Post Office Database Proposal

Postalrific

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Problem and Vision

United States Postal Service (USPS) locations provide important services for many communities across the country, especially under-served communities that may be unprofitable for private businesses to provide postal services for. Although Congress appropriates funding for USPS, the decisions to open and close post offices is left to USPS itself and a Postal Regulatory Committee. Although there are some guidelines regarding protecting rural communities from post office closures, there is no set policy as to which communities will be serviced and which will not be. USPS holds the ultimate authority to close locations, regardless of local or state level consultation.

Our group believes it is important to look at this important public data to ensure that USPS resources are being distributed equitably across income levels, racial groups, and political boundaries. This project will compare US Census data with USPS office locations within Virginia in order to determine if there are under-served or over-served counties and communities. By comparing this data, it may be useful for policymakers to understand where USPS resources may be redistributed to service Virginians better. It may also be useful to decide which areas may be over-served if policymakers decide to cut back USPS appropriations, a popular idea in recent years amongst those who wish to cutback government spending.

Data and Questions

For this project our information on post offices came from the Harvard Dataverse. We will be utilizing the county's the post office are located in VA as well as the name and start date. We are also thinking about incorporating the population density of each county into our data sets. As you can see in the table below, our data is primarily focused on post offices located in Virginia and whether they are equally distributed within the state. As of now, there is a lot of information about post offices in the United States. As a result, we are narrowing our search to only the ones within the state of Virginia. When referring to the data, you will also notice information about when the office was established and discontinued. One more thing the second picture illustrates, are the coordinates we will be utilizing in order observe which counties are under served in the state of Virginia.

One of the main questions our data will answer is whether different counties in the state have equal access to the United States Postal Service. It will also provide a convenient way for individuals who are searching for homes and need access to a postal service that is within their range. It will allow future homeowners to make educated decisions on their accessibility through the postal services for collecting, processing, and transmitting mail. Finally, it will also provide information about which post offices are still in commission today. The reason these questions are important for us to answer is because it allows us to see changes within a community and provide aid in terms of future development.

Name	AltName	OrigName	State	County1	County2	County3	OrigCounty	Established	Discontinued	Continuous	StampIndex	ID	Coordinates	Duration
A AND M COLLEGE		A AND M COLLEGE	MS	OKTIBBEHA			Oktibbeha	1922	1932	TRUE	1	2	FALSE	10
A. B. C.		A. B. C.	TN	SUMNER			Sumner	1880	1914	TRUE	4	3	FALSE	34
AARON		AARON	MO	BATES			Bates	1895	1933	TRUE	2	4	TRUE	38
AARON		AARON	TN	BENTON			Benton	1889	1890	TRUE	5	5	FALSE	1
AARON		AARON	TN	BRADLEY			Bradley	1860	1860	TRUE	9	6	FALSE	0
AARON		AARON	GA	BULLOCH			Bulloch	1909	1920	TRUE	3	7	TRUE	11
AARON		AARON	GA	JEFFERSON			Jefferson	1898	1903	TRUE	6	8	FALSE	5
AARON		AARON	SC	ANDERSON			Anderson	1892	1899	TRUE	6	9	TRUE	7
AARONSBURG	AARONSBURGH	AARONSBURG(H)	PA	CENTRE			Centre	1792		TRUE	0	10	TRUE	
AARONSBURGH		AARONSBURGH	NY	CLINTON			Clinton	1852	1853	TRUE	9	11	FALSE	1
ABAC		ABAC	GA	TIFT			Tift	1935	1948	TRUE	2	12	FALSE	13
ABADYL		ABADYL	MO	CHRISTIAN			Christian	1895	1919	TRUE	4	13	TRUE	24
ABALINE		ABALINE	AL	MARION			Marion	1894	1909	TRUE	4	14	FALSE	15
ABATTIS		ABATTIS	MO	WARREN			Warren	1878	1904	TRUE	5	15	TRUE	26
ABAUGH		ABAUGH	AR	NEWTON			Newton	1928	1954	TRUE	1	16	TRUE	26
ABBVILLE	ABBEVILLE	ABB(E)VILLE	LA	VERMILION			Vermilion	1847		TRUE	0	17	TRUE	
ABBA		ABBA	AL	HENRY			Henry	1902	1905	TRUE	6	18	FALSE	3
ABBA		ABBA	GA	IRWIN			Irwin	1884	1954	TRUE	1	19	TRUE	70
ABBEVILLE		ABBEVILLE	MS	LAFAYETTE			Lafayette	1843		TRUE	0	20	TRUE	
ABBEVILLE		ABBEVILLE (CH)	AL	HENRY			Henry	1833		FALSE	0	21	TRUE	
ABBEVILLE		ABBEVILLE (CH)	GA	WILCOX			Wilcox	1860		FALSE	0	22	TRUE	
ABBEVILLE		ABBEVILLE (CH)	SC	ABBEVILLE			Abbeville	1794		TRUE	0	23	TRUE	
ABBEY		ABBEY	AL	FRANKLIN			Franklin	1898	1902	TRUE	6	24	TRUE	4
ABBEY		ABBEY	NY	CHAUTAUQUA			Chautauqua	1898	1898	TRUE	8	25	TRUE	0
ABBIE JOE		ABBIE JOE	LA	BEAUREGARD			Beauregard	1918	1925	TRUE	3	26	TRUE	7
ABBOT VILLAGE		ABBOT VILLAGE	ME	PISCATAQUIS			Piscataquia	1861		FALSE	0	27	TRUE	
ABBOT	ABBOTT	ABBOT(T)	ME	PISCATAQUIS			Piscataquia/Somerset	1825	1912	TRUE	2	28	TRUE	87
ABBOTSFORD		ABBOTSFORD	NY	WESTCHESTER			Westchester	1851	1852	TRUE	9	29	TRUE	1
ABBOTT		ABBOTT	LA	ACADIA			Acadia	1900	1903	TRUE	6	30	FALSE	3
ABBOTT		ABBOTT	MO	GREENE			Greene	1892	1902	TRUE	5	31	TRUE	10
ABBOTT		ABBOTT	TN	CAMPBELL			Campbell	1890	1892	TRUE	6	32	TRUE	2
ABBOTT		ABBOTT	AL	CONECUH			Conecun	1886	1909	TRUE	5	33	FALSE	23
ABBOTT		ABBOTT	AR	SCOTT			Scott	1899	1973	TRUE	1	34	TRUE	74
ABBOTT		ABBOTT	FL	PASCO			Pasco	1888	1910	FALSE	3	35	FALSE	22
ABBOTT		ABBOTT	MS	CLAY			Clay	1880	1941	TRUE	2	36	TRUE	61
ABBOTT RUN		ABBOTT RUN	RI	PROVIDENCE			Providence	1884	1924	TRUE	2	37	TRUE	40
ABBOTTS		ABBOTTS	NY	CATTARAUGUS			Cattaraugus	1882	1903	TRUE	6	38	TRUE	21

Above is a snippet of the data from the Harvard Dataverse. It contains information about various post offices such as their name, state and county within Virginia. Information such as longitude and latitude is also included.

Users and Specs

We have identified two groups of users who would be the target audience of out application. The first group is the average citizen of Virginia. The citizen can use our application to see if their current community is being serviced properly by the USPS compared to other counties in Virginia. A citizen could also use our application as a way to aid in moving to a new location in Virginia, as they can see if their prospective home is near USPS offices. The second group of

users we have identified are government officials and policy makers. Our application can aid in identifying under serviced or over serviced communities. This allows them to propose changes to the USPS offices to better serve their community.

A use case for the first group of users, an average citizen looking to move to a location in Virginia would be: Identify the county and the application will return the number of USPS offices, their names, IDs, Coordinates, and county population. Another would be: Identify all the counties of Virginia to see the whole state's number of USPS offices and their information. Furthermore, they could identify decommissioned offices to see the history of USPS offices in Virginia.

A use case for the second group of users, a policy maker would be: specify county, population, and proportion of minority status to see if certain counties are being serviced based on race. The application would supply them with the offices in that county and population of the county. The data can be used to aid them in deciding if there are parts of the state that are not being reached as readily.

About the Team

John Button has recently completed college courses in Data Structures and Software Engineering. John has only completed one software project within his software engineering course, although he has worked on teams building products before during his cybersecurity internship in the telecommunications industry. John also takes history courses for his minor, giving him experience with analyzing primary sources and data while also taking in account real world context.

Parth Parikh has completed numerous computer science courses at James Madison University including Computer Systems 2 and Programming Languages. He has also completed the Software Engineering course where he gained hands-on experience working with other team members through Agile development. This was his first time working on a project with other individuals where they had to meet certain deadlines to please their client. With his skills and experience, he was able to earn an internship over the summer working for Peraton as a Software Engineer. Not only that, but he will also assist with the front-end development on representing the database to the user.

Jacob Campbell has completed Data structures and Algorithms, Web Development, and Computer Systems 2. He has experience working in a group environment utilizing the Agile framework. He created a stock trading bot using API calls as a personal project. This project was key in getting him an internship last summer at Inadev as a Full Stack Developer intern. He studied Angular and Natural Language Processing using pythons NLTK library. Working in a professional environment gave him an insight of what would be expected of developers in industry.

Jacob Bringham has recently completed Programming Languages, Discrete Structures II and Artificial Intelligence. He has worked with teams of software developers both in school and at his internship with Sedna Digital Solutions (subcontractor of Lockheed Martin). He has designed and developed software to automate the testing of US Navy Systems. His skills gained from 3 years at JMU combined with work experience will make him a valuable part of the team.