# DATA OVERVIEW 

Distribution of Respondents
Across Demographics


## SIGNIFICANCE OF THE BIRKMAN METHOD

Birkman International, founded by Dr. Roger Birkman, is a behavioral and occupational assessment company with a global reach. Our industry leading personality assessment, based on The Birkman Method $®$, is widely accepted and critically acclaimed. The prototype of The Birkman Method (TBM) was created in 1951 and attained scientific form in 1965. Over the years, TBM has been constantly reviewed, updated, and improved by qualified psychometricians and organizational psychologists. TBM demonstrates strong psychometric and statistical properties.

The Birkman Method is unique within the behavioral assessment arena in that it compares a person's self-perceptions with his/her perceptions of most people. In effect, it defines a person's social worldview. Another unique contribution of TBM is that it reports each respondent's social desirability bias. It is well known that individuals have the tendency to present themselves in a socially desirable light when answering personality questionnaires. TBM integrates social desirability into its scoring processes and effectively deals with it, instead of ignoring the concept or applying an overall correction like many personality assessments available today.

The Birkman Method is comprehensive in nature - with more than 40 scales TBM reports characteristics of a respondent, characteristics of interaction between a respondent and other people, and characteristics of interaction between a respondent and situations, all with one single assessment. Reports are indicative of the motivations and behaviors of individuals who have similar self and others scores.

## GLOBAL REACH

## Birkman Network

The Birkman Method, available online and offered in more than 20 languages, has been accessed from more than 125 countries spread across all continents. Birkman currently serves over 60 countries, including but not limited to:

| United States | Norway | Greece |
| :--- | :--- | :--- |
| Canada | Finland | Argentina |
| Australia | Sweden | Colombia |
| United Kingdom | Chile | Peru |
| South Korea | India | New Zealand |
| Russia | Spain | Indonesia |
| Saudi Arabia | Portugal | Japan |
| Brazil | Turkey | Thailand |
| Mexico | Italy | Pakistan |
| China | Ukraine | Denmark |
| France | Iceland | Romania |
| Germany | Poland |  |
| Egypt | Austria |  |
| South Africa | Netherlands |  |



Figure 1: Birkman's Network. Birkman's network is available in more than 60 countries, including but not limited to The United States of America, Canada, Australia, The United Kingdom, and South Korea.

## GLOBAL REACH

## Birkman Languages

The Birkman Method assessment is available in more than 20
languages. Our reports are predominantly generated in English US, Spanish, Korean, English UK, Dutch, respectively.


Figure 2: Languages. The Birkman Method assessment is available in more than 20 languages. Our reports are predominantly generated in English US, Spanish, Korean, English UK, Dutch, respectively. Other languages include Japanese, Chinese, Arabic, German, French, etc.


## DIGGING INTO DATA

## Exploring Birkman Data

Fifty years of experience and millions of respondents demonstrate that clients use Birkman's insights consistently and create new approaches to increase efficacy within organizations. TBM foundations are secured in the rigorous scientific standards and process orientation. Birkman International has implemented cutting-edge industry standards to continuously monitor the accuracy, integrity and other dimensions of data to produce precise and reliable data samples. These data samples are fed to the state-of-the art algorithms to constantly monitor the consistency, reliability and validity of TBM and to provide in-depth behavioral and social patterns.

This document provides extensive insights about one such data sample - to be more precise - a stratified sample of data collected between 2008 and 2017. A stratified sample is defined as a sample that is drawn based on several separate strata of the population, rather than at random from the population, in order that the sample should be representative of the population. In the following pages, an overview of a stratified sample generated from English speaking respondents in USA is presented. Here age, gender, ethnicity, education level, degree, employment status, and job family are chosen as the strata.

## STRATIFIED SAMPLE

Distribution of Respondents Across Demographics

| Gender | Percentage |
| :--- | ---: |
| Female | 45.31 |
| Male | 54.69 |


| Age | Percentage |
| :--- | ---: |
| $11-20$ | 0.41 |
| $21-30$ | 6.79 |
| $31-40$ | 16.77 |
| $41-50$ | 24.21 |
| $51-60$ | 29.18 |
| $61-70$ | 19.55 |
| $71-80$ | 2.93 |
| $81-90$ | 0.13 |
| $91-100$ | 0.01 |


| Ethnicity | Percentage |
| :--- | ---: |
| African American (AA) | 7.72 |
| Asian or Pacific Islander (AP) | 5.68 |
| Caucasian (CA) | 78.48 |
| Hispanic (HI) | 5.77 |
| Native American or Alaskan (NA) | 0.44 |
| Other | 1.92 |

Table 1, 2, and 3: The distribution of respondents by Gender, Age, and Ethnicity, respectively, is depicted in the above tables. One can note that this sample is predominantly male and Caucasian, and highest number of the respondents are of ages 51-60.

| Education Level | Percentage |
| :--- | ---: |
| Attended High School (HS) | 0.45 |
| Completed High School (HS) | 1.65 |
| Attended University (Uni) | 4.45 |
| Completed University (Uni) | 91.82 |
| Obtained Special Certificate (Cert) | 1.62 |
| Other | 0.02 |


| Degree | Percentage |
| :--- | ---: |
| Associates (AS) | 8.16 |
| Bachelor of Arts (BA) | 27.11 |
| Bachelor of Science (BS) | 42.62 |
| Doctor of Medicine (MD) | 0.57 |
| Doctor of Philosophy (PhD) | 1.80 |
| Juris Doctor (JD) | 0.81 |
| Master of Arts (MA) | 1.96 |
| Master of Business Administration <br> (MBA) | 6.01 |
| Master of Science (MS) | 4.39 |
| Other | 6.57 |

Table 4 and 5: The distribution of respondents by Education Level and Degree, respectively, is portrayed in the above tables. It is evident that in this stratified sample highest number of respondents have finished university level education, and among those most obtained Bachelor of Science degree.

## STRATIFIED SAMPLE

Distribution of Respondents Across Demographics

| Employment Status | Percentage |
| :--- | ---: |
| Currently Employed | 58.89 |
| Not Currently Employed | 40.07 |
| Never Employed | 1.05 |


| Degree | Percentage |
| :--- | ---: |
| Architecture and Engineering (AEG) | 6.53 |
| Business and Financial Operations (BFO) | 13.09 |
| Computer and Mathematical (CMA) | 8.90 |
| Management (MGM) | 33.72 |
| Office and Administrative Support (OAS) | 6.01 |
| Sales and Related (SAR) | 9.31 |
| Other | 22.44 |

Table 6 and 7: The distribution of respondents by Employment Status and Job Family, respectively, is presented in the above tables. One can note that most of the respondents were employed when they took the assessment, and most of them work in Management positions. Please note that Birkman's job families match with that of Occupational Information Network ( $0^{* N E T \text { ). However, only some of the job families are depicted in the above table and all remaining }}$ job families are included in the Other category.

## GENDER \& AGE

## Distribution vs. Gender

This picture explains the gender ratio in the stratified sample. One can observe that the ratio is slightly skewed - there are more male respondents than female respondents.


Figure 3: Distribution of respondents across genders. One can observe that there are more male respondents than female respondents in the stratified sample. From now onwards, male respondents are highlighted in Blue whereas female respondents are highlighted in Orange.

Distribution vs. Age
Distribution of respondents across different age bins is depicted in the following figure. Please note that bin 20 contains all ages from 11 to 20 . Similarly, bin 90 contains ages from 81 to 90 . One can observe that majority of respondents fall within the age bins 30 to 70 , i.e. from ages 21 to 70 (working age population).

One can notice that there is a consistently higher proportion of men who have completed the assessment in comparison to women across all the age bins, except for age bin 40 (ages 31-40). This is most likely due to the increasing number of women in the workforce today. The distribution can be considered as approximating a normal distribution.


Figure 4: Distribution of respondents across different age bins. One can observe that majority of respondents belong to working age population - from ages 21 till 70 , i.e. age bins 30 to 70 . Except for age bin 40 (ages 31-40), all other age bins have a consistently higher proportion of men compared to women.

## EDUCATION

## Distribution vs. Education Level

Distribution of respondents across different education levels - Attended High School (HS), Completed HS, Obtained Certificate (Cert), Attended University (Uni), and Completed Uni - is portrayed below.

One can observe that extremely high number of respondents completed university level education. On the other hand, there are very few respondents who attended high school but did not graduate. All categories except Obtained Cert category have higher proportion of men than women.


Figure 5: Distribution of respondents across different education levels - Attended High School (HS), Completed HS, Obtained Certificate (Cert), Attended University (Uni), and Completed Uni. Extremely high number of respondents completed university level education. On the other hand, there are very few respondents who attended high school but did not graduate.

## DEGREE

## Distribution vs. Degree

Distribution of respondents across various degrees - Doctor of Medicine (MD), Doctor of Jurisprudence (JD), Doctor of Philosophy (PhD), Master of Arts (MA), Master of Science (MS), Master of Business Administration (MBA), Associates (AS), Bachelor of Arts (BA), and Bachelor of Science (BS) - is illustrated in the following figure.

Among the respondents who finished university level education, one can observe that most obtained bachelor level degrees. It is interesting to note that more women obtained Associates, Bachelor of Arts, and Master of Arts degrees whereas more men obtained Bachelor of Science, Master of Science, and Master of Business Administration degrees.


Figure 6: Distribution of respondents across various degrees - Doctor of Medicine (MD), Doctor of Jurisprudence (JD), Doctor of Philosophy (PhD), Master of Arts (MA), Master of Science (MS), Master of Business Administration (MBA), Associates (AS), Bachelor of Arts (BA), Bachelor of Science (BS), and Other degrees. Among the respondents who finished university level education, most of the respondents obtained at least Bachelor level degrees. More women obtained Associates, Bachelor of Arts, and Master of Arts degrees compared to men.

## EMPLOYMENT

## Distribution vs. Employment Status

Distribution of respondents across various employment statuses - Currently Employed, Not Currently Employed, and Never Employed - is represented in the following figure. Currently Employed and Not Currently Employed categories indicate respondents who are employed and not employed (switching careers, temporary loss of employment, etc.) at the time they took the assessment, respectively.

One can observe that most of the respondents were employed when they took the assessment, i.e. more employed men and women have taken the assessment when compared to Not Currently Employed or Never Employed men and women. It is also important to note that more employed men took the assessment compared to employed women.


Figure 7: Distribution of respondents across various employment statuses - Currently Employed, Not Currently Employed, and Never Employed. Most of the respondents are either employed or temporarily unemployed when they took the assessment. Please observe that the proportions are not to scale.

## ETHNICITY

## Distribution vs. Ethnicity

The following figure portrays the distribution of respondents across various ethnicities (NA: Native American or Alaskan, AP. Asian or Pacific Islander, HI: Hispanic, AA: African American, and CA: Caucasian). It is evident that most of the respondents are of Caucasian ethnicity.

One can also observe that in Caucasian ethnicity there are more men than women. Please note that Chinese, Japanese, and sub-continent ethnicities are embedded into Asian or Pacific Islander category. Other category includes ethnicities such as Mediterranean, Arabic, African, Caribbean, etc.


Figure 8: Distribution of records across various ethnicities - Native American or Alaskan (NA), Asian or Pacific Islander (AP), Hispanic (HI), African American (AA), Caucasian (CA), and Other ethnicities. Most of the respondents are of Caucasian ethnicity.

Among all ethnicities other than Caucasian ethnicity, one can observe the distribution of respondents in the following figure. One can also conclude that a higher proportion of African American women took the Birkman assessment in comparison to African American men. However, this gender pattern is reversed in all remaining ethnicities.


Figure 9: Distribution of respondents across various ethnicities - Native American or Alaskan (NA), Asian or Pacific Islander (AP), Hispanic (HI), African American (AA), and Other ethnicities. Among African Americans, more women took the assessment than men and vice-versa in all remaining ethnicities.

## CAREERS

## Distribution vs. Occupation

The following figure visualizes the distribution of respondents across various job families. Please note that Birkman's job families match with that of Occupational Information Network ( $\mathrm{O} * \mathrm{NET}$ ). However, here only predominant job families are portrayed, namely, Office and Administrative Support (OAS), Architecture and Engineering (AEG), Computer and Mathematical (CMA), Sales and Related (SAR), Business and Financial Operations (BFO), and Management (MGM). All remaining job families are tucked into Other category. In Business and Financial operations, Office and Administrative Support occupations, and Other occupations there are more female respondents than male respondents where as there are more male respondents than female respondents in Architecture and Engineering, Computer and Mathematical, Management, and Sales and Related occupations.


Figure 10: Distribution of respondents across various occupations - Office and Administrative Support (OAS), Architecture and Engineering (AEG), Computer and Mathematical (CMA), Sales and Related (SAR), Business and Financial Operations (BFO), Management (MGM), and Other occupations. There is predominance of women in Office and Administrative Support related occupations and predominance of men in Architecture and Engineering related occupations. Birkman's job families match with that of Occupational Information Network (O*NET).

By using various combinations of stratum (age, gender, ethnicity, education level, degree, employment status, and job family) in-depth insights about the demographics can be obtained. Presenting all such insights is beyond the scope of this document. However, a few of them are furnished in the following pages.

## IN-DEPTH <br> DEMOGRAPHICS

## Distribution vs. Ethnicity and Age

The distribution across predominant ethnicities (AA: African American, AP. Asian or Pacific Islander, CA: Caucasian, and HI: Hispanic) and ages can be observed from the following figure. In Caucasian ethnicity, except for age bin 40 (ages 31-40), there is higher proportion of men than women in every age bin.


Figure 11: Distribution of respondents across various age bins and ethnicities. In general, in every ethnicity (AA: African American, AP: Asian or Pacific Islander, CA: Caucasian, and HI: Hispanic) other than African American, the number of men is more than the number of women in every age bin.

## IN-DEPTH <br> DEMOGRAPHICS

## Distribution vs. Ethnicity and Age (continued)

Among all predominant ethnicities other than Caucasian, one can perceive the distribution across different ethnicities (AA: African American, AP. Asian or Pacific Islander, and HI: Hispanic) and ages in the following figure. In Asian or Pacific Islander category, the ratio of number of women to number of men is always less than 1. In Hispanics, for any given age bin, except for age bin 40 (ages 31-40), the proportion of men to women is always greater than 1. One can also conclude that more African American women took the Birkman assessment compared to African American men in any given age bin, except for age bin 30 (ages 21-30).


Figure 12: Distribution of respondents across various ethnicities and age bins. In African Americans (AA), the number of women is more than the number of men in almost every age bin. However, the number of women is less than the number of men in every age bin in Asian or Pacific Islander (AP) ethnicity.

## IN-DEPTH <br> DEMOGRAPHICS

## Distribution vs. Degree and Ethnicity

Considering only doctoral degrees, the distribution across various ethnicities is portrayed in the following figure. In African American and Caucasian ethnicities, PhD, JD, and MD are preferred degrees; in Asian or Pacific Islander and Hispanic ethnicities, PhD, MD, and JD are the preferred degrees, respectively.



Figure 13: Distribution of African American (AA), Asian or Pacific Islander (AP), Caucasian (CA), and Hispanic (HI) respondents across various doctoral degrees. One can quickly note that in any given degree the proportion of Caucasian respondents is high.

## IN-DEPTH <br> DEMOGRAPHICS

## Distribution vs. Job Family and Ethnicity

The distribution of respondents across predominant job families (AEG: Architecture and Engineering, BFO: Business and Financial Operations, CMA: Computer and Mathematical, MGM: Management, OAS: Office and Administrative Support, and SAR: Sales and Related) in predominant ethnicities (AA: African American, HI: Hispanic, AP. Asian or Pacific Islander, CA: Caucasian) is illustrated below. One can observe that there is preponderance of Caucasian respondents in any given job family.


Figure 14: The distribution of respondents across predominant job families (AEG: Architecture and Engineering, BFO: Business and Financial Operations, CMA: Computer and Mathematical, MGM: Management, OAS: Office and Administrative Support, and SAR: Sales and Related) in predominant ethnicities (AA: African American, AP: Asian or Pacific Islander, CA: Caucasian, and HI: Hispanic). One can observe that there is preponderance of Caucasian respondents in any given job family.

## IN-DEPTH <br> DEMOGRAPHICS

## Distribution vs. Job Family and Ethnicity (continued)

The distribution of respondents across predominant ethnicities (AA: African American, AP. Asian or Pacific Islander, CA: Caucasian, and HI: Hispanic,) in predominant job families (AEG: Architecture and Engineering, BFO: Business and Financial Operations, CMA: Computer and Mathematical, MGM: Management, OAS: Office and Administrative Support, and SAR: Sales and Related) is presented below.

One can observe that in any given ethnicity, Management is the most sought-after occupation. However, the least sought-after occupation varies across ethnicities. For Asian or Pacific Islander and Caucasian ethnicities, Office and Administrative Support is the least preferred job family whereas for African Americans and Hispanics, Architecture and Engineering occupations and Computer and Mathematical occupations are least represented, respectively.



Figure 15: The distribution of respondents across predominant ethnicities (AA: African American, AP: Asian or Pacific Islander, CA: Caucasian, and HI: Hispanic,) in predominant job families (AEG: Architecture and Engineering, BFO: Business and Financial Operations, CMA: Computer and Mathematical, MGM: Management, OAS: Office and Administrative Support, and SAR: Sales and Related). Management occupations are most sought-after in all ethnicities.

From Figure 15 and Figure 14, it is evident that even though only $44.8 \%$ of Caucasians work in Management occupations, they account for $83.1 \%$ of all Management positions. Similarly, even though $22.4 \%$ of Asians or Pacific Islanders work in Computer and Mathematical occupations, they account for only $11.4 \%$ of all Computer and Mathematical positions.

BIRKMAN COMPONENTS
Birkman measures nine components of personality.


## A NOTE FROM BIRKMAN R\&D

## Curious to Learn More?

Our department is dedicated to ensuring that The Birkman Method is the most innovative, reliable, and valid behavioral assessment worldwide. Please feel free to contact us at research@birkman.com if you have any questions.

The data in this document was compiled as of April 2018.

