determines preferences in how a person perceives the world and interacts with others on four scales:

- introversion – extraversion
- sensing – intuiting
- thinking – feeling
- judging – perceiving.

Burckle calculated Pearson correlations and found moderate to strong significant correlations. The Myers-Briggs intuiting types were strong on many of the EI competencies, particularly emotional self-awareness, self-control, adaptability, empathy and teamwork. Feeling types were strong on self-awareness, adaptability, empathy, developing others, leadership and teamwork.

Is the ESCI differentiating from other tests designed to measure different constructs?

EI and analytical thinking

Murensky (2000) conducted a study with 90 executives from the 100 highest leadership positions in an international oil corporation. Participants completed self-assessments of ECI and the Watson-Glaser Critical Thinking Appraisal (W-GCTA). The W-GCTA is a widely used measure of critical thinking ability and analytical reasoning. The measure provides a reliable score on five subsets:

- inference
- recognition of assumptions
- deductions
- interpretation
- evaluation of argument.

Murensky found that most ECI competencies were not correlated with critical thinking ability and argued that the findings supported Goleman's claim regarding the independence of these two types of intelligence. The results provided good evidence for the discriminant validity of the ECI.

This finding reinforces the value of using the ESCI and ability testing together to get a full picture of participants' capabilities. The ESCI-U, for use with students, measures two cognitive competences in addition to emotional intelligence. And Talent Q's Elements, available from Hay Group, is a responsive and comprehensive self-assessment which provides ability data to complement the ESCI.

Does the ESCI predict performance across EI competencies?

Interest in EI assessment has led to many studies, across different sectors, which demonstrate criterion validity (i.e. that the ECI and ESCI are good predictors of emotional and social intelligence ability). Some of these studies demonstrate significant correlations between emotional intelligence scores and work-related performance measures.

However, it's worth remembering that each competency measured by the ESCI may or may not be relevant to a specific job. It is inappropriate, therefore, to use the ESCI in administrative applications (e.g. recruitment, selection, promotion or salary review) without first validating it against the specific performance requirements for a given job. However, the ESCI is well suited to development interventions, within which participants can take the opportunity to interpret their feedback in relation to their work context and job demands.

The following summaries are included to represent findings across a range of sectors. We've also included summaries of two recent studies looking at EI competencies and leadership effectiveness.

Finance sector

A study of 71 graduates working in banks, insurance and securities (Sevinc, 2001) concluded that participants rated by others as high in emotional intelligence tended to report higher job success, greater life success and higher salaries.

And, as expected, the significant correlations between these career success outcomes and participants' self-reported ECI scores were yet more frequent and robust. Developing emotional and social intelligence would appear to be a sound investment.

Service sector

A study of 135 call center agents, working in client services, sales and administration roles in a life insurance agency, looked at the relationship between emotional intelligence and job performance (Nel, 2004). Call center agents were rated on the ECI by their team leaders. These scores were compared with an overall job performance rating, based on objective measures (number of calls handled, productivity on systems, closing rate, lapse indices) and on the quality of call conversations.

The study revealed several moderate, significant correlations between EI competencies and call center performance. Agents in administration roles demonstrated the most significant correlations between their performance and the competencies adaptability, achievement orientation (including initiative), developing others (also known as coach and mentor), leadership, influence, conflict management and teamwork.

Hay Group's subsequent work on call center performance has highlighted emotional self-awareness, emotional self-control and empathy as the critical building blocks in the ability of call center staff to successfully deploy their emotional and social intelligence in their customer relationships.

Manufacturing sector

A study of 134 plant supervisors from two multinational manufacturing companies looked at the relationship between emotional intelligence and mental ability as predictors of job performance (Sergio, 2001). Participants were assessed on the ECI and a standard mental ability test, and their scores were compared to their performance appraisals completed by their supervisors.

It was found that emotional intelligence and mental ability were not significantly correlated. However, both were associated with job performance ratings. The findings suggest that cognitive and emotional intelligence are independent and important contributors to performance at work. They are therefore both of value in assessment and development, together providing a comprehensive picture of individuals' key capabilities.

Chemical/food sector

A study of 33 area development managers at Bass Brewers (Lloyd, 2001) investigated whether EI competencies were associated with performance. Participants were responsible for sales and profit growth, implementing national promotional activity and resolving customer service issues. An overall performance measure was developed to measure objective, subjective and personal development indicators, including:

- a 'readiness for promotion' rating
- a customer service audit
- the number of job band changes
- the average number of new brand installations
- the average number of new accounts gained
- an annual performance rating.

The findings reported a strong relationship; those participants who performed best across these indicators tended to demonstrate higher EI ratings.

Pharmaceutical sector

Following interest in the Harvard Business Review article *What makes a leader* (Goleman, 1998b), senior management at Johnson & Johnson's Consumer Companies (JJCC) funded a study to determine whether EI competencies distinguished high performing leaders at JJCC.

The study (Cavallo & Brienza, 2002) was conducted with 358 managers using a multi-rater survey to gather data from over 1,400 employees (supervisors, peers and direct reports). The survey was a blend of the J&J leadership competency model, the Standards of Leadership[®] and the ECI. Competency scores were compared with ratings for performance and potential, the organization's success indicators used to determine position, promotion and reward.

The study revealed a strong relationship between superior performance and emotional competence. Supervisors', peers' and direct reports' scores agreed that achievement orientation (including self-confidence, initiative and change catalyst), inspirational leadership and influence differentiated the high performing managers. High potential managers received higher EI scores from supervisors and peers, but not from direct reports. On the basis of these findings, JJCC ensured that emotional and social intelligence competencies were fully integrated into their competency model, feedback survey and development programs.

Education sector

A study into effective performance amongst school principals (Williams, 2008) explored two questions:

1. What are the emotional and social intelligence competencies that distinguish outstanding from typical urban principals?
2. How do outstanding and typical urban principals conceptualize and adapt differently to their external organizational environment?

Williams compared 12 outstanding and 8 typical principals, using data gathered from critical incident interviews and the ECI, to identify the key characteristics that describe the differences between the two groups. Outstanding principals demonstrated a broad and deep repertoire of EI behaviors. Twelve of the competencies studied significantly differentiated outstanding and typical principals. In addition, the study reported that outstanding principals interact with a broader range of external groups and utilize a wider spectrum of boundary-spanning strategies.

Williams' study offers a transferable methodology for EI competency assessment and development, of value in the recruitment, selection and preparation of school principal candidates as well as in leadership development for incumbent school principals.

Public sector

Two public sector studies illustrate very different findings. The first (Stagg & Gunter, 2002) compared the EI scores of 67 fire fighters and officers with a range of performance measures. Participants provided self-scores on the ECI and were rated by their managers, peers and direct reports. They were also rated on performance criteria which included interpersonal ability, management effectiveness, personal style and problem solving. The results showed a number of moderate, significant correlations between each performance measure and many of the emotional and social intelligence competencies.

In contrast, a study of 88 employees of a public accounting firm (Bresnik, 2004) produced inconclusive results. A comparison between participants' ECI scores and performance ratings, using the firm's 360⁰ HR assessment, demonstrated no relationship between EI and performance.

However, further investigation into the firm's performance measure revealed that it neither assessed the behaviors valued in the organization, nor did it represent the criteria actually used for promotion. Promotion decisions were made through a separate 'round table' process, involving the ranking of employees using a forced normal distribution curve. Bresnik then analyzed the relationship between an employee's level in the organization and their emotional and social intelligence. In general, those at higher levels in the organization exhibited higher EI scores.

This study demonstrates that the ESCI can provide valuable organization-wide assessment. A workforce audit, looking at composite ESCI data, can highlight areas of strength and weakness impacting the overall effectiveness of an organization and suggest key areas for development.

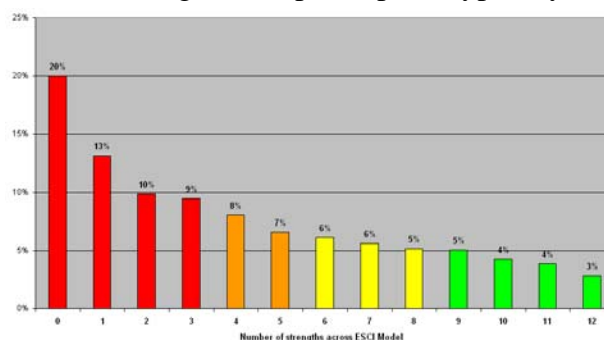
EI, leadership behavior and impact

Hay Group's most recent interrogation of the database (Havers, 2010) looked specifically at individuals who had completed the ESCI in 2009: 4,322 participants from 283 organizations spanning a range of sectors and geographies. The patterns that emerged from this data raised important considerations for accredited practitioners working to help others develop their emotional and social intelligence competencies.

The first surprise was the breakdown in the number of strengths that participants typically have.

When the numbers of participants exhibiting strengths – at or close to 85 per cent of the scale – were analyzed, it was found that:

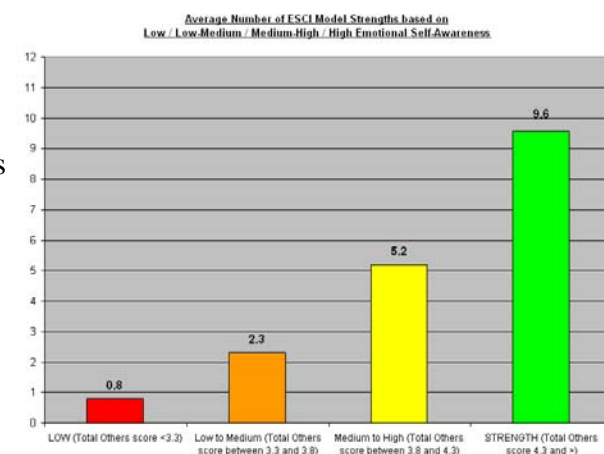
- 20 per cent had no strengths
- 52 per cent had three or fewer
- only 16 per cent had 9 or more strengths



The study then looked at the competency that participants and coaches often ask most questions about; emotional self-awareness. Deep-seated and difficult to observe, the study investigated the part that emotional self-awareness plays in participants' EI overall.

It became apparent that participants with high emotional self-awareness display more of all the other ESCI competencies at strength:

- A participant who never or only sometimes demonstrates emotional self-awareness is likely to show less than one competency at strength.
- A participant who demonstrates emotional self-awareness often or consistently is likely to display more than 9 ESCI competencies at strength.

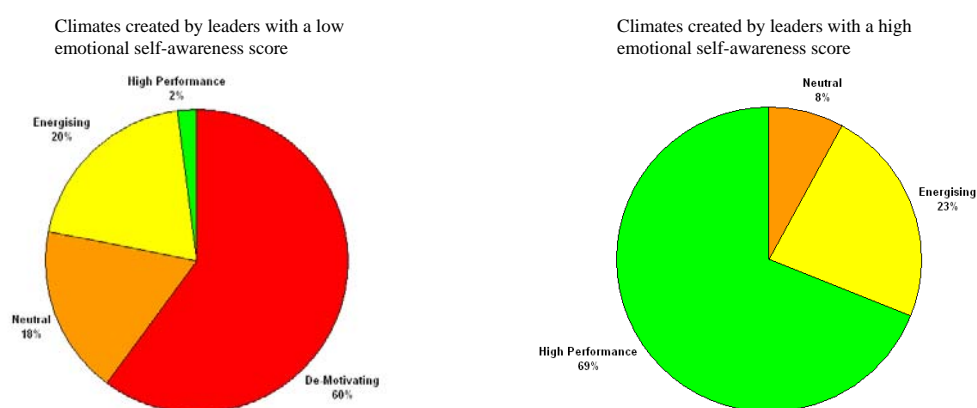


Given the significance that other researchers had attached to self-awareness, particularly for people moving up the leadership levels in their organizations, the study then looked at the relationships between strength across the ESCI competencies and leadership behavior.

The 2009 database was interrogated to analyze the data of participants who had completed the ESCI, the inventory of leadership styles (ILS, Hay Group, 2009) and the organizational climate survey (OCS, Hay Group, 2009). This showed that leaders who demonstrated fewer than three ESCI strengths drew upon a limited range of leadership styles, tending to rely primarily on the coercive style; issuing orders and expecting immediate compliance. In contrast, leaders with 10 or more ESCI strengths used a much wider range of leadership styles, including those likely to engage their team members; providing long term direction and vision, creating harmony, encouraging new ideas and investing in others' development.

Finally, the study looked at the relationship between leaders' self-awareness and their impact on the working environment they created for their teams. The data of the 436 participants who had completed the ESCI and the OCS were divided into two categories according to the emotional self-awareness score.

Of those leaders demonstrating high emotional self-awareness, 92 per cent created positive climates (energizing and high performance). Only 8 per cent had a neutral impact and none created de-motivating climates. In sharp contrast, 78 per cent of leaders demonstrating low emotional self-awareness created negative climates and only 22 per cent had a positive impact on their teams' working environment.



Havers' work supports the view that emotional and social intelligence competencies underpin highly effective performance for both individual contributors and leaders. ESCI feedback can offer individuals insights into leadership behavior and impact and valuable discussion points in a coaching conversation.

EI, intelligence and personality as predictors of leadership effectiveness

A comparative study (Boyatzis *et al*, 2011) set out to assess the predictive capacity of emotional and social intelligence competencies on leadership effectiveness beyond measures of generalized intelligence (g) and personality. Data were gathered from 60 divisional executives of a financial services company. Two measures of leadership effectiveness were used: new cash invested by clients during the year of study and the number of financial consultants recruited in the previous 7 years. The ESCI was used to collate total others' EI competency scores. The Ravens Advanced Progressive Matrices and the Mill Hill Vocabulary Scales (Ravens, 1962) were combined to measure general intelligence, and the NEO Personality Inventory – Revised (Costa & McCrae, 1992) was used to measure openness, conscientiousness, extroversion, agreeableness and neuroticism.

This study revealed that ESCI total others' scores were significantly, positively correlated with the number of financial consultants recruited. Of the five personality traits measured, only conscientiousness correlated with the leadership effectiveness measures. The measure of cognitive ability, g, did not correlate. This study was one of the few to investigate EI alongside both general intelligence and personality. It has supported the argument that emotional and social intelligence is distinct from traditionally constructed intelligence or personality, and that it offers predictive validity in relation to leadership effectiveness.

Norms

How the norms were derived

The 2010 ESCI norms are derived from a data set consisting of all ESCI data in the Hay Group database for seven years ending in December 2008. The 2010 norms do not include cases added after that time. The original sample contained 62,055 assessments of 5,761 managers. The sample was first cleaned by eliminating any data created during testing and keeping only valid data. The data set was then balanced to eliminate large populations from organizations with more data than others. If an organization had more than 500 managers in the sample, a random group of only 250 managers was included in our balanced data set.

Description of the norm sample

The final, balanced sample consists of data from:

Total number of participants = 4,014
 Total number of respondents = 42,092
 Total number of organizations = 273

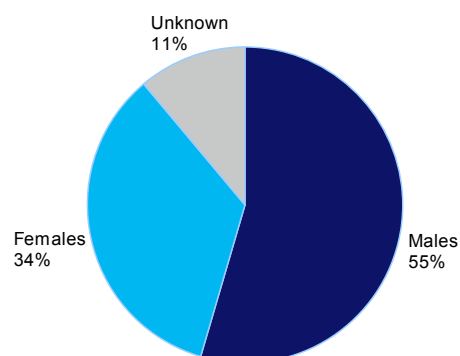
Competency scores

This table presents the mean (M), standard deviation (SD) and 25th, 50th and 75th percentile score for each competency as participants rated themselves and how others rated them.

Cluster	Competency	Self					Others				
		M	SD	Percentiles			M	SD	Percentiles		
				25th	50th	75th			25th	50th	75th
Self-awareness	Emotional self-awareness	3.79	.52	3.50	3.83	4.17	3.72	.34	3.50	3.73	3.95
Self-management	Achievement orientation	4.29	.49	4.00	4.33	4.67	4.28	.33	4.10	4.33	4.52
	Adaptability	4.09	.45	3.83	4.00	4.40	4.10	.32	3.91	4.13	4.33
	Emotional self-control	3.94	.54	3.67	4.00	4.33	4.15	.41	3.93	4.21	4.43
	Positive outlook	4.15	.51	3.83	4.17	4.50	4.15	.34	3.96	4.18	4.38
Social awareness	Empathy	3.95	.45	3.67	4.00	4.17	3.92	.36	3.70	3.95	4.17
	Organizational awareness	4.19	.47	3.83	4.17	4.50	4.25	.31	4.07	4.29	4.47
Relationship management	Conflict management	3.86	.47	3.50	3.83	4.17	3.88	.33	3.69	3.91	4.10
	Coach and mentor	4.02	.58	3.67	4.00	4.50	3.97	.44	3.70	4.01	4.28
	Influence	3.89	.49	3.60	3.83	4.17	3.91	.36	3.69	3.94	4.17
	Inspirational leadership	3.94	.54	3.50	4.00	4.33	3.94	.43	3.68	3.99	4.25
	Teamwork	4.27	.44	4.00	4.33	4.67	4.23	.37	4.02	4.28	4.50

Gender

Males accounted for just over half of the sample population at 55%. Females accounted for 34%. Gender data was unknown for 11% of the sample.

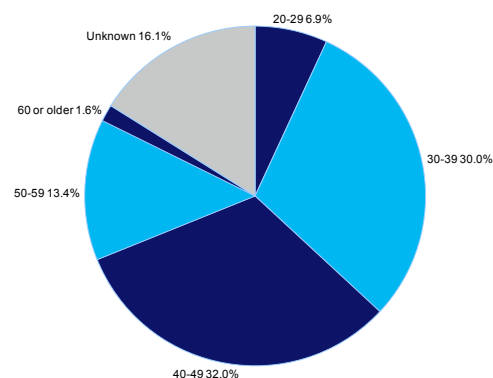


The table below presents the mean and standard deviation score for each competency for both male and female managers, based on total others ratings.

Cluster	Competency scale	Others scores			
		Males n=2,197		Females n=1,338	
		M	SD	M	SD
Self-awareness	Emotional self-awareness	3.66	.34	3.82	.32
Self-management	Achievement orientation	4.25	.33	4.35	.31
	Adaptability	4.09	.32	4.13	.33
	Emotional self-control	4.17	.39	4.13	.41
	Positive outlook	4.16	.33	4.15	.34
Social awareness	Empathy	3.89	.36	3.98	.36
	Organizational awareness	4.24	.31	4.28	.32
Relationship management	Conflict management	3.86	.32	3.90	.34
	Coach and mentor	3.94	.43	4.04	.44
	Influence	3.92	.35	3.94	.35
	Inspirational leadership	3.93	.43	3.97	.43
	Teamwork	4.21	.37	4.29	.36

Age

Almost half of the sample consisted of managers between the ages of 30 and 49 at the time of the assessment. 16% did not identify their age.

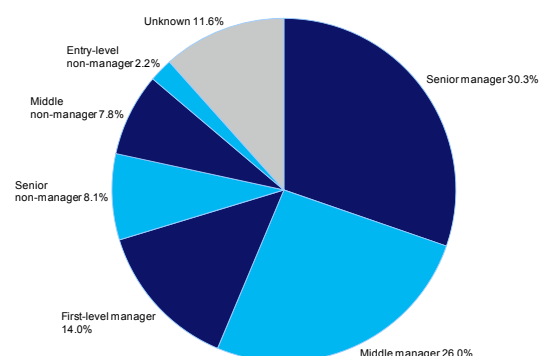


The table below presents the mean score and standard deviation for each competency for those in different age groups, based on total others ratings.

Cluster	Competency scale	Others scores									
		20 – 29 n=272		30 – 39 n=1,188		40 – 49 n=1,267		50 – 59 n=532		60 or older n=62	
		M	SD	M	SD	M	SD	M	SD	M	SD
Self-awareness	Emotional self-awareness	3.80	.35	3.72	.33	3.71	.34	3.74	.36	3.69	.37
Self-management	Achievement orientation	4.38	.32	4.32	.32	4.28	.32	4.23	.33	4.15	.43
	Adaptability	4.14	.31	4.11	.32	4.11	.32	4.10	.33	4.07	.40
	Emotional self-control	4.17	.36	4.16	.39	3.71	.41	4.18	.41	3.69	.50
	Positive outlook	4.21	.30	4.16	.33	4.15	.33	4.15	.36	4.14	.41
Social awareness	Empathy	3.98	.35	3.92	.36	3.90	.36	3.95	.37	3.87	.47
	Organizational awareness	4.27	.29	4.26	.30	4.25	.32	4.28	.32	4.25	.46
Relationship management	Conflict management	3.87	.34	3.89	.33	3.88	.32	3.88	.32	3.83	.40
	Coach and mentor	3.97	.43	3.97	.44	3.98	.42	4.01	.45	3.88	.58
	Influence	3.92	.34	3.92	.36	3.93	.35	3.95	.36	3.93	.41
	Inspirational leadership	3.98	.41	3.95	.43	3.94	.42	3.95	.45	3.91	.56
	Teamwork	4.30	.36	4.25	.36	4.22	.37	4.25	.38	4.17	.50

Job level

Norms are calculated for six managerial categories: entry-level individual contributors, mid-level individual contributors, senior-level individual contributors, first-level managers, mid-level managers, and senior-level managers. The sample is weighted towards senior managers, with senior and mid-level managers accounting for 56% of the sample population. 12% of the population did not identify their job level.



The following table presents the mean score and standard deviation for each competency demonstrated by people at different job levels, based on total others scores.

Competency scale	Others scores											
	Senior-level manager n=1,202		Mid-level manager n=1,032		First-level manager n=554		Senior-level individual contributor n=321		Mid-level individual contributor n=310		Entry-level individual contributor n=86	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Emotional self-awareness	3.69	.34	3.70	.34	3.72	.35	3.81	.34	3.80	.31	3.87	.33
Achievement orientation	4.29	.31	4.27	.32	4.26	.33	4.34	.34	4.34	.31	4.37	.37
Adaptability	4.13	.31	4.09	.32	4.08	.35	4.14	.33	4.08	.33	4.12	.35
Emotional self-control	4.15	.41	4.15	.39	4.15	.41	4.18	.38	4.18	.37	4.18	.37
Positive outlook	4.21	.31	4.12	.32	4.11	.37	4.15	.36	4.14	.34	4.16	.34
Empathy	3.89	.36	3.89	.37	3.93	.37	4.01	.34	4.01	.33	4.02	.36
Organizational awareness	4.28	.31	4.25	.31	4.25	.32	4.28	.30	4.25	.31	4.23	.34
Conflict management	3.87	.31	3.88	.32	3.87	.35	3.93	.32	3.88	.31	3.85	.36
Coach and mentor	3.99	.43	3.97	.42	4.02	.43	3.97	.45	3.89	.45	3.85	.52
Influence	3.97	.34	3.91	.35	3.89	.37	3.95	.35	3.88	.36	3.87	.36
Inspirational leadership	3.99	.43	3.92	.42	3.93	.44	3.95	.44	3.90	.44	3.93	.45
Teamwork	4.22	.37	4.22	.37	4.25	.38	4.30	.35	4.31	.34	4.32	.36

Job function

The following table presents the mean score and standard deviation for each competency demonstrated by people in different job functions, based on total others ratings. Norms are calculated for 11 job functions.

Competency scale	Others scores																			
	Finance & accounting n=307		Management information systems n=122		Human resources n=349		Marketing n=181		Sales n=360		Research & development n=115		Administration n=253		Professional / technical n=547		Manufacturing / production n=308		General manager / CEO n=232	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Emotional self-awareness	3.65	.34	3.65	.36	3.82	.32	3.71	.31	3.74	.37	3.70	.33	3.75	.33	3.71	.32	3.62	.31	3.69	.34
Achievement orientation	4.30	.30	4.24	.34	4.29	.30	4.24	.31	4.29	.36	4.32	.30	4.29	.32	4.27	.32	4.24	.31	4.35	.28
Adaptability	4.10	.31	4.05	.33	4.09	.32	4.08	.29	4.11	.36	4.18	.28	4.10	.32	4.09	.33	4.06	.29	4.17	.30
Emotional self-control	4.12	.42	4.11	.39	4.17	.37	4.11	.37	4.16	.39	4.16	.39	4.19	.40	4.17	.42	4.07	.40	4.19	.41
Positive outlook	4.06	.33	4.08	.34	4.16	.33	4.15	.29	4.23	.35	4.14	.33	4.15	.35	4.12	.34	4.11	.30	4.29	.28
Empathy	3.86	.39	3.86	.37	4.01	.34	3.86	.34	3.91	.38	3.88	.33	3.98	.34	3.92	.35	3.84	.35	3.92	.36
Organizational awareness	4.21	.30	4.20	.29	4.28	.30	4.21	.31	4.26	.33	4.25	.29	4.26	.32	4.25	.31	4.21	.29	4.29	.29
Conflict management	3.82	.33	3.85	.32	3.92	.31	3.83	.28	3.90	.34	3.88	.29	3.90	.34	3.86	.33	3.86	.32	3.91	.30
Coach and mentor	3.92	.43	3.87	.40	4.05	.43	3.83	.44	3.97	.48	3.98	.40	4.01	.40	3.97	.42	3.94	.40	4.01	.41
Influence	3.83	.34	3.89	.35	3.97	.33	3.92	.31	3.99	.36	3.92	.32	3.82	.46	3.90	.34	3.86	.32	4.01	.32
Inspirational leadership	3.85	.41	3.87	.40	3.94	.41	3.86	.41	3.99	.47	3.96	.41	3.96	.42	3.92	.43	3.91	.40	4.09	.40
Teamwork	4.19	.38	4.18	.38	4.31	.34	4.17	.34	4.22	.40	4.24	.36	4.28	.35	4.24	.36	4.17	.37	4.26	.35

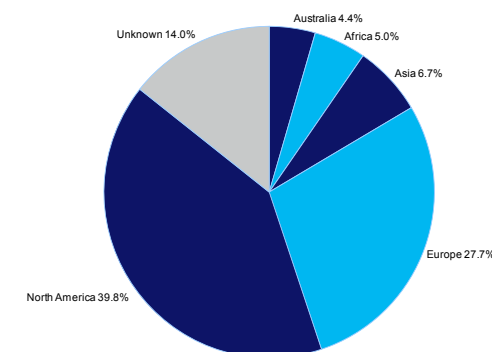
Industry

The sample population consisted of people working in a wide variety of industries including banks/S&L's (representing 5% of the sample), pharmaceuticals (2%), and professional services (2%). 76% of the sample population did not identify their industry. The table below presents the mean and standard deviation scores for each competency demonstrated by managers in different industries, where there were 100 cases or more, based on total others ratings.

Industry sector	Sample Size n=	Others scores																							
		Emotional self-awareness		Achievement orientation		Adaptability		Emotional self-control		Positive outlook		Empathy		Organizational awareness		Conflict management		Coach and mentor		Influence		Inspirational leadership		Teamwork	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Banks / S&L's	252	3.78	.32	4.34	.28	4.14	.29	4.18	.35	4.16	.30	3.95	.30	4.30	.26	3.93	.31	3.96	.40	3.92	.31	3.95	.39	4.26	.34
Chemical and related products	109	3.68	.31	4.31	.24	4.13	.24	4.17	.35	4.15	.30	3.94	.29	4.24	.26	3.92	.27	4.02	.35	3.96	.26	3.95	.34	4.28	.31
Education	439	3.87	.32	4.44	.29	4.22	.30	4.28	.36	4.28	.31	4.06	.33	4.36	.29	3.97	.31	4.11	.39	4.06	.30	4.09	.40	4.36	.33
Financial services	197	3.54	.31	4.17	.32	3.99	.29	3.98	.40	3.94	.31	3.75	.35	4.17	.30	3.70	.35	3.82	.42	3.77	.28	3.76	.43	4.10	.35
Food products	130	3.72	.34	4.25	.34	4.08	.32	4.14	.38	4.13	.33	3.85	.35	4.23	.32	3.86	.33	3.84	.48	3.90	.35	3.89	.43	4.19	.39
Insurance	214	3.80	.30	4.32	.27	4.18	.29	4.20	.41	4.17	.30	3.96	.33	4.33	.27	3.93	.28	4.02	.39	4.02	.30	4.03	.36	4.30	.33
Manufacturing	183	3.59	.33	4.22	.35	3.97	.33	4.00	.47	4.05	.35	3.76	.39	4.10	.35	3.80	.35	3.84	.45	3.73	.38	3.81	.45	4.07	.44
Miscellaneous	159	3.77	.37	4.33	.40	4.15	.40	4.23	.47	4.19	.39	3.99	.39	4.32	.37	3.91	.36	4.03	.47	3.99	.40	4.02	.47	4.30	.40
Petroleum	146	3.63	.30	4.26	.26	4.07	.24	4.10	.35	4.12	.27	3.90	.28	4.25	.24	3.89	.25	3.93	.36	3.89	.27	3.94	.35	4.26	.29
Pharmaceuticals	120	3.98	.37	4.46	.36	4.29	.40	4.36	.42	4.35	.40	4.09	.43	4.40	.41	4.08	.37	4.28	.45	4.15	.42	4.22	.49	4.42	.41
Professional services	899	3.67	.31	4.24	.32	4.06	.32	4.11	.42	4.12	.34	3.87	.36	4.21	.31	3.84	.32	3.94	.42	3.86	.34	3.90	.43	4.18	.37
Public administration	217	3.71	.37	4.29	.32	4.13	.33	4.21	.38	4.15	.30	3.99	.36	4.25	.32	3.95	.32	4.08	.40	3.73	.52	4.02	.39	4.25	.36
Technology	255	3.67	.30	4.21	.32	4.09	.29	4.12	.36	4.13	.31	3.89	.34	4.21	.29	3.88	.28	3.90	.41	3.93	.32	3.88	.40	4.21	.34
Unknown	225	3.86	.37	4.33	.35	4.12	.36	4.20	.40	4.22	.36	4.03	.39	4.33	.33	3.91	.34	4.13	.47	3.99	.35	4.00	.47	4.31	.38

Region of residence

Over two thirds of the sample was residing in Europe or North America when assessed. Asia and Africa each represented over 5% of the sample. 14% did not identify their region of residence. Samples with fewer than 100 participants were not included.

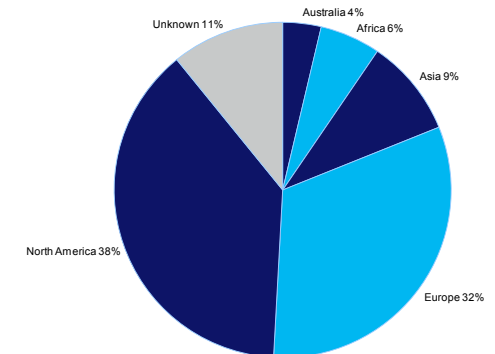


The table below presents the mean score and standard deviation for each competency for those who reside in different geographical regions, based on total others ratings.

Competency scale	Others scores									
	North America n=1,577		Europe n=1,097		Asia n=264		Africa n=199		Australia n=173	
	M	SD	M	SD	M	SD	M	SD	M	SD
Emotional self-awareness	3.79	.33	3.67	.35	3.69	.26	3.57	.31	3.75	.35
Achievement orientation	4.34	.32	4.25	.33	4.21	.29	4.24	.31	4.29	.32
Adaptability	4.18	.33	4.05	.33	4.02	.26	3.96	.28	4.15	.33
Emotional self-control	4.22	.40	4.14	.37	4.03	.35	3.97	.44	4.18	.42
Positive outlook	4.20	.34	4.11	.33	4.08	.29	4.13	.35	4.18	.32
Empathy	3.96	.37	3.90	.36	3.85	.29	3.82	.35	3.96	.36
Organizational awareness	4.30	.33	4.23	.31	4.18	.27	4.16	.27	4.31	.28
Conflict management	3.92	.34	3.86	.31	3.81	.29	3.81	.32	3.87	.35
Coach and mentor	4.03	.43	3.94	.46	3.86	.39	3.87	.42	4.02	.38
Influence	4.00	.34	3.86	.37	3.88	.31	3.85	.30	3.99	.30
Inspirational leadership	3.99	.43	3.91	.44	3.83	.39	3.91	.38	3.97	.43
Teamwork	4.29	.37	4.21	.37	4.19	.30	4.16	.37	4.26	.36

Region of birth

Over two thirds of the sample was born in North America or Europe. Asia represented 9% and Africa represented 6% of the sample. 11% did not identify their region of birth. Samples with fewer than 100 participants were not included.

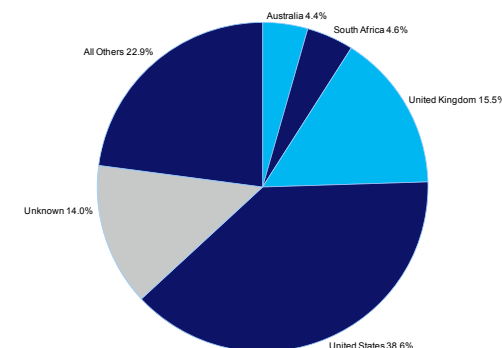


The table below presents the mean score and standard deviation for each competency for those born in different geographical regions, based on total others ratings.

Competency scale	Others scores									
	North America n=1,485		Europe n=1,239		Asia n=366		Africa n=227		Australia n=141	
	M	SD	M	SD	M	SD	M	SD	M	SD
Emotional self-awareness	3.80	.34	3.67	.34	3.68	.28	3.61	.32	3.78	.41
Achievement orientation	4.34	.32	4.25	.33	4.25	.30	4.26	.30	4.29	.33
Adaptability	4.17	.33	4.06	.32	4.06	.28	3.99	.30	4.16	.35
Emotional self-control	4.21	.41	4.14	.37	4.09	.36	4.01	.44	4.21	.41
Positive outlook	4.20	.34	4.12	.33	4.10	.30	4.15	.33	4.18	.32
Empathy	3.97	.37	3.90	.36	3.88	.32	3.86	.37	3.99	.35
Organizational awareness	4.30	.33	4.23	.30	4.20	.28	4.19	.28	4.34	.29
Conflict management	3.91	.34	3.86	.31	3.82	.30	3.83	.33	3.89	.35
Coach and mentor	4.03	.43	3.95	.45	3.87	.39	3.91	.41	4.03	.42
Influence	4.00	.34	3.87	.37	3.89	.30	3.87	.31	4.01	.31
Inspirational leadership	3.99	.44	3.92	.44	3.84	.39	3.92	.39	3.99	.44
Teamwork	4.29	.37	4.21	.36	4.22	.33	4.18	.37	4.29	.36

Country of residence

This chart only displays countries where there were more than 50 cases. Of the total sample, the US accounted for over 38%. The UK accounted for over 15%. Countries with fewer than 50 cases have been included in the ‘all others’ category in the pie chart. 14% of the sample did not identify their country of residence.

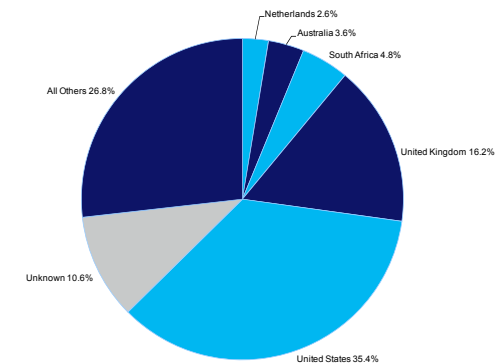


The table below presents the mean score and standard deviation for each competency, as rated by others, for those residing in different countries where there were 50 cases or more.

Competency scale	Others scores																					
	United States n=1,532		France n=64		Belgium n=54		Ireland n=66		United Kingdom n=615		Spain n=62		Australia n=184		China n=86		Netherlands n=98		Malaysia n=87		South Africa n=184	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Emotional self-awareness	3.79	.34	3.54	.34	3.52	.34	3.65	.37	3.71	.35	3.61	.31	3.75	.35	3.76	.24	3.60	.29	3.60	.24	3.57	.30
Achievement orientation	4.34	.33	4.27	.27	4.22	.30	4.12	.44	4.29	.33	4.26	.29	4.29	.32	4.23	.26	4.08	.25	4.19	.28	4.24	.30
Adaptability	4.18	.33	4.12	.23	3.94	.25	3.98	.40	4.11	.32	4.01	.33	4.15	.33	4.03	.25	3.82	.27	3.97	.24	3.96	.29
Emotional self-control	4.22	.41	4.12	.32	4.04	.26	4.09	.40	4.17	.38	4.16	.42	4.18	.42	4.12	.29	4.03	.28	3.94	.35	3.96	.43
Positive outlook	4.20	.34	3.95	.32	3.98	.25	4.07	.39	4.15	.33	4.05	.33	4.18	.32	4.12	.24	4.06	.25	4.03	.30	4.13	.33
Empathy	3.96	.37	3.88	.33	3.75	.30	3.86	.40	3.94	.37	3.94	.35	3.96	.36	3.86	.24	3.75	.33	3.83	.29	3.82	.35
Organizational awareness	4.30	.33	4.24	.21	4.13	.24	4.18	.39	4.28	.30	4.08	.31	4.31	.28	4.18	.26	4.10	.26	4.17	.26	4.16	.27
Conflict management	3.91	.34	3.92	.28	3.77	.24	3.77	.38	3.88	.31	3.98	.31	3.87	.35	3.86	.25	3.68	.27	3.71	.28	3.80	.31
Coach and mentor	4.03	.43	3.88	.38	3.78	.34	3.70	.54	4.02	.46	4.02	.32	4.02	.38	3.85	.37	3.72	.43	3.80	.37	3.86	.40
Influence	4.00	.34	3.85	.26	3.74	.28	3.82	.40	3.97	.32	3.24	.39	3.99	.30	3.82	.28	3.71	.28	3.89	.28	3.85	.30
Inspirational leadership	3.99	.44	3.93	.40	3.81	.39	3.78	.47	3.97	.44	3.94	.36	3.97	.43	3.88	.33	3.65	.42	3.76	.38	3.91	.38
Teamwork	4.29	.38	4.22	.32	4.10	.31	4.11	.42	4.26	.37	4.15	.39	4.26	.36	4.21	.27	4.02	.31	4.18	.29	4.15	.36

Country of birth

This chart only displays countries where there were more than 50 cases. Of the total sample, the US accounted for over 35%. The UK accounted for over 16%. Countries with fewer than 50 cases have been included in the 'all others' category in the pie chart. 10% of the sample did not identify their country of birth.



The table below presents the mean score and standard deviation for each competency, as rated by others, for those born in different countries where there were 50 cases or more.

Competency scale	Others scores																									
	United States n=1,405		China n=88		Netherlands n=105		Malaysia n=91		United Kingdom n=642		South Africa n=192		Australia n=141		India n=70		France n=70		Belgium n=74		Germany n=68		Ireland n=86		Spain n=80	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Emotional self-awareness	3.80	.34	3.72	.25	3.58	.27	3.61	.25	3.71	.35	3.58	.30	3.78	.34	3.74	.30	3.59	.47	3.71	.44	3.75	.47	3.82	.55	3.68	.54
Achievement orientation	4.34	.32	4.25	.26	4.12	.26	4.20	.27	4.28	.33	4.25	.31	4.29	.33	4.32	.33	4.20	.40	4.37	.45	4.29	.46	4.26	.52	4.14	.56
Adaptability	4.17	.33	4.05	.24	3.85	.28	3.98	.23	4.11	.31	3.97	.29	4.16	.35	4.15	.30	4.10	.38	4.08	.38	4.12	.37	4.07	.53	3.92	.55
Emotional self-control	4.21	.41	4.13	.29	4.05	.29	3.94	.36	4.17	.37	3.97	.43	4.21	.41	4.24	.34	3.84	.52	4.01	.38	3.98	.53	4.02	.50	3.81	.56
Positive outlook	4.20	.35	4.10	.26	4.09	.25	4.02	.30	4.15	.33	4.14	.33	4.18	.32	4.22	.30	3.91	.53	4.17	.41	4.27	.40	4.18	.51	3.98	.52
Empathy	3.97	.37	3.85	.27	3.73	.33	3.83	.31	3.94	.35	3.83	.35	3.99	.35	3.98	.36	3.89	.34	3.88	.35	3.94	.40	4.01	.44	3.99	.41
Organizational awareness	4.30	.33	4.17	.25	4.10	.26	4.17	.26	4.28	.30	4.17	.26	4.34	.29	4.25	.32	4.02	.38	4.09	.41	4.19	.45	4.31	.51	4.04	.51
Conflict management	3.91	.34	3.86	.26	3.69	.26	3.72	.27	3.88	.31	3.81	.32	3.89	.35	3.94	.30	3.87	.40	3.95	.37	3.96	.46	3.84	.55	3.97	.48
Coach and mentor	4.03	.43	3.85	.37	3.73	.39	3.79	.38	4.03	.45	3.87	.41	4.03	.42	3.94	.47	3.92	.48	4.01	.48	3.94	.55	3.86	.63	3.95	.57
Influence	4.00	.34	3.80	.29	3.72	.28	3.89	.27	3.97	.31	3.86	.31	4.01	.31	3.98	.34	3.77	.39	3.79	.34	3.88	.49	3.92	.51	3.43	.55
Inspirational leadership	3.99	.44	3.85	.34	3.69	.39	3.76	.37	3.97	.44	3.90	.37	3.99	.44	3.95	.46	3.91	.45	3.93	.41	3.98	.46	3.85	.58	3.94	.51
Teamwork	4.29	.38	4.22	.29	4.02	.32	4.18	.30	4.26	.36	4.16	.36	4.29	.36	4.29	.38	4.26	.33	4.27	.36	4.29	.40	4.28	.45	4.14	.42

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June 2011