

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

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**Effects of Country & Age
on Work Engagement, Job Satisfaction
& Organizational Commitment
Among Employees in Mexico**

Findings from the
Generations



of Talent
Study

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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.

“Old-Developed Countries”	“Young-Developing Countries”
Japan	Brazil
The Netherlands	China
Spain	India
United Kingdom	Mexico
United States	South Africa
	Botswana

AGE FACTORS

Among the respondents to the Generations of Talent Study:

A higher percentage of respondents working at sites in Mexico are under 30 years of age (34.4%), compared to those working at sites in the “old-developed” countries (10.1%). Sites in Mexico also report a lower percentage of respondents aged 50+ (9.2%) compared to the “old-developed” countries (24.9%) (see page 23).

- The profile of Mexican respondents who participated in the Generations of Talent Study is roughly similar to that the age composition of the overall Mexican workforce. Currently adults under the age of 30 constitute one-third (32.6%) of the Mexican labor force, with an additional quarter (25.0%) of the labor force aged 30-39 (see page 16). Given the larger demographic trends of the country, employers with sites in Mexico may need to focus their attention on providing more leadership and advancement opportunities to employees under the age of 40.

Among those working at the sites in Mexico, a higher percentage report being early career employees (37.4%) compared to those working at sites in the “old-developed” countries (22.5%). In addition, a lower percentage of respondents at the worksites in Mexico considered themselves late career (6.2%), compared to employees in “old-developed” countries (19.2%). Respondents at Mexico sites in early career range from age 20 to 91 years, while those who consider themselves as late career range from 24 to 60 years (see page 24).

- Employers in Mexico who find that they have relatively large percentages of early career employees might want to re-assess supports for employees in this career stage. For example, resources such as training programs can ensure that skills and competencies are developed and professional experiences can be provided to prepare younger, early career employees for the leadership roles they are likely to assume in the context of Mexico's multi-generational workforce. In addition, employers might want to assess programs to onboard older, early career employees to ensure that these resources are appropriate for this group.

A greater percentage of respondents at the worksites in Mexico report having no dependent care responsibilities (neither child nor elder care) (54.4%) compared to those in the other "young-developing" countries (47.9%) and those in "old-developed" countries (45.8%) (see page 26).

- Employees in Mexico might derive benefits from having access to some work-life resources, even if they do not have responsibilities for dependent care. For example, a comprehensive set of flexible work options could allow employees to manage their work and non-work responsibilities, whether or not they have dependents. Some employees might use flexible work arrangements so that they can attend school, some so that they can reduce the time they spend commuting back and forth to work, and others so that they can participate in community activities.

WORK ENGAGEMENT

Among the respondents to the Generations of Talent Study:

The work engagement of respondents working in Mexico is significantly higher than the work engagement of respondents in the "old-developed" countries, as well as the other "young-developing" countries (see page 32).

Nine in ten respondents (89.8%) from sites in Mexico report they very often or always feel "proud of the work they do," while 87.5% feel "time flies when they are working" very often or always. Also, 85.2% feel "happy when working intensely" very often or always (see page 31).

Among respondents at worksites in Mexico, work engagement is higher among those in early career and mid-career compared to those in late career. However, work engagement among respondents at worksites in Mexico does not significantly differ by age or life stage (see page 33).

- Some employers in Mexico might find that the drivers of work engagement (such as offering employees challenging job assignments) vary by employees' career goals and objectives. It can be beneficial for supervisors to initiate conversations that help employees to link career priorities with the level of their engagement.

JOB SATISFACTION

Among the respondents to the Generations of Talent Study:

Job satisfaction among respondents at worksites in Mexico does not significantly differ from the job satisfaction of respondents in the “old-developed” and the other “young-developing” countries participating in the GOT study (see page 36).

Among site respondents at worksites in Mexico, more than four in five (89.4% and 83.8%) are moderately to strongly satisfied with the relationships they have with their subordinates and co-workers/peers, respectively. Three in five (60.5%) report being moderately to strongly satisfied with their supervisor. However, while half (52.5%) are moderately to strongly satisfied with opportunities for training and development, fewer than a third (30.4%) are moderately to strongly satisfied with benefits promoting health and wellness at their organizations (see page 35).

Job satisfaction among respondents at worksites in Mexico is higher among respondents under the age of 30 and respondents aged 50+, compared to age cohorts in between. In addition, job satisfaction is higher among respondents in early career than among respondents in mid- to late career (see page 36-37).

- Employers located in Mexico who find that job satisfaction rates vary by age group might want to consider whether different aspects of the work experience matter more or less to employees in specific age cohorts. For instance, opportunities for training and development might be more important to some age groups whereas health and wellness benefits 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.

ORGANIZATIONAL COMMITMENT

Among the respondents to the Generations of Talent Study:

Organizational commitment among respondents at worksites in Mexico is significantly higher than the organizational commitment of respondents in the “old-developed” countries participating in the GOT study (see page 40).

More than three-quarters of respondents at worksites in Mexico indicate that they moderately to strongly agree that they feel “proud to be working for their organization” and are “willing to work harder than they have to in order to help the organization succeed” (77.5% and 75.9%, respectively). However, only one-quarter (26.4%) moderately to strongly agree that they would “take almost any job to keep working” for their organization (see page 39).

Organizational commitment among respondents at worksites in Mexico does not significantly differ for respondents of different ages, career stages, or life stages (see page 40).

- It can be heartening for employers when employees report high levels of organizational commitment. The challenge, of course, is to discover ways to maintain positive employee attitudes. Employers may find that they are able to foster high levels of organizational commitment by taking steps to foster pride that employees have both for the organization (overall) and in their jobs.

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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*¹, 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.¹ Why? Possibly, because recognizing these trends is the easy part. Securing the right kind of information needed for sound decision-making might be notably difficult.

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 Mexico, this report is one in a series of reports that summarizes selected findings from the Generations of Talent Study on a country-by-country basis. This report relies on data from 1268 employees employed by two multinational companies in Mexico

The report is organized into four major sections:

Section 1: The Context of Mexico: Demographic and Economic Highlights

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

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 Employees in Mexico—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 worksites in Mexico.
- *Job Satisfaction among Employees in Mexico—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 worksites in Mexico .
- *Organizational Commitment among Employees in Mexico—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 worksites in Mexico.

Section 4: Methodological Notes

- In this section, we briefly provide characteristics of the sample and data collection methods.

Section 1: The Context of Mexico: 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 Mexican context compared to the demographic and economic conditions in other countries.ⁱ 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.

Figure 1.0 A Framework for Considering Countries' Age Demographics and Economic Development

Developed Economies ⁱ	Developed Economies Young Population	Developed Economies Old Population
Developing Economies	Developing Economies Young Population	Developing Economies Old Population
	Young Population	Old Population

We have selected six age demographic indicators and three economic indicators to distinguish the Mexico 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 number of years of life expectancy, or median age of the population. The following statistics offer insights about Mexico's age demographics.

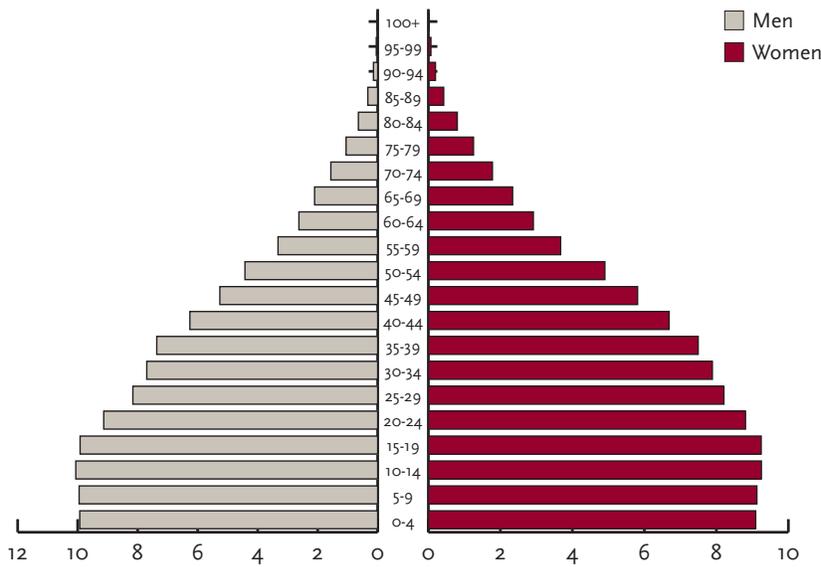
ⁱ The terms 'developed economies' and 'developing economies' are often used by academics and organizations to describe the extent of economic development according to selected criteria. Although we have used these terms in this report, we recognize that perspectives about economic development are only 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 pyramid in Mexico looks very similar to the traditional triangular pyramid with a wide base (see Figure 1.1.1), indicating the majority of the population is under the age of 25.² This reflects that the younger age groups represent a significantly larger portion of the population than their older counterparts.

Figure 1.1.1 Population Distribution in Mexico, 2010 (by percentage)

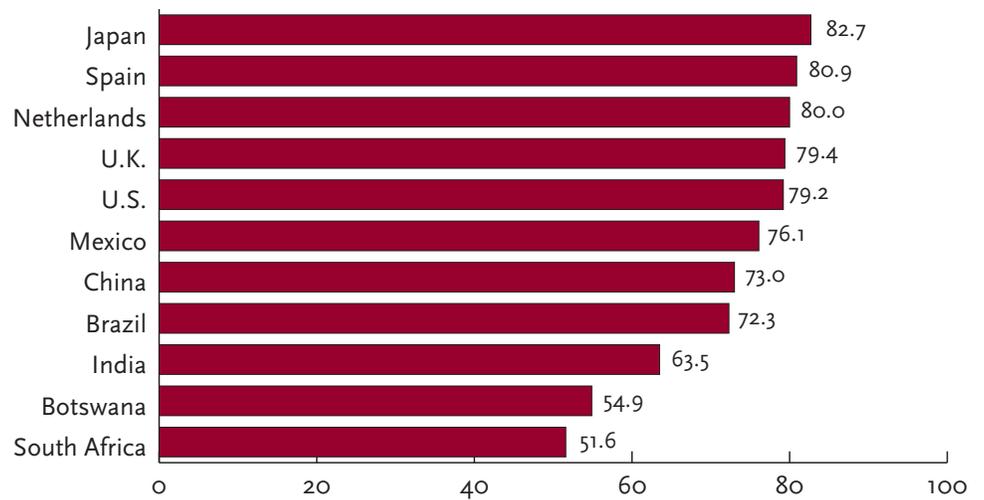


Source: U.S. Census Bureau (2010)²

1.1.2 Life Expectancy

Figure 1.1.2 below indicates that the average life expectancy in Mexico, from 2005-2010, was about 76.1 years, placing it in the middle of the 11 GOT countries.³

Figure 1.1.2 Life Expectancy, 2005-2010

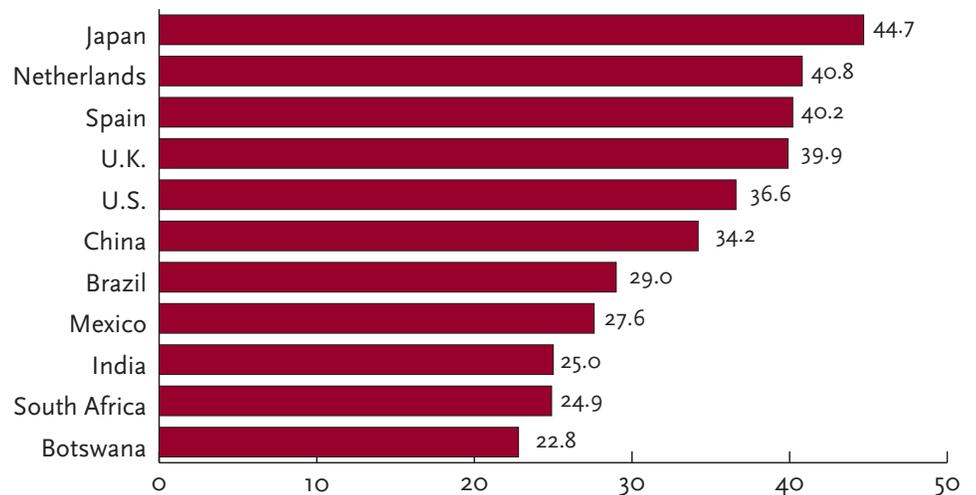


Source: United Nations (2010)³

1.1.3 Median Age

Noted in Figure 1.1.3, the median age in Mexico as of 2010 was 27.6 years, making it one of the younger nations relative to the 11 GOT countries.³

Figure 1.1.3 Median Age, 2010

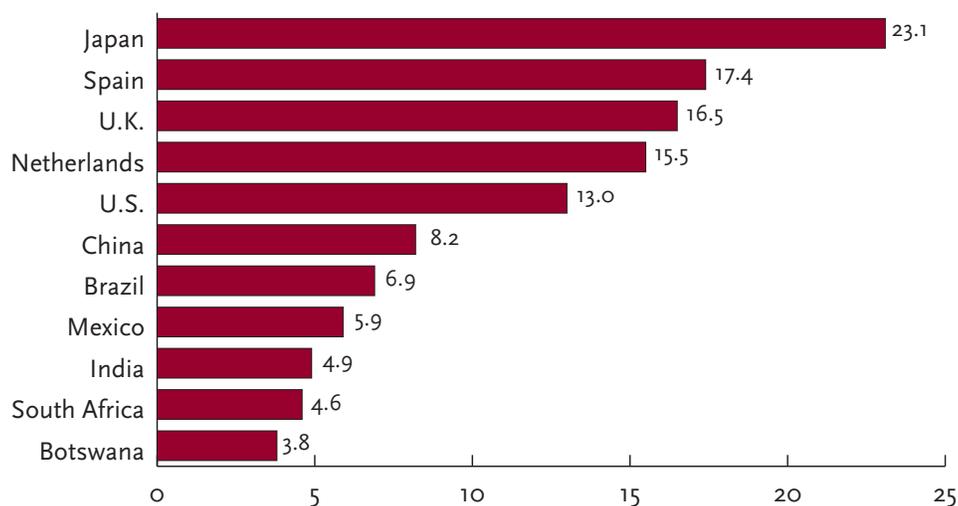


Source: United Nations (2010)³

1.1.4 Percentage of Population Aged 65 and Older

As noted in Figure 1.1.4, the proportion of the population aged 65 and older in Mexico was about 5.9% as of 2010, one of the smallest shares within the 11 GOT countries.⁴ Among the countries participating in the GOT Study, the average percentage of the population aged 65+ was 10.8%, as of 2010. The percentage of the aged 65+ population in the overall population for Japan, Spain, the U.K., the Netherlands, the U.S. was higher than 10.8% and the percentage of the age 65+ population in the other countries was lower than 10.8%.

Figure 1.1.4 Percentage of Population Aged 65 and Older, 2010



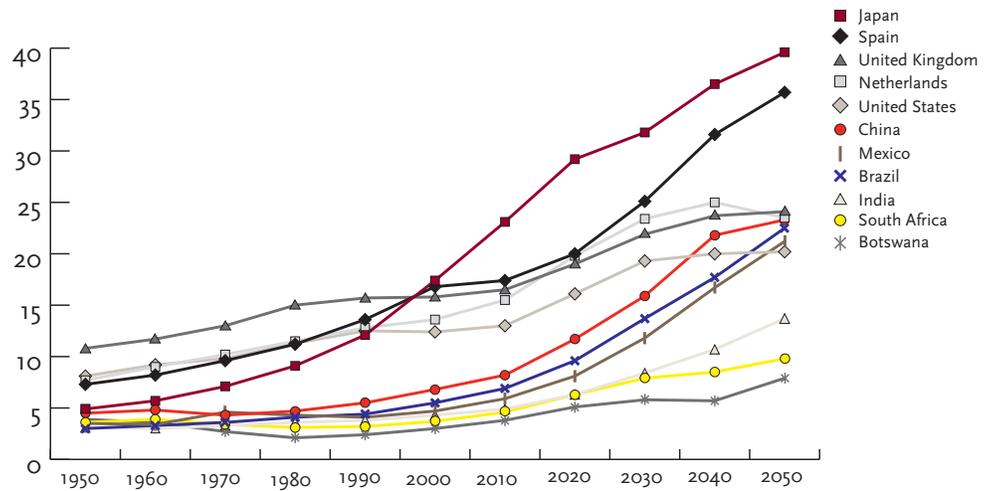
Source: OECD (2010a)⁴

Note: Data for Botswana are from United Nations (2010).³ The data show the “predicted” percentage of population aged 65 and older.

1.1.5 Historical Changes in the Age Demographics

The percentage of older adults (65+) in the total Mexican population has grown at a relatively slow pace in the six decade span of 1950-2010—ranging from 3.5% in 1950 to 5.9% in 2010, as shown in Figure 1.1.5. Going forward, this population is expected to accelerate in growth, crossing the 21.2% mark by 2050.⁴

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

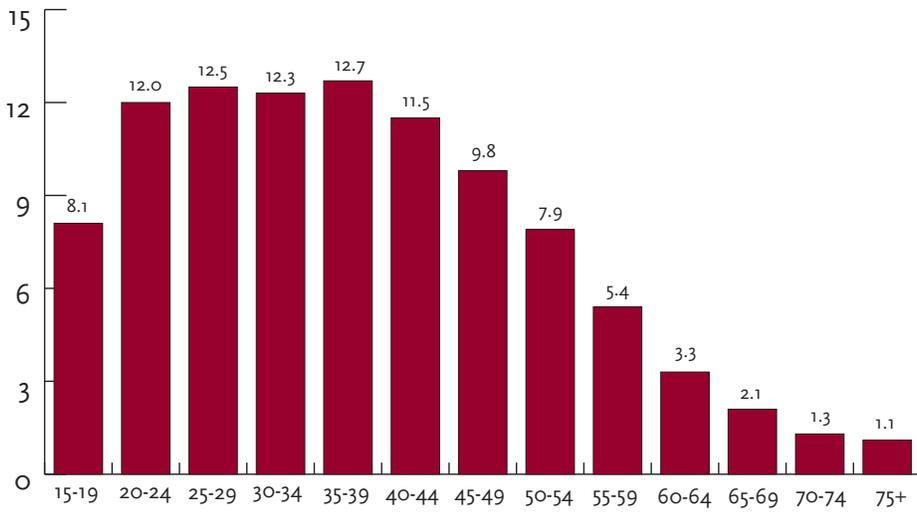


Source: OECD (2010a).⁴ Data for Botswana are from United Nations (2010).³

1.1.6 Age Distribution of the Labor Force

As noted in Figure 1.1.6, in 2009, the labor force between ages 15 and 64 constituted a little over 95.0% of the total Mexican labor force, while the labor force aged 65+ accounted for about 4.5%.⁵

Figure 1.1.6 Age Distribution of the Labor Force in Mexico, 2009



Source: OECD (2010b)⁵

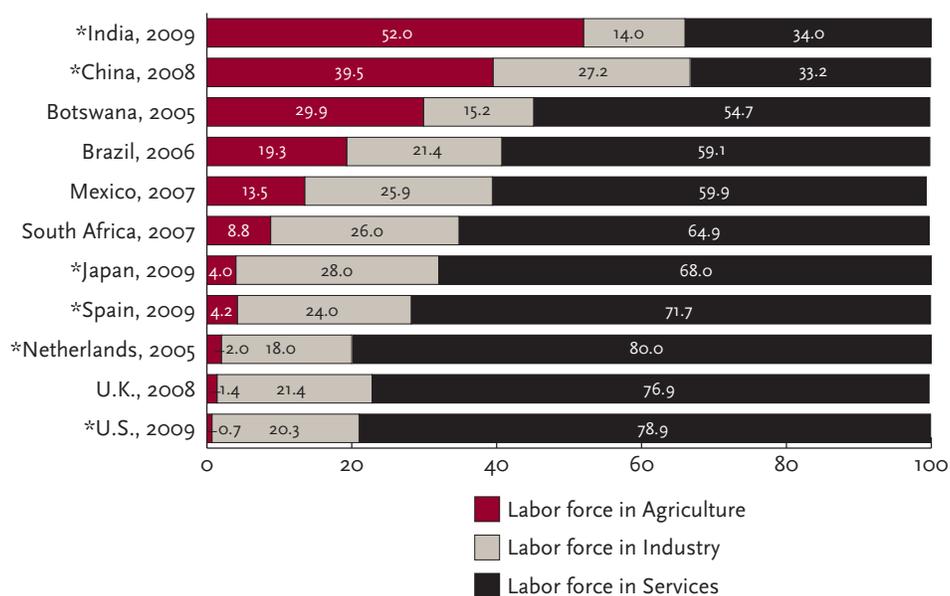
1.2 ECONOMIC INDICATORS

A number of economic indicators such as industry sector structure, GNI per capitaⁱⁱ, or GDP growth rateⁱⁱⁱ 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 included in this study is employed in agriculture and industry. As depicted in Figure 1.2.1, around 60% of the Mexican labor force belongs to the service sector, followed by industry (25.9%) and agriculture (13.5%). The share of labor force engaged in the service sector in Mexico is much higher compared to China and India, whereas the share of agricultural employment is significantly smaller, though not as minuscule as in the United States, the United Kingdom, or the Netherlands.^{6,7}

Figure 1.2.1 Labor Force by Principal Sectors



Source: World Bank (2010a)⁶; *CIA (2010)⁷

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.⁶

iii Growth rate is calculated as the percentage change in a variable from one year to the next.⁶

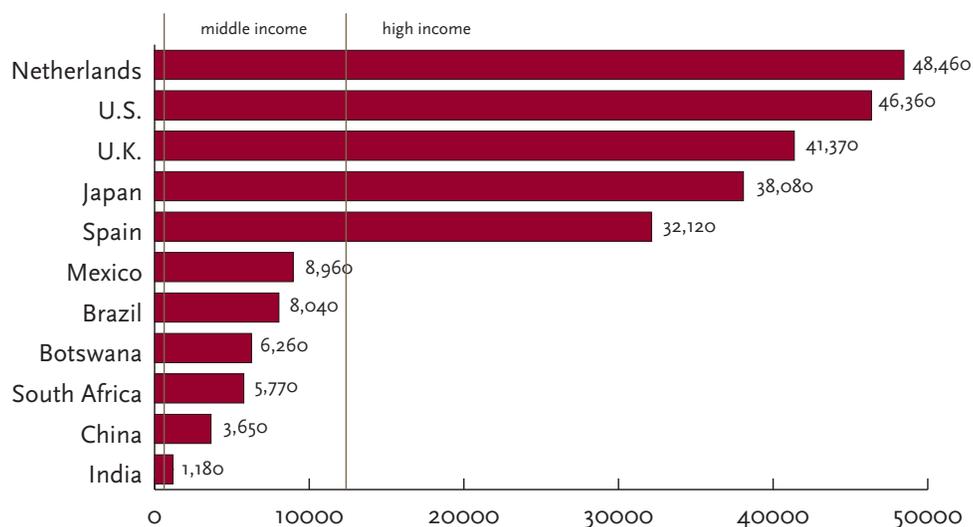
iv Agriculture includes forestry, hunting and fishing. Industry includes manufacturing, construction, mining & quarrying, and public utilities (electricity, gas and water). Services include wholesale and retail trade, restaurants and hotels, transport, storage and communications, financing, insurance, real estate, business services as well as community, social and personal services.⁶ The CIA definition refers to percentage of the total labor force by occupation.⁷

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. As indicated in Figure 1.2.2, as of 2009, the GNI per capita in the Netherlands, the U.S., the U.K., Japan, and Spain were in this high income group.^v On the other hand, the GNI per capita in Mexico, Brazil, Botswana, South Africa, China, and India were between \$995—\$12,195, the range for middle income countries as defined by the World Bank.⁸ Mexico was in the middle of all countries participating in the Generations of Talent study; GNI per capita in Mexico was \$8,960, the highest figure among the six middle income countries included in our study.^{6,8}

Figure 1.2.2 GNI per Capita, 2009 (Current USD)



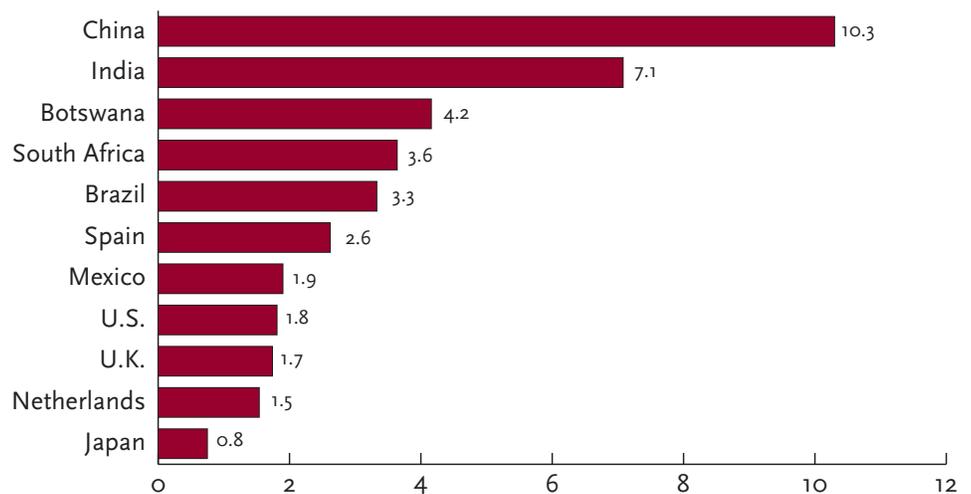
Source: World Bank (2010a)⁶

^v According to the World Bank,⁸ 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

Mexico has recorded an average annual GDP growth of 1.9% over the past decade, slightly higher than that of the U.S. and the U.K., but considerably lower than its middle income country counterparts. In the aftermath of the global financial downturn, the Mexican economy shrank 6.5% in 2009, one of the worst contractions since 1932. However, it seems to have rebounded and embarked on a recovery path with a 4% growth in GDP in the first quarter of 2010.⁹ As indicated in Figure 1.2.3, 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 the only three Asian countries^{vi} that have not experienced contraction during the current global financial crisis.¹⁰ The average annual GDP growth in most of the remaining countries ranged from 0.8% to 4.2%.

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



Source: World Bank (2010a)⁶

vi Among the major Asian economies, only those of China, India, and Indonesia did not contract during the global financial crisis.¹⁰

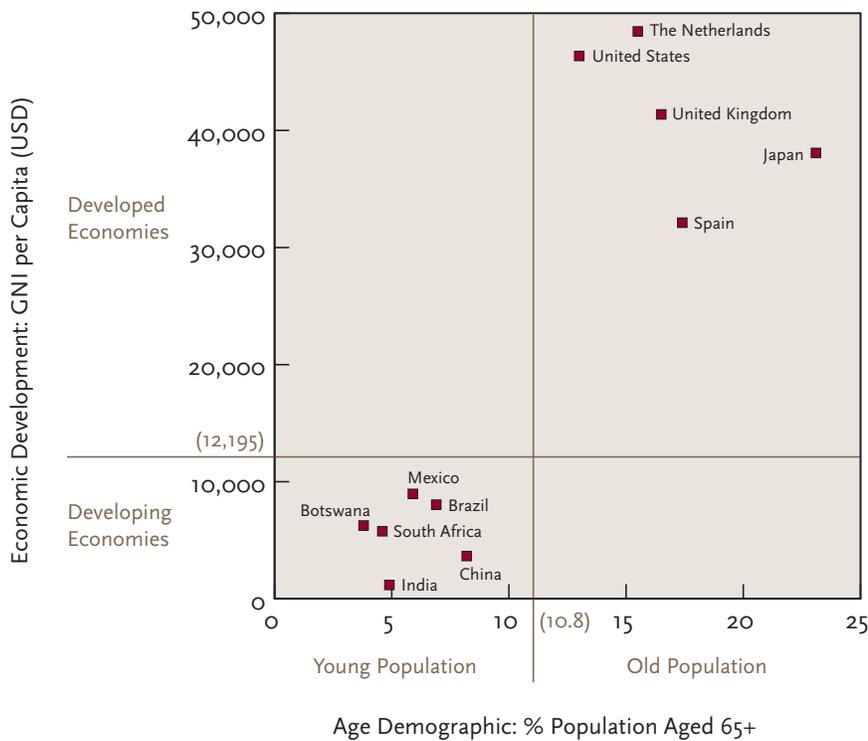
1.3 COUNTRY CONTEXT: CONSIDERATIONS FOR EMPLOYERS

The demographic and economic indicators discussed above offer insights into 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 Mexico and the other countries included in the GOT Study in two quadrants of the framework.

Based on this framework, six of the countries where data were collected, including Mexico, can be considered 'Young Population & Developing Economies' (Botswana, Brazil, China, India, Mexico, and South Africa). For example, 5.9% of the total population in Mexico is aged 65+ with a GNI per capita of \$8,960. The remaining five countries were considered 'Old Population & Developed Economies' (Japan, the Netherlands, Spain, the U.K., and the U.S.) None of the countries from the GOT Study were located in either the quadrants 'Old Population & Developing Economies' or 'Young Population & Developed Economies.'

Figure 1.3 Age Demographics and Economic Situations in Generations of Talent Countries



The demographic and economic conditions in Mexico, compared to other countries in the GOT Study, present opportunities for innovative employers 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 Mexico can assist employers in assessing talent management practices within the country in addition to creating action steps to increase engagement, satisfaction, and commitment among multiple age groups.

Section 2: Experiences of Aging and Work in Mexico

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.¹ 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 aged 65 can report high energy and no physical/cognitive limitations whereas a colleague of the same age might have a chronic disease.

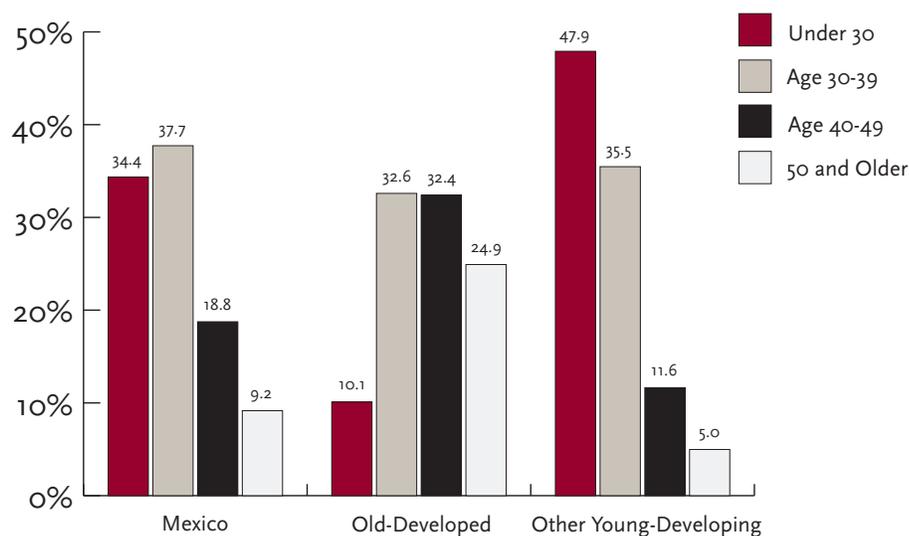
As discussed below, there is also a wide range of chronological ages when people have other age-related experiences (such as the age range associated with being in ‘mid-career’ or taking care of children younger than 18 years old).

In the worksites in Mexico, the chronological age range of the respondents to the Generations of Talent Study is 20 to 91 years. Across the worksites in the five “old-developed” countries and the five other “young-developing” countries (excluding Mexico) in our sample, the age ranges are 20 to 82 years and 18 to 91 years, respectively.

Figure 2.1 presents the chronological age distribution by age group for respondents at the worksites in Mexico compared to those working in the “old-developed” countries and the other “young-developing” countries that participated in the study. As this

figure shows, the percentage of respondents under 30 years of age at the worksites in Mexico (34.4%) is higher than the “old-developed” countries (10.1%) but lower than the other “young-developing” countries (47.9%). On the other hand, the percentage of respondents aged 40-49 years and aged 50 and older at the worksites in Mexico (18.8% and 9.2%, respectively) is significantly lower than the “old-developed” countries (32.4% and 24.9%, respectively) (see Table 4.1b).

Figure 2.1 The Age Distribution of Respondents at the Worksites in Mexico Compared to the Two Country Clusters



Source: Generations of Talent Study

Note: Only statistically significant differences between Mexico and the two country clusters are discussed in the text ($p < .05$).

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}

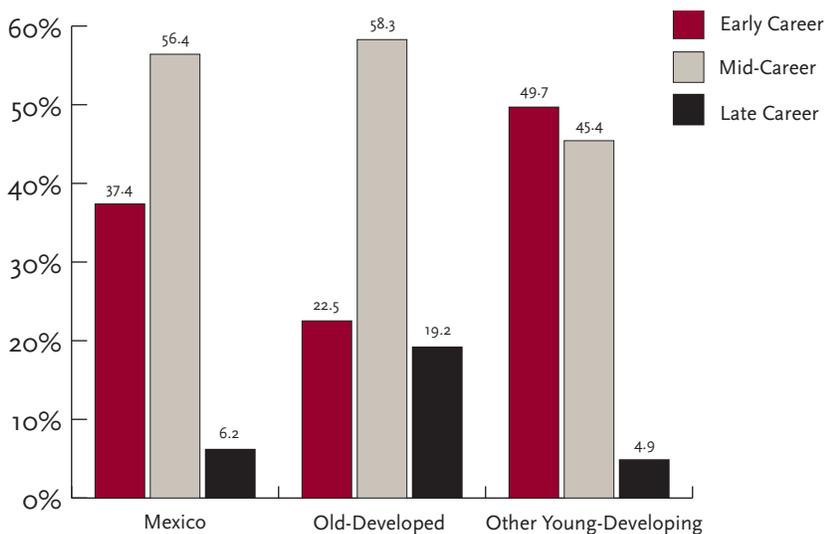
It is possible to define the specific career stages in different ways. It is not uncommon, however, to recognize at least three basic stages: early career, mid-career, and late career.

- 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).⁴
- 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.⁴

Figure 2.2 illustrates the percentage of respondents from the worksites in Mexico classifying themselves as early career, mid-career, and late career, as compared to those working in the “old-developed” countries and the other “young-developing” countries participating in the study. As this figure shows, the percentage of respondents identifying themselves as early career is significantly higher among at the worksites in Mexico (37.4%) than the worksites in the “old-developed” countries (22.5%), but lower than those in the other “young-developing” countries (49.7%). In addition, the percentage of mid-career respondents at the worksites in Mexico is higher (56.4%) than the other “young-developing” countries (45.4%). Lastly, the worksites in Mexico have a significantly lower percentage of late career respondents (6.2%) compared to the “old-developed” countries (19.2%) (see Table 4.1b).

Figure 2.2 Career Stage Distribution of Respondents from the Worksites in Mexico Compared to the Two Country Clusters



Source: Generations of Talent Study

Note: Only statistically significant differences between Mexico and the two country clusters are discussed in the text ($p < .05$).

Interestingly, as suggested by Table 2.2 below, the age ranges associated with each of the career stages are wide. Among respondents at the worksites in Mexico, early career ranges from 20 to 91 years and late career ranges from 24 to 60 years. These data illustrate that, although the mean ages for respondents working in Mexico increase with career stage, employees' career stages might not always correspond to their chronological ages.

The mean age for each career stage for the respondents at the worksites in Mexico is compared to those respondents working at the sites in the “old-developed” countries and the other “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 2.2 Mean Age and Age Range of Career Stages among Respondents at the Worksites in Mexico Compared to the Two Country Clusters

Countries	Mean Age and Age Range for Early Career Employees	Mean Age and Age Range for Mid-Career Employees	Mean Age and Age Range for Late Career Employees
Mexico (N=1151)	29.0 (20 - 91) years Different from: Old-Developed, Other Young-Developing	38.4 (22 - 59) years Different from: Old-Developed, Other Young-Developing	47.6 (24 - 60) years Different from: No significant differences
Old-Developed (N=4907)	31.4 (20 - 82) years Different from: Mexico, Other Young-Developing	42.3 (25 - 77) years Different from: Mexico, Other Young-Developing	54.5 (27 - 80) years Different from: Other Young-Developing
Other Young-Developing (N=3330)	27.0 (18 - 85) years Different from: Mexico, Old-Developed	36.0 (18 - 91) years Different from: Mexico, Old-Developed	47.5 (18 - 81) years Different from: Old-Developed

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

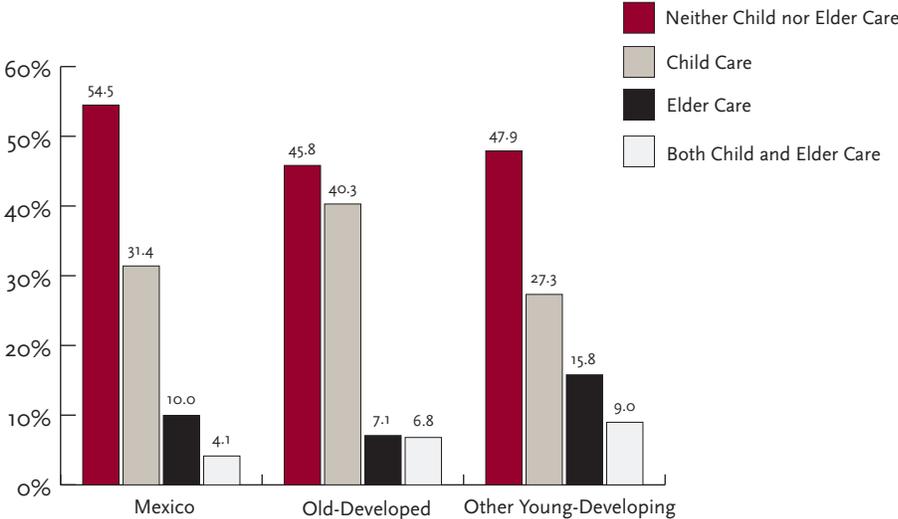
2.3 LIFE STAGE: THE ROLE OF DEPENDENT CARE

Over the life course, individuals experience various events and transitional stages, which shape major roles and responsibilities both in work and personal life.⁶ Multiple studies have shown that family and personal life can have a significant impact on work and work experiences can affect personal and family life.^{7,8} 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.^{6,9,10,11,12, 13,14,15}

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 compared 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, 54.5% of respondents who work in Mexico report not having child or elder care responsibilities, while 31.4% have child care responsibilities, 10.0% have elder care responsibilities, and 4.1% provide both child and elder care. Across the worksites in Mexico, the percentage of respondents having neither child nor elder care responsibilities is higher than the “old-developed” countries (45.8%) as well as the other “young-developing” countries (47.9%). A lower percentage of respondents at the worksites in Mexico provide child care compared to those in the “old-developed” countries (40.3%), and a lower percentage of respondents provide elder care compared to those in the “young-developing” countries (15.8%). Lastly, the percentage of respondents with both child and elder care responsibilities at the worksites in Mexico is lower than the “old-developed” countries (6.8%) as well as the other “young-developing” countries (9.0%) (see Table 4.1b).

Figure 2.3 Types of Dependent Care Responsibilities among Respondents at the Worksites in Mexico Compared to the Two Country Clusters



Source: Generations of Talent Study

Note: Only statistically significant differences between Mexico and the two country clusters are discussed in the text (p<.05).

The age range among respondents with different types of dependent care responsibilities is wide in Mexico, as noted in Table 2.3 below. For example, the age of respondents with neither child nor elder care responsibilities ranges from 20 to 60 years, and the age of respondents with child care responsibilities ranges from 21 to 91 years. The age of respondents with elder care responsibilities ranges from 22 to 60 years. Lastly, the age of those with both child and elder care responsibilities ranges from 22 to 55 years.

The mean age for each type of dependent care responsibility among respondents in Mexico is compared to the respondents in the “old-developed” countries and the other “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 the Table 2.3.

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

Countries	Mean Age and Age Range for Those Giving Neither Child nor Elder Care	Mean Age and Age Range for Those Giving Child Care	Mean Age and Age Range for Those Giving Elder Care	Mean Age and Age Range for Those Giving Both Child and Elder Care
Mexico (N=1151)	33.5 (20 - 60) years Different from: Old-Developed, Other Young- Developing	38.6 (21 - 91) years Different from: Old-Developed, Other Young-Developing	34.8 (22 - 60) years Different from: Old-Developed	38.8 (22 - 55) years Different from: Old-Developed
Old-Developed (N=4907)	41.5 (20 - 82) years Different from: Mexico, Other Young-Developing	41.7 (20 - 77) years Different from: Mexico, Other Young-Developing	47.7 (20 - 71) years Different from: Mexico, Other Young-Developing	44.2 (20 - 75) years Different from: Mexico, Other Young-Developing
Other Young-Developing (N=3330)	29.5 (18 - 85) years Different from: Mexico, Old-Developed	36.5 (18 - 85) years Different from: Mexico, Old-Developed	29.2 (18 - 76) years Different from: Old-Developed	37.1 (18 - 91) years Different from: Old-Developed

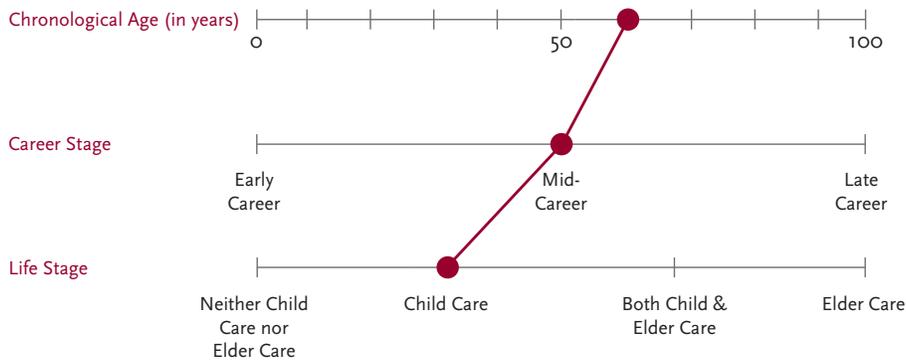
Note: Statistical significance tests compared means of life stage subgroups across country clusters ($p < .05$).

2.4 AGING AND WORK IN MEXICO: 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.^{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 Mexico different from outcomes among those working in the five “old-developed” countries and the five other “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 Mexico 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/ and 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."¹ 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."¹ 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 are optimistic about the future of their work—that is, they have a positive and fulfilling work-related state of mind.^{2,3}

Particularly during tough economic times, such as during the global financial crises, employers have good reason 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 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.^{4,5}

3.1.1 Work Engagement in Mexico

Work engagement was assessed using 11 items adapted from the Utrecht Work Engagement Scale (UWES).^{vii} Table 3.1.1 presents the frequencies of responses to these work engagement items based on the data collected from employees at the worksites in Mexico. For example, among the respondents working in Mexico, almost 90% (89.8%) report that they are very often to always "proud of the work they do." In addition, 87.5% and 86.9% of the respondents report that very often to always "time flies when they are working," and that very often to always they "get carried away when they are working." Also, 85.2% of the respondents feel "happy when they are working intensely" very often to always. Lastly, just over three quarters of the respondents (75.9%) report that they are "enthusiastic about their job" very often to always.

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).¹

Table 3.1.1 Work Engagement among Respondents at the Worksites in Mexico

	Percent Never	Percent Almost Never	Percent Rarely	Percent Sometimes	Percent Often	Percent Very Often	Percent Always
At my work, I feel bursting with energy. (N=1163)	0.3%	1.7%	3.1%	8.4%	12.2%	34.8%	39.5%
I find the work that I do full of meaning and purpose. (N=1162)	0.8%	0.8%	1.7%	4.4%	9.8%	24.1%	58.4%
I am enthusiastic about my job. (N=1162)	1.0%	1.5%	3.3%	5.3%	13.1%	26.7%	49.2%
I am immersed in my work. (N=1162)	1.2%	0.3%	1.3%	2.9%	9.8%	26.1%	58.4%
Time flies when I'm working. (N=290)	0.2%	0.1%	1.0%	1.6%	9.6%	24.0%	63.5%
When I get up in the morning, I feel like going to work. (N=290)	0.5%	2.0%	3.7%	5.1%	14.4%	26.3%	48.0%
At my job, I feel strong and vigorous. (N=290)	0.3%	0.1%	4.4%	6.5%	12.5%	31.9%	44.3%
I am proud of the work that I do. (N=290)	0.2%	0.1%	2.4%	1.6%	5.9%	24.1%	65.7%
I feel happy when I am working intensely. (N=290)	0.0%	0.3%	1.9%	4.4%	8.2%	22.8%	62.4%
My job inspires me. (N=290)	0.1%	0.0%	2.6%	4.7%	9.2%	29.9%	53.5%
I get carried away when I am working. (N=289)	0.9%	0.0%	1.2%	3.3%	7.6%	32.8%	54.1%

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

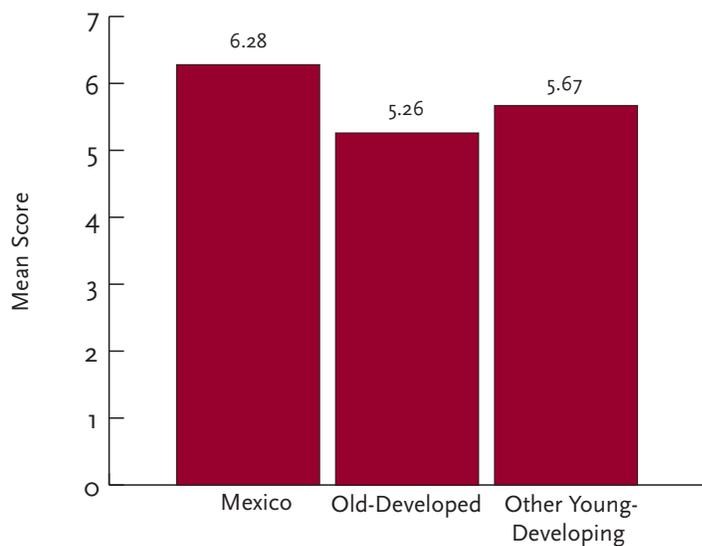
The average (mean) score of work engagement among respondents at the worksites in Mexico is 6.2.

3.1.2 Impact of Country on Work Engagement

- Is work engagement among respondents at the worksites in Mexico different from work engagement among those working in the five “old-developed” countries and the five other “young-developing” countries after controlling for demographic factors, job characteristics, age, career stage, and life stage?
 - ⇒ Yes, work engagement among respondents at the worksites in Mexico is significantly higher than that in the “old-developed” countries as well as the other “young-developing” countries after taking into account demographic, job, and age-related factors (see Table 4.2a).

Figure 3.1.2 illustrates the findings regarding work engagement levels among respondents at the worksites in Mexico as compared to the two country clusters based on the model depicted in Figure 3.0. This figure presents the predicted mean scores of work engagement among respondents working in Mexico compared to the two country clusters. After controlling for demographic factors, job characteristics, and age-related factors, the level of work engagement for respondents at the worksites in Mexico (6.28) is significantly higher than that for respondents in the “old-developed” countries (5.26) as well as the other “young-developing” countries (5.67).

Figure 3.1.2 Work Engagement at the Worksites in Mexico and the Two Country Clusters



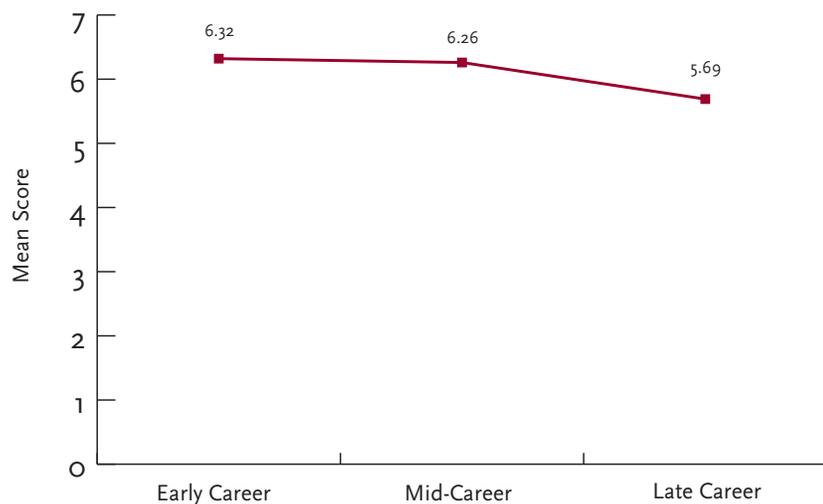
Source: Generations of Talent Study

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

- Does work engagement among respondents at the worksites in Mexico 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 worksites in Mexico varies by career stage (see Table 4.2c).
 - ⇒ No, work engagement among respondents at the worksites in Mexico does not vary by age 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 and 4.2d).

Figure 3.1.3 graphically illustrates the relationship between career stage and work engagement among respondents at the worksites in Mexico. This figure presents the predicted mean scores of work engagement by career stage in the worksites in Mexico. It shows that after controlling for demographic factors and job characteristics, the level of work engagement in the worksites in Mexico is higher among respondents who consider themselves to be in their early career (6.32) and mid-career (6.26) than among respondents who consider themselves to be in their late career (5.69). The difference between early career and mid-career respondents is not statistically significant, however.

Figure 3.1.3 Work Engagement by Career Stage among Respondents at the Worksites in Mexico



Source: Generations of Talent Study

3.2 JOB SATISFACTION

Job satisfaction refers to a pleasurable emotional state resulting from the appraisal of one's job.^{6,7,8} Job satisfaction is a widely examined construct in academic and business research in a variety of organizational settings.^{9,10}

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.^{11,12,13} Additionally, some research suggests that employees' job satisfaction is significantly correlated with their life satisfaction overall.^{14,15}

3.2.1 Job Satisfaction in Mexico

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 worksites in Mexico. Across all respondents at the worksites in Mexico, 89.4% and 83.8% are moderately to strongly satisfied with the relationships with their subordinates and co-workers/peers respectively. However, 60.5% of the respondents are moderately to strongly satisfied with their supervisor. In addition, 81.5% of the respondents are moderately to strongly satisfied with the inclusiveness of their organizational culture in terms of welcoming diverse employees; and 73.7% and 71.9% of the respondents are moderately to strongly satisfied with the extent to which they use their skills and abilities on the job and their job security, respectively. Lastly, just 30.4% of the respondents are moderately to strongly satisfied with the benefits that promote health, wellness, and psychological well-being.

viii The index of job satisfaction comprised of 13 items from multiple sources including standardized scales^{16,17} 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).

Table 3.2.1 Job Satisfaction among Respondents at the Worksites in Mexico

	Percent Strongly Dissatisfied	Percent Moderately Dissatisfied	Percent Somewhat Dissatisfied	Percent Somewhat Satisfied	Percent Moderately Satisfied	Percent Strongly Satisfied
*Your job security. (N=1121)	0.4%	0.9%	3.7%	23.2%	45.4%	26.5%
**Resources and opportunities for training and development to improve your skills or learn new skills that your employer provides. (N=1121)	2.1%	4.0%	9.8%	31.5%	37.1%	15.4%
**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=1120)	3.8%	5.1%	13.6%	32.7%	31.8%	13.0%
**Benefits that promote health, wellness, and psychological well-being, such as nutrition programs; fitness facilities; or programs that provide information, counseling, or referrals. (N=1120)	4.0%	7.2%	19.4%	39.1%	20.5%	9.9%
*The sense of accomplishment you get from work. (N=1120)	0.9%	2.6%	5.8%	26.0%	46.0%	18.7%
***The extent to which you use your skills and abilities on your job. (N=1121)	0.5%	2.2%	4.2%	19.4%	49.0%	24.7%
**The way your job allows you to make a difference in your community or the world. (N=1121)	1.5%	2.8%	8.2%	29.8%	41.5%	16.2%
****The person who supervises you -- your organizational superior. (N=1120)	3.2%	3.5%	7.3%	25.4%	38.8%	21.7%
****Your relations with others with whom you work -- your co-workers or peers. (N=1116)	0.0%	0.8%	1.5%	13.9%	56.1%	27.7%
***Your working relationships with subordinates. (N=348)	0.3%	0.8%	1.4%	8.0%	61.5%	27.9%
****Opportunities which exist in this organization for advancement or promotions. (N=1115)	4.4%	5.8%	12.5%	30.7%	34.2%	12.4%
***Your physical work environment. (N=1115)	0.7%	2.2%	5.9%	22.7%	48.9%	19.7%
**The inclusiveness of your organizational culture in terms of welcoming diverse employees. (N=1116)	0.4%	0.9%	2.4%	14.8%	49.9%	31.6%

* Original item developed based on work of Hackman & Oldham (1976)¹⁸

** Original item developed by Sloan Center on Aging & Work

*** Item adapted from Hofstede (2001)¹⁶

**** Item from Tsui et al. (1992)¹⁷

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 worksites in Mexico is 4.6.

3.2.2 Impact of Country on Job Satisfaction

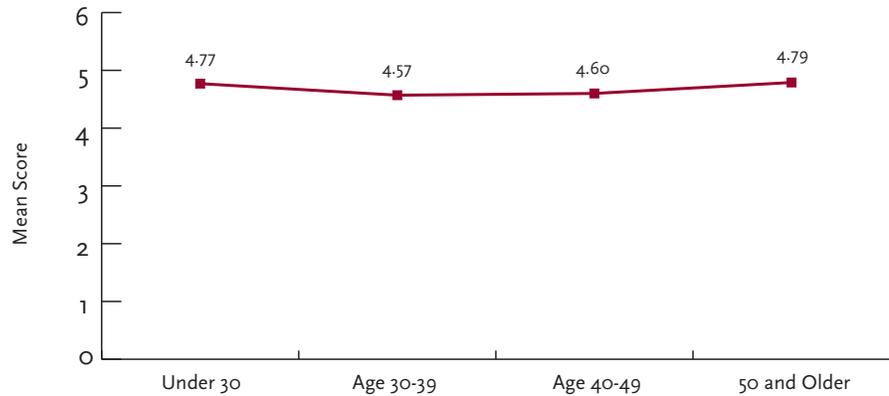
- Is job satisfaction among respondents at the worksites in Mexico different from job satisfaction among those working in the five “old-developed” countries and the five other “young-developing” countries, after controlling for demographic factors, job characteristics, age, career stage, and life stage?
 - ⇒ No, job satisfaction among respondents at the worksites in Mexico 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 job satisfaction scores between respondents in Mexico 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 worksites in Mexico vary by age group, career stage, and/or life stage once we control for demographic factors and job characteristics?
 - ⇒ Yes, job satisfaction among respondents at the worksites in Mexico varies by age (see Tables 4.2b and 4.2b-1).
 - ⇒ Yes, job satisfaction among respondents at the worksites in Mexico varies by career stage (see Table 4.2c).
 - ⇒ No, job satisfaction among respondents at the worksites in Mexico does not vary by life stage (that is, the differences in the mean scores are not statistically significant, after controlling for demographic factors and job characteristics) (see Table 4.2d).

Figure 3.2.3a illustrates the relationship between age and job satisfaction among respondents at the worksites in Mexico. This figure presents the predicted mean scores of job satisfaction by age group at the worksites in Mexico. It shows that even after controlling for demographic factors and job characteristics, the level of job satisfaction at the worksites in Mexico is higher among respondents under 30 years of age (4.77) and respondents aged 50 and older (4.79), compared to those aged 30 to 39 (4.57) and those aged 40 to 49 (4.60).

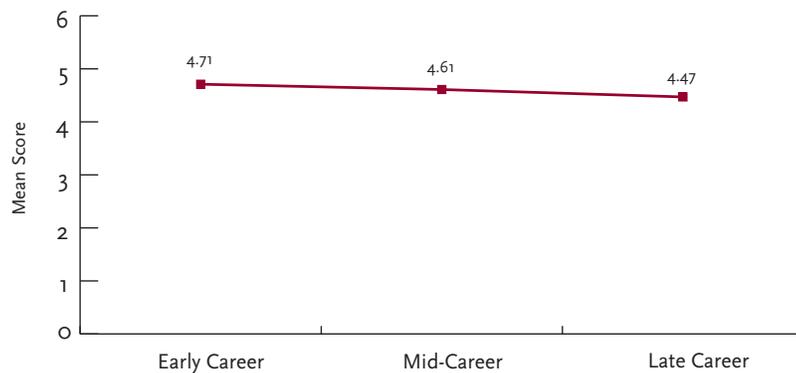
Figure 3.2.3a Job Satisfaction by Age Group among Respondents at the Worksites in Mexico



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

Figure 3.2.3b illustrates the relationship between career stage and job satisfaction among respondents at the worksites in Mexico. This figure presents the predicted mean scores of job satisfaction by career stage at the worksites in Mexico. Even after controlling for demographic factors and job characteristics, the level of job satisfaction at the worksites in Mexico is higher among respondents who consider themselves to be in their early career (4.71), compared to the mid-career (4.61) and late career (4.47) respondents. However, the difference between mid-career and late career respondents is not statistically significant.

Figure 3.2.3b Job Satisfaction by Career Stage among Respondents at the Worksites in Mexico



3.3 ORGANIZATIONAL COMMITMENT

Organizational commitment generally refers to the relative strength of an employee's involvement in a particular organization.^{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.^{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.^{19,25,26} Organizational commitment has been studied in the public, private, and non-profit sector, and internationally.^{27,28} Research shows that employees who are more committed demonstrate higher job performance, less job displeasure, diminished intent to leave, and less stress.^{29,30}

3.3.1 Organizational Commitment in Mexico

The Generations of Talent questionnaire includes nine questions that assess employees' commitment to the organization adapted from Mowday et al. (1979). Table 3.3.1 presents the frequencies of responses to organizational commitment items by respondents at the worksites in Mexico. Across all the respondents at the worksites in Mexico, 77.5% and 75.9% moderately to strongly agree that they "are proud to be working with their organization" and that they are "willing to work harder than they have to in order to help their organization succeed," respectively. In addition, 73.7% of the respondents moderately to strongly agree that they "talk up their organization to their friends as a great organization to work for." However, only 21.4% of the respondents moderately to strongly agree that they would "turn down another job for more pay in order to stay with this organization."

ix We used the U.S. General Social Survey (GSS) adaptation of the original Mowday et al. (1979)²⁰ 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 Organizational Commitment among Respondents at the Worksites in Mexico

	Percent Strongly Disagree	Percent Moderately Disagree	Percent Somewhat Disagree	Percent Somewhat Agree	Percent Moderately Agree	Percent Strongly Agree
*To help this organization succeed, I am willing to work harder than I have to. (N=1181)	1.2%	0.8%	4.0%	18.0%	32.8%	43.1%
*I would take almost any job to keep working for this organization. (N=1181)	12.0%	11.6%	19.1%	30.9%	14.4%	12.0%
*I would turn down another job for more pay in order to stay with this organization. (N=1181)	14.6%	13.8%	21.7%	28.3%	12.3%	9.1%
*I feel very little loyalty to this organization. (N=293)	36.6%	31.5%	14.0%	12.5%	2.8%	2.6%
*I find that my values and the organization's are very similar. (N=292)	1.0%	1.7%	5.2%	33.7%	35.6%	22.8%
*I am proud to be working for this organization. (N=293)	0.3%	0.6%	3.6%	18.0%	36.8%	40.7%
**I talk up this organization to my friends as a great organization to work for. (N=293)	1.1%	2.0%	4.3%	18.8%	38.5%	35.2%
**This organization really inspires the very best in me in the way of job performance. (N=293)	0.3%	1.3%	5.7%	24.1%	36.2%	32.3%
**I am extremely glad that I chose this organization to work for over others I was considering at the time I joined. (N=293)	0.9%	1.5%	5.9%	26.4%	33.4%	31.9%

* Items from the General Social Survey (Adapted version of Mowday et al. (1979) scale)³¹

** Items from Mowday et al. (1979)²⁰

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

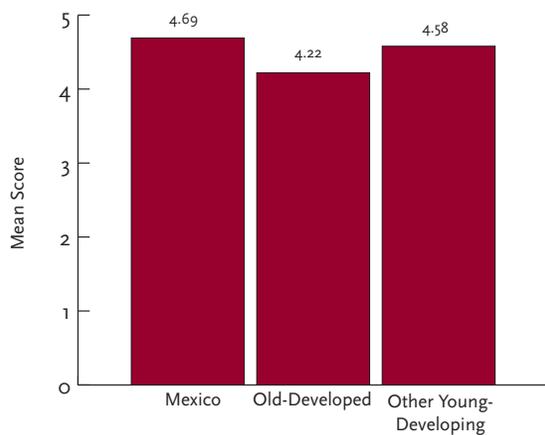
The average (mean) score of organizational commitment among respondents at the worksites in Mexico is 4.6.

3.3.2 Impact of Country on Organizational Commitment

- Is organizational commitment among respondents at the worksites in Mexico different from the organizational commitment among those working in the five “old-developed” countries and the five other “young-developing” countries after controlling for demographic factors, job characteristics, age, career stage, and life stage?
 - ⇒ Yes, organization commitment among respondents at the worksites in Mexico is significantly higher than that of the respondents working in the “old-developed” countries. However, organizational commitment for respondents at the worksites in Mexico is not significantly different from the other “young-developing” countries after controlling for demographic factors, job characteristics, and age-related factors (see Table 4.2a).

Figure 3.3.2 graphically illustrates the findings regarding organizational commitment levels among respondents at the worksites in Mexico as compared to the two country clusters. This figure presents the predicted mean scores of organizational commitment among respondents at the worksites in Mexico compared to the two country clusters. Organizational commitment for respondents at the worksites in Mexico (4.69) is higher than that for the “old-developed” countries (4.22), after controlling for demographic factors, job characteristics, and age-related factors.

Figure 3.3.2 Organizational Commitment at the Worksites in Mexico and the Two Country Clusters



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

- Does organizational commitment among respondents at the worksites in Mexico 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 worksites in Mexico does not vary by age, 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 the worksites in Mexico 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 Mexico includes employees working for two multinational organizations that have worksites in Mexico. The sample in the other “young-developing” countries includes employees working at five companies that have worksites at some of the five other “young-developing” countries, including Botswana, Brazil, China, India, and South Africa. Three companies participated in the study in China and Brazil, two companies participated in the study in India, and only one company participated in each of the two remaining countries, Botswana and South Africa. The sample in the “old-developed” countries includes employees working at six companies that have worksites in some of the five “old-developed” countries, including the U.S., the U.K., Spain, Japan, and the Netherlands. Three companies participated in the study in the United States and the United Kingdom, and two companies participated in the study in Spain, Japan, and the Netherlands.

Table 4.1a Number of Worksites within Country Clusters

	Countries	Number of Worksites
Old-Developed Countries	Japan	2
	Spain	2
	Netherlands	2
	United Kingdom	3
	United States	3
Young-Developing Countries	Botswana	1
	Brazil	3
	China	3
	India	2
	Mexico	2
	South Africa	1

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 Mexico compared to the samples in the “old-developed” countries and the other “young-developing” countries. The last column of this table indicates significant differences of employees’ characteristics in Mexico from those in the five “old-developed” countries as well as in the five other “young-developing” countries. The sample in Mexico has a higher percentage of women (48.5%) and a lower percentage of men (51.5%) compared to the “old-developed” countries (33.5% and 66.5% respectively). Average work hours reported by respondents at the worksites in Mexico (46.7) are longer than the “old-developed” countries (42.5) but shorter than the other “young-developing” countries (48.5). The percentage of respondents under 30 years of age in the sample in Mexico (34.4%) is higher than the “old-developed” countries (10.1%), but lower than the other “young-developing” countries (47.9%). Conversely, the percentage of respondents aged 40-49 in the sample in Mexico (18.8%) is lower than the “old-developed” countries (32.4%), but higher than the other “young-developing” countries (11.6%). In addition, the sample in Mexico has a lower percentage of respondents aged 50 and above (9.2%) compared to the “old-developed” countries (24.9%). The sample in Mexico has a lower percentage of early career respondents (37.4%), but a higher percentage of mid-career respondents (56.4%) compared to the other “young-developing” countries (49.7% and 45.4% respectively). A significantly lower percentage of respondents at the worksites in Mexico (6.2%) classify themselves as late career compared to the “old-developed” countries (19.2%). The percentage of respondents with neither child nor elder care responsibilities in the sample in Mexico (54.5%) is higher than the “old-developed” countries (45.8%) as well as the other “young-developing” countries (47.9%). However, the sample in Mexico has a lower percentage of respondents with both child and elder care responsibilities (4.1%) compared to the “old-developed” countries (6.8%) and the other “young-developing” countries (9.0%). The percentage of respondents with child care responsibilities at the worksites in Mexico (31.4%) is lower than the “old-developed” countries (40.3%), while the percentage of respondents with elder care responsibilities (10.0%) is lower than the other “young-developing” countries (15.8%). Lastly, the sample in Mexico has a higher percentage of respondents (46.1%) with supervisory responsibilities compared to the “old-developed” countries (33.2%).

Table 4.1b Characteristics of the Sample in Mexico and the Two Country Clusters

Characteristics	Mexico	Old-Developed	Other Young-Developing	Significant Differences from Mexico
% Women (N=8961)	48.5%	33.5%	48.5%	Significantly Different from Old-Developed
% Men (N=8961)	51.5%	66.5%	51.5%	Significantly Different from Old-Developed
% Full-time (N=11040)	96.9%	95.2%	96.0%	No Difference
% Part-time (N=11040)	3.1%	4.8%	4.0%	No Difference
Average work hours (N=10147)	46.7	42.5	48.5	Significantly Different from Old-Developed and Other Young-Developing
% Under 30 years old (N=9388)	34.4%	10.1%	47.9%	Significantly Different from Old-Developed and Other Young-Developing
% Age 30 - 39 (N=9388)	37.7%	32.6%	35.5%	No Difference
% Age 40 - 49 (N=9388)	18.8%	32.4%	11.6%	Significantly Different from Old-Developed and Other Young-Developing
% 50 years old and above (N=9388)	9.2%	24.9%	5.0%	Significantly Different from Old-Developed
% Early career (N=9223)	37.4%	22.5%	49.7%	Significantly Different from Old-Developed and Other Young-Developing
% Mid-career (N=9223)	56.4%	58.3%	45.4%	Significantly Different from Other Young-Developing
% Late career (N=9223)	6.2%	19.2%	4.9%	Significantly Different from Old-Developed
% With neither child nor elder care responsibilities (N=8817)	54.5%	45.8%	47.9%	Significantly Different from Old-Developed and Other Young-Developing
% With child care responsibilities (N=8817)	31.4%	40.3%	27.3%	Significantly Different from Old-Developed
% With elder care responsibilities (N=8817)	10.0%	7.1%	15.8%	Significantly Different from Other Young-Developing
% With both child and elder care responsibilities (N=8817)	4.1%	6.8%	9.0%	Significantly Different from Old-Developed and Other Young-Developing
% With supervisory responsibilities (N=11123)	46.1%	33.2%	42.5%	Significantly Different from Old-Developed

Note: Only statistically significant differences between Mexico 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 Mexico 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/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

	Work Engagement	Job Satisfaction	Organizational Commitment
Female	-0.02	0.04*	-0.01
Undergraduate degree ^a	-0.22***	-0.08***	-0.17***
Graduate degree ^a	-0.28***	-0.14***	-0.23***
Income	-0.01	0.01	-0.01*
Lives with spouse/partner	0.07*	0.02	0.03
Work hours	0.01***	-0.00	-0.00
Part-time status	0.16	-0.03	0.17
Professional/technical ^b	-0.23***	-0.11***	-0.14***
Service/sales ^b	0.03	0.05	0.08
Other occupation type ^b	-0.19***	-0.08**	-0.04
Has supervisory responsibilities	0.17***	0.11***	0.11***
Age 30-39 years ^c	0.09	-0.05*	-0.06
Age 40-49 years ^c	0.33***	0.02	0.13**
Age 50 years + ^c	0.53***	0.15***	0.23***
Mid-career ^d	-0.08*	-0.08***	-0.06
Late career ^d	-0.35***	-0.19***	-0.16**
Child care responsibilities ^e	0.04	0.00	0.07*
Elder care responsibilities ^e	-0.01	-0.08**	0.00
Both child and elder care responsibilities ^e	0.04	-0.04	0.10
Working in “old-developed” countries ^f	-1.02***	-0.26	-0.47*
Working in “young-developing” countries ^f	-0.61**	-0.17	-0.11
Constant	6.10***	4.76***	4.88***

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 Mexico.

Table 4.2b: Ordinary Least Squares Regression Results for the Effects of Age on Work Outcomes in Mexico

	Work Engagement	Job Satisfaction	Organizational Commitment
Female	0.04	0.08	0.05
Undergraduate degree ^a	-0.18	-0.13	-0.16
Graduate degree ^a	-0.27*	-0.26**	-0.22*
Income	-0.00	0.01	0.00
Lives with spouse/partner	0.04	-0.03	-0.00
Work hours	0.00	-0.00	-0.00
Part-time status	-0.50*	-0.35*	-0.22
Professional/technical ^b	-0.23*	-0.20*	-0.12
Service/sales ^b	0.02	-0.04	0.06
Other occupation type ^b	-0.15	-0.06	-0.01
Has supervisory responsibilities	0.02	-0.02	-0.04
Age 30-39 years ^c	-0.10	-0.20**	-0.17
Age 40-49 years ^c	0.06	-0.17*	-0.01
Age 50 years + ^c	0.03	0.02	-0.05
Worksite 2 ^d	0.24**	0.12	0.19*
Constant	6.34***	4.90***	4.87***

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 Job Satisfaction across the Age Groups

Age	Significant Difference (Job Satisfaction)
Under 30	Significantly different from 30-39 and 40-49
30-39	Significantly different from under 30 and 50+
40-49	Significantly different from under 30 and 50+
50+	Significantly different from 30-39 and 40-49

Table 4.2c: Ordinary Least Squares Regression Results for the Effects of Career Stage on Work Outcomes in Mexico

	Work Engagement	Job Satisfaction	Organizational Commitment
Female	0.03	0.07	0.04
Undergraduate degree ^a	-0.29**	-0.19*	-0.23*
Graduate degree ^a	-0.39***	-0.33***	-0.30**
Income	0.00	0.01	0.01
Lives with spouse/partner	0.04	-0.04	-0.01
Work hours	0.00	-0.00	-0.00
Part-time status	-0.51*	-0.36*	-0.23
Professional/technical ^b	-0.17	-0.14	-0.08
Service/sales ^b	0.04	-0.02	0.08
Other occupation type ^b	-0.11	-0.02	0.02
Has supervisory responsibilities	0.03	-0.00	-0.03
Mid-career ^c	-0.06	-0.10*	-0.11
Late career ^c	-0.63***	-0.25*	-0.27
Worksite 2 ^d	0.28***	0.09	0.20*
Constant	6.39***	4.90***	4.88***

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

^a Reference = less than college; ^b Reference= managerial occupation; ^c Reference = early career;

^d Reference = worksite 1.

Note: The effects of age were graphically illustrated in the text only if the two career stage dummies were jointly significant.

Table 4.2d: Ordinary Least Squares Regression Results for the Effects of Life Stage on Work Outcomes in Mexico

	Work Engagement	Job Satisfaction	Organizational Commitment
Female	0.02	0.06	0.03
Undergraduate degree ^a	-0.21*	-0.15*	-0.18
Graduate degree ^a	-0.31**	-0.29***	-0.25*
Income	-0.00	0.00	0.00
Lives with spouse/partner	0.02	-0.03	-0.04
Work hours	0.00	-0.00	-0.00
Part-time status	-0.50*	-0.35*	-0.22
Professional/technical ^b	-0.20*	-0.15	-0.07
Service/sales ^b	0.03	-0.02	0.08
Other occupation type ^b	-0.12	-0.03	0.02
Has supervisory responsibilities	0.02	-0.01	-0.04
Child care responsibilities ^c	0.03	-0.07	0.03
Elder care responsibilities ^c	-0.04	0.01	-0.06
Both child and elder care responsibilities ^c	-0.03	-0.06	0.04
Worksite 2 ^d	0.25**	0.09	0.18*
Constant	6.31***	4.86***	4.82***

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.

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