

Readership Analysis of DeBow's Review

February 11, 2019

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In [1]: import numpy as np
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In [2]: from datascience import *
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In [3]: %matplotlib inline
import matplotlib.pyplot as plots
plots.style.use('fivethirtyeight')
```

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In [9]: data = "https://raw.githubusercontent.com/cameronpwright/hist-119-research/master/read"
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In [11]: DeBow_Readership = Table.read_table(data)
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In [12]: DeBow_Readership.show()
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<IPython.core.display.HTML object>

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In [17]: DeBow_Readership = DeBow_Readership.relabeled('Unnamed: 2', 'County').relabeled('Unna
```

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In [18]: DeBow_Readership
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Out[18]: Last Name | First Name      | County      | State | Age | Occupation | Real Estate ($)
nan         | nan             | nan         | nan   | nan | nan        | Real Estate
Last Name | First Name      | County      | State | Age | Occupation | ($)
Agee      | N. A.           | Monroe     | AL    | 33  | Lawyer     | 4,000
Aiken     | John G.         | Mobile     | AL    | 60  | Gentleman  | nan
Alexander | Abram Franklin  | Greene     | AL    | 58  | Physician  | 80,000
Allen     | William W.      | Mobile     | AL    | 55  | Merchant   | 40,000
Armsted   | William B.      | Montgomery | AL    | 30  | Physician  | 3,000
Babcock   | Joseph          | Dallas     | AL    | 29  | Merchant   | 700
Bailey    | James Francis   | Perry      | AL    | 49  | Judge      | 10,000
Banks     | James J.        | Macon      | AL    | 50  | Farmer     | 11,200
... (1487 rows omitted)
```

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In [32]: DeBow_Readership.drop('Unnamed: 9').drop('Unnamed: 10').drop('Unnamed: 11')
```

```
Out[32]: Last Name | First Name      | County      | State | Age | Occupation | Real Estate ($)
nan         | nan             | nan         | nan   | nan | nan        | Real Estate
Last Name | First Name      | County      | State | Age | Occupation | ($)
```

Agee		N. A.		Monroe		AL		33		Lawyer		4,000
Aiken		John G.		Mobile		AL		60		Gentleman		nan
Alexander		Abram Franklin		Greene		AL		58		Physician		80,000
Allen		William W.		Mobile		AL		55		Merchant		40,000
Armsted		William B.		Montgomery		AL		30		Physician		3,000
Babcock		Joseph		Dallas		AL		29		Merchant		700
Bailey		James Francis		Perry		AL		49		Judge		10,000
Banks		James J.		Macon		AL		50		Farmer		11,200

... (1487 rows omitted)

In [33]: DeBow_Readership.num_rows

Out[33]: 1497

In [34]: debow = DeBow_Readership.take(np.arange(2,1497,1))

In [63]: debow = debow.drop('Unnamed: 9').drop('Unnamed: 10').drop('Unnamed: 11')

In [64]: debow.sort('Slaves (#)', descending = True).show()

<IPython.core.display.HTML object>

In [66]: non_slaveholders = debow.where("Slaves (#)", are.equal_to('nan'))

In [70]: non_slaveholders.sort('Personal Estate (\$)', descending = True).show()

<IPython.core.display.HTML object>

In [72]: percentage_non_slaveholders = non_slaveholders.num_rows/debow.num_rows
percentage_non_slaveholders

Out[72]: 0.3779264214046823

In [73]: farmers = non_slaveholders.where("Occupation", are.equal_to('Farmer'))
farmers

Out[73]:

Last Name		First Name		County		State		Age		Occupation		Real Estate (\$)		P
Buford		M.		Macon		AL		35		Farmer		900		10
Goldsby		G.		Talladega		AL		25		Farmer		nan		na
Gorce		Robert T.		Perry		AL		nan		Farmer		10,000		na
May		James T.		Talladega		AL		38		Farmer		2,000		30
Meek		H. J.		Lowndes		AL		46		Farmer		nan		30
Meeks		L. B.		Jefferson		AL		44		Farmer		nan		10
Myers		William P.		Sumter		AL		47		Farmer		nan		na
Peebles		Howell W.		Clarke		AL		nan		Farmer		5,000		na
Pickens		James		Lawrence		AL		45		Farmer		1,000		50
Weissinger		Leonard A.		Perry		AL		58		Farmer		nan		na

... (67 rows omitted)

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In [75]: percentage_farmers = farmers.num_rows/non_slaveholders.num_rows
percentage_farmers
```

```
Out[75]: 0.13628318584070798
```

```
In [77]: merchants = non_slaveholders.where('Occupation', are.equal_to('Merchant'))
merchants
```

```
Out[77]: Last Name | First Name      | County      | State | Age | Occupation | Real Estate ($
Boyle      | John C.         | Sumter      | AL    | 48  | Merchant   | 1,500
Carlisle   | E. K.           | Perry       | AL    | 47  | Merchant   | nan
Crawford   | M. A.           | Greene      | AL    | 30  | Merchant   | nan
Deas       | James           | Dallas      | AL    | 52  | Merchant   | nan
Gates      | Joseph R.       | Mobile      | AL    | 45  | Merchant   | 15,000
Huggins    | W. D.           | Dallas      | AL    | 27  | Merchant   | nan
LeBaron    | Charles Leonard | Mobile      | AL    | 56  | Merchant   | 10,000
Murphy     | John H.         | Montgomery  | AL    | 27  | Merchant   | 75,000
Noble      | John O.         | Madison     | AL    | 35  | Merchant   | nan
Pfister    | Arnand P.       | Montgomery  | AL    | 58  | Merchant   | nan
... (159 rows omitted)
```

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In [79]: percent_merchants = merchants.num_rows / non_slaveholders.num_rows
percent_merchants
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Out[79]: 0.2991150442477876
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