Project 4:
List of Largest Companies In the United States by Revenue

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Creating the Wiki Dataset

Chose the page, List of largest companies in the United States by Revenue

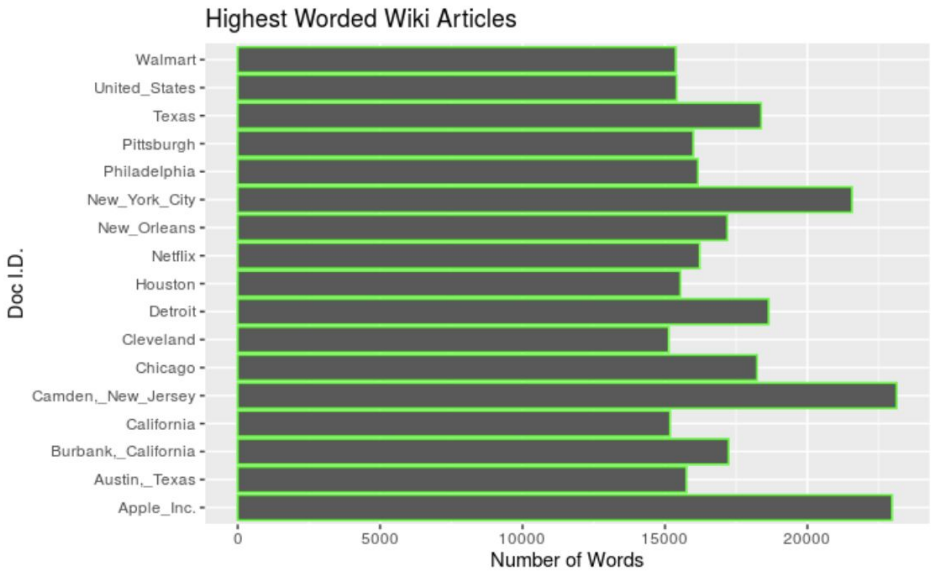
- Found 781 related pages
- Include cities, different companies, states, etc.

	doc_id	text
2	Abbott_Laboratories	Abbott Laboratories is an American multinational me...
3	AbbVie	AbbVie is an American publicly traded biopharmaceut...
4	ABM_Industries	ABM Industries Inc. is a facility management provider ...
5	Activision_Blizzard	Activision Blizzard, Inc. is an American video game ho...
6	ADM_(company)	The Archer-Daniels-Midland Company, commonly kn...
7	Adobe_Inc.	Adobe Inc. (// ə-DOH-bee) is an American multinatio...
8	ADP_(company)	Automatic Data Processing, Inc. (ADP) is an American ...
9	Advance_Auto_Parts	Advance Auto Parts, Inc. (Advance) is an American aut...
10	Advanced_Micro_Devices	Advanced Micro Devices, Inc. (AMD) is an American m...
11	AECOM	AECOM (// ay-ee-) (formerly AECOM Technology Cor...
12	Aerospace_engineering	Aerospace engineering is the primary field of enginee...
13	AES_Corporation	The AES Corporation is a Fortune 500 company that g...
14	Aflac	Aflac Inc. // (American Family Life Assurance Compan...
15	AGCO	AGCO Corporation is an American agricultural machin...
16	Air_Products_&_Chemicals	Air Products and Chemicals, Inc. is an American inter...
17	AK_Steel_Holding	AK Steel Holdings Corporation was a steelmaking co...
18	Akron,_Ohio	Akron (//) is the fifth-largest city in the U.S. state of ...
19	Alaska_Air_Group	Alaska Air Group is an airline holding company based...
20	Albertsons	Albertsons Companies, Inc. is an American grocery co...
21	Alcoa	Alcoa Corporation (a portmanteau of Aluminum Com...

N_Words

Wanted to see which Wiki articles had the highest amount of words…

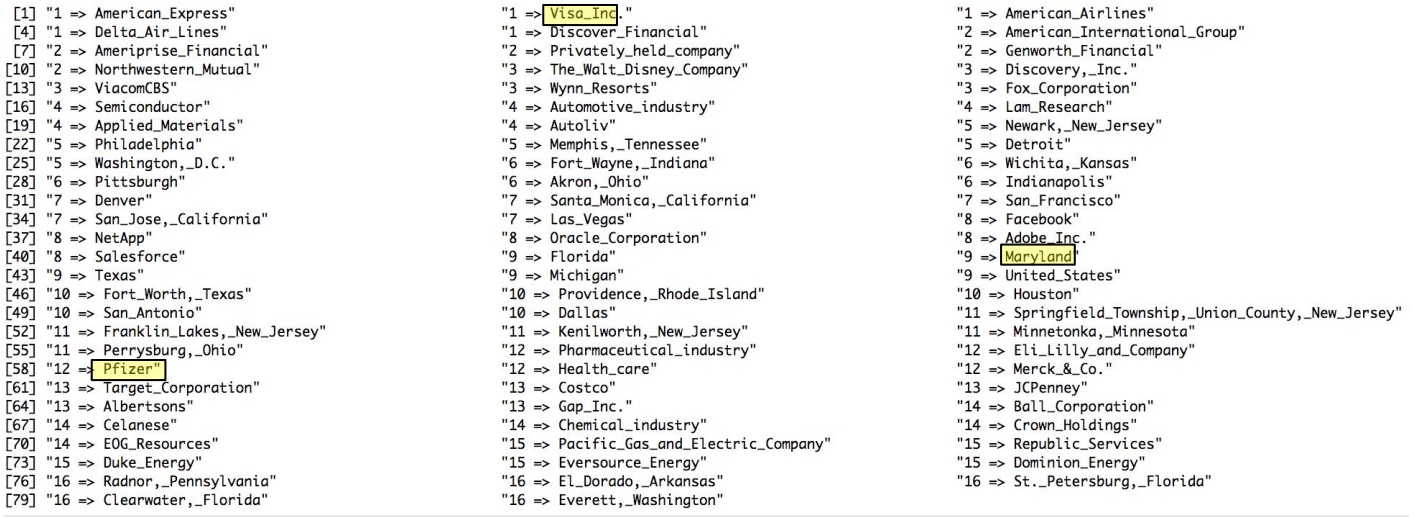
- Highest worded pages…
  - Camden, NJ
  - Apple Inc.
  - New York City
- Surprises
  - U.S. not being highest



Clusters

Split the Wiki articles into different clusters

- 16 clusters



```
 [1] "1 => American_Express"
 [4] "1 => Delta_Air_Lines"
 [7] "2 => Ameriprise_Financial"
[10] "2 => Northwestern_Mutual"
[13] "3 => ViacomCBS"
[16] "4 => Semiconductor"
[19] "4 => Applied_Materials"
[22] "5 => Philadelphia"
[25] "5 => Washington,_D.C."
[28] "6 => Pittsburgh"
[31] "7 => Denver"
[34] "7 => San_Jose,_California"
[37] "8 => NetApp"
[40] "8 => Salesforce"
[43] "9 => Texas"
[46] "10 => Fort_Worth,_Texas"
[49] "10 => San_Antonio"
[52] "11 => Franklin_Lakes,_New_Jersey"
[55] "11 => Perrysburg,_Ohio"
[58] "12 => Pfizer"
[61] "13 => Target_Corporation"
[64] "13 => Albertsons"
[67] "14 => Celanese"
[70] "14 => EOG_Resources"
[73] "15 => Duke_Energy"
[76] "16 => Radnor,_Pennsylvania"
[79] "16 => Clearwater,_Florida"
```

```
"1 => Visa_Inc."
"1 => Discover_Financial"
"2 => Privately_held_company"
"3 => The_Walt_Disney_Company"
"3 => Wynn_Resorts"
"4 => Automotive_industry"
"4 => Autoliv"
"5 => Memphis,_Tennessee"
"6 => Fort_Wayne,_Indiana"
"6 => Akron,_Ohio"
"7 => Santa_Monica,_California"
"7 => Las_Vegas"
"8 => Oracle_Corporation"
"9 => Florida"
"9 => Michigan"
"10 => Providence,_Rhode_Island"
"10 => Dallas"
"11 => Kenilworth,_New_Jersey"
"12 => Pharmaceutical_industry"
"12 => Health_care"
"13 => Costco"
"13 => Gap_Inc."
"14 => Chemical_industry"
"15 => Pacific_Gas_and_Electric_Company"
"15 => Eversource_Energy"
"16 => El_Dorado,_Arkansas"
"16 => Everett,_Washington"
```

```
"1 => American_Airlines"
"2 => American_International_Group"
"2 => Genworth_Financial"
"3 => Discovery,_Inc."
"3 => Fox_Corporation"
"4 => Lam_Research"
"5 => Newark,_New_Jersey"
"5 => Detroit"
"6 => Wichita,_Kansas"
"6 => Indianapolis"
"7 => San_Francisco"
"8 => Facebook"
"8 => Adobe_Inc."
"9 => Maryland"
"9 => United_States"
"10 => Houston"
"11 => Springfield_Township,_Union_County,_New_Jersey"
"11 => Minnetonka,_Minnesota"
"12 => Eli_Lilly_and_Company"
"12 => Merck_&_Co."
"13 => JCPenney"
"14 => Ball_Corporation"
"14 => Crown_Holdings"
"15 => Republic_Services"
"15 => Dominion_Energy"
"16 => St._Petersburg,_Florida"
```

Cluster Lemma

1. Banks, Airlines
2. Financial Institutions, Insurance
3. Entertainment
4. Cars, Research, Engineering
5. Cities
6. Cities
7. Cities
8. Computer Design/ Software
9. States
10. MORE CITIES

1	card; bank; credit; airline; payment
2	insurance; investment; financial; management; firm
3	deal; network; television; customer; stock
4	vehicle; technology; car; manufacturer; production
5	city; population; school; neighborhood; resident
6	city; team; downtown; school; population
7	city; population; downtown; resident; neighborhood
8	user; data; software; technology; computer
9	population; county; government; tax; percent
10	city; population; school; downtown; mile

Cluster Lemma

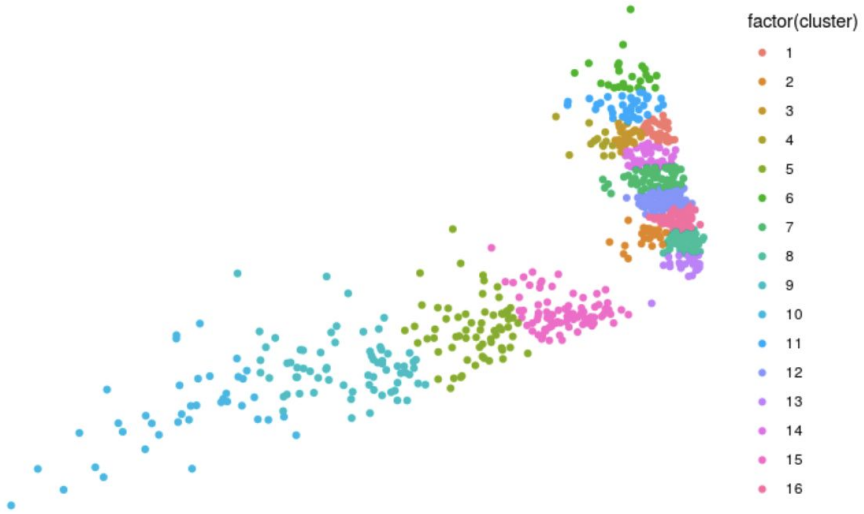
11. Cities
12. Healthcare
13. Large Retail Stores
14. Resource Companies
14. Energy Companies
15. Less Populated Cities

11	age; city; population; household; mile
12	drug; health; care; medical; patient
13	store; location; brand; chain; retail
14	oil; plant; food; chemical; gas
15	gas; power; plant; energy; utility
16	city; downtown; mile; community; age

PCA (16 Clusters)

Wanted to create a PCA with the different clusters...

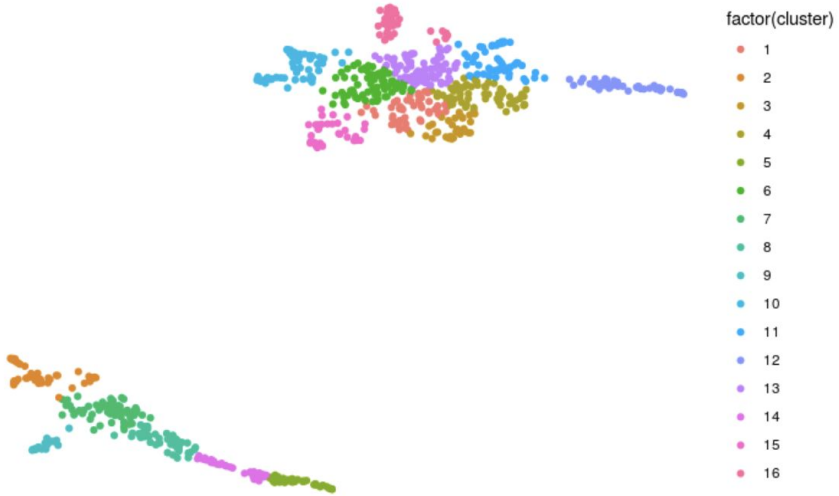
- A lot of the different companies were paired together in clusters.
- Clusters 11 and 6 were the most different from the PCA
  - 11 consisted of insurance and natural resource companies
  - 6 consisted of primarily financial institutions.
  - Makes sense considering the content of those wiki articles.



UMAP

Wanted to create a UMAP with the different clusters...

- Clusters on the bottom are
  - 2, 5, 7, 8, 14
- Clusters at the top are
  - 1, 3, 4, 6, 9, 10, 11, 12, 13, 15, 16
- Clusters on the bottom mainly consist of cities
- Clusters on the top are mainly other types of companies



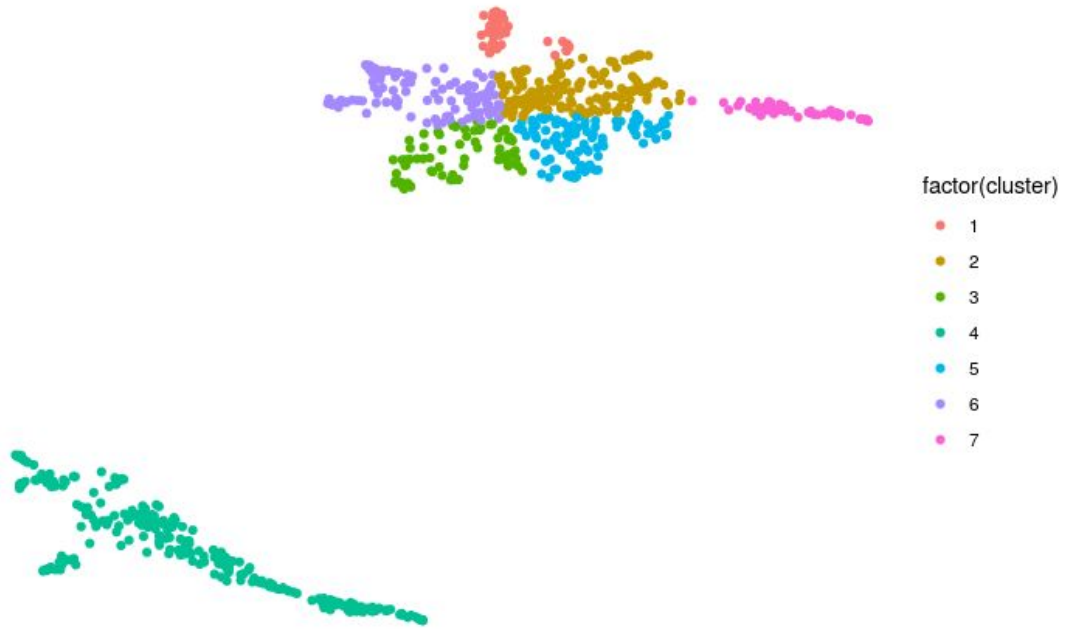
UMAP with 7 Clusters

[3]: Cities, states (ex: “Moline, Illinois”, “Missouri”)

[1]: Finance and insurance companies (ex: “Cincinnati Financial”, “Erie Insurance Group”)

[5]: Big retailers (ex: “Best Buy”, “Costco”)

[7]: Energy (ex: “Dominion Energy”, “ExxonMobil”)

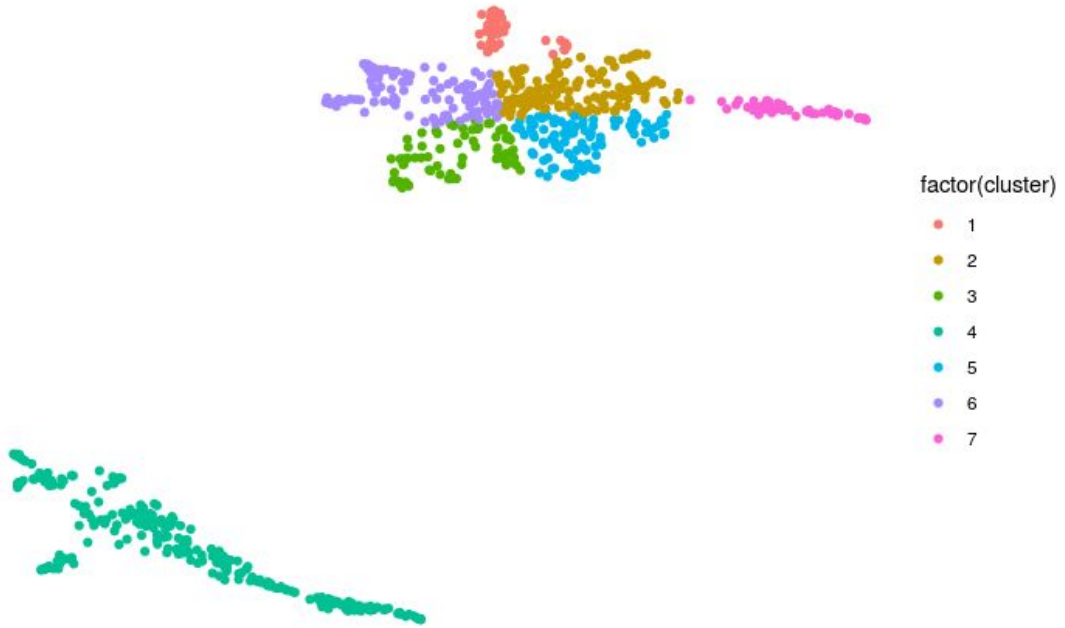


UMAP with 7 Clusters (cont.)

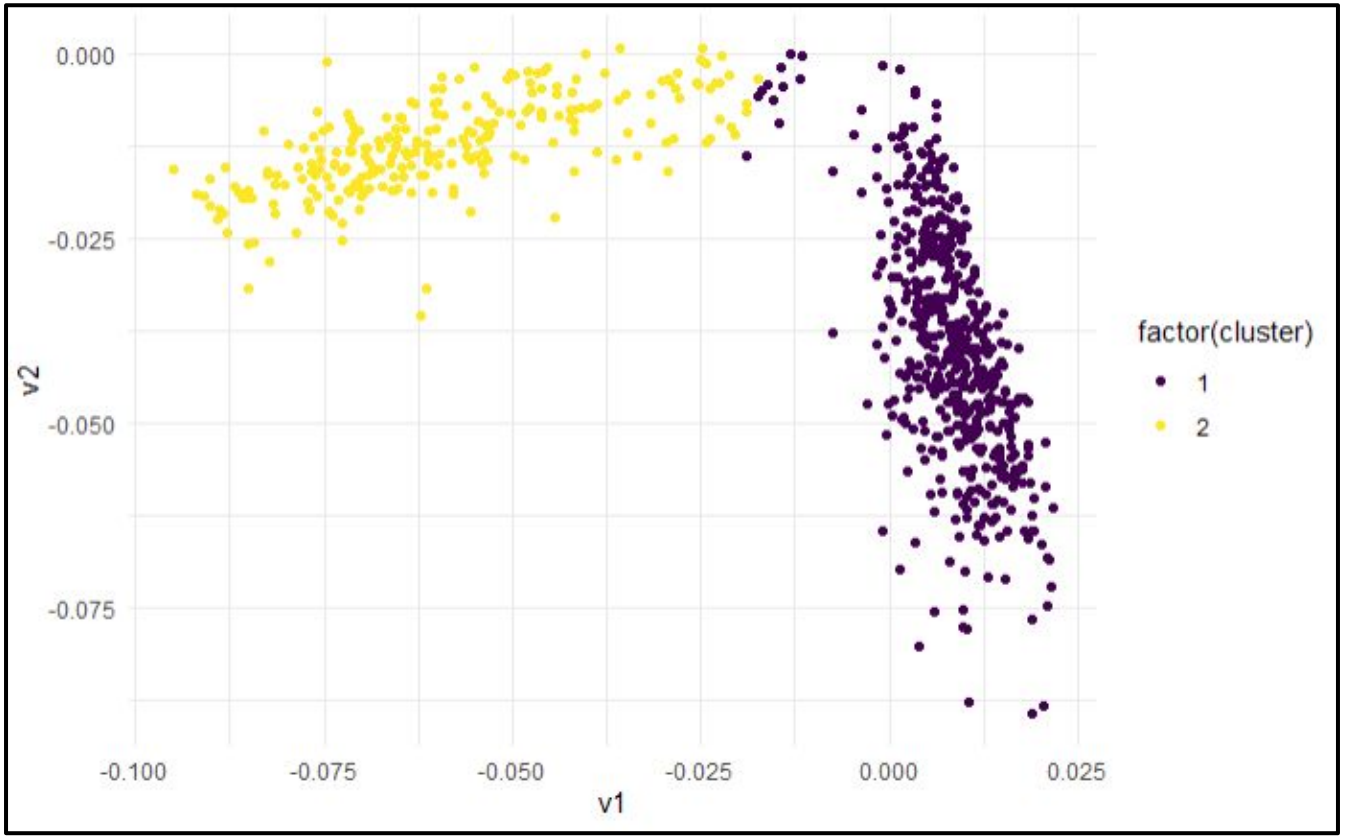
[2]: Manufacturing, Engineering (ex: “Clorox”, “Kraft-Heinz”, “Howmet Aerospace”)

[4]: Mix of technology companies and banks/finance companies (ex: “Alphabet Inc.”, “Capital One”). Could be technology and Fintech companies.

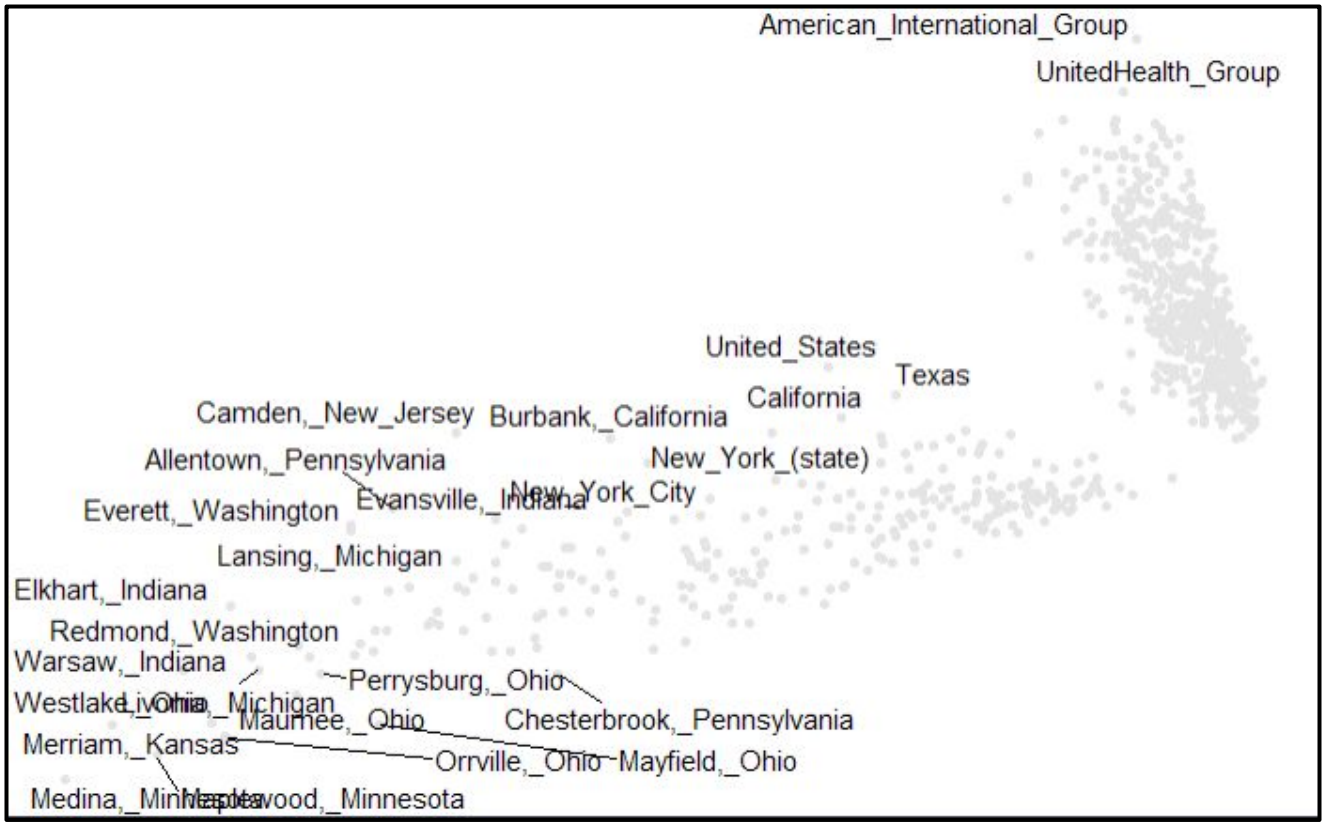
[6]: Technology, Automobile, and Airline companies (ex: “IBM”, “Southwest Airlines”, “Ford Motor Company”)



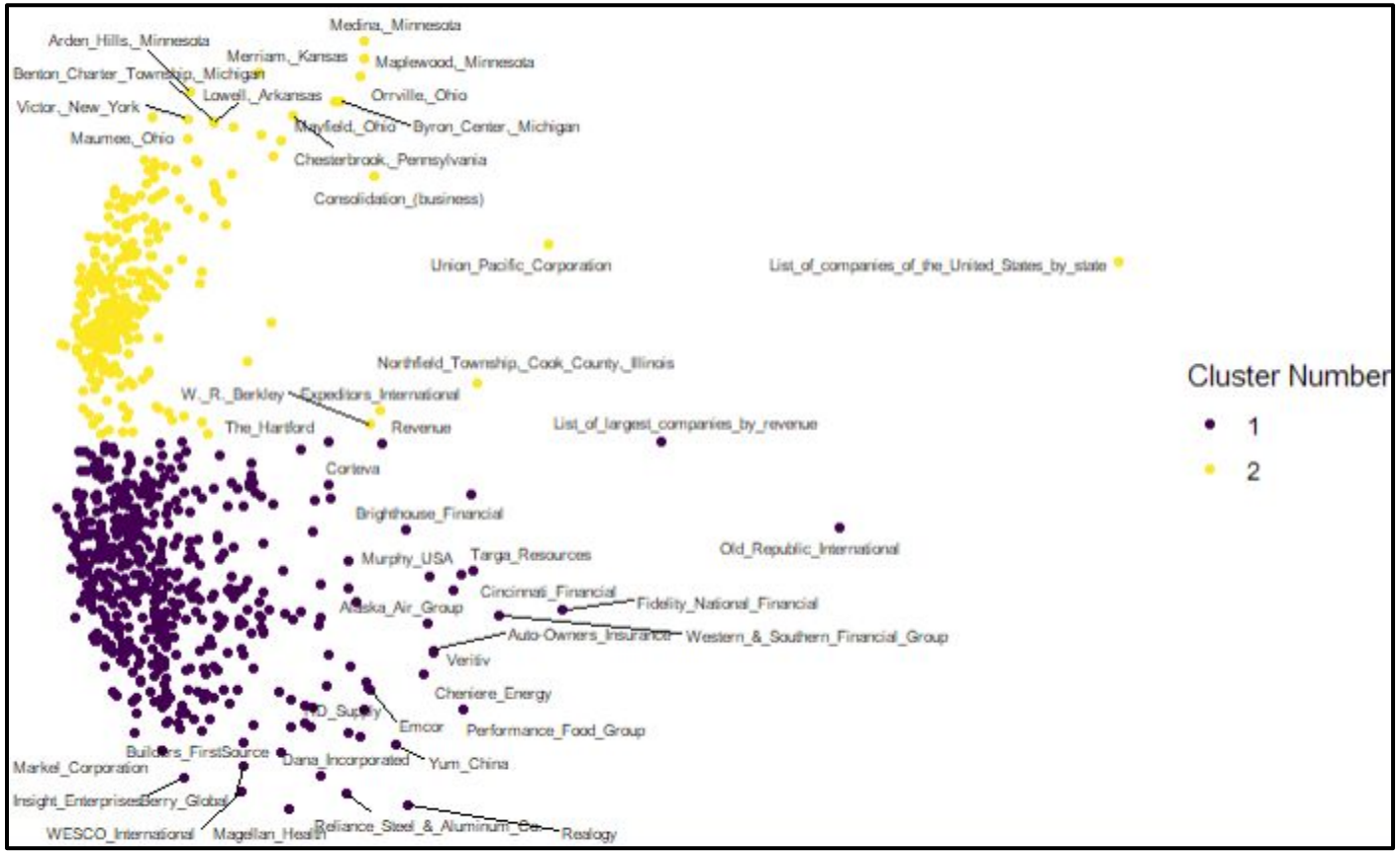
2 Clusters


0.000
-0.025
-0.050
-0.075
v2
-0.100
-0.075
-0.050
-0.025
0.000
0.025
v1
factor(cluster)
1
2

2 Clusters


American_International_Group
UnitedHealth_Group
United_States
Texas
California
Camden,_New_Jersey
Burbank,_California
Allentown,_Pennsylvania
New_York_(state)
Evansville,_Indiana
New_York_City
Everett,_Washington
Lansing,_Michigan
Elkhart,_Indiana
Redmond,_Washington
Warsaw,_Indiana
Perrysburg,_Ohio
Westlake,_Ohio
Livonia,_Michigan
Maumee,_Ohio
Chesterbrook,_Pennsylvania
Merriam,_Kansas
Orrville,_Ohio
Mayfield,_Ohio
Medina,_Minnesota
Maplewood,_Minnesota

2 Clusters (cont.)



Topic Modeling - LDA

1	card; bank; credit; airline; payment; branch; flight; aircraft; account; building
2	insurance; investment; financial; management; firm; asset; stock; fund; bank; acquisition
3	deal; network; television; customer; stock; film; share; cable; best; game
4	vehicle; technology; car; manufacturer; production; engine; model; equipment; ceo; contract
5	city; population; school; neighborhood; resident; district; century; building; center; county
6	city; team; downtown; school; population; local; mile; average; event; center
7	city; population; downtown; resident; neighborhood; south; rate; district; park; temperature
8	user; data; software; technology; computer; customer; digital; application; platform; phone
9	population; county; government; percent; tax; century; region; election; school; country
10	city; population; downtown; school; mile; rock; century; average; region; station

Topic Modeling - LDA (cont.)

topic	proportion of corpus
Cluster 1: card; bank; credit; airline; payment	4%
Cluster 2: insurance; investment; financial; management; firm	13%
Cluster 3: deal; network; television; customer; stock	5%
Cluster 4: vehicle; technology; car; manufacturer; production	9%
Cluster 5: city; population; school; neighborhood; resident	3%
Cluster 6: city; team; downtown; school; population	3%
Cluster 7: city; population; downtown; resident; neighborhood	3%
Cluster 8: user; data; software; technology; computer	5%
Cluster 9: population; county; government; percent; tax	3%
Cluster 10: city; population; downtown; school; mile	3%
Cluster 11: age; city; population; household; mile	12%
Cluster 12: drug; health; care; medical; patient	6%
Cluster 13: store; brand; location; chain; retail	10%
Cluster 14: oil; plant; food; chemical; gas	9%
Cluster 15: gas; power; plant; energy; utility	6%
Cluster 16: city; downtown; mile; community; age	6%