#### Harris-Stowe State University Anheuser-Busch School of Business

**Transportation Asset Management Model Economic Sustainability of Inner City Streets** 



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#### History



- Harris-Stowe State University traces its origin back to 1857. It is a member of HBCU institutions.
- HSSU is a diverse urban campus located in St. Louis, Missouri.
- Anheuser-Busch School of Business is the largest academic unit offering a total of 11 degree programs.

## **Project Description**

• In 2014, HSSU was selected by the University of Iowa Institute for Transportation to join a consortium of six mid-western universities to undertake a U.S. Transportation grant.

## **Project Description Con..**

• Develop a sustainable asset management model for local urban municipalities, using a feasibility study of road conditions, needed repairs and associated cost with future projection for asset allocation.

## Project Description Con....

 A technology driven model was developed to provide solutions to road transportation conditions and related preventive maintenance issues.

 The model could significantly improve and impact future transportation expenditures.

#### **Designated Research Area**

- Streets were identified using selection criteria including:
  - Location
  - Roads
  - Traffic
  - Safety
  - Utility
  - Demographics

#### **Constituents**

- Designated Wards:
  - Ward 5
  - Ward 6
  - Ward 19
- City of St. Louis Street Department
- Missouri Department of Transportation (MODOT)

#### **Data Collection**

- Data was collected from St. Louis City's Central Corridor using the following criteria:
  - Ward designation
  - Distance surveyed
  - Number of necessary repairs
  - Missouri PASER evaluation of roadway conditions
  - Cost associated with each repair

## **Collection Sample-Beaumont Avenue**

Dr. Martin Luther King to Locust and Olive Street to N. Market

Rated: 3





Zakery, Eisel, Kamkwalala, Salaria, Sykes

#### Collection Sample-T.E. Huntley Avenue

MLK to Delmar Blvd. and Washington Ave. to Olive St.

Rated: 6





# Area Surveyed By Ward



## **Calculated Cost of Repairs**

Repair costs were determined by the number of surveyed yards multiplied by the current cost of paving roads at \$18 per yard\*

Ward	Yards	Cost (\$)
5	11,860	213,480
6	107,900	1,942,200
19	81,390	1,465,020

<sup>\*</sup>Source: City of St. Louis Street Department

#### **Research Application**

- Sustainable budgeting
- Proactive strategies for street maintenance and repair
- Historical cost data
- Ward cooperation

# **Questions?**



## Thank You!