OXFORD ECONOMICS

The Global Diversity Report

An annual guide to measure global employee diversity

A report from

OXFORD ECONOMICS

Contents

Executive Summary

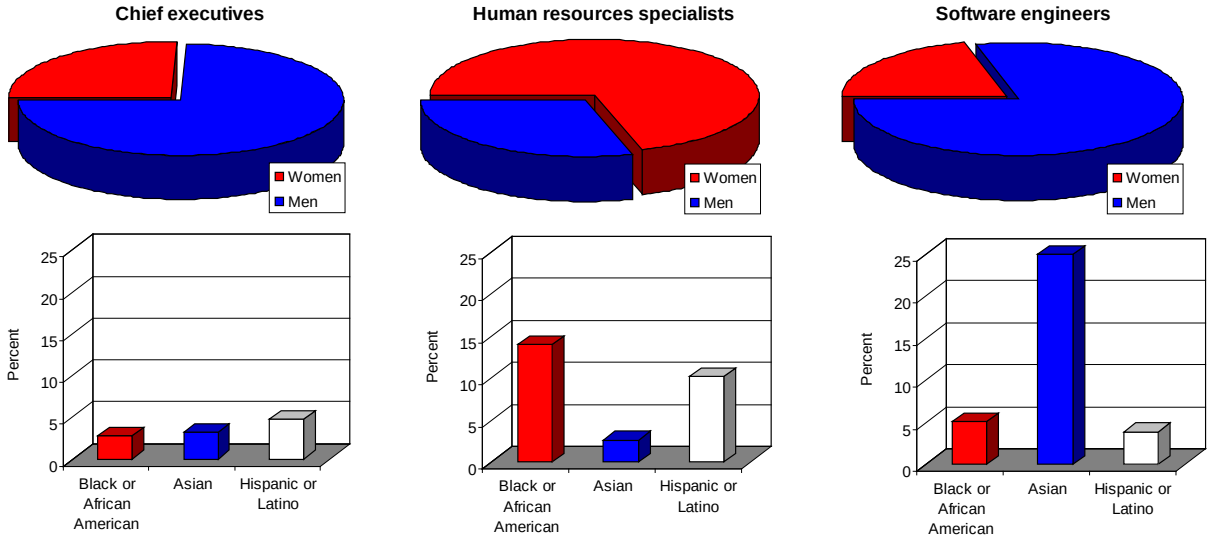
Why this study?

- Employee diversity—across lines of gender, ethnicity, country of birth, age and others—has become a hot boardroom topic across the globe. It is becoming not only a critical issue for human resources (HR) executives, but a major part of corporate strategy.
- Some governments have begun to legislate on diversity issues, such as the gender quota system in both Norway and France, which places a minimum quota on the number of women on listed company boards. We expect more countries to follow this example before long.
- But maintaining a diverse workforce, and one that brings together the best of talent from different social backgrounds, is more than just a tick-box exercise. Increasingly, companies are recognising that employee diversity can lead to an enhanced understanding of customer needs, and open up new and previously unforeseen market opportunities.
- It is important for executives in international firms to have reliable intelligence on social diversity across countries, sectors and occupations. This information is critical for benchmarking and can help with business planning.
- This study provides a unique international benchmarking system to rank employee diversity across 50 global economies, 14 industrial sectors and nine occupational categories. Additional data on gender and ethnic diversity in the US, across more than 500 occupations and 300 sectors, is also provided.

Our results: Ranking countries, industries and occupations

- We have built a unique global ranking model—based on a weighted composite index constructed in line with international best practices—to compare and benchmark employee diversity across countries, industries and occupations. The index is comprehensive, and takes into account many different types of diversity, including gender, age, ethnicity, country of birth, working hours, skills and education, disability, language, and sectoral and geographical distribution.
- Our country index shows the most diverse labor forces in the world to be Norway, New Zealand, Iceland, Australia, Switzerland, the Netherlands and Canada, with Norway's strong performance driven by particularly high levels of gender diversity. Toward the lower end of the rankings are Italy, Japan and France, ranked only marginally ahead of the least diverse labor forces in the Czech Republic, Turkey and Pakistan.
- The United States ranks 9th on the index, scoring reasonably well on most measures of diversity. The United Kingdom is 17th, Germany is 23rd and Brazil ranks 30th. If ethnic diversity were taken into account (which was not feasible in the country index because most nations do not collect such data), it is likely that Canada, the US and the UK would move significantly further up the rankings. In fact, it is likely that Canada, already in 7th place, would move towards the very top of the ranking.
- Our sector index has healthcare, hotels and catering, and education at the top. Construction, utilities and mining, meanwhile, rank lowest.
- The results of our occupational index emphasise just how "undiverse" managerial and senior positions tend to be—ranking ahead of only the armed forces for diversity.

Corporate diversity in the United States



- In the US, both gender and ethnic diversity decrease sharply the higher one climbs the occupational ladder. Of the 1.5 million chief executives in the US, just one-quarter are women and only one in 10 are ethnic minorities. This makes the CEO, alongside farmers and military personnel, one of the least diverse occupations of all.
- There are stark differences in the diversity of employees across different occupations and industries. For example, over seven in 10 human resources specialists are women, and the share of both black and African Americans and Hispanic or Latinos also is well above average. Amongst software engineers, meanwhile, just one in five are women, but Asians are almost six times as prevalent as their population share would predict.
- These data tell a powerful story of long-established cultural norms determining individual career choices and, in turn, corporate diversity performance. In short, tackling some of the most important and longstanding diversity challenges, both in the US and across the globe, is likely to be extremely difficult.

1. Introduction

- Diversity is a hot topic among executives in the boardrooms of large corporations across the globe, and is becoming not only a critical issue for HR executives but a major part of corporate strategy. Indeed, some governments have even begun to legislate on diversity issues, such as the gender quota system in both Norway and France, which places a minimum quota on the number of women on listed company boards, and equality legislation covering age discrimination and ethnic/religious discrimination in the UK.
- With the search for talent becoming increasingly global, and as large corporations increase their international presence, it is important for executives to have robust and reliable intelligence on social diversity across the economies in which they operate, the sectors in which their business functions, and the occupations most intensely concentrated within their organizations.
- This study provides an international benchmarking system to rank 50 economies across numerous measures of employee diversity. It presents three separate indices of diversity: a country index, a sector index and an occupational index.

What do we mean by diversity?

- The phrase “a diverse workforce” often has been interpreted within the sphere of equality law. In this respect, it means ensuring the workforce has a healthy balance of males and females, and that no one is discriminated against on the basis of age, ethnicity, class and so on. Many governments have legislation in place to protect the rights of workers in minorities or groups facing potential discrimination.
- Within the context of this study, Oxford Economics defines diversity as distinct from the “equal opportunities” paradigm within which the subject is often discussed. Instead, this paper considers diversity within an economic paradigm. Diversity covers issues such as gender, age, migration, ethnicity, income, skills and the structure of the economy itself. Many of these aspects of diversity are now closely linked to economic development, and the future needs of national economies. For example:
    - Labor shortages across the globe could potentially be filled through increased female labor market participation;
    - Aging populations have increased the dependency ratio[1], and the labor force will be required to work longer;
    - Increased female labor force participation can help contribute towards poverty reduction;
    - Economies require a diverse range of skills and not a stock of labor concentrated in either the upper or lower echelons of the skills spectrum;
    - As the global mobility of labor has accelerated at a rapid rate over the past decade, migrants have become an integral part of economies in both the developed and developing world, and have helped to fill skills gaps and/or shortages in labor markets;
    - Facilitating those with a disability to function as an active part of the labor force can help to meet employers’ labor demand; and
    - The global financial crisis has shown that economies need to be diverse with regard to their structure to reduce exposure to risks.

[1] The number of people who are dependent for their well-being on those working and earning income.

Aims of this study

- The aim of this study is to develop three separate indices measuring international employee diversity:
  - A **country index** based upon a set of 50 nations, including both developed and developing nations;
  - An **industry index** based upon a set of 14 industrial sectors; and
  - An **occupation index** based upon the nine core occupation categories used in the ISCO occupation classification.

Understanding the scoring: Oxford Economics' approach to developing the indices

- We have used publicly available data supported by extensive research and Oxford Economics' own global databank. Four main sources were used to collect the relevant data:
  - **Oxford Economics' suite of economic models,** including our global macroeconomic database and industry model;
  - **Global development organizations** such as the International Labour Organisation (ILO), Organisation for Economic Co-operation and Development (OECD), World Bank and the International Monetary Fund (IMF);
  - **National statistics organisations** such as National Statistics in the UK and the Census Bureau in the US; and
  - **Commercial data providers**, such as FTSE and SIL International.
- The data were collected in early 2011. In the majority of cases, the data used in the study refers to 2008, 2009, or 2010. In some cases, data was used to proxy for countries that had missing data. For example, working hours data were unavailable for the United Arab Emirates; Dubai's labor force survey data have been used instead. Care has been taken to ensure that, where used, proxy data closely reflect the country in question.
- The data have been used to develop a composite index that is useful for summarizing complex, multi-dimensional data with a view to supporting decision-makers. The scoring methodology was developed to ensure transparency and simplicity for readers, as well as comparability across countries, sectors and occupations. The output makes for a robust set of results, and a strong foundation for analysis and discussion.
- Our indices have been developed using the Min-Max normalization technique. This normalizes indicators to have an identical range (between 0 and 1) by subtracting the minimum value and dividing by the range of indicator values[2].
- Once each of the variables were ranked and scored, they were placed into our composite diversity index. We then applied a series of weights to each variable to reflect its relative importance. For example, gender diversity is considered to be a more important indicator of workforce diversity than language diversity, and weights were applied to reflect this. The product is the overall "composite index of diversity" presented in this paper.

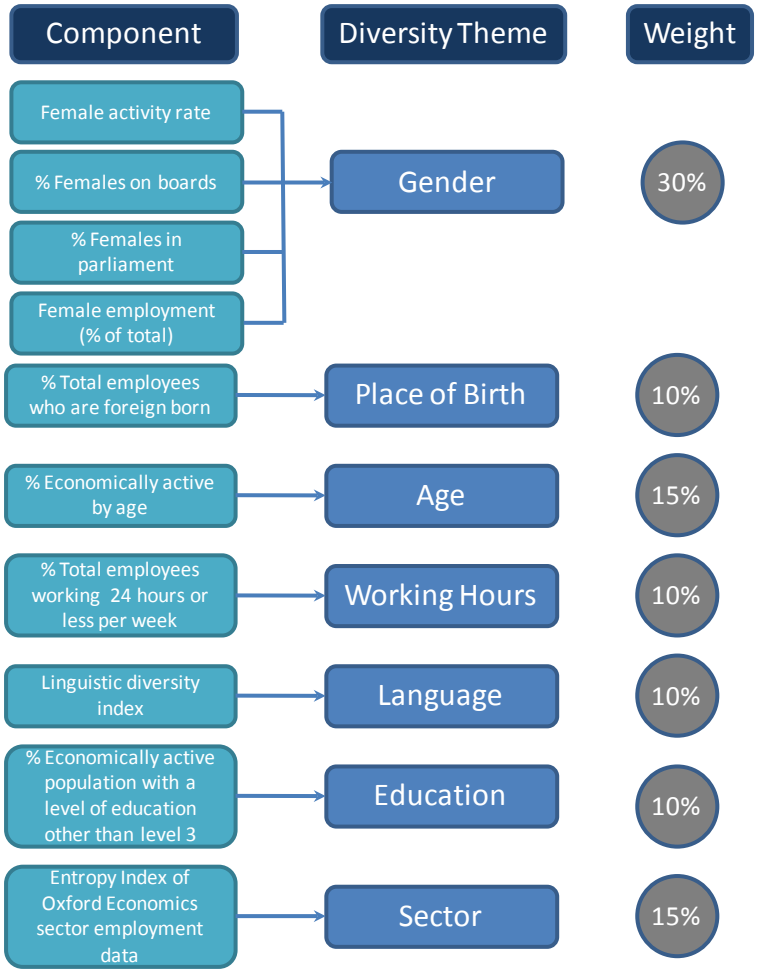
[2] The UN Human Development Index uses the Min-Max normalization method.

2. Country Index

Developing the country index

- Figure 1 summarizes the components of our country index covering the themes of gender, place of birth, age, working hours, language, education and sectoral distribution.
- We were unable to include ethnic diversity in the country index because most countries do not collect such data, often due to political sensitivities. The US and UK are almost alone in collecting detailed information on the ethnic composition of the workforce across different industries and occupations. A summary of the US data on workplace ethnicity can be found in Annex A.

Figure 1: Components of Country Diversity Index



Note: The economic activity rate refers to the proportion of people aged 16 and over who are either in employment or unemployed.

Note: The entropy index of economic diversity can be defined as follows:

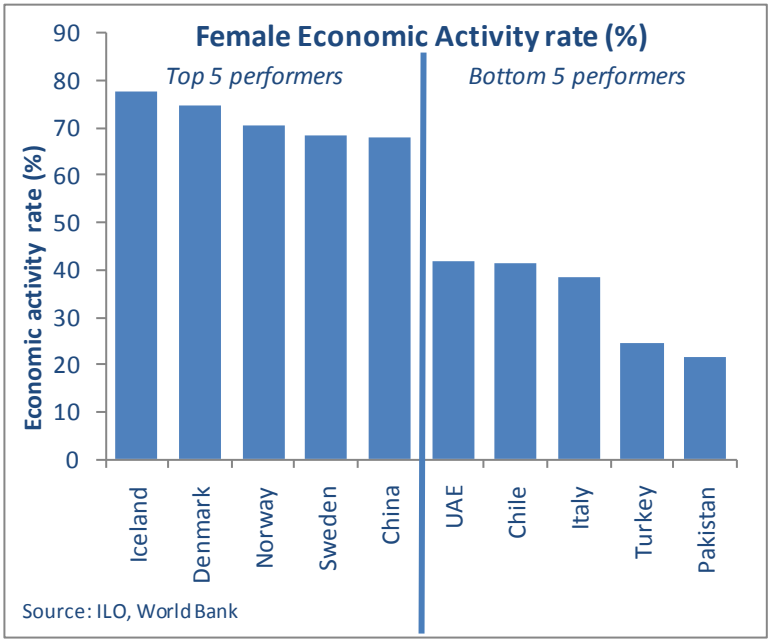
$$Entropy\ \ Index = \sum_{i=1}^{N} S_i \ln\left(\frac{1}{S_i}\right) = -\sum_{i=1}^{n} S_i \ln(S_i)$$

Where N is the number of sectors, S_i is share of economic activity in ith industry and ln is natural logarithm. The entropy measure compares the existing employment distributions among industries in a region with an equiproportional distribution. Higher entropy index values indicate greater relative diversification, while lower values indicate relatively more specialisation.

Shifting patterns in female economic activity

- One of the most striking economic phenomena of recent times has been the extent to which women have increased their share of the labor force. The increasing participation of women in paid work has been driving employment trends, and the gender gaps in labor force participation rates have been shrinking.

- Within advanced economies there is much diversity with regard to labor market performance. For example, in many countries where female labor market participation has improved, such as the US (59%), the UK (56%) and Australia (58%), they remain well behind the leading countries such as Norway (71%), Denmark (75%) and Iceland (78%).



- Four of the lowest five female economic activity rates are recorded in emerging economies: Pakistan (22%), Turkey (25%), Chile (39%) and UAE (42%). This suggests some similarities between emerging economies in the Middle East, Europe and Latin America. However, in the case of UAE it is important to note the low economic activity rate amongst female nationals (28%) compared with female migrant labor (47%). Italy is the lowest ranked member of the G7, with a female activity rate at 39%.

Box 1: Female economic activity in Turkey

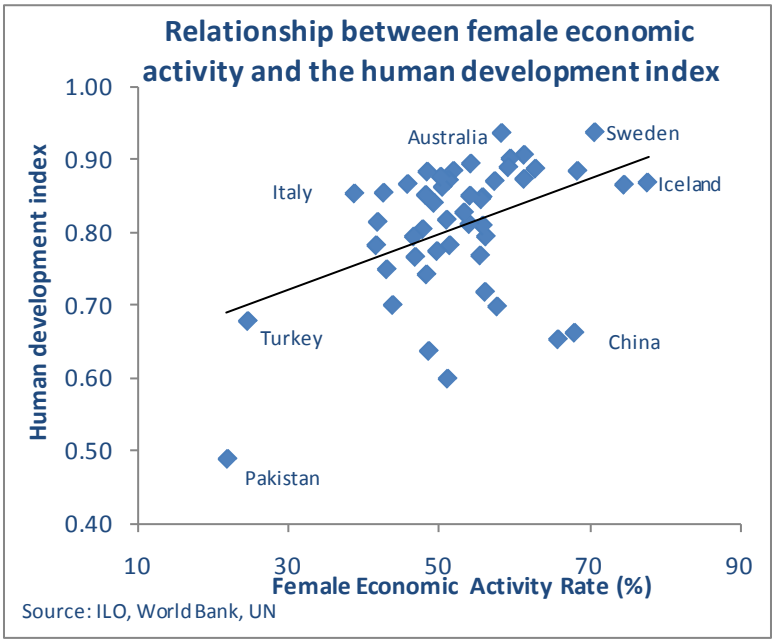
One of the salient features of the labor market in Turkey is the distinctly lower economic activity rate of women. In Turkey, only one in four females participates in the labor market, which compares with more than two in three females in the G7 group of countries. Although Turkey has never been a good performer on international rankings with regard to female economic activity rates, this indicator has fallen over the past 20 years as the structure of the Turkish economy has changed. Traditionally, females in rural Turkey worked on their family farm; as the economy has shifted away from agriculture toward manufacturing and services, it has led to a withdrawal of many less-educated Turkish females from the labor force.

The Turkish Government has recognised the importance of its female labor supply and set a target in the Ninth Development Plan to increase female economic activity to close to 30% by 2013. An analysis by the World Bank indicates that if this target is achieved it will reduce poverty by up to 15% depending upon the ratio of full to part-time employment amongst the new labor market entrants.

- There is clearly a strong positive correlation between female economic activity and the UN's Human Development Index[3], although it is important to note that sectoral structure is an important determinant of female labor market participation. Indeed, international evidence indicates that greater equality between

[3] A composite index measuring average achievement in three basic dimensions of human development—a long and healthy life, knowledge and a decent standard of living.

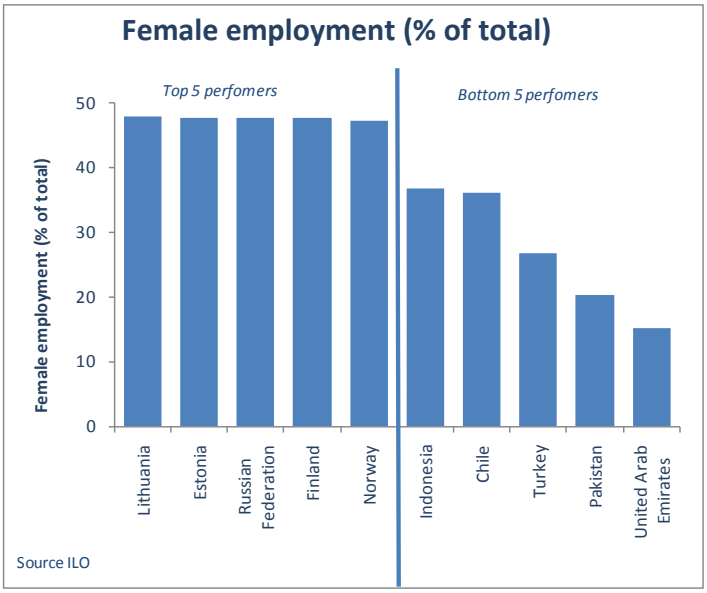
men and women is associated with poverty reduction, higher gross domestic product and better governance[4,5].



- Although there are a wide range of socio-cultural factors that influence female activity rates, governments can use a number of policy prescriptions to encourage female participation in the labor market, including initiatives to encourage flexible working time arrangements, taxation policy on second earners in married couples, reform of the benefits system to avoid the "income trap," and incentive policies such as free childcare for working mothers.
- Some emerging economies now face an important policy choice regarding initiatives that will encourage labor market participation. As economies grow at rapid rates in the early stages of development, the demand for labor will be strong—if changes in either legislation or culture do not occur to enable women to meet some of the future demand from employers, an alternative source of labor will need to be sourced from the international talent pool.

Female employment growth

- In advanced countries, the growth in female employment has been rapid. For example, in the US, women accounted for only one-third of total employment 50 years ago compared with almost half (46%) today—women have filled six in 10 net jobs created in the US over the past 50 years. That's 74 million more women participating in the labor force—greater than the entire population of France.
- The countries performing best, with the highest proportion of female employment, are all located in Northern Europe. The rankings are topped (after accounting for population structure) by Lithuania, Estonia, Russia, Finland and Norway.



- Less developed countries comprise the bottom end of the rankings, with Pakistan and UAE recording less than 30% of their workers as female. Chile and Indonesia also score poorly on this measure.

[4] Klasen, S. (1999) "Does gender inequality reduce growth and development? Evidence from cross-country regressions" World Bank, Policy research paper, Working Paper number 7. Washington DC.

[5] World Bank (2001) "Engendering Development: through gender equality in rights business and voice." New York. Oxford University Press.

Table 1: Female employment in the world's largest economies

Country	GDP (current prices) $billions	Female employment (% of total)
United States	15,227.07	46.10
China	6,515.86	38.47
Japan	5,821.95	40.94
Germany	3,518.59	45.35
France	2,750.71	46.35
United Kingdom	2,471.88	45.61
Brazil	2,421.64	42.14
Italy	2,181.36	39.36
Russian Federation	1,894.47	47.62
Canada	1,737.27	47.07

Source: IMF, ILO

- There is some varience in the performance of the world's 10 largest economies, with Russia having the largest female share of the workforce, closely followed by Canada. In comparison, China, Italy and Japan have a much lower proportion of women comprising total employment.

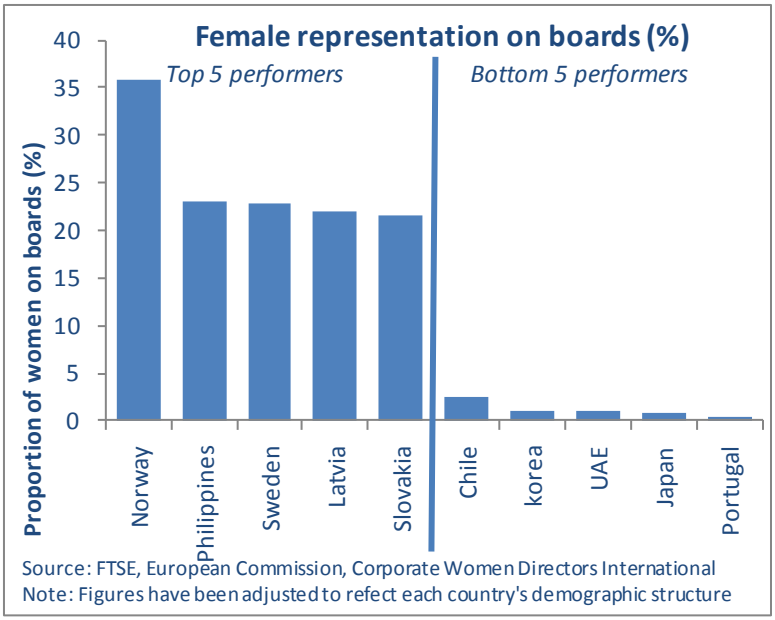
Female representation in corporate boardrooms

- A nation's competitiveness depends to a certain extent on whether and how it makes use of its female talent. The proportion of women who have climbed the career ladder to board-of-director status varies greatly between countries. Even in countries where women account for a large proportion of tertiary education graduates and where there is a high female employment rate, female representation in the upper echelons of the corporate world still can be low.
- Studies exploring the link between women in leadership positions and business performance have shown a positive correlation between gender diversity on top leadership teams and a company's financial results. For example, Forbes examined the stock performance of the 26 publicly-traded companies headed by the women on the 2010 "Power Women 100" list and found that as a group, they outperformed the overall market—where most companies were dominated by male chief executives—by an average of 28%, and topped their respective industries by 15%[6]. Research by Catalyst, a nonprofit organization that promotes women in the workplace, found that companies with more female board members, on average, significantly outperform those with fewer women—by by 53% on return on equity, 42% on return on sales, and by 66% on return on invested capital[7].
- The highest female representation on corporate boards is recorded in Norway (36%), followed by the Phillipines (23%), Sweden (23%), Latvia (22%) and Slovakia (22%). That Norway tops the ranking on this measure of diversity is unsurprising as it was the first country to legislate in this area by introducing a quota system (Box 2).

[6] Michael K. Ozanian (2010), "Girls Rule," *Forbes* (October 25, 2010).

[7] Lois Joy, Nancy M. Carter, Harvey M. Wagner, and Sriram Narayanan, (2007) "The Bottom Line: Corporate Performance and Women's Representation on Boards." Catalyst research paper.

- The countries with the lowest female board representation are Portugal (0.4%), Japan (0.9%%), the UAE (0.9%), Korea (1.0%%) and Chile (2.4%). In the case of Japan it is somewhat unusual to have such a large advanced economy appear so far down the rankings. Japan appears to be quite insular in its approach to boardroom diversity, with few non-Japanese and few women represented on boards.



Source: FTSE, European Commission, Corporate Women Directors International
Note: Figures have been adjusted to refect each country's demographic structure

Box 2: Women in Norway's boardrooms

In 1992, the representation of women on the boards of Norway's publicly listed companies was only 3%. Today, the figure stands at 36%. The driving force in this trend has been government intervention.

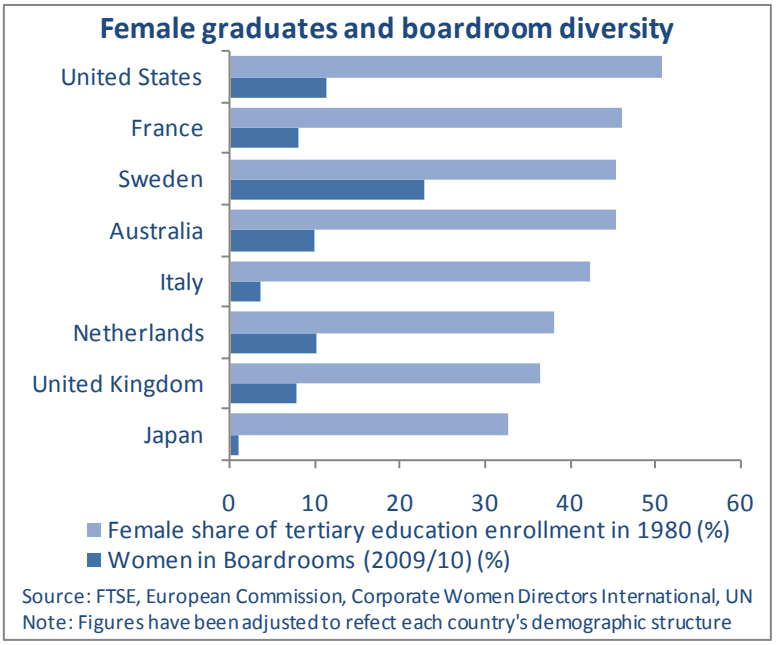
In 2003, the government introduced official legislation imposing a 40% female quota for board members in publicly listed companies. Companies were given five years to comply. The penalties of non-compliance were severe: Firms were penalised first with fines, then with de-registration from the Oslo Stock Exchange—and finally dissolution.

The quota has widely been viewed as a success, although it has not yet tackled the issue of the number of women at the very top of the corporate "food chain"—women still account for only 2% of CEOs. The quota's success also should be considered within the broader context of the Norwegian economy, a country with significant state support for childcare, a progressive welfare state and generous maternity and paternity leave.

Norway's initiative has had a ripple effect throughout the Nordic countries and the rest of Europe. Iceland introduced a quota in 2010 and will require companies with more than 50 employees to have at least 40% of each gender represented on boards as of 2013. From 2008, meanwhile, a "comply or explain" code has been in effect in Finland. In 2007, the government of Spain passed a law requiring that 40% of corporate boards be women, but gave their enterprises a longer deadline (2015) and less severe penalties. Additionally, both France and the Netherlands are in the process of introducing legislation for quotas, while the German Justice Minister has threatened legislation if boards do not achieve a better balance in the next 12 months. Some countries have introduced alternative measures to quotas. For example, Australia has introduced new corporate governance requirements requiring gender diversity reporting from 2011.

- In the case of advanced economies, it is not a lack of supply that has constrained female representation in corporate boardrooms. For example, in 1980, women in the US and UK accounted for 50% and 36% of university enrolments, respectively. Thirty years later, female board membership stood at 11% in the US and 10% in the UK. Women now account for more than half of university graduates in many countries.

However, based on past trends, unless "corporate norms" are changed, the increase in female graduates alone will only have a marginal effect on future boardroom demographics.

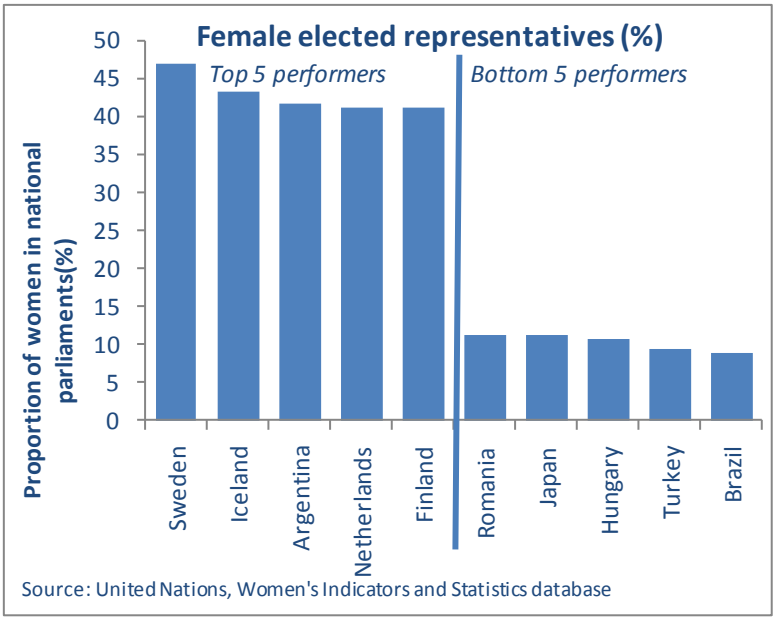


Source: FTSE, European Commission, Corporate Women Directors International, UN
Note: Figures have been adjusted to refect each country's demographic structure

Women in national parliaments

- Women make up the largest proportions of elected representatives in the Nordic region, with Sweden (47%), Iceland (43%) and Finland (42%) appearing in the top 5 performing countries. Japan (11%) and Turkey (9%) appear towards the bottom of the rankings on this measure, slightly ahead of Brazil (9%) which ranks last. Argentina (which performs poorly with regard to women on boards) has the third greatest female representation in the national parliament. This is attributible to a quota system introduced in 1991 that requires political parties to put one woman for every three men on their party lists.

- It is worth highlighting some of the differences in performance between women on boards and women in parliaments. For example, Italy ranks 45th with regard to its female representation on boards, but 23rd for women in the national parliament. Despite the better performance on the latter measure, it is important to consider this within the wider context of Italian society. For example, many of the women in Italian government are former celebrities. In a wider context, female professors are half as likely as their male colleagues to gain tenure at an Italian university. Similarly, according to Eurostat, in 2010 Italian women were half as likely as Italian men to become legislators, managers and entrepreneurs. Only one out of the 50 largest Italian companies has appointed more than two women to its board. In addition, the policy infrastructure in Italy is not particularly conducive to encouraging female labor force participation. For example, one woman in four leaves her job after maternity; of every 100 children, only 10 find a place in daycare and fewer than five in 100 in a public nursery.



Source: United Nations, Women's Indicators and Statistics database

Building a composite gender diversity index

- With a varied performance across the three gender indicators, these data points can be combined to an overall weighted score using the Min-Max normalization method. The weights used in the development of the composite index are as follows:
  - Female share of employment (35%)
  - Female activity rate (25%)
  - Women on boards (20%)
  - Women in parliament (20%)
- In an overall composite index, **the Nordic countries top the global rankings for gender diversity** with consistantly good performance across all indicators. Norway is ranked as the most gender-diverse economy, followed by Sweden, Iceland, Finland and Denmark. The bottom slots are filled by Pakistan, the UAE and Turkey, where religious, cultural and other socio-economic factors have contributed to a low gender-diversity score. Chilie, Japan and Italy also rank toward the bottom of the index.

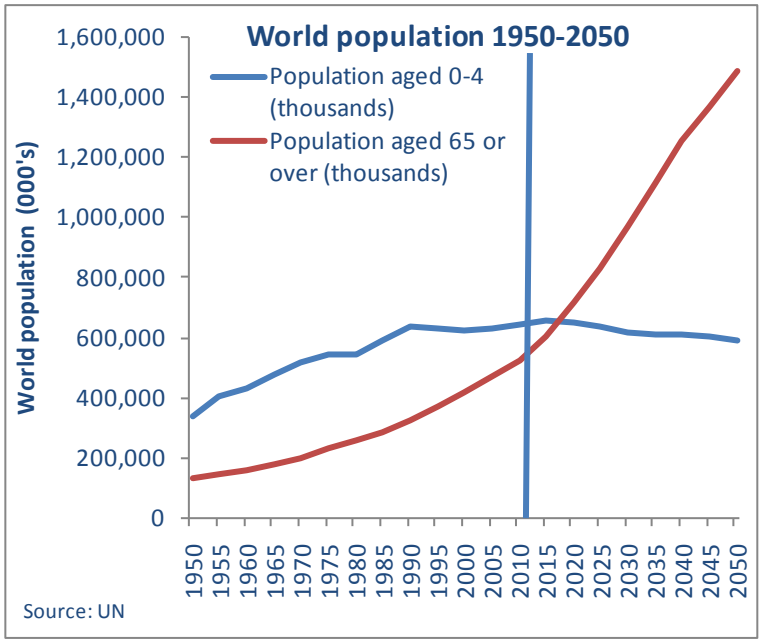
Table 2: Composite gender diversity index

Country	Female employment share score	Female employment share rank	Female Activity Rate score	Female Activity Rate rank	Women on boards score	Women on boards rank	Women in parliament score	Women in parliament rank	Overall Weighted score	Rank
Norway	0.98	5	0.87	3	1.00	1	0.71	8	0.90	1
Sweden	0.98	7	0.83	4	0.64	3	1.00	1	0.88	2
Iceland	0.94	14	1.00	1	0.40	9	0.91	2	0.84	3
Finland	0.99	4	0.64	14	0.58	6	0.85	5	0.79	4
Denmark	0.96	9	0.94	2	0.33	12	0.76	6	0.79	5
Netherlands	0.92	19	0.67	11	0.28	17	0.85	4	0.72	6
New Zealand	0.94	15	0.71	8	0.31	13	0.65	10	0.70	7
Latvia	0.98	6	0.60	20	0.61	4	0.27	30	0.67	8
Canada	0.98	8	0.73	7	0.31	15	0.34	21	0.66	9
Switzerland	0.88	28	0.71	8	0.22	26	0.51	13	0.63	10
Germany	0.92	20	0.54	25	0.24	24	0.62	11	0.63	11
Australia	0.91	23	0.65	12	0.27	21	0.47	17	0.63	12
Slovakia	0.86	31	0.52	30	0.60	5	0.27	31	0.61	13
Argentina	0.82	36	0.50	33	0.10	41	0.86	3	0.61	14
United States	0.95	11	0.67	10	0.31	14	0.20	36	0.60	15
Austria	0.92	21	0.58	22	0.18	32	0.49	16	0.60	16
Lithuania	1.00	1	0.53	26	0.34	10	0.22	35	0.59	17
Spain	0.82	37	0.51	31	0.17	33	0.72	7	0.59	18
Belgium	0.89	26	0.43	42	0.17	35	0.69	9	0.59	19
Estonia	1.00	2	0.58	23	0.18	30	0.29	26	0.59	20
Thailand	0.94	16	0.79	6	0.23	25	0.07	45	0.59	21
Portugal	0.93	18	0.62	15	0.00	50	0.50	15	0.58	22
Israel	0.95	12	0.53	27	0.34	11	0.22	34	0.58	23
United Kingdom	0.93	17	0.61	18	0.21	28	0.27	29	0.57	24
Bulgaria	0.94	13	0.47	37	0.29	16	0.30	25	0.57	25
Macedonia, The former Yugoslav Rep. of	0.74	41	0.39	43	0.55	8	0.51	12	0.57	26
Philippines	0.71	43	0.48	35	0.64	2	0.31	24	0.56	27
China	0.71	44	0.83	5	0.18	31	0.34	22	0.56	28
Singapore	0.84	33	0.60	19	0.15	36	0.41	19	0.56	29
France	0.95	10	0.53	28	0.22	27	0.24	33	0.56	30
Russian Federation	0.99	3	0.61	16	0.15	37	0.12	42	0.55	31
Romania	0.89	25	0.45	40	0.57	7	0.06	46	0.55	32
Slovenia	0.91	22	0.56	24	0.27	20	0.11	44	0.53	33
Poland	0.89	27	0.44	41	0.27	18	0.29	28	0.53	34
Ireland	0.88	30	0.58	21	0.19	29	0.12	43	0.51	35
Cyprus	0.88	29	0.61	17	0.10	43	0.14	40	0.51	36
Hungary	0.90	24	0.46	39	0.27	19	0.05	48	0.49	37
Luxembourg	0.84	32	0.47	38	0.10	42	0.29	27	0.49	38
Czech Republic	0.83	34	0.49	34	0.11	39	0.17	37	0.47	39
Brazil	0.83	35	0.64	13	0.10	44	0.00	50	0.47	40
Mexico	0.67	45	0.38	44	0.17	34	0.50	14	0.47	41
Korea, Republic of	0.81	38	0.51	32	0.02	47	0.12	41	0.44	42
Indonesia	0.66	46	0.52	29	0.10	40	0.24	32	0.43	43
Greece	0.73	42	0.37	45	0.26	23	0.15	39	0.43	44
Italy	0.74	40	0.30	48	0.09	45	0.32	23	0.42	45
Japan	0.79	39	0.48	36	0.01	49	0.06	47	0.41	46
Chile	0.64	47	0.35	47	0.06	46	0.16	38	0.35	47
Turkey	0.35	48	0.05	49	0.26	22	0.01	49	0.19	48
United Arab Emirates	0.00	50	0.36	46	0.02	48	0.46	18	0.18	49
Pakistan	0.16	49	0.00	50	0.12	38	0.37	20	0.15	50

Source: Oxford Economics

Age diversity of the workforce

- People are living longer and, in some parts of the world, healthier lives. With respect to diversity, this represents a significant challenge. Aging populations strain social insurance and pension systems, and challenge existing models of social support. This affects economic growth, trade, migration, pension systems and social infrastructure.



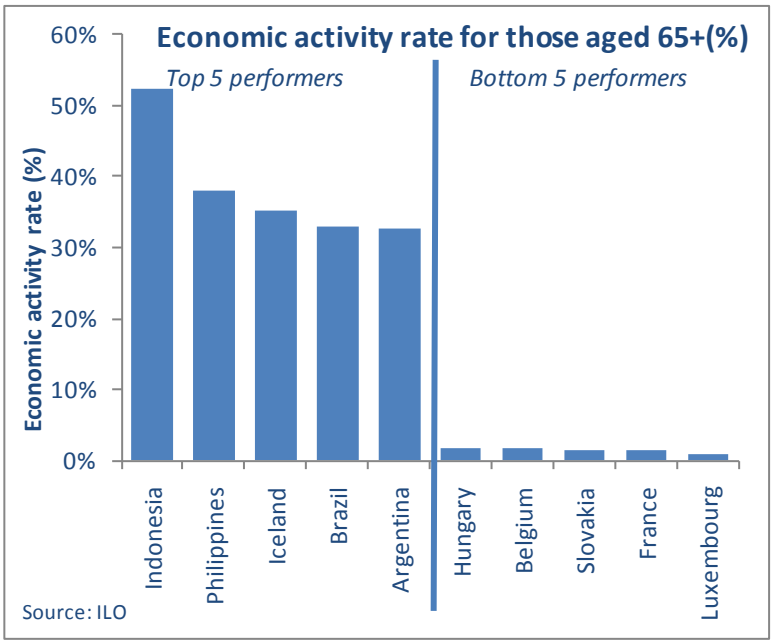
- The overall world population is aging. For the first time in human history, and probably for the rest of human history, people aged 65 and over will outnumber children under age five before 2020.
- Patterns of work and retirement are changing. Shrinking ratios of workers to pensioners, and people spending a larger portion of their lives in retirement, increasingly strain existing health and pension systems. Population aging will have dramatic effects on social entitlement programs, trade and labor supply, while inadequate personal savings around the globe may demand new fiscal approaches from governments.
- Major economies across the globe must contend with this issue. The UK, US and Germany have all announced plans to raise the age threshold for state pension entitlement. This is reflective of the fact that at 65, people can still play an active role in the labor force. For example, in 1960 an average American could expect to spend 46 years in the labor force and one year in retirement. Today the retirement age is 66, and those aged 65 are expected to live to an average age of 84—18 years in retirement.
- Economic growth is a function of the size of the workforce, the amount of capital employed and the rise in productivity. If the workforce shrinks, as demography shows it will, all the growth will have to come from capital investment and productivity improvements. Extending the working age has two obvious economic benefits: It boosts output and reduces the length of time for which pensions need to be paid. There is even some evidence to suggest that having an age diversity strategy can yield positive financial results (Box 3). Within the current fiscal environments in many advanced economies, getting people to work longer into their lives will be key in helping goverments to “balance the books.”

Box 3: Age diversity policies

B&Q is the largest home improvement and garden supply retailer in the UK, and has a long-standing diversity management program that specifically targets older people. Over 24% of B&Q's total workforce is over 50 years of age—the youngest employee is 16, and the oldest is 92.

B&Q's diversity policy was prompted by a number of factors, notably that staff turnover costs were highest among workers under 20. B&Q opened a store in Macclesfield, staffed entirely by people aged over 50. The University of Warwick carried out a study of the Macclesfield store in 1991, and found that profits were higher by 18%, staff turnover was six times lower than its other stores, and there was 39% less absenteeism.

- Participation rates for older workers varies considerably between countries, with extremely high rates recorded in emerging economies in Asia and Latin America. Indonesia (52%) and the Phillipines (38%) show the highest economic activity rates in the 65+ category. However, older workers employed on family farms may go some way to explaining high activity rates in economies where agriculture is one of the major sectors of employment. The lowest economic activity rates for older people are all recorded in European countries, which account for the bottom 20 performing countries in our basket of 50 nations. The exception in Europe is Iceland, which recorded the third highest economic activity rate for those over 65 (35%). The poor performance of European economies in relation to age diversity may change in the future due to financial pressures (both fiscal and domestic) that may force Europeans to work longer into their lives.

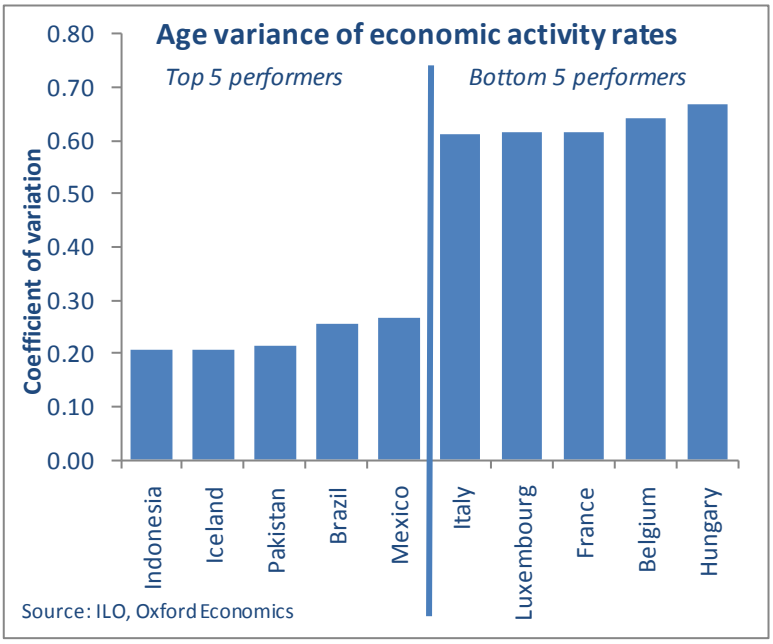


- The recent global recession also has highlighted the importance of maintaining a high economic activity rate amongst young people. The recession has led to an "insider-outsider" situation in the labor market, with many young people and graduates struggling to gain access to jobs and leading many to imply the potential of a "lost generation" in the labor force. An ILO report has highlighted that global youth unemployment is at an all-time high, with 81 million people aged 15-24 out of work. It is possible that any policies to encourage labor force participation by older workers may exacerbate the problem of youth unemployment.

- Any economic shock that sharply affects a group within society more than others can have negative social consequences and a legacy effect on the national economy. It is therefore important to maintain a balanced age distribution among the economically active population.

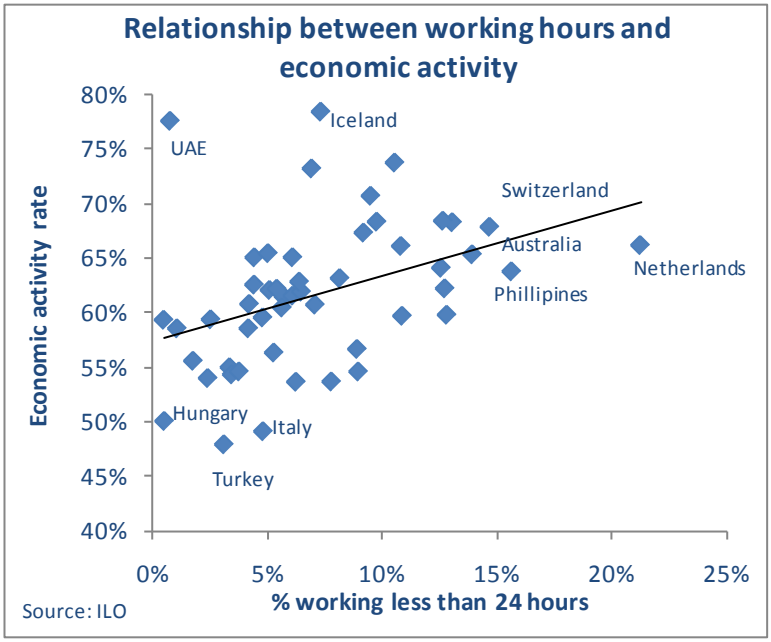
- Using the coefficient of variation[8] to measure how the economic activity rate in each age category differs from the economic activity rate for the entire population illustrates how evenly distributed economic activity rates are acoss the labor force.

- Economic activity rates vary least from the national average in Indonesia and Iceland, which have high economic activity rates in both the under 25 and over 65 categories. The least diverse countries with regard to age distribution are European economies: Hungary ranks as the bottom performer, with low relative activity rates amongst both older and youth sections of the labor force. Both France and Italy appear in the bottom five due to the relative inactivity within their populations aged over 55 and under 25.



Working patterns in the labor market

- How many people have a job and how much time they spend working also has an important effect on economic growth. A greater proportion of part-time employment is often associated with increased economic activity, as a greater availability of part-time work allows many mothers, people in education and older people to participate in the labor market. The rise of the "portfolio career," where an individual may combine multiple jobs, or a salaried job with a freelance career, is a modern trend facilitated by the availability of part-time employment.



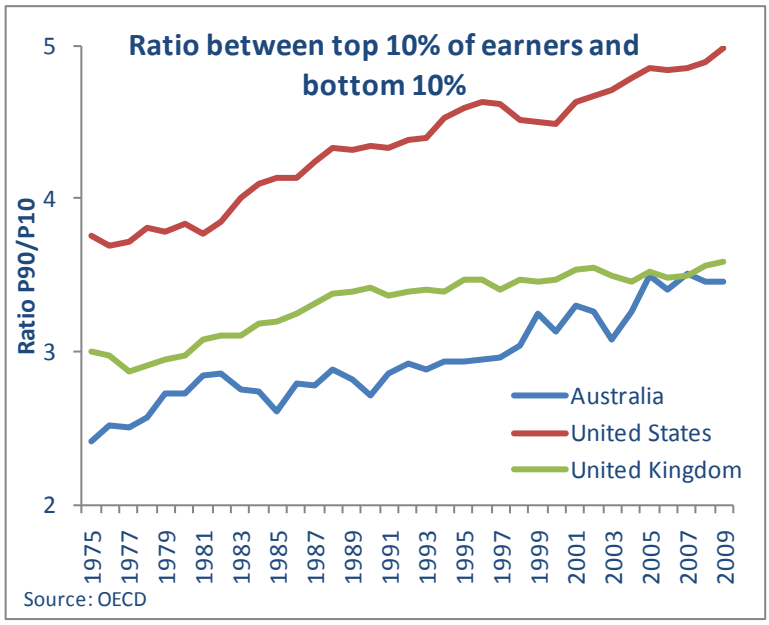
- A high incidence of part-time employment is not necessarily a precondition for achieving high activity rates for women, since cultural preferences for part-time work vary, as do other factors influencing desired working hours, such as the availability of childcare. Indeed, the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) and the United States have achieved high female employment rates with much lower rates of part-time employment than the Netherlands.

[8] The coefficient of variation is a normalized measure of dispersion defined as the ratio of the standard deviation to the mean.

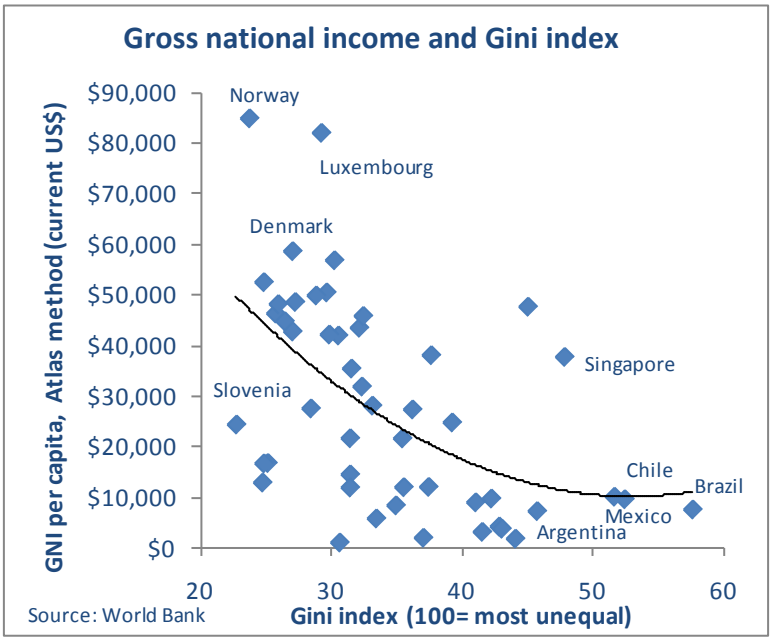
- Nonetheless, part-time workers are an important part of the labor force, and there is a positive correlation between the incidence of part-time employment and overall economic activity rates. Hungary, Italy and Turkey all record both low economic activity rates and a low incidence of part-time employment.

Income diversity

- On a global scale, income equality is extremely unequal. This is illustrated by the 2010 Credit Suisse *Global Wealth Report*, which estimates that there are currently 24.4 million millionaires[9], around 0.5% of the world's adult population, who control $69.2 trillion in assets—more than one-third of the global total. Some 41% of them live in the United States, 10% in Japan and 3% in China. The global wealth pyramid has a very wide base and a sharp point: The richest 1% of adults control 43% of the world's assets, the wealthiest 10% have 83%, and the bottom 50% have only 2%.



- Inequality also exists within many countries, becoming more unequal over time. For example, in the early 1970s the top 10% of wage earners' income in the US was around 3.5 times greater than the bottom 10%. Today, it is five times greater. Income inequality has also increased in other advanced economies, such as the United Kingdom and Australia, over the past 30 years.



- There is an inverse relationship between inequality and wealth across countries, with wealthy economies such as Norway, Denmark and Luxembourg also tending to have a low Gini index[10] score. The countries with the most unequal income distribution (ie those with the highest Gini index) tend to have low income per capita. Interestingly, four of the five most unequal countries with regard to

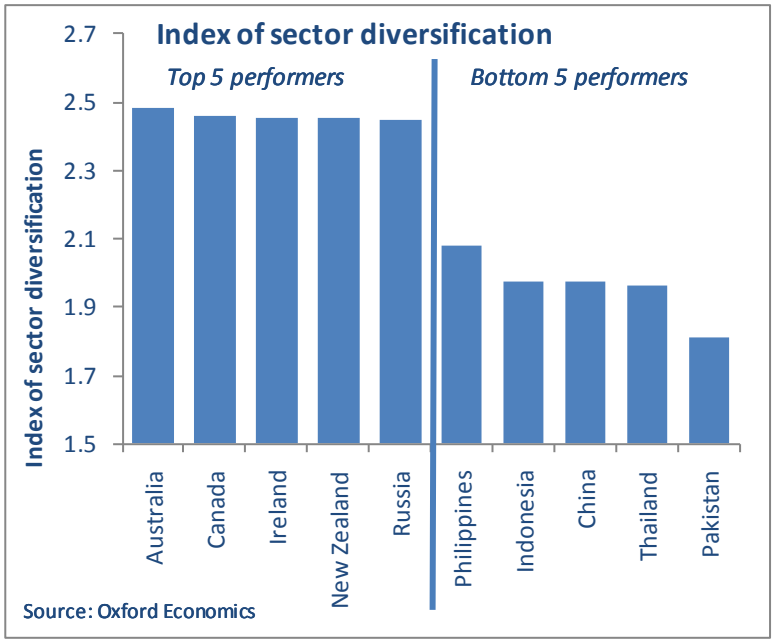
[9] Defined as anyone whose net assets exceed $1million.

[10] The Gini coefficient is a measure of the inequality of a distribution of income within an economy, a value of 0 expressing total equality and a value of 1 maximal inequality.

income distribution are located in Latin America (Brazil, Chile, Mexico and Argentina).

Note: Income diversity is not included as a standalone variable within the country index, but we present this analysis for illustrative and contextual purposes.

Sectoral diversity



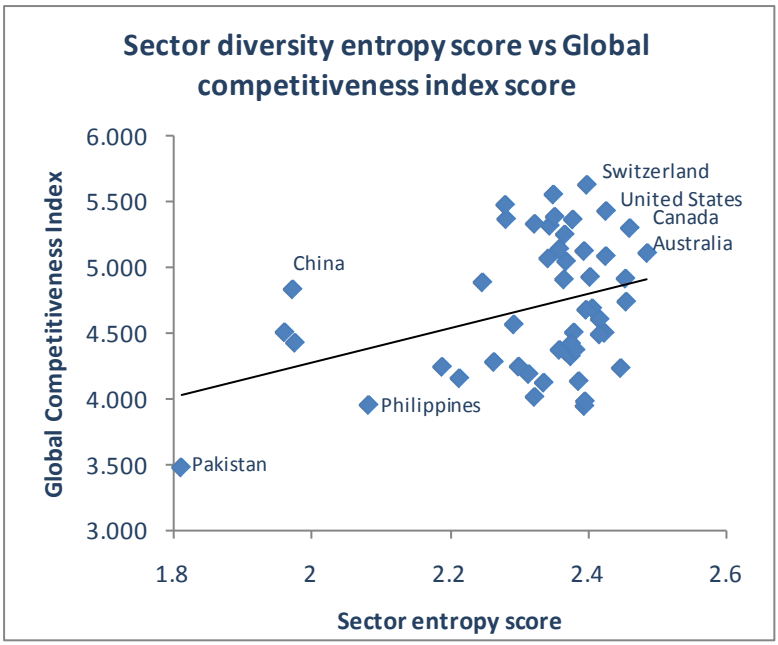
- Since early 2008, the world economy has endured its deepest and longest recession since the Great Depression of the 1930s. The recession has left many economies with large and unsustainable government deficits, and the possibility of slow economic growth for a decade or more. Some economies have felt the pain of the recession more than others due to the sectoral composition of the economy—the UK is one such country, with its over-reliance on finance, business services and the public sector, and a declining manufacturing sector. The recession has brought the concept of a "rebalanced" economy to the fore of the debate on how the economy can emerge from recession and generate sustainable growth.
- The emerging policy concensus is that it is important for economies to have a healthy balance of sectoral employment to ensure sustainable growth and limit exposure to risks. For example, Germany is one of the major economies in the world to have maintained a strong industrial base. As such, the German economy recovered from the global recession faster than most of its European competitors, led by export growth from German manufacturers. Meanwhile, other economies that have allowed their industrial sector to decline in favor of a more service-driven economy are taking longer to emerge from recession. This change in policy consensus is interesting, as it is a departure from the theory of comparative advantage, which has tended to lead to specialisation.
- It is possible to measure the sectoral distribution of a national economy using an "Entropy Index[11]" to illustrate the relative diversification of an economy's sectoral distribution using employment data. Using this measure, Australia is ranked as the world's most sectorally diverse economy, with the most even spread of employment across sectors. Countries with an "undiverse" sector structure include developing countries such as Pakistan, Thailand, China, Indonesia and the Philippines, all of which are heavily reliant upon agriculture as a source of employment.

[11]The entropy index of economic diversity can be defined as follows:

$$Entropy\ \ Index = \sum_{i=1}^{N} S_i \ln\left(\frac{1}{S_i}\right) = -\sum_{i=1}^{n} S_i \ln(S_i)$$

Where N is the number of sectors, S_i is share of economic activity in ith industry and ln is natural logarithm. The entropy measure compares the existing employment distributions among industries in a region with an equiproportional distribution. Higher entropy index values indicate greater relative diversification, while lower values indicate relatively more specialisation.

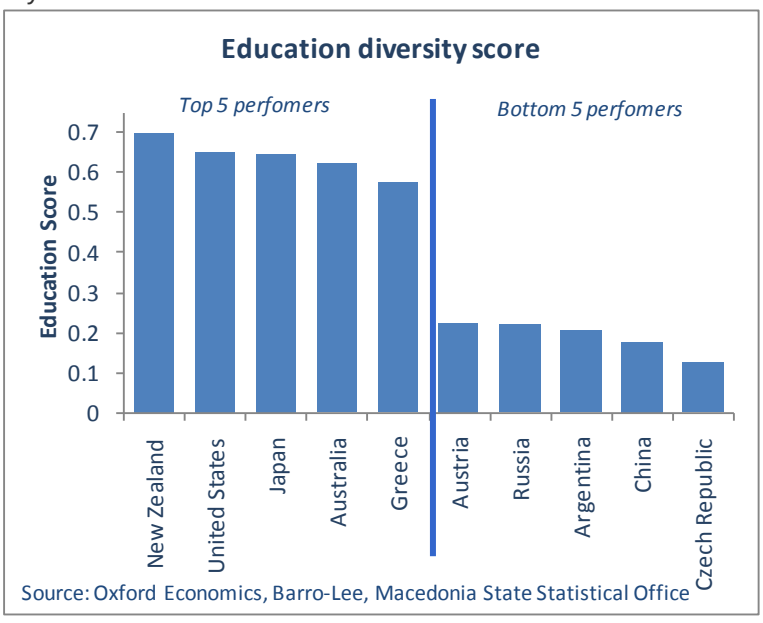
- A modest positive correlation exists between the degree of diversification in an economy and its international competitiveness, illustrating that sector diversity does translate into economic performance. The nations ranking highest in sector diversity are amongst the most competitive countries in the world, such as the United States, Canada and Australia. On the other hand, countries with less diverse structures, such as Pakistan and the Philippines, tend to rank quite far down the World Economic Forum's international league table for competitiveness.



An even distribution of skills

- A national government's approach to education and skills is arguably its most important policy for economic growth. Skills matter for economic growth, and a highly positive correlation exists between the proportion of people educated to tertiary level and the GDP per capita of the country. However, an economy does not only need a supply of highly skilled graduates to effectively function—it needs a wide spectrum of skills to meet the needs of employers.

- For example, in the UK there is evidence of an over-supply of graduate labor in some subject areas, where many graduates from these subjects find employment in non-graduate occupations. In other words, higher education is not the only route through which employment can be achieved. Many UK firms often report skills shortages that could have been met through an apprenticeship programme or non-graduate-level training programme, which has led to employers relying on migrant labor in some sectors to address skills shortages.



- To determine educational diversity across countries, we have devised a scoring system using the Barro-Lee Educational Attainment Dataset. For each country, we calculated the proportion of the population where the highest level of education was *not* upper secondary—in other words, the share of people educated to a non-typical level, whether lower or higher. These scores were standardised and given a weight of 40% of the final education diversity score. The second component of the education diversity score is the proportion of the population with tertiary education relative to the population with less than secondary education. This is included in order

to give slightly more weight to those countries with more high-skilled than low-skilled people. As before, this score was standardised and awarded the remaining 60% weighting of the education diversity score.

- From the overall educational diversity score we find New Zealand, United States and Japan perform the best. On the other side of the spectrum Argentina, China and the Czech Republic perform relatively badly. The best performing countries on this measure are those most likely to have a well-balanced composition of labor—enough people to take the high-skilled roles and generate wealth for the country, but also enough to fill the many essential lower-skilled positions across the economy.

Effective use of migrants

- One of the central aspects of globalization has been the increasingly wide mobility of labor. Migration of talent now plays an important role in shaping skilled labor forces throughout the world. Since migrants often tend to be amongst the most skilled, innovative and dynamic individuals in the labor supply in search of a better life abroad, they are often important assets for the receiving country and help to address skills shortages. For example, a study to estimate the impact of immigration in the UK found that approximately 17% of GDP growth was attributable to migrants between 2004 and 2005[12].
- In our sample of 50 countries, the UAE recorded the largest stock of migrant labor by a considerable distance. It is important to note that the UAE is very different from other countries. Emirati nationals only account for 19% of the total UAE population, much lower than other Middle Eastern states such as Bahrain and Oman, where national citizens account for 62% and 80% of the population, respectively. Many of the workers are Indian or Pakistani migrants employed in the construction industry, as large-scale developments in the UAE are completed at a rapid pace. However, the local office economy is also dominated by expatriates from around the world, including many of the highest-paid jobs. Immigration on this scale creates both benefits and costs: the UAE government now acknowledges the need to increase the share of nationals within its labor market.

Table 3: Foreign-born labor as a percentage of the labor force

Country	Migrants as a % of labour force	Rank
United Arab Emirates	86.9%	1
Luxembourg	48.2%	2
Singapore	30.3%	3
Switzerland	22.6%	4
Australia	22.2%	5
Slovakia	0.2%	46
Poland	0.1%	47
Romania	0.1%	48
China	0.1%	49
Indonesia	0.1%	50

Source: OECD, National Statisitcs, World Bank

[12] Riley, R. and Weale, M. (2006) "Commentary: Immigration and Its Effects," National Institute Economic Review, No. 198 October 2006

- Luxembourg ranks second on this variable, owing to its role as an international financial center and one of the administrative centers of the European Union that has attracted highly skilled migrants mostly from Germany, France and Belgium. Scale is an important factor in determining the proportion of foreign labor, with smaller nations needing to import workers to meet labor demands. Countries appearing toward the bottom of the rankings on this variable include China and Indonesia, which are large emerging economies with a huge indigenous labor supply.

Linguistic diversity

- In many countries, two or more official languages create a complex social diversity. This may or may not be reflected in the country's business environment. For example, in Switzerland, French-speaking Geneva and German-speaking Zurich are both major financial and administrative capitals in their own right, while the Italian-speaking Ticino region has strong commercial links to Milan and Rome. But in India, the many regional and local languages—and to some extent even the national language, Hindi—are marginalized in the business world by the dominance of English, which is described as the only language that unites the country and whose use in business has obvious advantages for a nation seeking to internationalize.
- In reality, the commercial pressures of international trade have led many countries normally exhibiting high levels of linguistic diversity—particularly those in Asia and Africa—to adopt a common language, typically English or French, as the language of business. We do not have data on the use of languages in the workplace, but to add a flavor of countries' linguistic diversity into our calculations, we used scores relating to national populations as a whole (with a relatively low weighting) in our composite diversity index.
- The table below—showing the top and bottom five countries in our index for linguistic diversity—reflects scores from an established index on the topic, developed by Joseph H. Greenberg and used by the United Nations in its cultural promotion work. The index score is the probability that any two people of the country selected at random would have different mother tongues[13]. The highest possible value (1) indicates total diversity—that is, no two people have the same mother tongue. The lowest possible value (0), meanwhile, indicates no diversity at all—everyone has the same mother tongue.

Table 4: Linguistic diversity

Country	Language diversity score	Language diversity rank
Philippines	0.849	1
Indonesia	0.846	2
United Arab Emirates	0.777	3
Pakistan	0.762	4
Thailand	0.753	5
Brazil	0.032	46
Japan	0.028	47
Portugal	0.022	48
Iceland	0.019	49
Korea, Republic of	0.003	50

Source: OECD, National Statisitcs, World Bank

- Emerging economies in Asia and the Middle East account for the top five most linguistically diverse economies on the planet, although advanced Asian economies such as Korea and Japan are ranked in

[13] Lieberson. S. (1981). "Language Diversity and Language Contact: Essays by Stanley Lierberson." Selected and Introduced by Anwar S. Dil. Stanford, California: Stanford University Press. xiv/390pp.

the bottom five. Major economies such as India and South Africa also score highly on linguistic diversity, but they are not included in this study due to severe data limitations on other indicators.

Country index: The results

- To create an overall score for employee diversity in each of the 50 countries, we combined the data for each separate indicator (gender, age, etc.) to produce an overall weighted score. To do this, we again used the Min-Max normalization method, as recommended by the OECD best practice guide on composite indicators, and as used by many major projects of a similar nature, such as the UN Human Development Index. The weights used in the development of our composite index on diversity are as follows:
  - Gender (30%);
  - Language (10%);
  - Country of birth (10%);
  - Age (15%);
  - Working hours (10%);
  - Education (10%); and
  - Sector (15%).

Table 5: Normalized theme scores and overall composite diversity index

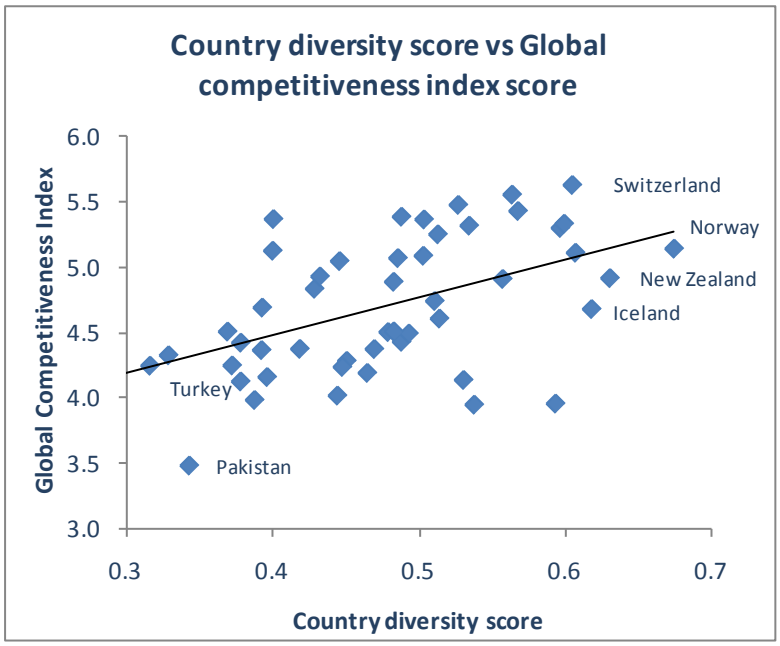
Country	Gender	Language	Country of birth	Age	Part-time	Education	Income	Sector	Weighted Index	Weighted Index rank
Norway	0.90	0.77	0.06	0.71	0.59	0.33	0.97	0.81	0.67	1
New Zealand	0.70	0.12	0.21	0.76	0.61	0.70	0.61	0.95	0.63	2
Iceland	0.84	0.02	0.04	0.99	0.33	0.46	0.80	0.87	0.62	3
Australia	0.63	0.15	0.25	0.67	0.65	0.62	0.78	1.00	0.61	4
Switzerland	0.63	0.64	0.26	0.64	0.68	0.30	0.79	0.87	0.60	5
Netherlands	0.72	0.46	0.04	0.55	1.00	0.38	0.87	0.76	0.60	6
Canada	0.66	0.65	0.02	0.66	0.42	0.47	0.73	0.96	0.60	7
Philippines	0.56	1.00	0.05	0.86	0.73	0.57	0.39	0.40	0.59	8
United States	0.60	0.41	0.15	0.70	0.22	0.65	0.36	0.91	0.57	9
Sweden	0.88	0.19	0.05	0.55	0.27	0.45	0.94	0.80	0.56	10
Israel	0.58	0.78	0.03	0.55	0.50	0.47	0.53	0.82	0.56	11
Argentina	0.61	0.25	0.08	0.76	0.58	0.21	0.34	0.87	0.54	12
Denmark	0.79	0.06	0.05	0.53	0.50	0.38	0.88	0.79	0.53	13
Latvia	0.67	0.70	0.17	0.37	0.24	0.34	0.58	0.85	0.53	14
Singapore	0.56	0.88	0.35	0.52	0.19	0.35	0.28	0.70	0.53	15
Estonia	0.59	0.56	0.19	0.37	0.25	0.47	0.75	0.90	0.51	16
United Kingdom	0.57	0.16	0.09	0.56	0.59	0.48	0.72	0.82	0.51	17
Ireland	0.51	0.26	0.16	0.56	0.37	0.50	0.83	0.95	0.51	18
Finland	0.79	0.16	0.02	0.42	0.27	0.31	0.91	0.84	0.50	19
Austria	0.60	0.63	0.12	0.38	0.32	0.22	0.91	0.91	0.50	20
Spain	0.59	0.51	0.16	0.36	0.18	0.41	0.72	0.90	0.49	21
Indonesia	0.43	1.00	0.00	1.00	0.45	0.27	0.59	0.24	0.49	22
Germany	0.63	0.22	0.10	0.38	0.59	0.30	0.88	0.80	0.49	23
Belgium	0.59	0.86	0.09	0.05	0.35	0.51	0.89	0.79	0.49	24
Thailand	0.59	0.89	0.04	0.72	0.31	0.42	0.42	0.22	0.48	25
United Arab Emirates	0.18	0.91	1.00	0.69	0.01	0.34	0.47	0.65	0.48	26
Cyprus	0.51	0.43	0.20	0.40	0.22	0.44	0.84	0.91	0.48	27
Lithuania	0.59	0.40	0.00	0.22	0.41	0.50	0.63	0.85	0.47	28
Mexico	0.47	0.16	0.00	0.87	0.29	0.37	0.17	0.75	0.46	29
Brazil	0.47	0.03	0.00	0.90	0.43	0.27	0.00	0.67	0.45	30
Russian Federation	0.55	0.33	0.04	0.35	0.28	0.22	0.44	0.94	0.45	31
Luxembourg	0.49	0.59	0.55	0.11	0.14	0.29	0.81	0.83	0.45	32
Macedonia	0.57	0.67	0.08	0.31	0.14	0.25	0.42	0.76	0.44	33
Korea, Republic of	0.44	0.00	0.03	0.61	0.18	0.57	0.75	0.88	0.43	34
China	0.56	0.58	0.00	0.67	0.48	0.18	0.46	0.24	0.43	35
Portugal	0.58	0.02	0.05	0.45	0.19	0.29	0.64	0.81	0.42	36
Japan	0.41	0.03	0.01	0.53	0.25	0.65	0.57	0.70	0.40	37
France	0.56	0.32	0.06	0.11	0.23	0.26	0.80	0.86	0.40	38
Romania	0.55	0.20	0.00	0.38	0.41	0.24	0.65	0.60	0.40	39
Chile	0.35	0.04	0.02	0.66	0.21	0.29	0.15	0.88	0.39	40
Italy	0.42	0.70	0.09	0.12	0.21	0.25	0.75	0.83	0.39	41
Greece	0.43	0.20	0.11	0.20	0.09	0.58	0.70	0.87	0.39	42
Slovenia	0.53	0.20	0.01	0.18	0.10	0.34	1.00	0.84	0.38	43
Bulgaria	0.57	0.26	0.00	0.17	0.06	0.32	0.69	0.78	0.38	44
Slovakia	0.61	0.36	0.00	0.14	0.00	0.24	0.94	0.72	0.37	45
Poland	0.53	0.07	0.00	0.13	0.16	0.40	0.75	0.84	0.37	46
Pakistan	0.15	0.90	0.03	0.98	0.28	0.29	0.77	0.00	0.34	47
Hungary	0.49	0.18	0.01	0.00	0.00	0.36	0.94	0.84	0.33	48
Turkey	0.19	0.34	0.03	0.64	0.13	0.29	0.48	0.56	0.32	49
Czech Republic	0.47	0.08	0.02	0.18	0.03	0.12	0.93	0.71	0.30	50

Source: Oxford Economics

- **Norway ranks highest in Oxford Economics' global index of employee diversity**. Its score is driven by strong performance on the gender diversity indicator, though it also performs relatively well on most other indicators. Norway is followed by New Zealand, Iceland, Australia, Switzerland, the Netherlands and Canada.
- **The United States ranks 9th on the index, scoring reasonably well on most measures of employee diversity**. The United Kingdom is 17th, Germany is 23th, and Brazil ranks 30th.
- Had ethnic diversity been taken into account (we are unable to do so because most countries do not collect such data), it is likely that Canada, the US and the UK would move significantly further up the rankings. It is likely that Canada, already in 7th place, would move toward the very top of the league table.
- The least diverse economies are the Czech Republic, Turkey, Hungary, Pakistan and Poland, which scored consistently low scores across most themes. The lowest ranked major economies are Italy (41st), France (38th) and Japan (37th).
- The exact positions of countries on the ranking are of course determined in significant part by the weightings attached to each indicator in the calculations. For example, had we made migrant labor the most important indicator, the UAE would have ranked higher. The weightings are qualitative in nature and a matter of opinion, and by consequence the position of individual countries should only be taken as a general indication of their diversity performance.

Does diversity matter?

- The key question is whether or not overall diversity matters within the context of global competitiveness. The chart opposite illustrates the positive correlation between Oxford Economics' overall employee diversity score and the World Economic Forum's Global Competitiveness Index. Top performing nations such as Norway, Iceland and Switzerland appear toward the top of the trend, while poorly performing countries such as Pakistan, Turkey and Bulgaria also tend to be associated with a low score on the Global Competitiveness Index.



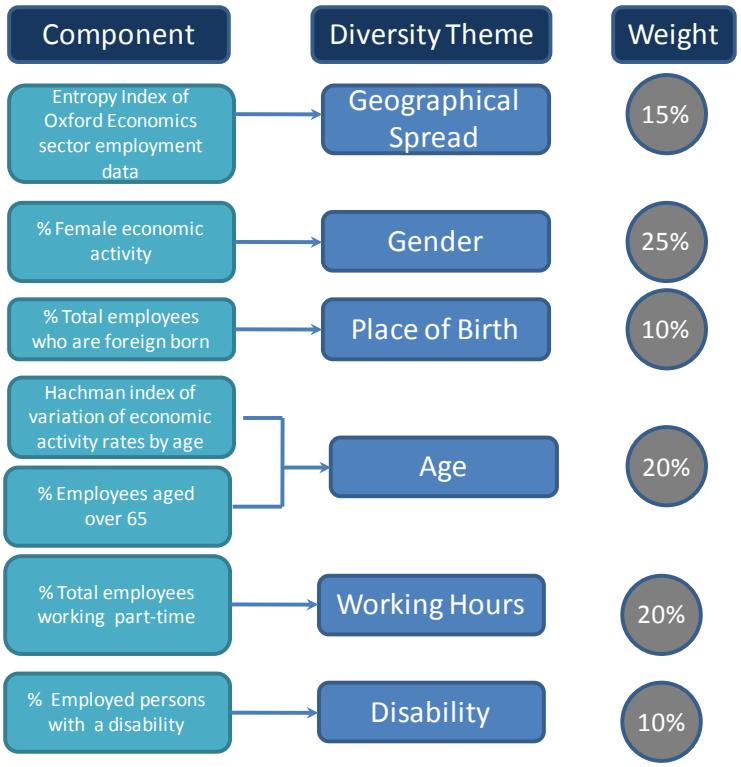
- **Therefore, diversity matters**. Whether it is sectoral structure, gender or age diversity, or even income distribution, diversity should be considered by both policymakers and businesses when making investment and policy decisions as it can affect competitiveness which is key to economic growth and the quality of life of a nation's citizens.

3. Sector Index

Developing the sector index

- It is not only a national economy that should consider diversity. Businesses and industrial sectors should take account of decision-making in business planning, as diversity can be key to their competitive advantage. As leading companies become increasingly global and enter into new markets, their client base becomes more diverse. Companies will need to adapt in order to understand their marketplace.
- Figure 2 summarizes the components of our sector index covering the themes of gender, age, ethnicity, disability and the geographic distribution of the sector.

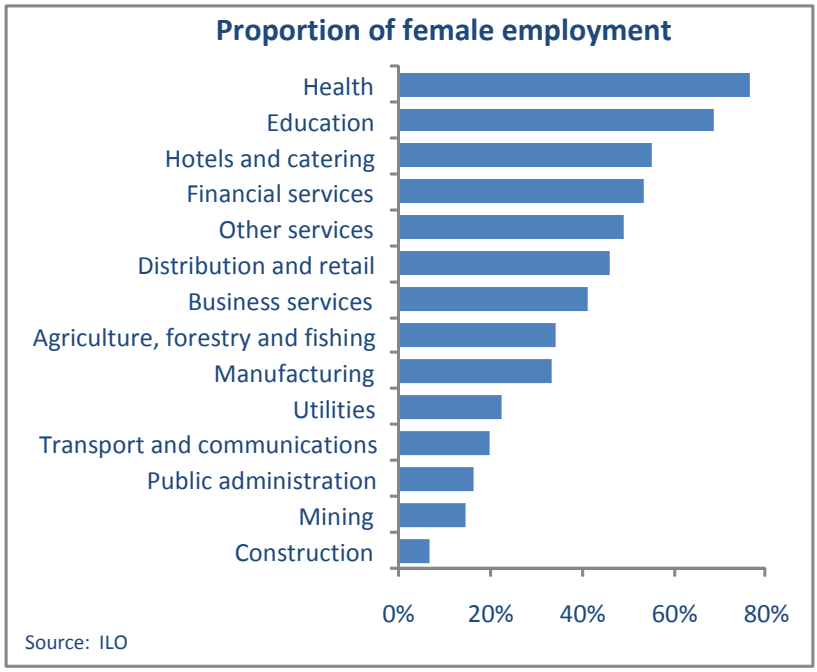
Figure 2: Components of the sector diversity Index



Gender composition of sectors (based on 50 countries)

- The labor market has changed dramatically over the past few decades, with women playing an increasingly important role. In today's world, women are marrying later and often delaying having children to focus on their career. In Europe, the average age at which women first marry is 30 or older in many countries.

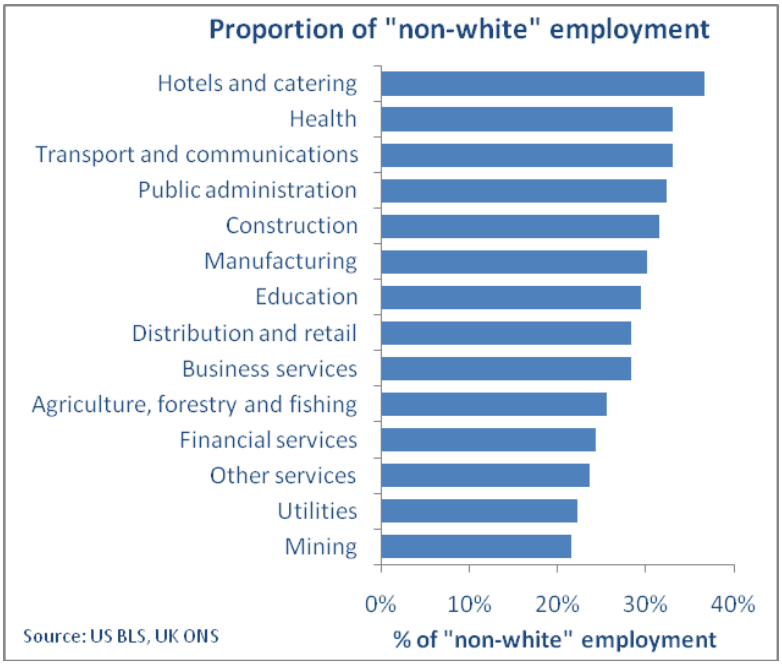
- For both women and men, the services sector as a source of employment continues to grow relative to the agricultural sector. This reflects the movement of the labor force globally from agriculture to industry and increasingly to services. In more developed economies, the labor force—especially the female labor force—is employed predominantly in services. Indeed, there are many sectors seen as more "female-friendly," and some sectors where women have carved out a niche for themselves. For example, in the UK, female driving instructors represent a new trend whereby young women often feel more comfortable with a female instructor. This has created a market opportunity for female self-employment.



- Overall, the labor force is highly divided by gender. Men typically work continuously up to retirement while women have more varied patterns of labor force attachment. In addition, men and women tend to work in different occupations and sectors.
- Based on an analysis of the labor markets of 58 countries, the chart opposite ranks the sectors with the greatest proportion of female employment.
- The two sectors with the lowest female representation are construction and mining. As these are sectors where the majority of employment is based in manual labor where physical strength is an important attribute, it is unsurprising that these are male-dominated industries.
- Health and education top the rankings, with more than two-thirds of teachers and nurses being female. Such a high proportion of female employment in health and education actually can represent a risk to female employment. For example, in the UK, public sector employment is forecast to fall as part of austerity measures being implemented by the government, leaving women more at risk to the negative impacts of the public sector spending cuts.
- Distribution and retail, and hotels and catering also rank highly. These sectors are often associated with flexible working hours, which have enabled many mothers to participate in the labor force on a part-time basis.

Ethnicity in the workforce (based on UK and US)

- An ethnically diverse workforce can bring benefits when trading in international markets through a better understanding of overseas customers. We are able to include ethnicity in our sectoral diversity index by aggregating available data for the US and the UK.
- Looking at data for the US and UK together, the hotels and catering sector ranks highest as the most ethnically diverse labor force. In the UK, cooks and waiters account for over one-quarter of employment for Bangladeshi and Chinese male workers.
- The healthcare industry also ranks highly, with one-third of the workforce classed as non-white. Healthcare institutions and long-term care facilities have been turning to the foreign-born to address shortages of workers, reflecting a parallel trend in the migration of healthcare workers worldwide.



Age distribution of the workforce

- Using a combination of a Hachman Index[14] and the proportion of those over 65 in the workforce to measure the age distribution of global employment (not restricted to the US and UK), we find that agriculture has the most age-diverse workforce. This is largely attributible to high labor-force participation rates amongst those over 65 and under 25, given the "family business" nature of farming. Hotels and catering ranks second, owing to its large share of employment in the under-25 category (20%), which has been enabled by flexible working hours that allow students to enter part-time employment.

Table 6: Composite age diversity index

Country	Hachman score	65+ share of employment	Hachman score - normalised	65+ share of employment - normalised	Age diversity score	Rank
Agriculture, forestry and fishing	0.62	9.8%	1.00	1.00	1.00	1
Hotels and catering	0.61	1.4%	0.97	0.08	0.53	2
Other services	0.57	2.7%	0.75	0.22	0.48	3
Business services	0.54	2.5%	0.54	0.20	0.37	4
Distribution and retail	0.55	1.5%	0.62	0.09	0.36	5
Construction	0.53	1.1%	0.50	0.05	0.27	6
Health	0.50	1.5%	0.30	0.09	0.20	7
Transport and communications	0.50	1.0%	0.29	0.03	0.16	8
Manufacturing	0.50	0.9%	0.29	0.03	0.16	9
Education	0.48	1.5%	0.19	0.10	0.14	10
Financial services	0.48	0.7%	0.21	0.00	0.10	11
Public administration	0.46	0.7%	0.08	0.00	0.04	12
Utilities	0.45	0.8%	0.00	0.01	0.01	13
Mining	0.45	0.7%	0.00	0.01	0.00	14

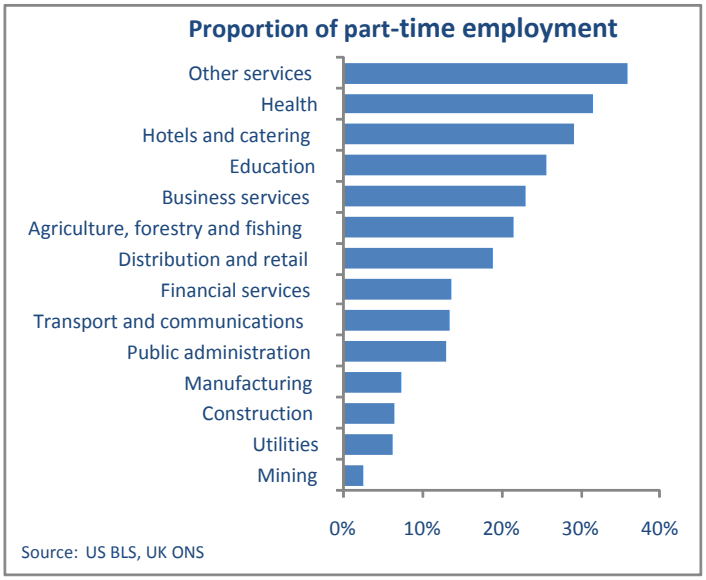
Source: Oxford Economics, Eurostat

[14] The Hachman index is an indicator that measures how closely a variables distribution compares with that of an equal distribution. This measure is bounded between 0 and 1, where 1 means the sector has an exactly equal distribution across age bands.

- Utilities and mining are the least diverse sectors, with 58% and 56% of the global workforce concentrated in the 40-49 age bracket, respectively.

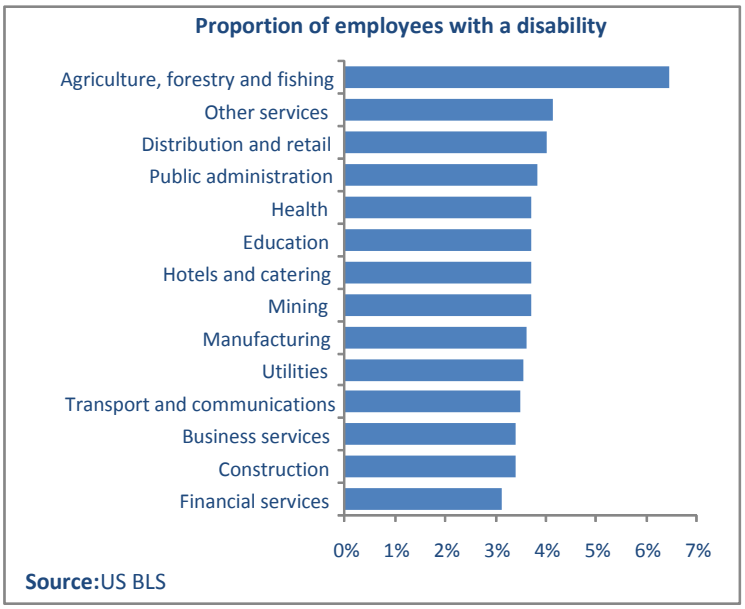
Part-time employment

- "Other services" and health have the largest proportion of part time employment, followed by hotels and catering. Health, and hotels and catering are ranked as the top two sectors on the female employment share, hinting at the close link between female labor force participation and the availability of part-time employment.
- More manual sectors, such as mining, utilities, construction and manufacturing, have only a small proportion of part-time employment.



Disability

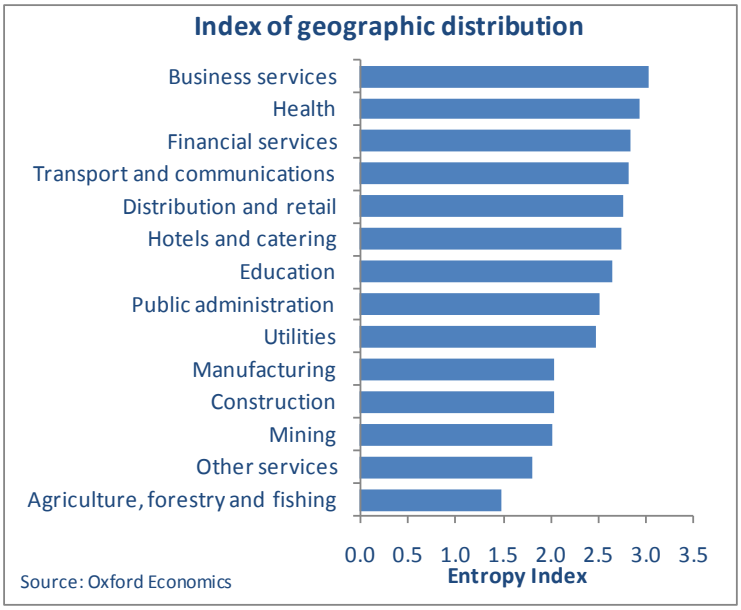
- Using data for the US, we are able to consider the employment of disabled people in our sectoral index of employee diversity. Accessing and retaining employment is of course challenging for many disabled people, though in many cases this is more due to societal prejudices and impractical working arrangements than any specific reason why they cannot contribute to economic productivity. We know that employment provides not only income but also self-esteem, identity and companionship for the majority of people who work, and some overdue progress finally is making it easier for people with physical and relatively minor mental disabilities to join the labor force.



- Analysing the US data, we find that agriculture has the greatest proportion of workers with a disability, while financial services has the lowest. The distribution across sectors other than agriculture is fairly marginal, with a relatively similar share of people with disabilities across most industries.

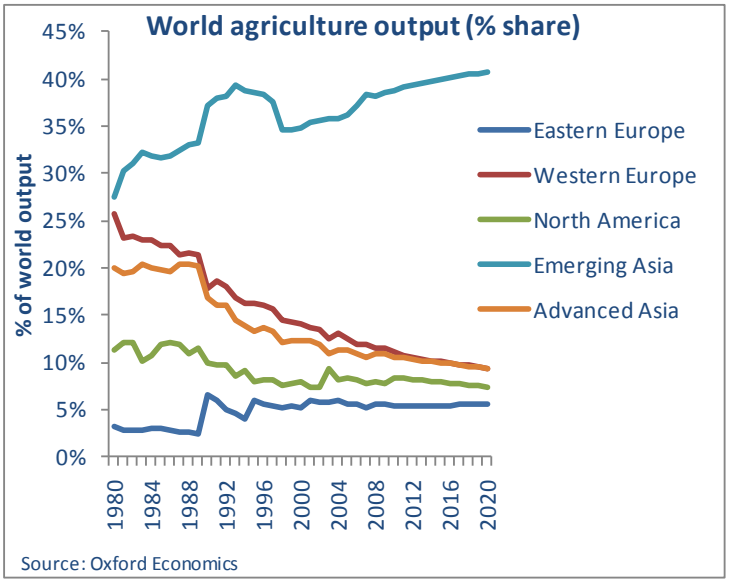
Geographic distribution

- The geographic dispersion of a sector across the world can be important. For example, if a global sector is concentrated too intensely in a small geographic area, it can create risks to that sector's performance and future growth prospects. We have included a measure of each sector's global geographic diversity in our index.



- Using an entropy index, is it possible to measure the distribution of employment across all 50 economies used in our country index. The results highlight that the most evenly distributed sectors are, as expected, in the service economy: business services and health are rank as the most geographically dispersed sectors around the world. The top eight ranking sectors in the index are all service-sector industries.

- Agriculture is ranked as the least geographically dispersed sector, with global employment largely being concentrated in a small number of developing economies—notably China. Emerging Asia, which includes China, has seen its share of world agricultural output continue to rise while the rest of the world's share has declined. Similarly, the scale effect of China's rapid ongoing expansion contributes to mining and construction being close to the bottom of the rankings for geographic diversity.



Sectoral diversity index: The results

- The data for each separate indicator can be combined to an overall weighted score using the Min-Max normalization method to rank the highest scoring sector overall across all diversity themes. The weights used in the development of the composite index are as follows:
  - Gender (25%);
  - Ethnicity (10%);
  - Age (20%);
  - Working hours (20%);
  - Disability (10%); and
  - Geographic sector distribution (15%).

Table 7: Normalized theme scores and overall composite diversity index

Country	Geographical spread	Gender	Ethnicity	Age	Part-time	Disability	Weighted Index	Weighted Index rank
Health	0.94	1.00	0.76	0.20	0.87	0.04	0.68	1
Hotels and catering	0.82	0.70	1.00	0.53	0.80	0.04	0.67	2
Education	0.76	0.89	0.53	0.14	0.69	0.04	0.56	3
Business services	1.00	0.49	0.45	0.37	0.62	0.03	0.52	4
Other services	0.21	0.61	0.14	0.48	1.00	0.04	0.50	5
Distribution and retail	0.83	0.56	0.45	0.36	0.49	0.04	0.48	6
Agriculture, forestry and fishing	0.00	0.40	0.27	1.00	0.57	0.06	0.45	7
Financial services	0.87	0.67	0.18	0.10	0.33	0.03	0.41	8
Transport and communications	0.87	0.19	0.76	0.16	0.33	0.04	0.36	9
Public administration	0.67	0.13	0.71	0.04	0.31	0.04	0.28	10
Manufacturing	0.36	0.38	0.57	0.16	0.14	0.04	0.27	11
Construction	0.36	0.00	0.66	0.27	0.12	0.03	0.20	12
Utilities	0.65	0.23	0.05	0.01	0.11	0.04	0.19	13
Mining	0.34	0.11	0.00	0.00	0.00	0.04	0.08	14

Source: Oxford Economics

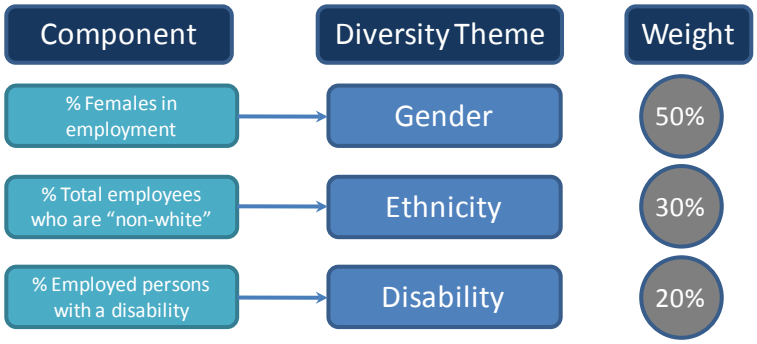
- **Health leads in Oxford Economics' index of sectoral diversity**, scoring well on the gender, working hours and geographic distribution variables. The hotels and catering industry ranks second, scoring highly across all variables with the exception of disability.
- The bottom three places in the rankings are taken up by the more "manual" industries, with construction, utilities and mining ranking 12th, 13th and 14th places, respectively.
- Of course, this does not take into account different job types in each industry. For example, although hotels and catering ranks second overall, it is still the case that senior managers in that sector are less likely to be women or ethnic minorities than lower-grade staff such as porters, cleaners or customer-facing operatives.
- Two industries stand out for their sub-par performance relative to what might be expected. Public administration ranks fifth-lowest on the index, which is surprising given the office-based nature of much of the work and the flexible working practices often associated with the public sector. The fact that financial services performs significantly worse than business services also is of note.

4. Occupation Index

Developing the occupation index

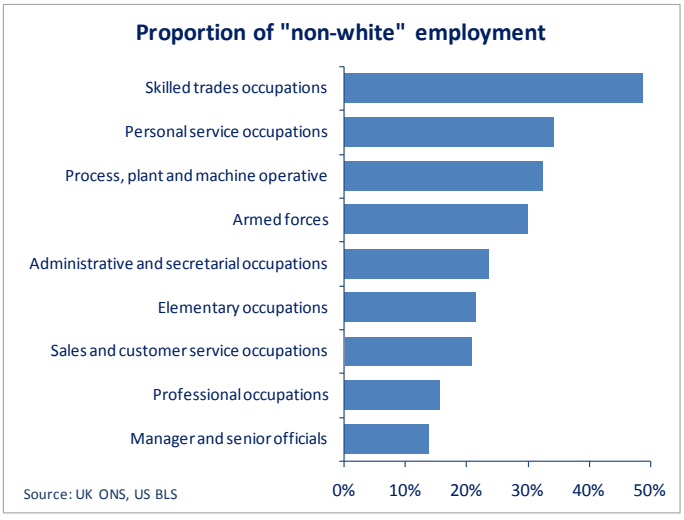
- While sectoral diversity is important, there can be much variation across sub-sectors and different job types. For example, the financial services sector will include both people working as traders in "high-end" finance as well as cashiers in retail banks. This sometimes can create a misleading picture that an economy has a strong financial services sector—for instance, many regions of the US and UK may have a large proportion of employment in financial services, but this is much more "low-end" in comparison with a financial center such as New York or London. For this reason, it is also important to consider occupational diversity.
- Figure 3 summarizes the components of our occupational index covering the themes of ethnicity, gender, age and disability. Due to data limitations in the coverage and reach of the occupational index we must focus on data for the US and UK only.
- This occupational index covers a broad classification of nine occupations across the entire economy. For a more detailed look at gender and ethnic diversity across more than 500 sub-occupational categories in the US, please see Annex A and the accompanying spreadsheet provided by Oxford Economics.

Figure 3: Components of occupation diversity index



Ethnic background

- Using data from the US and UK, an ethnic profile of the workforce can be built. In these countries, "white British" and "white American" are the dominant ethnic majorities (over 90% of the population in the UK and over 80% in the US).
- Using "non white" as a measure of diversity, it is evident that the occupations with the lowest proportion of non-white workers are toward the upper end of the skills spectrum. This is in line with the view that that it is proving difficult to get minority groups into the highest-grade job categories across most industries.



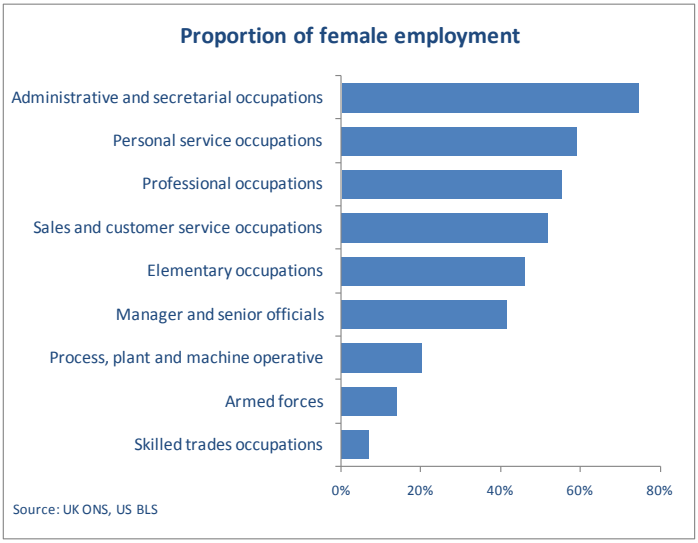
- The lowest proportion of non-white workers is recorded in professional occupations, and managers and senior officials, which typically represent high-paid occupations such as CEOs and directors, financial

consultants and lawyers. The more detailed occupational data in Annex A, which focuses on the US alone, shows this clearly: Chief executive is in fact one of the least ethnically (and gender) diverse occupations of all, scoring above only farmers, engineers and military personnel.

- A relatively large proportion of non-white workers are employed in low-level plant, process and machinery positions and personal service occupations. However, it is interesting to note that the greatest proportion of non-white workers tend to work in skilled-trade occupations, suggesting that migrant labor has played a particularly important role in plugging skills gaps in the key trades.

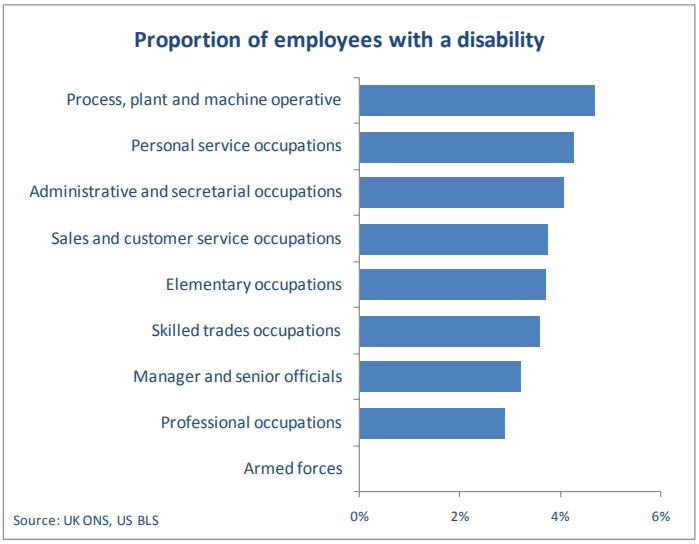
Gender diversity

- Again using data for the UK and US, a profile of gender diversity across the broad occupational categories can be developed. The first striking feature from this analysis is that the most ”female-friendly” occupations—at this broad level of classification—are administrative and secretarial, where approximately three-fourths of employees are female. The second-ranking occupation is personal service, another occupation commonly associated with female employment.
- The occupations with the least female employment include process, plant and machinery occupations, the armed forces and skilled-trade occupations. This is due, in part, to the physical nature of these job types.
- It is important to note the relatively high proportion of women in professional occupations, although this is a broad category covering many separate job types, from CEOs to human resources personnel to architects and beyond. For a more detailed breakdown, please see Annex A.



Employment for the disabled

- The top-ranking occupations for people with a disability are process, plant and machine operatives, personal service, and administrative and secretarial occupations. Here, it is worth noting that “process, plant and machine operatives” includes a large number of job types, and is not limited to the physical engineering-type work that the phrase may initially bring to mind.
- Although the top-ranking occupations are lower down the skills spectrum, it is important to note that there are only minor differences between occupations with regard to the proportion of disabled people in employment. The only exception is the armed forces, whereby it would be rare for a disabled person to meet the physical and mental entrance requirements associated with a career in the military.



Occupational index: The results

- Occupational data can be combined to produce an overall weighted score, again using the Min-Max normalization method. The weights used in the development of the composite index are as follows:
  - Gender (50%);
  - Ethnicity (30%); and
  - Disability (20%).

Table 8: Normalized theme scores and overall composite diversity index (US and UK data only)

Occupation	Ethnicity	Gender	Disability	Weighted Index	Weighted Index Rank
Administrative and secretarial occupations	0.28	1.00	0.87	0.76	1
Personal service occupations	0.58	0.77	0.91	0.75	2
Sales and customer service occupations	0.20	0.66	0.80	0.55	3
Elementary occupations	0.22	0.58	0.79	0.51	4
Professional occupations	0.05	0.72	0.62	0.50	5
Process, plant and machine operative	0.54	0.20	1.00	0.46	6
Skilled trades occupations	1.00	0.00	0.77	0.45	7
Manager and senior officials	0.00	0.51	0.68	0.39	8
Armed forces	0.46	0.11	0.00	0.19	9

Source: Oxford Economics

- **Administrative and secretarial occupations top the occupational diversity index**, followed by personal service occupations, and sales and customer service occupations.
- **The armed forces sector ranks as the least diverse of our broad occupational categories, but is followed closely by managers and senior officials**. The position of the latter group starkly illustrates the difficulty faced by women and minorities in reaching the top of the corporate ladder. As the more detailed occupational data in Annex A show clearly, there is a consistent deficit between the gender and ethnic diversity of mid-grade employees and their managerial counterparts within any given business function, from marketing to human resources to industrial production. It is clear that improving the diversity of staff across senior level corporate positions remains a major challenge for business.

5. Future Diversity Trends

In this section we take a look at some of the key economic and social trends affecting global employee diversity, and predict how the challenge facing diversity practicioners may change in future years.

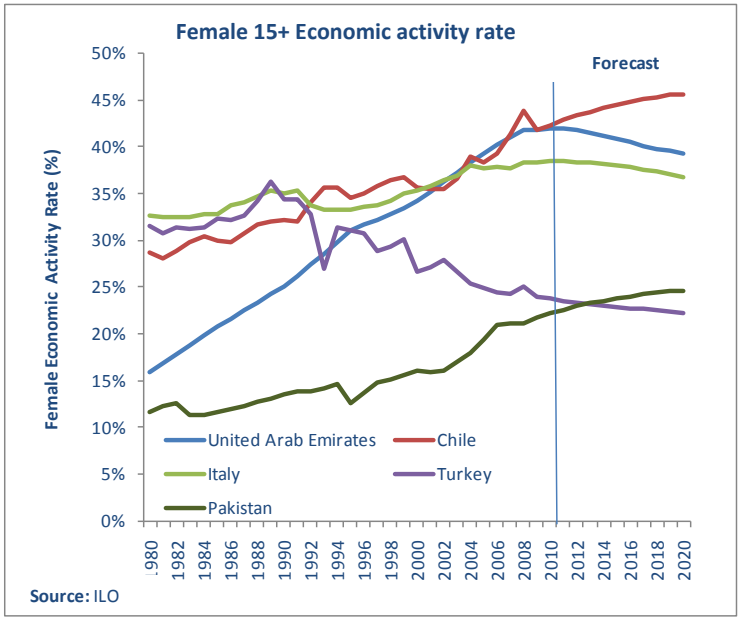
Diversity: A topic that cannot be ignored

- Many developed and developing countries have experienced major changes in the demographic composition of their workforces. These have led to increased heterogeneity across the labor force in terms of age, gender, skills and ethnicity. Key trends include population aging, anti-discrimination policies from governments, a rise in cross-border migration, and the ongoing globalisation of trade and information.
- In response to changing trends, diversity as a business strategy has caught the attention of senior executives across the globe. The promotion of diversity is often perceived as an opportunity to improve learning and knowledge-management capabilities, and to enhance productivity. Firms often can benefit from tapping into diverse cultural backgrounds, and from recognizing and responding to major demographic transitions.
- In this report, Oxford Economics' analysis has shown a highly positive correlation between diversity and various measures of economic prosperity, including income per capita, economic activity rates, the UN Human Development Index and the World Economic Forum's Global Competitiveness Index. With this in mind, we can expect market forces, labor market trends and globalisation to continue to drive diversity trends forward over the next decade.

Future drivers of diversity

- Based upon our analysis, Oxford Economics predicts that a number of key trends will continue to build and promote the diversity agenda:

    1. **Government legislation.** Following the success of imposing compulsary quotas in Norway for female representation on boards of publically listed companies, many economies (e.g. Spain, Iceland) have already begun to follow suit. A number of other countries are considering introducing some form of legislation in this area (particularly in EU countries). We expect more countries over the coming decade to introduce legislation, as voluntary schemes have tended to be unsuccessful in the private sector. In public office, a number of countries (e.g. Argentina, Poland) have legislated to ensure a greater proportion of females are elected to national parliaments. It is likely that some countries will legislate in this area, but probably not to the extent of future regulations around board membership. The result of the change in the UK has been to increase the female share of seats in parliament to 22%, which is four times the number elected in 1987.
    2. **Female economic activity.** Economic activity rates for women are typically lower in developing economies, although in some advanced economies (e.g. Italy) female activity rates are also low. In some cases this is due to socio-cultural factors, but many economies will need to make a serious choice as to whether women could be more heavily employed to meet market demands. The only other option is for increased migration to help meet future demand. In addition, economically inactive females are a financial burden on public finances, and these will come under increasing pressure in future years due to demographic shifts. Indeed, the head of Chile's Ministry for Women recently stated that the country cannot



sustain high economic growth with such a low female participation rate. The Chilean government has taken important steps to improve the supply of childcare services and extend the maternity leave period. Measures of this kind, which have proven effective in other countries, can encourage women to enter the labor market. Such measures have contributed to increased labor force participation, and this is forecast to continue to 2020. In other economies such as Italy and Turkey, the female activity rate is not expected to increase over the coming decade, which is partly cultural and partly policy related. Those economies with low female activity rates face an important choice and policy conundrum: If they want to increase female participation rates to boost the economy and relieve growing pressures on state finances, the policy infrastructure will need to be firmly in place to encourage activity.

3. **Grey workforces.** One of the major concerns of governments across the globe will be the problems posed by aging populations and mounting pension, health and social care burdens. These have the potential to bankrupt many economies (particularly advanced economies). In addition to pressure on the public finances, an aging population also has the potential to slow economic growth. As more people retire and fewer younger ones take their place, the labor force will shrink. As a result, output growth will drop unless productivity increases. We can expect governments in the future to encourage people to work for longer by raising pension ages across the globe. This is already occuring: For example, the UK and France have announced plans to increase the retirement age. In America, the age at which full Social Security benefits can be claimed was recently raised to 66, and is due to go up to 67 in 2026. As a result of the likely legislation in this area, it is also likely that the economic activity rates of those over 65 will increase significantly across the globe.

4. **Flexible working.** One of the necessary conditions to encourage furrther labor force participation amongst older people and women is the flexibility of working hours. This will encourage mothers as well as older workers treading the line between work and retirement to participate in the labor force. With the shift toward service industries it is also more likely that more workers will benefit from flexible working practices, such as “working from home,” which might also help the parents of young children to participate in the labor market.

5. **Rebalancing economies.** Since the global recession, “rebalancing” has emerged as the latest buzzword within economic policy circles. Rebalancing can mean a number of things—the public-to-private-sector balance, for example, or the balance between spending and debt, or the balance between foreign and domestic demand. In the UK and US, there has been policy discussion around rebalancing sectorally toward activities such as high-tech manufacturing to reduce the “economy risk factor” resulting from an over-reliance on financial and business services. It is likely that we will see dynamic economies evolve in the coming

years, taking account of their current structural imbalances—a change in direction from the relative specialization of the past.

6. **Diversification of input.** In line with reducing risk, it is also likely that economies and businesses will diversify the source of their production inputs. For example, Italy has relied on Libya for over one-fifth of its oil consumption; in light of the Libyan crisis, it is now rethinking future sources of supply. In the coming years we are likely to see both countries and businesses spread their risk with regard to their supply, and source materials and vital inputs from a more diverse range of locations.

7. **Changing migration flows.** The past decade has seen sweeping changes in world migration flows, with migrants becoming integral to many countries' labor forces. In many instances, migrants have become employed in relatively low-level jobs, and are heavily concentrated in areas such as basic manufacturing, construction and personal services. Many countries are reaching a saturation point with regard to the number of migrants, and have led to calls for a cap on migrant numbers. With this in mind, combined with higher domestic unemployment in a post-recession environment, it is likely that there willl be more limited migration in the coming years. Migration trends over the next 10 years are likely to be focused on the global hunt for talent at the high end of the skills spectrum, with companies keen to secure the most talented individuals from an evermore global labor supply.

8. **Drive for business competitiveness.** Corporate strategies will continue to evolve and will increasingly account for diversity within their business plans. More companies will seek to diversify their workforce to reflect an evermore diverse society and customer base. This will allow executives to understand client needs better, and communicate more effectively. This ultimately will have a positive impact on competitiveness.

- **Questions on the results or methodology of the *Diversity 2011* indices should be directed to Mark Magill at mmagill@oxfordeconomics.com or Mike Phillips at mphillips@oxfordeconomics.com.**

Annex A: More Detail on US Employee Diversity

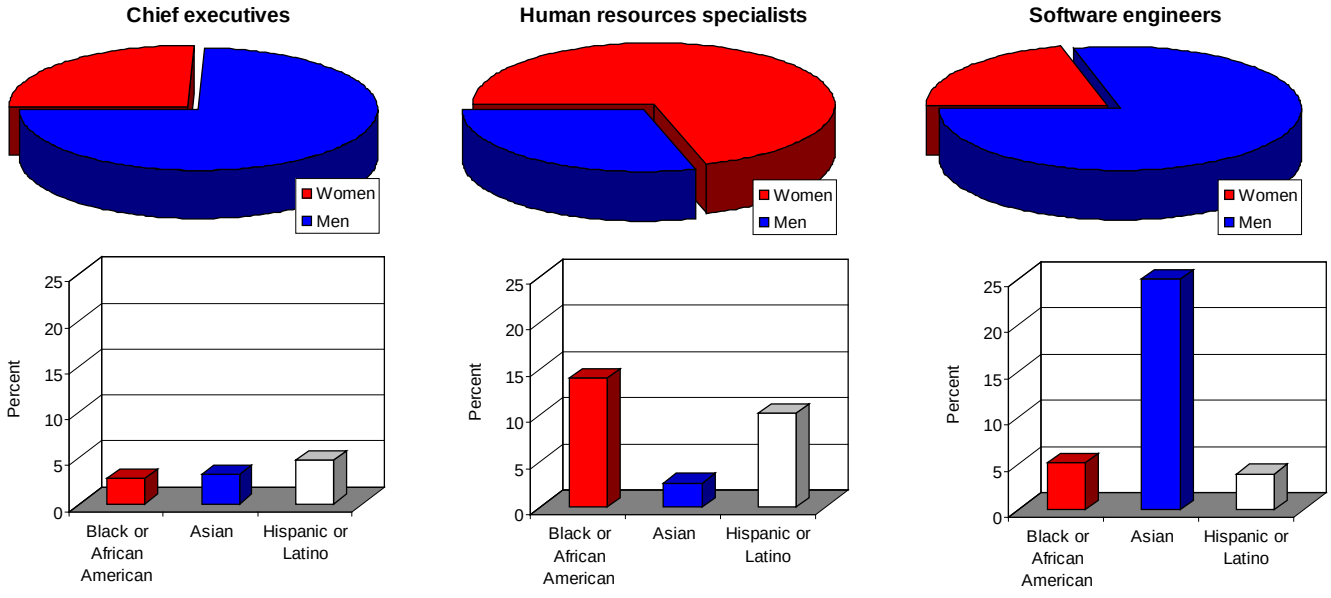
- The US collects data on employee diversity at a much more detailed occupational and sectoral level than almost any other country. The Current Population Survey (CPS) allows for monitoring of gender and ethnic diversity across more than 500 occupational and 300 industry categories. A headline analysis of this information is presented below, focusing on managerial and professional job types. We have provided the full economy-wide dataset in a separate spreadsheet to enable detailed benchmarking of organisational performance.

- Across the whole of the US economy in 2010, 47.2% of the 139 million people in employment were women. This is below the female share of the working-age population (51.5%), though not drastically so, and indeed the female activity rate is much higher in the US than in most other countries. In terms of ethnicity, 29.9% of people in employment were from one of the three main ethnic minority groups, including 14.3% Hispanic or Latino, 10.8% black or African American, and 4.8% Asian. Relative to these groups' share of the total US population, Hispanic or Latino workers are significantly over-represented in the workforce, black or African Americans are slightly under-represented, and Asians are represented exactly in line with their population share.

View From The Top: CEO profile

- 1.5 million chief executives in the US (2010)
- 4.8% are Hispanic or Latino, 3.2% are Asian and 2.8% are black or African American
- 25.5% are women
- The share of female CEOs has risen sharply from 18.8% since 2000, one of the fastest growth rates across all occupational categories

- Notably, the data show that both gender and ethnic diversity decrease sharply the higher one climbs the occupational ladder within business and professional services. Of the 1.5 million chief executives in the US (also including owner-managers of small firms), just one-quarter are women, well below the 51.5% share of female employment—a small majority—across all management, business and professional occupations. The share of the three main US ethnic minority groups who are chief executives, at just 10.8% combined, is the 13th lowest score out of some 349 occupational categories for which data are available. Indeed, of the occupations with more than 200,000 people working in them, it is only farmers and ranchers (2.8% of whom are from ethnic minorities) that are less ethnically diverse than chief executives.



- The major differences in gender and ethnic diversity between different occupations within business and professional services can be seen clearly from the charts on the previous page. In contrast to chief executives, the vast majority of human resources specialists are women (70.3%), and the share of both black and African Americans (14.0%) and Hispanic or Latinos (10.2%) is well above average. Across the population of software engineers, however, a very different story is evident: Just one in five are women (20.9%), but a remarkable 28% of all software engineers are of Asian descent. With the other main ethnic minority groups under-represented, this tells a powerful story of long-established cultural norms influencing career choices and, in turn, corporate diversity performance. Indeed, across the 3.5 million people working in all computer and mathematical occupations in the US (the category within which software engineers are found), the share of Asians is more than three times higher (16.1%) than would be expected by their share of either the national population or total US employment.

Table A1: Gender diversity league table for business and profesisional occupations (US only)

Business/professional occupation category	Number of women 2010	% women
1. Healthcare practicioner and technical occupations	7.8m	74.3
2. Education, training and library occupations	8.6m	73.8
3. Community and social services occupations	2.3m	64.2
4. Business and financial operations occupations	5.9m	54.9
5. Legal occupations	1.7m	48.8
6. Life, physical and social science occupations	1.4m	46.5
7. Arts, design, entertainment, sports and media occupations	2.8m	46.2
8. Management occupations	15.0m	38.2
9. Computer and mathematical occupations	3.5m	25.8
10. Architecture and engineering occupations	2.6m	12.9

Source: Bureau of Labor Statistics

- Looking specifically at gender diversity across the 51.7 million people working in management, business and professional occupations in the US, there are again some stark differences in female representation. As the league table below illustrates (Table A1), the female share of employment ranges from almost three-quarters in healthcare and technical occupations (74.3%) and education, training and library occupations (73.8%), down to little more than one in 10 across architecture and engineering occupations (12.9%) and little more than one-quarter across computer and mathematical occupations (25.8%). The lowly position of management occupations, at 8th out of 10 on the league table (38.2%), is indicative of the persistent challenge in achieving satisfactory gender diversity at the top of the corporate ladder.

- Of course, it is not all bad news on corporate diversity performance in the US. Indeed, great strides have been made by many firms and industries in achieving a better representation of women and ethnic minority groups. Of the US' 1.6 million accountants and auditors, for example—a profession in which diversity performance might be expected to mirror that of software engineers and other computer or mathematics-based jobs—more than six in ten are women (60.1%) and almost one in four are from the three main ethnic minority groups (23.5%). This reflects in no small part the significant efforts made by the "Big Four" accounting firms, which represent the bulk of employment in this field, to improve employee diversity and move away from the traditional image of the sector. Elsewhere, at the managerial level, more than half of the 1.1 million financial managers in the US are women (53.2%), while ethnic minorities are generally well represented across all management roles, with the notable exception of chief executives.

Not So Diverse: Social challenges for corporate America

- Almost 70% of human resources managers are women, but the same can be said of only 38.2% of all managers across the US. Just 12.9% of the 2.6 million architects and engineers in the US are women.
- One in three American workers are from an ethnic minority, yet these groups account for just 11.1% of lawyers, 12.7% of advertising and promotions managers, 16.2% of news reporters, and 18.4% of all management roles.
- Chief executive is one of the least diverse occupations of all—only farmers, military personnel and a few types of engineer perform worse.
- When arriving at a hotel, there is a one in three chance the porter taking visitors' bags will be a black or African American, and a one in four chance the taxi driver will be, too. However, the chances of the hotel manager being from the same ethnic group are just one in 20; the company CEO just one in 36; and the hotel's advertising and promotions manager less than one in 100.
- Hispanic and Latino workers account for half of low-skilled agricultural workers and construction laborers, in the US but just 3% of its financial analysts and lawyers, 5% of marketing managers, and 1% of chemical engineers.

- But looking at the US economy as a whole, there are remarkable differences in the likelihood of an employee being female or from an ethnic minority group depending on the type of job that person is doing. Hispanic or Latinos account for more than half of low-skilled agricultural workers, and more than 40% of construction laborers and grounds maintenance workers in America. But they make up just 3% of financial analysts, 3.4% of lawyers, 4.7% of insurance underwriters, 5.1% of marketing managers and incredibly just 1% of chemical engineers. This pattern is replicated, for different occupations and industries, across every individual ethnic group and for men and women.
- **On the following pages are two tables providing a summary of gender and ethnic diversity benchmarking data for the US in 2010. These tables are extracts from the separate spreadsheet containing the full economy-wide US dataset on employee diversity, which has been provided by Oxford Economics to subscribers of the *Diversity 2011* research. Any questions related to these data should be directed to Mark Magill at mmagill@oxfordeconomics.com or Mike Phillips at mphillips@oxfordeconomics.com.**

Table A2: US employee diversity in selected business and professional occupations

	Total employed (000's)	% Women	% Black or African American	% Asian	% Hispanic or Latino	% Main ethnic minority groups (total)
Managerial (selected)*						
Chief executives	1,505	25.5	2.8	3.2	4.8	10.8
General and operations managers	1,007	29.9	5.8	3.3	5.9	15.0
Advertising and promotions managers	78	61.1	0.8	2.3	9.6	12.7
Marketing and sales managers	959	45.2	5.9	5.0	5.1	16.0
Public relations managers	85	60.0	4.4	4.8	5.2	14.4
Administrative services managers	104	34.4	9.0	5.5	9.5	24.0
Computer and information systems managers	537	29.9	6.8	9.0	7.2	23.0
Financial managers	1141	53.2	6.7	6.9	8.1	21.7
Human resources managers	268	69.3	9.1	3.0	7.9	20.0
Industrial production managers	254	17.9	3.0	4.4	9.4	16.8
Purchasing managers	203	46.1	7.6	2.8	7.8	18.2
Food service managers	960	47.4	8.5	10.8	14.6	33.9
Non-managerial (selected)*						
Human resources, training, and labor relations specialists	824	70.3	14.0	2.6	10.2	26.8
Management analysts	658	43.7	7.2	7.6	6.7	21.5
Accountants and auditors	1,646	60.1	8.6	9.1	5.8	23.5
Financial analysts	97	35.7	11.6	6.9	3.0	21.5
Personal financial advisors	369	30.8	5.2	4.9	3.5	13.6
Insurance underwriters	125	59.3	13.2	4.2	4.7	22.1
Loan counselors and officers	363	51.8	9.9	4.6	10.6	25.1
Tax preparers	106	71.1	13.0	6.1	11.1	30.2
Financial specialists, all other	84	64.1	13.7	5.3	12.1	31.1
Computer scientists and systems analysts	784	30.5	7.3	14.9	5.1	27.3
Computer programmers	470	22.0	5.1	12.4	6.5	24.0
Computer software engineers	1,026	20.9	5.1	28.0	3.9	37.0
Computer support specialists	388	27.6	11.3	7.9	6.9	26.1
Network and computer systems administrators	229	16.5	5.6	9.4	6.0	21.0
Architect	184	24.4	2.1	1.9	7.8	11.8
Aerospace engineers	126	10.8	6.7	3.7	3.8	14.2
Chemical engineers	63	17.4	3.1	11.5	1.0	15.6
Civil engineers	318	9.7	4.9	8.9	6.9	20.7
Mechanical engineers	293	6.7	3.2	11.0	3.7	17.9
Computer hardware engineers	70	10.3	3.1	26.7	7.3	37.1
Biological scientists	113	45.8	8.0	9.8	6.2	24.0
Chemists and materials scientists	103	33.5	9.9	18.2	4.3	32.4
Chemical technicians	62	32.4	12.8	8.4	13.8	35.0
Market survey researchers	150	55.7	5.1	7.7	2.8	15.6
Lawyers	1040	31.5	4.3	3.4	3.4	11.1
Legal support workers	259	72.6	10.4	4.4	7.7	22.5
Clinical laboratory technologists and technicians	342	76.8	15.1	10.3	7.4	32.8

* Selected categories only. Additional categories available upon request.

Source: Bureau of Labor statistics

Table A3: US employee diversity in selected industrial categories

	Total employed (000's)	% Women	% Black or African American	% Asian	% Hispanic or Latino	% Main ethnic minority groups (total)
Agriculture, forestry, fishing, and hunting	2,206	24.5	2.7	1.1	21.8	25.6
Mining, quarrying, and oil and gas extraction	731	13.8	5.1	1.1	15.3	21.5
Construction	9,077	8.9	5.4	1.7	24.4	31.5
Manufacturing	14,081	28.0	9.0	5.7	15.5	30.2
Computers and electronic products	1,256	31.3	7.0	16.9	8.4	32.3
Food manufacturing	1,679	35.8	13.2	5.7	27.6	46.5
Beverages and tobacco products	282	22.6	15.2	1.9	14.8	31.9
Chemicals	1,175	34.7	10.6	6.2	12.1	28.9
Wholesale and retail trade	19,739	45.4	10.0	4.6	13.8	28.4
Transportation and utilities	7,134	22.9	15.9	3.8	14.4	34.1
Information and media	3,149	40.9	10.9	5.5	9.9	26.3
Motion pictures and video industries	415	33.8	7.9	6.1	15.0	29.0
Radio and TV broadcasting	570	34.4	11.3	4.3	11.6	27.2
Internet publishing and web search	54	37.7	6.5	10.2	5.7	22.4
Financial activities	9,350	54.3	9.0	5.3	10.3	24.6
Banking and related activities	2,087	63.9	11.7	6.6	11.8	30.1
Securities, commodities, funds, trusts etc	1,109	39.4	5.3	8.0	4.6	17.9
Insurance carriers and related	2,414	60.5	9.0	4.4	7.6	21.0
Real Estate	2,336	49.8	7.5	3.5	13.2	24.2
Professional and business services	15,253	41.3	8.7	5.7	14.5	28.9
Legal services	1,592	54.8	5.8	3.0	6.9	15.7
Accounting, tax and bookkeeping	961	62.9	6.4	6.4	7.7	20.5
Architectural, engineering, and related	1,474	24.7	5.4	6.0	7.9	19.3
Computer systems design and related	1,905	26.4	5.3	17.3	5.1	27.7
Management and technical consulting	1,177	42.6	6.1	5.2	5.6	16.9
Scientific research and development services	536	43.5	6.7	12.0	8.4	27.1
Advertising and related services	498	48.3	4.7	2.8	7.4	14.9
Education and health services	32,062	74.7	14.1	4.8	10.4	29.3
Leisure and hospitality	12,530	51.4	10.7	6.4	19.6	36.7
Other services	6,769	51.6	9.2	6.3	16.8	32.3
Public administration	6,983	45.0	15.4	3.3	10.8	29.5
Executive offices and legislative bodies	862	54.7	13.6	2.6	10.0	26.2
Public finance activities	353	68.3	16.7	3.3	7.0	27.0
Justice, public order, and safety activities	2,954	33.4	14.2	2.3	11.5	28.0
National security and international affairs	778	34.8	15.0	5.3	12.1	32.4

* Selected categories only. Additional categories available upon request.

Source: Bureau of Labor statistics

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