

SHIFT 2020

Advisory Committee

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Kentucky Transportation Cabinet



Role of the SHIFT Advisory Committee

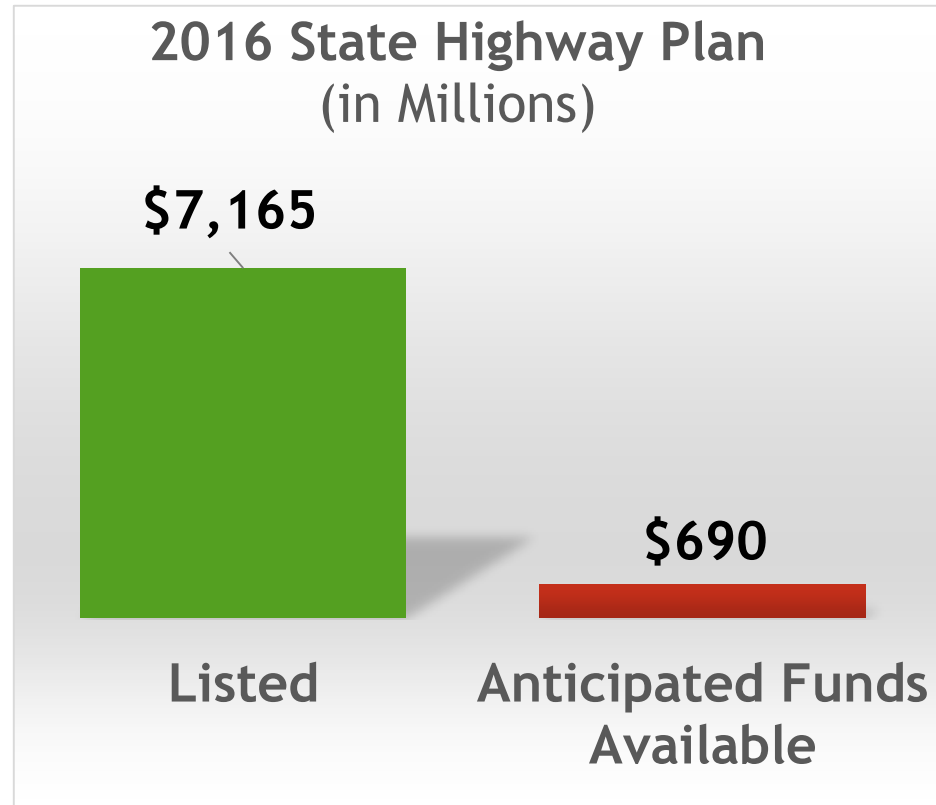
- To have an understanding of the SHIFT Tool & Process
- To make recommendations for improvement

Please consider...

- Is it understandable how this information aids in our goal for a defensible, logical, comparative tool?
- Have we missed any important evaluation metrics that would better inform the outcome?
- Are the criteria weights appropriate to effectively compare needs?
- How can we best communicate this information to you, your colleagues, and your constituents?

2016: Projects Vastly Exceeded Funding

- More than 90 percent of the state-funded projects in the Highway Plan didn't have state dollars to pay for them
- Kentucky had **10 TIMES** as many state-funded highway projects budgeted as dollars available



SHIFT Kentucky Ahead

Strategic
Highway
Investment
Formula for
Tomorrow





Prioritize Limited Funding

- Collect objective data
- Prioritize using SHIFT formula
- Invite input, adjustments by local, district leaders
- Provide transparency
- Deliver reliable, dependable plan for spending





Focus on Safety and Improvements

PROJECTS INCLUDED

- Safety Improvements
- Road Widening
- Reconstruction
- New Routes and Interchanges

PROJECTS OUTSIDE

- Rural and Municipal Aid
- Maintenance Work
- Federally Dedicated Projects (CMAQ, TAP, HSIP,...)
- MPO Dedicated Projects

Sponsorship (Current)

District	# to Sponsor
1	51
2	55
3	47
4	52
5	71
6	52
7	65
8	45
9	40
10	35
11	37
12	32

ADD	# to Sponsor
BARREN RIVER	40
BIG SANDY	23
BLUEGRASS	66
BUFFALO TRACE	16
CUMBERLAND VALLEY	38
FIVCO	16
GATEWAY	18
GREEN RIVER	23
KENTUCKY RIVER	30
KIPDA	21
LAKE CUMBERLAND	43
LINCOLN TRAIL	29
NORTHERN KENTUCKY	23
PENNYRILE	41
PURCHASE	36

MPO	# to Sponsor
Bowling Green	10
Evansville	6
Louisville	51
KYOVA	10
Lexington	22
OKI	26
Owensboro	8
Radcliff	13
Clarksville	3

Formula Components



Safety



**Asset
Management**



Congestion



**Cost/
Benefit**



**Economic
Growth**



Component Objectives

Safety

- Evaluate the project's crash history.
- Evaluate the roadway characteristics of the project area.

Congestion

- Evaluate capacity issues in the project area.

Economic
Growth

- Quantify the project's economic competitiveness or accessibility/connectivity at a countywide level.
- Measure the impact on the freight network within the project area.

Benefit /
Cost

- Evaluate the expected benefits in dollars of travel time savings and safety benefits against the project costs.

Asset
Management

- Evaluate the pavement and bridge issues within the project limits.

Two Phase Prioritization

Statewide Mobility (Central Office)

Focus →

**Address Congestion
and Bottlenecks**

Eligible Projects

- Statewide type Projects
(Interstates/NHS)
- Selection 100% Data
- Projects Programmed prior to
Area Planning Input

District Impact (ADD, MPO, HDO)

Focus →

Improve Connectivity within Districts

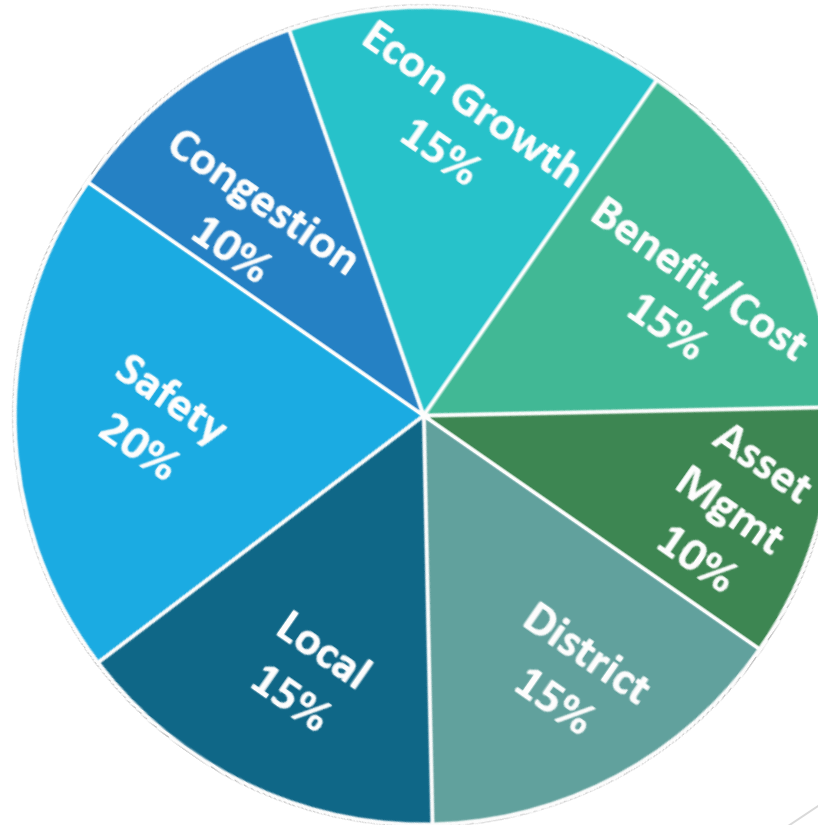
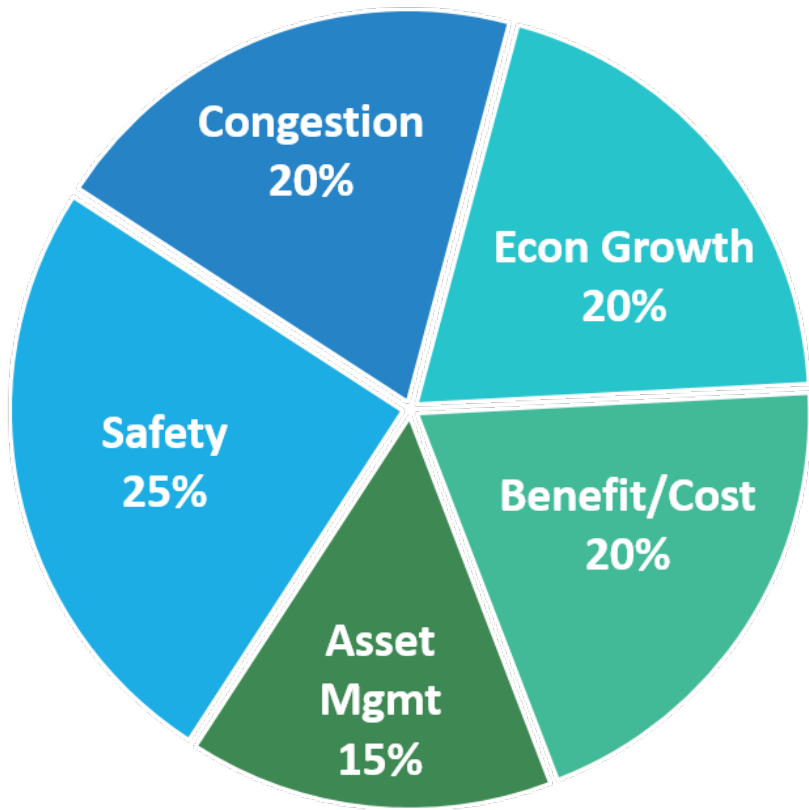
Eligible Projects

- Projects Not Selected in Statewide
Mobility Category
- District Projects
- Selection based on 70% Data & 30%
Area Planning Input

Funding Formula (Current)

Statewide

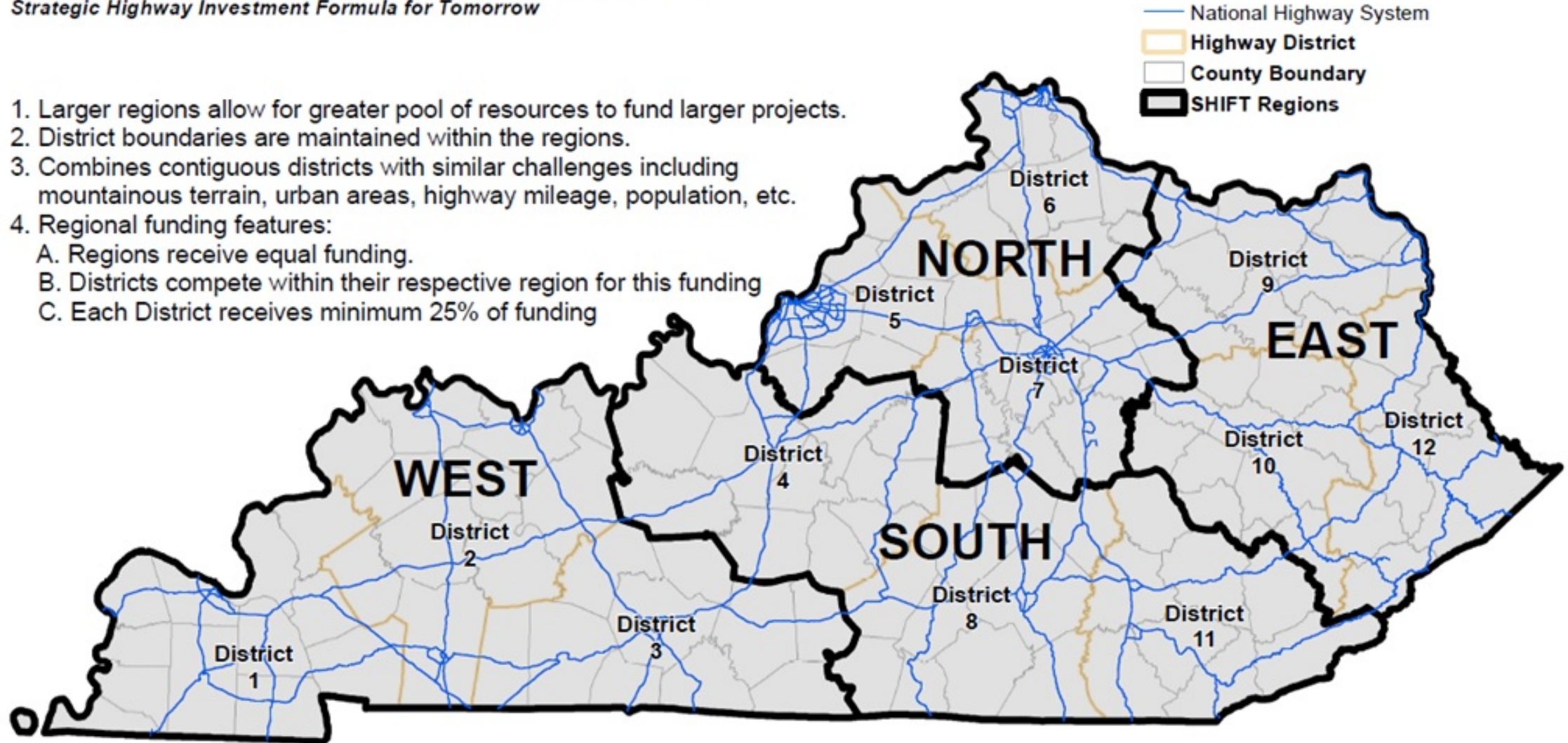
Regional



SHIFT Kentucky Ahead

Strategic Highway Investment Formula for Tomorrow

1. Larger regions allow for greater pool of resources to fund larger projects.
2. District boundaries are maintained within the regions.
3. Combines contiguous districts with similar challenges including mountainous terrain, urban areas, highway mileage, population, etc.
4. Regional funding features:
 - A. Regions receive equal funding.
 - B. Districts compete within their respective region for this funding
 - C. Each District receives minimum 25% of funding



2018 Plan SHIFT Results

- **495 Safety and Mobility Projects**

85 Relate to Ferry Operations and Various Funding

303 Originate from SHIFT

- **State Funds Less Over-programmed**

Biennium

2016
\$3B



2018
\$200M

Total Plan

2016
\$7B



2018
\$1.88B

- **Silver Lining**

Flexibility

Improvement over previous Plans



SHIFT 2020

Tuning the Engine



SHIFT 2020

Improving Formula Components



Safety



Asset
Management



Congestion



Economic
Growth



Cost/
Benefit



SHIFT 2020 Workgroup

Program Management

3 Highway District Offices

Maintenance

State Highway Engineers Office

Highway Safety Improvement Program

2 Metropolitan Planning Organizations

Highway Design

Planning

2 Area Development Districts

Technical Advisors
~ 40 KYTC staff and KTC staff



Advisory Committee

SHIFT Workgroup PLUS representatives from:

- KY House of Representatives
 - KY Senate
 - KY League of Cities
 - KY Association of Counties
 - KY Judge-Executive Association



SHIFT 2020 Improvements



Safety

- Partnered with the Kentucky Transportation Center on a research project to incorporate new Highway Safety Manual methods.
- More accurate reflection of safety concerns in project areas.



SHIFT 2020 Improvements



Asset Management

- Incorporate Pavement Distress Index in pavement assessments.
- Improve assessment of pavement conditions in project areas.



SHIFT 2020 Improvements



Congestion

- Partnered with the Kentucky Transportation Center to incorporate speed data in congestion measures.
- More accurate assessment of congestion in project areas.



SHIFT 2020 Improvements



Economic Growth

- Improvements in the Kentucky Statewide Model will improve the quality of the TREDIS economic model analysis.
- Refinements in the freight component will capture more freight impacts such as bottlenecks.



SHIFT 2020 Improvements



Benefit /
Cost

- **Improved Travel Time Savings analysis.**
Reviewed current modeling, non-modeling methods.
- **Improved Safety Benefit analysis.**
Identified several new improvement types and adjusted the Safety Benefit Factors for Kentucky.



SHIFT 2020 **Benefits**

Data-Driven

Objective

Transparent

Collaborative

Dependable

SHIFT 2020 **Let's get moving**



Group Discussion

- Is it understandable how this information aids in our goal for a defensible, logical, comparative tool?
- Have we missed any important evaluation metrics that would better inform the outcome?
- Are the criteria weights appropriate to effectively compare needs?
- How can we best communicate this information to you, your colleagues, and your constituents?
- Questions/Suggestions?