



Portfolio of
SEAN BERGSTEDT

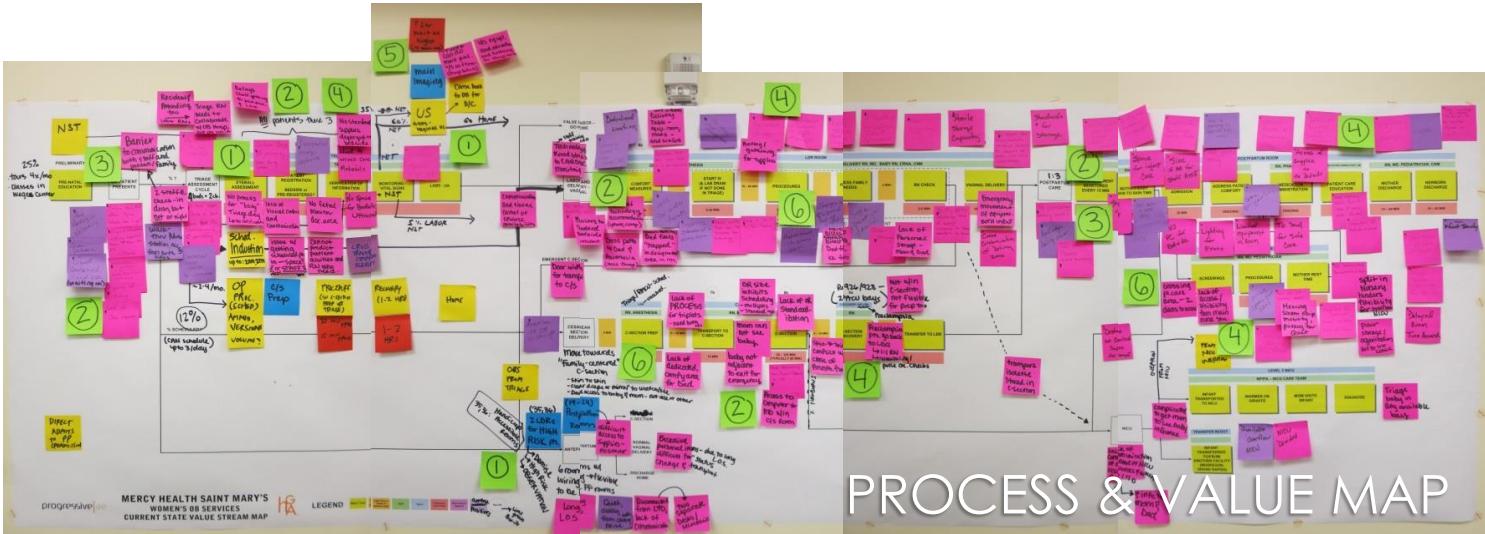
Human Centered Design, Data Science
& Project Experience

Human-Centered Design

PROCESS OVERVIEW

1. IDENTIFY NEEDS

- User Inputs + Ideal Value – Waste = NEEDS



PROCESS OVERVIEW

2. UNDERSTANDING BY SORTING

- ▶ Each team sorted the guiding principle objectives

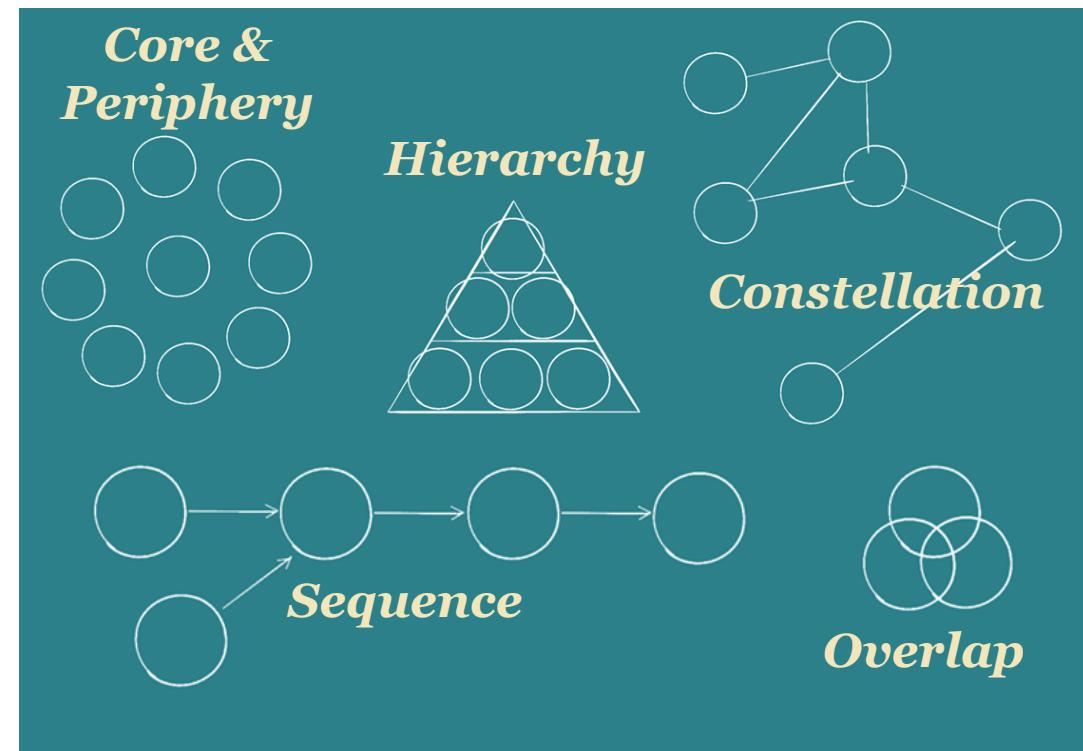


Define

PROCESS OVERVIEW

3. CREATE LOGICAL FRAMEWORKS

- ▶ Each team created 2 – 4 frameworks
- ▶ The intent of the framework is to create a visual that represents how the guiding principle characteristics apply to the individual departments

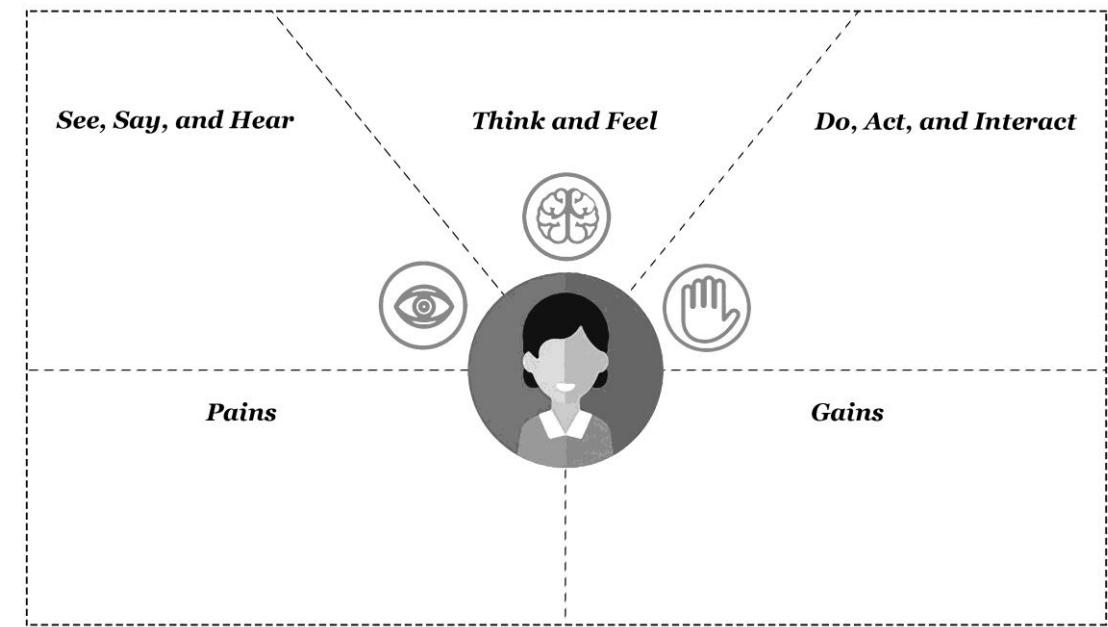


PROCESS OVERVIEW

4. INTERVIEW

- ▶ Each team interviewed a different department
- ▶ Each team interviewing documented their notes using an empathy map

Populate the “empathy map”.



PROCESS OVERVIEW

5. INSIGHT STATEMENTS

- ▶ Each department writes an insight statement for each framework created
- ▶ An insight is not a solution, it's a complete sentence which explains the logical framework

6. “NEEDS” MAD LIB

- ▶ Each department fills out a “needs” mad lib for each insight statement
- ▶ Each need statement created by the team was updated into a “how might we” statement

“Need” MadLib

..... needs to
[the person involved] [describe their need, use a verb]

because
[“insight statement” from the “logical framework”]

“Opportunity Area” MadLib

How might we
[a version of the “need statement”]

?

PROCESS OVERVIEW

7. IDEATE

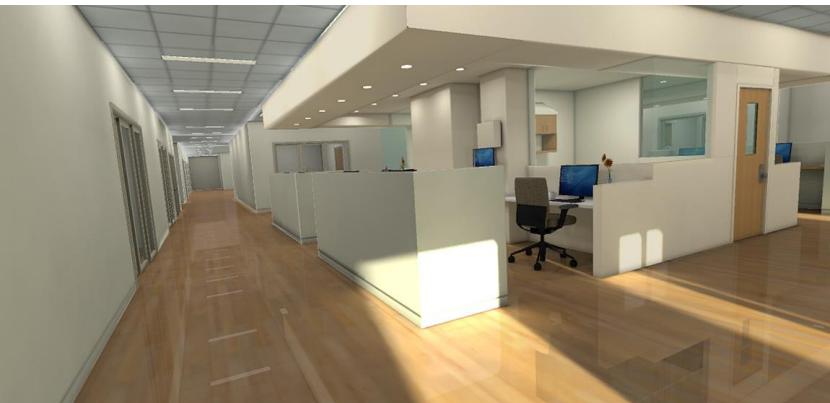
- ▶ Each department selected their “top” need to use for the remainder of the exercise
- ▶ Teams chose a focus to ideate their prototype
- ▶ The teams then brainstormed ideas, using post-it notes, that would answer the question, “how might this product address [the need] chosen by the team?”



PROCESS OVERVIEW

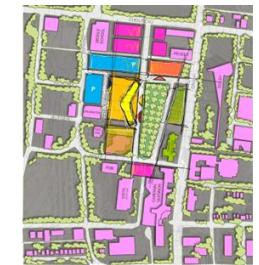
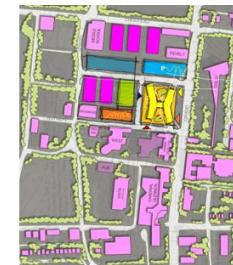
8. PROTOTYPE

- ▶ Developed prototypes of design elements in space using virtual reality technology and physical mock-ups to gather rapid feedback and improve the design before building.



PROCESS OVERVIEW

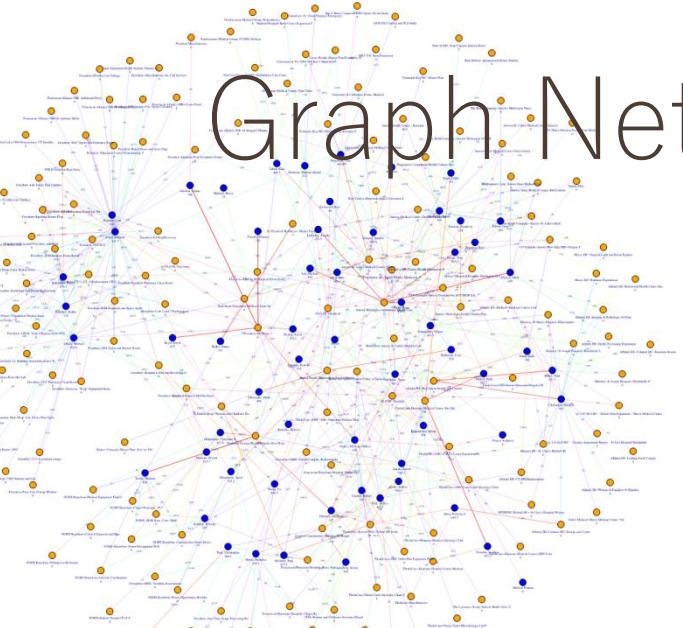
9. EVALUATE OPTIONS



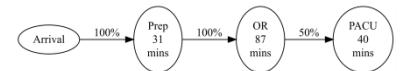
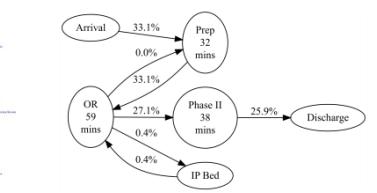
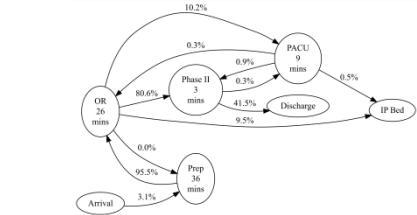
R Data Visualization

R VISUALIZATIONS

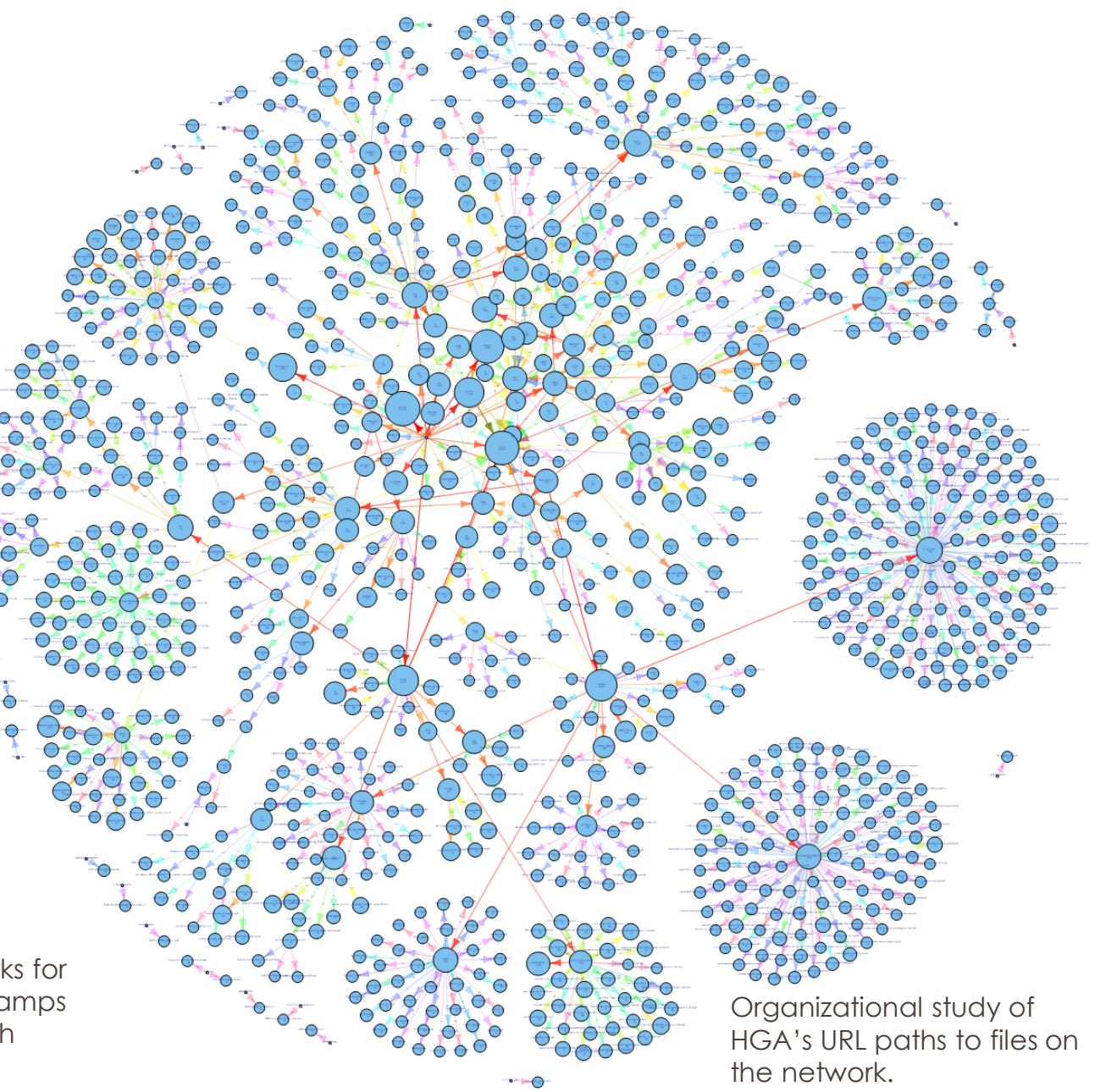
Graph Networks



Organizational study of HGA projects (blue) and employees (orange) for purpose of team clustering



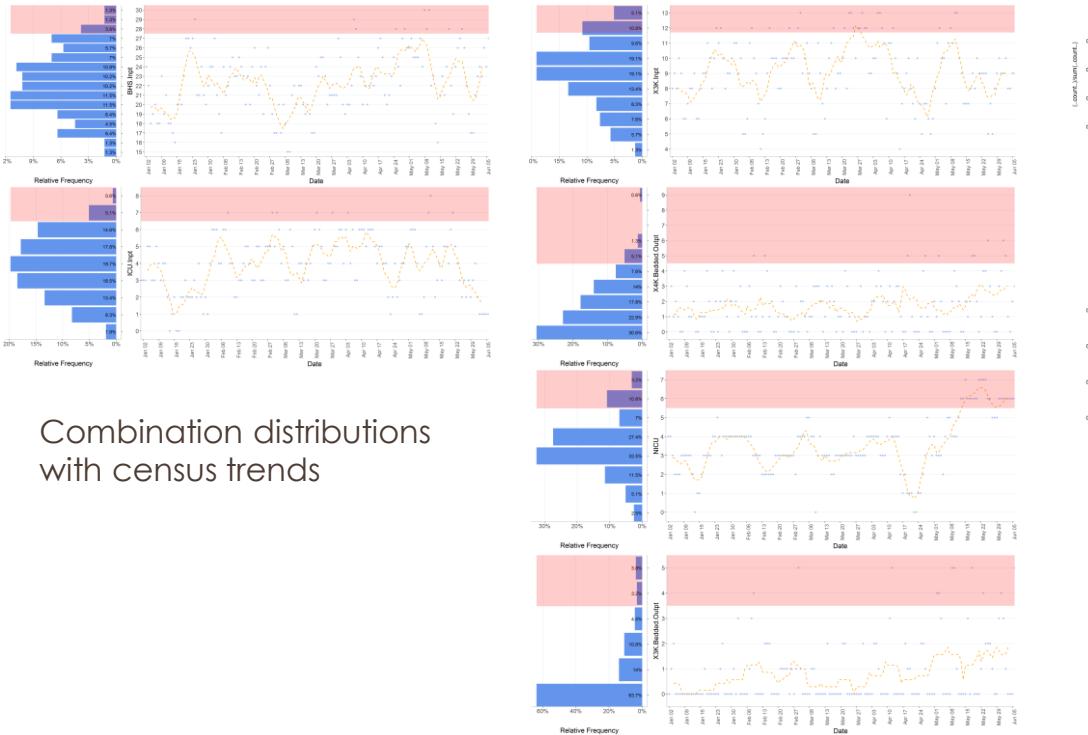
Auto-generated patient path networks for surgical service lines based on timestamps from medical data. Includes path frequencies and location



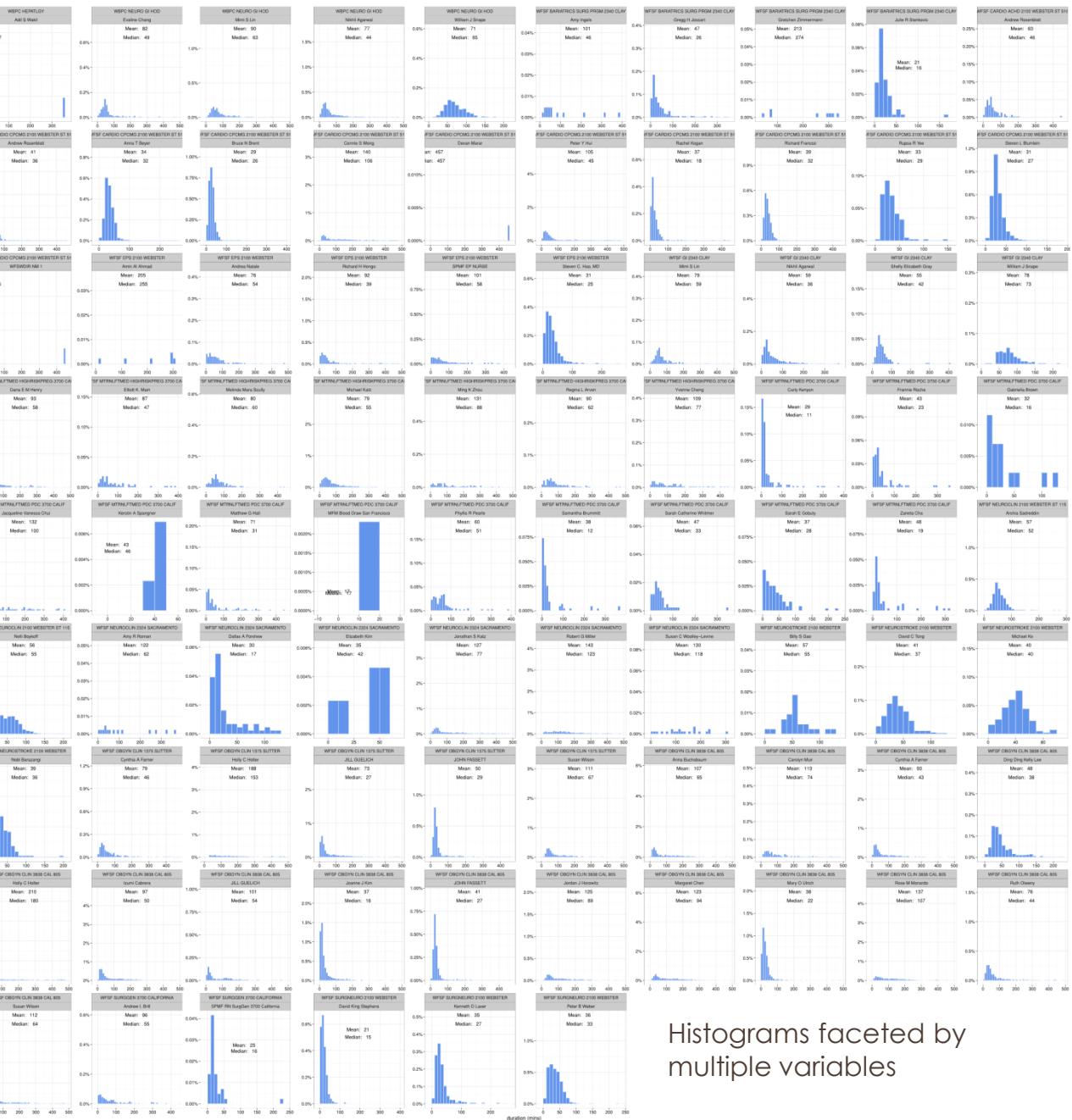
Organizational study of HGA's URL paths to files on the network.

R VISUALIZATIONS

Probability Distributions

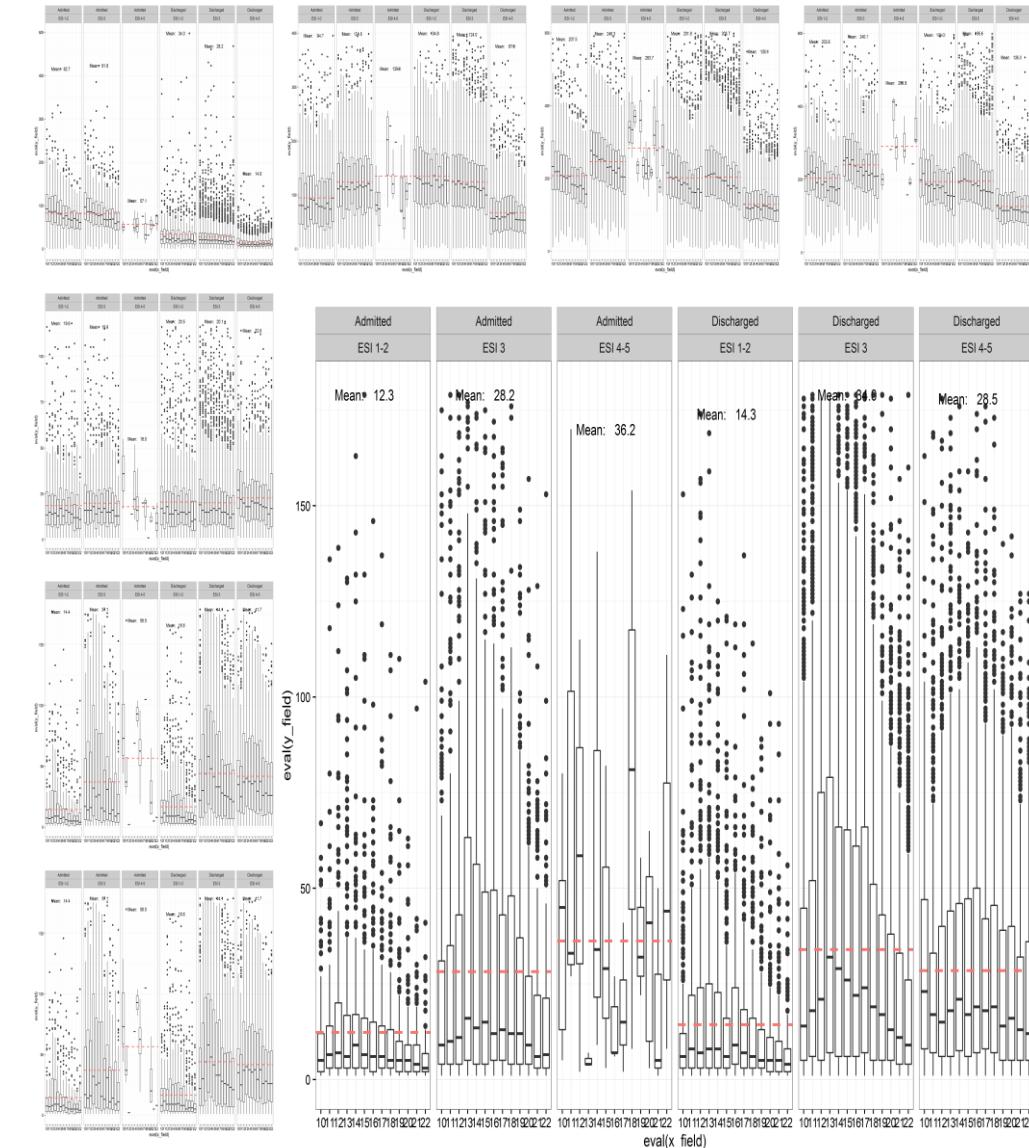
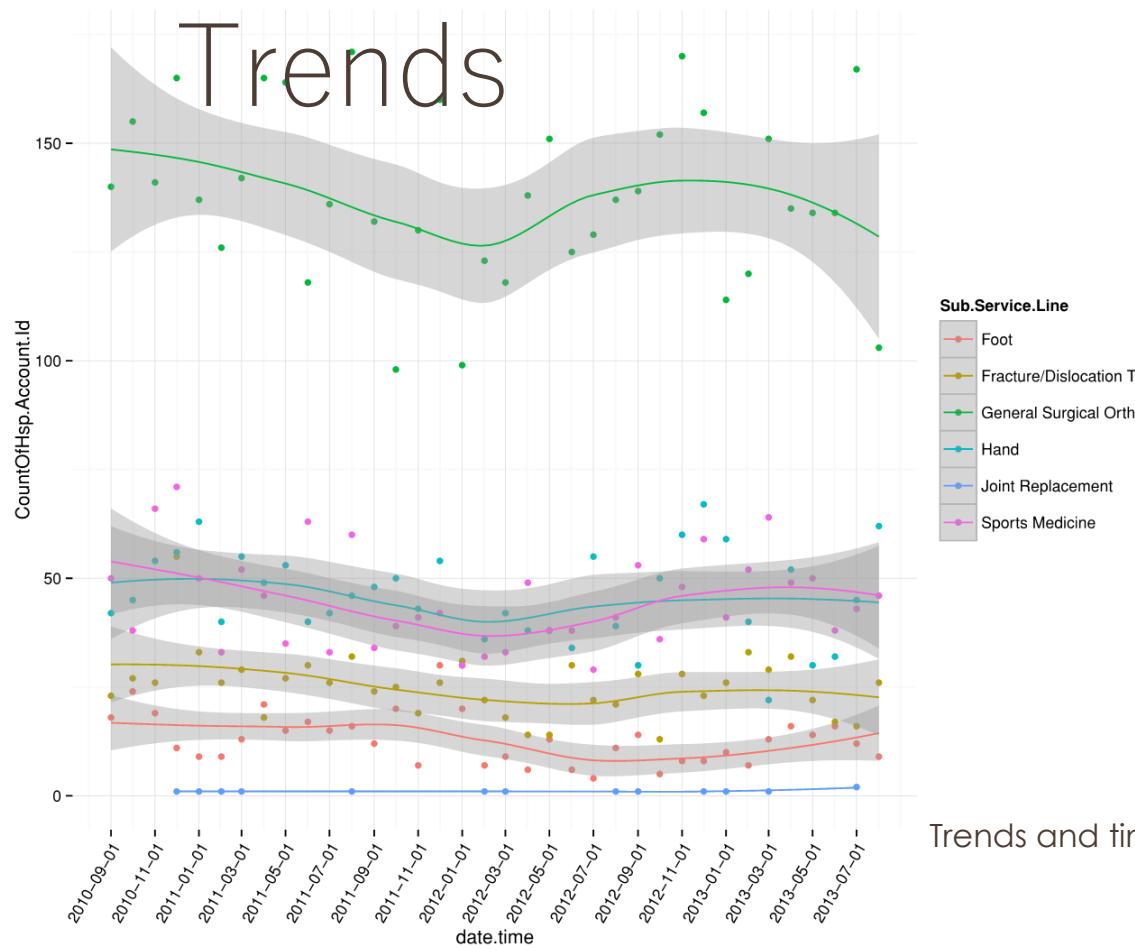


Combination distributions with census trends



tograms faceted by
multiple variables

Descriptive Statistics & Trends



Experience

PROJECT HISTORY

► RELEVANT HEALTHCARE EXPERIENCE

ALTRU HEALTH SYSTEMS | Strategic Master Plan | Grand Forks, North Dakota

ASCENSION COLUMBIA ST. MARY'S HOSPITAL | OB Clinic Expansion and Renovation | Milwaukee, Wisconsin

AURORA BAYCARE MEDICAL CENTER | Surgical Utilization Study | Sports Medicine Center | Green Bay, Wisconsin

AURORA ST. LUKE'S MEDICAL CENTER | Master Plan | Emergency Department Analysis | Milwaukee, Wisconsin

BETH ISRAEL DEACONESS MEDICAL CENTER | Chestnut Hill Square MOB | Integrated Breast Care Center | Boston, Massachusetts

BUMRUNGAD INTERNATIONAL PETCHABURI CAMPUS HOSPITAL | Bangkok, Thailand

CENTRACARE HEALTH - LONG PRAIRIE | Master Plan and Replacement Hospital | Long Prairie, Minnesota

CENTRACARE | St. Cloud Hospital | Emergency Department Expansion | St. Cloud, Minnesota

CONFIDENTIAL ACADEMIC MEDICAL CENTER | Illinois

ESSENTIA HEALTH WEST | East Addition | Duluth, Minnesota

EDWARD HINES, JR. VETERANS HOSPITAL | Building 1 Renovation | Hines, Illinois

FAIRVIEW HEALTH SERVICES | Southdale ED Expansion | Minneapolis, Minnesota

FRANCISCAN PHYSICIANS HOSPITAL | Master and Operational Plans | Munster, Indiana

FROEDTERT & THE MEDICAL COLLEGE OF WISCONSIN | Moorland Reserve Health Center OT/PT Evaluation | New Berlin, Wisconsin

HEALTH EAST-WOODWINDS | Family Practice, Internal Medicine and Pediatrics Clinic | Woodbury, Minnesota

HOLY FAMILY MEMORIAL HOSPITAL | Space Utilization Study | Manitowoc, Wisconsin

LUCILE PACKARD CHILDREN'S HOSPITAL STANFORD | Stanford Children's | Heart, Neurology and Pulmonary Clinic Work Flow Optimization | Palo Alto, California

MERCY SAINT MARY'S HOSPITAL | Inpatient Demand Study | Grand Rapids, Michigan

NORTHEAST GEORGIA MEDICAL CENTER | Master Plan and Net New Hospital | Braselton, Georgia

NORTHWESTERN MEDICAL GROUP | Primary Care Institute | Chicago, Illinois

PENINSULA REGIONAL MEDICAL CENTER | Master Plan | Salisbury, Maryland

RIVERVIEW HEALTH | Ambulatory Care Clinic Consolidation | Crookston, Minnesota

ST. CLOUD VA HEALTH CARE SYSTEM | Acute Diagnostics and Imaging Expansion | St. Cloud, Minnesota

SPECTRUM HEALTH | United Hospital Master Plan and Predesign | Greenville, Michigan

SUTTER HEALTH | CMPC Interventional Services Planning | Sacramento, California

THEDACARE SHAWANO MEDICAL CENTER | Replacement Critical Access Hospital | Shawano, Wisconsin

TRINITY HEALTH, MERCY HEALTH MUSKEGON | Master Plan and Replacement Hospital | Muskegon, Michigan

UNIVERSITY OF CALIFORNIA – IRVINE MEDICAL CENTER | Ambulatory Care Center Programming | Orange, California

UNIVERSITY OF KENTUCKY UK HEALTHCARE | Master Plan Update | Lexington, Kentucky

UNIVERSITY OF VIRGINIA | Ray Hunt Medical Office Building | Charlottesville, Virginia

VERDE VALLEY MEDICAL CENTER | Community Engagement and Process Improvement | Cottonwood, Arizona

► RELEVANT CULTURAL EXPERIENCE

TULSA CITY | County Library | Master Plan | Tulsa, Oklahoma

► RELEVANT CORPORATE EXPERIENCE

CITY OF MINNEAPOLIS | Water Distribution Center | Workflow Analysis and Location Study | Minneapolis, Minnesota

CITY OF SAINT PAUL | Board of Water Commission | Space Utilization Study | St. Paul, Minnesota

SECURE GOVERNMENT BUILDING COMPLEX | Undisclosed Location

E.A. SWEEN COMPANY | IES Study and Master Plan | Eden Prairie, Minnesota