“Listening to your podcast for the first time - oh my gosh! I feel like I have been wishing for something like this for so long.

— @kelseeemann
Goals of Just As Special

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
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](http://www.cobbledstreets.org/programs)
How We Help

1. **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.

2. **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.

3. **Online Training**: Provides highly relevant training for foster and adoptive parents focused on diversity and applied learning in partnership with agencies.
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 overreported.

**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](#)).
As far as we know, Just As Special is the first and only informational resource database for the foster care community both within the state of Colorado and nationally.

At the time of writing (April 2023) the database currently has:

- 354 resources
- 5 main categories
- 27 subcategories

All of these serve different cohorts of the foster care community: kids in care, former kids in care, parents & caregivers, and other community members.
How is the database structured?

- Just As Special
  - Kids in Care
  - Former Kids in Care
  - Community Members
  - Parents & Caregivers
How is the database structured?

- **Pathways to Success**
  - Jobs & Internships
  - Mentorships
  - Supportive Services

- **Extracurricular Activities**
  - Sports & Fitness
  - Arts
  - Tutoring
  - Service & Social Justice
  - Events & Day Trips
  - Camps
  - Miscellaneous

- **Kids in Care**

- **Physical Health**
  - Pediatricians
  - Dentists
  - Orthodontists

- **Basic Needs**
  - Clothing
  - School Supplies

- **Mental Health**
  - Behavioral Health
  - Cognitive Health
  - General Pediatric
  - Mental Health
  - Substance Abuse Treatment
  - Support Groups
  - Therapy
How is the database structured?

- Former Kids in Care
- Pathways to Success
- Jobs & Internships
  - Mentorships
  - Supportive Services
How is the database structured?

Parents & Caregivers

Pathways to Success
- Mental Health Services
- Training
- Supportive Services

Basic Needs
- Clothing, Transport & Financial
- Housing & Shelter
- Food
- Tax Assistance
How is the database structured?

- Community Members
- Get Involved
- Volunteer
- Donate
Why the Data Science Discovery Program?
Goals of Our 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

- To share the project's work in other 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**
  - Public Transport & Socioeconomic Analysis

- **Audio**
  - Experimentation Groups

- **Storytelling**
  - Telling the Project's Data Story
Text: Transportation
Cleaning the Data

- We started with the Just As Special database spreadsheet that included descriptions of the 300+ sites uploaded to justasspecial.com. 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

Cleaned Spreadsheet:

Why is this important?
Cleaning the data transforms it into a format that can be stored and analyzed more easily. It also allows for a smoother transfer of data to another hosting organization.
The Research Question

- We noticed that the data was spread all throughout Colorado.
- One problem that came up was whether those seeking to engage with these resources are able to access them. This is especially true for former kids in care, who are more likely to rely on public transport.
  - What are their options and how close are the stops to the sites?
  - How can former foster care individuals connect with these resources?
- Therefore, we posed the research question:

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

★ Why is this important?
It ensures our data is actually helpful for our target audience.
Our Findings: 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

To interact with our map, scan this QR code!
Our Findings: Denver

- Many of the sites were clustered around the Denver Area
- 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

**Why is this important?**
This finding underscores that resources in metropolitan areas served by strong public transport systems are, in general, accessible to the foster care community.
Our Findings: 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.

★ Why is this important?
Our analysis shows that, even beyond the major metropolitan area of Denver, many resource sites remain accessible by public transportation.
Our Findings: 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 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.
Citations

The information included in this portion of the analysis were extracted from the following sites:

- Just As Special Data: https://www.justasspecial.com/resources
- RTD: https://gis-rtd-denver.opendata.arcgis.com/
- Transfort: http://www.ridetransfort.com/routes/routes
- RideBustang: https://ridebustang.com/outrider/routes-maps/#telluride_grand_junction

Our final map:
https://cal.maps.arcgis.com/apps/mapviewer/index.html?webmap=f277e0fd73024e0c93b6bf87a024724b
Text:
Socio-Economic
Research Question: Socioeconomic Data

- 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.
Our Findings: The Overall Map

- We conducted this study using a combination of ArcGIS and GeoPandas.
- Maps were created by overlaying various socioeconomic and demographic data with the Just As Special resources per county.
- Features examined in the map include:
  - Average Household Income
  - Population
  - Child Welfare Funding
  - Foster Care Populations

To view the interactive map and graphs: https://cal.maps.arcgis.com/apps/instant/charts/index.html?appid=02f8e8959a1c4b22a557e698ac5ca172&locale=en-US
Findings: Socioeconomic Data

- The number of resources listed in the JAS database in a given county seems to have a positive correlation with population.
- Graphing the average household income for the county and the number of resources yields a bell-like distribution.
Findings: Foster Care Data

- There seems to be a positive correlation between the number of resources listed and the foster care population (in the 2022 FY) per county.
- There seems to be a positive correlation between the number of resources listed and child welfare funding (in the 2022 FY) per county.

★ Why is this important?
Counties with a greater foster care population would, in general, require more resources.
Citations

The information included in this portion of the analysis were extracted from the following cites:

- Just As Special Data: https://www.justasspecial.com/resources
- Foster Care and Child Welfare Funding data provided by the Colorado Department of Human Services

Our Final Map: https://cal.maps.arcgis.com/apps/instant/charts/index.html?appid=02f8e8959a1c4b22a557e698ac5ca172&locale=en-us
Audio
Audio: The Process

**Team Overview:** Clean, transform, and analyze the resource dataset of audio recordings and their transcripts

1. Podcast Episode Data
2. Podcast Transcripts
3. DOCX to JSON File Conversion
4. Experimentation with Natural Language Processing
5. Sentiment Analysis
Podcast Episode Data

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

<table>
<thead>
<tr>
<th>Episode Title</th>
<th>Amount of Speakers</th>
<th>Speaker Name(s)</th>
<th>Where the Speakers are From</th>
<th>Episode Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year in Review: Good Intentions don’t guarantee good impact</td>
<td>2</td>
<td>Natasha Pepper, Rachel Pepper</td>
<td>Denver, Colorado</td>
<td>Join foster mom, Natasha and foster care volunteer, Rachel as they reflect on lessons learned in 2021 to carry into the new year.</td>
</tr>
<tr>
<td>Moving Beyond the Mic: Behind the Scenes of Just As Special Podcast</td>
<td>5</td>
<td>Natasha Pepper, Rebeca Mendosa, Jeanette, Harris Courts</td>
<td>Denver, Colorado</td>
<td>Instead of interviewing someone else, Just As Special host Natasha is actually in the hot seat this time thanks to House of Pods From the Margins to the Center podcast. They generously gave us permission to run this interview on our show and we hope you enjoy going behind the scenes of the Just As Special podcast! Natasha also talks about how Just As Special moves beyond the microphone to build resources and community for foster families. Learn more at JustAsSpecial.com.</td>
</tr>
<tr>
<td>Fostering Creativity: A 100 lb Bike Ride &amp; YouTube Star</td>
<td>3</td>
<td>Natasha Pepper, Rachel Pepper, Nichole Barnett</td>
<td>Denver, Colorado</td>
<td>Nichole shares what she enjoys about being a single foster mom and how she creatively tackles foster care challenges. See photos and an update about Nichole and the kids in her care at JustAsSpecial.com.</td>
</tr>
</tbody>
</table>

★ 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.
Podcast Transcripts

- 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.
File Conversions

```python
import docx
import json

# Load the Docx file
doc = docx.Document('YearinReviewEdited.docx')

# Iterate over the paragraphs and create a list of dictionaries
data = []
for para in doc.paragraphs:
    para_data = {}
    para_data['text'] = para.text
    para_data['style'] = para.style.name
    data.append(para_data)

# Convert the list of dictionaries to JSON
json_data = json.dumps(data)

# Save the JSON data to a file
with open('YearinReviewEdited.docx', 'w') as f:
    f.write(json_data)
```

- 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.
File Conversions

We are covering various file conversions in this document, including DOCX and JSON. The text is written in a conversational style, discussing the importance of file conversions in today's digital world.
NLP Experimenting

- We experimented with Natural Language Processing (NLP) methods and in-browser analytics tools to explore sentiment analysis
  - MonkeyLearn, ChatGPT
Challenges Faced During Our Experiments

- 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
- Large text incorporated many neutral words that skew sentiment analysis
- 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.
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.

- Results were the same with JSON and CSV versions of our transcript files.
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.
How Do We Tell The Story of This Data?
Our Whitepaper Draft

The Storytelling group was tasked with telling the story of Just As Special's collected data. We have crafted a whitepaper that brings together Just As Special's background, as well as the findings of the text and audio groups.

From Wiki, a whitepaper is a report or guide that informs readers concisely about a complex issue and presents the issuing body's philosophy on the matter.

★ Why is this important?
This format allows us to communicate our findings to a wider audience.
Whitepaper Showcase

How We Have Helped

Overview
Just As Special partners with other organizations to come up with resources that can benefit foster children and their parents. These resources are divided into 4 main categories and many subcategories. The four main categories include Kids in Care, Former Kids in Care, Parent & Caregivers, and Community Members.

Kids in Care
As the name suggests, Kids in Care provides resources for current foster children. There are career resources, academic support, and physical and mental health support. Former kids refer to children who were in foster before and are now transitioning out of care. In the database, children can find job & internship opportunities around them.

Parent & Caregivers
We also understand the challenge that fosters parents are facing while taking the responsibility of taking care of a child. Therefore, we take action to help reduce the stress and make it easier for anyone to become foster parents. We partner with 2-1-1 Colorado to provide food, tax, and financial assistance to parents who need them.

Community Members
Last but not least, we admire and appreciate our community members. Anyone can help in their way. Therefore, we provide three ways that you can help, which are volunteering, donating, and growing the database.

Supporting Resources

Podcasts
- Just As Special provides 25 podcast episodes to support foster children as well as their caregivers. The podcasts feature a diverse range of speakers, including foster moms, education workers, and children’s welfare advocates who share their experiences and insights.
- The episodes are divided into two main categories: Pathway to Success and Mental Health.
- The Pathway to Success category includes 16 episodes that offer practical guidance and advice to foster parents and caregivers. The Mental Health category focuses on addressing the emotional and psychological well-being of foster children and includes four episodes.
- The podcasts are further divided into four categories: Supportive Services, Training, Behavioral Health, and General Pediatric Mental Health. These categories cover a range of themes such as trauma-informed care, school readiness, and navigating the foster care system.

"Foster Parent Training"
Foster Parent Training is one of the three of how Just As Special can help. We have seen hundreds of thousands of cases where foster parent burnout and placement disruption occur. This is why we provide Foster & Adoptive Parent Training. In our training, we focus on helping parents practically apply lessons from the diverse perspectives of foster care.
- We are proud of our Foster & Adoptive Parent Training because of its features, affordable price, and convenience. Our training charges agencies an annual fee of $3000, but it gives all their families unlimited access to more than 18 hours of audio and visual training. What is more important is that the training is completely online, which means parents can learn whenever and wherever they want. The training has proven effective and has a curriculum developed and updated by people with lived experience.

Blogs
- Just As Special provides 25 podcast episodes to support foster children as well as their caregivers. The podcasts feature a diverse range of speakers, including foster moms, education workers, and children’s welfare advocates who share their experiences and insights.
- The episodes are divided into two main categories: Pathway to Success and Mental Health. The Pathway to Success category includes 16 episodes that offer practical guidance and advice to foster parents and caregivers. The Mental Health category focuses on addressing the emotional and psychological well-being of foster children and includes four episodes.
- The podcasts are further divided into four categories: Supportive Services, Training, Behavioral Health, and General Pediatric Mental Health. These categories cover a range of themes such as trauma-informed care, school readiness, and navigating the foster care system.

Resource Database
- Just As Special's resource database serves to link kids in care with foster parents, resources such as mental and physical health options, employment and internship opportunities. In addition to children in foster care, Just As Special's resource database also connects foster parents to free therapy, and helps different organizations to create partnership within the community.
- The resource database is categorized into different sections according to target audience, and each section consists of maps that labeled the resources accordingly. People can clip on each label to read detailed information of the resources, such as specific location, description of the work they've done, and contact information. Using this database, one can easily find the best option that fulfills their need.
What did the text group discover?

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.
What did the audio group discover?

NLP analysis of the podcast transcripts 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.
What did the storytelling group discover?

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:** finalize our language, namely vocabulary, choices in our whitepaper and to publicize it. 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
THANK YOU!
Thank you!

Just As Special would like to thank **Cobbled Streets** 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 provided 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 [www.cobbledstreets.org](http://www.cobbledstreets.org) 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
- Irene 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) and Natasha Pepperl

Thank you to the University of California, Berkeley’s Data Science Discovery Program for having Just As Special on board as a partnering organization for their Spring 2023 cohort!