

# PublicationReadingLevelAnalysis

March 17, 2016

```
In [1]: from textstat.textstat import textstat
import csv
import pandas
import matplotlib
#matplotlib.style.use('ggplot')
%matplotlib inline
import ast

In [2]: trump_df = pandas.read_csv('data/all_trump_w_topics.csv')
trump_df['candidate'] = 'trump'
clinton_df = pandas.read_csv('data/all_clinton_w_topics.csv')
clinton_df['candidate'] = 'clinton'
sanders_df = pandas.read_csv('data/all_sanders_w_topics.csv')
sanders_df['candidate'] = 'sanders'
cruz_df = pandas.read_csv('data/all_cruz_w_topics.csv')
cruz_df['candidate'] = 'cruz'
ORGS = ['nyt', 'wsj', 'cnm', 'fox', 'ap', 'reuters', 'politico', 'mcclatchy', 'buzzfeed', 'huffpo']

In [3]: n = len(clinton_df)
clinton_df.index = xrange(len(trump_df), (len(trump_df) + n))
m = len(sanders_df)
sanders_df.index = xrange(max(clinton_df.index), max(clinton_df.index) + m)
c = len(cruz_df)
cruz_df.index = xrange(max(sanders_df.index), max(sanders_df.index) + c)

In [4]: all_df = pandas.concat([trump_df, clinton_df, sanders_df, cruz_df])
all_df['gunning_fog'] = all_df['body'].apply(lambda x: textstat.gunning_fog(x) if type(x) == str else 0)
all_df['flesch'] = all_df['body'].apply(lambda x: textstat.flesch_kincaid_grade(x) if type(x) == str else 0)
all_df['readability'] = all_df['body'].apply(lambda x: textstat.flesch_reading_ease(x) if type(x) == str else 0)
```

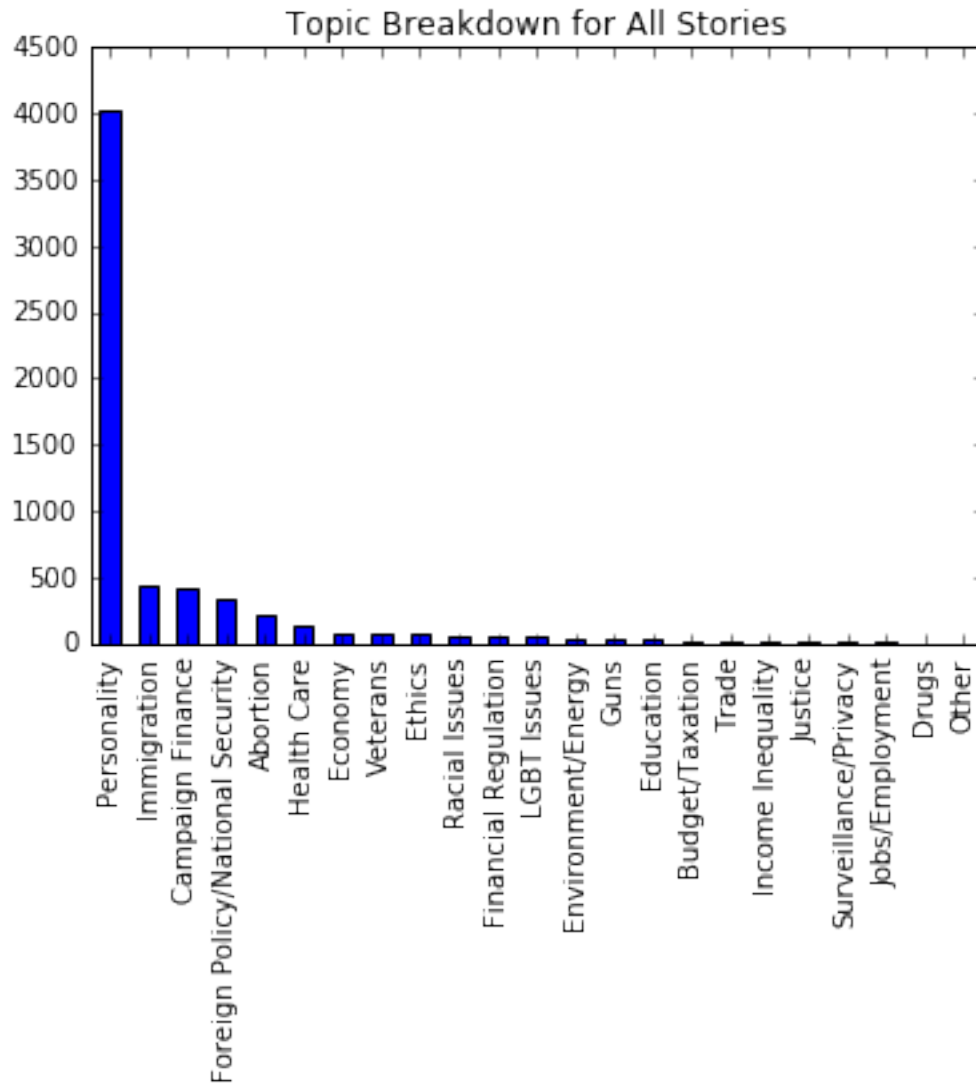
## 1 Convert topics to Dict and Filter by > 0.1

```
In [5]: all_df['topic_dict'] = all_df['topic'].apply(lambda d: ast.literal_eval(d))
all_df['top_topics'] = all_df['topic_dict'].apply(lambda d: {k:v for k, v in d.iteritems() if v > 0.1})
all_df['topic_list'] = all_df['top_topics'].apply(lambda d: d.keys())
all_df['top_topic'] = all_df['topic_dict'].apply(lambda d: max(d, key=lambda i: d[i]))
```

## 2 Breakdown of Story Topics

```
In [6]: all_df['top_topic'].value_counts().plot(kind="bar", title="Topic Breakdown for All Stories")
# Top 10: Personality, Immigration, Campaign Finance, Foreign Policy/National Security, Abortion,
# Health Care, Economy, Veterans, Ethics, Racial Issues
```

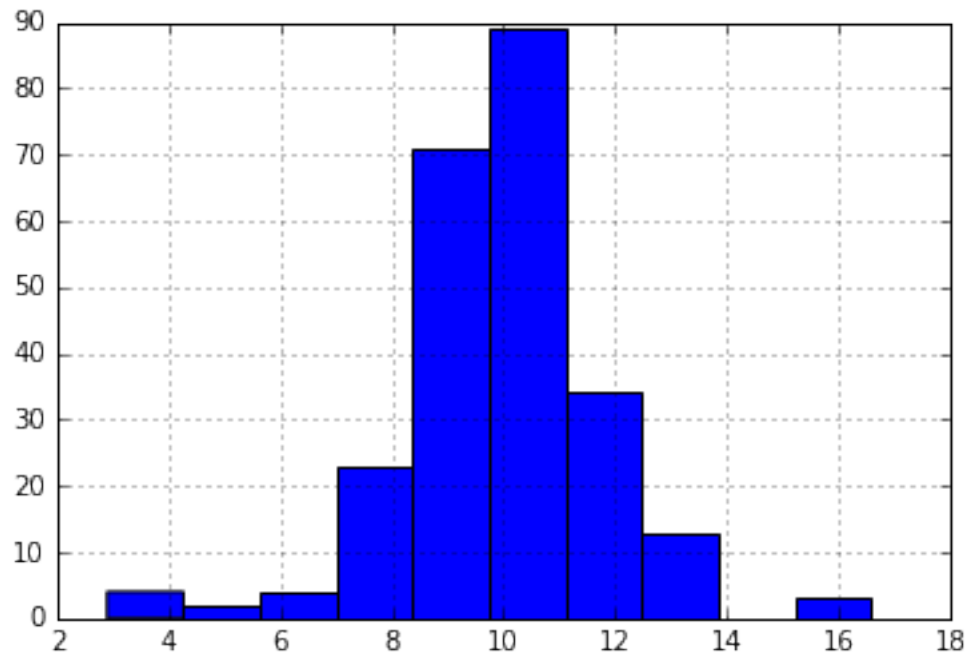
Out[6]: <matplotlib.axes.\_subplots.AxesSubplot at 0x1041f2b10>



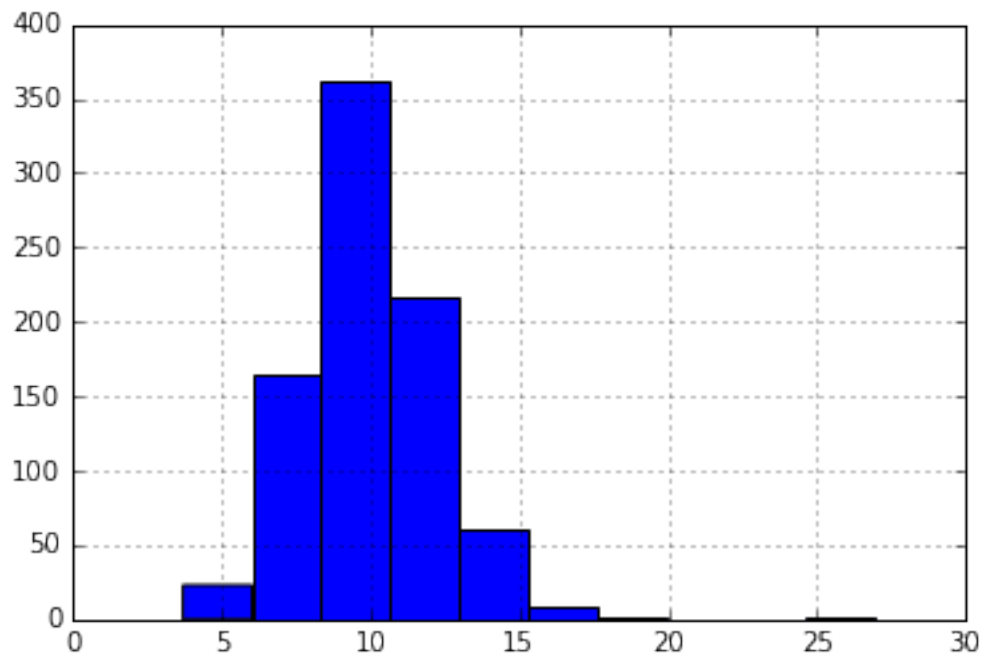
## 2.1 Average Reading Level Per Publication (Include All Stories)

```
In [22]: ORGS = all_df['org'].unique()
         for o in ORGS:
             print "Flesch Score Dist for",o
             all_df[all_df['org'] == o]['flesch'].hist()
             print "Avg:", "%.2f" % all_df[all_df['org'] == o]['flesch'].mean()
             matplotlib.pyplot.show()
```

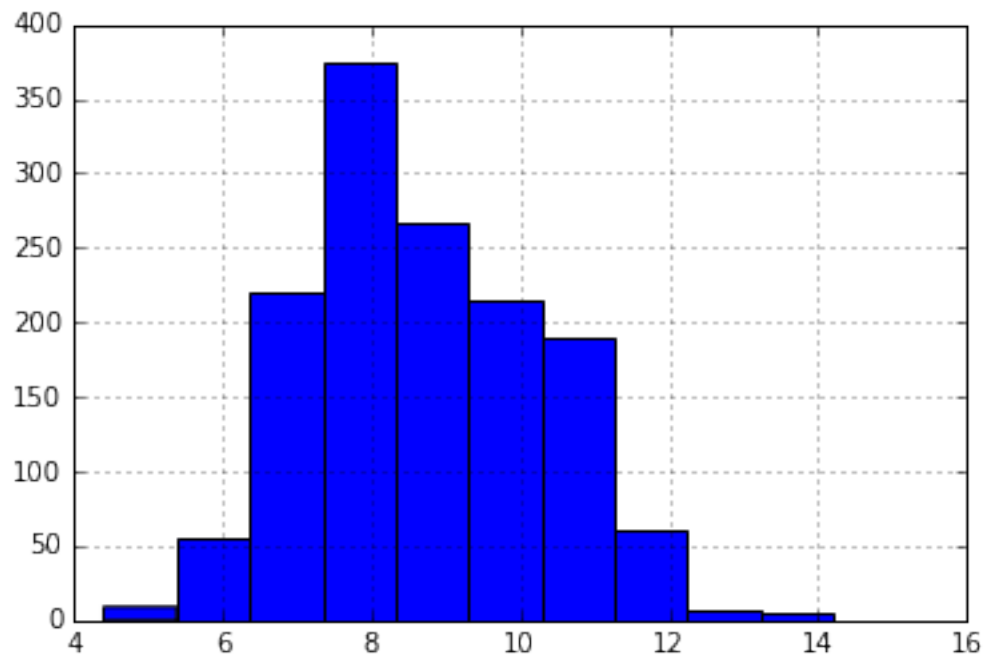
Flesch Score Dist for latimes  
Avg: 9.91



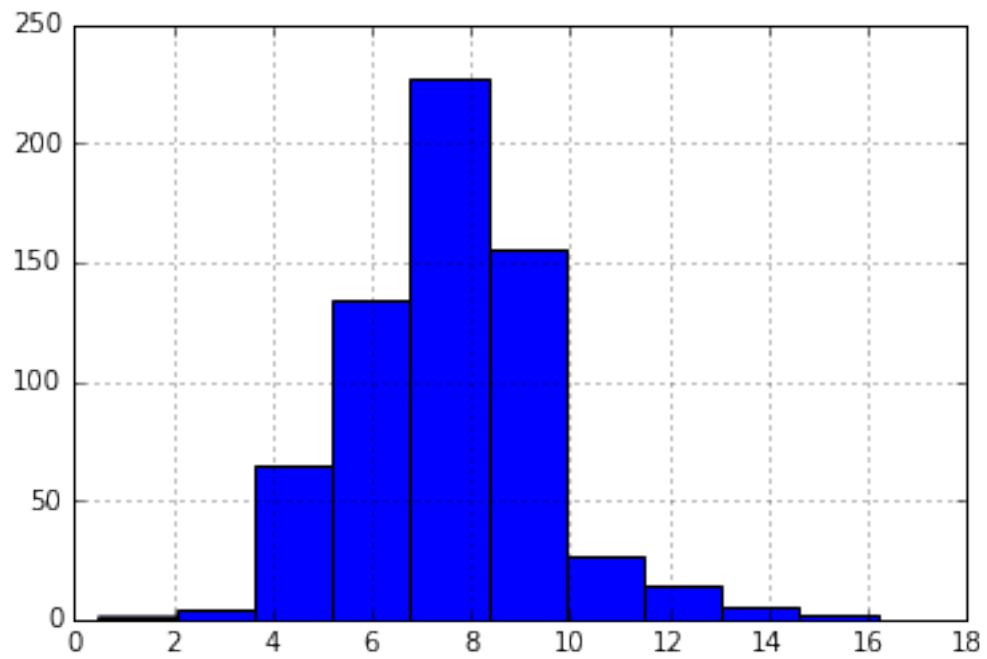
Flesch Score Dist for huffpo  
Avg: 9.83



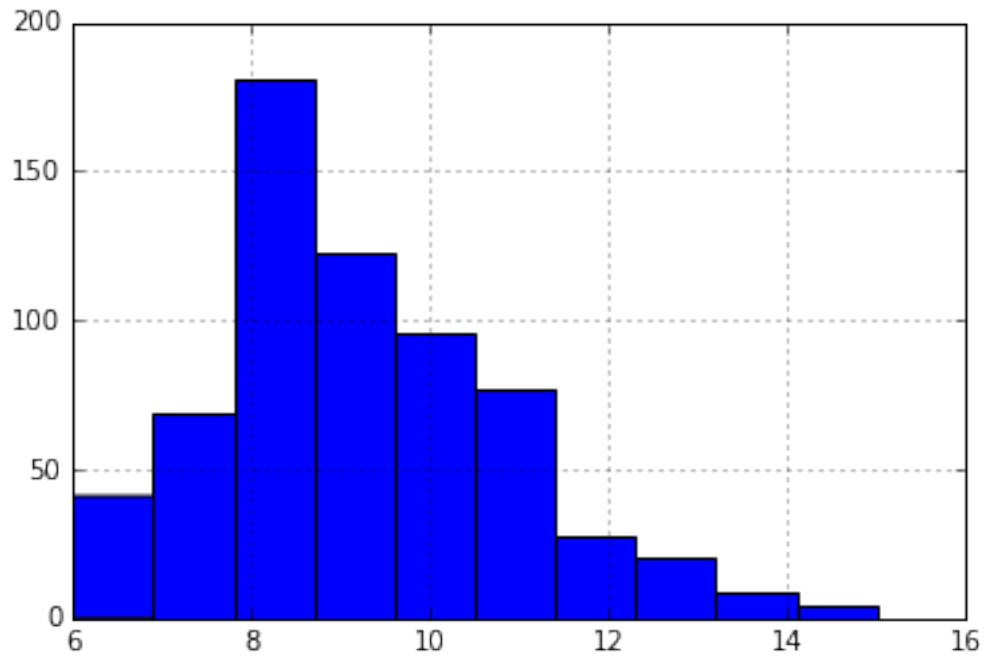
Flesch Score Dist for politico  
Avg: 8.69



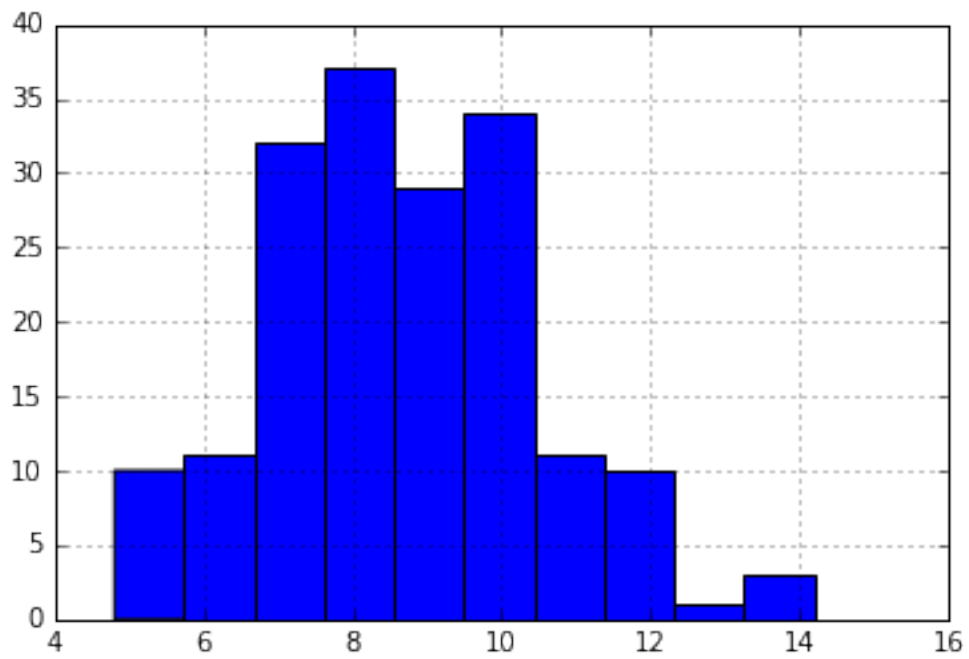
Flesch Score Dist for nyt  
Avg: 7.53



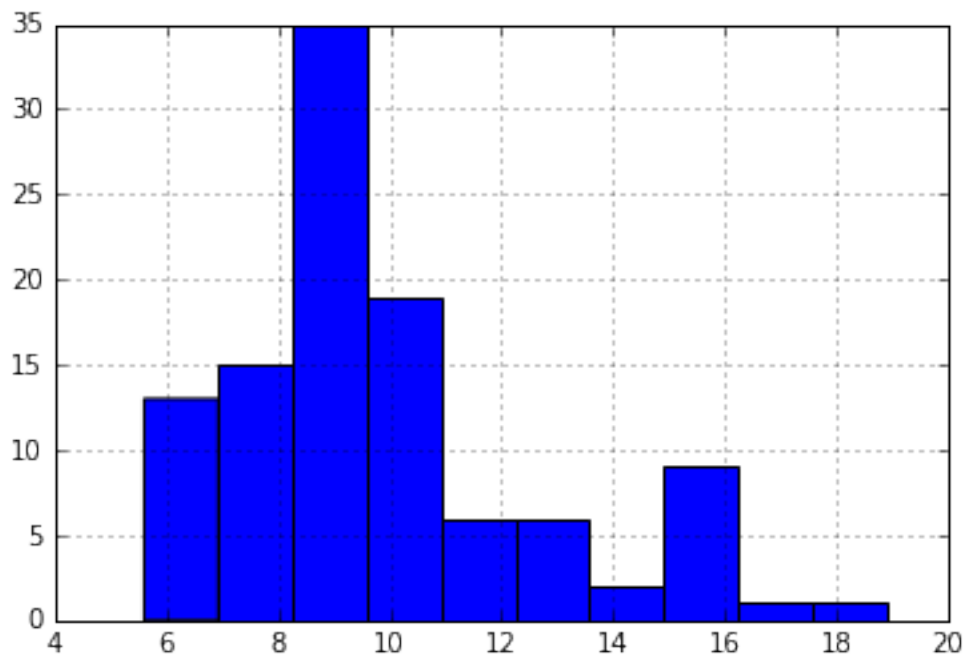
Flesch Score Dist for fox  
Avg: 9.25



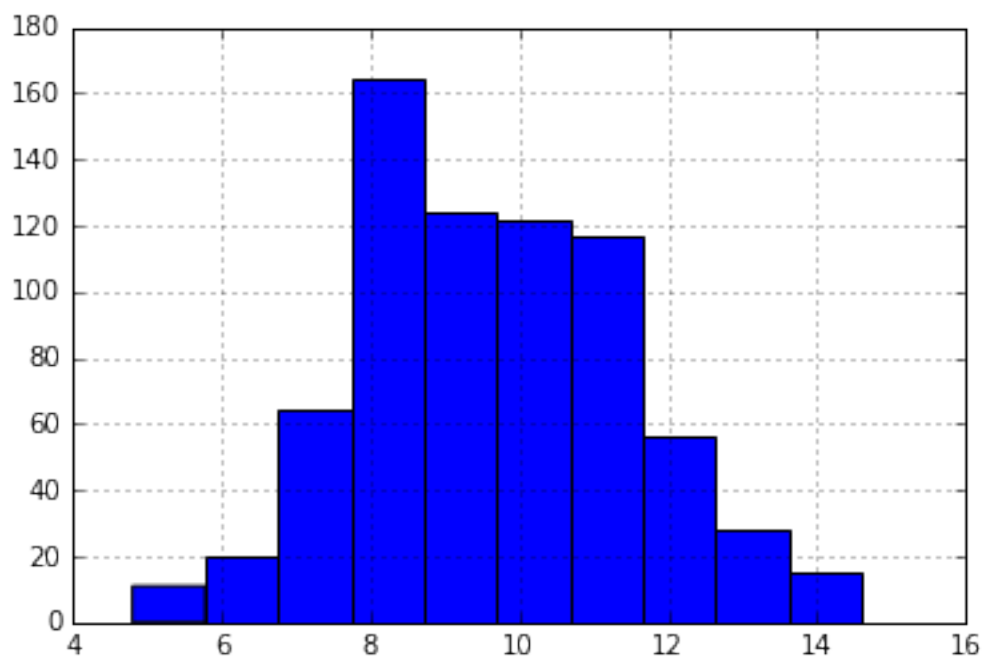
Flesch Score Dist for mcclatchy  
Avg: 8.64



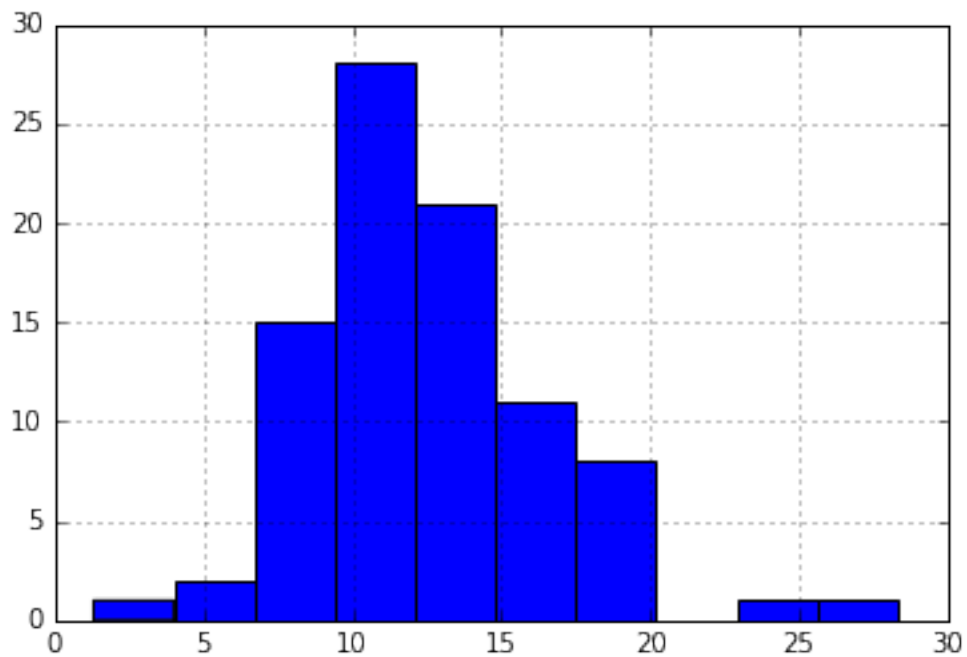
Flesch Score Dist for npr  
Avg: 9.87



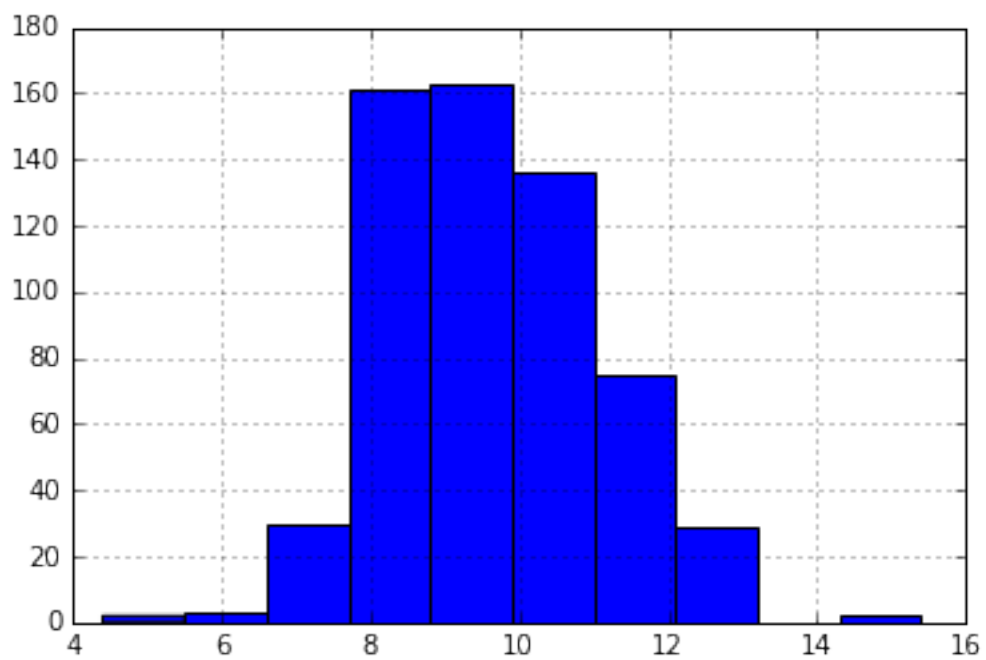
Flesch Score Dist for cnn  
Avg: 9.63



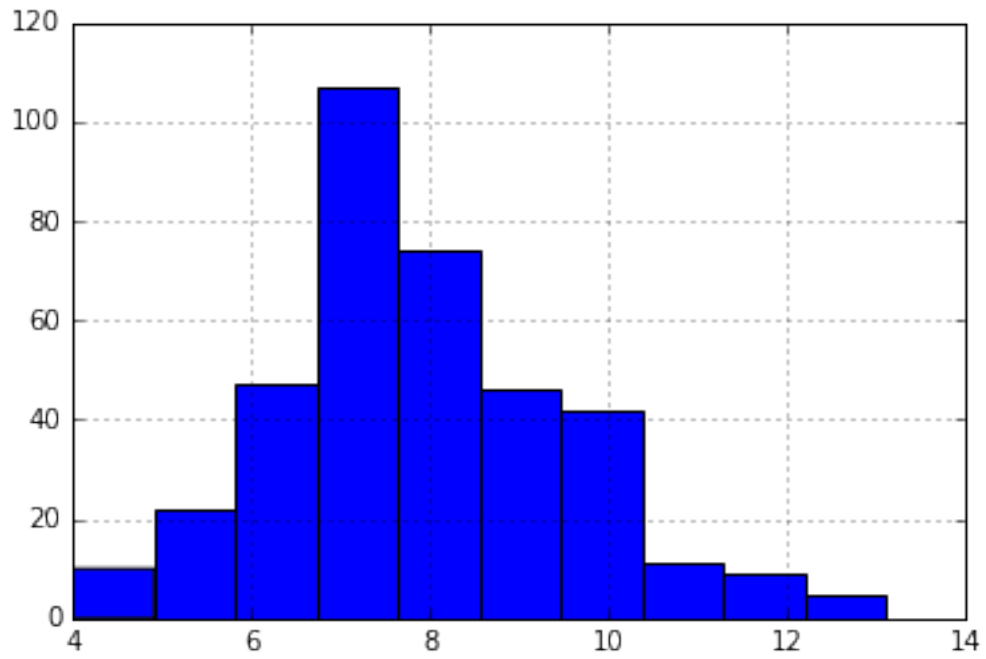
Flesch Score Dist for buzzfeed  
Avg: 12.35



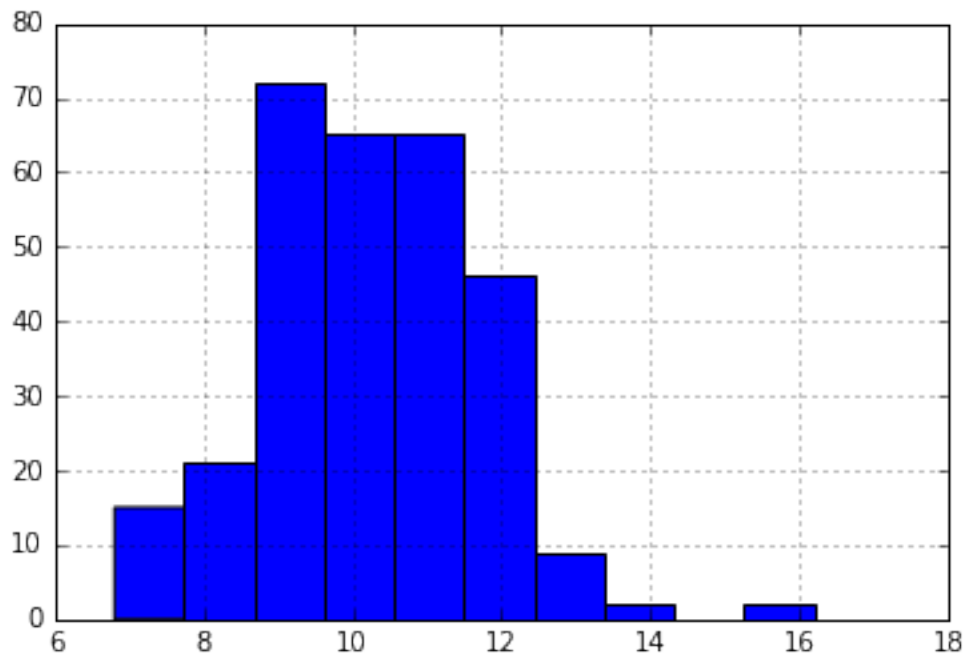
Flesch Score Dist for ap  
Avg: 9.62



Flesch Score Dist for wsj  
Avg: 7.90



Flesch Score Dist for reuters  
Avg: 10.17





## 2.2 Reading Level Per Publication Per Topic

```
In [23]: TOPICS = ['Immigration', 'Campaign Finance', 'Foreign Policy/National Security',  
                  'Abortion', 'Health Care', 'Economy', 'Veterans', 'Ethics', 'Racial Issues', 'Financials']
```

```
In [34]: for t in TOPICS:  
    scores = []  
    for o in ORGS:  
        scores.append((o, all_df[(all_df['top_topic'] == t) & (all_df['org'] == o)][['flesch']].mean()  
                        len(all_df[(all_df['org'] == o) & (all_df['top_topic'] == t)])))  
  
    scores.sort(key=lambda x: x[1], reverse=True)  
  
    print "TOPIC", t  
    for s in scores:  
        print s[0], '%.2f' % s[1], "avg", "(", s[2], "stories )"  
    print
```

TOPIC Immigration

```
buzzfeed 12.39 avg ( 9 stories )  
latimes 10.40 avg ( 27 stories )  
reuters 10.22 avg ( 33 stories )  
huffpo 10.04 avg ( 67 stories )  
cnn 9.75 avg ( 63 stories )  
ap 9.66 avg ( 33 stories )  
fox 9.57 avg ( 56 stories )  
npr 9.34 avg ( 7 stories )  
mcclatchy 9.22 avg ( 23 stories )  
politico 8.32 avg ( 35 stories )  
wsj 7.69 avg ( 22 stories )  
nyt 7.44 avg ( 70 stories )
```

TOPIC Campaign Finance

```
buzzfeed 16.62 avg ( 5 stories )  
huffpo 10.74 avg ( 36 stories )  
reuters 10.39 avg ( 17 stories )  
cnn 10.09 avg ( 33 stories )  
latimes 9.87 avg ( 16 stories )  
fox 9.60 avg ( 32 stories )  
npr 9.20 avg ( 2 stories )  
ap 9.05 avg ( 33 stories )  
politico 8.85 avg ( 125 stories )  
mcclatchy 8.70 avg ( 7 stories )  
wsj 7.73 avg ( 29 stories )  
nyt 7.48 avg ( 87 stories )
```

TOPIC Foreign Policy/National Security

```
buzzfeed 13.52 avg ( 9 stories )  
reuters 10.37 avg ( 6 stories )  
npr 10.12 avg ( 4 stories )  
cnn 9.95 avg ( 49 stories )  
huffpo 9.90 avg ( 55 stories )  
latimes 9.59 avg ( 7 stories )  
ap 9.00 avg ( 33 stories )  
wsj 8.75 avg ( 33 stories )
```

fox 8.64 avg ( 43 stories )  
politico 8.53 avg ( 59 stories )  
nyt 8.07 avg ( 30 stories )  
mcclatchy 7.79 avg ( 9 stories )

#### TOPIC Abortion

buzzfeed 13.20 avg ( 6 stories )  
latimes 10.97 avg ( 6 stories )  
ap 10.70 avg ( 15 stories )  
reuters 10.48 avg ( 9 stories )  
cnn 10.07 avg ( 22 stories )  
fox 9.88 avg ( 21 stories )  
huffpo 9.75 avg ( 22 stories )  
npr 9.10 avg ( 2 stories )  
mcclatchy 9.05 avg ( 6 stories )  
politico 8.42 avg ( 49 stories )  
wsj 7.35 avg ( 18 stories )  
nyt 7.19 avg ( 33 stories )

#### TOPIC Health Care

mcclatchy 12.23 avg ( 3 stories )  
npr nan avg ( 0 stories )  
buzzfeed 12.70 avg ( 1 stories )  
ap 12.16 avg ( 7 stories )  
latimes 11.17 avg ( 6 stories )  
reuters 10.78 avg ( 5 stories )  
fox 10.63 avg ( 19 stories )  
politico 10.26 avg ( 15 stories )  
huffpo 10.17 avg ( 26 stories )  
wsj 9.22 avg ( 12 stories )  
cnn 9.18 avg ( 21 stories )  
nyt 7.96 avg ( 24 stories )

#### TOPIC Economy

mcclatchy nan avg ( 0 stories )  
npr 18.90 avg ( 1 stories )  
politico 10.70 avg ( 1 stories )  
huffpo 10.50 avg ( 26 stories )  
buzzfeed nan avg ( 0 stories )  
ap 10.43 avg ( 6 stories )  
reuters 10.12 avg ( 4 stories )  
latimes 9.90 avg ( 2 stories )  
cnn 9.10 avg ( 1 stories )  
fox 8.83 avg ( 10 stories )  
nyt 8.50 avg ( 8 stories )  
wsj 8.45 avg ( 12 stories )

#### TOPIC Veterans

politico nan avg ( 0 stories )  
buzzfeed 11.45 avg ( 2 stories )  
reuters 10.88 avg ( 6 stories )  
cnn 9.59 avg ( 14 stories )  
ap 9.42 avg ( 10 stories )  
mcclatchy 9.28 avg ( 5 stories )

```
latimes 9.10 avg ( 1 stories )
huffpo 9.07 avg ( 8 stories )
npr 8.55 avg ( 2 stories )
fox 8.12 avg ( 12 stories )
nyt 7.51 avg ( 8 stories )
wsj 7.20 avg ( 2 stories )
```

#### TOPIC Ethics

```
buzzfeed 18.10 avg ( 2 stories )
latimes 12.65 avg ( 2 stories )
cnn 11.63 avg ( 3 stories )
fox 11.55 avg ( 19 stories )
npr 11.27 avg ( 3 stories )
politico 10.71 avg ( 14 stories )
huffpo 10.64 avg ( 5 stories )
ap 10.06 avg ( 5 stories )
wsj 10.01 avg ( 9 stories )
mcclatchy 9.15 avg ( 2 stories )
reuters 8.70 avg ( 1 stories )
nyt 6.93 avg ( 3 stories )
```

#### TOPIC Racial Issues

```
fox 10.70 avg ( 4 stories )
huffpo 10.58 avg ( 26 stories )
npr nan avg ( 0 stories )
buzzfeed nan avg ( 0 stories )
reuters 11.10 avg ( 1 stories )
ap 10.30 avg ( 1 stories )
cnn 10.25 avg ( 11 stories )
politico 9.50 avg ( 4 stories )
latimes 9.35 avg ( 2 stories )
wsj 9.10 avg ( 1 stories )
nyt 7.91 avg ( 8 stories )
mcclatchy 7.20 avg ( 2 stories )
```

#### TOPIC Financial Regulation

```
latimes nan avg ( 0 stories )
huffpo 11.17 avg ( 10 stories )
fox 11.10 avg ( 1 stories )
mcclatchy 9.98 avg ( 5 stories )
npr nan avg ( 0 stories )
cnn 10.70 avg ( 2 stories )
nyt 9.53 avg ( 3 stories )
politico 9.20 avg ( 24 stories )
buzzfeed nan avg ( 0 stories )
ap nan avg ( 0 stories )
reuters 11.90 avg ( 4 stories )
wsj 8.48 avg ( 11 stories )
```

## 2.3 Average Reading Level per Publication per Candidate Per Topic

```
In [46]: CANDIDATES = ['clinton', 'sanderson', 'trump', 'cruz']
         for t in TOPICS:
             print "TOPIC", t
```

```

for o in ORGS:
    print "ORG", o
    scores = []
    for c in CANDIDATES:
        scores.append((c,\
            all_df[(all_df['top_topic'] == t) & \
                (all_df['candidate'] == c) & \
                (all_df['org'] == o)]['flesch'].mean(),\
            len(all_df[(all_df['top_topic'] == t) & \
                (all_df['candidate'] == c) & \
                (all_df['org'] == o)])))

    scores.sort(key=lambda x: x[1], reverse=True)
    for s in scores:
        print s[0], 'AVG:', '%.2f' % s[1], "COUNT:", s[2]
    print

print "#####"

```

TOPIC Immigration

ORG latimes

trump AVG: 10.58 COUNT: 22

clinton AVG: 10.30 COUNT: 1

sanders AVG: 10.30 COUNT: 1

cruz AVG: 9.13 COUNT: 3

ORG huffpo

sanders AVG: 10.63 COUNT: 6

clinton AVG: 10.62 COUNT: 4

cruz AVG: 9.94 COUNT: 9

trump AVG: 9.94 COUNT: 48

ORG politico

clinton AVG: 9.90 COUNT: 2

trump AVG: 8.24 COUNT: 19

cruz AVG: 8.23 COUNT: 13

sanders AVG: 7.90 COUNT: 1

ORG nyt

sanders AVG: 9.98 COUNT: 5

clinton AVG: 9.60 COUNT: 5

trump AVG: 7.30 COUNT: 40

cruz AVG: 6.55 COUNT: 20

ORG fox

clinton AVG: 9.50 COUNT: 2

sanders AVG: nan COUNT: 0

trump AVG: 9.76 COUNT: 37

cruz AVG: 9.17 COUNT: 17

ORG mcclatchy

clinton AVG: 10.70 COUNT: 1

sanders AVG: 10.70 COUNT: 1

trump AVG: 9.23 COUNT: 12

cruz AVG: 8.87 COUNT: 9

ORG npr

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

cruz AVG: 10.30 COUNT: 1

trump AVG: 9.18 COUNT: 6

ORG cnn

clinton AVG: 12.05 COUNT: 2

sanders AVG: 10.90 COUNT: 2

cruz AVG: 10.20 COUNT: 23

trump AVG: 9.28 COUNT: 36

ORG buzzfeed

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: 13.50 COUNT: 6

cruz AVG: 10.17 COUNT: 3

ORG ap

sanders AVG: 10.10 COUNT: 2

cruz AVG: 9.89 COUNT: 12

trump AVG: 9.53 COUNT: 17

clinton AVG: 8.90 COUNT: 2

ORG wsj

sanders AVG: 9.10 COUNT: 1

clinton AVG: 8.40 COUNT: 1

cruz AVG: 7.80 COUNT: 6

trump AVG: 7.49 COUNT: 14

ORG reuters

clinton AVG: 10.70 COUNT: 2

sanders AVG: nan COUNT: 0

trump AVG: 10.29 COUNT: 27

cruz AVG: 9.53 COUNT: 4

#####

TOPIC Campaign Finance

ORG latimes

cruz AVG: 10.90 COUNT: 4

sanders AVG: 10.12 COUNT: 4  
clinton AVG: 9.84 COUNT: 5  
trump AVG: 8.20 COUNT: 3

ORG huffpo  
sanders AVG: 11.40 COUNT: 14  
trump AVG: 10.97 COUNT: 11  
clinton AVG: 10.31 COUNT: 7  
cruz AVG: 8.53 COUNT: 4

ORG politico  
trump AVG: 9.05 COUNT: 56  
cruz AVG: 8.91 COUNT: 29  
clinton AVG: 8.69 COUNT: 24  
sanders AVG: 8.29 COUNT: 16

ORG nyt  
clinton AVG: 8.73 COUNT: 15  
sanders AVG: 8.19 COUNT: 16  
cruz AVG: 7.09 COUNT: 20  
trump AVG: 6.87 COUNT: 36

ORG fox  
sanders AVG: 10.20 COUNT: 10  
clinton AVG: 10.10 COUNT: 11  
cruz AVG: 9.05 COUNT: 4  
trump AVG: 8.29 COUNT: 7

ORG mcclatchy  
clinton AVG: 9.15 COUNT: 4  
sanders AVG: nan COUNT: 0  
cruz AVG: 8.55 COUNT: 2  
trump AVG: 7.20 COUNT: 1

ORG npr  
clinton AVG: 9.20 COUNT: 1  
sanders AVG: 9.20 COUNT: 1  
trump AVG: nan COUNT: 0  
cruz AVG: nan COUNT: 0

ORG cnn  
sanders AVG: 10.60 COUNT: 5  
cruz AVG: 10.30 COUNT: 12  
trump AVG: 9.92 COUNT: 13  
clinton AVG: 9.13 COUNT: 3

ORG buzzfeed  
clinton AVG: 15.00 COUNT: 1  
sanders AVG: nan COUNT: 0  
trump AVG: 17.07 COUNT: 3  
cruz AVG: 16.90 COUNT: 1

ORG ap  
clinton AVG: 10.40 COUNT: 7

sanders AVG: 9.38 COUNT: 6  
trump AVG: 8.72 COUNT: 12  
cruz AVG: 8.12 COUNT: 8

ORG wsj

sanders AVG: 8.07 COUNT: 9  
clinton AVG: 8.03 COUNT: 8  
cruz AVG: 7.57 COUNT: 8  
trump AVG: 6.70 COUNT: 4

ORG reuters

clinton AVG: 10.90 COUNT: 4  
sanders AVG: 10.83 COUNT: 3  
cruz AVG: 10.83 COUNT: 3  
trump AVG: 9.73 COUNT: 7

#####

TOPIC Foreign Policy/National Security

ORG latimes

clinton AVG: 10.70 COUNT: 1  
sanders AVG: 10.70 COUNT: 1  
trump AVG: 9.14 COUNT: 5  
cruz AVG: nan COUNT: 0

ORG huffpo

clinton AVG: 11.63 COUNT: 3  
sanders AVG: 11.13 COUNT: 11  
cruz AVG: 10.13 COUNT: 11  
trump AVG: 9.19 COUNT: 30

ORG politico

cruz AVG: 8.83 COUNT: 15  
clinton AVG: 8.79 COUNT: 12  
sanders AVG: 8.53 COUNT: 11  
trump AVG: 8.17 COUNT: 21

ORG nyt

trump AVG: 8.37 COUNT: 18  
clinton AVG: 8.25 COUNT: 4  
sanders AVG: 7.40 COUNT: 2  
cruz AVG: 7.30 COUNT: 6

ORG fox

clinton AVG: 11.76 COUNT: 5  
sanders AVG: 9.30 COUNT: 2  
cruz AVG: 8.40 COUNT: 14  
trump AVG: 8.02 COUNT: 22

ORG mcclatchy

clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
cruz AVG: 8.75 COUNT: 4  
trump AVG: 7.02 COUNT: 5

ORG npr  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: 10.12 COUNT: 4  
cruz AVG: nan COUNT: 0

ORG cnn  
clinton AVG: 11.31 COUNT: 11  
sanders AVG: 10.90 COUNT: 6  
trump AVG: 9.48 COUNT: 21  
cruz AVG: 8.98 COUNT: 11

ORG buzzfeed  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: 13.73 COUNT: 8  
cruz AVG: 11.90 COUNT: 1

ORG ap  
clinton AVG: 9.62 COUNT: 4  
sanders AVG: 9.25 COUNT: 4  
cruz AVG: 9.03 COUNT: 7  
trump AVG: 8.80 COUNT: 18

ORG wsj  
clinton AVG: 10.16 COUNT: 5  
sanders AVG: 9.40 COUNT: 3  
cruz AVG: 8.55 COUNT: 6  
trump AVG: 8.34 COUNT: 19

ORG reuters  
clinton AVG: 10.70 COUNT: 1  
sanders AVG: nan COUNT: 0  
trump AVG: 10.40 COUNT: 4  
cruz AVG: 9.90 COUNT: 1

#####

TOPIC Abortion

ORG latimes  
sanders AVG: nan COUNT: 0  
cruz AVG: 11.90 COUNT: 1  
clinton AVG: 11.23 COUNT: 3  
trump AVG: 10.10 COUNT: 2

ORG huffpo  
clinton AVG: 11.10 COUNT: 4  
sanders AVG: 10.57 COUNT: 3  
trump AVG: 9.37 COUNT: 10  
cruz AVG: 8.92 COUNT: 5

ORG politico  
sanders AVG: 9.12 COUNT: 8  
clinton AVG: 8.89 COUNT: 8  
cruz AVG: 8.25 COUNT: 10



trump AVG: 8.08 COUNT: 23

ORG nyt

sanders AVG: 9.90 COUNT: 1

clinton AVG: 9.66 COUNT: 5

trump AVG: 6.83 COUNT: 18

cruz AVG: 6.22 COUNT: 9

ORG fox

clinton AVG: 11.10 COUNT: 2

sanders AVG: nan COUNT: 0

cruz AVG: 9.87 COUNT: 9

trump AVG: 9.64 COUNT: 10

ORG mcclatchy

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: 9.10 COUNT: 2

cruz AVG: 9.03 COUNT: 4

ORG npr

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: 9.10 COUNT: 2

cruz AVG: nan COUNT: 0

ORG cnn

clinton AVG: 12.90 COUNT: 3

sanders AVG: nan COUNT: 0

cruz AVG: 9.66 COUNT: 8

trump AVG: 9.59 COUNT: 11

ORG buzzfeed

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

cruz AVG: 13.33 COUNT: 3

trump AVG: 13.07 COUNT: 3

ORG ap

trump AVG: 11.18 COUNT: 5

clinton AVG: 10.70 COUNT: 2

sanders AVG: 10.50 COUNT: 2

cruz AVG: 10.37 COUNT: 6

ORG wsj

clinton AVG: 7.80 COUNT: 2

sanders AVG: 7.80 COUNT: 2

trump AVG: 7.31 COUNT: 7

cruz AVG: 7.13 COUNT: 7

ORG reuters

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: 10.83 COUNT: 6

cruz AVG: 9.77 COUNT: 3

#####

TOPIC Health Care

ORG latimes

clinton AVG: 13.10 COUNT: 1

trump AVG: 11.50 COUNT: 3

sanders AVG: 9.90 COUNT: 1

cruz AVG: 9.50 COUNT: 1

ORG huffpo

sanders AVG: 11.19 COUNT: 11

cruz AVG: 10.50 COUNT: 2

clinton AVG: 9.76 COUNT: 7

trump AVG: 8.67 COUNT: 6

ORG politico

clinton AVG: 10.52 COUNT: 5

sanders AVG: 10.34 COUNT: 7

cruz AVG: 9.70 COUNT: 2

trump AVG: 9.50 COUNT: 1

ORG nyt

sanders AVG: 8.51 COUNT: 7

trump AVG: 7.92 COUNT: 10

clinton AVG: 7.63 COUNT: 6

cruz AVG: 6.40 COUNT: 1

ORG fox

sanders AVG: 10.84 COUNT: 8

clinton AVG: 10.74 COUNT: 7

cruz AVG: 10.30 COUNT: 1

trump AVG: 9.93 COUNT: 3

ORG mcclatchy

clinton AVG: 13.40 COUNT: 1

sanders AVG: nan COUNT: 0

trump AVG: 11.65 COUNT: 2

cruz AVG: nan COUNT: 0

ORG npr

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG cnn

sanders AVG: 10.16 COUNT: 5

cruz AVG: 9.75 COUNT: 2

clinton AVG: 9.15 COUNT: 6

trump AVG: 8.44 COUNT: 8

ORG buzzfeed

clinton AVG: nan COUNT: 0

sanders AVG: 12.70 COUNT: 1  
trump AVG: nan COUNT: 0  
cruz AVG: nan COUNT: 0

ORG ap  
clinton AVG: 12.65 COUNT: 2  
sanders AVG: 12.53 COUNT: 3  
trump AVG: 11.10 COUNT: 1  
cruz AVG: 11.10 COUNT: 1

ORG wsj  
sanders AVG: 9.50 COUNT: 2  
trump AVG: 9.35 COUNT: 2  
clinton AVG: 9.20 COUNT: 5  
cruz AVG: 9.00 COUNT: 3

ORG reuters  
sanders AVG: 12.30 COUNT: 1  
trump AVG: 11.30 COUNT: 2  
clinton AVG: 9.50 COUNT: 2  
cruz AVG: nan COUNT: 0

#####

TOPIC Economy

ORG latimes  
clinton AVG: nan COUNT: 0  
sanders AVG: 9.90 COUNT: 1  
trump AVG: 9.90 COUNT: 1  
cruz AVG: nan COUNT: 0

ORG huffpo  
sanders AVG: 11.03 COUNT: 10  
clinton AVG: 10.70 COUNT: 5  
trump AVG: 9.93 COUNT: 11  
cruz AVG: nan COUNT: 0

ORG politico  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: 10.70 COUNT: 1  
cruz AVG: nan COUNT: 0

ORG nyt  
sanders AVG: 10.70 COUNT: 1  
trump AVG: 8.65 COUNT: 4  
clinton AVG: 8.35 COUNT: 2  
cruz AVG: 6.00 COUNT: 1

ORG fox  
cruz AVG: 9.90 COUNT: 1  
trump AVG: 8.84 COUNT: 5  
clinton AVG: 8.55 COUNT: 2  
sanders AVG: 8.55 COUNT: 2

ORG mcclatchy  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: nan COUNT: 0  
cruz AVG: nan COUNT: 0

ORG npr  
clinton AVG: 18.90 COUNT: 1  
sanders AVG: nan COUNT: 0  
trump AVG: nan COUNT: 0  
cruz AVG: nan COUNT: 0

ORG cnn  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: 9.10 COUNT: 1  
cruz AVG: nan COUNT: 0

ORG buzzfeed  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: nan COUNT: 0  
cruz AVG: nan COUNT: 0

ORG ap  
trump AVG: 11.10 COUNT: 1  
cruz AVG: 11.10 COUNT: 1  
clinton AVG: 10.30 COUNT: 1  
sanders AVG: 10.03 COUNT: 3

ORG wsj  
trump AVG: 9.43 COUNT: 4  
clinton AVG: 8.35 COUNT: 2  
sanders AVG: 7.88 COUNT: 4  
cruz AVG: 7.75 COUNT: 2

ORG reuters  
clinton AVG: 12.70 COUNT: 1  
sanders AVG: 9.90 COUNT: 1  
trump AVG: 8.95 COUNT: 2  
cruz AVG: nan COUNT: 0

#####

TOPIC Veterans

ORG latimes  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: 9.10 COUNT: 1  
cruz AVG: nan COUNT: 0

ORG huffpo  
clinton AVG: nan COUNT: 0  
trump AVG: 9.33 COUNT: 6  
sanders AVG: 8.30 COUNT: 2

cruz AVG: nan COUNT: 0

ORG politico

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG nyt

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: 7.51 COUNT: 8

cruz AVG: nan COUNT: 0

ORG fox

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: 8.23 COUNT: 10

cruz AVG: 7.60 COUNT: 2

ORG mcclatchy

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

cruz AVG: 9.50 COUNT: 1

trump AVG: 9.22 COUNT: 4

ORG npr

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: 8.55 COUNT: 2

cruz AVG: nan COUNT: 0

ORG cnn

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

cruz AVG: 10.38 COUNT: 4

trump AVG: 9.28 COUNT: 10

ORG buzzfeed

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: 11.45 COUNT: 2

cruz AVG: nan COUNT: 0

ORG ap

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: 9.76 COUNT: 9

cruz AVG: 6.40 COUNT: 1

ORG wsj

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: 7.20 COUNT: 2

cruz AVG: nan COUNT: 0

ORG reuters

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: 10.88 COUNT: 6

cruz AVG: nan COUNT: 0

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TOPIC Ethics

ORG latimes

clinton AVG: 12.65 COUNT: 2

sanders AVG: nan COUNT: 0

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG huffpo

trump AVG: 12.70 COUNT: 1

sanders AVG: 11.90 COUNT: 1

clinton AVG: 9.53 COUNT: 3

cruz AVG: nan COUNT: 0

ORG politico

clinton AVG: 10.71 COUNT: 14

sanders AVG: nan COUNT: 0

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG nyt

sanders AVG: 7.60 COUNT: 1

clinton AVG: 6.60 COUNT: 2

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG fox

sanders AVG: 11.70 COUNT: 4

clinton AVG: 11.69 COUNT: 14

trump AVG: nan COUNT: 0

cruz AVG: 9.10 COUNT: 1

ORG mcclatchy

clinton AVG: 9.15 COUNT: 2

sanders AVG: nan COUNT: 0

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG npr

clinton AVG: 11.27 COUNT: 3

sanders AVG: nan COUNT: 0

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG cnn

clinton AVG: 11.70 COUNT: 2

sanders AVG: 11.50 COUNT: 1  
trump AVG: nan COUNT: 0  
cruz AVG: nan COUNT: 0

ORG buzzfeed  
clinton AVG: 18.10 COUNT: 1  
sanders AVG: nan COUNT: 0  
trump AVG: nan COUNT: 0  
cruz AVG: 18.10 COUNT: 1

ORG ap  
clinton AVG: 9.90 COUNT: 2  
sanders AVG: nan COUNT: 0  
trump AVG: nan COUNT: 0  
cruz AVG: 10.17 COUNT: 3

ORG wsj  
sanders AVG: 11.10 COUNT: 1  
clinton AVG: 10.32 COUNT: 6  
trump AVG: 9.50 COUNT: 1  
cruz AVG: 7.60 COUNT: 1

ORG reuters  
clinton AVG: 8.70 COUNT: 1  
sanders AVG: nan COUNT: 0  
trump AVG: nan COUNT: 0  
cruz AVG: nan COUNT: 0

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TOPIC Racial Issues

ORG latimes  
clinton AVG: nan COUNT: 0  
sanders AVG: 10.30 COUNT: 1  
trump AVG: 8.40 COUNT: 1  
cruz AVG: nan COUNT: 0

ORG huffpo  
sanders AVG: 12.01 COUNT: 9  
clinton AVG: 11.63 COUNT: 3  
trump AVG: 9.49 COUNT: 13  
cruz AVG: 8.70 COUNT: 1

ORG politico  
clinton AVG: 10.50 COUNT: 2  
sanders AVG: nan COUNT: 0  
trump AVG: 8.50 COUNT: 2  
cruz AVG: nan COUNT: 0

ORG nyt  
cruz AVG: 8.35 COUNT: 2  
trump AVG: 8.20 COUNT: 3  
clinton AVG: 7.60 COUNT: 1  
sanders AVG: 7.20 COUNT: 2

ORG fox  
clinton AVG: nan COUNT: 0  
sanders AVG: 11.90 COUNT: 2  
trump AVG: 9.50 COUNT: 1  
cruz AVG: 9.50 COUNT: 1

ORG mcclatchy  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: 7.20 COUNT: 2  
cruz AVG: nan COUNT: 0

ORG npr  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: nan COUNT: 0  
cruz AVG: nan COUNT: 0

ORG cnn  
clinton AVG: 11.10 COUNT: 3  
sanders AVG: 10.33 COUNT: 3  
trump AVG: 10.00 COUNT: 4  
cruz AVG: 8.40 COUNT: 1

ORG buzzfeed  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: nan COUNT: 0  
cruz AVG: nan COUNT: 0

ORG ap  
clinton AVG: nan COUNT: 0  
sanders AVG: 10.30 COUNT: 1  
trump AVG: nan COUNT: 0  
cruz AVG: nan COUNT: 0

ORG wsj  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: 9.10 COUNT: 1  
cruz AVG: nan COUNT: 0

ORG reuters  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: 11.10 COUNT: 1  
cruz AVG: nan COUNT: 0

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TOPIC Financial Regulation  
ORG latimes  
clinton AVG: nan COUNT: 0  
sanders AVG: nan COUNT: 0  
trump AVG: nan COUNT: 0



cruz AVG: nan COUNT: 0

ORG huffpo

clinton AVG: 11.67 COUNT: 4

sanders AVG: 10.86 COUNT: 5

trump AVG: 10.70 COUNT: 1

cruz AVG: nan COUNT: 0

ORG politico

sanders AVG: 10.80 COUNT: 4

clinton AVG: 9.44 COUNT: 5

cruz AVG: 9.23 COUNT: 7

trump AVG: 8.24 COUNT: 8

ORG nyt

clinton AVG: 9.53 COUNT: 3

sanders AVG: nan COUNT: 0

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG fox

clinton AVG: nan COUNT: 0

sanders AVG: 11.10 COUNT: 1

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG mcclatchy

clinton AVG: 10.30 COUNT: 2

sanders AVG: 9.90 COUNT: 2

trump AVG: 9.50 COUNT: 1

cruz AVG: nan COUNT: 0

ORG npr

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG cnn

clinton AVG: 10.70 COUNT: 1

sanders AVG: 10.70 COUNT: 1

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG buzzfeed

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG ap

clinton AVG: nan COUNT: 0

sanders AVG: nan COUNT: 0

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG wsj

sanders AVG: 8.57 COUNT: 6

clinton AVG: 8.38 COUNT: 5

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

ORG reuters

clinton AVG: 12.30 COUNT: 1

sanders AVG: 11.77 COUNT: 3

trump AVG: nan COUNT: 0

cruz AVG: nan COUNT: 0

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## 2.4