AGENDA

BACKGROUND

THE PROCESS

THE END PRODUCT
(LIVE DEMO + Q&A)

THE
IMPACT

CIVIC
INNOVATION
CORPS

BACKGROUND

THE "WHY"

- In 2021, Cincinnati leveraged a national vendor to conduct its first ever community survey, reaching over 1,408 respondents that were demographically representative of the city population with a precision of at least +/-2.6%

- Survey results included ratings for services provided, community priorities, and measures to assist the administration with identifying key opportunities

- Dashboard provided by vendor was not suitable for sharing with community via CincyInsights portal

- **OPDA desired creation of a series of dashboards using Tableau that would provide a clear narrative in an intuitive format to be used by both the community and City departments and published on CincyInsights**

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VENDOR DASHBOARD
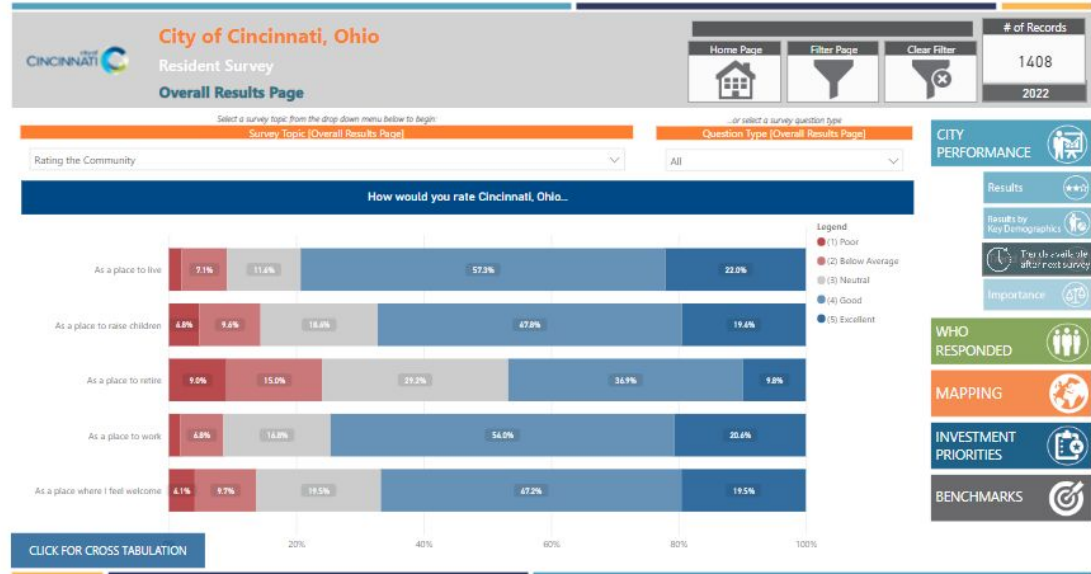
THE GOALS

- **Clear** narrative

- **Intuitive** format

- **Usable and understandable** by both the community and City departments

    - The community: Residents, workers, stakeholders, journalists, etc.

    - City departments: OPDA, City Manager's Office, CPD, Finance, HR, etc.

    - As much granularity as possible without enabling inappropriate conclusions to be drawn

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THE PROCESS

1. EXPLORING THE DATA

- **Observations**: Survey respondents

- **Columns**: Survey questions

  - Separated by topic

  - Measured by

    - **Satisfaction:** Did the respondent say they were 'satisfied' or 'very satisfied' with the service?

    - **Importance:** Did the respondent list the service as one of their top choices for the City to emphasize over the next 2 years?

	As a place	As a place	As a place	As a place	As a place	Overall qu	Overa
1	3	3	3	4	3	4	
2	2	3	3	2	3	2	
3	4	4	3	4	4	3	
4	4	3	4	4	4	5	
5	4	4	4	4	4	4	
6	2	9	9	9	9	9	
7	4	2	3	9	5	2	
8	3	3	3	2	2	2	
9	4	4	3	4	4	3	
10	4	3	4	4	4	2	
11	4	4	4	4	3	2	
12	5	5	4	3	5	4	
13	4	3	5	2	4	4	
14	5	9	5	4	5	5	
15	4	4	4	3	4	4	
16	2	2	4	3	3	2	
17	4	4	4	4	4	4	
18	5	5	5	4	4	4	

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2. DESIGNING THE DASHBOARD

- What **should** be included vs. what **should not** be?

- What is the **narrative** that the City wanted to send?

- How should users **interact** with the dashboard?

- How simple vs. how complex?

- **Desktop** and **mobile** views

INSPIRATION
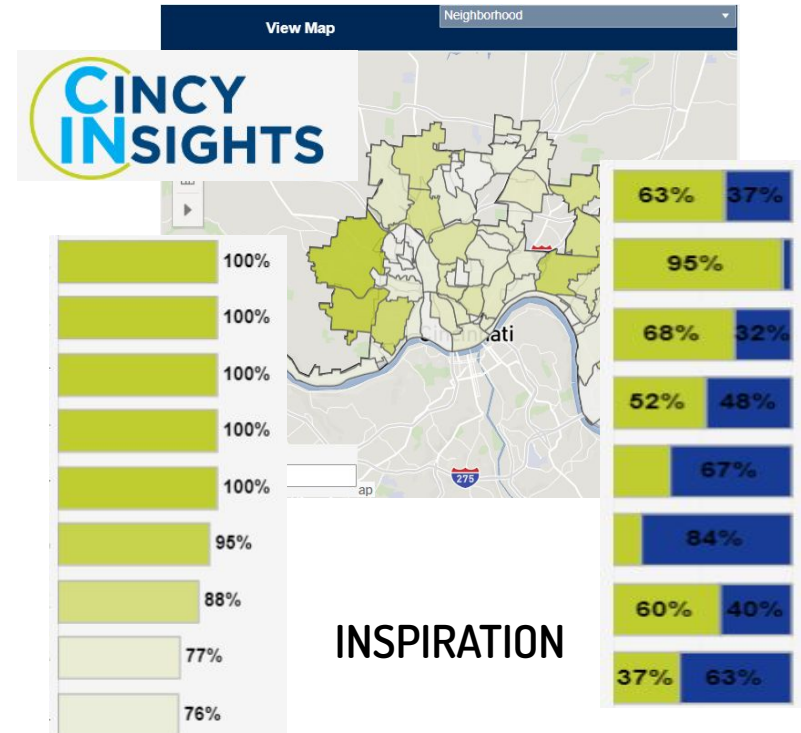
3. TRANSFORMING THE DATA

- **Aggregated** the various combinations of demographics in the survey (race, gender, neighborhood, etc.)

- **Calculated** importance and satisfaction ratings after crossing respondents with questions

```
169  importance <- crossing(respondents, questions)
170
171  importance$count.1st <- 0
172  importance$count.2nd <- 0
173  importance$count.3rd <- 0
174  importance$count.4th <- 0
175
176  for(i in 1:nrow(importance)) {
177
178      question.name <- str_trim(importance$topics[i])
179      race <- importance$race[i]
180      gender <- importance$gender[i]
181      age <- importance$age[i]
182      neighborhood <- importance$neighborhood[i]
183      income <- importance$income[i]
184      years.resident <- importance$years.resident[i]
185      residence.type <- importance$residence.type[i]
186
187      for(j in 1:length(questions.importance))
188      {
189          col.name <- questions.importance[j]
190          txt <- paste("survey$`", col.name, "`", sep ="")
```
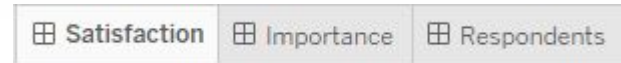
R

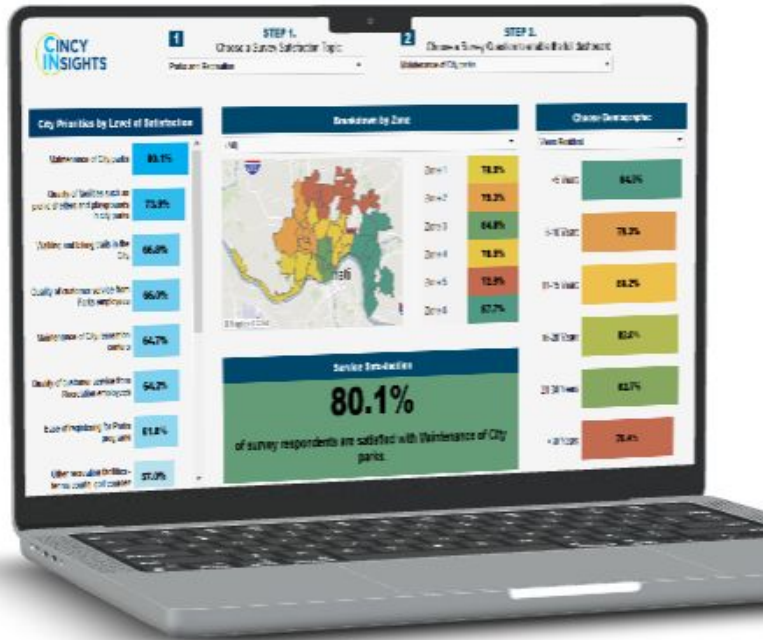| WRITE R SCRIPT | RUN R SCRIPT TO TRANSFORM DATASET | VALIDATE TRANSFORMED DATASET | LOAD DATASET INTO TABLEAU |

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4. BUILDING THE DASHBOARD

- **Respondents** tab

- **Satisfaction** tab

- **Importance** tab

- Becoming more proficient in Tableau

- Iterating through feedback

THE END PRODUCT

LIVE DEMO + Q&A

Link

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THE IMPACT

THE FUTURE

- Dashboard will go through usability testing before going live

- Model for potential future surveys, enabling trends to be analyzed and allowing insights for allocation of resources

- Documentation of work

SEARCH BY TOPIC

| NEIGHBORHOODS & DEVELOPMENT | INTERNAL OPERATIONS | PUBLIC SERVICES |

| PUBLIC SAFETY | HEALTH & ENVIRONMENT | RESULTS CINCY |

| COUNTYWIDE LAND & INFRASTRUCTURE DATA |

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FELLOWSHIP TAKEAWAYS

- Learned or became more proficient in:

    - Tableau - dashboarding, connecting to data, publishing, etc.

    - Data cleaning and transformation

    - R scripting

    - Oracle and SQL

    - Microsoft Power BI

    - Tyler Data & Insights

- How city government is organized and conducted

- Work life in the public sector

- Optimizing performance across departments

- The human insights from our work

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THANK YOU!

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QUESTIONS?