# JUST AS SPECIAL

# **WHITE PAPER**





# Introduction

Just As Special is a Foster Care & Podcast Community that works toward giving kids in care a better tomorrow by supporting current foster families and volunteers, recruiting more diverse foster families and volunteers, and mobilizing communities across the nation in addressing the foster care crisis.

### **Our Goals**

- Just As Special works to give kids in care a better tomorrow by:
  - Supporting foster and adoptive families and volunteers in new ways
  - Recruiting diverse foster and adoptive families and volunteers
  - Mobilizing communities across the state to address the foster care crisis
- Just As Special is currently the only foster care organization centering BIPOC (Black, Indigenous, and People of Color), LGBTQ+, and multi- and non-religious foster care perspectives.
- Just As Special is also the **only** foster care organization actively calling out
  the destructive savior complex that runs rampant in the system in order to
  teach people how to avoid its harm.

### Want to get to know us and our work a bit better?

Listen to one of our podcast episodes, such as "Room to Breathe" where Erica, a 12-year-old LGBTQ+ tween, shares what it's like to be in foster care and go through the adoption process from their perspective.

You can also read our blog. We recommend this article: "<u>How to Show Up As a White Foster Parent in a Racist System</u>".

Our work was accomplished with the generous support of our sponsor and partner, **Cobbled Streets**.

Cobbled Streets is 501 (c)(3) that focuses on providing experiences and opportunities for foster children while promoting healthy relationships with adults.

These opportunities take many forms, such as art, sports, equine therapy, and many others, providing transformative experiences for kids in foster care.

We thank Cobbled Streets for supporting Just As Special in our goal to give kids in care a better tomorrow.

Find out more about Cobbled Streets' innovative approach on their website: www.cobbledstreets.org/programs



COBBLED STREETS



### **Foster Care in Colorado**



### **Kids In Care**

- 1,243,456 youth in the state in 2021 with 4,247 youth in foster care
- 2.8% foster care entry rate (source)



### Where Do Kids Go

- 47% of foster care placements end with reunification with family of origin
- 26% of placements will be adopted into a new home (source)
- That being said, this quantitative data doesn't follow the qualitative data our project has gathered
- Based on the stories we have gathered, reunification stories may be over-reported



### **Time Span for a New Home**

 Each year in the U.S., more than 25,000 kids age out of foster care without any family to call home (source)

We believe there is a lot of room for the above statistics to improve — and we want to be part of the solution. Our goal is to nurture foster parents through resources including our podcast, blogs, online training, and resource databases so we can give kids in care a better tomorrow.



### **How We Help**

### **Overview**

Just As Special provides the following resources for the foster care community in Colorado and nationally..

### Resource Database

Allows foster families to more easily access the supports needed to thrive and streamlines the process for volunteers and donors to get involved.

### **Podcast**

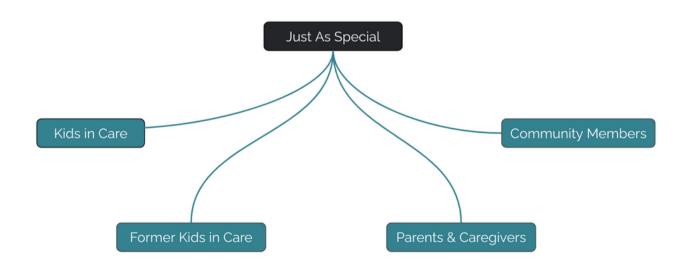
Amplifies diverse perspectives of foster care and adoption through personal interviews with former youth in care, non-traditional foster and adoptive families, and foster care professionals.

### <u>Blog</u>

Provides information for foster parents, caregivers, and community members with the end goal of answering pressing questions that are difficult to answer elsewhere.

### **Online Training**

Provides highly relevant training for foster and adoptive parents focused on diversity and applied learning in partnership with agencies.





# **Involvement**

# Why did Just As Special get involved with the Data Science Discovery Program?

- To underscore the importance of our project and leverage its collected data in an academic context
- 2. To share the project's work in spheres, such as the "Data Science for Social Good" space, where it can serve as inspiration for other projects



### **The Data Science Discovery Teams**









# **Text Group**

### **Cleaning the Data**

- We started with the Just As Special database spreadsheet that included descriptions of the 300+ sites.
- This data was formatted to be visualized through MapMe, so the information was clustered together within columns.

We separated the description section into these categories:

- Description of Service
- Service Area
- Service Type
- Phone Number
- Email
- Website URL
- Donation URL
- Volunteer URL
- Referral Lists



Why is this important? Cleaning the data transforms it into a format that can be stored and analyzed more easily. This, in turn, allows for a smoother transfer of data to another hosting organization.



Research Objective 1:

What is the relationship between socioeconomic and demographic factors and the number of resources listed in the JAS database per county?

**Why is this important?** We wanted to know whether there was any correlation between these factors and the number of listed resources per county to ensure foster care communities are being properly served.

 To the right, we have Figure 1 showing all resources in the State of Colorado. From the map, we can tell that resources are spread around the central and west of Colorado.

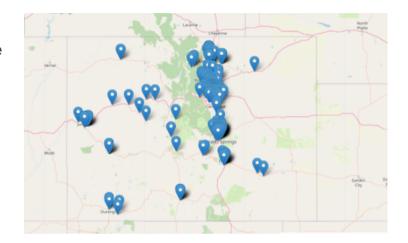


Figure 1

• In Figure 2, we have plotted the same distribution but we separate them into two colors. In red, we have resources whose service areas are local. On the other side, green represents the resources that service areas are state-wide. It is clear that most of the resources in our database are local. Most resources provided state-wide are distributed only in areas with dense populations, such as Denver. Local services tend to be more spread around the State of Colorado.

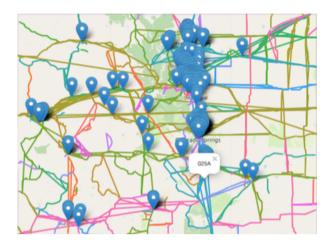


Figure 2

We can learn a few things from these maps. First, there are a few areas where resources are crowded together. These areas include Denver and Colorado Springs. Second, it looks like the locations of these resources are concentrated around red lines on the map. You might be wondering why resources tend to be centered around Denver and Colorado Springs and why resources are around certain places. Let's follow along to discover the reason behind it.



### Research Objective 1 (Continued)



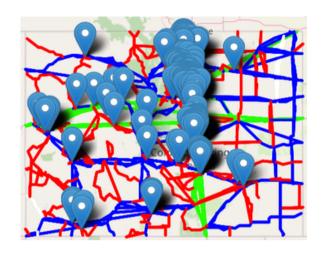


Figure 4 Figure 5

• In **Figures 1 and 2**, we saw that the resources are spread around the red lines. Later on, we found that the red lines represent <u>highways across the state</u>. A highway-highlighted map is shown on the left (**Figure 4**). These highlighted highways include state highways, U.S. highways, and interstates. We see that more than half of the resources are along the I-25 highway, which crosses through the Denver metropolitan area. On the right (**Figure 5**), the highway is colored into three different colors representing state highways (red), interstates (green), and U.S highways (blue). From **Figure 5**, we also see that resources tend to be near the interstates and the US highways for several reasons such as convenience, and accessibility.

Let's look at the other reasons why resources spread around Colorado.

We can look at the color map for Median Family Income, Median Household Income, and Number of Households!



### Research Objective 1 (Continued)

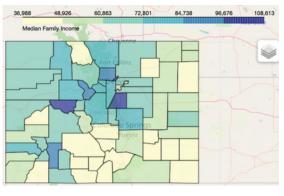


Figure 6



Figure 8



SocioEco

Househ

Figure 7



Figure 9

- In Figure 6, we have a Median Family income map. The lighter color represents lower income and the darker color represents higher income. In Figure 7, the median household income is shown. The distribution for the median family income and median household income look similar to each other. The two counties that have the highest median family income are Douglas and Pitkin. While the other counties on the north and central sides have a higher income than the counties on the east and south sides.
- In Figure 8, we have the number of the household map. Small household size is colored with light colors and larger sizes of households are colored with darker colors. On the map, there are three counties with the largest number of households in Colorado: Arapahoe, Denver, and El Paso. In Figure 9, we have the number of resources colored. Denver has one hundred and one resources. It has the most resources in a county compared to other counties. This is followed by El Paso, which has sixty resources in its county

In conclusion, places like Denver and Colorado Springs have the most resources around them possibly because they have high median family income and a high number of households.

Learn more about the resources available in **Denver** and **Colorado Springs**.



### **Research Objective 2:**

How accessible are the resources listed in Just As Special's database?

**Why is this important?** It ensures our data is actually accessible to our target audience, particularly to former kids in care.

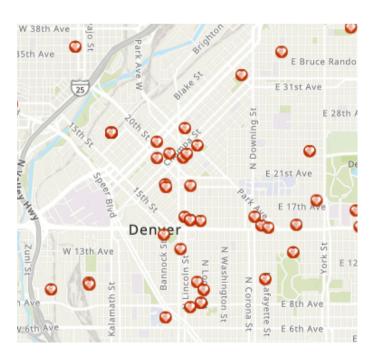
### The Overall Map

- We conducted this study by overlapping multiple transportation datasets and JAS sites to visualize the relationship of the datasets.
- Routes included:
  - Regional Transportation District
     (RTD) Denver-Aurora-Boulder
  - Transfort Fort Collins
  - Bustang interregional and intercity bus services



Interactive Map

0



**Service Locations** 

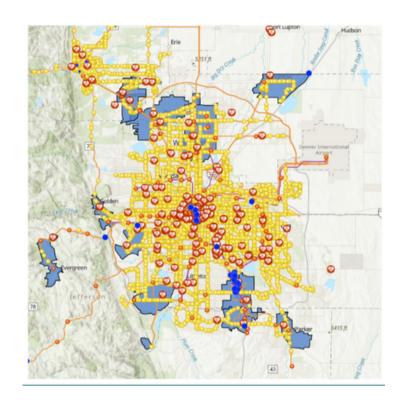


**Layered Map** 

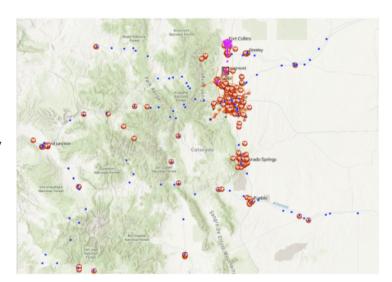


### Research Objective 2 (Continued)

 Denver - Many of the sites were clustered around the Denver Area, where there are lots of public transportation routes, specifically the Regional Transportation District (RTD), around the surrounding area that make the resources very accessible to the foster care community



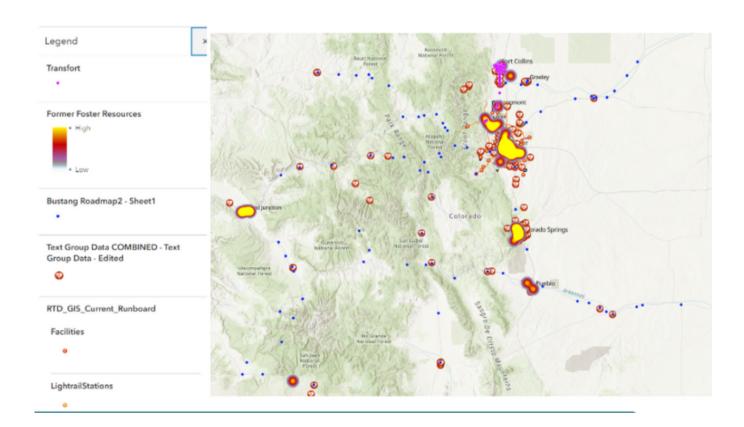
- Rest of Colorado We layered the public transportation routes by including active bus stops from:
  - Transfort (Fort Collins)
  - Bustang Routes (interregional and intercity bus services)
- After analyzing the map, we noticed that there are many public transport routes accessible to the majority of the listed resource sites.





### Research Objective 2 (Continued)

- Foster Care Resources for Former Kids in Care We realize that these resources are especially crucial to former kids in care looking for:
  - Jobs & Internships
  - Supportive Services
- The temperature data points on our map highlight these sites and show that former foster care resources are mainly found within the Denver, Colorado Springs, and Grand Junction areas.
- Resources for former kids in care are all mainly located nearby at least one public transportation stop.



Why is this important? Our analysis shows that, within and even beyond the major metropolitan area of Denver, many resource sites remain accessible by public transportation. Our analysis also shows that resources for former kids in care are concentrated in metropolitan areas, close to public transport. Fewer resources for this population group are found outside of urban areas, however.



# **Audio Group**

### **Team Overview**

We were tasked with cleaning, transforming, and analyzing the dataset of audio recordings and their transcripts.

We worked with the following:

### **Podcast Episode Data**

Recorded and organized qualitative/quantitative data from podcast episodes; assigned each episode into designated categories, subcategories, and filters

### **Podcast Transcripts**

Used Artificial Intelligence to generate transcripts of every podcast recording; cleaned and proofread transcripts

### **File Conversions**

Used Python to convert DOCX transcripts to JSON files in preparation for sentiment analysis

### **NLP Experimentation**

We experimented with Natural Language Processing (NLP) methods and in-browser analytics tools to explore sentiment analysis such as MonkeyLearn and ChatGPT

### Why is this important?

This experimentation helped us learn what is possible, and what is not possible, with the podcast datasets. This is valuable information for future research using all our datasets, including the resource database.



### **Research Objective 3:**

# What emotions do members of the foster care community express in regard to their involvement in the community?

- Through its podcast, Just As Special addresses questions and shares stories from the foster care community. This means that its podcast dataset could be used to answer some questions. These could include "what resources and measures are available to community members?" and "what emotions are associated with the challenges of foster care versus the solutions that speakers referenced for those challenges?" In order to begin to investigate these questions, we did the following:
- Recorded and organized qualitative/quantitative data from each podcast episode
- Assigned each episode into designated categories, subcategories, and filters

**Why is this important?** Categorizing the podcast episodes allows us an overview of which topics are discussed by the podcast. This provides important metadata for future analysis.

- Used Artificial Intelligence to generate transcripts of every podcast recording
- Cleaned and proofread transcripts

**Why is this important?** Having podcast transcripts on the project's website makes it more easily findable through internet search engines. This directs more traffic to the website and the project's resources as a whole, including the database.

 Used Python to convert DOCX transcripts to JSON files in preparation for sentiment analysis

Why is this important? Transforming the files into a format other than DOCX allows them to be more easily read by machines.

 We experimented with Natural Language Processing (NLP) methods and in-browser analytics tools to explore sentiment analysis. These included the Textblob library, ChatGPT, and MonkeyLearn.



### Research Objective 3 (Continued)

- We used Python and the Textblob library on JSON and CSV versions of our transcripts to compare and contrast the accuracy of sentiment analysis between both file types
  - The results were the same with JSON and CSV versions of our transcript files



### **Challenges Faced During Our Experiments**

- 1. Analysis contained several confusing parts where it still inputted irrelevant words (ex. names) that then outputted a certain type of emotion
- Needed to find a better way to effectively split the document text into smaller sections for more detailed analysis
- 3. Large text incorporated many neutral words that skew sentiment analysis
- 4. Was difficult to split up large text from each transcripts to be fed into a working machine learning model

**Why is this important?** This experimentation helped us learn what is possible, and what is not possible, with the podcast datasets. This is valuable information for future research using all our datasets, including the resource database.

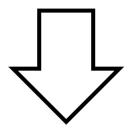
Want to check out our podcast but don't know where to start? We recommend one of our all-time favorite episodes, "<u>Sassy as Hell & Haunted by a Microwave</u>" and one of our newer episodes "<u>Get Angry & Change It</u>".



### Research Objective 3 (Continued)

### Conclusion

Foster care parents and children undergo significant emotional fluctuations throughout the foster care journey, which can be positively or negatively influenced by external factors.



### **Next Step for Future Researchers**

Finish conducting sentiment on all podcast transcripts to learn and research answers on how different aspects of the foster care system affect the emotions of parents and their kids in care.

Why is this important? This allows us to analyze, on a large scale, the sentiments attached to the experience of being a member of the foster care community. This bird's eye view of the experience could illuminate new insights and underscore areas where service provision is lacking.



### **Collaboration Efforts**

- The group's work can be summarized as three parts combining to support the overall missions of Just As Special and Cobbled Streets. Each group worked on a different aspect of the project, but each couldn't have achieved the same heights without the other.
- This collaboration took several forms:
   communicating with each other about
   subgroup outcomes, collaborating on shared
   projects (such as this presentation) across
   time zones virtually and asynchronously,
   learning from each other's approaches to
   problem solving, reaching out to mentors for
   guidance, and more.

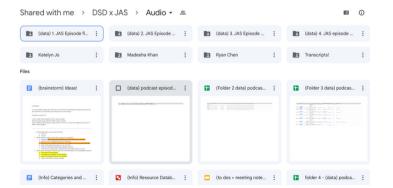




 At 13 people, we are a large group so communication was key. Experimentation and being okay with asking questions (and not knowing the answer!) were key also. We were all of us, project leader, learning together throughout this semester.

# Calendar We will meet for 30 mins - 1 hr (all-hands) on Sundays at 10 PT most weeks. We will meet in project groups for 30 mins on Tuesday, Thursday, or Friday afternoon/evenings (time TBD). 12 Feb: Start of Phase 1 (prep) 19 Feb 26 Feb: Start of Phase 2 (enact) 5 March: No all-hands meeting (ET away) 12 March 19 March: No all-hands meeting (ET away) 26 March: Week of spring break begins 2 April: Start of Phase 3 (outreach) 9 April 16 April 23 April: Last week of the project, work on presentations (PPT, poster, etc.) 30 April: Dead week (final presentations)

The storytelling group has envoys to both the text group and the audio group and all subgroups and worked closely from the early stage of addressing the research questions to reflecting conclusions throughout the semester. Each group met with the mentor on weekly group meetings as well as weekly all-heads meetings to keep everyone on the same page.
 Almost all of our tasks are designed for a group where each member contributes to some part of it while communicating with the rest of the group to meet the requirements.





# **Findings and Conclusion**

### **Text Group**

- Places like Denver and Colorado Springs contain the most resources around them possibly because they have high median family income and a high number of households.
- Our analysis shows that resources for former kids in care are concentrated in metropolitan areas, close to public transport. Fewer resources for this population group are found outside of urban areas, however.
- Action step: visualizing levels of funding data over time, using time series data, may help to understand the distribution of foster care funding and access to resources over recent years. This could be combined with time series data of political and global events, such as elections and the COVID-19 pandemic, to see if there is any long-term correlation between the two.

### **Audio Group**

- Natural language processing analysis of allows us to analyze, on a large scale, the sentiments attached to the experience of being a member of the foster care community.
- Action step: this analysis should continue with all the podcast transcripts. This bird's eye
  view of the experience could illuminate new insights and underscore areas where service
  provision is lacking.

### **Storytelling Group**

- Communicating our findings to a variety of audiences-- academics, foster care community
  members, etc. -- is crucial to foster future collaboration. Finding language that is accessible to all
  audiences is challenging.
- Action step: Publicize what we achieved. This will allow us to share our project's findings and action steps with multiple relevant audiences, fostering greater awareness of the importance of Just As Special's data and work.



# **What Happens Now?**

Publicize our findings to a wider audience through the whitepaper and this presentation.

Safeguard the project's data for both community and academic use, as well as inspiration for future projects.

# DON'T GIVE UP UNLESS ABSOLUTELY NECESSARY.

- ERICA, 12-YEARS OLD & FORMER KID IN FOSTER CARE

JustAsSpécial.com



# Thank you to our sponsor!

Just As Special would like to thank <u>Cobbled Streets</u> for their generous support of this project.

"This database is a significant step towards the improvement of our state as a whole," says Shari Shink, Founder and Executive Director of Cobbled Streets. "It has not only provides youth in care and their foster parents with an abundance of trustworthy options to choose from, but has also succeeded in providing a safe space for those who often need the most help – youth who have aged out of the foster care system."

Please visit <u>www.cobbledstreets.org</u> to find out more about their valuable work serving the foster care community in Colorado.





# Thank you to our participants!

- Brie Zhou
- Deheng Peng
- Fanyi Lyu
- Irené Widiaman
- Madeeha Khan
- WingYeung Ma
- Sophia Zheng
- Abbie Tsai
- Cindy Zhang
- Evie Currington
- Katelyn Jo
- Richard Zhuang
- Ryan Chen

Just As Special team members: Emmy Tither (Emmy@JustAsSpecial.com) and Natasha Pepperl

Learn more on our website: www.JustAsSpecial.com





Thank you to the University of California, Berkeley's <u>Data Science Discovery</u>

<u>Program</u> for having Just As Special on board as a partnering organization for their Spring 2023 cohort!

### **Citations and Links**

### **Just As Special Data:**

www.justasspecial.com

### **RTD**

www.gis-rtd-denver.opendata.arcgis.com

### **Transfort**

www.ridetransfort.com/routes/routes

### **RideBustang**

www.ridebustang.com/outrider/routesmaps/#telluride\_grand\_junction

### **Our Maps**

www.cal.maps.arcgis.com/apps/mapviewer/index.html?webmap=f277e0fd73024e0c93b6bf87a024724b

www, cal.maps.arcgis.com/apps/instant/charts/index.html?appid=02f8e8959a1c4b22a557e698ac5ca172&locale=en-us

### Colorado Department of Public Health and Environment Open Data

www. data-

<u>cdphe.opendata.arcgis.com/datasets/CDPHE::income-poverty-census-tracts/explore?location=38.916323%2C-105.298868%2C8.36</u>

Foster Care and Child Welfare Funding data provided by the Colorado Department of Human Services













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