Effects of country & age on work engagement, job satisfaction & organizational commitment among employees in the United States

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Effects of Country & Age on Work Engagement, Job Satisfaction & Organizational Commitment Among Employees in the United States

Findings from the Generations of Talent Study

Authors: Natalia Sarkisian, PhD, Marcie Pitt-Catsouphes, PhD, Rucha B hate, Jungui Lee, PhD, Rene Carapinha & Chad Minnich
Acknowledgements

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December, 2011
Key Findings & Employer Considerations

INTRODUCTION

The Generations of Talent Study gathered data from 11,298 individuals working at 24 different worksites in 11 countries. For this report, we used information about employees in all 11 of these countries.

As indicated by the table below, we identify the countries as belonging to one of two groups: those with older populations and developed economies and those with younger populations and developing economies.

<table>
<thead>
<tr>
<th>“Old-Developed Countries”</th>
<th>“Young-Developing Countries”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>Brazil</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>China</td>
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<tr>
<td>Spain</td>
<td>India</td>
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<tr>
<td>United Kingdom</td>
<td>Mexico</td>
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<tr>
<td>United States</td>
<td>South Africa</td>
</tr>
</tbody>
</table>

AGE FACTORS

Among the respondents to the Generations of Talent Study:

A higher percentage of respondents at worksites in the United States (36.1%) are aged 40-49 compared to those working at sites in the other “old-developed” and “young-developing” countries (28.2% and 12.7%, respectively). A lower percentage are under the age of 30 (8.2%) compared to those working in “young-developing” countries (45.8%) (see page 22).

- Consistent with the findings in the Generations of Talent Study, the U.S. labor force overall has a larger share of workers aged 40-49 (23.5%) than workers aged 30-39 (21.4%), although the overall U.S. labor force has a greater percentage of workers under 30 (24.9%) (see page 16). In the United States, the population aged 50 and above who remain in the labor force is also sizable—30.2%. Given the larger demographic trends of the country, U.S. employers may want to focus on strategies that leverage the competencies and talents of older workers.

- Among those at worksites in the United States, a higher percentage are mid career and late career (61.3% and 18.4%, respectively) than those working at sites in the “young-developing” countries (47.1% and 5.1%, respectively) and a lower percentage are in early career (20.3%) compared to those working at sites in the “young-developing” countries (47.8%) (see page 23).

- Employers in the United States with large percentages of mid- and late-career workers might want to reassess the attractiveness and effectiveness of resources, such as training programs, to ensure that these employees are engaged and are able to keep their skills and competencies up to date.
A higher percentage working at sites in the United States report having child care responsibilities (43.0%) than those at sites in the “young-developing” countries (28.0%) (see page 25).

- Employers in the United States who find that they have a relatively large percentage of employees with dependent care responsibilities might consider how to encourage employees to use options that are available to them, such as flexible work arrangements.

WORK ENGAGEMENT

Among the respondents to the Generations of Talent Study:

The work engagement among respondents at the worksites in the United States was not significantly different from the work engagement of employees in the other “old-developed” and “young-developing” countries (see page 31).

Nearly three-fourths of those at the worksites in the United States report that very often or always “time flies while they are working” (73.6%) and that they “are proud of their work” (73.0%). However, fewer than half feel that they are “bursting with energy” at their work (43.0%) or that their “jobs inspire them” (45.6%) very often or always (see page 30).

Among those aged 30-39 at the worksites in the United States, the average level of work engagement is lower compared to those aged 40-49 and those aged 50+ (see page 31).

- U.S. employers who find that levels of employee engagement vary by age group might benefit from identifying whether the drivers of engagement are different as well. Given the aging of the U.S. workforce, U.S. employers might be well served to leverage the engagement of older workers for competitive advantage. At the same time, as the 30-39 year age group may be more at risk for lower levels of engagement compared to the two older groups, employers might want to explore what types of work truly inspire this age cohort. In addition, employers could take steps to ensure that workers in this age group have opportunities to deepen their dedication and absorption in work, such as being asked to assume challenging assignments.
JOB SATISFACTION

Among the respondents to the Generations of Talent Study:

Job satisfaction among U.S. respondents does not significantly differ from the satisfaction of employees in the other “old-developed” and “young-developing” nations participating in the GOT study (see page 34).

Among respondents at the worksites in the United States, 77.4% and 85.8% are moderately to strongly satisfied with the relationships with their co-workers/peers and subordinates, respectively. Additionally, two-thirds (67.2%) report being moderately to strongly satisfied with their supervisor. Three-fifths (63.1%) feel moderately to strongly satisfied with their sense of accomplishment from their work. However, fewer than half (46.3%) are moderately to strongly satisfied with resources and opportunities for training and development, and less than a third (31.5%) are moderately to strongly satisfied with the opportunities for advancement and promotions within their organizations (see page 33).

The level of job satisfaction among respondents at the worksites in the United States aged 30-39 is lower than that of respondents under the age of 30 and those aged 50+ (see page 34).

- Employers who find that levels of job satisfaction vary across age groups might want to consider whether different aspects of the job matter more or less to employees at different ages. For instance, workplace relationships might be more important to some employees in some age groups whereas opportunities for training and development or advancement and promotion could be more important to others. These insights could help employers consider ways to have open dialogue about the factors that can lead to higher job satisfaction. It is in employers’ self-interest to go beyond general job satisfaction scores and find out how satisfied employees are with specific components of their jobs.
ORGANIZATIONAL COMMITMENT

Among the respondents to the Generations of Talent Study:

Organizational commitment among respondents at the worksites in the United States does not significantly differ from the organizational commitment of employees in the other “old-developed” and “young-developing” countries participating in the GOT study (see page 37).

Fully 83.0% of respondents at the worksites in the United States moderately to strongly agree that they are “willing to work harder than they have to” in order to help their organization succeed. Moreover, 77.3% of respondents moderately to strongly agree that they feel “proud to be working for their organization.” However, just 28.0% moderately to strongly agree that they “would take almost any job to keep working for their organization” (see page 36).

Organizational commitment among respondents at the worksites in the United States does not significantly differ by age, career stage, or life stage (see page 37).

- It can be gratifying for employers when employees report high levels of organizational commitment, across all age, career stage, and life stage groups. The challenge, of course, is to discover ways to sustain those positive employee attitudes. Employers might find it helpful to remember that employees’ everyday work experiences reflect two different types of relationships: their relationships with the organization (overall) and their relationships with their jobs. Employers may find that they are able to sustain high levels of organizational commitment if they engage in discussions with all of their employees (including mid- and late career employees) about career development opportunities at the company.
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References
Introduction

Among the many challenges facing global employers, three trends have significant business implications:

1. The effects of the global economic downturn,
2. The globalization of talent (multinational and multicultural workforces), and
3. Dramatic changes in the age composition of the workforce, which vary from country to country.

According to the results from a recent *McKinsey Global Survey*, more than 50% of corporate executives consider these global trends “very” or “extremely” important in a wide range of areas of their businesses, including talent management strategy as well as new product development and reputation building. To date, however, few employers are taking a proactive approach to managing the effects of these global trends. Why? Possibly, because recognizing these trends is the easy part. Securing the right kind of information needed for sound decision-making might be the real challenge.

To gather business-relevant information about the work experiences of employees of different ages who work in different countries, the Sloan Center on Aging & Work at Boston College conducted the Generations of Talent (GOT) Study. The study focused on two key questions:

- Do employees’ perceptions of their work experiences vary depending on the country where they work?
- Do employees’ perceptions of their work experiences vary depending on their age-related factors such as chronological age, career stage, and life stage?

From May 2009 through November 2010, we collaborated with seven multinational employers to design and implement the GOT survey. In total, 11,298 employees, from 24 worksites in 11 different countries where these enterprises operate, responded to the survey.

Focusing on the United States, this report is one in a series which summarizes selected findings from the GOT Study on a country-by-country basis. This report relies on data from 1,156 employees employed by three multinational companies in the U.S.

The report is organized into four major sections:

*Section 1: The Context of the United States: Demographic and Economic Highlights*

- In this section, we provide selected background information about the demographic and economic context in the United States.

*Section 2: Experiences of Aging*

- In this section, we focus on age experiences that are related to chronological age, career stage, and life stage (indicated by dependent care).
Section 3: Work Outcomes

- Work Engagement among the Employees in the United States—A Comparative Perspective: Work engagement is an indicator of employees’ connection to their work. Highly engaged employees experience a positive, enthusiastic, and affective connection with their work that motivates them to invest in getting the job done well. In this section, we examine how country, age, career stage, and life stage influence work engagement among the respondents at the U.S. worksites.

- Job Satisfaction among the Employees in the United States—A Comparative Perspective: Job satisfaction is an indicator that can be related to a range of important work behaviors and decisions, such as the decision to either leave or remain with an employer. In this section, we examine how country, age, career stage, and life stage influence job satisfaction among the respondents at the U.S. worksites.

- Organizational Commitment among the Employees in the United States—A Comparative Perspective: Organizational commitment can help employers to gain insight about the general morale among employees. In this section, we examine how country, age, career stage, and life stage influence organizational commitment among the respondents at the U.S. worksites.

Section 4: Methodological Notes

- In this section, we briefly provide characteristics of the sample and data collection methods.
Section 1: The Context of the United States: Demographic and Economic Highlights

Demographic changes and economic globalization are worldwide phenomena, but not every country is experiencing these trends in the same manner. These global trends have precipitated different opportunities and challenges for people working in different countries.

In this section of the report, we provide a framework and indicators for understanding the current U.S. context compared to the demographic and economic conditions in other countries. Figure 1.0 illustrates a way to consider the interaction between age demographics and key characteristics of the economy across 11 countries where the Generations of Talent (GOT) Study data were collected: Botswana, Brazil, China, India, Japan, Mexico, the Netherlands, South Africa, Spain, the United Kingdom, and the United States.

We have selected six age demographic indicators and three economic indicators that profile the United States in the above framework.

1.1 AGE DEMOGRAPHICS

Various statistics can portray the age of a country's population, such as the distribution of its population, the average years of life expectancy, or the median age of the population. The following statistics offer insights about age demographics in the United States.

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The terms ‘developed economies’ and ‘developing economies’ are often used by academics and organizations to describe the extent of economic development according to selected criteria. Although we have used these terms in this report, we recognize that perspectives about economic development are only relative. Furthermore, given the volatility of economic circumstances in the 21st century, we may be witnessing significant shifts in the economic conditions in some countries.
1.1.1 Distribution of Population

The age distribution in countries with young populations tends to resemble the traditional population pyramid, where there is a greater proportion of younger people compared to older people. By contrast, the age distribution in countries with old populations tends to resemble a rectangle, indicating that the percentage of older cohorts is similar to younger cohorts.

The current population distribution in the United States has some features similar to a rectangle. Barring a narrow top, the younger and middle-aged cohorts of the U.S. population are about the same size, thus leading to a flat base. It is projected that by the end of this century the population pyramid in the United States will consist of relatively higher shares of younger cohorts compared to the older cohorts, thus resembling the traditional shape (see Figure 1.1.1).

Figure 1.1.1 Population Distribution in the United States, 2010 (by percentage)

Source: U.S. Census Bureau (2010)

1.1.2 Life Expectancy

In the United States, during 2005-2010, life expectancy at birth was about 79.2 years—75 years for men, and 80 years for women (see Figure 1.1.2). Life expectancy in the United States has increased by about 10 years over the last five decades, from 69.8 years during 1955-1960 to 79.2 years during 2005-2010.
1.1.3 Median Age

As noted in Figure 1.1.3, the median age in the United States as of 2010 was 36.6 years, placing it fifth among the countries participating in the GOT Study.³
1.1.4 Percentage of Population Aged 65 and Older

During 1977-2007, the size of the population aged 65+ in the United States increased by about 60%, higher than the growth rate in the population aged 16+ (46%). As of 2010, the percentage of the population aged 65 and older in the United States was about 13.0%. Among the countries participating in the GOT Study, the average percentage of the population aged 65+ was 10.8%. As is evident in Figure 1.1.4, the percentage of the population aged 65+ in the population for Japan, Spain, the United Kingdom, the Netherlands, and the United States is higher than 10.8% and the percentage of the population aged 65+ in the other countries is lower than 10.8%.

Figure 1.1.4 Percentage of Population Aged 65 and Older, 2010

Source: OECD (2010a)

Note: Data for Botswana are from United Nations (2010). The data show the “predicted” percentage of population aged 65 and older.
1.1.5 Historical Changes in the Age Demographics

As shown in Figure 1.1.5, the percentage of older adults (aged 65+) in the total U.S. population has been increasing since the 1950s, except during a brief stagnation in the 1990s. Expectations are that the aging U.S. population will reach 20% by 2050, proceeding at a slower rate than Europe or China. However, the number of people aged 65+ in the United States is estimated to rise more than two-fold from 2010 to 2050—from 40 million to about 89 million. Moreover, the elderly support ratio, calculated as the number of working-age people (aged 15-64) divided by the number of people aged 65+ in the United States, is expected to decline from around five (in 2010) to three by 2050, highlighting the extent of burden on potential providers to support their elderly dependents.

Figure 1.1.5 Historical Changes in Age Demographics: Older Adult (65+) Population as a Percentage of Total Population, 1950-2050

1.1.6  Age Distribution of the Labor Force

The proportion of the U.S. labor force between the ages of 15 and 64 was almost 95.7% of the total labor force in 2009 (see Figure 1.1.6). In the last three decades, the employment of older workers in the United States (aged 65+) increased by 101% whereas the employment rate for all workers (aged 16+) increased by less than 60%. This noteworthy trend stems from the labor force participation of older workers, which has been steadily rising since the late 1990s. Labor force refers to those who are working as well as those looking for work. A major proportion of the U.S. population aged 65+ seems to be continuing to participate in or returning to the labor force.7

Figure 1.1.6  Age Distribution of the Labor Force in the United States, 2009

Source: OECD (2010b)6
1.2 ECONOMIC INDICATORS

A number of economic indicators such as industry sector structure, GNI per capita\(^{ii}\), or GDP growth rate\(^{iii}\) can help distinguish developed economies from developing economies.

1.2.1 Composition of the Labor Force by Industry Sector

In countries with developed economies, the share of the labor force in the service sector dominates the employment contribution of agriculture as well as industry.\(^{iv}\) On the other hand, a significant portion of the labor force in many developing economies is employed in agriculture and industry. As depicted in Figure 1.2.1, more than three quarters of the total U.S. labor force is engaged in the service sector, followed by a little over 20% share of industry and just 0.7% belonging to agriculture.\(^{v}\)

Figure 1.2.1 Labor Force by Principal Sectors

![Figure 1.2.1 Labor Force by Principal Sectors](source)

Source: World Bank (2010a)\(^{vi}\); CIA (2010)\(^{v}\)

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\(^{ii}\) GNI per capita of a country is the gross national income, converted to U.S. dollars using the World Bank Atlas method, divided by the mid-year population.\(^{v}\)

\(^{iii}\) Growth rate is calculated as the percentage change in a variable from one year to the next.\(^{v}\)

\(^{iv}\) Agriculture includes forestry, hunting and fishing. Industry includes manufacturing, construction, mining & quarrying, and public utilities (electricity, gas and water). Services include wholesale and retail trade, restaurants and hotels, transport, storage and communications, financing, insurance, real estate, business services as well as community, social and personal services.\(^{v}\) The CIA definition refers to percentage of the total labor force by occupation.\(^{v}\)
1.2.2 Gross National Income (GNI) per Capita

Gross National Income (GNI) per capita is one way to compare the economic performance of different countries and can be used to distinguish between a developed economy and a developing economy.

The World Bank classifies countries with GNI per capita of $12,196 or higher as being high income. The U.S., as well as the Netherlands, the U.K., Japan, and Spain are in this high-income group. As of 2009, the US was located near the top of our 11 country sample, with a per capita GNI of $46,360, second only to the Netherlands. On the other hand, the GNI per capita in Mexico, Brazil, Botswana, South Africa, China, and India is between $996—$12,195, the range for middle-income countries as defined by the World Bank (see Figure 1.2.2).

Figure 1.2.2 GNI per Capita, 2009 (Current USD)

Source: World Bank (2010a)

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v According to the World Bank (2010a), economies are divided according to the 2009 GNI per capita, calculated using the World Bank Atlas method. The groups are: low income, $995 or less; lower middle income, $996 - $3,945; upper middle income, $3,946 - $12,195; and high income, $12,196 or more.
1.2.3 GDP Growth Rate

During the past 10 years, the average annual GDP growth rate in the United States has been a moderate 1.8%.

The average annual GDP growth in China and India during the last 10 years has clearly dominated the other nine countries. China and India are two of only three Asian countries that have not experienced contraction during the current global financial crisis.

The average annual GDP growth in most of the remaining countries ranged from 0.8%-4.2% (see Figure 1.2.3).

Figure 1.2.3 GDP Growth Rate: Average Growth Rate (2000-2009)

Among the major Asian economies, only those of China, India, and Indonesia did not contract during the global financial crisis.

1.3 COUNTRY CONTEXT: CONSIDERATIONS FOR EMPLOYERS

The demographic and economic indicators discussed above offer insights about each country’s current situation.

For the purpose of this report, we considered two key cut-offs, or indicators, to locate the 11 countries in the GOT Study into the demographic and economic development framework presented in Figure 1.0: 10.8% of population aged 65 and older, and $12,195 GNI per capita (USD). Figure 1.3 illustrates the classification of the United States and the other countries included in the GOT Study in two quadrants of the framework.
Based on this framework, five of the countries where data were collected, including the United States, can be considered “Old Population & Developed Economies” (the United States, Spain, the Netherlands, the United Kingdom, and Japan). For example, 13.0% of the total population in the United States is aged 65+ with a GNI per capita of $41,370. The remaining six countries were considered “Young Population & Developing Economies” (Botswana, Brazil, China, India, Mexico, and South Africa). None of the countries from the GOT Study were located in either the quadrants “Old Population & Developing Economies” or “Young Population & Developed Economies.”

The demographic and economic conditions in the United States, compared to other countries in the GOT Study, present opportunities for innovative employers, who are managing multi-generational and multi-national talent, to proactively address challenges of age-diverse workforces and fluctuating economic shifts. Maintaining an awareness of the economic situation and demographic characteristics of the United States can assist employers in assessing talent management practices within the country in addition to taking active steps to increase engagement, satisfaction, and commitment among multiple age groups.
Employers are beginning to express an awareness of shifts in the age demographics of the global workforce. A recent study in the United States found that 40% of the companies in the sample report the aging of the workforce will likely have a “very negative/negative” impact on their organizations in the next three years. Employers’ concerns include challenges associated with knowledge transfer and finding the talent they need to address today’s complex business problems.

When considering the implications of demographic changes for their organizations, employers often ask: “Who is a ‘younger/older’ worker?” This is important because the experience of age is complex, particularly in the context of the workplace.

Although we tend to think that age refers primarily to chronological age, the experience of aging has numerous dimensions. This section focuses on age experiences that relate to chronological age, career stage, and life stage (as indicated by different types of dependent care).

The data presented in this section and the following sections were generated from information gathered from respondents who participated in the Generations of Talent Study. As noted in Section 4 of this report, the respondents to this survey were employed by companies with worksites in the 11 countries where data were gathered. Although the findings provide important insights about people working in these countries, the descriptive statistics about the age-related characteristics of the respondents may not be representative of the workforces in those countries.

2.1 CHRONOLOGICAL AGE

Chronological age, which refers to the number of years a person has lived, is often used as an indicator for different aspects of the aging experience. It is well recognized, however, that people of the same age can have very different experiences with aging. For example, one employee at 65 can report high energy and no physical/cognitive limitations whereas a colleague of the same age might have a chronic disease.

As discussed below, there is also a wide range of chronological ages when people have other age-related experiences (such as the age range associated with being in mid-career or taking care of children younger than 18 years old).

Across the worksites in the United States, the chronological age range of the respondents to the Generations of Talent Study is 24 to 80 years. Across the worksites in the four other “old-developed” countries, excluding the United States and the six “young-developing” countries in our sample, the age ranges are 20 to 82 years and 18 to 91 years, respectively (see Table 2.2).

Figure 2.1 presents the chronological age distribution by age group for respondents from the U.S. worksites compared to those working in the other “old-developed” countries and the “young-developing” countries that participated in the study.
As this figure shows, the percentage of respondents under the age of 30 is significantly lower at the worksites in the United States (8.2%) as compared to those respondents working in the “young-developing” countries (45.8%). The U.S. worksites and the two country clusters have similar percentages of respondents aged 30-39. However, the worksites in the United States have a higher percentage (36.1%) of respondents in the age group 40-49 than the worksites in the other “old-developed” and “young-developing” countries (28.2% and 12.7%, respectively), and a higher percentage of respondents aged 50 and older (25.6%) compared to the worksites in the “young-developing” countries (5.6%). (see Table 4.1b).

2.2 CAREER STAGE

The concept of career stage reflects the observation that people tend to gain sets of competencies (skills and knowledge) with the expansion of their occupational roles and responsibilities. Although the progression of mastery varies across occupations, the concept of career stage, also termed “occupational age,” recognizes that most employees move from more basic to more advanced levels as they advance in a career.2,3

It is possible to define the specific career stages in different ways. It is not uncommon, however, to recognize at least three basic stages: early career, mid-career, and late career.

- Early career is typically characterized by exploration and establishment. Employees in early career are focused on getting to know the job and being integrated into the organization.4 Additionally, employees aim to find a match between themselves, their job, and the organization.5
Mid-career is typically characterized by career goal reappraisal. Employees in mid-career either reaffirm or modify their career or work needs and expectations. However, it is typical that employees would perceive that their careers are plateauing during mid-career (a sense of limited opportunities for career advancement and/or increase in job responsibility).

Late career is typically experienced in late adulthood. Employees in late career are generally focused on remaining productive in work, maintaining their self-esteem, and possibly preparing for effective retirement.

Figure 2.2 graphically illustrates the percentage of respondents that classify themselves as early career, mid-career, and late career, from the worksites in the United States, the other “old-developed” countries, and the “young-developing” countries that participated in the study. As this figure shows, the percentage of respondents that identify themselves as early career is lower among the worksites in the United States (20.3%) compared to the worksites in the “young-developing” countries (47.8%). However, the percentages of respondents that identify themselves as mid- and late career is higher among the worksites in the United States (61.3% and 18.4%, respectively) compared to the “young-developing” countries (47.1% and 5.1%, respectively). There are no significant differences in the percentages of respondents at different career stages between the worksites in the United States and the worksites in the other “old-developed” countries (see Table 4.1b).
Interestingly, as suggested by Table 2.2 below, the age ranges associated with each of the career stages are wide. For example, among respondents at the worksites in the United States, early career ranges from 24 to 60 years and late career ranges from 36 to 80 years. These data illustrate that, although the mean ages for respondents at worksites in the United States increase with career stage, their career stages might not always correspond to their chronological ages.

The mean age for each career stage for the respondents at worksites in the United States is compared to those respondents working at the sites in the other “old-developed” countries and “young-developing” countries. Note that even if the mean ages might look somewhat different, they cannot be considered significantly different unless it is stated that they are different in Table 2.2.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Mean Age and Age Range for Early Career Employees</th>
<th>Mean Age and Age Range for Mid-Career Employees</th>
<th>Mean Age and Age Range for Late Career Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. (N=976)</td>
<td>31.6 (24 - 60) years Different from: Young-Developing</td>
<td>43.2 (25 - 77) years Different from: Other Old-Developed, Young-Developing</td>
<td>55.6 (36 - 80) years Different from: Other Old-Developed, Young-Developing</td>
</tr>
<tr>
<td>Other Old-Developed (N=3931)</td>
<td>31.2 (20 - 82) years Different from: Young-Developing</td>
<td>41.3 (25 - 77) years Different from: U.S., Young-Developing</td>
<td>53.4 (27 - 65) years Different from: U.S., Young-Developing</td>
</tr>
<tr>
<td>Young-Developing (N=4481)</td>
<td>27.3 (18 - 91) years Different from: U.S., Other Old-Developed</td>
<td>36.4 (18 - 91) years Different from: U.S., Other Old-Developed</td>
<td>47.5 (18 - 81) years Different from: U.S., Other Old-Developed</td>
</tr>
</tbody>
</table>

Note: Statistical significance tests compared means of career stage subgroups across country clusters (p<.05).

2.3 LIfe Stage: The Role of Dependent Care

Over the life course, individuals experience various events and transitional stages, which shape major roles and responsibilities both in work and personal life. Multiple studies have shown that family and personal life can have a significant impact on work, and work experiences can also affect personal and family life. The work-life paradigm recognizes the importance of different life events and the impact that they can have for employees. For example, life events and transitions, such as taking care of children or an older parent, can affect the ways that people fulfill their roles and responsibilities both at work and outside of work.
In this report, we focus on the dependent caregiving responsibilities of employees as an indicator of a life stage that can influence expectations and experiences at work. Dependent care is often life-changing as it typically requires an investment of time, energy, and financial resources. Employees might find that they need to make adjustments at home and possibly at work in order to fulfill caregiving responsibilities. To assess whether life stage as indicated by dependent care impacts employees’ expectations and experiences at work, we compare different types of dependent care: child care (18 years and younger), elder care (parent(s) or parent(s)-in-law), both child and elder care, and neither child nor elder care.

As indicated by Figure 2.3, 43.5% of respondents to the Generations of Talent Study at worksites in the United States report that they do not have child or elder care responsibilities, while 43.0% have child care responsibilities, 6.0% have elder care responsibilities, and 7.6% provide both child and elder care. Across the worksites in the United States, the percentage of respondents with child care responsibilities (43.0%) is higher than that among the respondents working in the “young-developing” countries (28.0%). By contrast, the percentage of respondents with elder care responsibilities (6.0%) is lower at the worksites in the United States than in the “young-developing” countries (14.9%). There are no statistically significant differences in the percentages of respondents with different care responsibilities between the worksites in the United States and the other “old-developed countries” (see Table 4.1b).
The age range among respondents with different types of dependent care responsibilities is wide among worksites in the United States, as noted in Table 2.3 below. For example, the age of respondents with neither child nor elder care responsibilities ranges from 24 to 80 years, and the age of respondents with child care responsibilities ranges from 25 to 77 years. The age of respondents with elder care responsibilities ranges from 24 to 66 years. Lastly, the age of those with both child and elder care responsibilities ranges from 25 to 61 years.

The mean age for each dependent care type assumed by the respondents in the United States is compared to the respondents working in the other “old-developed” countries and “young-developing” countries. Note that even if the mean ages might look somewhat different, they cannot be considered significantly different unless it is stated that they are different in Table 2.3.

Table 2.3  Age Range of Dependent Care Responsibilities among Respondents at the Worksites in the United States Compared to the Two Country Clusters

<table>
<thead>
<tr>
<th>Countries</th>
<th>Mean Age and Age Range for Those Giving Neither Child nor Elder Care</th>
<th>Mean Age and Age Range for Those Giving Child Care</th>
<th>Mean Age and Age Range for Those Giving Elder Care</th>
<th>Mean Age and Age Range for Those Giving Both Child and Elder Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. (N=976)</td>
<td>42.9 (24 - 80) years Different from: Other Old-Developed, Young-Developing</td>
<td>42.5 (25 - 77) years Different from: Other Old-Developed, Young-Developing</td>
<td>50.3 (24 - 66) years Different from: Other Old-Developed, Young-Developing</td>
<td>42.2 (25 - 61) years Different from: Other Old-Developed, Young-Developing</td>
</tr>
<tr>
<td>Other Old-Developed (N=3931)</td>
<td>40.0 (20 - 82) years Different from: U.S., Young-Developing</td>
<td>40.7 (20 - 72) years Different from: U.S., Young-Developing</td>
<td>45.7 (20 - 71) years Different from: U.S., Young-Developing</td>
<td>47.0 (20 - 75) years Different from: U.S., Young-Developing</td>
</tr>
<tr>
<td>Young-Developing (N=4481)</td>
<td>30.2 (18 - 85) years Different from: U.S., Other Old-Developed</td>
<td>36.9 (18 - 91) years Different from: U.S., Other Old-Developed</td>
<td>29.8 (18 - 76) years Different from: U.S., Other Old-Developed</td>
<td>37.2 (18 - 91) years Different from: U.S., Other Old-Developed</td>
</tr>
</tbody>
</table>

Note: Statistical significance tests compared means of life stage subgroups across country clusters (p<.05).
2.4 AGING AND WORK IN THE UNITED STATES: A PROFILE

Employment experiences can be affected by societal expectations about age, as well as opportunities and constraints that may vary for employees of different ages.\textsuperscript{16,17} Examining the employment experiences of employees through the lenses of age, employers can gain insight about the extent to which their human resource programs and management policies reflect the needs of employees of different ages, career stages, and life stages.

In this section of the report, we have discussed the fact that employees’ experiences of aging can vary, depending on the specific dimension of age that is particularly relevant to them. As suggested by the sample age profile in Figure 2.4, an employee who is old in terms of chronological age could still be mid-career in terms of career stage and might still have child care responsibilities.

![Figure 2.4 Sample Age Profile](source: Generations of Talent Study)

Given the complexities of age, employers should consider how to customize talent management policies and programs to meet the needs of employees whose employment experiences reflect the nuances of their experiences with aging.
Section 3: Work Outcomes

Top employers seek information on work outcomes in order to manage their global workforces. In this report, we review three important work outcomes: work engagement, job satisfaction, and organizational commitment. For each outcome, we provide a brief introduction outlining the importance and definition of that outcome. Afterwards, we present the results of several analyses that address the following questions:

Impact of Country:

- Is each work outcome among respondents at the worksites in the United States different from outcomes among those working in the four other “old-developed” countries and the six “young-developing” countries after controlling for demographic factors, job characteristics, age, career stage, and life stage?

Impact of Age/Career Stage/Life Stage:

- Does each work outcome among respondents at the worksites in the United States vary by age group, career stage, and/or life stage once we control for demographic factors and job characteristics?

Using data from the Generations of Talent Study, we will use the framework summarized in Figure 3.0 to answer these questions in order to provide employers with insight into the overall factors that might affect the level of employees’ work engagement, job satisfaction, and organizational commitment.

Figure 3.0 The Effect of Age/Career Stage/Life Stage/Country on Work Engagement/Job Satisfaction/Organizational Commitment
3.1 WORK ENGAGEMENT

Work engagement refers to employees’ positive feelings or emotions toward their work. Engagement is defined as “a positive work-related state of fulfillment that is characterized by vigor, dedication, and absorption.” Work engagement is the opposite of work burnout. Therefore, “contrary to those who suffer from burnout, engaged employees have a sense of energetic and effective connection with their work activities, and they see themselves as able to deal well with the demands of their jobs.” When employees are well engaged in their work, they find their work to be personally meaningful, have positive feelings about their work, consider their workload to be manageable, and have hope about the future of their work – that is, they have a positive and fulfilling work-related state of mind.

Particularly during tough economic times, such as during the global financial crisis, employers have good reasons to be concerned about their employees’ work engagement. Research has shown that only about one in every five employees reported that they were highly engaged in their work. The Gallup organization estimates that disengaged employees cost U.S. employers a significant amount of money – between $250 billion and $350 billion a year. Over 600 CEOs from countries around the world reported that they considered work engagement as one of the top five most important challenges facing management.

3.1.1 Work Engagement in the United States

Work engagement was assessed using 11 items adapted from the Utrecht Work Engagement Scale (UWES). Table 3.1.1 presents the frequencies of responses to these work engagement items based on the data collected from employees at the U.S. worksites. For example, among the respondents at the worksites in the United States, nearly three-fourths (75.3%) report that they very often or always feel that they are “immersed in their work.” Similarly, 73.6% of respondents at the worksites in the United States report that they very often or always feel that “time flies when working.” About two-fifths (43.0%) very often or always feel “bursting with energy at work” and 44.8% report that they very often or always “get carried away when they are working.” Lastly, about half (50.5%) of the respondents at the worksites in the United States report that they very often or always “feel like going to work when they get up in the morning.”

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vii The UWES is a standardized and globally validated measure to assess employee work engagement. Employees were asked to indicate the frequency of experiencing their work in a particular way. Each item was assessed on a scale ranging from never (1) to always (7).
Table 3.1.1 Work Engagement among Respondents at the Worksites in the United States

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
<th>Percent</th>
<th>Percent</th>
<th>Percent</th>
<th>Percent</th>
<th>Percent</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Almost</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
<td>Very Often</td>
<td>Always</td>
</tr>
<tr>
<td>At my work, I feel bursting with energy. (N=997)</td>
<td>2.0%</td>
<td>3.8%</td>
<td>6.7%</td>
<td>21.8%</td>
<td>22.7%</td>
<td>35.1%</td>
<td>7.9%</td>
</tr>
<tr>
<td>I find the work that I do full of meaning and purpose. (N=997)</td>
<td>1.2%</td>
<td>2.6%</td>
<td>4.8%</td>
<td>18.8%</td>
<td>19.7%</td>
<td>37.4%</td>
<td>15.5%</td>
</tr>
<tr>
<td>I am enthusiastic about my job. (N=997)</td>
<td>0.4%</td>
<td>2.9%</td>
<td>4.8%</td>
<td>14.6%</td>
<td>15.3%</td>
<td>39.7%</td>
<td>22.4%</td>
</tr>
<tr>
<td>I am immersed in my work. (N=996)</td>
<td>0.6%</td>
<td>1.5%</td>
<td>3.7%</td>
<td>8.5%</td>
<td>10.3%</td>
<td>42.7%</td>
<td>32.6%</td>
</tr>
<tr>
<td>Time flies when I’m working. (N=250)</td>
<td>0.2%</td>
<td>2.8%</td>
<td>2.6%</td>
<td>7.0%</td>
<td>13.7%</td>
<td>41.1%</td>
<td>32.5%</td>
</tr>
<tr>
<td>When I get up in the morning, I feel like going to work. (N=250)</td>
<td>2.9%</td>
<td>3.5%</td>
<td>8.3%</td>
<td>18.0%</td>
<td>16.7%</td>
<td>31.9%</td>
<td>18.6%</td>
</tr>
<tr>
<td>At my job, I feel strong and vigorous. (N=250)</td>
<td>0.1%</td>
<td>3.9%</td>
<td>3.3%</td>
<td>15.8%</td>
<td>21.5%</td>
<td>40.6%</td>
<td>14.8%</td>
</tr>
<tr>
<td>I am proud of the work that I do. (N=250)</td>
<td>0.0%</td>
<td>0.1%</td>
<td>4.0%</td>
<td>9.5%</td>
<td>13.4%</td>
<td>33.4%</td>
<td>39.6%</td>
</tr>
<tr>
<td>I feel happy when I am working intensely. (N=250)</td>
<td>0.0%</td>
<td>1.9%</td>
<td>1.0%</td>
<td>9.6%</td>
<td>13.7%</td>
<td>42.6%</td>
<td>31.2%</td>
</tr>
<tr>
<td>My job inspires me. (N=250)</td>
<td>1.2%</td>
<td>4.2%</td>
<td>10.5%</td>
<td>17.4%</td>
<td>21.1%</td>
<td>29.5%</td>
<td>16.1%</td>
</tr>
<tr>
<td>I get carried away when I am working. (N=249)</td>
<td>2.1%</td>
<td>6.1%</td>
<td>7.1%</td>
<td>18.6%</td>
<td>21.3%</td>
<td>30.9%</td>
<td>13.9%</td>
</tr>
</tbody>
</table>

We combined the answers to the questions listed in Table 3.1.1 to get an overall score of work engagement. The scores could range from 1 to 7. We considered scores as follows:

- Scores ranging from 1 to 2.99 = low work engagement
- Scores ranging from 3 to 4.99 = moderate work engagement
- Scores ranging from 5 to 7 = high work engagement

The average (mean) score of work engagement among respondents at the U.S. worksites is 5.4.

http://www.bc.edu/agingandwork
3.1.2 Impact of Country on Work Engagement

Is work engagement among respondents at the U.S. worksites different from work engagement among those working in the four other “old-developed” countries and the six “young-developing” countries after controlling for demographic factors, job characteristics, age, career stage, and life stage?

⇒ No, work engagement among respondents at the U.S. worksites is not significantly different from that of the respondents at the worksites in the two country clusters after controlling for demographic factors, job characteristics, and age-related factors (that is, the differences in the work engagement scores between the respondents in the United States and the two country clusters are not statistically significant) (see Table 4.2a).

3.1.3 Impact of Age, Career Stage and/or Life Stage on Work Engagement

Does work engagement among respondents at the U.S. worksites vary by age group, career stage, and/or life stage once we control for demographic factors and job characteristics?

⇒ Yes, work engagement among respondents at the U.S. worksites varies by age (see Table 4.2b and Table 4.2b-1).
⇒ No, work engagement among respondents at the U.S. worksites does not vary by career stage and life stage (that is, the differences in the mean scores are not statistically significant after controlling for demographic factors and job characteristics) (see Tables 4.2c and 4.2d).

Figure 3.1.3 graphically illustrates the relationship between age and work engagement among respondents at the U.S. worksites. This figure presents the predicted mean scores of work engagement by age group at the U.S. worksites. It shows that after controlling for demographic factors and job characteristics, the average level of work engagement for respondents aged 30-39 (5.04) at the U.S. worksites is lower than that for respondents aged 40-49 (5.35) and for those aged 50 and above (5.52). The difference between respondents aged 30-39 and those under 30 is not statistically significant, however.
Figure 3.1.3 Work Engagement by Age Group among Respondents at the U.S. Worksites

![Graph showing mean scores of work engagement by age group.](image)

Source: Generations of Talent Study

Note: Only statistically significant differences among age groups are discussed in the text.

### 3.2 JOB SATISFACTION

Job satisfaction refers to a pleasurable emotional state resulting from the appraisal of one's job. Job satisfaction is a widely examined construct in academic and business research in a variety of organizational settings.

Employers have good reasons to be concerned with their employees' job satisfaction because job satisfaction can be an important indicator of employees' current and future work behaviors including work performance, absenteeism, and turnover. Additionally, some research suggests that employees' job satisfaction is significantly correlated with their life satisfaction overall.

#### 3.2.1 Job Satisfaction in the United States

The Generations of Talent questionnaire includes 13 items that assess satisfaction with important aspects of work. Table 3.2.1 presents the frequencies of responses to job satisfaction items among respondents at the U.S. worksites. Across all respondents at the U.S. worksites, 77.4% and 85.8% are moderately to strongly satisfied with the relations with their co-workers/peers and subordinates, respectively. Also, 67.2% are moderately to strongly satisfied with their organizational supervisor. In addition, 76.7% are moderately to strongly satisfied with the inclusiveness of their organizational culture in terms of welcoming diverse employees. However, just 31.5% of U.S. respondents are moderately to strongly satisfied with the opportunities that exist in their organization for advancement or promotions.

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viii The index of job satisfaction comprised of 13 items from multiple sources including standardized scales and original items developed by the Sloan Center on Aging & Work. Employees were asked to indicate the degree of satisfaction with their job. Each item was assessed on a scale ranging from strongly dissatisfied (1) to strongly satisfied (6).

http://www.bc.edu/agingandwork
Table 3.2.1 Job Satisfaction among Respondents at the U.S. Worksites

<table>
<thead>
<tr>
<th>Factor</th>
<th>Strongly Dissatisfied</th>
<th>Moderately Dissatisfied</th>
<th>Somewhat Dissatisfied</th>
<th>Somewhat Satisfied</th>
<th>Moderately Satisfied</th>
<th>Strongly Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Your job security. (N=949)</td>
<td>10.2%</td>
<td>7.8%</td>
<td>9.5%</td>
<td>22.3%</td>
<td>32.8%</td>
<td>17.5%</td>
</tr>
<tr>
<td><strong>Resources and opportunities for training and development to improve your skills or learn new skills that your employer provides. (N=946)</strong></td>
<td>4.0%</td>
<td>7.2%</td>
<td>12.9%</td>
<td>29.7%</td>
<td>33.5%</td>
<td>12.8%</td>
</tr>
<tr>
<td><strong>Benefits that have monetary value such as profit-sharing schemes; retirement benefits; paid time off; paid sick days or medical leave; subsidies for child care, dependent care, education, or housing; health insurance; or long-term care insurance. (N=947)</strong></td>
<td>2.2%</td>
<td>2.2%</td>
<td>6.1%</td>
<td>23.4%</td>
<td>41.8%</td>
<td>24.2%</td>
</tr>
<tr>
<td><strong>Benefits that promote health, wellness, and psychological well-being, such as nutrition programs; fitness facilities; or programs that provide information, counseling, or referrals. (N=947)</strong></td>
<td>1.2%</td>
<td>2.2%</td>
<td>3.5%</td>
<td>32.2%</td>
<td>35.8%</td>
<td>25.0%</td>
</tr>
<tr>
<td>*The sense of accomplishment you get from work. (N=948)</td>
<td>3.6%</td>
<td>4.1%</td>
<td>8.3%</td>
<td>21.0%</td>
<td>44.9%</td>
<td>18.2%</td>
</tr>
<tr>
<td>*<strong>The extent to which you use your skills and abilities on your job. (N=948)</strong></td>
<td>2.9%</td>
<td>4.5%</td>
<td>6.9%</td>
<td>19.7%</td>
<td>44.1%</td>
<td>22.0%</td>
</tr>
<tr>
<td><strong>The way your job allows you to make a difference in your community or the world. (N=947)</strong></td>
<td>3.3%</td>
<td>5.1%</td>
<td>12.4%</td>
<td>34.6%</td>
<td>32.7%</td>
<td>11.9%</td>
</tr>
<tr>
<td>**<strong>The person who supervises you -- your organizational superior. (N=946)</strong></td>
<td>4.1%</td>
<td>4.3%</td>
<td>7.4%</td>
<td>17.0%</td>
<td>36.9%</td>
<td>30.3%</td>
</tr>
<tr>
<td>****Your relations with others with whom you work -- your co-workers or peers. (N=944)</td>
<td>0.4%</td>
<td>0.5%</td>
<td>4.5%</td>
<td>17.2%</td>
<td>47.1%</td>
<td>30.3%</td>
</tr>
<tr>
<td>***Your working relationships with subordinates. (N=297)</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.8%</td>
<td>13.3%</td>
<td>46.2%</td>
<td>39.6%</td>
</tr>
<tr>
<td>****Opportunities that exist in this organization for advancement or promotions. (N=944)</td>
<td>11.4%</td>
<td>7.7%</td>
<td>21.2%</td>
<td>28.2%</td>
<td>23.6%</td>
<td>7.9%</td>
</tr>
<tr>
<td>***Your physical work environment. (N=944)</td>
<td>2.0%</td>
<td>3.5%</td>
<td>7.7%</td>
<td>19.1%</td>
<td>40.7%</td>
<td>26.8%</td>
</tr>
<tr>
<td><strong>The inclusiveness of your organizational culture in terms of welcoming diverse employees. (N=944)</strong></td>
<td>1.1%</td>
<td>1.4%</td>
<td>3.8%</td>
<td>17.1%</td>
<td>37.2%</td>
<td>39.5%</td>
</tr>
</tbody>
</table>

* Original item developed based on work of Hackman & Oldham (1976)\(^8\)
** Original item developed by Sloan Center on Aging & Work
*** Item adapted from Hofstede (2001)\(^6\)
**** Item from Tsui et al., (1992)\(^7\)
We combined the answers to the questions listed in Table 3.2.1 to get an overall score of job satisfaction. The scores could range from 1 to 6. We considered scores as follows:

- Scores ranging from 1 to 2.49 = low job satisfaction
- Scores ranging from 2.5 to 4.49 = moderate job satisfaction
- Scores ranging from 4.5 to 6 = high job satisfaction

The average (mean) score of job satisfaction among respondents at the U.S. worksites is 4.6.

3.2.2 Impact of Country on Job Satisfaction

Is job satisfaction among respondents at the U.S. worksites different from job satisfaction among those working in the four other “old-developed” countries and the six “young-developing” countries after controlling for demographic factors, job characteristics, age, career stage, and life stage?

\(\Rightarrow\) No, job satisfaction among respondents at the U.S. worksites is not significantly different from that of the respondents in the two country clusters after controlling for demographic factors, job characteristics, and age-related factors (that is, the differences in the job satisfaction scores between the respondents at the worksites in the United States and the two country clusters are not statistically significant) (see Table 4.2a).

3.2.3 Impact of Age, Career Stage, and/or Life Stage on Job Satisfaction

Does job satisfaction among respondents at the U.S. worksites vary by age group, career stage, and/or life stage, once we control for demographic factors and job characteristics?

\(\Rightarrow\) Yes, job satisfaction among respondents at the U.S. worksites varies by age (see Table 4.2b and Table 4.2b-1).

\(\Rightarrow\) No, job satisfaction among respondents at the U.S. worksites does not vary by career stage and life stage (that is, the differences in the mean scores are not statistically significant after controlling for demographic factors and job characteristics) (see Tables 4.2c and 4.2d).

Figure 3.2.3 graphically illustrates the relationship between age and job satisfaction among respondents at the U.S. worksites. Specifically, this figure presents the predicted mean scores of job satisfaction by age group among respondents at the U.S. worksites. It shows that, after controlling for demographic factors and job characteristics, the level of job satisfaction for respondents aged 30-39 (4.33) at the U.S. worksites is lower than that for respondents under 30 years of age (4.66) and for those aged 50 and above (4.55) in the United States. The difference between respondents aged 30-39 and those aged 40-49 is not statistically significant, however.
Organizational commitment generally refers to the relative strength of an employee’s involvement in a particular organization.\textsuperscript{19, 20} This concept might be characterized by at least three related factors:

- a strong psychological attachment and acceptance of the organization’s goals and values;
- a willingness to exert considerable effort on behalf of the organization; and
- a strong desire to remain in the organization.\textsuperscript{20, 21, 22, 23, 24}

Organizational commitment is central to the study of organizational behavior. Various studies provide support for the relationships between employees’ organizational commitment and employees’ attitudes or behaviors.\textsuperscript{19, 25, 26} Organizational commitment has been studied in the public, private, and nonprofit sector, and internationally.\textsuperscript{27, 28} Research shows that employees who are more committed demonstrate higher job performance, less job displeasure, diminished intent to leave, and less stress.\textsuperscript{29, 30}

### 3.3.1 Organizational Commitment in the United States

The Generations of Talent questionnaire includes nine questions that assess employees’ commitment to the organization adapted from Mowday et al. (1979).\footnote{We used the U.S. General Social Survey (GSS) adaptation of the original Mowday et al. (1979)\textsuperscript{ix} organizational commitment scale. Employees were asked to indicate their agreement with statements about their commitment. Each item was assessed on a scale ranging from strongly disagree (1) to strongly agree (6). When creating the scale, we reversed one item so that the higher scores would represent higher organizational commitment.}

Table 3.3.1 presents the frequencies of responses to organizational commitment items for respondents at the U.S. worksites. Across all the respondents at the U.S. worksites, 83.0% moderately to strongly agree that they are “willing to work harder than they have to in order to help their organization succeed.” Moreover, three-quarters (77.3% and 76.0%) of respondents indicate that they moderately to strongly agree that they are “proud to be working for their organization” and that they are...
“extremely glad to have chosen this specific organization to work for over others they were considering at the time of joining,” respectively. However, only 28.0% and 27.2% of respondents, respectively, indicate that they moderately to strongly agree that they will “take almost any job to keep working for their organization” and that will “turn down another job for more pay in order to stay with their current organization.”

Table 3.3.1 Organizational Commitment among Respondents at the U.S. Worksites

<table>
<thead>
<tr>
<th>Item</th>
<th>Percent Strongly Disagree</th>
<th>Percent Moderately Disagree</th>
<th>Percent Somewhat Disagree</th>
<th>Percent Somewhat Agree</th>
<th>Percent Moderately Agree</th>
<th>Percent Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>*To help this organization succeed, I am willing to work harder than I have to. (N=1013)</td>
<td>0.8%</td>
<td>0.7%</td>
<td>2.7%</td>
<td>12.7%</td>
<td>29.6%</td>
<td>53.4%</td>
</tr>
<tr>
<td>*I would take almost any job to keep working for this organization. (N=1012)</td>
<td>15.3%</td>
<td>14.8%</td>
<td>21.2%</td>
<td>20.7%</td>
<td>16.1%</td>
<td>11.9%</td>
</tr>
<tr>
<td>*I would turn down another job for more pay in order to stay with this organization. (N=1012)</td>
<td>9.3%</td>
<td>13.8%</td>
<td>23.0%</td>
<td>26.7%</td>
<td>18.5%</td>
<td>8.7%</td>
</tr>
<tr>
<td>*I feel very little loyalty to this organization. (N=255)</td>
<td>31.9%</td>
<td>30.5%</td>
<td>12.1%</td>
<td>9.6%</td>
<td>7.6%</td>
<td>8.4%</td>
</tr>
<tr>
<td>*I find that my values and the organization’s are very similar. (N=254)</td>
<td>1.0%</td>
<td>3.3%</td>
<td>9.2%</td>
<td>29.9%</td>
<td>37.5%</td>
<td>19.1%</td>
</tr>
<tr>
<td>*I am proud to be working for this organization. (N=254)</td>
<td>0.6%</td>
<td>1.1%</td>
<td>5.6%</td>
<td>15.4%</td>
<td>34.4%</td>
<td>42.9%</td>
</tr>
<tr>
<td>**I talk up this organization to my friends as a great organization to work for. (N=254)</td>
<td>1.9%</td>
<td>2.8%</td>
<td>10.4%</td>
<td>18.7%</td>
<td>32.4%</td>
<td>33.7%</td>
</tr>
<tr>
<td>**This organization really inspires the very best in me in the way of job performance. (N=254)</td>
<td>3.7%</td>
<td>4.4%</td>
<td>9.2%</td>
<td>27.2%</td>
<td>31.0%</td>
<td>24.5%</td>
</tr>
<tr>
<td>**I am extremely glad that I chose this organization to work for over others I was considering at the time I joined. (N=253)</td>
<td>2.2%</td>
<td>1.4%</td>
<td>3.5%</td>
<td>16.9%</td>
<td>31.2%</td>
<td>44.8%</td>
</tr>
</tbody>
</table>

* Items from the General Social Survey (Adapted version of Mowday et al. (1979) scale)
** Items from Mowday et al. (1979)
We combined the answers to the questions listed in Table 3.3.1 to get an overall score of organizational commitment. The scores could range from 1 to 6. We considered scores as follows:

- Scores ranging from 1 to 2.49 = low organizational commitment
- Scores ranging from 2.5 to 4.49 = moderate organizational commitment
- Scores ranging from 4.5 to 6 = high organizational commitment

The average (mean) score of organizational commitment among respondents at the U.S. worksites is 4.6.

3.3.2 Impact of Country on Organizational Commitment

- Is organizational commitment among respondents at the U.S. worksites different from organizational commitment among those working in the four other “old-developed” countries and the six “young-developing” countries after controlling for demographic factors, job characteristics, age, career stage, and life stage?

⇒ No, organizational commitment among respondents at the U.S. worksites is not significantly different from that of the respondents in the two country clusters after controlling for demographic factors, job characteristics, and age-related factors (that is, the differences in the organizational commitment scores between the respondents at the worksites in the United States and the two country clusters are not statistically significant) (see Table 4.2a).

3.3.3 Impact of Age, Career Stage, and/or Life Stage on Organizational Commitment

- Does organizational commitment among respondents at the U.S. worksites vary by age group, career stage, and/or life stage, once we control for demographic factors and job characteristics?

⇒ No, organizational commitment among respondents at the U.S. worksites does not vary by age group, career stage and life stage (that is, the differences in the mean scores are not statistically significant after controlling for demographic factors and job characteristics) (see Tables 4.2b, 4.2c, and 4.2d).
Section 4: Methodological Notes

4.1 Data Collection and Sample

From May 2009 through November 2010, The Sloan Center on Aging & Work collaborated with seven multinational companies. In total, 24 worksites in 11 countries participated in the study, and 11,298 individual employees responded to the survey. Employees were invited to complete one 30-minute online survey during work time which they were able to access on a secure website. The survey was translated to Japanese, Mandarin Chinese, Brazilian Portuguese, and Spanish.

The survey consists of the core questions (questions that were included in the surveys made available to each respondent) and module questions (additional, complementary questions, a subset of which was randomly assigned to the respondents). The survey focused on employees’ perceptions of their work experiences, workplace-based resources, demographic information, and their assessments of their health and well-being at work and in their lives in general.

The data collected in the GOT Study allow us to examine a range of experiences at worksites in the United States in comparison to worksites in other countries. However, readers should keep in mind that the findings may not be representative of all employees at a worksite, in a country, or in a multinational organization as a whole.

As indicated in Table 4.1a, the sample in the United States includes employees working for three multinational organizations that have worksites in the United States. The sample in the other “old-developed” countries includes employees working at six companies that have worksites in some of the four other “old-developed” countries, including Japan, the United Kingdom, Spain, and the Netherlands. Three companies participated in the study in the United Kingdom, and two companies participated in the study in Spain, Japan and the Netherlands. The sample in the “young-developing” countries includes employees working at five companies that have worksites at some of the six “young-developing” countries, including Botswana, Brazil, China, India, Mexico, and South Africa. Three companies participated in the study in China and Brazil, two companies participated in the study in India and Mexico, and only one company participated in each of the two remaining countries, Botswana and South Africa.
Table 4.1a Number of Worksites within Country Clusters

<table>
<thead>
<tr>
<th>Countries</th>
<th>Number of Worksites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Old-Developed Countries</strong></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>2</td>
</tr>
<tr>
<td>Spain</td>
<td>2</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>3</td>
</tr>
<tr>
<td>United States</td>
<td>3</td>
</tr>
<tr>
<td><strong>Young-Developing Countries</strong></td>
<td></td>
</tr>
<tr>
<td>Botswana</td>
<td>1</td>
</tr>
<tr>
<td>Brazil</td>
<td>3</td>
</tr>
<tr>
<td>China</td>
<td>3</td>
</tr>
<tr>
<td>India</td>
<td>2</td>
</tr>
<tr>
<td>Mexico</td>
<td>2</td>
</tr>
<tr>
<td>South Africa</td>
<td>1</td>
</tr>
</tbody>
</table>

Overall, the multinational organizations that participated were affiliated with a range of industry sectors including information technology; professional, scientific and technical services; finance and insurance; electricity production, distribution and transport; and pharmaceuticals.

Table 4.1b below summarizes the main characteristics of the total sample in the United States compared to the samples in the other “old-developed” countries and “young-developing” countries. The last column of this table indicates significant differences of employees’ characteristics in the United States from those in the four other “old-developed” countries as well as in the six “young-developing” countries. The U.S. sample has a lower percentage of women (34.7%) and a higher percentage of men (65.3%) compared to the “young-developing” countries (48.5% and 51.5%, respectively). The U.S. sample has a higher percentage of full-time workers (99.0%) and a lower percentage of part-time workers (1.0%) compared to the other “old-developed” countries (91.1% and 8.9%, respectively). The average work hours reported by the respondents at the worksites in the United States are longer (44.6 hours) than the other “old-developed” countries (41.6 hours), but shorter than the “young-developing” countries (48.2 hours). The U.S. sample has a lower percentage of respondents under 30 years of age (8.2%) compared to the “young-developing” countries (45.8%). On the other hand, the U.S. sample has a higher percentage (36.1%) of respondents in the age group 40-49 compared to the other “old-developed” and “young-developing” countries (28.2% and 12.7%, respectively), and a higher percentage of respondents 50 years and older (25.6%) compared to the “young-developing” countries (5.6%). The percentage of respondents in mid- and late career in the sample in the United States is higher (61.3% and 18.4%, respectively) compared to the “young-developing” countries, which have a higher percentage of respondents in early career (47.8%). Moreover, a higher percentage of respondents in the sample in the United States have child care responsibilities (43.0%) compared to the “young-developing” countries, where a higher percentage of respondents have elder care responsibilities (14.9%). Lastly, a lower percentage of respondents in the sample in the United States have supervisory responsibilities (30.3%) compared to the respondents in the “young-developing” countries (43.0%).
Table 4.1b Characteristics of the U.S. Sample and the Two Country Clusters

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>U.S.</th>
<th>Other Old-Developed</th>
<th>Young-Developing</th>
<th>Significant Differences from U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Women (N=8961)</td>
<td>34.7%</td>
<td>32.2%</td>
<td>48.5%</td>
<td>Significantly Different from Young-Developing</td>
</tr>
<tr>
<td>% Men (N=8961)</td>
<td>65.3%</td>
<td>67.8%</td>
<td>51.5%</td>
<td>Significantly Different from Young-Developing</td>
</tr>
<tr>
<td>% Full time (N=11040)</td>
<td>99.0%</td>
<td>91.1%</td>
<td>96.1%</td>
<td>Significantly Different from Other Old-Developed</td>
</tr>
<tr>
<td>% Part time (N=11040)</td>
<td>1.0%</td>
<td>8.9%</td>
<td>3.9%</td>
<td>Significantly Different from Other Old-Developed</td>
</tr>
<tr>
<td>Average work hours (N=10147)</td>
<td>44.6</td>
<td>41.6</td>
<td>48.2</td>
<td>Significantly Different from Other Old-Developed and Young-Developing</td>
</tr>
<tr>
<td>% Under 30 years old (N=9388)</td>
<td>8.2%</td>
<td>12.2%</td>
<td>45.8%</td>
<td>Significantly Different from Young-Developing</td>
</tr>
<tr>
<td>% Age 30 - 39 (N=9388)</td>
<td>30.0%</td>
<td>35.5%</td>
<td>35.8%</td>
<td>No Difference</td>
</tr>
<tr>
<td>% Age 40 - 49 (N=9388)</td>
<td>36.1%</td>
<td>28.2%</td>
<td>12.7%</td>
<td>Significantly Different from Other Old-Developed and Young-Developing</td>
</tr>
<tr>
<td>% 50 years old and above (N=9388)</td>
<td>25.6%</td>
<td>24.1%</td>
<td>5.6%</td>
<td>Significantly Different from Young-Developing</td>
</tr>
<tr>
<td>% Early career (N=9223)</td>
<td>20.3%</td>
<td>25.1%</td>
<td>47.8%</td>
<td>Significantly Different from Young-Developing</td>
</tr>
<tr>
<td>% Mid-career (N=9223)</td>
<td>61.3%</td>
<td>54.9%</td>
<td>47.1%</td>
<td>Significantly Different from Young-Developing</td>
</tr>
<tr>
<td>% Late career (N=9223)</td>
<td>18.4%</td>
<td>20.1%</td>
<td>5.1%</td>
<td>Significantly Different from Young-Developing</td>
</tr>
<tr>
<td>% With neither child nor elder care responsibilities (N=8817)</td>
<td>43.5%</td>
<td>49.1%</td>
<td>49.0%</td>
<td>No Difference</td>
</tr>
<tr>
<td>% With child care responsibilities (N=8817)</td>
<td>43.0%</td>
<td>36.6%</td>
<td>28.0%</td>
<td>Significantly Different from Young-Developing</td>
</tr>
<tr>
<td>% With elder care responsibilities (N=8817)</td>
<td>6.0%</td>
<td>8.6%</td>
<td>14.9%</td>
<td>Significantly Different from Young-Developing</td>
</tr>
<tr>
<td>% With both child and elder care responsibilities (N=8817)</td>
<td>7.6%</td>
<td>5.8%</td>
<td>8.2%</td>
<td>No Difference</td>
</tr>
<tr>
<td>% With supervisory responsibilities (N=11123)</td>
<td>30.3%</td>
<td>36.3%</td>
<td>43.0%</td>
<td>Significantly Different from Young-Developing</td>
</tr>
</tbody>
</table>

Note: Only statistically significant differences between the United States and the two country clusters are discussed in the text (p<.05).
4.2 NOTES ON DATA ANALYSIS STRATEGIES

4.2.1 Model-building Strategy

In order to investigate each of the questions posed in Section 3, a series of regression analyses were conducted using Stata 11. Each of the outcome variables (work engagement, job satisfaction, and organizational commitment) were regressed on a set of control variables, including gender, income, work hours, full-time/part-time status, occupation type, supervisor status, education, lives with spouse, and company, in addition to age-related factors and country indicators.

The effects of country were tested simultaneously with all of the age-related factors. These analyses were conducted on the entire dataset including 11 countries and 24 worksites; random effects models were used to control for unique effects of worksites in these models. Table 4.2a below presents these regression analyses for each of the outcome variables.

The effects of age-related factors—age, career stage, and life stage—were tested separately, specifically for the U.S. data. Dummy variables representing each of the worksites were used to control for unique effects of worksites in these models. Joint significance tests for groups of dichotomies representing each of the age-related factors were conducted to make decisions regarding statistical significance of a given age-related factor. Tables 4.2b through 4.2d below present these regression analyses for all the outcome variables.

Based on these regression models, we generated predicted values that are used to graphically illustrate the key findings in the main text. Predicted values were calculated at mean values of all other variables included in regression equations.

4.2.2 Missing Data

As with most surveys where responses are voluntary, the GOT dataset contained a significant amount of item non-response. To address concerns about missing data, we performed multiple imputation by chained equations (MICE),\(^1\) as implemented in Stata 11 (the ICE package).\(^2\) This technique involves predicting missing values on the basis of existing data using regression models; such imputation is done more than once, each time including a random component. Coefficient estimates from each of these multiple datasets are then averaged, and standard errors are combined using a special formula that incorporates the uncertainty of imputation into these errors. Given the fairly high proportion of missing data, we generated and used 20 sets of imputed data to ensure high efficiency of estimates.\(^3\)

Thus, regression results presented in this report have been averaged across the 20 complete datasets using Stata’s multiple imputation feature. Fully imputed values of our dependent variables (i.e., the three work outcomes) were deleted after multiple imputation (multiple imputation then deletion procedure, or MID);\(^4\) however, we retained those values of work outcomes where only some but not all of the items used to create the scale were imputed.
4.2.3 Weights

As typically happens in survey research, some employees selected to participate in the GOT study chose not to participate. To minimize biases due to such refusals, all univariate and bivariate analyses presented in this report utilized post-stratification weights that were created using raking algorithm in Stata 11. These weights adjust sample distributions for each worksite to age, gender, and part-time/full-time status composition of that worksite. Compositional data were provided to us by representatives of each multinational organization. As our regression analyses used age, gender, and full-time/part-time status as independent variables, we did not use weights in multivariate analyses.

4.2.4 Additional Tables

Table 4.2a: Random Effects Regression Results for the Effects of Country on Work Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Work Engagement</th>
<th>Job Satisfaction</th>
<th>Organizational Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>-0.02</td>
<td>0.04*</td>
<td>-0.02</td>
</tr>
<tr>
<td>Undergraduate degree a</td>
<td>-0.22***</td>
<td>-0.08***</td>
<td>-0.17***</td>
</tr>
<tr>
<td>Graduate degree a</td>
<td>-0.28***</td>
<td>-0.14***</td>
<td>-0.24***</td>
</tr>
<tr>
<td>Income</td>
<td>-0.01</td>
<td>0.01</td>
<td>-0.01*</td>
</tr>
<tr>
<td>Lives with spouse/partner</td>
<td>0.07*</td>
<td>0.02</td>
<td>0.03</td>
</tr>
<tr>
<td>Work hours</td>
<td>0.01***</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Part-time status</td>
<td>0.16</td>
<td>-0.03</td>
<td>0.18</td>
</tr>
<tr>
<td>Professional/technical b</td>
<td>-0.23***</td>
<td>-0.11***</td>
<td>-0.14***</td>
</tr>
<tr>
<td>Service/sales b</td>
<td>0.03</td>
<td>0.05</td>
<td>0.08</td>
</tr>
<tr>
<td>Other occupation type b</td>
<td>-0.19***</td>
<td>-0.08**</td>
<td>-0.04</td>
</tr>
<tr>
<td>Has supervisory responsiblites</td>
<td>0.17***</td>
<td>0.11***</td>
<td>0.11***</td>
</tr>
<tr>
<td>Age 30-39 years c</td>
<td>0.09</td>
<td>-0.05*</td>
<td>-0.06</td>
</tr>
<tr>
<td>Age 40-49 years c</td>
<td>0.33***</td>
<td>0.02</td>
<td>0.13**</td>
</tr>
<tr>
<td>Age 50 years + c</td>
<td>0.52***</td>
<td>0.15***</td>
<td>0.23***</td>
</tr>
<tr>
<td>Mid-career d</td>
<td>-0.08*</td>
<td>-0.08***</td>
<td>-0.06</td>
</tr>
<tr>
<td>Late career d</td>
<td>-0.35***</td>
<td>-0.19***</td>
<td>-0.16**</td>
</tr>
<tr>
<td>Child care responsibilities a</td>
<td>0.04</td>
<td>0.00</td>
<td>0.07*</td>
</tr>
<tr>
<td>Elder care responsibilities a</td>
<td>-0.01</td>
<td>-0.08**</td>
<td>0.00</td>
</tr>
<tr>
<td>Both child and elder care responsibilities a</td>
<td>0.04</td>
<td>-0.04</td>
<td>0.10</td>
</tr>
<tr>
<td>Working in “old-developed” countries f</td>
<td>-0.18</td>
<td>-0.21</td>
<td>-0.31</td>
</tr>
<tr>
<td>Working in “young-developing” countries f</td>
<td>0.38</td>
<td>-0.05</td>
<td>0.15</td>
</tr>
<tr>
<td>Constant</td>
<td>5.22***</td>
<td>4.65***</td>
<td>4.64***</td>
</tr>
</tbody>
</table>

Statistically significant effects are indicated as follows: ***p<.001, **p<.01, *p<.05
a Reference = less than college; b Reference = managerial occupation; c Reference = under 30 years of age;
d Reference = early career; e Reference = neither child nor elder care responsibilities; f Reference = working in the United States.

http://www.bc.edu/agingandwork
Table 4.2b: Ordinary Least Squares Regression Results for the Effects of Age on Work Outcomes in the United States

<table>
<thead>
<tr>
<th></th>
<th>Work Engagement</th>
<th>Job Satisfaction</th>
<th>Organizational Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>0.15</td>
<td>0.14**</td>
<td>0.14</td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>-0.34*</td>
<td>-0.18*</td>
<td>-0.17</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>-0.32*</td>
<td>-0.20*</td>
<td>-0.15</td>
</tr>
<tr>
<td>Income</td>
<td>0.00</td>
<td>0.04***</td>
<td>-0.01</td>
</tr>
<tr>
<td>Lives with spouse/partner</td>
<td>0.13</td>
<td>-0.05</td>
<td>-0.03</td>
</tr>
<tr>
<td>Work hours</td>
<td>0.02**</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Part-time status</td>
<td>0.95</td>
<td>0.71</td>
<td>0.85*</td>
</tr>
<tr>
<td>Professional/technical</td>
<td>-0.21*</td>
<td>-0.07</td>
<td>0.00</td>
</tr>
<tr>
<td>Service/sales</td>
<td>-0.37</td>
<td>-0.25*</td>
<td>-0.11</td>
</tr>
<tr>
<td>Other occupation type</td>
<td>-0.33*</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Has supervisory responsibilites</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Age 30-39 years</td>
<td>-0.22</td>
<td>-0.34*</td>
<td>-0.17</td>
</tr>
<tr>
<td>Age 40-49 years</td>
<td>0.09</td>
<td>-0.22</td>
<td>0.04</td>
</tr>
<tr>
<td>Age 50 years +</td>
<td>0.26</td>
<td>-0.11</td>
<td>0.07</td>
</tr>
<tr>
<td>Worksite 2</td>
<td>-0.56***</td>
<td>-0.38***</td>
<td>-0.53***</td>
</tr>
<tr>
<td>Worksite 3</td>
<td>-0.38**</td>
<td>-0.33***</td>
<td>-0.66***</td>
</tr>
<tr>
<td>Constant</td>
<td>5.18***</td>
<td>4.85***</td>
<td>4.83***</td>
</tr>
</tbody>
</table>

Statistically significant effects are indicated as follows: ***p<.001, **p<.01, *p<.05

a Reference = less than college; b Reference = managerial occupation; c Reference = under 30 years of age; d Reference = worksite 1.

Note: The effects of age were graphically illustrated in the text only if the three age group dummies were jointly significant.

Table 4.2b-1: Differences in Work Engagement and Job Satisfaction across the age groups

<table>
<thead>
<tr>
<th>Age</th>
<th>Significant Difference (Work Engagement)</th>
<th>Significant Difference (Job Satisfaction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 30</td>
<td>No difference</td>
<td>Significantly different from 30-39</td>
</tr>
<tr>
<td>30-39</td>
<td>Significantly different from 40-49 and 50+</td>
<td>Significantly different from under 30 and 50+</td>
</tr>
<tr>
<td>40-49</td>
<td>Significantly different from 30-39</td>
<td>No difference</td>
</tr>
<tr>
<td>50+</td>
<td>Significantly different from 30-39</td>
<td>Significantly different from under 30-39</td>
</tr>
</tbody>
</table>
### Table 4.2c: Ordinary Least Squares Regression Results for the Effects of Career Stage on Work Outcomes in the United States

<table>
<thead>
<tr>
<th>Variable</th>
<th>Work Engagement</th>
<th>Job Satisfaction</th>
<th>Organizational Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>0.14</td>
<td>0.14*</td>
<td>0.13</td>
</tr>
<tr>
<td>Undergraduate degree *</td>
<td>-0.45**</td>
<td>-0.21*</td>
<td>-0.21</td>
</tr>
<tr>
<td>Graduate degree *</td>
<td>-0.44**</td>
<td>-0.23**</td>
<td>-0.20</td>
</tr>
<tr>
<td>Income</td>
<td>0.01</td>
<td>0.04***</td>
<td>-0.01</td>
</tr>
<tr>
<td>Lives with spouse/partner</td>
<td>0.12</td>
<td>-0.06</td>
<td>-0.04</td>
</tr>
<tr>
<td>Work hours</td>
<td>0.02**</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Part-time status</td>
<td>0.84</td>
<td>0.65</td>
<td>0.79</td>
</tr>
<tr>
<td>Professional/technical b</td>
<td>-0.19</td>
<td>-0.07</td>
<td>0.01</td>
</tr>
<tr>
<td>Service/sales b</td>
<td>-0.37</td>
<td>-0.26*</td>
<td>-0.10</td>
</tr>
<tr>
<td>Other occupation type b</td>
<td>-0.27</td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td>Has supervisory responsibilities</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Mid-career c</td>
<td>0.19</td>
<td>-0.04</td>
<td>0.09</td>
</tr>
<tr>
<td>Late career c</td>
<td>0.12</td>
<td>0.04</td>
<td>0.09</td>
</tr>
<tr>
<td>Worksite 2 d</td>
<td>-0.48***</td>
<td>-0.36***</td>
<td>-0.50***</td>
</tr>
<tr>
<td>Worksite 3 d</td>
<td>-0.37**</td>
<td>-0.33***</td>
<td>-0.67***</td>
</tr>
<tr>
<td>Constant</td>
<td>4.09***</td>
<td>4.67***</td>
<td>4.74***</td>
</tr>
</tbody>
</table>

Statistically significant effects are indicated as follows: ***p<.001, **p<.01, *p<.05

- Reference = less than college;
- Reference = managerial occupation;
- Reference = early career;
- Reference = worksite 1.
Table 4.2d: Ordinary Least Squares Regression Results for the Effects of Life Stage on Work Outcomes in the United States

<table>
<thead>
<tr>
<th></th>
<th>Work Engagement</th>
<th>Job Satisfaction</th>
<th>Organizational Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>0.14</td>
<td>0.13*</td>
<td>0.13</td>
</tr>
<tr>
<td>Undergraduate degree a</td>
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<td>-0.22**</td>
<td>-0.22*</td>
</tr>
<tr>
<td>Graduate degree a</td>
<td>-0.44**</td>
<td>-0.24**</td>
<td>-0.21</td>
</tr>
<tr>
<td>Income</td>
<td>0.02</td>
<td>0.05***</td>
<td>0.00</td>
</tr>
<tr>
<td>Lives with spouse/partner</td>
<td>0.17</td>
<td>-0.03</td>
<td>-0.02</td>
</tr>
<tr>
<td>Work hours</td>
<td>0.02**</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Part-time status</td>
<td>0.86</td>
<td>0.68</td>
<td>0.79</td>
</tr>
<tr>
<td>Professional/technical b</td>
<td>-0.19</td>
<td>-0.06</td>
<td>0.02</td>
</tr>
<tr>
<td>Service/sales b</td>
<td>-0.39</td>
<td>-0.26*</td>
<td>-0.11</td>
</tr>
<tr>
<td>Other occupation type b</td>
<td>-0.27</td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td>Has supervisory responsibilites</td>
<td>0.01</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>Child care responsibilities c</td>
<td>-0.09</td>
<td>-0.12*</td>
<td>-0.02</td>
</tr>
<tr>
<td>Elder care responsibilities c</td>
<td>0.12</td>
<td>0.04</td>
<td>0.13</td>
</tr>
<tr>
<td>Both child and elder care responsibilities c</td>
<td>0.11</td>
<td>-0.14</td>
<td>0.06</td>
</tr>
<tr>
<td>Worksite 2 d</td>
<td>-0.48***</td>
<td>-0.35***</td>
<td>-0.49***</td>
</tr>
<tr>
<td>Worksite 3 d</td>
<td>-0.38**</td>
<td>-0.33***</td>
<td>-0.67***</td>
</tr>
<tr>
<td>Constant</td>
<td>5.20***</td>
<td>4.68***</td>
<td>4.79***</td>
</tr>
</tbody>
</table>

Statistically significant effects are indicated as follows: ***p<.001, **p<.01, *p<.05

a Reference = less than college; b Reference = managerial occupation; c Reference = neither child nor elder care responsibilities; d Reference = worksite 1.

Note: The effects of life stage were graphically illustrated in the text only if the three different types of dependent care dummies representing life stages were jointly significant.
References

-INTRODUCTION-


-SECTION 1-


5 OECD. (2010a). OECD factbook 2010: Economic, environmental and social statistics. Paris: OECD. Retrieved from http://www.oecd.org/site/0,3407,en_21571361_34374092_1_1_1_1_1_1_1_1_100.html


-SECTION 2-


**SECTION 3**


**SECTION 4**


ABOUT THE SLOAN CENTER ON AGING & WORK

Established in 2005, The Sloan Center on Aging & Work at Boston College promotes quality of employment as an imperative for the 21st century multi-generational workforce. We integrate evidence from research with insights from workplace experiences to inform innovative organizational decision-making. Collaborating with business leaders and scholars in a multi-disciplinary dialogue, the Center develops the next generation of knowledge and talent management.

Since our founding, we have conducted more than 20 studies in collaboration with employers, including the Age & Generations Study, the Talent Management Study, and the Generations of Talent Study. Current projects include the Assessing the Impact of Time and Place Management Study and the Engaged as We Age Study. The Sloan Center on Aging & Work is grateful for the continued support of the Alfred P. Sloan Foundation.

For more information about The Sloan Center on Aging & Work at Boston College, please visit: http://agingandwork.bc.edu

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