

USAC E-Rate funding analysis

This notebook shows analysis of trends in USAC E-Rate funding between time period of 2016 to 2018. Below is the table of contents:

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1. Data Pulling

Data was pulled using SODA API

2. Funding trends for last 3 years

1. As observed in the below table, both funding amount and number of requests has been decreasing steadily
2. On the other hand, amount requested per funding requested has been increasing steadily as well

Out[211]:

Funding Year	# of funding requests	Total funding amount requested	Amount per funding request
2016	121086	\$3.6B	\$29.7K
2017	97525	\$3.2B	\$33.1K
2018	72797	\$2.9B	\$39.2K

3. State-wise Funding Trend

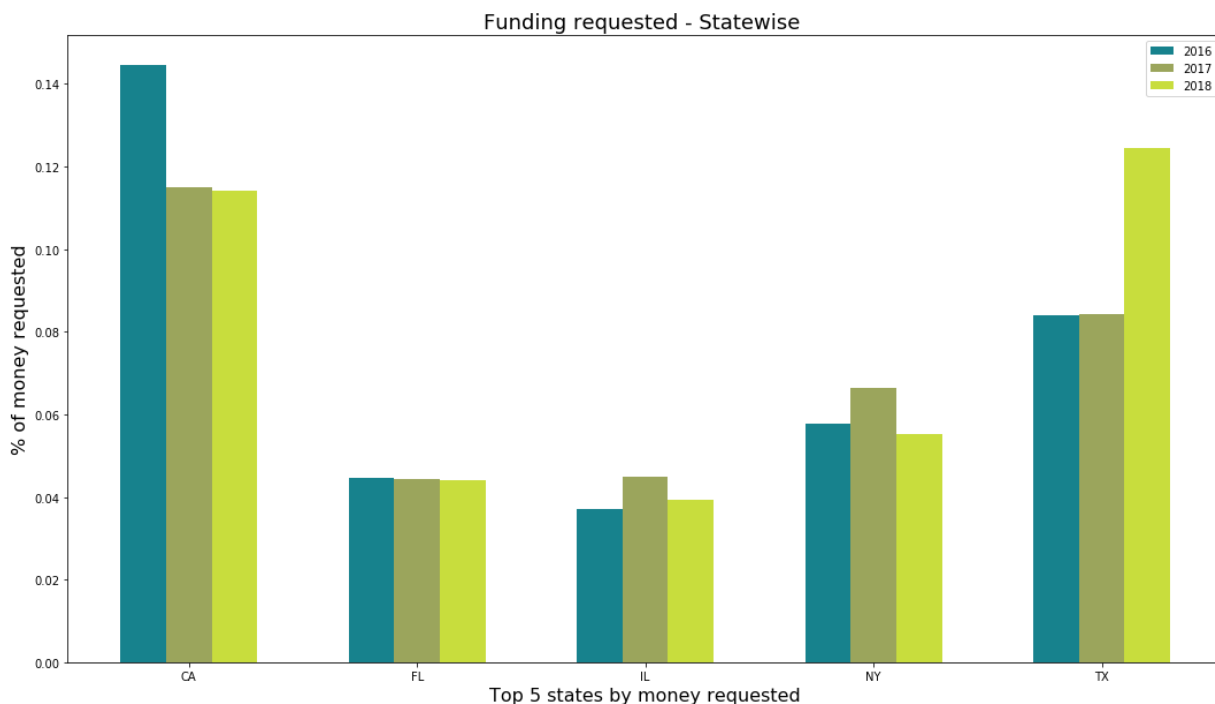
1. California's contribution to funding amount has gone down by 3% (from 14% in 2016 to 11% in 2018) as shown below in the first table
2. In terms of absolute amount, the requested 37% lesser money in 2018 compared to 2016. The amount requested by each state is shown in the second table
3. New York as well has requested 24% lesser money in 2018 compared to 2016
4. Given the fact that two of the top requesters has decreased requested funding amount so significantly, it definitely has impacted the overall funding requested

Out[259]:

	State	Contribution_2016	Contribution_2017	Contribution_2018
0	CA	0.14	0.11	0.11
1	FL	0.04	0.04	0.04
2	IL	0.04	0.04	0.04
3	NY	0.06	0.07	0.06
4	TX	0.08	0.08	0.12

Out[260]:

	State	Year_2016	Year_2017	Year_2018
0	CA	\$520.0M	\$371.4M	\$325.9M
1	FL	\$160.1M	\$143.0M	\$125.5M
2	IL	\$133.2M	\$144.9M	\$112.1M
3	NY	\$207.4M	\$214.4M	\$157.6M
4	TX	\$302.5M	\$272.4M	\$355.3M



4. Service-wise Funding Trend

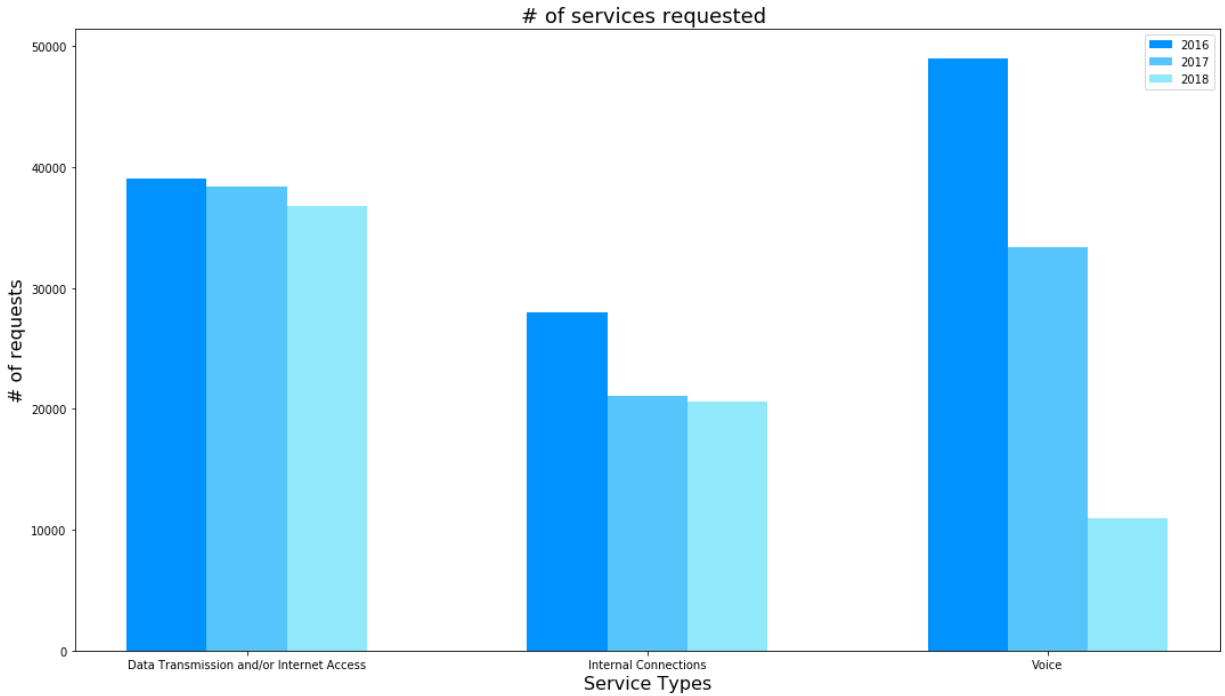
1. In 2016 "Voice" contributed to 40% of all the funding requests made. In 2018 this number went down to just 15%
2. In terms of absolute numbers, requests went down by over 75%
3. Given the fact that this service used to make up to majority of requests, because of severe decline in this, it has affected the overall number of funding requests made

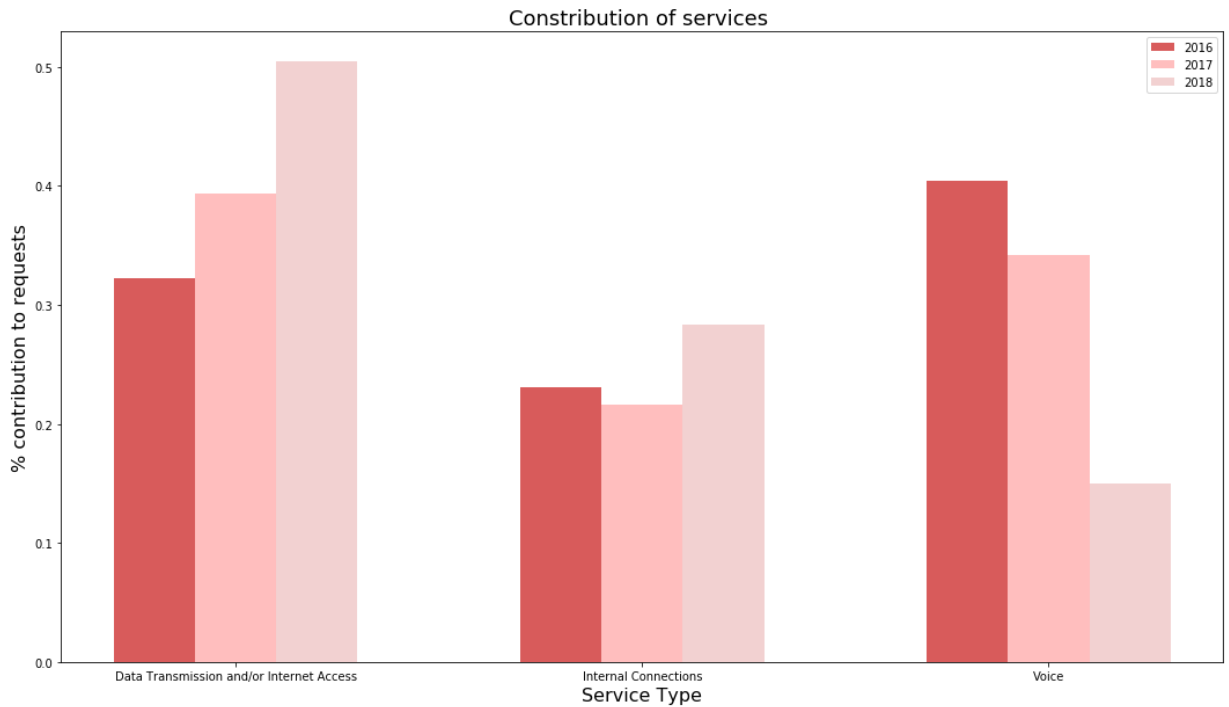
Out[263]:

	Service	Contribution_2016	Contribution_2017	Contribution_2018
0	Data Transmission and/or Internet Access	0.32	0.39	0.50
1	Internal Connections	0.23	0.22	0.28
2	Voice	0.40	0.34	0.15

Out[262]:

	Service	Number_of_Requests_2016	Number_of_Requests_2017	Number_of_Requests_2018
0	Data Transmission and/or Internet Access	38993	38361	36718
1	Internal Connections	27982	21033	20639
2	Voice	48953	33360	10936





5. Organization-wise Funding Trend

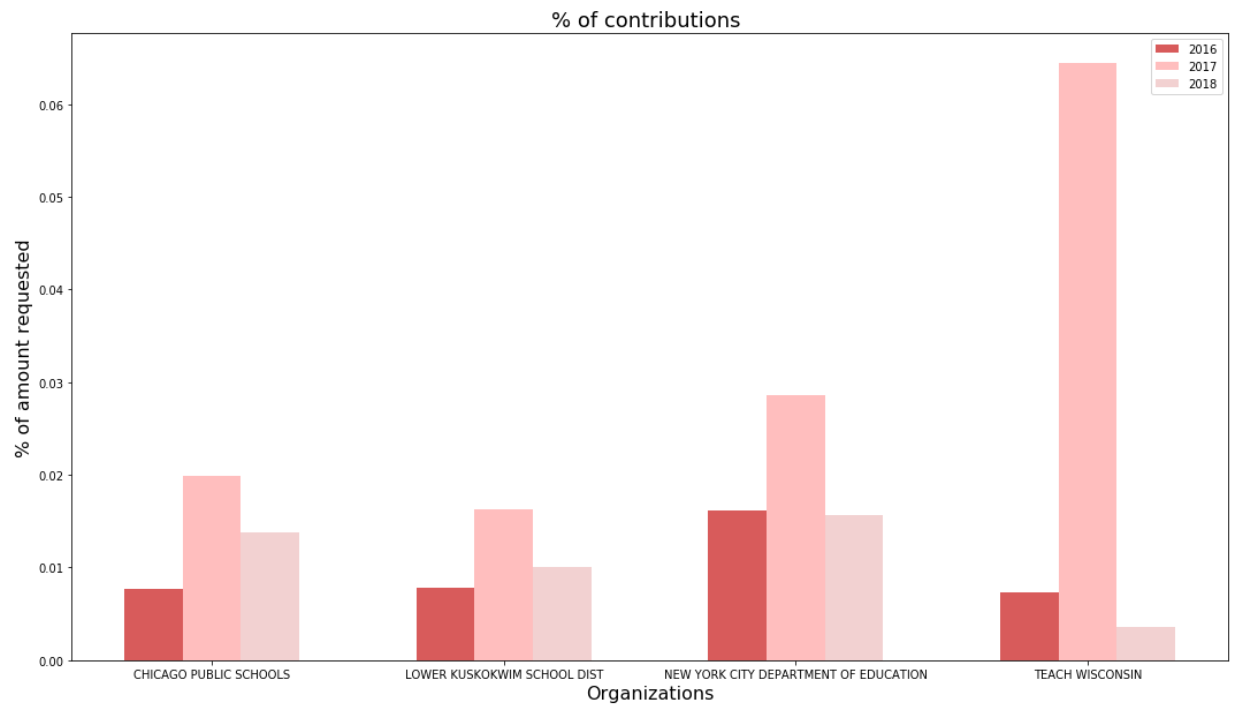
1. The largest funding amount requester, NYC Department of Education, decreased requested amount by 23% from 2016 to 2018
2. All the top 5 organizations decreased their amount requested significantly from 2017
3. This drastic could be due to reasons
 - A. Once organizations get large amount of funding, their requirement in subsequent year goes down as now lesser number of institutions are left to be connected. Hence the drop in amount
 - B. It could also be because disbursement amount has been historically low, organizations have started requesting lesser amount now

Out[268]:

	org_name	org_contribution_2016	org_contribution_2017	org_contribution_2018
0	CHICAGO PUBLIC SCHOOLS	0.01	0.02	0.01
1	LOWER KUSKOKWIM SCHOOL DIST	0.01	0.02	0.01
2	NEW YORK CITY DEPARTMENT OF EDUCATION	0.02	0.03	0.02
3	TEACH WISCONSIN	0.01	0.06	0.00

Out[266]:

	org_name	year_2016	year_2017	year_2018
0	CHICAGO PUBLIC SCHOOLS	\$27.5M	\$64.2M	\$39.2M
1	LOWER KUSKOKWIM SCHOOL DIST	\$28.1M	\$52.4M	\$28.8M
2	NEW YORK CITY DEPARTMENT OF EDUCATION	\$58.2M	\$92.3M	\$44.5M
3	TEACH WISCONSIN	\$26.1M	\$208.1M	\$10.1M



6. Source Code

Out[207]: [Click here to toggle on/off the raw code.](#)

