

## Output #01

```
print(df.info())
```

```
<class 'pandas.core.frame.DataFrame'>
```

```
RangeIndex: 105840 entries, 0 to 105839
```

```
Data columns (total 17 columns):
```

#	Column	Non-Null Count	Dtype
0	REF_DATE	105840 non-null	int64
1	GEO	105840 non-null	object
2	DGUID	105840 non-null	object
3	Sector	105840 non-null	object
4	Characteristics	105840 non-null	object
5	Indicators	105840 non-null	object
6	UOM	105840 non-null	object
7	UOM_ID	105840 non-null	int64
8	SCALAR_FACTOR	105840 non-null	object
9	SCALAR_ID	105840 non-null	int64
10	VECTOR	105840 non-null	object
11	COORDINATE	105840 non-null	object
12	VALUE	102816 non-null	float64
13	STATUS	3024 non-null	object
14	SYMBOL	0 non-null	float64
15	TERMINATED	0 non-null	float64
16	DECIMALS	105840 non-null	int64

```
print(df.head(10))
```

	REF_DATE	GEO	DGUID	Sector	\
0	2010	Canada	2016A000011124	Total non-profit institutions	
1	2010	Canada	2016A000011124	Total non-profit institutions	
2	2010	Canada	2016A000011124	Total non-profit institutions	
3	2010	Canada	2016A000011124	Total non-profit institutions	
4	2010	Canada	2016A000011124	Total non-profit institutions	
5	2010	Canada	2016A000011124	Total non-profit institutions	
6	2010	Canada	2016A000011124	Total non-profit institutions	
7	2010	Canada	2016A000011124	Total non-profit institutions	
8	2010	Canada	2016A000011124	Total non-profit institutions	
9	2010	Canada	2016A000011124	Total non-profit institutions	

	Characteristics	Indicators	UOM	UOM_ID	\
0	Male employees	Number of jobs	Jobs	190	
1	Male employees	Hours worked	Hours	152	
2	Male employees	Wages and salaries	Dollars	81	
3	Male employees	Average annual hours worked	Hours	152	
4	Male employees	Average weekly hours worked	Hours	152	
5	Male employees	Average annual wages and salaries	Dollars	81	
6	Male employees	Average hourly wage	Dollars	81	
7	Female employees	Number of jobs	Jobs	190	
8	Female employees	Hours worked	Hours	152	
9	Female employees	Wages and salaries	Dollars	81	

	SCALAR_FACTOR	SCALAR_ID	VECTOR	COORDINATE	VALUE	STATUS	SYMBOL	\
0	units	0	v1273033811	1.1.1.1	642584.00	NaN	NaN	
1	thousands	3	v1273033812	1.1.1.2	1048516.00	NaN	NaN	
2	millions	6	v1273033813	1.1.1.3	30805.00	NaN	NaN	
3	units	0	v1273033814	1.1.1.4	1632.00	NaN	NaN	
4	units	0	v1273033815	1.1.1.5	31.00	NaN	NaN	
5	units	0	v1273033816	1.1.1.6	47940.00	NaN	NaN	
6	units	0	v1273033817	1.1.1.7	29.38	NaN	NaN	
7	units	0	v1273033909	1.1.2.1	1500394.00	NaN	NaN	
8	thousands	3	v1273033910	1.1.2.2	2331018.00	NaN	NaN	
9	millions	6	v1273033911	1.1.2.3	60943.00	NaN	NaN	

	TERMINATED	DECIMALS
0	NaN	0
1	NaN	0
2	NaN	0
3	NaN	0
4	NaN	0
5	NaN	0
6	NaN	2
7	NaN	0
8	NaN	0
9	NaN	0

## Output #02

All of the columns are equally divided as mentioned above.

```
grouped = df.groupby(['REF_DATE'])
print(grouped['VALUE'].agg([np.size]))

grouped = df.groupby(['GEO'])
print(grouped['VALUE'].agg([np.size]))

grouped = df.groupby(['Sector'])
print(grouped['VALUE'].agg([np.size]))

grouped = df.groupby(['Characteristics'])
print(grouped['VALUE'].agg([np.size]))

grouped = df.groupby(['Indicators'])
print(grouped['VALUE'].agg([np.size]))

grouped = df.groupby(['VALUE'])
print(grouped['VALUE'].agg([np.size]))
```

REF_DATE	size
2010	8820
2011	8820
2012	8820
2013	8820
2014	8820
2015	8820
2016	8820
2017	8820
2018	8820
2019	8820
2020	8820
2021	8820

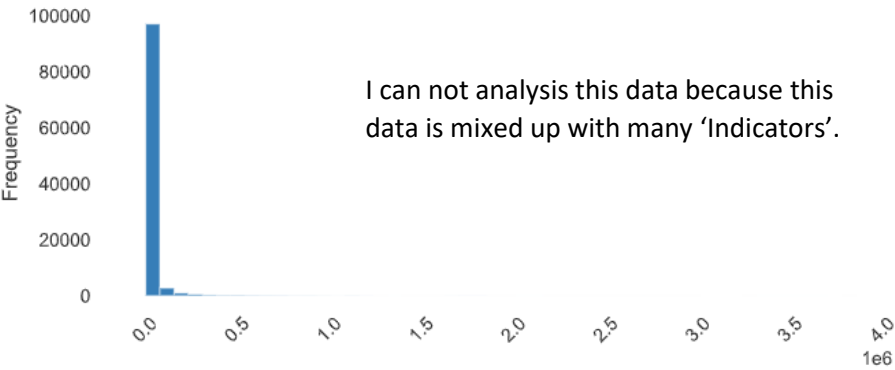
GEO	size
Alberta	7560
British Columbia	7560
Canada	7560
Manitoba	7560
New Brunswick	7560
Newfoundland and Labrador	7560
Northwest Territories	7560
Nova Scotia	7560
Nunavut	7560
Ontario	7560
Prince Edward Island	7560
Quebec	7560
Saskatchewan	7560
Yukon	7560

	size
Sector	
Business non-profit institutions	21168
Government non-profit institutions	21168
Non-profit institutions serving households (com...	21168
Total non-profit institutions	21168
Total non-profit institutions excluding governm...	21168

	size
Characteristics	
15 to 24 years	5880
25 to 34 years	5880
35 to 44 years	5880
45 to 54 years	5880
55 to 64 years	5880
65 years old and over	5880
College diploma	5880
Female employees	5880
High school diploma and less	5880
Immigrant employees	5880
Indigenous identity employees	5880
Male employees	5880
Non-immigrant employees	5880
Non-indigenous identity employees	5880
Not a visible minority	5880
Trade certificate	5880
University degree and higher	5880
Visible minority	5880

	size
Indicators	
Average annual hours worked	15120
Average annual wages and salaries	15120
Average hourly wage	15120
Average weekly hours worked	15120
Hours worked	15120
Number of jobs	15120
Wages and salaries	15120

Histogram for “VALUE”



I can not analysis this data because this data is mixed up with many 'Indicators'.

Histogram with fixed size bins (bins=50)

## Output #03

```
print(df_sorted.info())
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 105840 entries, 0 to 105839
Data columns (total 8 columns):
#   Column                Non-Null Count  Dtype
---  -
0   REF_DATE              105840 non-null  int64
1   GEO                   105840 non-null  object
2   Sector               105840 non-null  object
3   Characteristics      105840 non-null  object
4   Indicators           105840 non-null  object
5   UOM                  105840 non-null  object
6   SCALAR_FACTOR        105840 non-null  object
7   VALUE                102816 non-null  float64
dtypes: float64(1), int64(1), object(6)
memory usage: 6.5+ MB
None
```

```
print(df_sorted.head(20))
```

	REF_DATE	GEO	Sector	Characteristics \
0	2010	Canada	Total non-profit institutions	Male employees
1	2010	Canada	Total non-profit institutions	Male employees
2	2010	Canada	Total non-profit institutions	Male employees
3	2010	Canada	Total non-profit institutions	Male employees
4	2010	Canada	Total non-profit institutions	Male employees
5	2010	Canada	Total non-profit institutions	Male employees
6	2010	Canada	Total non-profit institutions	Male employees
7	2010	Canada	Total non-profit institutions	Female employees
8	2010	Canada	Total non-profit institutions	Female employees
9	2010	Canada	Total non-profit institutions	Female employees
10	2010	Canada	Total non-profit institutions	Female employees
11	2010	Canada	Total non-profit institutions	Female employees
12	2010	Canada	Total non-profit institutions	Female employees
13	2010	Canada	Total non-profit institutions	Female employees
14	2010	Canada	Total non-profit institutions	Immigrant employees
15	2010	Canada	Total non-profit institutions	Immigrant employees
16	2010	Canada	Total non-profit institutions	Immigrant employees
17	2010	Canada	Total non-profit institutions	Immigrant employees
18	2010	Canada	Total non-profit institutions	Immigrant employees
19	2010	Canada	Total non-profit institutions	Immigrant employees

	Indicators	UOM	SCALAR_FACTOR	VALUE
0	Number of jobs	Jobs	units	642584.00
1	Hours worked	Hours	thousands	1048516.00
2	Wages and salaries	Dollars	millions	30805.00
3	Average annual hours worked	Hours	units	1632.00
4	Average weekly hours worked	Hours	units	31.00
5	Average annual wages and salaries	Dollars	units	47940.00
6	Average hourly wage	Dollars	units	29.38
7	Number of jobs	Jobs	units	1500394.00
8	Hours worked	Hours	thousands	2331018.00
9	Wages and salaries	Dollars	millions	60943.00
10	Average annual hours worked	Hours	units	1554.00
11	Average weekly hours worked	Hours	units	30.00
12	Average annual wages and salaries	Dollars	units	40618.00
13	Average hourly wage	Dollars	units	26.14
14	Number of jobs	Jobs	units	503236.00

15	Hours worked	Hours	thousands	802251.00
16	Wages and salaries	Dollars	millions	22212.00
17	Average annual hours worked	Hours	units	1594.00
18	Average weekly hours worked	Hours	units	31.00
19	Average annual wages and salaries	Dollars	units	44138.00

## Output #04

These are the main reasons why I have decided to remove the following columns/attributes.

### “DGUID”

DGUID does not really help when I analysis this dataset. I believed DGUID is referencing ID within statistics of Canada. “2016 believed to be start of the year”.

Value	Count	Frequency (%)
2016A000011124	7560	7.1%
2016A000210	7560	7.1%
2016A000211	7560	7.1%
2016A000212	7560	7.1%
2016A000213	7560	7.1%
2016A000224	7560	7.1%
2016A000235	7560	7.1%
2016A000246	7560	7.1%
2016A000247	7560	7.1%
2016A000248	7560	7.1%
Other values (4)	30240	28.6%



## UOM\_ID

UOM\_ID inside this dataset is simply translate actual words into numeric codes. Since this look like having repetitive code, I have decided to remove it. Alternatively, I can use this instead of UOM.

	UOM	UOM_ID
0	Jobs	190
1	Hours	152
2	Dollars	81
3	Hours	152
4	Hours	152
5	Dollars	81
6	Dollars	81
7	Jobs	190
8	Hours	152
9	Dollars	81
10	Hours	152
11	Hours	152
12	Dollars	81
13	Dollars	81
14	Jobs	190
15	Hours	152
16	Dollars	81
17	Hours	152
18	Hours	152
19	Dollars	81

Noticed that UOM\_ID for Jobs is 190, Hours = 152, and Dollars = 81.

## SCALAR\_ID

For similar reason why, I removed UOM\_ID, I think there's a lot of repetitive inside the SCALAR\_ID to SCALAR\_FACTOR. If I were to remove SCALAR\_FACTOR, then SCALAR\_ID can be used.

	SCALAR_ID	SCALAR_FACTOR
0	0	units
1	3	thousands
2	6	millions
3	0	units
4	0	units
5	0	units
6	0	units
7	0	units
8	3	thousands
9	6	millions
10	0	units
11	0	units
12	0	units
13	0	units
14	0	units
15	3	thousands
16	6	millions
17	0	units
18	0	units
19	0	units

Noticed that, Units = 0, thousands = 3, and million = 6

## ‘VECTOR’

I removed VECTOR column because I don’t believe that it refers to anything that I will analysis.

VECTOR columns use 11 words that usually start with “v1273”. I believed that the Vector is code that is used to refer the data.

Value	Count	Frequency (%)
v1273033811	12	< 0.1%
v1273033912	12	< 0.1%
v1273034009	12	< 0.1%
v1273034008	12	< 0.1%
v1273034007	12	< 0.1%
v1273033915	12	< 0.1%
v1273033914	12	< 0.1%
v1273033913	12	< 0.1%
v1273033911	12	< 0.1%
v1273034698	12	< 0.1%
Other values (8810)	105720	99.9%

## COORDINATE

I have decided to remove ‘COORDINATE’ columns. I believed it doesn’t really need to analysis my result. From my perspective, I think Coordinate is being used as where this data is collected according to the GPS.

Value	Count	Frequency (%)
1.1.1.1	12	< 0.1%
1.1.2.4	12	< 0.1%
1.1.3.3	12	< 0.1%
1.1.3.2	12	< 0.1%
1.1.3.1	12	< 0.1%
1.1.2.7	12	< 0.1%
1.1.2.6	12	< 0.1%
1.1.2.5	12	< 0.1%
1.1.2.3	12	< 0.1%
1.1.10.6	12	< 0.1%
Other values (8810)	105720	99.9%

## STATUS

I removed “STATUS” columns because the column is not being used with my analysis. In addition, it doesn’t really contain anything meaningful to analysis anything. Most of these column rows contain null (or missing value) or marked “x”.

## SYMBOL

Similar reason to STATUS column. It doesn’t contain anything meaningful and do not need to analysis this column. All column rows contain null (or missing value).

## TERMINATED

Similar reason to TERMINATED column. It doesn’t contain anything meaningful and do not need to analysis this column. All column rows contain missing value.

## DECIMAL

I removed ‘DECIMAL’ columns because I don’t need to use this column to analysis my result. It’s there for me to check whether this row contains any decimal values or not inside “VALUES” columns.

Value	Count	Frequency (%)
0	90720	85.7%
2	15120	14.3%

## Output #05

Characteristics columns:

Characteristics	Size
15 to 24 years	5880
25 to 34 years	5880
35 to 44 years	5880
45 to 54 years	5880
55 to 64 years	5880
65 years old and over	5880
College diploma	5880
Female employees	5880
High school diploma and less	5880
Immigrant employees	5880
Indigenous identity employees	5880
Male employees	5880
Non-immigrant employees	5880
Non-indigenous identity employees	5880
Not a visible minority	5880
Trade certificate	5880
University degree and higher	5880
Visible minority	5880

Used Panda-profiling and  
Aggregated using Numpy.

Noticed : Data are evenly divided.

Indicator columns:

Indicators	size
Average annual hours worked	15120
Average annual wages and salaries	15120
Average hourly wage	15120
Average weekly hours worked	15120
Hours worked	15120
Number of jobs	15120
Wages and salaries	15120

Noticed that they are evenly divided.

## Output #06

After filtering some of the missing value, this is the new result.

Characteristics	Before	After
15 to 24 years	5880	5376
25 to 34 years	5880	5880
35 to 44 years	5880	5880
45 to 54 years	5880	5880
55 to 64 years	5880	5880
65 years old and over	5880	5376
College diploma	5880	5880
Female employees	5880	5880
High school diploma and less	5880	5880
Immigrant employees	5880	5544
Indigenous identity employees	5880	5544
Male employees	5880	5880
Non-immigrant employees	5880	5544
Non-indigenous identity employees	5880	5544
Not a visible minority	5880	5880
Trade certificate	5880	5544
University degree and higher	5880	5544
Visible minority	5880	5880

Indicators	Before	After
Average annual hours worked	15120	14688
Average annual wages and salaries	15120	14688
Average hourly wage	15120	14688
Average weekly hours worked	15120	14688
Hours worked	15120	14688
Number of jobs	15120	14688
Wages and salaries	15120	14688

## Output #07a

For Average annual hours worked,

### Dataset statistics

<b>Number of variables</b>	<b>8</b>
<b>Number of observations</b>	<b>14688</b>
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	0
Duplicate rows (%)	0.0%
Total size in memory	1.0 MiB
Average record size in memory	72.0 B

Based on panda-profiling.

There are 14688 observations with 8 variables to work on.

Right now, only “Indicators” columns have one value.

### Variable types

Numeric	2
Categorical	6

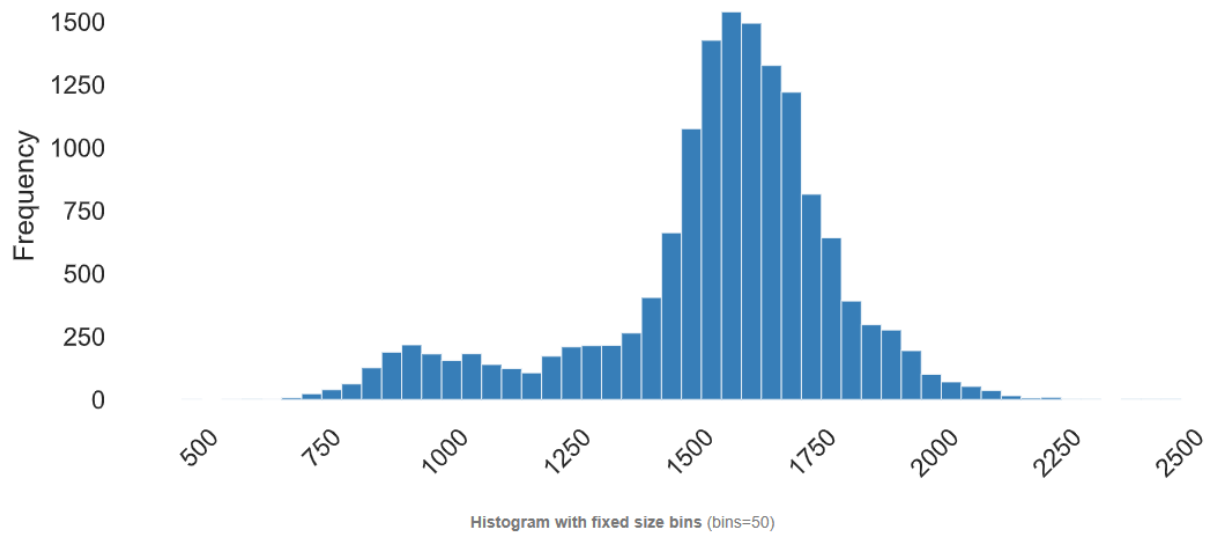
### Quantile statistics (VALUE)

<b>Minimum</b>	<b>462</b>
5-th percentile	966.35
Q1	1480
<b>median</b>	<b>1593</b>
Q3	1699
95-th percentile	1892
<b>Maximum</b>	<b>2500</b>
Range	2038
Interquartile range (IQR)	219

### Descriptive statistics (VALUE)

Standard deviation	252.78409
Coefficient of variation (CV)	0.16293554
Kurtosis	1.2934123
<b>Mean</b>	<b>1551.4361</b>
Median Absolute Deviation (MAD)	108
<b>Skewness</b>	<b>-1.0026593</b>
Sum	22787494
Variance	63899.795
Monotonicity	Not monotonic

Histogram (VALUE)



Average value is 1551.44 hours and Median value is 1593 hours. Skewed toward left.



## Output #07b

For Average annual wages and salaries,

### Dataset statistics

<b>Number of variables</b>	<b>8</b>
<b>Number of observations</b>	<b>14688</b>
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	0
Duplicate rows (%)	0.0%
Total size in memory	1.0 MiB
Average record size in memory	72.0 B

Based on panda-profiling.

There are 14688 observations with 8 variables to work on.

Right now, only “Indicators” columns have one value.

### Variable types

Numeric	2
Categorical	6

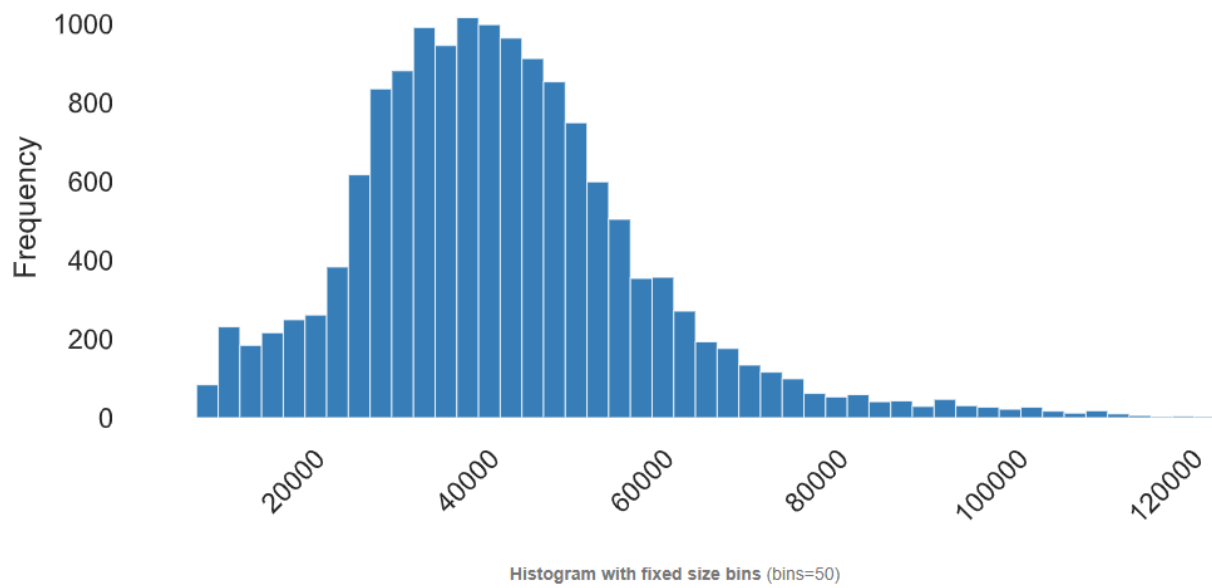
### Quantile statistics (VALUE)

<b>Minimum</b>	<b>8769</b>
5-th percentile	18992.85
Q1	32900.5
<b>median</b>	<b>42186.5</b>
Q3	52319.75
95-th percentile	73362.6
<b>Maximum</b>	<b>133071</b>
Range	124302
Interquartile range (IQR)	19419.25

### Descriptive statistics (VALUE)

Standard deviation	16620.351
Coefficient of variation (CV)	0.37941864
Kurtosis	1.9439325
<b>Mean</b>	<b>43804.783</b>
Median Absolute Deviation (MAD)	9684
<b>Skewness</b>	<b>0.91651225</b>
Sum	6.4340465 × 10 <sup>8</sup>
Variance	2.7623607 × 10 <sup>8</sup>
Monotonicity	Not monotonic

Histogram (VALUE)



The average for this section is \$43804.79 and median is \$42186.50. Skewed toward little right.

## Output #07c

For Average hourly wages,

### Dataset statistics

<b>Number of variables</b>	<b>8</b>
<b>Number of observations</b>	<b>14688</b>
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	0
Duplicate rows (%)	0.0%
Total size in memory	1.0 MiB
Average record size in memory	72.0 B

Based on panda-profiling.

There are 14688 observations with 8 variables to work on.

Right now, only “Indicators” columns have one value.

### Variable types

Numeric	2
Categorical	6

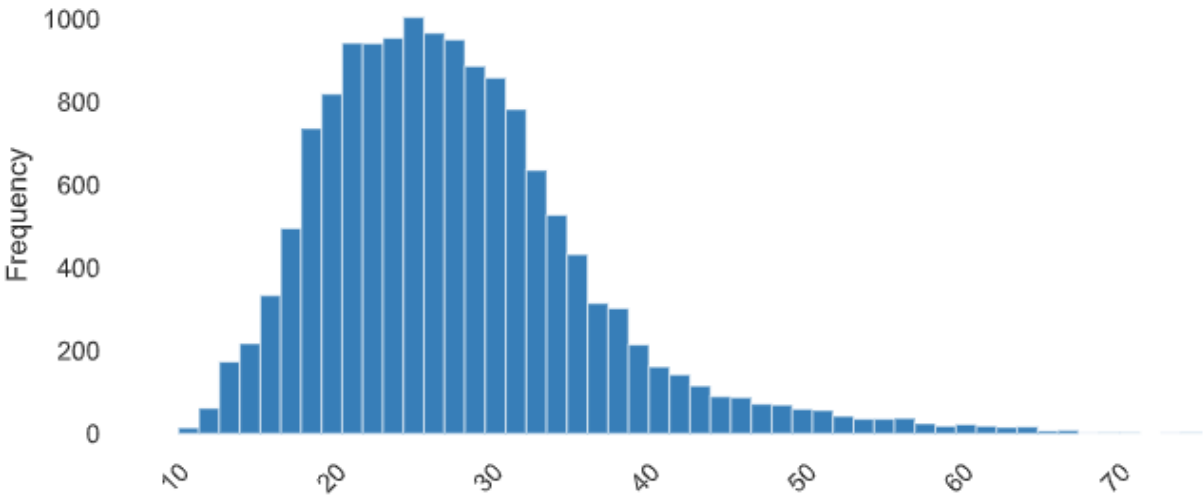
### Quantile statistics (VALUE)

<b>Minimum</b>	<b>10.16</b>
5-th percentile	16.49
Q1	21.72
<b>median</b>	<b>26.7</b>
Q3	32.1
95-th percentile	43.803
<b>Maximum</b>	<b>75.37</b>
Range	65.21
Interquartile range (IQR)	10.38

### Descriptive statistics (VALUE)

Standard deviation	8.6017205
Coefficient of variation (CV)	0.30912962
Kurtosis	2.1712535
<b>Mean</b>	<b>27.825611</b>
Median Absolute Deviation (MAD)	5.16
<b>Skewness</b>	<b>1.1323432</b>
Sum	408702.58
Variance	73.989596
Monotonicity	Not monotonic

Histogram (VALUE)



Histogram with fixed size bins (bins=50)

## Output #07d

Average weekly hours worked,

### Dataset statistics

<b>Number of variables</b>	<b>8</b>
<b>Number of observations</b>	<b>14688</b>
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	0
Duplicate rows (%)	0.0%
Total size in memory	1.0 MiB
Average record size in memory	72.0 B

Based on panda-profiling.

There are 14688 observations with 8 variables to work on.

Right now, only “Indicators” columns have one value.

### Variable types

Numeric	2
Categorical	6

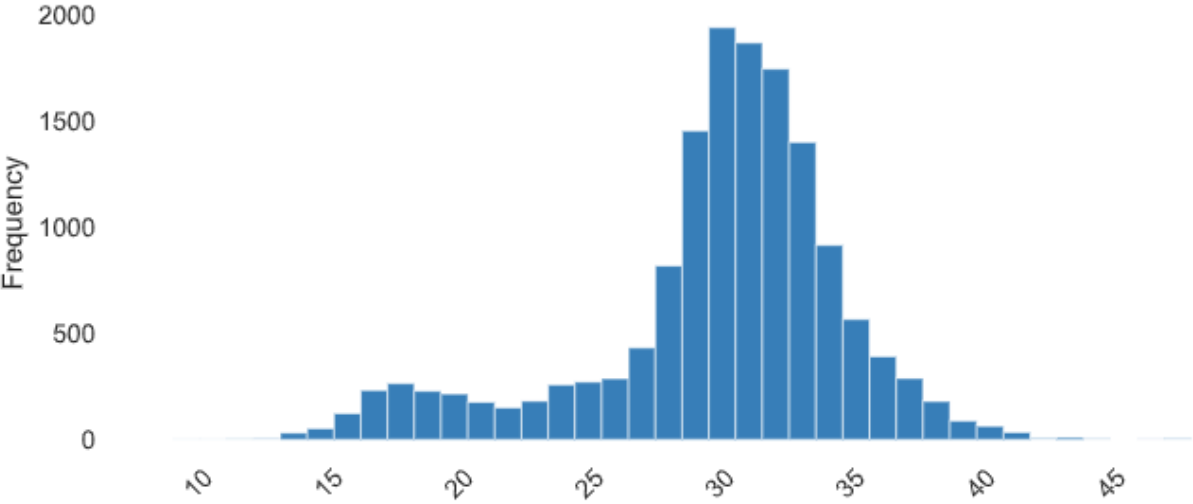
### Quantile statistics (VALUE)

<b>Minimum</b>	<b>9</b>
5-th percentile	19
Q1	28
<b>median</b>	<b>31</b>
Q3	33
95-th percentile	36
<b>Maximum</b>	<b>48</b>
Range	39
Interquartile range (IQR)	5

### Descriptive statistics (VALUE)

Standard deviation	4.8668895
Coefficient of variation (CV)	0.16314453
Kurtosis	1.2775213
<b>Mean</b>	<b>29.831767</b>
Median Absolute Deviation (MAD)	2
<b>Skewness</b>	<b>-0.9985335</b>
Sum	438169
Variance	23.686614
Monotonicity	Not monotonic

Histogram (VALUE)



Histogram with fixed size bins (bins=38)

## Output #07e

Hours worked

Dataset statistics

<b>Number of variables</b>	<b>8</b>
<b>Number of observations</b>	<b>14688</b>
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	0
Duplicate rows (%)	0.0%
Total size in memory	1.0 MiB
Average record size in memory	72.0 B

Based on panda-profiling.

There are 14688 observations with 8 variables to work on.

Right now, only “Indicators” columns have one value.

The data is skew toward left. I may not use this data afterward.

Variable types

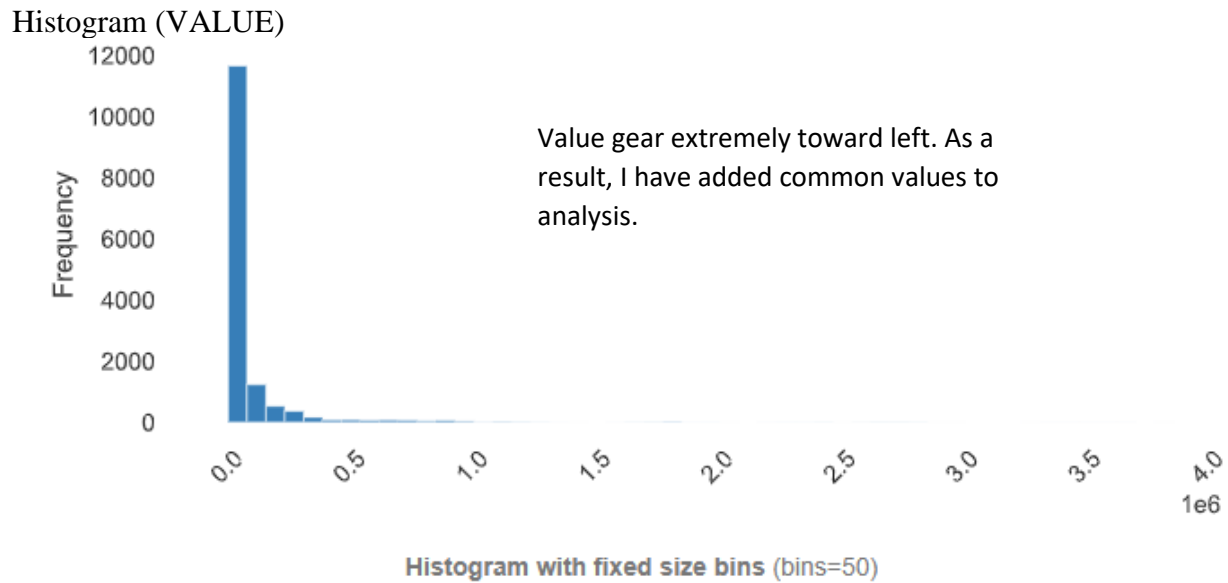
Numeric	2
Categorical	6

Quantile statistics (VALUE)

<b>Minimum</b>	<b>6</b>
5-th percentile	128
Q1	1193.25
<b>median</b>	<b>9586.5</b>
Q3	55182.25
95-th percentile	377969.4
<b>Maximum</b>	<b>3857813</b>
Range	3857807
Interquartile range (IQR)	53989

Descriptive statistics (VALUE)

Standard deviation	253684.45
Coefficient of variation (CV)	3.0346138
Kurtosis	66.631407
<b>Mean</b>	<b>83596.946</b>
Median Absolute Deviation (MAD)	9323.5
<b>Skewness</b>	<b>7.1113237</b>
Sum	1.2278719 × 10 <sup>9</sup>
Variance	6.43558 × 10 <sup>10</sup>
Monotonicity	Not monotonic



Common Value for “hours worked”.

Value	Count	Frequency (%)
37	20	0.1%
32	16	0.1%
29	14	0.1%
41	14	0.1%
54	13	0.1%
30	13	0.1%
143	12	0.1%
52	12	0.1%
262	11	0.1%
33	11	0.1%
Other values (10999)	14552	99.1%

I noticed in this section, there's a lot of extreme value in this dataset. Common values that are find in this dataset are range between 29 to 54 hours. Some worked for 6 hours while some worked at more than 370000 hours.



## Output #07f

### Number of Jobs

#### Dataset statistics

<b>Number of variables</b>	<b>8</b>
<b>Number of observations</b>	<b>14688</b>
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	0
Duplicate rows (%)	0.0%
Total size in memory	1.0 MiB
Average record size in memory	72.0 B

Based on panda-profiling.

There are 14688 observations with 8 variables to work on.

Right now, only “Indicators” columns have one value.

The data is skew toward left. For the purpose of this analysis, I will keep this value for time being.

#### Variable types

Numeric	2
Categorical	6

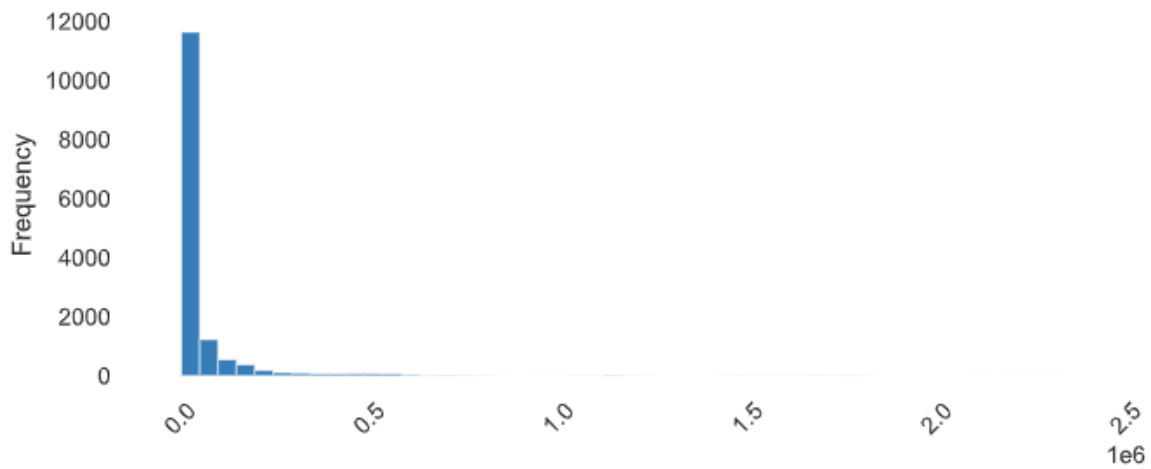
#### Quantile statistics (VALUE)

<b>Minimum</b>	<b>11</b>
5-th percentile	88
Q1	784
<b>median</b>	<b>6305.5</b>
Q3	35604.75
95-th percentile	243204.7
<b>Maximum</b>	<b>2428289</b>
Range	2428278
Interquartile range (IQR)	34820.75

#### Descriptive statistics (VALUE)

Standard deviation	161120.81
Coefficient of variation (CV)	3.0149252
Kurtosis	67.384586
<b>Mean</b>	<b>53441.062</b>
Median Absolute Deviation (MAD)	6127.5
<b>Skewness</b>	<b>7.1394116</b>
Sum	7.8494232 × 10 <sup>8</sup>
Variance	2.5959914 × 10 <sup>10</sup>
Monotonicity	Not monotonic

Histogram (VALUE)



Histogram with fixed size bins (bins=50)

Common Values in VALUE

Value	Count	Frequency (%)
18	23	0.2%
36	21	0.1%
22	21	0.1%
23	20	0.1%
17	18	0.1%
129	17	0.1%
20	16	0.1%
25	15	0.1%
92	15	0.1%
29	15	0.1%
Other values (10278)	14507	98.8%

Common Values in the number of jobs in non-profit organizations range from 18 to 36 available.

## Output #07g

### Wages and Salaries

#### Dataset statistics

<b>Number of variables</b>	<b>8</b>
<b>Number of observations</b>	<b>14688</b>
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	0
Duplicate rows (%)	0.0%
Total size in memory	1.0 MiB
Average record size in memory	72.0 B

Based on panda-profiling.

There are 14688 observations with 8 variables to work on.

Right now, only “Indicators” columns have one value.

The data is skew toward left. I may not use this data afterward.

#### Variable types

Numeric	2
Categorical	6

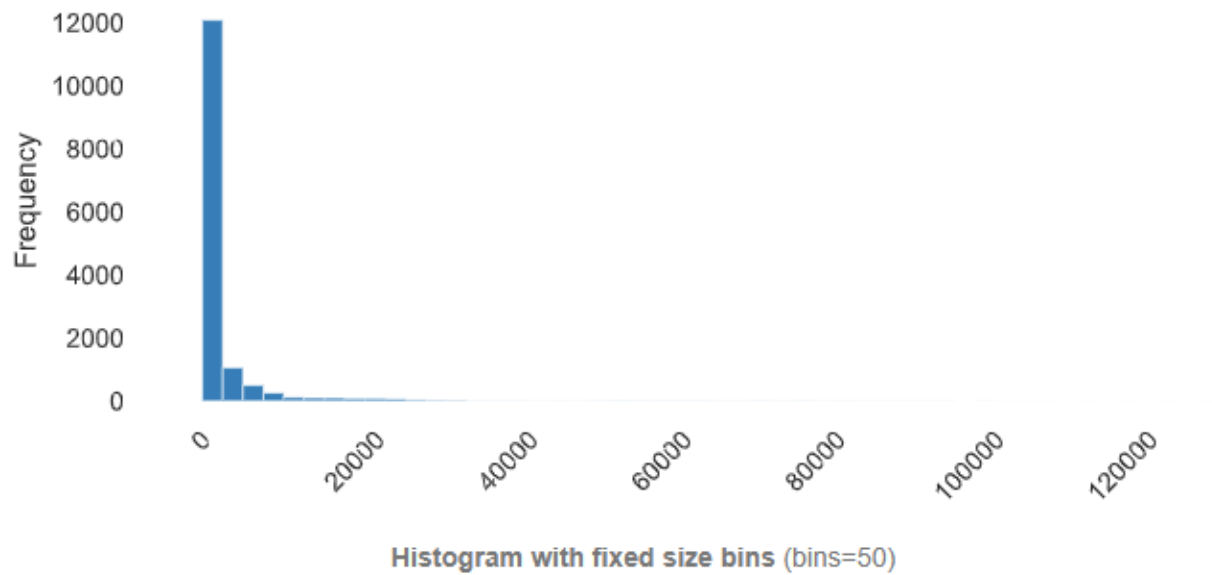
#### Quantile statistics (VALUE)

<b>Minimum</b>	<b>0</b>
5-th percentile	4
Q1	31
<b>median</b>	<b>224</b>
Q3	1455.25
95-th percentile	11603.3
<b>Maximum</b>	<b>132601</b>
Range	132601
Interquartile range (IQR)	1424.25

#### Descriptive statistics (VALUE)

Standard deviation	7977.4414
Coefficient of variation (CV)	3.2103436
Kurtosis	69.63355
<b>Mean</b>	<b>2484.9182</b>
Median Absolute Deviation (MAD)	217
<b>Skewness</b>	<b>7.3257394</b>
Sum	36498479
Variance	63639571
Monotonicity	Not monotonic

Histogram (VALUE)



Common values inside Wage and Salaries

Value	Count	Frequency (%)
2	299	2.0%
1	219	1.5%
4	203	1.4%
3	201	1.4%
8	179	1.2%
5	157	1.1%
12	148	1.0%
6	146	1.0%
9	143	1.0%
11	141	1.0%
Other values (4328)	12852	87.5%

The most common wages and salaries in non-profit organizations range between \$1 to \$12.

## Output #o8a

For Average annual hours worked,

### Dataset statistics

	Before 2015	After 2016
<b>Number of variables</b>	<b>8</b>	<b>8</b>
<b>Number of observations</b>	<b>7344</b>	<b>7344</b>
Missing cells	0	0
Missing cells (%)	0.0%	0.0%
Duplicate rows	0	0
Duplicate rows (%)	0.0%	0.0%
Total size in memory	516.4 KiB	516.4 KiB
Average record size in memory	72.0 B	72.0 B

### Variable types

	Before 2015	After 2016
Numeric	2	2
Categorical	6	6

### Quantile statistics (VALUE)

	Before 2015	After 2016
<b>Minimum</b>	<b>462</b>	<b>565</b>
5-th percentile	955	984
Q1	1485	1474
<b>median</b>	<b>1601</b>	<b>1583</b>
Q3	1710	1687
95-th percentile	1903	1874
<b>Maximum</b>	<b>2500</b>	<b>2458</b>
Range	2038	1893
Interquartile range (IQR)	225	213

### Descriptive statistics (VALUE)

	Before 2015	After 2016
Standard deviation	259.9023	245.29658
Coefficient of variation (CV)	0.16680782	0.15879083
Kurtosis	1.302456	1.282572
<b>Mean</b>	<b>1558.0942</b>	<b>1544.7781</b>
Median Absolute Deviation (MAD)	112	106
<b>Skewness</b>	<b>-1.0309417</b>	<b>-0.9787695</b>
Sum	11442644	11344850
Variance	67549.207	60170.413
Monotonicity	Not monotonic	Not monotonic

Based on panda-profiling.

There are 7344 observations (and 8 variables) in each dataset.

Right now, only “Indicators” columns have one value.

Before 2015 contains years from 2010 to 2015.

After 2016 contains years from 2016 to 2021.

The histogram of both

graph look similar to

before splitting the

dataset.

## Output #o8b

For Average annual wages and salaries,

### Dataset statistics

	Before 2015	After 2016
<b>Number of variables</b>	<b>8</b>	<b>8</b>
<b>Number of observations</b>	<b>7344</b>	<b>7344</b>
Missing cells	0	0
Missing cells (%)	0.0%	0.0%
Duplicate rows	0	0
Duplicate rows (%)	0.0%	0.0%
Total size in memory	516.4 KiB	516.4 KiB
Average record size in memory	72.0 B	72.0 B

Based on panda-profiling.

There are 7344 observations (and 8 variables) in each dataset.

Right now, only “Indicators” columns have one value.

Before 2015 contains years from 2010 to 2015.

After 2016 contains years from 2016 to 2021.

### Variable types

Numeric	2
Categorical	6

### Quantile statistics (VALUE)

	Before 2015	After 2016
<b>Minimum</b>	<b>8769</b>	<b>9794</b>
5-th percentile	17497.45	20968.15
Q1	30778	35232
<b>median</b>	<b>39670</b>	<b>44914</b>
Q3	49235	55043.5
95-th percentile	69496.8	75988.75
<b>Maximum</b>	<b>128745</b>	<b>133071</b>
Range	119976	123277
Interquartile range (IQR)	18457	19811.5

Histogram looks  
similar to before the  
split.

### Descriptive statistics (VALUE)

	Before 2015	After 2016
Standard deviation	15783.428	17019.612
Coefficient of variation (CV)	0.38323028	0.36660972
Kurtosis	2.0373328	1.9164284
<b>Mean</b>	<b>41185.232</b>	<b>46424.334</b>
Median Absolute Deviation (MAD)	9193	9898.5
<b>Skewness</b>	<b>0.94069942</b>	<b>0.89246706</b>
Sum	$3.0246434 \times 10^8$	$3.4094031 \times 10^8$
Variance	$2.491166 \times 10^8$	$2.8966719 \times 10^8$
Monotonicity	Not monotonic	Not monotonic

## Output #08c

For Average hourly wages,

### Dataset statistics

	Before 2015	After 2016
<b>Number of variables</b>	<b>8</b>	<b>8</b>
<b>Number of observations</b>	<b>7344</b>	<b>7344</b>
Missing cells	0	0
Missing cells (%)	0.0%	0.0%
Duplicate rows	0	0
Duplicate rows (%)	0.0%	0.0%
Total size in memory	516.4 KiB	516.4 KiB
Average record size in memory	72.0 B	72.0 B

### Variable types

Numeric	2
Categorical	6

### Quantile statistics (VALUE)

	Before 2015	After 2016
<b>Minimum</b>	<b>10.16</b>	<b>12.66</b>
5-th percentile	15.5815	18.2515
Q1	20.28	23.42
<b>median</b>	<b>24.995</b>	<b>28.52</b>
Q3	30.11	33.87
95-th percentile	40.4785	46.5485
<b>Maximum</b>	<b>75.37</b>	<b>69.52</b>
Range	65.21	56.86
Interquartile range (IQR)	9.83	10.45

### Descriptive statistics (VALUE)

	Before 2015	After 2016
Standard deviation	8.1431016	8.6771918
Coefficient of variation (CV)	0.31272826	0.29302643
Kurtosis	3.255443	1.6883579
<b>Mean</b>	<b>26.038905</b>	<b>29.612318</b>
Median Absolute Deviation (MAD)	4.895	5.21
<b>Skewness</b>	<b>1.3133858</b>	<b>1.047348</b>
Sum	191229.72	217472.86
Variance	66.310103	75.293658
Monotonicity	Not monotonic	Not monotonic

Based on panda-profiling.

There are 7344 observations (and 8 variables) in each dataset.

Right now, only "Indicators" columns have one value.

Before 2015 contains years from 2010 to 2015.

After 2016 contains years from 2016 to 2021.

## Output #o8d

Average weekly hours worked,

### Dataset statistics

	Before 2015	After 2016
<b>Number of variables</b>	<b>8</b>	<b>8</b>
<b>Number of observations</b>	<b>7344</b>	<b>7344</b>
Missing cells	0	0
Missing cells (%)	0.0%	0.0%
Duplicate rows	0	0
Duplicate rows (%)	0.0%	0.0%
Total size in memory	516.4 KiB	516.4 KiB
Average record size in memory	72.0 B	72.0 B

Based on panda-profiling.

There are 7344 observations (and 8 variables) in each dataset.

Right now, only “Indicators” columns have one value.

Before 2015 contains years from 2010 to 2015.

### Variable types

Numeric	2
Categorical	6

After 2016 contains years from 2016 to 2021.

### Quantile statistics (VALUE)

	Before 2015	After 2016
<b>Minimum</b>	<b>9</b>	<b>11</b>
5-th percentile	18	19
Q1	29	28
<b>median</b>	<b>31</b>	<b>30</b>
Q3	33	32
95-th percentile	37	36
<b>Maximum</b>	<b>48</b>	<b>47</b>
Range	39	36
Interquartile range (IQR)	4	4

### Descriptive statistics (VALUE)

	Before 2015	After 2016
Standard deviation	5.0046573	4.7217809
Coefficient of variation (CV)	0.16702584	0.15898165
Kurtosis	1.2835471	1.2703969
<b>Mean</b>	<b>29.963371</b>	<b>29.700163</b>
Median Absolute Deviation (MAD)	2	2
<b>Skewness</b>	<b>-1.0242571</b>	<b>-0.9780799</b>
Sum	220051	218118
Variance	25.046595	22.295214
Monotonicity	Not monotonic	Not monotonic



## Output #08e

### Number of Jobs

#### Dataset statistics

	Before 2015	After 2016
<b>Number of variables</b>	<b>8</b>	<b>8</b>
<b>Number of observations</b>	<b>7344</b>	<b>7344</b>
Missing cells	0	0
Missing cells (%)	0.0%	0.0%
Duplicate rows	0	0
Duplicate rows (%)	0.0%	0.0%
Total size in memory	774.4 KiB	774.4 KiB
Average record size in memory	108.0 B	108.0 B

Based on panda-profiling.

There are 7344 observations (and 8 variables) in each dataset.

Right now, only “Indicators” columns have one value.

Before 2015 contains years from 2010 to 2015.

#### Variable types

Numeric	2
Categorical	6

After 2016 contains years from 2016 to 2021.

#### Quantile statistics (VALUE)

	Before 2015	After 2016
<b>Minimum</b>	<b>11</b>	<b>12</b>
5-th percentile	82	92
Q1	724	837.75
<b>median</b>	<b>5897</b>	<b>6744</b>
Q3	33889.75	36867.5
95-th percentile	230034.65	259901.5
<b>Maximum</b>	<b>2227898</b>	<b>2428289</b>
Range	2227887	2428277
Interquartile range (IQR)	33165.75	36029.75

#### Descriptive statistics (VALUE)

	Below 2015	After 2016
Standard deviation	154971.3	167021.73
Coefficient of variation (CV)	3.032973	2.9939389
Kurtosis	67.911058	66.327939
<b>Mean</b>	<b>51095.507</b>	<b>55786.618</b>
Median Absolute Deviation (MAD)	5738	6542.5
<b>Skewness</b>	<b>7.1804941</b>	<b>7.0792603</b>
Sum	$3.7524541 \times 10^8$	$4.0969692 \times 10^8$
Variance	$2.4016103 \times 10^{10}$	$2.7896257 \times 10^{10}$
Monotonicity	Not monotonic	Not monotonic

Common values in this range are 14 to 240 jobs available.

## Output #09a

For Average annual hours worked,

```
grouped = df_AvgAnnHrsWrk_2016.groupby(['REF_DATE'])
print(grouped['VALUE'].agg([np.sum, np.size])) ...
```

	sum	size
REF_DATE		
2016	1899738.0	1224
2017	1881389.0	1224

Based on panda-profiling.

There are 2448 observations (and 8 variables) in each dataset.

	sum	size
REF_DATE		
2018	1894227.0	1224
2019	1894126.0	1224

- 7 Categorical
- 1 Numeric

Right now, only “Indicators” columns have one value and only “DATE” column has two values.

	sum	size
REF_DATE		
2020	1873544.0	1224
2021	1901826.0	1224

Dataset split into 2016-2017, 2018-2019, 2020-2021 based from “above 2016” dataset.

Quantile statistics (VALUE)

	2016-2017	2018-2019	2020-2021
<b>Minimum</b>	<b>691</b>	<b>610</b>	<b>565</b>
5-th percentile	967	983.35	1003.35
Q1	1469	1477	1474
<b>median</b>	<b>1580.5</b>	<b>1586</b>	<b>1583</b>
Q3	1695	1688	1679.25
95-th percentile	1879.65	1875.65	1864.65
<b>Maximum</b>	<b>2458</b>	<b>2286</b>	<b>2250</b>
Range	1767	1676	1685
Interquartile range (IQR)	226	211	205.25

Descriptive statistics (VALUE)

	2016-2017	2018-2019	2020-2021
Standard deviation	249.89506	245.50325	240.47224
Coefficient of variation (CV)	0.16178856	0.15864202	0.15592539
Kurtosis	1.2548004	1.2617194	1.3382614
<b>Mean</b>	<b>1544.578</b>	<b>1547.5298</b>	<b>1542.2263</b>
Median Absolute Deviation (MAD)	112.5	103.5	101
<b>Skewness</b>	<b>-0.94386446</b>	<b>-0.99792932</b>	<b>-0.99929663</b>
Sum	3781127	3788353	3775370
Variance	62447.54	60271.848	57826.899
Monotonicity	Not monotonic	Not monotonic	Not monotonic

## Output #09b

For Average annual wages and salaries,

```
grouped = df_AvgAnnWages_2016.groupby(['REF_DATE'])
print(grouped['VALUE'].agg([np.sum, np.size])) ...
```

Grabbing the data from 2017, 2019, and 2021.

```
sum size
REF_DATE
2016      53166285.0  1224
2017      53965359.0  1224
sum size
REF_DATE
2018      55525920.0  1224
2019      56997121.0  1224
sum size
REF_DATE
2020      60597775.0  1224
2021      60687848.0  1224
```

Based on panda-profiling.

There are 2448 observations (and 8 variables) in each dataset.

- 7 Categorical
- 1 Numeric

Right now, only “Indicators” columns have one value and only “DATE” column has two values.

Dataset split into 2016-2017, 2018-2019, 2020-2021 based from “above 2016” dataset.

Quantile statistics (VALUE)

	2016-2017	2018-2019	2020-2021
<b>Minimum</b>	<b>9794</b>	<b>10950</b>	<b>12420</b>
5-th percentile	19513.1	20789.05	23228.65
Q1	33278.75	34936.5	38394.75
<b>median</b>	<b>42151</b>	<b>44337</b>	<b>48066</b>
Q3	51984.75	54580.75	57894.75
95-th percentile	72065.45	75453.9	79738.2
<b>Maximum</b>	<b>112032</b>	<b>118314</b>	<b>133071</b>
Range	102238	107364	120651
Interquartile range (IQR)	18706	19644.25	19500

Descriptive statistics (VALUE)

	2016-2017	2018-2019	2020-2021
Standard deviation	16088.453	16813.519	17625.767
Coefficient of variation (CV)	0.36762744	0.36578725	0.35575427
Kurtosis	1.7812658	1.8070219	2.0655445
<b>Mean</b>	<b>43762.926</b>	<b>45965.295</b>	<b>49544.781</b>
Median Absolute Deviation (MAD)	9410.5	9783.5	9767
<b>Skewness</b>	<b>0.86538991</b>	<b>0.87498071</b>	<b>0.9101343</b>
Sum	$1.0713164 \times 10^8$	$1.1252304 \times 10^8$	$1.2128562 \times 10^8$
Variance	$2.5883831 \times 10^8$	$2.8269441 \times 10^8$	$3.1066767 \times 10^8$
Monotonicity	Not monotonic	Not monotonic	Not monotonic

## Output #09c

For Average hourly wages,

```
grouped = df_AvgHrsWages_2016.groupby(['REF_DATE'])
print(grouped['VALUE'].agg([np.sum, np.size]))
```

Grabbing the data from 2017, 2019, and 2021.

```
      sum  size
REF_DATE
2016    33756.84  1224
2017    34571.41  1224
      sum  size
REF_DATE
2018    35356.16  1224
2019    36293.34  1224
      sum  size
REF_DATE
2020    38980.38  1224
2021    38514.73  1224
```

Based on panda-profiling.

There are 2448 observations (and 8 variables) in each dataset.

- 7 Categorical
- 1 Numeric

Right now, only “Indicators” columns have one value and only “DATE” column has two values.

Dataset split into 2016-2017, 2018-2019, 2020-2021 based from “above 2016” dataset.

Quantile statistics (VALUE)

	2016-2017	2018-2019	2020-2021
<b>Minimum</b>	<b>12.66</b>	<b>12.69</b>	<b>13.66</b>
5-th percentile	17.23	18.1435	19.847
Q1	22.1675	23.25	25.4
<b>median</b>	<b>26.87</b>	<b>28.14</b>	<b>30.75</b>
Q3	31.8125	33.4625	36.0325
95-th percentile	43.56	46.4775	49.1365
<b>Maximum</b>	<b>66.29</b>	<b>66.1</b>	<b>69.52</b>
Range	53.63	53.41	55.86
Interquartile range (IQR)	9.645	10.2125	10.6325

Descriptive statistics (VALUE)

	2016-2017	2018-2019	2020-2021
Standard deviation	8.2516699	8.5756293	8.7817846
Coefficient of variation (CV)	0.29563303	0.29299773	0.27740858
Kurtosis	2.2994465	1.7446278	1.4489444
<b>Mean</b>	<b>27.911867</b>	<b>29.268587</b>	<b>31.656499</b>
Median Absolute Deviation (MAD)	4.835	5.13	5.32
Skewness	1.1808823	1.0730783	0.97581894
Sum	68328.25	71649.5	77495.11
Variance	68.090055	73.541418	77.11974
Monotonicity	Not monotonic	Not monotonic	Not monotonic

## Output #09d

Average weekly hours worked,

```
grouped = df_AvgWeekHrsWrked_2016.groupby(['REF_DATE'])
print(grouped['VALUE'].agg([np.sum, np.size]))
```

Grabbing the data from 2017, 2019, and 2021.

```
sum size
REF_DATE
2016      36541.0  1224
2017      36170.0  1224
sum size
REF_DATE
2018      36416.0  1224
2019      36400.0  1224
sum size
REF_DATE
2020      36036.0  1224
2021      36555.0  1224
```

Based on panda-profiling.

There are 2448 observations (and 8 variables) in each dataset.

- 7 Categorical
- 1 Numeric

Right now, only “Indicators” columns have one value and only “DATE” column has two values.

Dataset split into 2016-2017, 2018-2019, 2020-2021 based from “above 2016” dataset.

Quantile statistics (VALUE)

	2016-2017	2018-2019	2020-2021
<b>Minimum</b>	<b>13</b>	<b>12</b>	<b>11</b>
5-th percentile	19	19	19
Q1	28	28	28
<b>median</b>	<b>30</b>	<b>30</b>	<b>30</b>
Q3	33	32	32
95-th percentile	36	36	36
<b>Maximum</b>	<b>47</b>	<b>44</b>	<b>43</b>
Range	34	32	32
Interquartile range (IQR)	5	4	4

Descriptive statistics (VALUE)

	2016-2017	2018-2019	2020-2021
Standard deviation	4.8174653	4.7203332	4.6271067
Coefficient of variation (CV)	0.16219217	0.15869281	0.15604079
Kurtosis	1.235998	1.2585097	1.3224963
<b>Mean</b>	<b>29.702206</b>	<b>29.745098</b>	<b>29.653186</b>
Median Absolute Deviation (MAD)	2	2	2
<b>Skewness</b>	<b>-0.94253492</b>	<b>-0.99661397</b>	<b>-1.0001195</b>
Sum	72711	72816	72591
Variance	23.207972	22.281545	21.410117
Monotonicity	Not monotonic	Not monotonic	Not monotonic

## Output #09e

### Number of Jobs

```
grouped = df_NumOfJob_2016.groupby(['REF_DATE'])
print(grouped['VALUE'].agg([np.sum, np.size])) ...
Grabbing the data from 2017, 2019, and 2021.
```

```
          sum  size
REF_DATE
2016      66578386.0  1224
2017      66979678.0  1224
          sum  size
```

```
REF_DATE
2018      68215341.0  1224
2019      69702012.0  1224
          sum  size
```

```
REF_DATE
2020      67249987.0  1224
2021      70971515.0  1224
```

Based on panda-profiling.

There are 2448 observations (and 8 variables) in each dataset.

- 7 Categorical
- 1 Numeric

Right now, only “Indicators” columns have one value and only “DATE” column has two values.

Dataset split into 2016-2017, 2018-2019, 2020-2021 based from “above 2016” dataset.

### Quantile statistics (VALUE)

	2016-2017	2018-2019	2020-2021
<b>Minimum</b>	<b>15</b>	<b>20</b>	<b>20</b>
5-th percentile	135	135.35	134.7
Q1	1242	1282	1294.75
<b>median</b>	<b>10162</b>	<b>10565</b>	<b>10018</b>
Q3	57225.75	59738.25	58040.75
95-th percentile	388410.6	411268.55	413074.9
<b>Maximum</b>	<b>3556730</b>	<b>3690238</b>	<b>3857813</b>
Range	3556715	3690218	3857793
Interquartile range (IQR)	55983.75	58456.25	56746

### Descriptive statistics (VALUE)

	2016-2017	2018-2019	2020-2021
Standard deviation	255845.54	263773.66	268602.34
Coefficient of variation (CV)	3.0127368	2.9995706	3.04165
Kurtosis	65.811768	65.248381	65.842914
<b>Mean</b>	<b>84921.303</b>	<b>87937.141</b>	<b>88308.102</b>
Median Absolute Deviation (MAD)	9881.5	10259.5	9723
<b>Skewness</b>	<b>7.0605213</b>	<b>7.0237298</b>	<b>7.0812672</b>
Sum	$2.0788735 \times 10^8$	$2.1527012 \times 10^8$	$2.1617823 \times 10^8$
Variance	$6.5456938 \times 10^{10}$	$6.9576544 \times 10^{10}$	$7.2147217 \times 10^{10}$
Monotonicity	Not monotonic	Not monotonic	Not monotonic

## Output #10a

Average Annual Hours worked above 2016:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	356025.0	927.148438	691.0	925.0	1281.0	384
25 to 34 years	670964.0	1597.533333	1292.0	1588.5	1967.0	420
35 to 44 years	745088.0	1774.019048	1424.0	1758.5	2156.0	420
45 to 54 years	770902.0	1835.480952	1541.0	1822.0	2312.0	420
55 to 64 years	702671.0	1673.026190	1377.0	1676.5	2071.0	420
65 years old and over	413188.0	1076.010417	565.0	1072.5	1424.0	384
Overall,						
Sum :	3658838.0					
Mean :	1494.623366013072					
Min/median/max :	565.0 / 1637.5 / 2312.0					
Skewnewss :	-0.5787733959786298					
Total size :	2448					

Age group

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	645442.0	1536.766667	1260.0	1538.0	1773.0	420
Male employees	689850.0	1642.500000	1373.0	1648.5	1861.0	420
Overall,						
Sum :	1335292.0					
Mean :	1589.6333333333334					
Min/median/max :	1260.0 / 1593.0 / 1861.0					
Skewnewss :	-0.2787405505871734					
Total size :	840					

Gender Group

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	552006.0	1314.300000	1054.0	1308.0	1667.0	420
Trade certificate	614163.0	1550.916667	789.0	1547.0	1833.0	396
University degree and higher	685459.0	1730.957071	1536.0	1709.0	2095.0	396
Overall,						
Sum :	1851628.0					
Mean :	1527.7458745874587					
Min/median/max :	789.0 / 1545.5 / 2095.0					
Skewnewss :	-0.13622242646984092					
Total size :	1212					

Education Level

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	640410.0	1617.196970	1336.0	1590.5	2458.0	396
Non-immigrant employees	620418.0	1566.712121	1315.0	1565.5	1767.0	396
Overall,						
Sum :	1260828.0					
Mean :	1591.9545454545455					
Min/median/max :	1315.0 / 1577.0 / 2458.0					
Skewnewss :	2.060988959826731					
Total size :	792					

Immigrant Status

This is done directly via panda, numpy, and aggregation.

## Output #10a

Average Annual Hours worked above 2016-2017:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	116496.0	910.125000	691.0	915.0	1091.0	128
25 to 34 years	225135.0	1608.107143	1311.0	1599.5	1967.0	140
35 to 44 years	249085.0	1779.178571	1446.0	1758.0	2156.0	140
45 to 54 years	256996.0	1835.685714	1575.0	1816.5	2312.0	140
55 to 64 years	233519.0	1667.992857	1410.0	1677.0	2000.0	140
65 years old and over	137854.0	1076.984375	719.0	1070.5	1424.0	128
Overall,						
Sum :	1219085.0					
Mean :	1493.9767156862745					
Min/median/max :	691.0 / 1640.5 / 2312.0					
Skewnewss :	-0.5703082688084871					
Total size :	816					

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	214038.0	1528.842857	1260.0	1532.5	1740.0	140
Male employees	231452.0	1653.228571	1427.0	1655.0	1861.0	140
Overall,						
Sum :	445490.0					
Mean :	1591.0357142857142					
Min/median/max :	1260.0 / 1592.0 / 1861.0					
Skewnewss :	-0.24592140589500588					
Total size :	280					

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	184072.0	1314.800000	1066.0	1307.0	1615.0	140
Trade certificate	205547.0	1557.174242	975.0	1546.0	1833.0	132
University degree and higher	229151.0	1735.992424	1563.0	1712.5	2095.0	132
Overall,						
Sum :	618770.0					
Mean :	1531.6089108910892					
Min/median/max :	975.0 / 1544.5 / 2095.0					
Skewnewss :	-0.08472486126383535					
Total size :	404					

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	214796.0	1627.242424	1353.0	1593.0	2458.0	132
Non-immigrant employees	206550.0	1564.772727	1321.0	1557.5	1764.0	132
Overall,						
Sum :	421346.0					
Mean :	1596.0075757575758					
Min/median/max :	1321.0 / 1574.0 / 2458.0					
Skewnewss :	2.40000587696475					
Total size :	264					



## Output #10a

Average Annual Hours worked 2018-2019:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	119612.0	934.468750	703.0	928.5	1281.0	128
25 to 34 years	224023.0	1600.164286	1307.0	1589.5	1884.0	140
35 to 44 years	248812.0	1777.228571	1424.0	1762.0	2092.0	140
45 to 54 years	257922.0	1842.300000	1595.0	1828.5	2191.0	140
55 to 64 years	234537.0	1675.264286	1405.0	1676.5	1929.0	140
65 years old and over	137306.0	1072.703125	610.0	1066.0	1421.0	128
Overall,						
Sum :	1222212.0					
Mean :	1497.8088235294117					
Min/median/max :	610.0 / 1643.0 / 2191.0					
Skewnewss :	-0.5805014322580639					
Total size :	816					

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	215468.0	1539.057143	1295.0	1542.0	1719.0	140
Male employees	230285.0	1644.892857	1422.0	1649.5	1821.0	140
Overall,						
Sum :	445753.0					
Mean :	1591.975					
Min/median/max :	1295.0 / 1591.0 / 1821.0					
Skewnewss :	-0.29536442898441656					
Total size :	280					

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	184598.0	1318.557143	1068.0	1312.5	1607.0	140
Trade certificate	204873.0	1552.068182	789.0	1550.5	1808.0	132
University degree and higher	228914.0	1734.196970	1571.0	1705.5	2043.0	132
Overall,						
Sum :	618385.0					
Mean :	1530.6559405940593					
Min/median/max :	789.0 / 1548.5 / 2043.0					
Skewnewss :	-0.2193052212994611					
Total size :	404					

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	213402.0	1616.681818	1336.0	1593.0	2286.0	132
Non-immigrant employees	207253.0	1570.098485	1337.0	1569.0	1767.0	132
Overall,						
Sum :	420655.0					
Mean :	1593.3901515151515					
Min/median/max :	1336.0 / 1576.0 / 2286.0					
Skewnewss :	1.6641975448323307					
Total size :	264					

## Output #10b

Average Annual Hours worked above 2020-2021:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	119917.0	936.851562	713.0	931.5	1250.0	128
25 to 34 years	221806.0	1584.328571	1292.0	1575.5	1864.0	140
35 to 44 years	247191.0	1765.650000	1470.0	1757.5	2035.0	140
45 to 54 years	255984.0	1828.457143	1541.0	1826.5	2147.0	140
55 to 64 years	234615.0	1675.821429	1377.0	1673.5	2071.0	140
65 years old and over	138028.0	1078.343750	565.0	1081.0	1412.0	128
Overall,						
Sum :	1217541.0					
Mean :	1492.0845588235295					
Min/median/max :	565.0 / 1629.5 / 2147.0					
Skewnewss :	-0.5888509135397088					
Total size :	816					

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	215936.0	1542.400000	1328.0	1539.0	1773.0	140
Male employees	228113.0	1629.378571	1373.0	1640.5	1812.0	140
Overall,						
Sum :	444049.0					
Mean :	1585.8892857142857					
Min/median/max :	1328.0 / 1597.0 / 1812.0					
Skewnewss :	-0.33380298174287687					
Total size :	280					

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	183336.0	1309.542857	1054.0	1308.0	1667.0	140
Trade certificate	203743.0	1543.507576	1160.0	1542.5	1767.0	132
University degree and higher	227394.0	1722.681818	1536.0	1708.5	2000.0	132
Overall,						
Sum :	614473.0					
Mean :	1520.9727722722727					
Min/median/max :	1054.0 / 1538.0 / 2000.0					
Skewnewss :	-0.11419699213619512					
Total size :	404					

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	212212.0	1607.666667	1377.0	1589.0	2250.0	132
Non-immigrant employees	206615.0	1565.265152	1315.0	1571.0	1735.0	132
Overall,						
Sum :	418827.0					
Mean :	1586.465909090909					
Min/median/max :	1315.0 / 1582.5 / 2250.0					
Skewnewss :	1.7744094875822118					
Total size :	264					

## Output #10b

Average annual wages and salaries above 2016:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	6542437.0	17037.596354	9794.0	16067.0	45844.0	384
25 to 34 years	17433720.0	41508.857143	24832.0	40338.5	75429.0	420
35 to 44 years	23566264.0	56110.152381	36704.0	54759.5	95714.0	420
45 to 54 years	25872325.0	61600.773810	36047.0	60965.5	103580.0	420
55 to 64 years	24202767.0	57625.635714	30816.0	54007.5	133071.0	420
65 years old and over	13090349.0	34089.450521	17359.0	32292.0	76577.0	384

Overall,

Sum : 110707862.0

Mean : 45223.799836601305

Min/median/max : 9794.0 / 45000.0 / 133071.0

Skewnewss : 0.4724237358194394

Total size : 2448

	sum	mean	amin	median	\
Characteristics					
High school diploma and less	13153741.0	31318.430952	15835.0	29678.5	
Trade certificate	16491332.0	41644.777778	22892.0	40309.5	
University degree and higher	24254026.0	61247.540404	37846.0	59374.5	

	amax	size
Characteristics		
High school diploma and less	73020.0	420
Trade certificate	79053.0	396
University degree and higher	121264.0	396

Overall,

Sum : 53899099.0

Mean : 44471.20379537954

Min/median/max : 15835.0 / 41285.5 / 121264.0

Skewnewss : 1.3064213973639516

Total size : 1212

	sum	mean	amin	median	\
Characteristics					
High school diploma and less	13153741.0	31318.430952	15835.0	29678.5	
Trade certificate	16491332.0	41644.777778	22892.0	40309.5	
University degree and higher	24254026.0	61247.540404	37846.0	59374.5	

	amax	size
Characteristics		
High school diploma and less	73020.0	420
Trade certificate	79053.0	396
University degree and higher	121264.0	396

Overall,

Sum : 53899099.0

Mean : 44471.20379537954

Min/median/max : 15835.0 / 41285.5 / 121264.0

Skewnewss : 1.3064213973639516

Total size : 1212

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	18932138.0	47808.429293	20646.0	46914.5	104174.0	396
Non-immigrant employees	18753179.0	47356.512626	28408.0	46634.0	85472.0	396

Overall,  
Sum : 37685317.0  
Mean : 47582.47095959596  
Min/median/max : 20646.0 / 46644.5 / 104174.0  
Skewnewss : 1.027838912110412  
Total size : 792

## Output #10b

Average annual wages and salaries in 2016 - 2017:

	sum	mean	amin	median	amax	\
Characteristics						
15 to 24 years	1990551.0	15551.179688	9794.0	14257.0	34682.0	
25 to 34 years	5482486.0	39160.614286	24832.0	38433.0	68600.0	
35 to 44 years	7425644.0	53040.314286	36704.0	51669.5	89097.0	
45 to 54 years	8070147.0	57643.907143	36047.0	56720.5	93975.0	
55 to 64 years	7654420.0	54674.428571	30816.0	51979.5	105456.0	
65 years old and over	4134140.0	32297.968750	17359.0	30124.5	73364.0	

	size
Characteristics	
15 to 24 years	128
25 to 34 years	140
35 to 44 years	140
45 to 54 years	140
55 to 64 years	140
65 years old and over	128

Overall,

Sum : 34757388.0

Mean : 42594.83823529412

Min/median/max : 9794.0 / 41991.5 / 105456.0

Skewnewss : 0.4040730458561045

Total size : 816

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	5828257.0	41630.407143	26523.0	40379.5	73710.0	140
Male employees	7204291.0	51459.221429	30293.0	50658.0	95519.0	140

Overall,

Sum : 13032548.0

Mean : 46544.81428571429

Min/median/max : 26523.0 / 45339.5 / 95519.0

Skewnewss : 0.8298629963797417

Total size : 280

	sum	mean	amin	median	\
Characteristics					
High school diploma and less	4098966.0	29278.328571	15835.0	27700.5	
Trade certificate	5213635.0	39497.234848	22892.0	37634.0	
University degree and higher	7707083.0	58386.992424	37846.0	56342.5	

	amax	size
Characteristics		
High school diploma and less	54877.0	140
Trade certificate	79053.0	132
University degree and higher	112032.0	132

Overall,

Sum : 17019684.0

Mean : 42127.930693069306

Min/median/max : 15835.0 / 39338.5 / 112032.0

Skewnewss : 1.3779118455237946

Total size : 404

	sum	mean	amin	median	amax \
Characteristics					
Immigrant employees	6015114.0	45569.045455	20646.0	43893.5	104174.0
Non-immigrant employees	5897525.0	44678.219697	28408.0	43215.0	79641.0

size

Characteristics	
Immigrant employees	132
Non-immigrant employees	132

Overall,  
Sum : 11912639.0  
Mean : 45123.6325757576  
Min/median/max : 20646.0 / 43305.5 / 104174.0  
Skewnewss : 1.275481286812803  
Total size : 264

## Output #10c

Average annual wages and salaries in 2018 - 2019:

	sum	mean	amin	median	amax	\
Characteristics						
15 to 24 years	2177886.0	17014.734375	10950.0	15042.0	45844.0	
25 to 34 years	5760914.0	41149.385714	26534.0	40145.5	69477.0	
35 to 44 years	7776747.0	55548.192857	37336.0	54343.0	89890.0	
45 to 54 years	8541521.0	61010.864286	38164.0	60493.5	96524.0	
55 to 64 years	7997347.0	57123.907143	32686.0	53703.5	118314.0	
65 years old and over	4286036.0	33484.656250	17667.0	31683.0	73480.0	

	size
Characteristics	
15 to 24 years	128
25 to 34 years	140
35 to 44 years	140
45 to 54 years	140
55 to 64 years	140
65 years old and over	128

Overall,  
Sum : 36540451.0  
Mean : 44779.964460784315  
Min/median/max : 10950.0 / 44547.5 / 118314.0  
Skewnewss : 0.435257558284153  
Total size : 816

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	6213994.0	44385.671429	27460.0	42382.5	75519.0	140
Male employees	7451827.0	53227.335714	31693.0	52488.0	92832.0	140

Overall,  
Sum : 13665821.0  
Mean : 48806.50357142857  
Min/median/max : 27460.0 / 47770.5 / 92832.0  
Skewnewss : 0.7029202405707949  
Total size : 280

	sum	mean	amin	median	\
Characteristics					
High school diploma and less	4345328.0	31038.057143	16732.0	29299.0	
Trade certificate	5415579.0	41027.113636	24444.0	39933.5	
University degree and higher	8009192.0	60675.696970	38628.0	58448.5	

	amax	size
Characteristics		
High school diploma and less	57556.0	140
Trade certificate	72143.0	132
University degree and higher	114189.0	132

Overall,  
Sum : 17770099.0  
Mean : 43985.39356435643  
Min/median/max : 16732.0 / 41113.0 / 114189.0  
Skewnewss : 1.3503134205611609

Total size : 404

	sum	mean	amin	median	amax	\
Characteristics						
Immigrant employees	6220631.0	47125.992424	22154.0	46405.5	98880.0	
Non-immigrant employees	6195241.0	46933.643939	29380.0	46003.0	80700.0	

size

Characteristics	
Immigrant employees	132
Non-immigrant employees	132

Overall,  
Sum : 12415872.0  
Mean : 47029.818181818184  
Min/median/max : 22154.0 / 46302.0 / 98880.0  
Skewnewss : 1.0107695555218565  
Total size : 264



## Output #10c

Average annual wages and salaries in 2020 - 2021:

	sum	mean	amin	median	amax	\
Characteristics						
15 to 24 years	2374000.0	18546.875000	12420.0	16943.0	36573.0	
25 to 34 years	6190320.0	44216.571429	28338.0	43931.0	75429.0	
35 to 44 years	8363873.0	59741.950000	37793.0	58400.5	95714.0	
45 to 54 years	9260657.0	66147.550000	42283.0	65674.0	103580.0	
55 to 64 years	8551000.0	61078.571429	37104.0	57244.0	133071.0	
65 years old and over	4670173.0	36485.726562	20911.0	34856.0	76577.0	

	size
Characteristics	
15 to 24 years	128
25 to 34 years	140
35 to 44 years	140
45 to 54 years	140
55 to 64 years	140
65 years old and over	128

Overall,  
Sum : 39410023.0  
Mean : 48296.59681372549  
Min/median/max : 12420.0 / 47894.5 / 133071.0  
Skewnewss : 0.4961826480753717  
Total size : 816

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	6777880.0	48413.428571	30353.0	47063.5	86432.0	140
Male employees	7986154.0	57043.957143	36430.0	56679.5	95273.0	140

Overall,  
Sum : 14764034.0  
Mean : 52728.69285714286  
Min/median/max : 30353.0 / 51564.0 / 95273.0  
Skewnewss : 0.7511729984483428  
Total size : 280  
2020

	sum	mean	amin	median	\
Characteristics					
High school diploma and less	4709447.0	33638.907143	20433.0	31521.5	
Trade certificate	5862118.0	44409.984848	28260.0	43147.5	
University degree and higher	8537751.0	64679.931818	39879.0	63608.5	

	amax	size
Characteristics		
High school diploma and less	73020.0	140
Trade certificate	72854.0	132
University degree and higher	121264.0	132

Overall,  
Sum : 19109316.0  
Mean : 47300.28712871287  
Min/median/max : 20433.0 / 43931.5 / 121264.0  
Skewnewss : 1.2517071564272602

Total size : 404

	sum	mean	amin	median	amax	\
Characteristics						
Immigrant employees	6696393.0	50730.250000	26189.0	49991.0	98074.0	
Non-immigrant employees	6660413.0	50457.674242	32922.0	50424.0	85472.0	

size

Characteristics	
Immigrant employees	132
Non-immigrant employees	132

Overall,  
Sum : 13356806.0  
Mean : 50593.96212121212  
Min/median/max : 26189.0 / 50189.5 / 98074.0  
Skewnewss : 0.9371046929026348  
Total size : 264

## Output #10d

Average hourly wage above 2016:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	6994.48	18.214792	12.66	17.890	36.37	384
25 to 34 years	10974.13	26.128881	16.17	25.435	46.15	420
35 to 44 years	13366.72	31.825524	18.07	30.985	58.12	420
45 to 54 years	14156.40	33.705714	19.16	33.465	64.54	420
55 to 64 years	14410.56	34.310857	17.98	32.620	64.92	420
65 years old and over	12107.90	31.530990	17.79	30.510	66.63	384
Overall,						
Sum :	72010.19					
Mean :	29.4159272875817					
Min/median/max :	12.66 / 28.855 / 66.63					
Skewnewss :	0.8726051839114333					
Total size :	2448					

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	9949.53	23.689357	14.10	22.445	44.52	420
Trade certificate	10623.16	26.826162	16.93	25.855	44.58	396
University degree and higher	14035.82	35.443990	20.12	34.610	69.52	396
Overall,						
Sum :	34608.51					
Mean :	28.554876237623763					
Min/median/max :	14.1 / 26.455 / 69.52					
Skewnewss :	1.4087673073770433					
Total size :	1212					

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	9949.53	23.689357	14.10	22.445	44.52	420
Trade certificate	10623.16	26.826162	16.93	25.855	44.58	396
University degree and higher	14035.82	35.443990	20.12	34.610	69.52	396
Overall,						
Sum :	34608.51					
Mean :	28.554876237623763					
Min/median/max :	14.1 / 26.455 / 69.52					
Skewnewss :	1.4087673073770433					
Total size :	1212					

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	11626.43	29.359672	14.23	28.63	60.18	396
Non-immigrant employees	11993.52	30.286667	17.85	29.72	55.32	396
Overall,						
Sum :	23619.950000000004					
Mean :	29.8231691919192					
Min/median/max :	14.23 / 29.21 / 60.18					
Skewnewss :	0.8841544014149912					
Total size :	792					

## Output #10d

Average hourly wage 2016 - 2017:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	2169.70	16.950781	12.66	16.065	31.79	128
25 to 34 years	3429.39	24.495643	16.17	23.805	44.86	140
35 to 44 years	4201.33	30.009500	18.07	29.370	53.12	140
45 to 54 years	4410.74	31.505286	19.16	30.885	56.39	140
55 to 64 years	4579.86	32.713286	17.98	30.820	63.53	140
65 years old and over	3817.20	29.821875	17.79	28.260	61.79	128

Overall,

Sum : 22608.22

Mean : 27.706151960784315

Min/median/max : 12.66 / 27.25 / 63.53

Skewnewss : 0.9491940536760927

Total size : 816

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	3813.29	27.237786	17.22	26.420	49.88	140
Male employees	4368.06	31.200429	17.48	30.135	57.05	140

Overall,

Sum : 8181.349999999999

Mean : 29.21910714285714

Min/median/max : 17.22 / 28.43 / 57.05

Skewnewss : 1.0375515016952999

Total size : 280

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	3096.93	22.120929	14.10	21.160	38.43	140
Trade certificate	3337.72	25.285758	16.93	24.295	44.18	132
University degree and higher	4448.97	33.704318	20.12	32.450	66.29	132

Overall,

Sum : 10883.62

Mean : 26.939653465346538

Min/median/max : 14.1 / 24.79 / 66.29

Skewnewss : 1.592579921339285

Total size : 404

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	3672.38	27.821061	14.23	26.225	57.56	132
Non-immigrant employees	3775.54	28.602576	17.85	27.700	52.15	132

Overall,

Sum : 7447.919999999999

Mean : 28.211818181818177

Min/median/max : 14.23 / 27.259999999999998 / 57.56

Skewnewss : 1.0566749038998275

Total size : 264

## Output #10d

Average hourly wage 2018 - 2019:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	2304.26	18.002031	12.69	16.770	35.78	128
25 to 34 years	3621.03	25.864500	16.24	25.480	46.15	140
35 to 44 years	4404.93	31.463786	18.52	30.610	53.93	140
45 to 54 years	4656.64	33.261714	20.52	33.135	58.33	140
55 to 64 years	4759.84	33.998857	18.56	32.005	62.46	140
65 years old and over	3969.91	31.014922	18.08	29.515	64.86	128
Overall,						
Sum :	23716.61					
Mean :	29.064473039215688					
Min/median/max :	12.69 / 28.535 / 64.86					
Skewnewss :	0.889506363020907					
Total size :	816					

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	4040.52	28.860857	18.12	27.615	52.67	140
Male employees	4537.03	32.407357	18.21	31.655	54.58	140
Overall,						
Sum :	8577.55					
Mean :	30.63410714285714					
Min/median/max :	18.12 / 29.805 / 54.58					
Skewnewss :	0.8462901048212764					
Total size :	280					

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	3270.77	23.362643	14.68	22.150	39.70	140
Trade certificate	3484.41	26.397045	17.07	25.755	41.34	132
University degree and higher	4627.57	35.057348	20.72	34.365	66.10	132
Overall,						
Sum :	11382.75					
Mean :	28.175123762376238					
Min/median/max :	14.68 / 25.945 / 66.1					
Skewnewss :	1.499449262336067					
Total size :	404					

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	3821.30	28.949242	15.88	27.885	54.94	132
Non-immigrant employees	3953.58	29.951364	18.34	29.230	51.61	132
Overall,						
Sum :	7774.88					
Mean :	29.45030303030303					
Min/median/max :	15.88 / 28.665 / 54.94					
Skewnewss :	0.8729088197133255					
Total size :	264					

## Output #10e

Average hourly wage 2020 - 2021:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	2520.52	19.691562	13.66	19.045	36.37	128
25 to 34 years	3923.71	28.026500	18.06	27.620	45.91	140
35 to 44 years	4760.46	34.003286	21.16	33.110	58.12	140
45 to 54 years	5089.02	36.350143	23.00	35.835	64.54	140
55 to 64 years	5070.86	36.220429	21.49	34.520	64.92	140
65 years old and over	4320.79	33.756172	20.74	32.580	66.63	128

Overall,

Sum : 25685.36

Mean : 31.477156862745097

Min/median/max : 13.66 / 31.165 / 66.63

Skewnewss : 0.809569623358344

Total size : 816

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	4391.48	31.367714	19.63	30.585	55.06	140
Male employees	4906.05	35.043214	21.96	34.105	56.59	140

Overall,

Sum : 9297.529999999999

Mean : 33.20546428571428

Min/median/max : 19.63 / 32.585 / 56.59

Skewnewss : 0.7515161769027425

Total size : 280

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	3581.83	25.584500	17.22	24.600	44.52	140
Trade certificate	3801.03	28.795682	18.86	28.005	44.58	132
University degree and higher	4959.28	37.570303	23.71	36.810	69.52	132

Overall,

Sum : 12342.14

Mean : 30.549851485148512

Min/median/max : 17.22 / 28.369999999999997 / 69.52

Skewnewss : 1.2877268829235764

Total size : 404

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	4132.75	31.308712	18.79	30.695	60.18	132
Non-immigrant employees	4264.40	32.306061	20.88	31.705	55.32	132

Overall,

Sum : 8397.15

Mean : 31.80738636363636

Min/median/max : 18.79 / 31.09 / 60.18

Skewnewss : 0.8652855022472291

Total size : 264

## Output #10e

Average weekly hours worked above 2016:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	6852.0	17.843750	13.0	18.0	25.0	384
25 to 34 years	12902.0	30.719048	25.0	31.0	38.0	420
35 to 44 years	14324.0	34.104762	27.0	34.0	41.0	420
45 to 54 years	14821.0	35.288095	30.0	35.0	44.0	420
55 to 64 years	13513.0	32.173810	26.0	32.0	40.0	420
65 years old and over	7934.0	20.661458	11.0	21.0	27.0	384
Overall,						
Sum :	70346.0					
Mean :	28.736111111111111					
Min/median/max :	11.0 / 31.0 / 44.0					
Skewnewss :	-0.579043092502377					
Total size :	2448					

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	10618.0	25.280952	20.0	25.0	32.0	420
Trade certificate	11811.0	29.825758	15.0	30.0	35.0	396
University degree and higher	13172.0	33.262626	30.0	33.0	40.0	396
Overall,						
Sum :	35601.0					
Mean :	29.373762376237625					
Min/median/max :	15.0 / 30.0 / 40.0					
Skewnewss :	-0.15087111730270117					
Total size :	1212					

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	10618.0	25.280952	20.0	25.0	32.0	420
Trade certificate	11811.0	29.825758	15.0	30.0	35.0	396
University degree and higher	13172.0	33.262626	30.0	33.0	40.0	396
Overall,						
Sum :	35601.0					
Mean :	29.373762376237625					
Min/median/max :	15.0 / 30.0 / 40.0					
Skewnewss :	-0.15087111730270117					
Total size :	1212					

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	12318.0	31.106061	26.0	31.0	47.0	396
Non-immigrant employees	11929.0	30.123737	25.0	30.0	34.0	396
Overall,						
Sum :	24247.0					
Mean :	30.61489898989899					
Min/median/max :	25.0 / 30.0 / 47.0					
Skewnewss :	1.9996917423224188					
Total size :	792					

## Output #10e

Average weekly hours worked in 2016 - 2017:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	2240.0	17.500000	13.0	18.0	21.0	128
25 to 34 years	4334.0	30.957143	25.0	31.0	38.0	140
35 to 44 years	4789.0	34.207143	28.0	34.0	41.0	140
45 to 54 years	4940.0	35.285714	30.0	35.0	44.0	140
55 to 64 years	4493.0	32.092857	27.0	32.0	38.0	140
65 years old and over	2648.0	20.687500	14.0	21.0	27.0	128
Overall,						
Sum :	23444.0					
Mean :	28.730392156862745					
Min/median/max :	13.0 / 32.0 / 44.0					
Skewnewss :	-0.5756109342508641					
Total size :	816					

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	4115.0	29.392857	24.0	29.0	33.0	140
Male employees	4452.0	31.800000	27.0	32.0	36.0	140
Overall,						
Sum :	8567.0					
Mean :	30.59642857142857					
Min/median/max :	24.0 / 31.0 / 36.0					
Skewnewss :	-0.2472492862682468					
Total size :	280					

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	3538.0	25.271429	20.0	25.0	31.0	140
Trade certificate	3950.0	29.924242	19.0	30.0	35.0	132
University degree and higher	4405.0	33.371212	30.0	33.0	40.0	132
Overall,						
Sum :	11893.0					
Mean :	29.43811881188119					
Min/median/max :	19.0 / 30.0 / 40.0					
Skewnewss :	-0.088862131978932					
Total size :	404					

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	4130.0	31.287879	26.0	31.0	47.0	132
Non-immigrant employees	3976.0	30.121212	25.0	30.0	34.0	132
Overall,						
Sum :	8106.0					
Mean :	30.704545454545453					
Min/median/max :	25.0 / 30.0 / 47.0					
Skewnewss :	2.3304641046202303					
Total size :	264					



## Output #10f

Average weekly hours worked 2018 - 2019:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	2303.0	17.992188	14.0	18.0	25.0	128
25 to 34 years	4305.0	30.750000	25.0	31.0	36.0	140
35 to 44 years	4781.0	34.150000	27.0	34.0	40.0	140
45 to 54 years	4957.0	35.407143	31.0	35.0	42.0	140
55 to 64 years	4507.0	32.192857	27.0	32.0	37.0	140
65 years old and over	2635.0	20.585938	12.0	20.5	27.0	128
Overall,						
Sum :	23488.0					
Mean :	28.784313725490197					
Min/median/max :	12.0 / 32.0 / 42.0					
Skewnewss :	-0.5796949521070882					
Total size :	816					

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	4138.0	29.557143	25.0	30.0	33.0	140
Male employees	4426.0	31.614286	27.0	32.0	35.0	140
Overall,						
Sum :	8564.0					
Mean :	30.585714285714285					
Min/median/max :	25.0 / 31.0 / 35.0					
Skewnewss :	-0.3242248402144738					
Total size :	280					

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	3553.0	25.378571	21.0	25.0	31.0	140
Trade certificate	3943.0	29.871212	15.0	30.0	35.0	132
University degree and higher	4399.0	33.325758	30.0	33.0	39.0	132
Overall,						
Sum :	11895.0					
Mean :	29.443069306930692					
Min/median/max :	15.0 / 30.0 / 39.0					
Skewnewss :	-0.23119711595027662					
Total size :	404					

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	4103.0	31.083333	26.0	31.0	44.0	132
Non-immigrant employees	3980.0	30.151515	26.0	30.0	34.0	132
Overall,						
Sum :	8083.0					
Mean :	30.617424242424242					
Min/median/max :	26.0 / 30.0 / 44.0					
Skewnewss :	1.5771345263060415					
Total size :	264					

## Output #10f

Average weekly hours worked 2020 - 2021:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	2309.0	18.039062	14.0	18.0	24.0	128
25 to 34 years	4263.0	30.450000	25.0	30.0	36.0	140
35 to 44 years	4754.0	33.957143	28.0	34.0	39.0	140
45 to 54 years	4924.0	35.171429	30.0	35.0	41.0	140
55 to 64 years	4513.0	32.235714	26.0	32.0	40.0	140
65 years old and over	2651.0	20.710938	11.0	21.0	27.0	128
Overall,						
Sum :	23414.0					
Mean :	28.693627450980394					
Min/median/max :	11.0 / 31.0 / 41.0					
Skewnewss :	-0.5845841137219482					
Total size :	816					

2020

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	4150.0	29.642857	26.0	30.0	34.0	140
Male employees	4380.0	31.285714	26.0	32.0	35.0	140
Overall,						
Sum :	8530.0					
Mean :	30.464285714285715					
Min/median/max :	26.0 / 31.0 / 35.0					
Skewnewss :	-0.3715115707511629					
Total size :	280					

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	3527.0	25.192857	20.0	25.0	32.0	140
Trade certificate	3918.0	29.681818	22.0	30.0	34.0	132
University degree and higher	4368.0	33.090909	30.0	33.0	38.0	132
Overall,						
Sum :	11813.0					
Mean :	29.24009900990099					
Min/median/max :	20.0 / 30.0 / 38.0					
Skewnewss :	-0.14812476676715253					
Total size :	404					

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	4085.0	30.946970	26.0	31.0	43.0	132
Non-immigrant employees	3973.0	30.098485	25.0	30.0	33.0	132
Overall,						
Sum :	8058.0					
Mean :	30.522727272727273					
Min/median/max :	25.0 / 30.0 / 43.0					
Skewnewss :	1.751178259080996					
Total size :	264					

## Output #10g

Number of Jobs above 2016:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	6982797.0	18184.367188	17.0	4226.5	247960.0	384
25 to 34 years	14834434.0	35320.080952	19.0	6175.5	564788.0	420
35 to 44 years	14617498.0	34803.566667	18.0	6187.5	561685.0	420
45 to 54 years	14444696.0	34392.133333	16.0	6021.0	529125.0	420
55 to 64 years	12756180.0	30371.857143	12.0	5427.5	472689.0	420
65 years old and over	4657335.0	12128.476562	21.0	2629.5	173157.0	384

Overall,

Sum : 68292940.0

Mean : 27897.442810457516

Min/median/max : 12.0 / 4558.5 / 564788.0

Skewnewss : 4.809331956520746

Total size : 2448

Year of above 2016

	sum	mean	amin	median	\
Characteristics					
High school diploma and less	14551112.0	34645.504762	40.0	8369.0	
Trade certificate	4557958.0	11509.994949	13.0	1946.0	
University degree and higher	31835328.0	80392.242424	42.0	13542.0	

	amax	size
Characteristics		
High school diploma and less	506866.0	420
Trade certificate	170641.0	396
University degree and higher	1230063.0	396

Overall,

Sum : 50944398.0

Mean : 42033.33168316832

Min/median/max : 13.0 / 5139.5 / 1230063.0

Skewnewss : 6.08465597519352

Total size : 1212

Year of above 2016

	sum	mean	amin	median	\
Characteristics					
High school diploma and less	14551112.0	34645.504762	40.0	8369.0	
Trade certificate	4557958.0	11509.994949	13.0	1946.0	
University degree and higher	31835328.0	80392.242424	42.0	13542.0	

	amax	size
Characteristics		
High school diploma and less	506866.0	420
Trade certificate	170641.0	396
University degree and higher	1230063.0	396

Overall,

Sum : 50944398.0

Mean : 42033.33168316832

Min/median/max : 13.0 / 5139.5 / 1230063.0

Skewnewss : 6.08465597519352

Total size : 1212

	sum	mean	amin	median	amax	\
Characteristics						
Immigrant employees	17614399.0	44480.805556	19.0	4334.0	677236.0	
Non-immigrant employees	50671265.0	127957.739899	161.0	30082.5	1866156.0	

	size
Characteristics	
Immigrant employees	396
Non-immigrant employees	396

Overall,  
Sum : 68285664.0  
Mean : 86219.27272727272  
Min/median/max : 19.0 / 14160.5 / 1866156.0  
Skewnewss : 5.204460055376147  
Total size : 792

## Output #10g

Number of Job in 2016 - 2017

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	2375186.0	18556.140625	17.0	4338.0	246127.0	128
25 to 34 years	4760712.0	34005.085714	22.0	6002.5	513887.0	140
35 to 44 years	4649406.0	33210.042857	22.0	6092.5	502806.0	140
45 to 54 years	4840508.0	34575.057143	16.0	6165.0	525300.0	140
55 to 64 years	4182174.0	29872.671429	12.0	5584.0	447619.0	140
65 years old and over	1455079.0	11367.804688	21.0	2334.5	154176.0	128

Overall,

Sum : 22263065.0

Mean : 27283.167892156864

Min/median/max : 12.0 / 4409.0 / 525300.0

Skewnewss : 4.782815550728634

Total size : 816

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	15422076.0	110157.685714	40.0	18709.5	1665533.0	140
Male employees	6842504.0	48875.028571	46.0	9170.0	714167.0	140

Overall,

Sum : 22264580.0

Mean : 79516.35714285714

Min/median/max : 40.0 / 12430.5 / 1665533.0

Skewnewss : 5.156370848063688

Total size : 280

	sum	mean	amin	median	\
Characteristics					
High school diploma and less	4883842.0	34884.585714	46.0	8309.5	
Trade certificate	1549667.0	11739.901515	14.0	2053.5	
University degree and higher	10071923.0	76302.446970	42.0	13001.0	

	amax	size
Characteristics		
High school diploma and less	498584.0	140
Trade certificate	170641.0	132
University degree and higher	1098295.0	132

Overall,

Sum : 16505432.0

Mean : 40855.0297029703

Min/median/max : 14.0 / 5493.5 / 1098295.0

Skewnewss : 5.958546988102031

Total size : 404

	sum	mean	amin	median	amax	\
Characteristics						
Immigrant employees	5568069.0	42182.340909	19.0	3979.5	606032.0	
Non-immigrant employees	16692562.0	126458.803030	162.0	29465.5	1776859.0	

	size
Characteristics	

Immigrant employees 132  
Non-immigrant employees 132  
Overall,  
Sum : 22260631.0  
Mean : 84320.57196969698  
Min/median/max : 19.0 / 13887.5 / 1776859.0  
Skewnewss : 5.250208065690229  
Total size : 264

## Output #10g

Number of job in 2018 - 2019:

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	2390236.0	18673.718750	26.0	4368.5	247960.0	128
25 to 34 years	4985340.0	35609.571429	22.0	6309.0	542159.0	140
35 to 44 years	4901766.0	35012.614286	21.0	6385.5	535395.0	140
45 to 54 years	4821504.0	34439.314286	17.0	6090.5	519806.0	140
55 to 64 years	4286470.0	30617.642857	14.0	5653.5	461564.0	140
65 years old and over	1604437.0	12534.664062	24.0	2723.0	169257.0	128

Overall,

Sum : 22989753.0

Mean : 28173.716911764706

Min/median/max : 14.0 / 4578.0 / 542159.0

Skewnewss : 4.774502094747804

Total size : 816

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	15941504.0	113867.885714	39.0	19940.5	1730753.0	140
Male employees	7049804.0	50355.742857	45.0	9285.5	745386.0	140

Overall,

Sum : 22991308.0

Mean : 82111.81428571428

Min/median/max : 39.0 / 12831.5 / 1730753.0

Skewnewss : 5.150256297803298

Total size : 280

	sum	mean	amin	median	\
Characteristics					
High school diploma and less	4949338.0	35352.414286	45.0	8299.0	
Trade certificate	1523186.0	11539.287879	13.0	1926.5	
University degree and higher	10701094.0	81068.893939	46.0	13754.0	

	amax	size
Characteristics		
High school diploma and less	506866.0	140
Trade certificate	166063.0	132
University degree and higher	1176307.0	132

Overall,

Sum : 17173618.0

Mean : 42508.955445544554

Min/median/max : 13.0 / 5360.5 / 1176307.0

Skewnewss : 6.043705875075848

Total size : 404

	sum	mean	amin	median	amax	\
Characteristics						
Immigrant employees	5939424.0	44995.636364	21.0	4263.0	650616.0	
Non-immigrant employees	17047959.0	129151.204545	161.0	30233.0	1825523.0	

	size
Characteristics	

Immigrant employees 132  
Non-immigrant employees 132  
Overall,  
Sum : 22987383.0  
Mean : 87073.42045454546  
Min/median/max : 21.0 / 14628.0 / 1825523.0  
Skewnewss : 5.1994622671025414  
Total size : 264



## Output #10h

Number of job 2020 - 2021

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	2217375.0	17323.242188	24.0	3849.5	241944.0	128
25 to 34 years	5088382.0	36345.585714	19.0	6201.5	564788.0	140
35 to 44 years	5066326.0	36188.042857	18.0	6055.5	561685.0	140
45 to 54 years	4782684.0	34162.028571	16.0	5578.5	529125.0	140
55 to 64 years	4287536.0	30625.257143	13.0	5197.5	472689.0	140
65 years old and over	1597819.0	12482.960938	26.0	2700.5	173157.0	128

Overall,

Sum : 23040122.0

Mean : 28235.44362745098

Min/median/max : 13.0 / 4637.5 / 564788.0

Skewnewss : 4.871696721462427

Total size : 816

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	16062712.0	114733.657143	37.0	19062.0	1788569.0	140
Male employees	6979072.0	49850.514286	43.0	9239.5	754820.0	140

Overall,

Sum : 23041784.0

Mean : 82292.08571428571

Min/median/max : 37.0 / 12422.5 / 1788569.0

Skewnewss : 5.231432687317265

Total size : 280

	sum	mean	amin	median	\
Characteristics					
High school diploma and less	4717932.0	33699.514286	40.0	8612.5	
Trade certificate	1485105.0	11250.795455	13.0	1799.5	
University degree and higher	11062311.0	83805.386364	52.0	13797.5	

	amax	size
Characteristics		
High school diploma and less	502837.0	140
Trade certificate	167537.0	132
University degree and higher	1230063.0	132

Overall,

Sum : 17265348.0

Mean : 42736.0099009901

Min/median/max : 13.0 / 4969.0 / 1230063.0

Skewnewss : 6.228267414273292

Total size : 404

	sum	mean	amin	median	amax	\
Characteristics						
Immigrant employees	6106906.0	46264.439394	23.0	4384.0	677236.0	
Non-immigrant employees	16930744.0	128263.212121	167.0	29581.5	1866156.0	

	size
Characteristics	

```
Immigrant employees      132
Non-immigrant employees  132
Overall,
Sum : 23037650.0
Mean : 87263.82575757576
Min/median/max : 23.0 / 14330.0 / 1866156.0
Skewnewss : 5.220133469489707
Total size : 264
```

As final steps, I have decided to divide it into province levels to show more accurate result that I did. Skipping this step does not easily able to analysis the data properly. I have tried to analysis as-is in panda-profiling. However, it does not show the result I want to display. Also, in this step, I decided to use Python class methods to reduce the codes and reduce the process. Also, I only decided to analysis the necessary part purpose of this analysis. The next page will illustrate the result of my analysis.

## Output #11

### Ontario

I only grabbed the datasets from “Average annual hours worked” in Ontario only. I have analyzed the entire Province given in the dataset. Also, I have analyzed all the data from the ‘Indicators’ columns. Overall, based on the observations I have dealt with, I saw that there are 30 per each section (Characteristics), total of 180 for Age group, and if it is divided into three sets, each datasets contains 10 observations, 60 observations total in Age group, per each section. Other observations that I made are going to be on Github page. Here are the details of what I am dealing with.

#### 2016 - Overall By Age group

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	25871.0	862.366667	823.0	858.5	932.0	30
25 to 34 years	48887.0	1629.566667	1529.0	1604.0	1775.0	30
35 to 44 years	53337.0	1777.900000	1647.0	1767.5	1929.0	30
45 to 54 years	55561.0	1852.033333	1722.0	1841.0	1965.0	30
55 to 64 years	51628.0	1720.933333	1592.0	1717.0	1816.0	30
65 years old and over	32424.0	1080.800000	1005.0	1070.0	1192.0	30

Overall,

Sum : 267708.0

Mean : 1487.2666666666667

Min/median/max : 823.0 / 1668.5 / 1965.0

Skewnewss : -0.6570407167629846

Total size : 180

2016

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	8488.0	848.8	832.0	851.5	864.0	10
25 to 34 years	16353.0	1635.3	1561.0	1604.0	1775.0	10
35 to 44 years	17925.0	1792.5	1732.0	1770.5	1929.0	10
45 to 54 years	18573.0	1857.3	1801.0	1841.5	1965.0	10
55 to 64 years	17272.0	1727.2	1673.0	1717.0	1816.0	10
65 years old and over	10865.0	1086.5	1050.0	1072.5	1157.0	10

Overall,

Sum : 89476.0

Mean : 1491.2666666666667

Min/median/max : 832.0 / 1691.5 / 1965.0

Skewnewss : -0.68191073630397

Total size : 60

2018

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	8573.0	857.3	840.0	858.0	878.0	10
25 to 34 years	16288.0	1628.8	1547.0	1604.0	1755.0	10
35 to 44 years	17794.0	1779.4	1716.0	1762.5	1895.0	10
45 to 54 years	18555.0	1855.5	1794.0	1834.0	1950.0	10
55 to 64 years	17193.0	1719.3	1653.0	1714.0	1804.0	10
65 years old and over	10661.0	1066.1	1015.0	1053.5	1148.0	10

Overall,

Sum : 89064.0

Mean : 1484.4

Min/median/max : 840.0 / 1672.5 / 1950.0

Skewnewss : -0.6623979161779437

Total size : 60

2020

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
15 to 24 years	8810.0	881.0	823.0	879.0	932.0	10
25 to 34 years	16246.0	1624.6	1529.0	1607.0	1765.0	10
35 to 44 years	17618.0	1761.8	1647.0	1758.5	1874.0	10
45 to 54 years	18433.0	1843.3	1722.0	1846.5	1942.0	10
55 to 64 years	17163.0	1716.3	1592.0	1726.0	1806.0	10
65 years old and over	10898.0	1089.8	1005.0	1080.5	1192.0	10

Overall,

Sum : 89168.0

Mean : 1486.1333333333334

Min/median/max : 823.0 / 1645.5 / 1942.0

Skewnewss : -0.659864707660367

Total size : 60

## 2016 - Overall By Gender Group

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	47367.0	1578.900000	1472.0	1580.5	1657.0	30
Male employees	48686.0	1622.866667	1526.0	1605.5	1740.0	30

Overall,

Sum : 96053.0

Mean : 1600.8833333333334

Min/median/max : 1472.0 / 1598.5 / 1740.0

Skewnewss : 0.4688698505211532

Total size : 60

## 2016

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	15774.0	1577.4	1528.0	1580.5	1634.0	10
Male employees	16312.0	1631.2	1579.0	1609.5	1720.0	10

Overall,

Sum : 32086.0

Mean : 1604.3

Min/median/max : 1528.0 / 1599.5 / 1720.0

Skewnewss : 0.8297926728454197

Total size : 20

## 2018

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	15760.0	1576.0	1521.0	1576.0	1631.0	10
Male employees	16135.0	1613.5	1566.0	1595.0	1710.0	10

Overall,

Sum : 31895.0

Mean : 1594.75

Min/median/max : 1521.0 / 1589.0 / 1710.0

Skewnewss : 0.9999540982059316

Total size : 20

2020

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
Female employees	15833.0	1583.3	1472.0	1591.5	1657.0	10
Male employees	16239.0	1623.9	1526.0	1616.5	1740.0	10

Overall,

Sum : 32072.0

Mean : 1603.6

Min/median/max : 1472.0 / 1607.5 / 1740.0

Skewnewss : 0.007872893362338094

Total size : 20

## 2016 - Overall By Education Level

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	\
Characteristics						
High school diploma and less	38330.0	1277.666667	1171.0	1264.0	1423.0	
Trade certificate	46242.0	1541.400000	1396.0	1518.5	1740.0	
University degree and higher	51274.0	1709.133333	1615.0	1694.5	1808.0	

	size
Characteristics	
High school diploma and less	30
Trade certificate	30
University degree and higher	30

Overall,  
Sum : 135846.0  
Mean : 1509.4  
Min/median/max : 1171.0 / 1518.5 / 1808.0  
Skewnewss : -0.2291278841145543  
Total size : 90

## 2016

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	12842.0	1284.2	1205.0	1268.5	1406.0	10
Trade certificate	15733.0	1573.3	1504.0	1540.0	1740.0	10
University degree and higher	17157.0	1715.7	1664.0	1699.0	1804.0	10

Overall,  
Sum : 45732.0  
Mean : 1524.4  
Min/median/max : 1205.0 / 1540.0 / 1804.0  
Skewnewss : -0.3234027720351197  
Total size : 30

## 2018

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	12673.0	1267.3	1194.0	1251.0	1392.0	10
Trade certificate	15374.0	1537.4	1454.0	1514.5	1687.0	10
University degree and higher	17064.0	1706.4	1649.0	1687.5	1800.0	10

Overall,  
Sum : 45111.0  
Mean : 1503.7  
Min/median/max : 1194.0 / 1514.5 / 1800.0  
Skewnewss : -0.25072265045821895



Total size : 30

2020

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
High school diploma and less	12815.0	1281.5	1171.0	1272.0	1423.0	10
Trade certificate	15135.0	1513.5	1396.0	1503.5	1659.0	10
University degree and higher	17053.0	1705.3	1615.0	1701.0	1808.0	10

Overall,

Sum : 45003.0

Mean : 1500.1

Min/median/max : 1171.0 / 1503.5 / 1808.0

Skewnewss : -0.1415529884076386

Total size : 30

## 2016 - Overall By Immigrant Status

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	48100.0	1603.333333	1477.0	1597.5	1706.0	30
Non-immigrant employees	47748.0	1591.600000	1494.0	1585.5	1691.0	30

Overall,

Sum : 95848.0

Mean : 1597.4666666666667

Min/median/max : 1477.0 / 1590.5 / 1706.0

Skewnewss : 0.2995525107517729

Total size : 60

## 2016

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	16108.0	1610.8	1557.0	1599.0	1706.0	10
Non-immigrant employees	15914.0	1591.4	1547.0	1585.5	1660.0	10

Overall,

Sum : 32022.0

Mean : 1601.1

Min/median/max : 1547.0 / 1594.0 / 1706.0

Skewnewss : 1.2353871719210683

Total size : 20

## 2018

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	15989.0	1598.9	1535.0	1586.5	1685.0	10
Non-immigrant employees	15865.0	1586.5	1540.0	1571.5	1657.0	10

Overall,

Sum : 31854.0

Mean : 1592.7

Min/median/max : 1535.0 / 1580.0 / 1685.0

Skewnewss : 0.8277873293109093

Total size : 20

2020

Grab the dataset only in Ontario

	sum	mean	amin	median	amax	size
Characteristics						
Immigrant employees	16003.0	1600.3	1477.0	1604.5	1697.0	10
Non-immigrant employees	15969.0	1596.9	1494.0	1598.5	1691.0	10

Overall,

Sum : 31972.0

Mean : 1598.6

Min/median/max : 1477.0 / 1598.5 / 1697.0

Skewnewss : -0.253968946074371

Total size : 20

