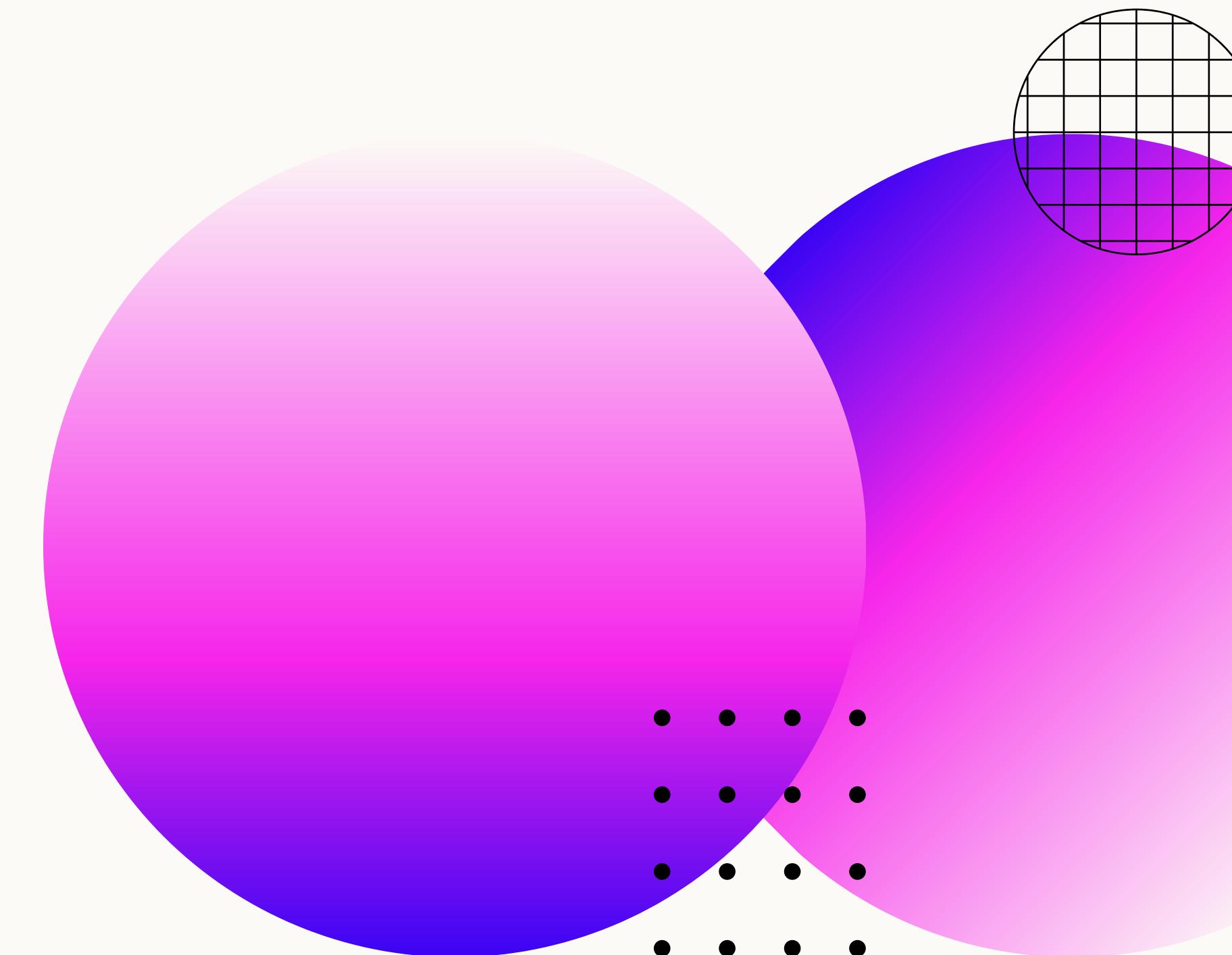
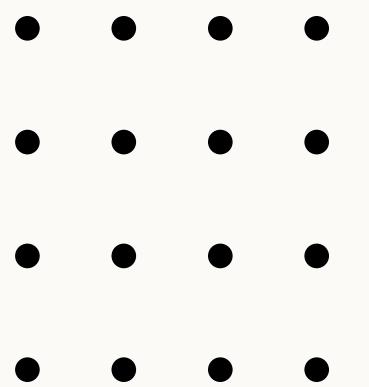


techbridge

# Techbridge HomeBridger





# Agenda

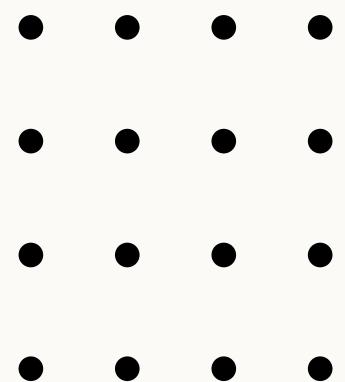
Introduction  
Financial Factors  
Living Situation  
Service Optimization  
Data Dashboard Demo  
Conclusion

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# Project Overview

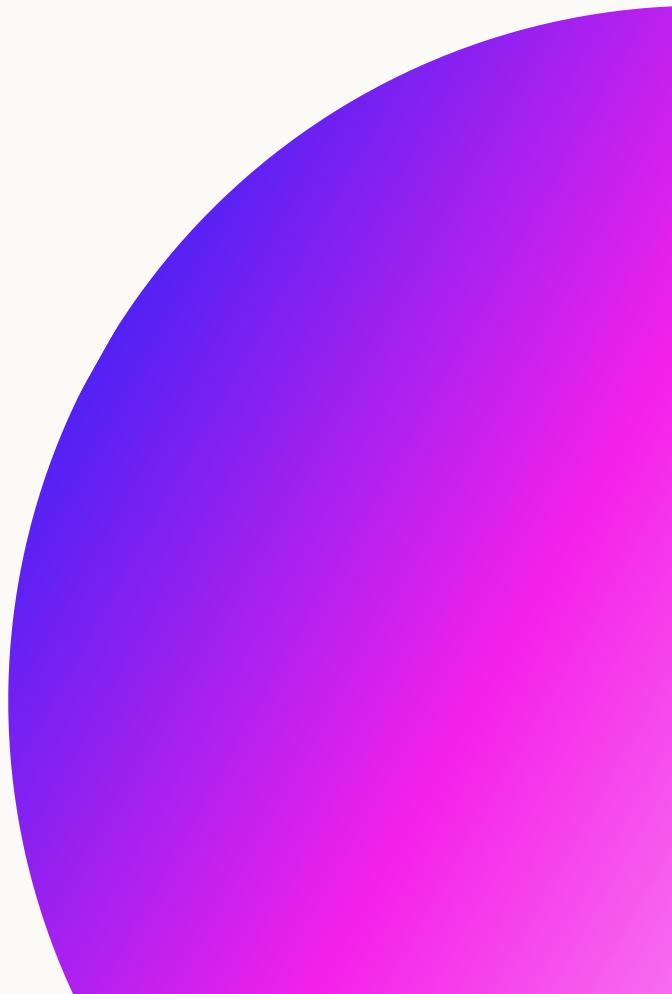
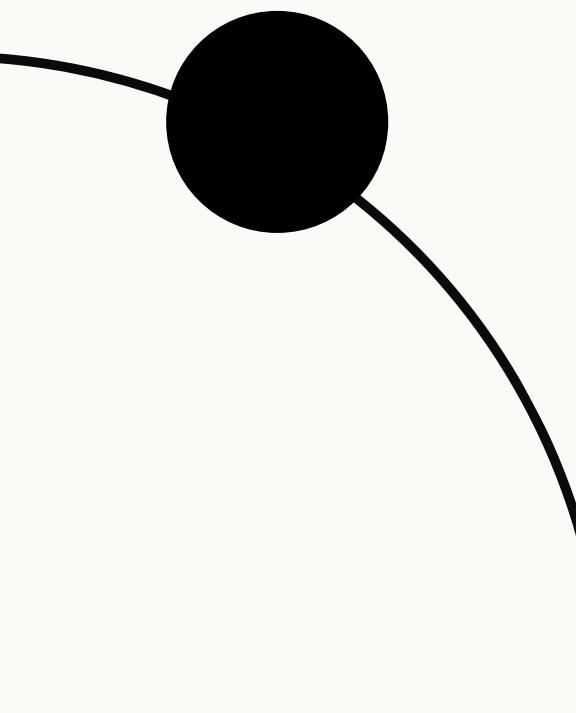
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**Objective** | Demonstrate the benefits of effective data sharing of HomeBridger while identifying opportunities for improvement + success patterns



## Focus Areas |

- Exploratory Data Analysis (Dashboard Insights)
- Living Situation Transition Analysis
- Service Optimization Opportunities
- Summary Statistics & Performance Metrics



# Financial Factors

A deep dive into a financial point of view



# Income Support Correlation

**Objective** | To show the pairwise relationships between major benefit programs

## Moderate Correlations (More pink/purple ~0.2-0.4)

- Can help identify where clients who qualify for one support channel might qualify for another
- Shows overlap between types of support, such as cash and non-cash benefits

## Low Correlations (More purple/blue ~0.0-0.1)

- Different eligibility requirements and timelines of income sources (e.g., Unemployment and Child Support)

## Negative Correlations (Deep blue <0.0)

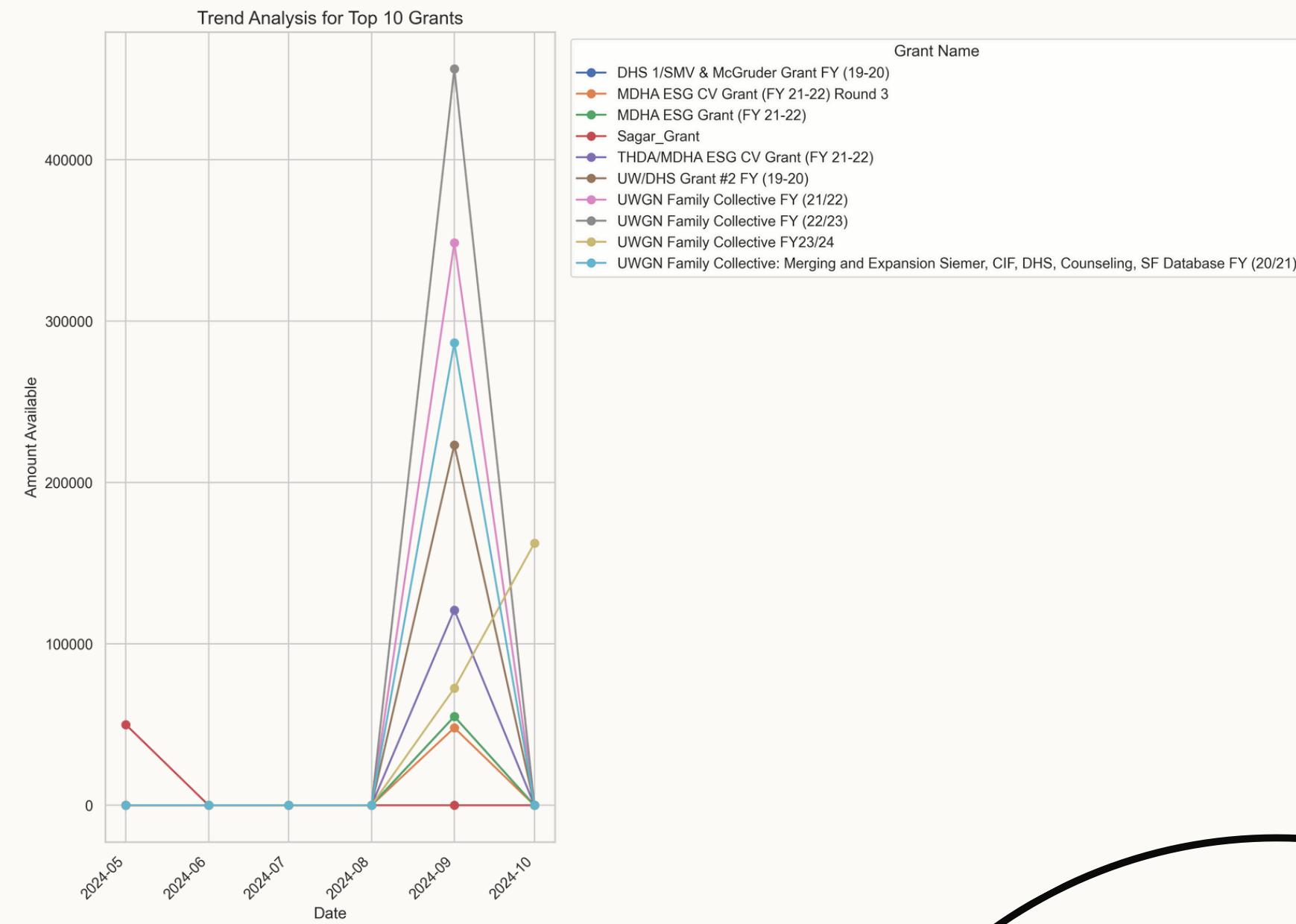
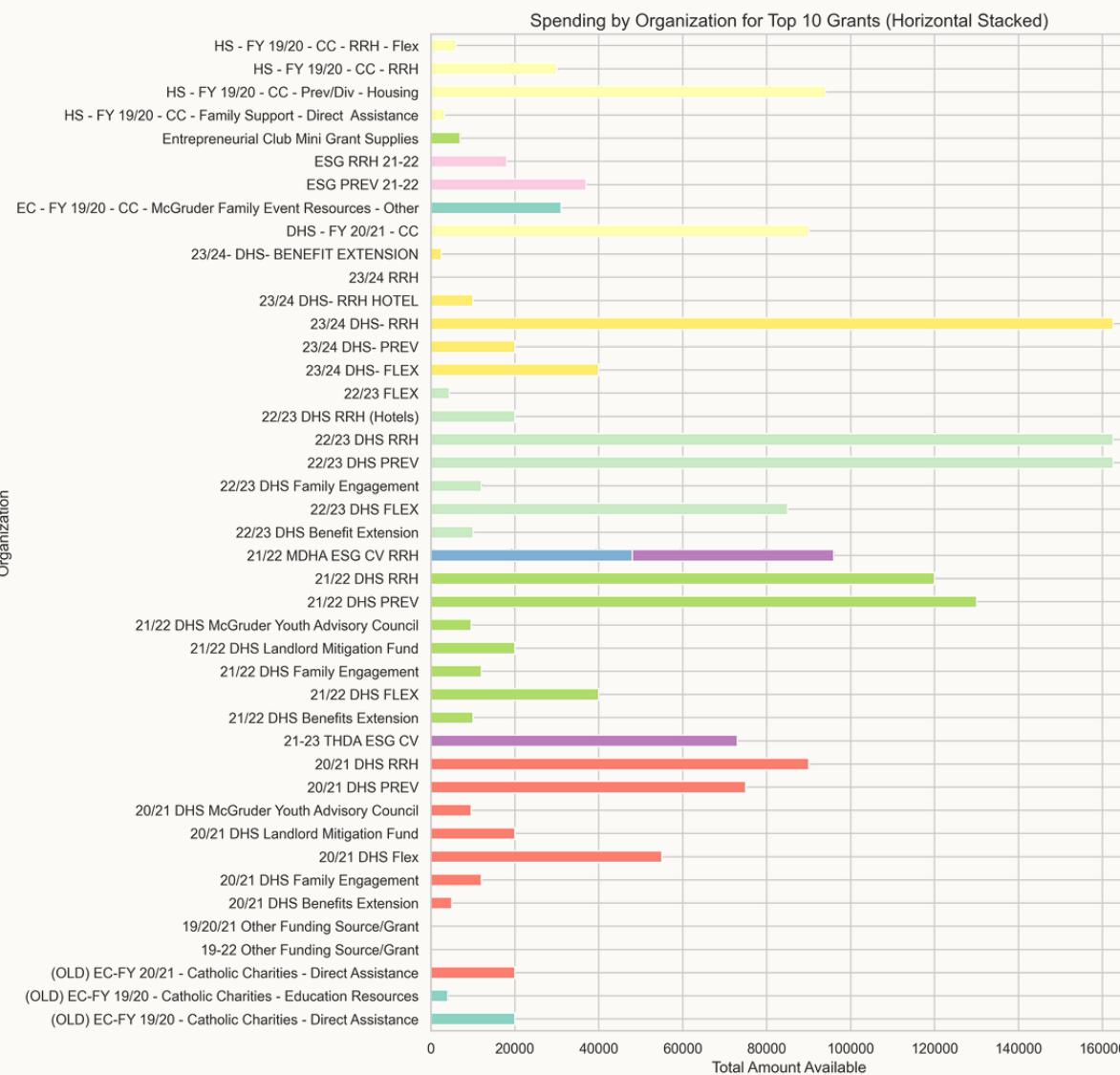
- Inverse relationships may suggest some programs may substitute one another



\*blank spaces mean no overlapping data

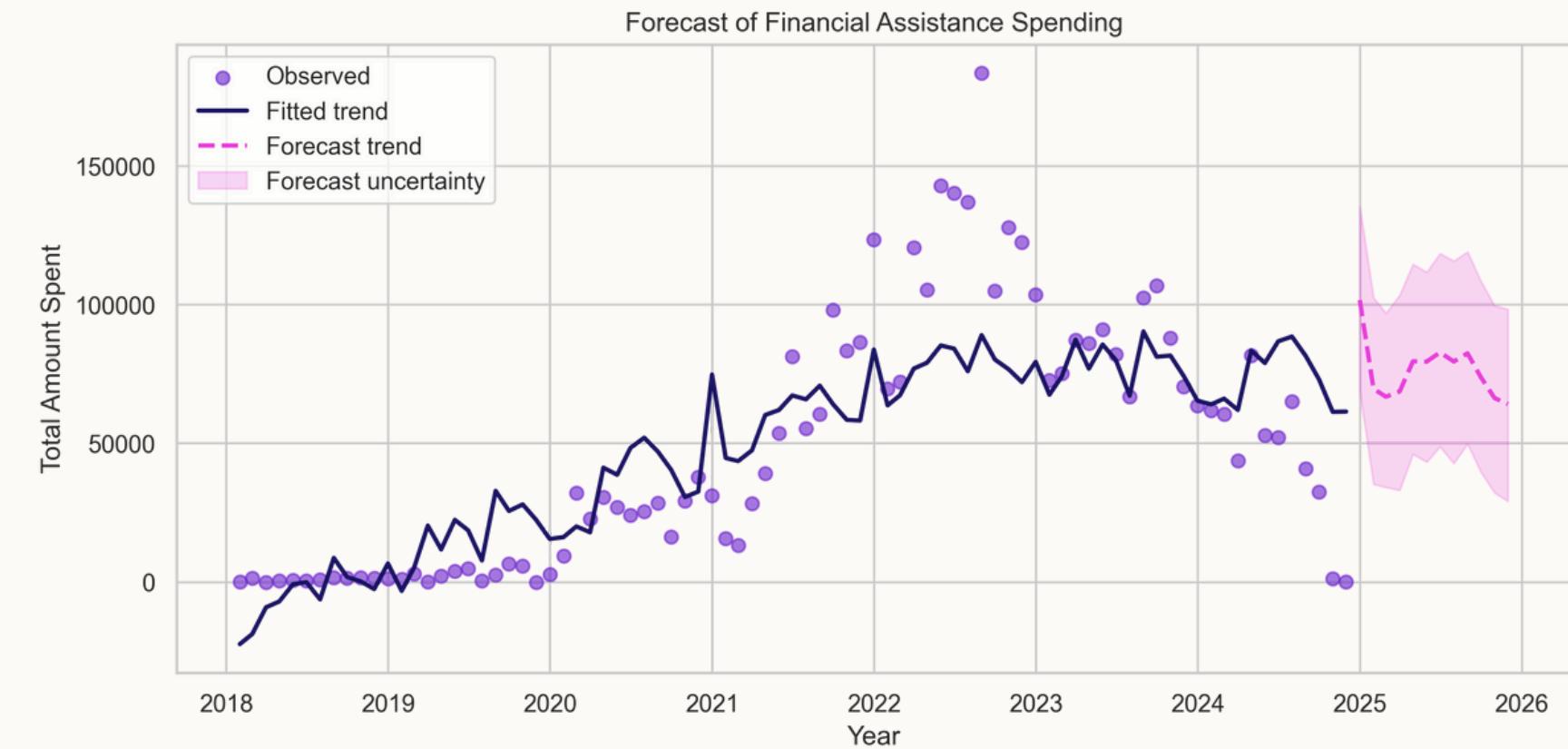
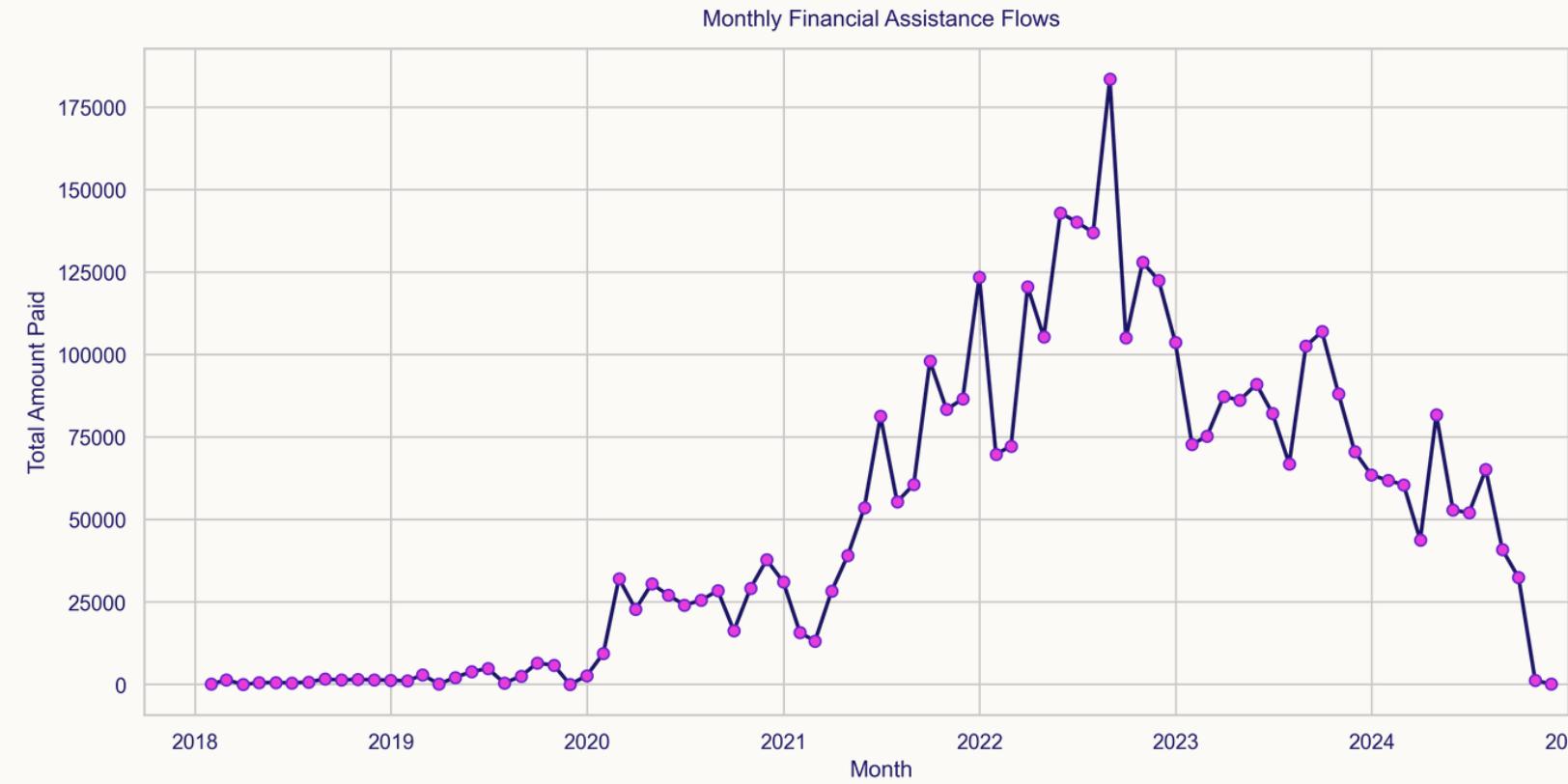
# Grant Spending

Organization



The horizontal bars show the total dollars each organization manages across the top 10 grants—so you can instantly see which agencies are the biggest funding stewards.

# Financial Assistance Flow



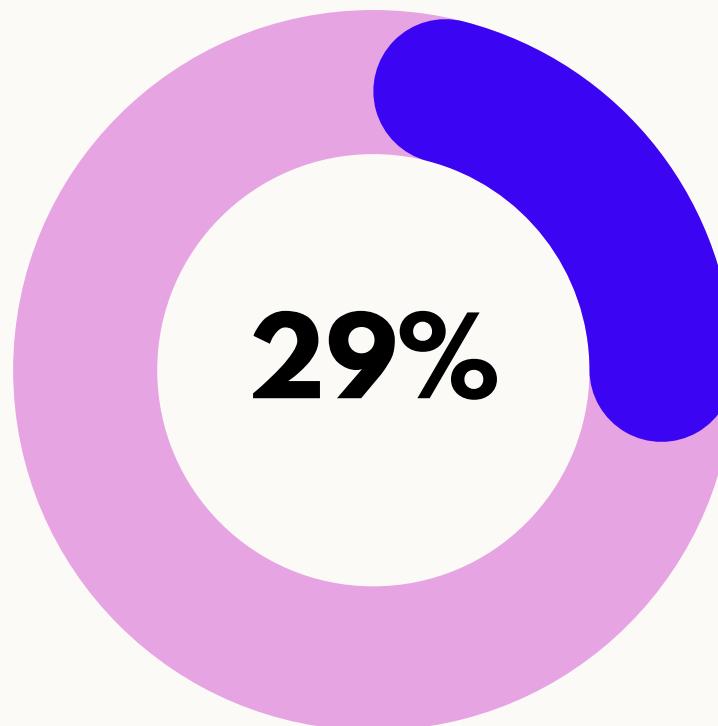
- Sharp ramp-up in payouts beginning in early 2020, peaking in mid-2022
- Gradually declines through 2023; potential funding changes
- Noticeable end-of-year dips and spring/summer peaks which helps reveal a recurring demand pattern
- Projection of a relatively stable spending plateau (~\$70–100 K/month) with a ±\$30 K uncertainty band over the next year.
- Forecast provides potential baseline for assistance spending based on historical data

# Living Situation

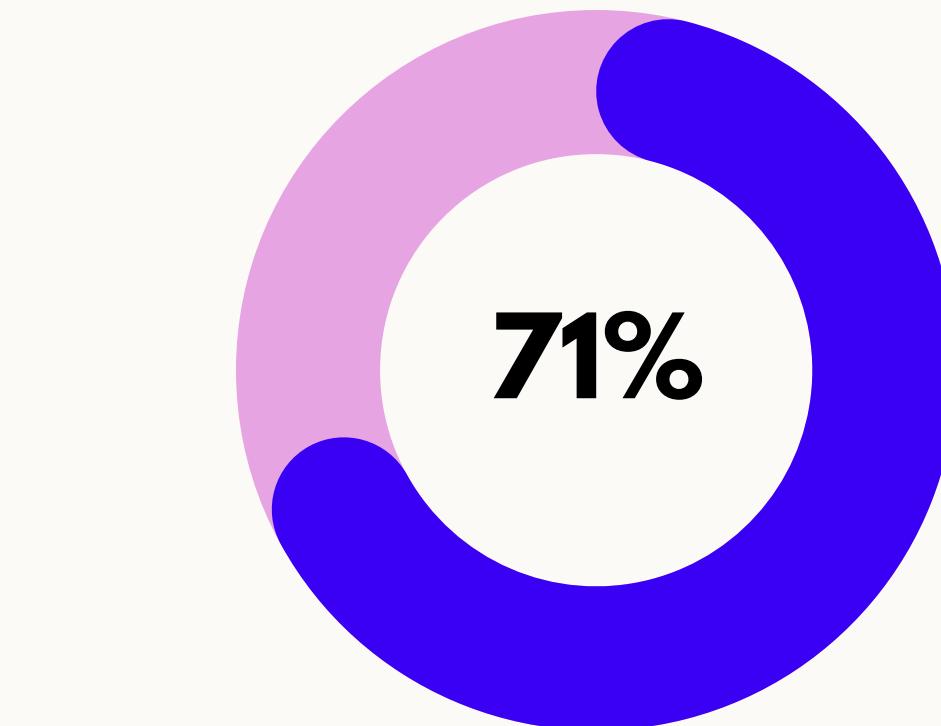
A deep dive into living situation outcomes



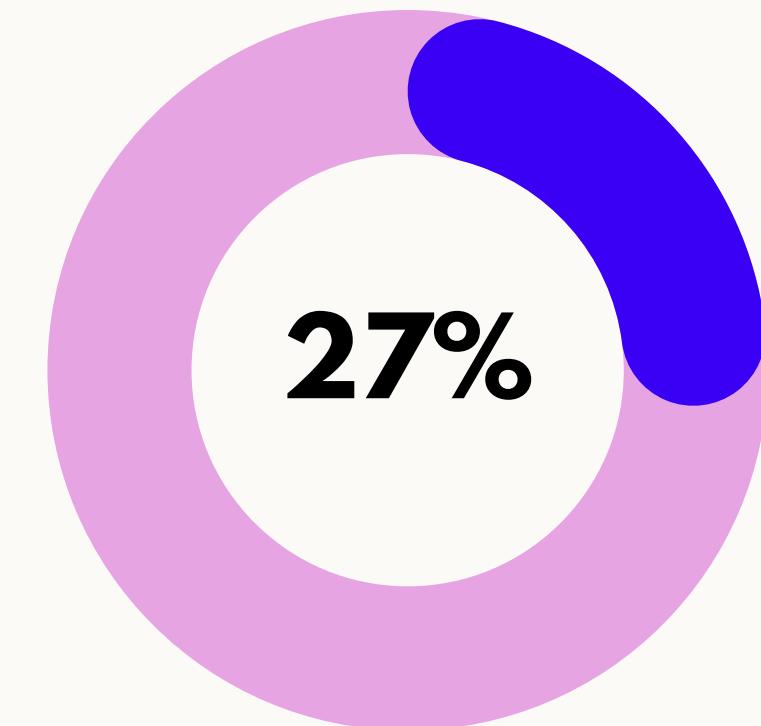
# Living Situation Statistics



Completed cases that saw no change in living situation before and after service



Completed cases that experienced a change in living situation before and after service

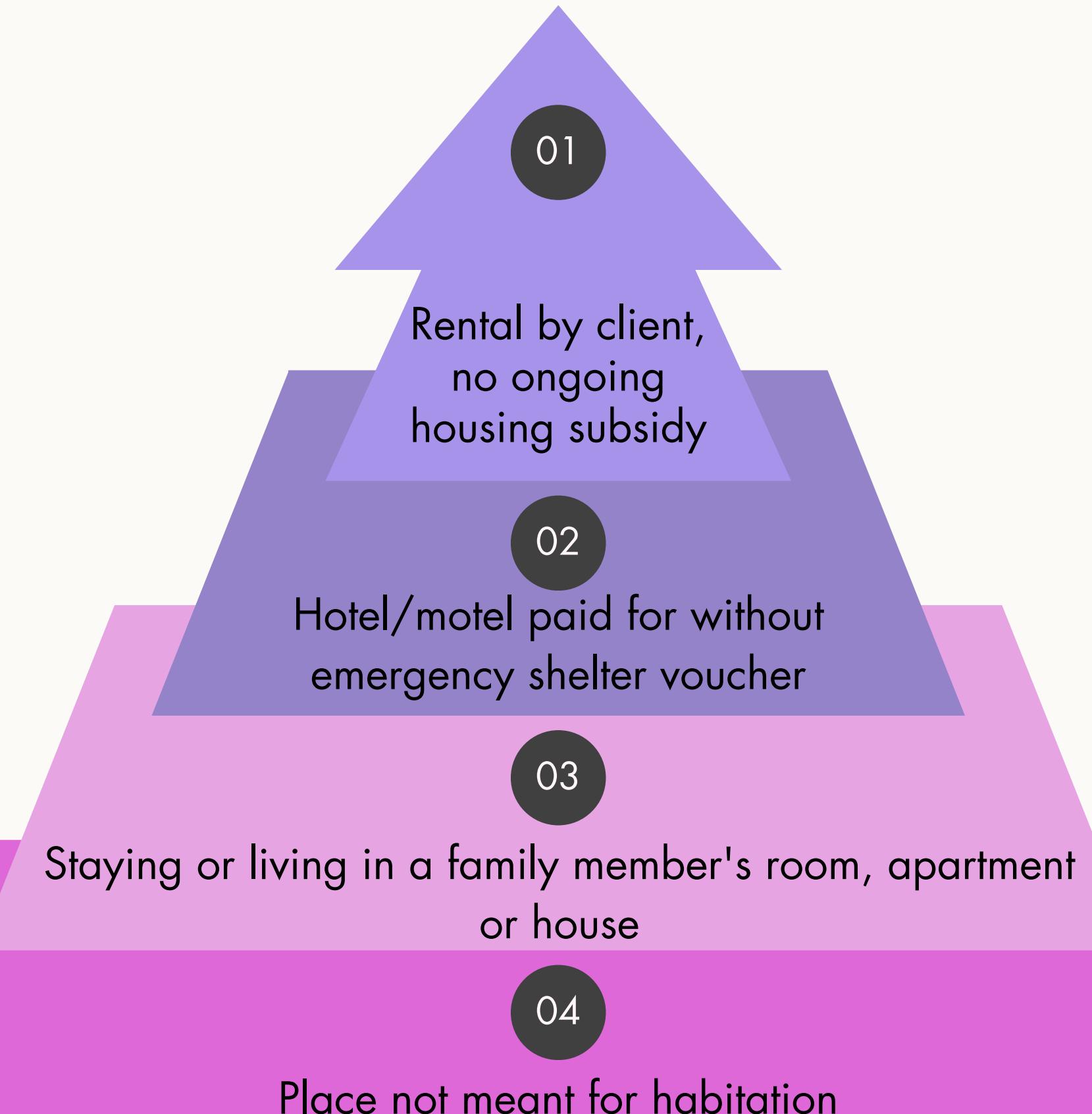


Out of the completed cases that experienced a change in living situation, 27% of them improved their living status

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# Top 4 Living Situations

The following represent the top 4 most common living situations BEFORE the program

- 
- 01  
Rental by client,  
no ongoing  
housing subsidy
  - 02  
Hotel/motel paid for without  
emergency shelter voucher
  - 03  
Staying or living in a family member's room, apartment  
or house
  - 04  
Place not meant for habitation

# Top 4 Living Situations

The following represent the top 4 most common living situations AFTER the program





# **Service Optimization**

Tailoring services to family needs for  
successful program completion



# Family Clustering

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**Goal** | Group families based on their assessment scores and needs to deliver greater value with services and improve the current model for better outcomes.

- Filtered assessment data to include **only initial assessments**, capturing families' conditions at the time of program entry.
- Used **KMeans clustering ( $k = 4$ )** on scores from 18 assessment domains (e.g., housing, income, food, mental health, education).
- Each family was assigned to a cluster based on **similarities in their assessment scores**. Families in the same cluster have similar needs.



Cluster 0



Cluster 1



Cluster 2

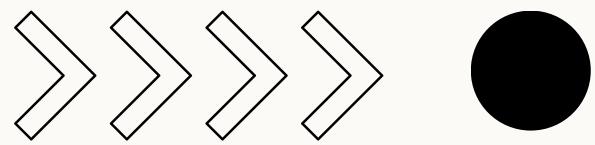


Cluster 3

# Cluster Profiles

## Cluster Snapshot

Cluster	Primary Needs
0	Faces challenges over employment, housing, and food, which are essential to meeting basic needs.
1	Stable overall, but struggling with employment and income. Support should focus on economic stability.
2	Struggles with housing, food, income, and community involvement. Needs targeted support in legal and mobility.
3	Some support needed in food and child care, otherwise very stable. Well-positioned for success with minimal intervention.

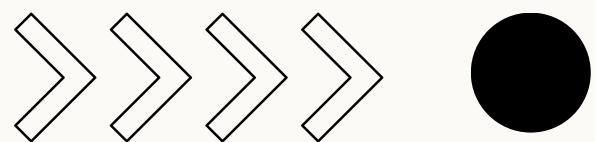


# Success vs. Failure

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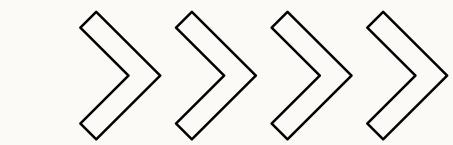
After clustering families based on assessment data:

- Defined “**Successful**” families as those who completed the program **after receiving at least one service**.
- Defined “**Failed**” families as those who exited without completing the program—excluding families who were still active or in the process of enrollment.
- Calculated **the average number of sessions** for each service type and the success rate within each of the four clusters.
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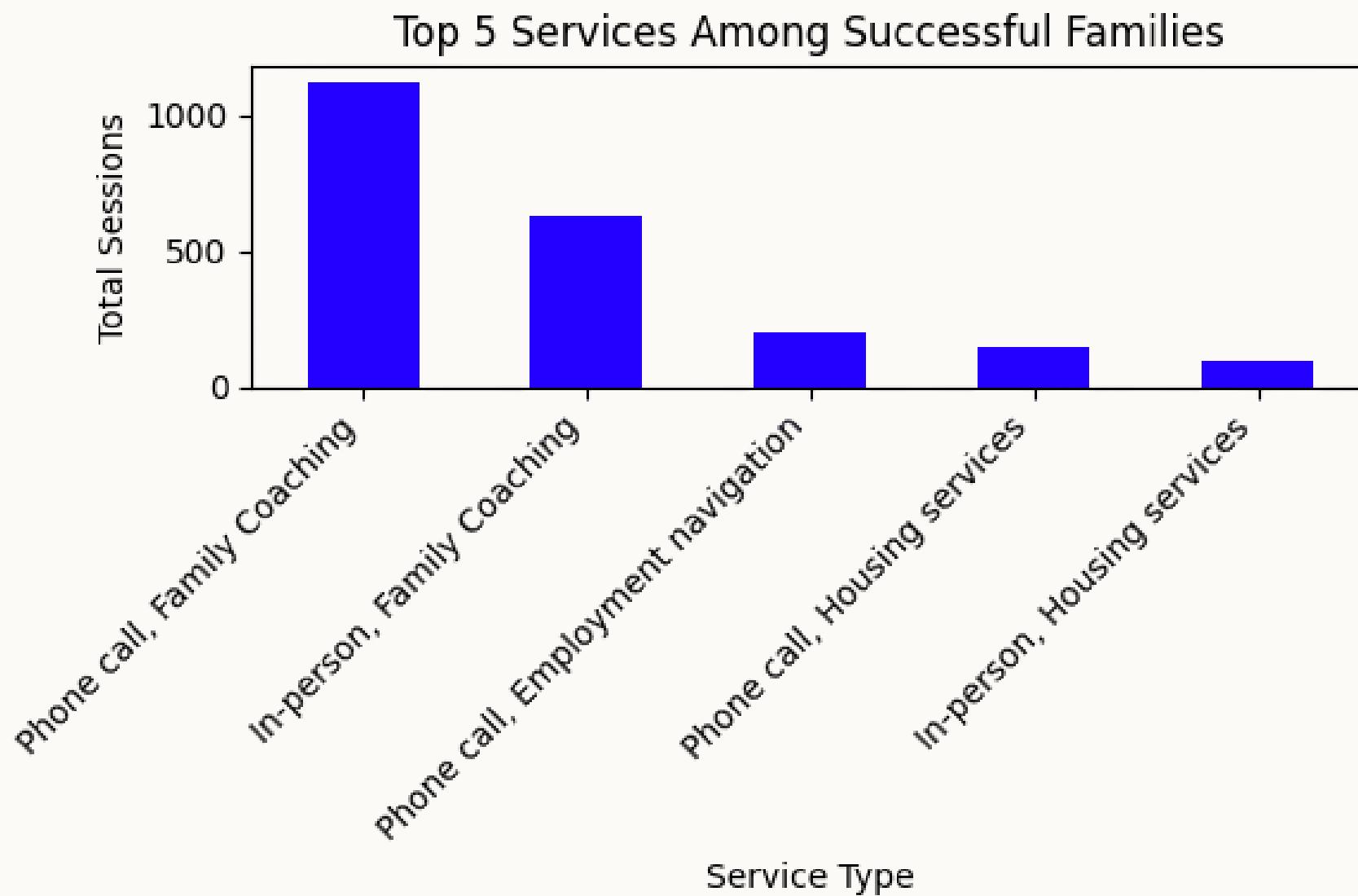


# Success vs. Failure

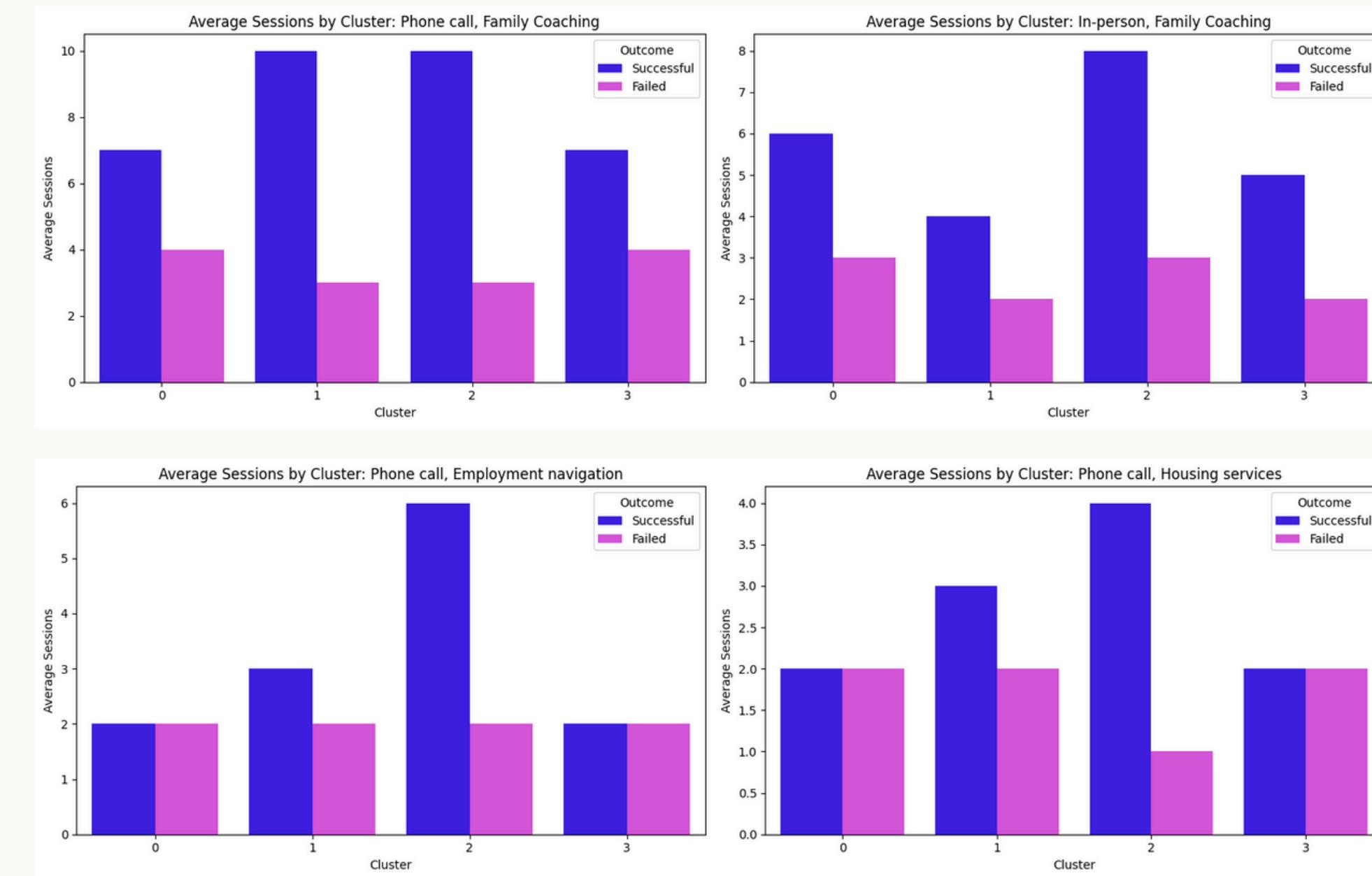
Cluster	Primary Needs	Cluster Size	Average Sessions	Success Rate (%)
0	Struggles with employment, housing, and food, which are essential to meeting basic needs.	129	35	28%
1	Stable overall, but struggling with employment and income. Support should focus on economic stability.	211	40	22%
2	Moderate needs across housing, food, income, and community involvement. Needs targeted support in legal and mobility domains.	42	41	24%
3	Some support needed in food and child care, otherwise very stable. Well-positioned for success with minimal intervention.	177	31	40%



# Success vs. Failure

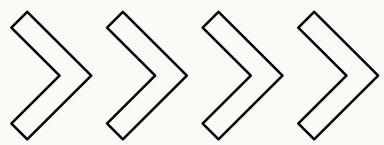


**Service delivery format** did not significantly affect outcomes.



**Key finding** | Failed families received fewer services and experienced inconsistent delivery of services (one-time engagement).

This may be due to loss of contact or external difficulties in staying engaged with the program.



# Success vs. Failure Path

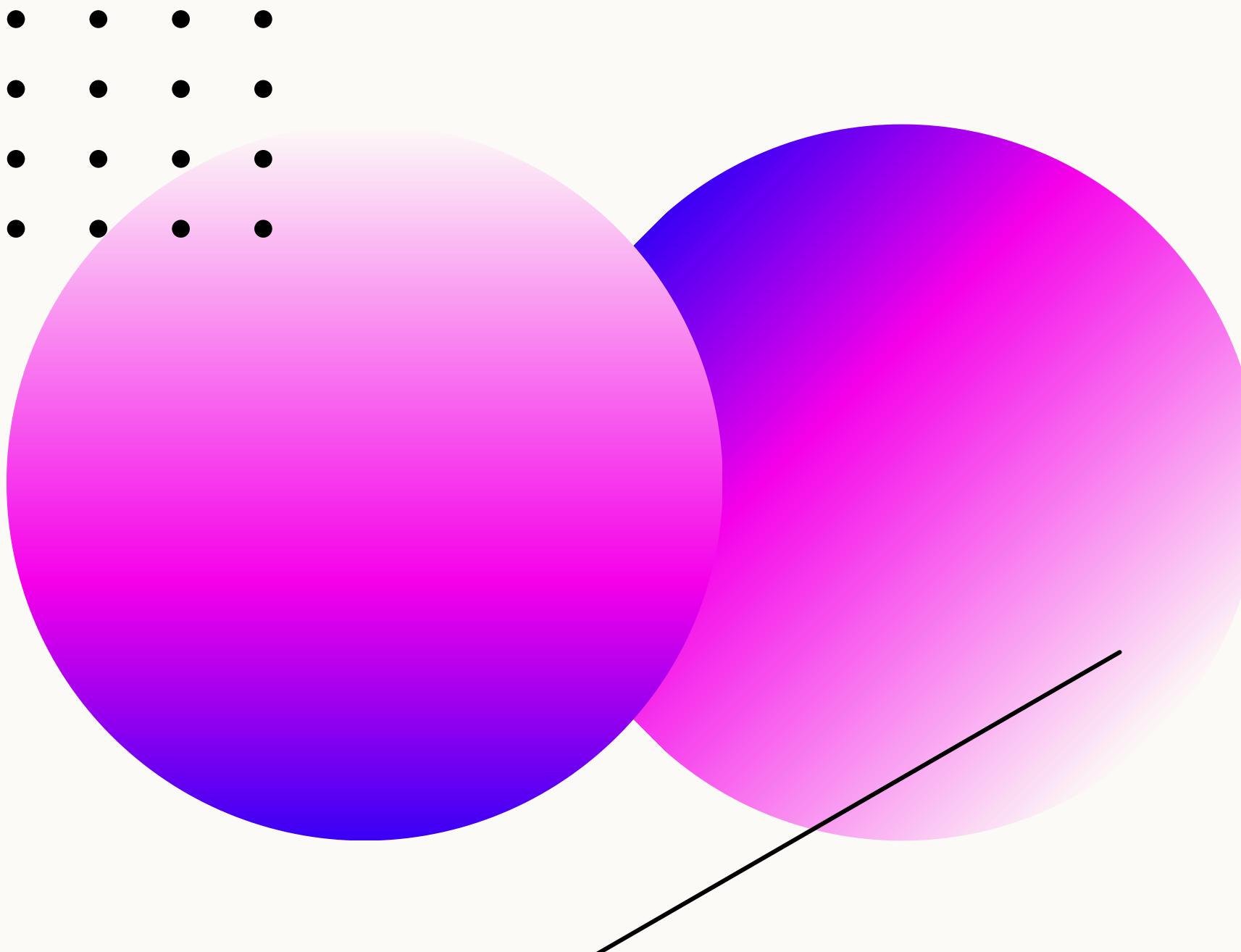
Cluster	Success Path	Failure Path
0	Recurrent housing services. Employment navigation appears late after housing stability is addressed.	Shorter paths with more distinct types of services
1	Recurrent family coaching	Shorter paths with fewer number of services
2	Recurrent housing services	Much longer path than average. Some contains services like mental health services
3	Mainly phone call sessions. Family coaching dominant	Much longer path than average

# Path Examples

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In-person, Family Coaching - Phone call, Family Coaching - In-person, Family Coaching - Phone call,  
Employment navigation - Phone call, Family Coaching - Phone call, Employment navigation - Phone call, Family  
Coaching - In-person, Family Coaching - Phone call, Employment navigation - Phone call, Family Coaching -  
Phone call, Employment navigation - In-person, Family Coaching - Video conference, Family Coaching - In-  
person, Family Coaching - Phone call, Family Coaching - Phone call, Employment navigation - Phone call,  
Family Coaching - Phone call, Employment navigation - Phone call, Family Coaching - In-person, Family  
Coaching - Phone call, Employment navigation - Video conference, Family Coaching

Phone call, Family Coaching - Phone call, Employment navigation - Phone call, Family Coaching - Phone call,  
Employment navigation - In-person, Family Coaching - In-person, Housing services - Phone call, Family Coaching  
- Phone call, Housing services - Phone call, Family Coaching



# Next Steps

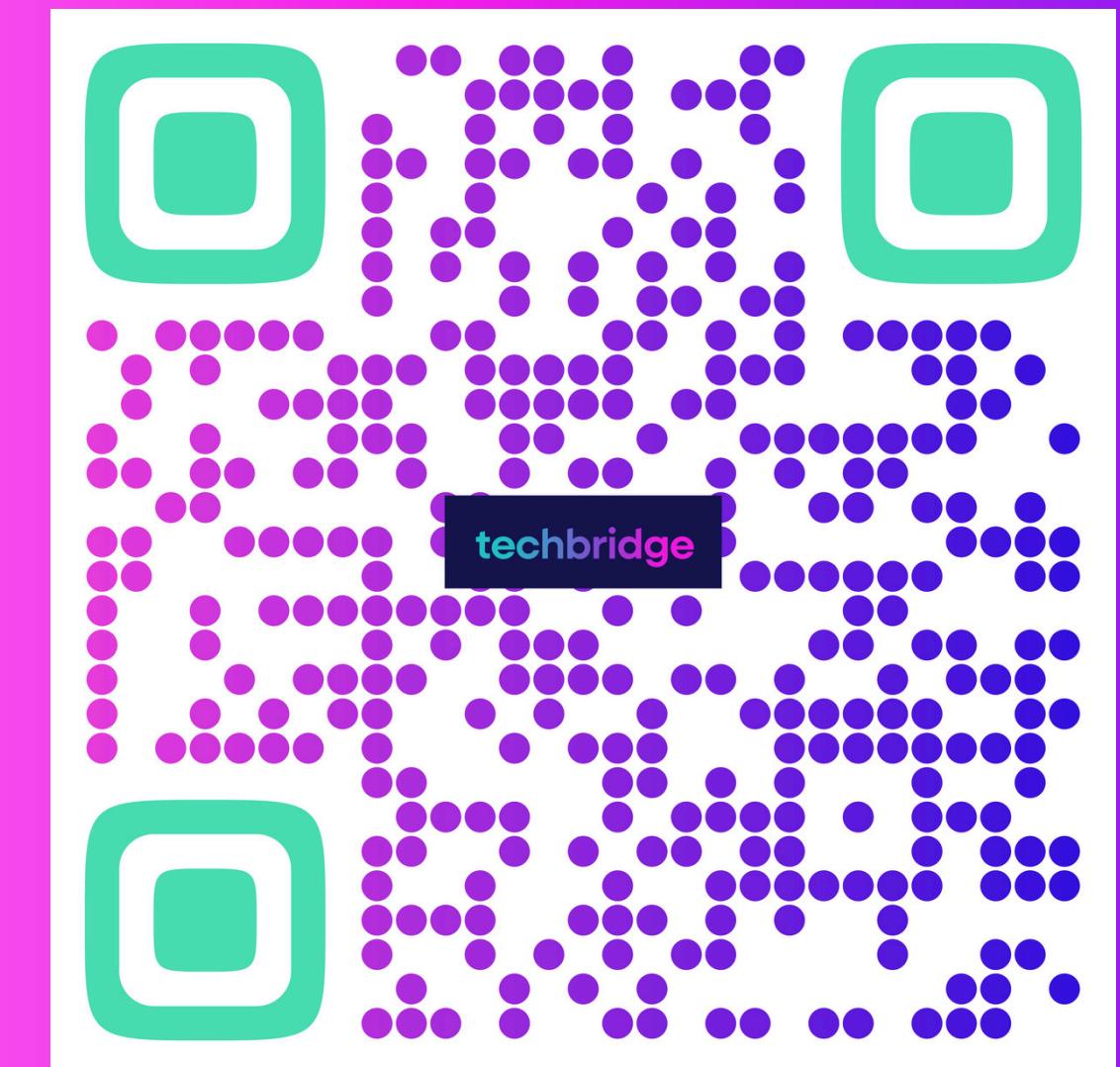
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- 1 Tailor services to each cluster's profile's needs
- 2 Streamline onboarding for incoming families
- 3 Explore alternative service delivery methods to improve success rate

# Descriptive Data Dashboard



Uncovering Data Patterns and Anomalies



# Thank you

Do you have any questions?

