

ILLINOIS DEPARTMENT  
OF TRANSPORTATION



LONG RANGE  
TRANSPORTATION PLAN



## APPENDICES



**Public  
Involvement**

**A**



**B**



**C**



**D**



**E**

# A1. Public Involvement

Public involvement is a critical component in the development of the Illinois Long Range Transportation Plan (LRTP). To actively engage Illinois residents throughout the entire development process of the LRTP, several tools and techniques have been implemented, utilizing a variety of high-touch (personal interaction) and high-tech methods for collecting public input and opinion. These methods included engaging a diverse group of Illinois Department of Transportation (IDOT) personnel, transportation partners, stakeholders and the public across the state using a combination of traditional and innovative communication and visualization tools. The following, listed in chronological order, represents the basis of the public involvement effort:

- LRTP website
- Overarching goals survey
- Web-based interactive survey (All Our Ideas survey)
- MPO outreach
- Conversation cafes

This chapter discusses the public information tools and techniques used during the development of the LRTP. It is intended to document the public involvement effort and provide guidance for future public participation for planning initiatives on the LRTP.

## A1.1 PUBLIC INVOLVEMENT EFFORTS

### A1.1.1 LRTP WEBSITE

In early 2016, IDOT revamped the LRTP website<sup>1</sup> to include updated material on the forthcoming LRTP. The website provided a video statement from the Secretary of Transportation and created a central location for all materials regarding the LRTP and its development.

### A1.1.2 OVERARCHING GOALS SURVEY

In mid-2016, in one of the first efforts to engage the public in the LRTP, IDOT developed a survey asking participants to rank the six draft goals<sup>2</sup> of the LRTP from one to six, with one being the most important. The survey also offered the opportunity to add additional goals and provide an email for continued updates on development of the plan. The survey was made available to the public via a web-based format on the LRTP website, as well as a paper-based format at the August 2016 Illinois State Fair in Springfield and the June 2016 Transport Chicago Conference in Chicago. Advertisement for the web-based survey was accomplished via social media and with the help of the state's Metropolitan Planning Organizations (MPOs) and other stakeholders. No limitations were in place on who could take the survey.

A total of 669 surveys were collected from transportation officials and the general public across Illinois; 558 respondents completed the web-based survey and 111 respondents completed the paper-based survey. As detailed in **Table 1.1** and **Figure 1.1**, IDOT staff compiled the responses and determined safety was ranked most important, followed by economic growth, access, livability, stewardship and resilience, respectively.

---

<sup>1</sup> <http://www.idot.illinois.gov/transportation-system/transportation-management/planning/index>, accessed September 18, 2017.

<sup>2</sup> Economic Growth, Livability, Access, Resilience, Stewardship, and Safety.

### A1.1.3 ALL OUR IDEAS SURVEY

The centerpiece of the public involvement effort for the LRTP was the web-based interactive survey referred to as 'All Our Ideas,' conducted by IDOT in cooperation with the University of Illinois at Chicago (UIC). The survey allowed the public to vote for ideas to improve transportation in Illinois and provided IDOT staff a statistically significant representation of public ideas.

The All Our Ideas survey consisted of two phases, summarized as follows and graphically represented in **Figure 1.2**.<sup>3</sup> For further details of the survey, see the entire survey report in **Attachment 1.1, A New Approach to Public Engagement: Capturing Better Ideas and Representative Priorities from the Public for the Illinois Department of Transportation** (UIC, August 15, 2017).

#### PHASE 1: PUBLIC IDEA GENERATION

Phase 1 consisted of a pairwise comparison online survey,<sup>4</sup> a process by which residents could choose between two ideas or select an "I can't decide option" in response to the prompt: "Which idea do you think is more important for transportation in Illinois?" The ideas were derived from a list of 64 "seed" ideas developed by IDOT and UIC that closely represented the objectives for each goal. The survey also allowed the public to submit their own ideas for inclusion into the bank of ideas. This phase of the survey opened on February 8, 2017, to all residents of Illinois, with IDOT publicizing the survey link through existing channels of communication (e.g., social media), and closed on March 8, 2017.

#### PHASE 2: REPRESENTATIVE PUBLIC PRIORITIZATION

Phase 2 repeated the pairwise comparison process using ideas generated in Phase 1, but used representative sampling techniques to identify two groups of 500 Illinois residents: Group 1-In IDOT Region 1 (Cook, Lake, McHenry, Kane, DuPage and Will counties) and Group 2-Outside IDOT Region 1. In this phase, respondents also indicated the percentage of IDOT's budget they would invest in competing transportation goals and modes. The pairwise comparison for each region also gave IDOT the opportunity to see how the different groups prioritize their transportation issues. IDOT and UIC partnered with YouGov<sup>5</sup> for this phase of data collection, due to their unique, empirically proven method of capturing representative public input. This phase of the survey opened on May 1, 2017, and closed on June 2, 2017.

### A1.1.4 RESULTS

#### PHASE 1: PUBLIC IDEA GENERATION

During Phase 1, the survey site had 823 unique visitors, 698 of which were from Illinois, and 70 percent of those visitors were from the Chicago metropolitan area. In total, site visitors voted 36,353 times, submitting 322 ideas, though only 121 were carried forward into Phase 2 as a result of removing duplicates and other data misnomers (e.g., comments). The final dataset was comprised of 134 competing ideas, 63 of which were IDOT seed ideas and 71 of which were submitted by survey respondents. Additionally, eight of the top ten ideas were user-submitted. These results provided a better picture of transportation concerns and laid the foundation for the second phase of the engagement process.

#### PHASE 2: REPRESENTATIVE PUBLIC PRIORITIZATION

The following presents a summary of the results for information captured in Phase 2 of the All Our Ideas survey, including how the public prioritized, in terms of financial distribution, the six LRTP draft goals and transportation modes. This

---

<sup>3</sup> A New Approach to Public Engagement: Capturing Better Ideas and Representative Priorities from the Public for the Illinois Department of Transportation, UIC, August 15, 2017.

<sup>4</sup> AllOurIdeas.org/IDOTIdeas

<sup>5</sup> For an extensive description of YouGov, see <https://today.yougov.com/about/faqs/>

summary also includes the public's top 10 transportation ideas. General notes about these findings include the following:

- The dataset for this phase consisted of 134 ideas, where 63 were IDOT seed ideas and 71 were from user-submitted ideas from Phase 1.
- All dollar amounts are the average dollar amount given to that area.
- Findings are generalized to the entire state.

#### *PUBLIC PRIORITIZATION OF IDOT GOALS*

When asked to distribute \$100 across the six LRTP goal areas (see **Figure 1.3**), safety was the most important (\$21.1), followed by economic growth (\$18.7) and resilience (\$17.9) for Illinois residents. Group 1 ranked safety first (\$21.1), followed by resilience (\$17.8) and then economic growth (\$17.6). In Group 2, safety (\$20.4) and economic growth (\$20) were more equally prioritized, followed closely by the resilience (\$17.8) goal. The economic growth and access goals had the largest difference when comparing the results between the two groups (difference of \$2.4 and \$2.2, respectively).

#### *PUBLIC PRIORITIZATION OF TRANSPORTATION MODES*

When asked to distribute \$100 across the seven transportation modes in Illinois (see **Figure 1.4**), road network (\$25.5) was most important for Illinois residents, followed by public transit (\$21.5). Group 1 ranked public transit first (\$24.3), followed by road network (\$22.1) and then bikes and pedestrians (\$14.3). Group 2 ranked road network first (\$28.2), followed by public transit (\$18.8), truck (\$12.6) and rail freight (\$12.1), respectively. Road network (difference of \$6.1) depicted the greatest differences between the two groups.

#### *PUBLIC PRIORITIZATION OF TRANSPORTATION IDEAS*

Utilizing the pairwise comparisons' resulting ideas in Phase I, each idea was included in roughly 200 head-to-head matchups. Ideas related to road networks and repairs were most frequently in the top 10 highest-ranked ideas for all residents statewide (see **Table 1.2**), as well as for residents from both regions. The top five ideas in both groups, and overall (for Illinois residents), were related to roads and/or repairs and maintenance.

Additionally, Group 1 was more likely to prioritize ideas related to public transit and bikes and pedestrians, while Group 2 was more concerned with issues related to rural highways, railroad freight, safety and IDOT's advocating for sound transportation policy and funding. For example, the following idea, "better distribute projects through the state to maximize benefits to all regions," ranked second for Group 2, sixth for overall Illinois residents and 17<sup>th</sup> for Group 1. Group 1 voiced more for alleviating traffic jams, ranking it sixth, while Group 2 ranked the topic 43<sup>rd</sup>. This shows the difference of idea importance by regions and the state.

### **A1.1.5 MPO OUTREACH**

The LRTP represents a significant set of decisions that determine how the MPOs in the state will meet the transportation needs of their specific regions. As such, IDOT staff presented the status and development of the LRTP in an hour-long meeting with each of the 16 MPOs in the state in June and July of 2017. A copy of the presentation can be found in **Attachment 1.2**. The purpose of each meeting aimed to gain participation from the respective MPOs in developing this important policy, planning and programming document.

All 16 MPO meetings were well attended. For a complete list of attendees and details (e.g., date, location, time) for each of the 16 meetings, please refer to the MPO outreach matrix in **Attachment 1.3**. A detailed list of questions asked regarding the LRTP, per MPO, are also included in the matrix. In general, questions focused on whether the LRTP will be

a policy document, and the status of the various plans (e.g. freight plan, transit plan, bicycle/pedestrian plan) being incorporated into the LRTP.

### A1.1.6 CONVERSATION CAFES

Three meetings, termed ‘conversation cafes,’ were held to identify and refine the objectives, strategies and measures for each of the LRTP’s goals. The two-hour meetings included:

- Wednesday, July 19, IDOT Central Office, Springfield, IL
- Friday, July 21, Chicago Metropolitan Agency for Planning (CMAP), Chicago, IL
- Monday, July 31, IDOT District 8 Office, Collinsville, IL

At each meeting, a list of transportation professionals and officials were invited to participate via email. Attendees at each meeting (see **Attachment 1.4**) for a list of attendees at each meeting) were divided into five<sup>6</sup> groups and presented a goal and their associated objectives for discussion. Each group of attendees rotated every 20 minutes, until all five goals had been discussed. The group discussions were facilitated by IDOT staff and included refining the goal and its resulting objectives, strategies and measures. Ideas from the group discussions were captured by IDOT staff and reviewed further after the meetings.

A total of 42 transportation professionals attended the three conversation cafe meetings. The results of this public involvement effort provided a wide range of additions and subtractions to the draft goals, objectives, strategies and measures.<sup>7</sup> See **Attachment 1.5** for a draft copy of all discussion points noted at each of the three meetings. General takeaway points from the group discussions are summarized below:

- Goals:
  - The wording for several goals was discussed in detail, suggesting the wording was too specific.
  - Attendees suggested safety should be added as a goal, or incorporated more effectively into each of the five draft goals.
- Objectives:
  - Objectives should be applicable to the entire state, not specific regions.
  - Several objectives were suggested to be combined, deleted or clarified further, due to the overall meaning repeated in several goals.
- Strategies:
  - Strategy development should be a coordinated effort with planning stakeholders (e.g., MPOs, county government officials, etc.).
  - Strategies developed for each goal should focus on existing network assets.
- Measures:
  - Measures should be developed with different metrics for different regions, since these could be quantifiable.
  - Tracking of the measures should be a coordinated effort between IDOT and planning stakeholders.

---

<sup>6</sup> Earlier public involvement efforts resulted in the incorporation of safety into each of the five remaining goals; thus, safety was removed as a standalone goal.

<sup>7</sup> For a complete list of the final goals, objectives, strategies, and measures see the LRTP Goals Matrix, **Page 8** in **Chapter 1**.

## A1.2 LRTP PUBLIC COMMENT

IDOT sent an email on April 20, 2018 to a Listserv of transportation stakeholders identifying the LRTP was available for public review and comment on IDOT's website (<http://www.idot.illinois.gov/transportation-system/transportation-management/planning/lrtp/index>) through May 16, 2018. As part of the release of the LRTP, the email also included a call for projects for Statewide Planning and Research (SPR) Funds. SPR projects would establish a cooperative, continuous and comprehensive framework for making transportation investment decisions throughout the state, as well as implement a goal, strategy, or objective outlined within the LRTP or one of its associated plans. Applications for the SPR Funds were due on May 16, 2018, the same date as the conclusion of the public comment period for the LRTP.

Comments received on the LRTP were submitted through a Google Form. On the comment form, respondents were asked to select the stakeholder type that best described them: general public, municipality/township, county, state government, private freight provider, federal government, elected official, planning organization, or IDOT employee. All respondents identified with a type, with the majority (6 respondents, 50 percent) of stakeholders identifying themselves as 'general public'. The remaining respondents included the following types: 1-county, 1-elected official, 1-IDOT employee, 1-municipal/township, and 2-planning organization. No respondents identified themselves of the following types: state government, private freight provider, federal government, or other.

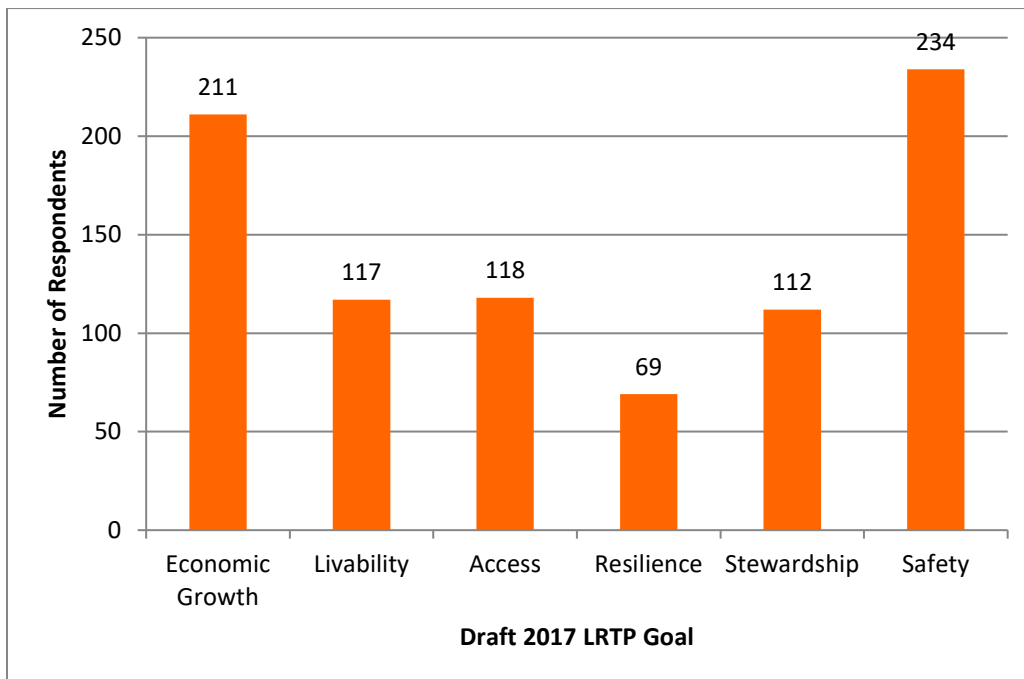
Respondents were also asked to provide comments on the LRTP. In summary, the respondents provided nearly 100 comments. These comments and IDOT's responses are summarized in the disposition of comments accompanying this appendix.

**Table 1.1: Results of Overarching Goals Survey**

<b>GOAL</b>	<b>AVERAGE RATING<sup>1</sup></b>
<b>Safety:</b> Ensure the highest standards in safety across the state’s transportation system.	2.87
<b>Economic Growth:</b> Improve Illinois’ economy by providing transportation infrastructure that allows for the efficient movement of people and goods.	3.01
<b>Access:</b> Support all modes of transportation to improve accessibility and safety by improving connections between all modes of transportation.	3.29
<b>Livability:</b> Enhance quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options and preserve the environment.	3.35
<b>Stewardship:</b> Safeguard existing funding and increase revenues to support system maintenance, modernization and strategic growth of Illinois’ transportation system.	3.52
<b>Resilience:</b> Proactively plan and invest in the state’s transportation system to ensure that our infrastructure is prepared to sustain extreme weather events.	3.79

<sup>1</sup> On a scale of 1 to 6, with 1 being the most important.  
Source: IDOT

**Figure 1.1: Overarching Goals Survey Goal Rankings**



Source: IDOT

Figure 1.2: Overview of All Our Ideas Survey

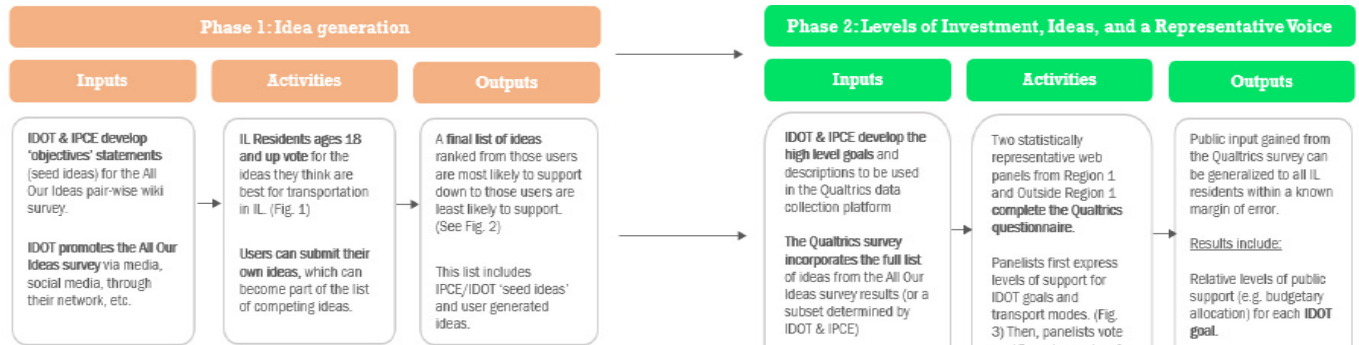


Fig. 1: Users vote for one of the two ideas, and may add their own idea below

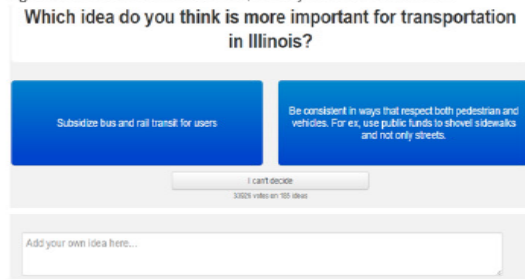


Fig. 2: Example results, with the idea most likely to win a head to head comparison on top

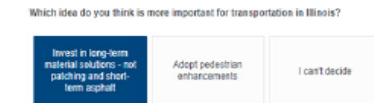
Ideas	Score (0 - 100)
Increase road repairs that are in desperate need of repair now before creating new highway accesses.	78
Reduce overall costs by performing maintenance before improvements are in critical need of repair	77
Invest in long-term material solutions - not patching and short-term asphalt	76
Repairing the roads and bridges we already have. It's time to stop doing minor repairs to make them look good.	76
Our Infrastructure is need of desperate repair due to the age	74

Fig. 3: Users input a dollar amount based on their preferences.

Imagine you have \$100 to spend on these goals. Please write in the amount you would give to each goal to show how important you think it is. You can give as much or as little as you'd like to each. (NOTE: Values must add up to 100.)

Access: Support all modes of transportation to improve accessibility and safety by improving connections between all modes of transportation.	\$ 0
Economic Growth: Improve Illinois' economy by providing transportation infrastructure that allows for the efficient movement of people and goods.	\$ 0
Resilience: Ensure Illinois' infrastructure is prepared to withstand and sustain hazards and extreme weather events.	\$ 0
Stewardship: Safeguard existing funding and increase revenues to support system maintenance, modernization and strategic growth of Illinois' transportation system.	\$ 0
Livability: Enhance quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options and preserve the environment.	\$ 0
Safety: Ensure the highest standards in safety across the state's transportation system.	\$ 0

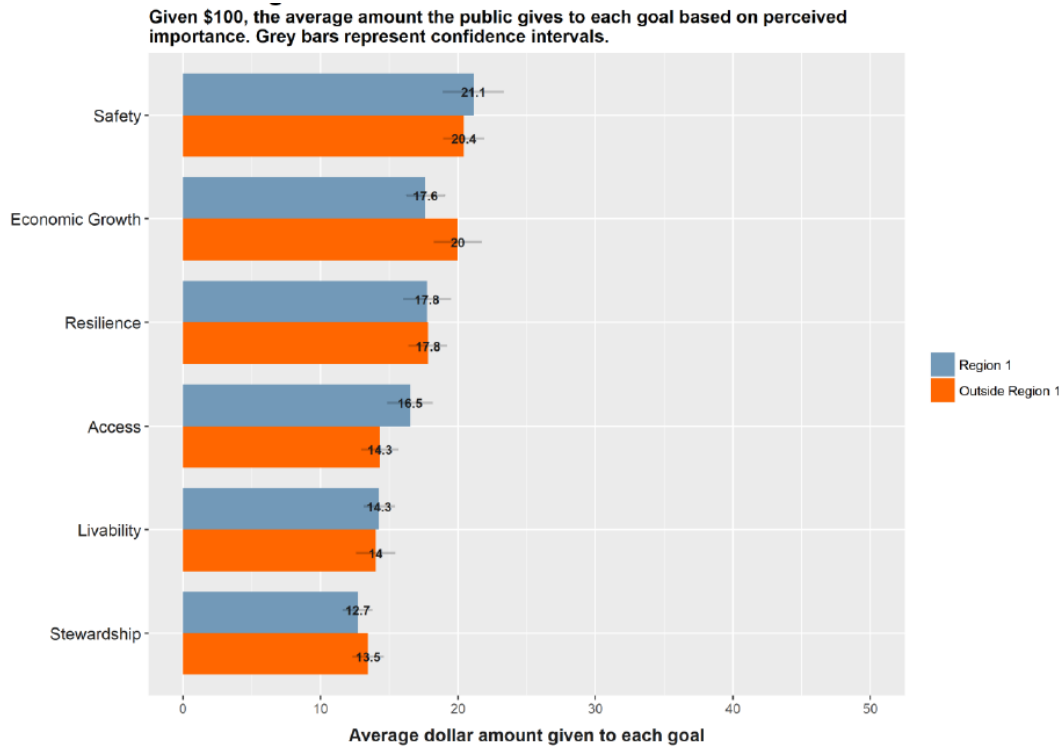
Fig. 4: Like the All Our Ideas platform, but with a statistically representative sample of Residents



Source: A New Approach to Public Engagement: Capturing Better Ideas and Representative Priorities from the Public for the Illinois Department of Transportation, UIC, August 15, 2017.

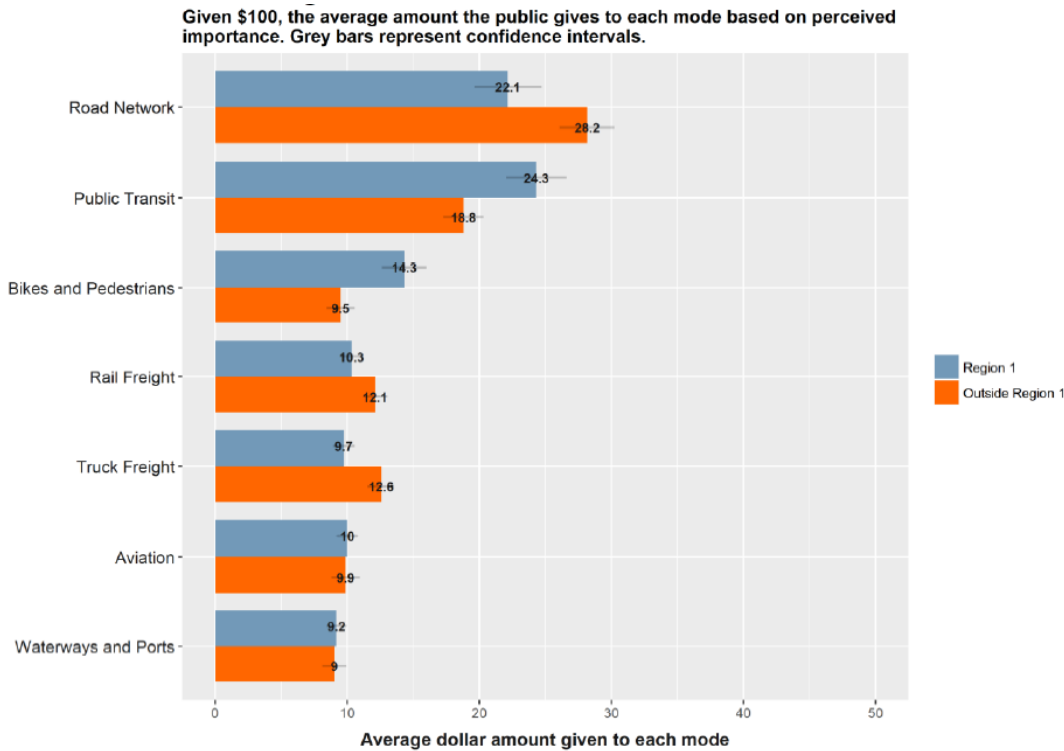


**Figure 1.3: The Illinois Public's Prioritization of IDOT Goals**



Source: A New Approach to Public Engagement: Capturing Better Ideas and Representative Priorities from the Public for the Illinois Department of Transportation, UIC, August 15, 2017.

**Figure 1.4: The Illinois Public's Prioritization of IDOT Modes**



Source: A New Approach to Public Engagement: Capturing Better Ideas and Representative Priorities from the Public for the Illinois Department of Transportation, UIC, August 15, 2017.

Table 1.2: Top 10 List of All Our Ideas Prioritization of Transportation Ideas

<b>Idea</b>	<b>Final Score ALL</b>	<b>Final Score REGION 1</b>	<b>Final Score OUTSIDE REGION 1</b>	<b>Public Idea?</b>
Increase road repairs that are in desperate need of repair now before creating new highway accesses	85	83.3	88	YES
Invest in streets that enable safe and comfortable travel for users of all abilities and for all modes of transportation	84.6	86	80.8	NO
Increase the standards that roads are built with to ensure they last	83.1	87.2	76	YES
Invest in long-term material solutions - not patching and short-term asphalt	79.2	82.2	72.6	YES
Reduce overall costs by performing maintenance before improvements are in critical need of repair	78.8	78.5	76.4	NO
Better distribute projects throughout the state to maximize benefits to all regions	73.4	66	81.8	NO
Reduce vehicle damage due to deteriorated infrastructure	73	69.7	74	NO
Match transit mode to ridership demand, with all modes on the table including priority bus and light rail	72.8	74.8	69.7	YES
Invest in construction of major transit improvements	72.1	68.1	75.3	NO
Create more visionary long-term plan for transportation assets for all modes and works to ensure Illinois regains its place as USA's crossroad	70.9	68.6	73.8	YES

Source: A New Approach to Public Engagement: Capturing Better Ideas and Representative Priorities from the Public for the Illinois Department of Transportation, UIC, August 15, 2017.

## Appendix A - Disposition Comments

NUMBER	COMMENT	RESPONSE
1	<p>"Overall- in the multiple locations in the document where construction costs are rising at a higher rate than inflation is mentioned along with the reasons for this trend, nowhere does it mention the largest reason that our large local government has observed: State policies, bureaucratic procedures and review processes, and interpretation of ADA compliance measures continue to become more stringent and continue to raise engineering and construction costs astronomically. Local governments have found they can improve infrastructure at 50% of the costs and at no additional liability."</p>	<p>Language added to Stewardship chapter identifying that State requirements can delay projects and in turn add costs.</p>
2	<p>60/83 widening in Mundelein must be a priority along with at grade crossings for 60/83 and Diamond Lake Road. We are locked in a railroad triangle!</p>	<p>Language in the plan has not been changed as we do not refer to this project specifically. The plan does encourage strategic expansion of the system as needed. We have shared this comment with the appropriate district. The MYP outreach that occurs in the fall would be the appropriate public comment opportunity to provide this input.</p>
3	<p>Public transportation is badly needed along Weber Road in Will County. There are no bus stops along this stretch of road from Crest Hill up to Bolingbrook. There is an unused parking lot at Weber and 135th St. in Romeoville that would be a perfect Park &amp; Ride location.</p>	<p>Language in the plan has not been changed as we do not refer to this project specifically. The plan does encourage strategic increased transit service. We have shared this comment with the appropriate district. The MYP outreach that occurs in the fall would be the appropriate public comment opportunity to provide this input.</p>
4	<p>I would like to urge my support for the proposed improvements to the Route 60/83 corridor through Mundelein. This is a project that I believe needs to proceed to accommodate the ever-increasing traffic flow through this location.</p>	<p>Language in the plan has not been changed as we do not refer to this project specifically. The plan does encourage strategic expansion of the system as needed. We have shared this comment with the appropriate district. The MYP outreach that occurs in the fall would be the appropriate public comment opportunity to provide this input.</p>
5	<p>I want to see 60/83 improved. I avoid going that way now and instead travel through local neighborhoods in Mundelein. When I go 60/83 either the traffic or trains, make it impossible to get anywhere on time. This road is long overdue for improvement.</p>	<p>Language in the plan has not been changed as we do not refer to this project specifically. The plan does encourage strategic expansion of the system as needed. We have shared this comment with the appropriate district. The MYP outreach that occurs in the fall would be the appropriate public comment opportunity to provide this input.</p>
6	<p><i>Cook County provided a letter in support of the LRTP. The following are excerpts of the supporting statements:</i></p> <p>The draft Long Range Transportation Plan (LRTP) is an excellent document and represents a significant development in IDOT's policy positions compared to previous plans. Broadly, the LRTP is consistent with Cook County's policy priorities, as described in the Connecting Cook County plan.</p> <p>It is encouraging that so many of LRTP's recommendations include meaningful specificity. The LRTP also identifies many technical needs -- such as new data collection, regular reporting on key topics, and the development of a statewide traffic model -- and calls for new information to be incorporated into the Performance Based Project Selection tool as it develops over time.</p> <p>The County supports competitive funding programs like the IDOT Economic Development Program and Illinois Competitive Freight Program, and appreciates that these programs receive explicit support in the LRTP. The County encourages IDOT to provide similar support in the LRTP for the Rail Freight Loan Program, which also plays an important role in catalyzing local economic development given its identification of a few rail improvement projects that would benefit from it.</p> <p>For both the Performance Based Project Selection tool and the competitive programs, the County urges IDOT to include a strong qualitative review in its evaluation of projects.</p> <p>While the LRTP includes many strengths, it does not set policy goals to improve administrative efficiency, particularly in IDOT's role as a regulator of local transportation agencies. Excessive delays in the receipt of grant funds or approval of documentation, including routine studies and agreements, impose significant time and budget costs on the delivery of projects. The County recommends that the LRTP go a step further to allow competent local agencies to pursue low-risk, commonplace engineering and construction work without IDOT approval. In essence, time is money, and an expedited process can translate into greater output.</p> <p>In its Stewardship chapter, the LRTP should include actionable recommendations to help partner agencies save time, money, and effort. The LRTP should call on IDOT to continue streamlining and harmonizing oversized/overweight truck permitting with local agencies. It should also set goals to expedite IDOT's processing of forms submitted by partner agencies. Finally, the LRTP could include a recommendation to expand the permitted uses of state Motor Fuel Tax revenues to support all modes of transportation, consistent with the LRTP's goals to promote broader economic, livability, and resiliency objectives.</p> <p>It is a strong document and the actions described in it will improve the State's transportation system. The addition of new text within the Stewardship chapter will make the document even stronger and more responsive to the needs of partner agencies.</p>	<p>Language added to Stewardship chapter identifying that State requirements can delay projects and in turn add costs.</p>

NUMBER	COMMENT	RESPONSE
7	Widen 60/83 from Diamond Lake Road to Route 176. Mundelein needs at-grade crossings! They are completely locked in a railroad triangle.	This comment was not addressed as we do not refer to this project specifically. The plan does encourage strategic expansion of the system as needed. We have shared this comment with the appropriate district. The MYP outreach that occurs in the fall would be the appropriate public comment opportunity to provide this input.
8	Source for Total Air Operations in Illinois is Incorrect. The source and numbers referenced only include airports with air traffic control facilities	Language has been edited to clarify that these numbers reflect only airports with ATC
9	Calendar Year 2016 data became available/finalized in October 2017 for Passenger Enplanements, should be updated to reflect most recent numbers	Language and table have been updated to reflect 2017 passenger enplanement data.
10	Pounds are typically used for air cargo numbers, and FAA data should be used to help validate or support BTS data/vice versa - Calendar Year 2016 data became available/finalized in October 2017 for air cargo	Language in the plan has not been changed as the existing language has been retained to provide consistency with the Illinois Freight Plan.
11	Federal Airport Improvement Program Status will likely change before publishing. Also, it mentions that IDOT anticipates receiving 160 million in FY17. We know what we received for 17 at this point and will know the 18 program by July of this year. This was recently written for the MYP – “Federal Aviation Administration reauthorization legislation, H.R. 658 (P.L. 112-095), the FAA Modernization and Reform Act of 2012, enacted on February 14, 2012 authorized appropriations to the FAA from Fiscal Year 2012 through Fiscal Year 2015. H.R.636 (P.L. 114-190), the FAA Extension, Safety, and Security Act of 2016 extended FAA's authority and funding through September 2017. Since October 1, 2017, FAA has operated under two short-term extensions of FAA's legislative authority: H.R.3823 (P.L. 115-63), the Disaster Tax Relief and Airport and Airway Extension Act of 2017, extended FAA's funding and authorities through March 31, 2018; and H.R. 1625 (P.L. 115-141), the Consolidated Appropriations Act, 2018, further extended FAA's funding and authority through September 30, 2018. IDOT expects a multiyear reauthorization completing Fiscal Year 2018. The reauthorization will ultimately affect Fiscal Year 2019 and for programmatic purposes assumes funding levels and requirements will remain very similar to prior authorizations. IDOT anticipates some minor programmatic shifting will occur due to overall language in the bill and due to the Fiscal Year 2018 Omnibus bill, which was signed into law by President Trump on March 23, and included a 1-billion-dollar boost in supplementary airport funding nationwide, from the general fund, rather than funds associated with the Airport and Airway Trust Fund. Regardless, projects utilizing federal funds will include: design, construction, safety, security, capacity enhancement, equipment, maintenance, noise mitigation, environmental, planning and land acquisition.”	Language has been updated per the comment and FY'17 AIP funds received have been added.
12	The quote from Elliott Black is referencing FAA carrying out AIP. “State Block Grant Program puts a high priority on reliever airports” is not an entirely true statement, from the states perspective. Needs are certainly greater at these facilities, but there is no “higher” priority or flag for reliever airports. They are simply general aviation airports that typically have much greater need due to demands and use and as such compete better to garner funds.	Language has been removed per the comment.
13	CMAP provided a letter supporting the LRTP, and specifically outlined support for the following topics within the LRTP: LRTP themes, Collaboration and coordination with metropolitan planning organizations (MPOs), Sustainable funding, Changing technology and data, Transit, Bicycle/pedestrian safety, Public private partnerships, Inclusive growth, Implementation.	The comment is generally supportive, so no changes made to the plan language.
14	The “transportation system update” references the fact that Illinois Aviation System Planning is needed, for a variety of reasons. How does this end up in the “update” but is not called out as a specific action item within the long range plan? It seems that those items called out within the long range plan relating to aviation (performance/action targets) would be enforced and carried out through an aviation system plan, just like all of the other “modal” plans like bike, rail, etc. I believe one of the goals of the long range plan should include regular and continual Aviation System Planning, especially since Federal funding is available.	Language in the plan has not been changed as the Mobility and Stewardship chapters do discuss the need to invest in airport improvements, to provide non-highway funding programs related to airports, and to provide better multimodal connectivity and intermodal connections with airports.
15	Ensure that “ports and waterways” is referred to as the Illinois Marine Transportation System (not Illinois maritime transportation system) when appropriate. I acknowledge that it’s not always appropriate to refer to the “system”, but constancy is important when available. Marine System instead of Maritime System is currently being utilized by the Feds, by the way.	Language has been changed to reflect Illinois Marine Transportation System.
16	Page 3 references that there are 350 active ports. I do not think this is accurate. There are approximately 350 terminal facilities which are defined differently than “ports”. Illinois to my knowledge has approximately 18 public ports districts created by legislation... not all are active.	Language stating 350 port districts has been removed.
17	Update the transportation system update section on waterways and ports to state that freight transportation related functions of the Illinois Marine Transportation System are now within IDOT.	Language has been added regarding IDOTs ability to provide freight planning and other planning and construction support to the Illinois Marine Transportation System.

NUMBER	COMMENT	RESPONSE
18	I don't think this statement on page 87 is entirely accurate and other areas within that section also reinforce the statement: "IDOT can provide technical and operating assistance to port districts in coordination with Illinois Department of Commerce and Economic Opportunity (DCEO). DCEO often works with port districts to facilitate economic development in the area. IDOT supports water freight movement by providing the roads to and from the water terminals. Private industry creates loading and unloading facilities on riverfront sites for their own use after obtaining approvals from the municipal jurisdiction, the Corps, and the IDNR. These facilities include docks, wharves, mooring sites, terminals, and other storage facilities, loading and unloading equipment, and other supportive structures". IDOT can in fact fund construction of various port projects, as well as fund planning efforts, without DCEO coordination, and with a variety of funds. It is my understanding that some (or all) planning efforts must be approved by the IDNR office of water resources, per IL statute.	Language has been added regarding IDOTs ability to provide freight planning and other planning and construction support to the Illinois Marine Transportation System.
19	From my understanding, IDOT is working toward creating a Marine Transportation System Plan that all stakeholders, including USACE and DOT-MARAD support (not necessarily monetarily)... Similar to the aviation system plan comment, why is this not specifically identified within the long range plan as an action item to complete? The one action item relating to maritime data within the long range plan is technically a marine system planning component. I think the long range plan should specifically call out completing a marine transportation system plan.	Language in the plan has not been changed as the Mobility and Stewardship chapters do discuss the need to invest in waterway improvements, to provide non-highway funding programs related to waterways, and to provide better intermodal connections with waterways.
20	My hope is that the comments made on this plan are recorded and made available via the IDOT website... I don't suggest they be included in the printed document or stand-a-lone digital format, but they should be easily accessible... perhaps on the landing page.	Comments on the plan will be available in the Public Involvement Appendix of the plan which is posted on IDOTs website.
21	I see no consideration to reassess the performance of IDOT and the State to implement this plan in the near future. I believe that this action should be taken, in summary, as part of this specific plan, at its half-life. Which would be about the time IDOT and the State start work on the next Long Range Plan.	The plan identifies several performance measures which will be tracked by IDOT and used to assess progress being made towards the goals and objectives identified by this plan.
22	Suggest changing "do not receive the same level of fiscal attention" to clearer phrasing. Note: Aren't most Federal transportation funds (STP) flexible and allowed to be used on any mode? Is the issue prioritization among modes? Transit, bike and pedestrian projects may offer more ROI/better corridor throughput than roadway projects for autos.	Change made as requested.
23	Recommend change: ... "based on need and anticipated outcomes of selected alternative"	Change made as requested.
24	"Some of the negative impacts could include vehicle parking, increased VMT..."	Change made as requested.
25	Consider tweaking this phrasing. Maybe, "support coordinated land use and transportation planning"	Language in the plan has not been changed because it is an objective of the plan which is repeated throughout the plan document and other materials.
26	What does this mean? Market services more? Increase frequency? Fund? Upgrade other routes?	No clarification was provided. It means all of these items as well as more. It is an overall statement to support the Illinois Passenger rail program.
27	Higher speed rail is in the final phase..... May be risky to overuse "high speed rail" when max speed is 110 mph. CA dedicated corridor is true high speed rail.	Change made as requested.
28	ensure there are adequate airport services provided to new/ growing population and employment centers	Language in the plan has not been changed as the desire is to represent all, not just new/growing.
29	Please include passenger rail transportation stakeholder groups IDOT is involved with – or should be	Change made as requested.
30	Is there a threshold for IDOT support? If population or enplanements decreases past a certain threshold should support be discontinued?	There is a threshold for federal support. If that threshold is not met, IDOT support is considered on a case by case basis.
31	Is this related to AVs? Not mentioned under actions/strategies	This fits into 4.1.
32	This is a great tool! Recommend establishing a policy that I-LAST scoring be done at the beginning of each project, which provides an opportunity to identify additional elements that may be added to the project to boost its livability score.	Added recommending establishing a policy that I-LAST scoring be done at the beginning of each project under an implementation item.
33	Please add some passenger groups as examples; what about Bike Illinois? IL Transit Association?	Change made as requested.
34	How about: Number of events conducted in low income or predominantly non-white communities? Conduct them in partnership with community organizations to get the word out.	Number of opportunities is included as a performance measure.

NUMBER	COMMENT	RESPONSE
35	Required use of I-LAST in design would be one option. How else can IDOT institutionalize sustainability? Should have a PM for each strategy	This was added as an implementation item.
36	Consider requiring this for any project receiving Federal or State funding (since IDOT is held accountable for reaching state targets, they need to ensure every dollar is working toward achieving them)	At this point in time, IDOT is in the best position to encouraging performance based project selection.
37	Need to incorporate bike/ped in here somewhere with respect to sustainable transportation planning. And ensure the IDOT bike/ped planner is one of the partners	Language in the plan has not been changed . Bike/Ped planner is within the Office of Planning and Programming. Transit/Active Transportation is indicated as an effective form of the transportation system in the Mobility Chapter and its sustainability is discussed in the Transportation System Update appendix.
38	"Want to confirm that the intent here is to make non-highway project more competitive with highway projects when using the PBPS tool by adding measures of livability. This is great. Please consider bike/ped projects for core transportation funding and not only segregated into TAP funding."	Confirmed.
39	Suggest: Improve transit service and riders experiences.... (ridership is the result – you need to improve service to increase ridership)	IDOT agrees, but finds ridership easier to track and representative of improved transit service.
40	IDOT should develop a comprehensive transportation demand management program including policies, incentives, etc. This is a major deficiency in the greater Chicago region	A similar strategy is included in the Mobility Chapter under objective 3. It is strategy 3.8.
41	Suggest IDOT should consider developing statewide One-Click mobility management program that eases information access for users.	IDOT agrees however finds the first step to be identifying and tracking the number of mobility management projects.
42	We need to get beyond taking a Title VI view of only preventing negative impacts to disadvantaged populations. We need to proactively seek provide benefits to these populations. Please add equity criteria to the Performance Based Project Selection Tool to prioritize investments to these populations.	Change made as requested.
43	Suggest that IDOT should conduct a comprehensive equity analysis of outcomes for each MYP and for the system as a whole to evaluate how well its investments are improving mobility for low income and non-white populations.	Language in the plan has not been changed as this as a next step.
44	Address TIMS in a separate strategy	Language in the plan has not been changed as IDOT believes the strategy is in the appropriate section.
45	Does this mean increase rail to reduce overall transportation energy consumption? Does this mean reduce emissions of the rail sector?	Change made as requested.
46	Why is construction of energy efficient facilities the strategy – why not retrofitting existing facilities? Our state is not experiencing population growth so would not think we need to be building lots of new facilities	Change made as requested.
47	Strongly recommend that the PM is development of a comprehensive TDM plan – IL desperately needs this – can resurrect and update the one developed by MPC a few years ago that IDOT was very close to procuring. The plan will identify opportunities for enhancement and collaboration. The currently proposed measure of number of TDM efforts will be extremely difficult to measure statewide and not useful if we have no plan to create and incentivize programs.	IDOT agrees however the comment is not addressed because IDOT believe the first step needs to be identifying and tracking the number of TDM efforts.
48	Add implementation element of TDM study – need to have something related to TDM. Could also measure VMT growth/reduction per capita or similar as a measure of success of TDM programs	Language has not been changed as IDOT believes tracking this data is the first step.
49	Please add an implementation element for equity metric in Performance Based Project Selection tool	Change made as requested.
50	"Recommend retooling the first 3 paragraphs. P.1 Change "time in traffic congestion" to "travel time increases" p.3 – change "access points" to "destinations" change "throughout multimodal connections" to "often using multiple modes""	Change made as requested.
51	Recommend deletion – diminishes the importance of the point and that in every life span there are periods when one cannot drive (under age 16) and for many in older age, plus many people deal with family members who cannot drive, and we must consider the disability community. Virtually everyone faces this issue at some point.	Change made as requested.
52	Meaning is unclear for: "complementary programs are usually unsupported"; is the range of stakeholder in rural areas more than in urban areas?	Change made as requested.

NUMBER	COMMENT	RESPONSE
53	Need to acknowledge that AVs are still cars and that policies regarding their use will impact whether their introduction results in huge increases in VMT or reduces congestion.	Change made as requested.
54	Add reference to IDOT's role in developing and sharing information about travel across modes?	Change made as requested.
55	Change to later date or link to document if it's done.	Change made as requested.
56	Please clarify what is meant here	Change made as requested.
57	Suggest noting that that transit is part of the consideration for alternatives when upgrades are considered for major corridors where IDOT is leading the planning	Change made as requested.
58	What types of projects are these? Can you provide an example?	Change made as requested.
59	Include more recent data	More recent data is not available.
60	"Need to note that Amtrak funds state-supported Amtrak services – there is currently no mention of it now in the strategies. Maybe there should be an intercity passenger rail section? IDOT has a large role. Be clearer about the investments in railroad improvements – that they are going toward the first “higher speed rail” for passengers in IL of up to 110mph."	This information is included in the Transportation System Update appendix
61	Have invested \$1.4 B and are seeking \$3B more (approx.) to complete the 70 projects	
62	“Assessing the effectiveness of the current system in providing needed mobility”	Change made as requested.
63	Recommend deletion or major rewording.	Change made as requested.
64	Why is this a good measure? Why not the throughput of intermodal facilities? More is not necessarily better – the point is that they are effective and efficient	IDOT worked to select measures that have consistent, available data today. As new and better data becomes available, IDOT plans to update the tool/process to incorporate better measures.
65	This is confusing. Is there no standard? Or get rid of “changing”	Change made as requested.
66	Add an implementation step for the dashboard – this is a good goal!	Change made as requested.
67	Need to add “potential improvements” - aren't you assessing the cost of the potential improvements?	IDOT is working to assess the cost of delay.
68	Skipping a step...need to identify potential improvements and costs. Need to be careful of setting up IDOT to be just chasing sprawl. What about adequate services in historically disinvested areas?	IDOT does not preclude this.
69	Be consistent in calling this “transit signal priority”	Change made as requested.
70	Add “person” before throughput. This is a critical distinction when talking multimodalism.	Change made as requested.
71	Please add: “pedestrian and bicycle facilities” to this list	Change made as requested.
72	Please define this and how it differs from projects that include multimodal transportation	The intent is to specific access to multimodal choices.
73	Please do not use the term “alternative transportation” in this document. Please use bicycle/pedestrian/transit.	IDOT prefers alternative transportation because of the new technologies being researched/developed currently. I.e. Hyperloop, Autonomous/Connected vehicles.
74	Please change to: “providing information on transit routes and schedules will improve transit riders’ experience and make riding transit a more appealing choice”	Change made as requested.
75	Change to: Number of transit signal priority measures implemented	Change made as requested.

NUMBER	COMMENT	RESPONSE
76	Please add new PM for # of Complete Streets projects completed. Also should include evaluation as part of Complete Streets efforts to measure person throughput, speeds, and safety performance	Change made as requested.
77	Previously it was noted that all new capacity or operations projects would use this process. So is this necessary? Want to strongly denote that it's not optional to use this new process.	Change made as requested.
78	Please add Update of Complete Streets policies in IDOT guidance	Complete Streets policies are being included in IDOT guidance.
79	Suggest that safety be a separate objective and not bundled with efficiency. This plan has very little reference to safety and should have at least one objective dedicated to it. Then separate out actions 2.4, 3.5 and 3.6 as strategies for a separate safety objective.	Safety is imbedded in all IDOT does.
80	Please make sure to highlight that proven effective safety countermeasures must be used to accomplish substantive safety. Speed must also be managed to improve safety.	Change made as requested.
81	Please clarify. VMT is flat and transit ridership is down, and population is down for past few years. Please provide a reference here on what demand is referred to. There is some confusion over whether this refers to current or predicted travel demand. Recommend this strategy address not only congestion but person throughput. Some congestion will always exist – but what can be improved is person throughput on corridors by using high capacity modes of transit. Additionally it is important to recognize the role of bike/ped infrastructure in addressing congestion by providing nonmotorized alternatives for shorter trips along corridors.	Change made as requested.
82	Suggest adding new measure of person throughput on major routes.	Federally required performance measures for congestion are related to person through-put.
83	May want to check how this content and that of ON TO 2050 draft document align – there is quite a bit on infrastructure resiliency	There were no conflicting objectives/strategies/etc.
84	"Suggest adding more content about stormwater management by integrating significant, innovative green infrastructure in IDOT projects. What about techniques such as those in the NACTO Urban Street Stormwater Guide? Recommend references like that?"	While all great suggestions, the LRTP is a policy document and content like this is better implemented through IDOT's Design and Environment Manual.
85	Potentially add a PM be # of green infrastructure installations, potentially from a toolbox provided by IDOT? Or # of green stormwater management installations?	While all great suggestions, the LRTP is a policy document and content like this is better implemented through IDOT's Bureau of Design and Environment (BDE) Manual.
86	Suggest adding – high ROI investments that deliver desired outcomes. Suggest the focus is on the outcomes, not the projects themselves.	Language in the plan has not been changed as many of the goals and objectives in the plan are aimed at outcomes.
87	Strongly suggest adding an evaluation component: conduct analysis of outcomes for previous major roadway projects including on safety and person throughput to identify effective projects and inform future investments	Language in the plan has not been changed as performance measures are identified within each chapter of the plan and IDOT is using a performance -based project selection tool to evaluate projects that may be part of future investments.
88	Encourage emphasis not on only building projects but measuring the outcomes of the projects – can PMs but more like increased person throughput, increased access at project locations?	Language in the plan has not been changed as performance measures are identified within each chapter of the plan.
89	Suggest adding outcomes to these dashboards – what did projects deliver for transportation system users?	Change made as requested.
90	"Should this be: Support Innovative project funding/financing/delivery opportunities?"	Language in the plan has not been changed as "innovative" includes funding/financing/delivery opportunities.



ILLINOIS DEPARTMENT  
OF TRANSPORTATION



LONG RANGE  
TRANSPORTATION PLAN



## ATTACHMENT 1.1

A New Approach to Public Engagement: Capturing  
Better Ideas and Representative Priorities from the  
Public for the Illinois Department of Transportation



A



B



C



D



E

**A New Approach to Public Engagement:  
Capturing Better Ideas and Representative Priorities  
from the Public for the Illinois Department of  
Transportation**

**Matt E Sweeney  
Roy Rothschild  
Joseph Hoereth, Ph.D.  
Project Manager: Robert Ginsburg, Ph.D.**

**August 15th, 2017**



**Institute for Policy and  
Civic Engagement**

**Urban  
Transportation  
Center**

## Executive Summary

---

### Introduction

In recent years, the Illinois Department of Transportation (IDOT) has devoted time and resources to improving its public engagement program and the quantity and quality of the feedback and ideas it receives from residents of Illinois. In 2016, as part of these ongoing efforts, IDOT commissioned the Institute for Policy and Civic Engagement (IPCE) and the Urban Transportation Center (UTC), both of the University of Illinois at Chicago (UIC), to study effective public engagement strategies for statewide Departments of Transportation and create the report: *Recommendations to Enhance Quality Engagement*.<sup>1</sup>

Building on the 2016 report, IPCE conducted a statewide engagement process for IDOT in early 2017. This engagement process utilized an innovative online approach to supplement IDOT's traditional public engagement methods. The unique strength of this multi-phased process was its ability to capture high quality ideas from the public *and* statistically representative public priorities – it was both open and representative. The findings of this report will inform the development of IDOT's 2017 Long-Range Transportation Plan (LRTP).

### Methodology

IPCE's public engagement process consisted of two phases. Both phases included pairwise comparisons, a process by which residents were able to choose between two ideas or select an "I can't decide option" in response to the prompt: "Which idea do you think is more important for transportation in Illinois?"

**Phase 1: public idea generation.** This phase consisted of a pairwise comparison wiki survey, hosted by *All Our Ideas*,<sup>2</sup> which allowed the public to submit an original idea to be included in the bank of ideas. All residents of Illinois were able to participate in this phase and the link to the survey was publicized by IDOT.

**Phase 2: representative public prioritization.** This phase repeated the pairwise comparison process using ideas generated in Phase 1, but used representative sampling techniques to identify two groups of 500 Illinois residents each in IDOT Region 1 and outside of IDOT Region 1. In this phase, respondents also indicated the percentage of IDOT's budget they would invest in competing transportation goals and modes. IPCE partnered with YouGov for this phase of data collection due to their unique, empirically proven method of capturing representative public input.

---

<sup>1</sup> Institute for Policy and Civic Engagement, "Recommendations to the Illinois Department of Transportation to Enhance Quality Public Engagement," June 2016. <https://utc.uic.edu/research/recommendations-to-the-illinois-department-of-transportation-to-enhance-quality-public-engagement/>. Accessed July 30, 2017.

<sup>2</sup> <https://www.allourideas.org/IDOTideas>

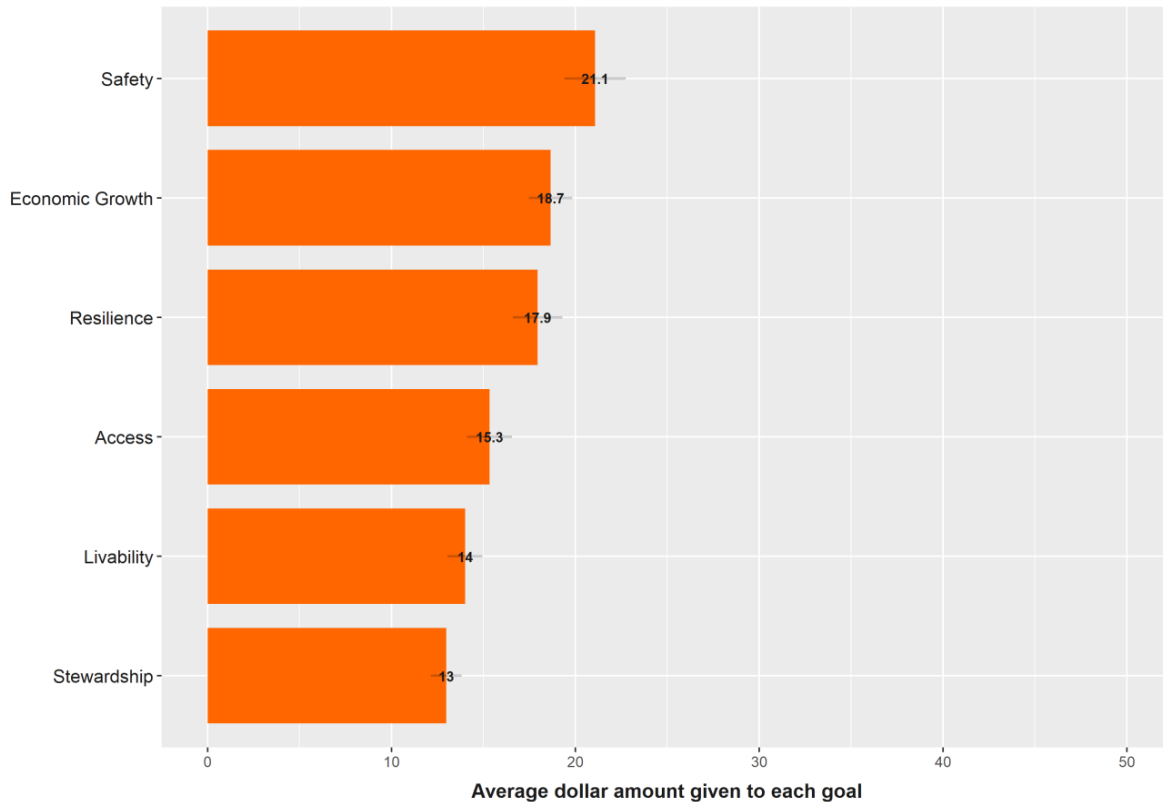
This multi-phased process allowed for input from a wide range of the involved public in Phase 1, which informed the design of the Phase 2 survey. Given that a representative sample of Illinois residents took the Phase 2 survey, findings are generalizable to the entire state.

### Section 1: Public Prioritization of IDOT Goals

Illinois residents were asked to complete a budget allocation exercise related to IDOT’s six overarching goals for the 2017 LRTP: Safety, Economic Growth, Access, Livability, Stewardship, and Resilience. When asked to distribute \$100 across the goal areas (Figure 4), residents prioritize Safety (\$21) as most important based on the average amount given to that goal area. Economic Growth (\$19) and Resilience (\$18) follow next. In Region 1, Safety is prioritized more than Economic Growth, while for Outside Region 1, Safety and Economic Growth are more equally prioritized. Moreover, Region 1 residents place greater priority on Access compared to residents living Outside Region 1, but place comparatively less priority on Stewardship.

**Fig. 4: The Illinois Public's Transportation Priorities**

Given \$100, the average amount the public gives to each goal based on perceived importance. Grey bars represent confidence intervals.



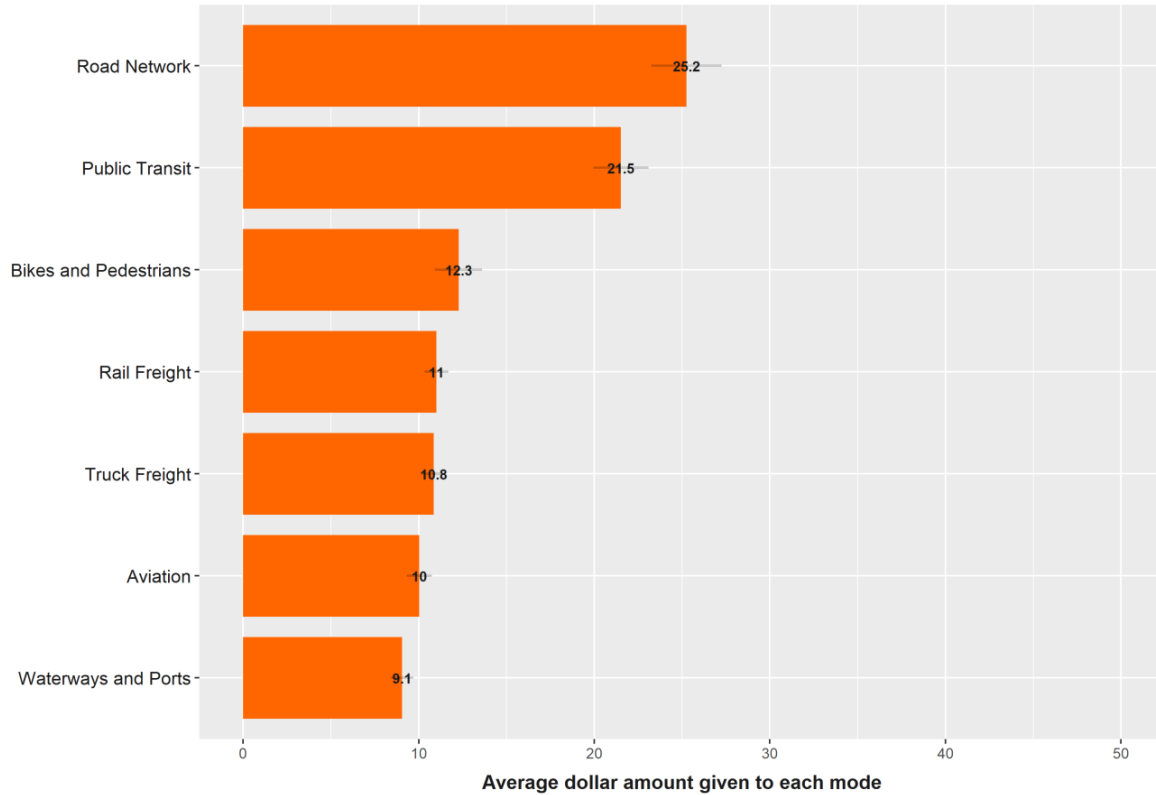
### Section 2: Public Prioritization of IDOT Modes

With regard to the budget allocation exercise related to transportation modes (Figure 10), the public overwhelmingly prioritizes Road Network (\$25) and Public Transit (\$22) as most important. For Region 1, Public Transit is of higher priority, while for Outside Region 1, Road Network is a higher priority. Bikes and Pedestrians is the third highest priority for Region 1;

however, for Outside Region 1, Bikes and Pedestrians is a lower priority and instead Truck Freight and Rail Freight are of next highest priority.

**Fig. 10: The Illinois Public's Transportation Priorities**

Given \$100, the average amount the public gives to each mode based on perceived importance. Grey bars represent confidence intervals.



### Section 3: Public Prioritization of Transportation Ideas

This section includes an analysis of the ideas included in and voted on in the Phase 2 pairwise comparisons. Each idea was included in roughly 200 head-to-head match-ups. Ideas related to road networks and repairs were most frequently in the top 10 highest-ranked ideas for all residents statewide (Table 7) as well as for residents from both regions. This was true for both IDOT seed ideas and ideas submitted by the public.

**Table 7<sup>3</sup>**

Top 10 Ideas	Final Score ALL IL Residents	Final Score REGION 1	Final Score OUTSIDE REGION 1	Public Idea?
Increase road repairs that are in desperate need of repair now before creating new highway accesses	85	83.3	88	Yes
Invest in streets that enable safe and comfortable travel for users of all abilities and for all modes of transportation	84.6	86	80.8	No

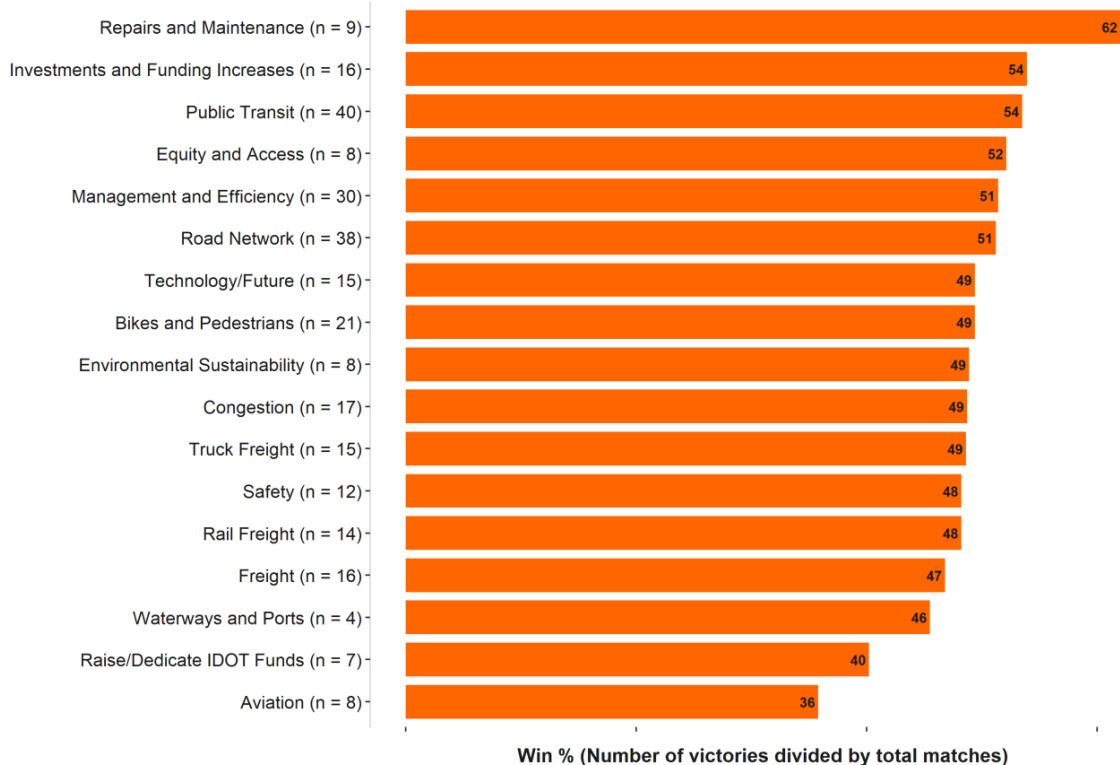
<sup>3</sup> See Appendix II for the full list of ideas

Increase the standards that roads are built with to ensure they last	83.1	87.2	76	Yes
Invest in long-term material solutions - not patching and short-term asphalt	79.2	82.2	72.6	Yes
Reduce overall costs by performing maintenance before improvements are in critical need of repair	78.8	78.5	76.4	No
Better distribute projects throughout the state to maximize benefits to all regions	73.4	66	81.8	No
Reduce vehicle damage due to deteriorated infrastructure	73	69.7	74	No
Match transit mode to ridership demand, with all modes on the table including priority bus and light rail	72.8	74.8	69.7	Yes
Invest in construction of major transit improvements	72.1	68.1	75.3	No
Create more visionary long-term plan for transportation assets for all modes and works to ensure Illinois regains its place as USA's crossroad	70.9	68.6	73.8	Yes

Finally, in this section, IPCE utilized two types of thematic categories: IDOT’s modes and an IPCE-created group similar to IDOT’s Goals, but more comprehensive and inclusive of the public’s contributed responses. Using these categories, ideas categorized as ‘Repairs and Maintenance’ had the highest win percentage by a substantial margin (Figure 16). The following categories also had win percentages over 50%: Investments and Funding Increases, Public Transit, Equity and Access, Management and Efficiency, and Road Network.

**Fig. 16: The Types of Transportation Ideas Illinois Residents Think are Important**

Percent of the time ideas in different categories win. For example, 'Repairs and Maintenance' won 62% of the time. The 'n' refers to the number of ideas included in the category



In regard to ideas with the greatest disparity in rankings between the regions (Table 5), Outside Region 1 residents were more likely to prioritize ideas related to Rural Highways, Roadway Freight, Safety, and “IDOT’s Ability to Advocate for Sound Transportation Policy and Funding,” the idea with the greatest rank disparity. Region 1 residents, on the contrary, were more likely to prioritize ideas related to public transit (buses, trains and rail) and bikes and pedestrians.

**Table 5\***

<b>Top Ideas by Difference in Rank between Regions</b>	<b>Absolute RANK Difference</b>	<b>Region 1 RANK</b>	<b>Outside Region 1 RANK</b>	<b>Public Idea?</b>
Enhance IDOT's ability to advocate for sound transportation policy and funding	93	114	21	No
Improve road safety by making roads more freight-friendly	77	107	30	No
Improve highway access for rural populations	63	83	20	No
Charge trucks a toll on all expressways if they operate during AM and PM peak hours as a way to reduce congestion	54	60	114	Yes
Make sure new or improved roads don't interfere with residents' way of life	52	67	15	Yes
Support sustainable practices in the delivery of public transportation	49	72	23	No
Safety for cyclists and pedestrians where there are gaps in local networks and/or dangerous conditions	47	33	80	Yes
Make IDOT data publicly available and easy to share	46	75	29	No
Prioritize multiuse trails for walking and biking for transportation and recreation across the state	46	63	109	Yes
Identify gaps in transit service	45	20	65	No

\*The ideas highlighted in orange indicate that residents from outside Region 1 ranked the idea HIGHER than Region 1.

### **Conclusion**

In its efforts to update and improve its public engagement processes, IDOT commissioned IPCE to create this report utilizing an innovative online survey design. This new methodology for obtaining robust and detailed feedback from Illinois residents led to a wealth of data for analysis and incorporation into the 2017 LRTP. Additionally, this process has exciting potential applications for future IDOT public outreach efforts, both at the statewide and local levels. For example, for the current project, IPCE had to remove ideas related to specific locations and projects in order to make each idea applicable to all IL residents. On the local level, however, those insightful, publicly-submitted ideas would not only be allowed, but encouraged.

## **Acknowledgements**

---

Thank you to the Illinois Department of Transportation for investing in the improvement of public engagement and for their support of innovative engagement methods.

We gratefully acknowledge Professor Matthew Salganik and the All Our Ideas research group for developing All Our Ideas and for making it open and free to all. We hope that this study contributes in some way to your excellent work.

For their support in drafting and editing this report, thanks to Katie James, Research Specialist, and Callie Silver, Research Assistant, at the Institute for Policy and Civic Engagement.

Lastly, thank you to all members of the public who participated in the engagement process by taking part in the All Our Ideas wiki survey, sharing your ideas, and getting others involved. Your contributions form the foundation of this study and we are deeply grateful to you.



## Index

---

<b>Introduction</b>	<b>9</b>
<b>About the Research Team</b>	<b>9</b>
<b>About the Long-Range Transportation Plan</b>	<b>10</b>
<b>Research Questions</b>	<b>11</b>
<b>Methodology</b>	<b>11</b>
<b>Section 1: Public Prioritization of IDOT Goals</b>	<b>18</b>
<b>All Illinois Resident Priorities</b>	<b>18</b>
<b>Resident Priorities by Regions</b>	<b>20</b>
<b>Summary</b>	<b>23</b>
<b>Section 2: Public Prioritization of IDOT Modes</b>	<b>24</b>
<b>All Illinois Resident Priorities</b>	<b>24</b>
<b>Resident Priorities by Regions</b>	<b>26</b>
<b>Summary</b>	<b>29</b>
<b>Section 3: Public Prioritization of Transportation Ideas</b>	<b>30</b>
<b>All Illinois Resident Idea Prioritization</b>	<b>31</b>
<b>Resident Idea Prioritization by Regions</b>	<b>32</b>
<b>Priorities Based on Ideas Categorization</b>	<b>35</b>
<b>Summary</b>	<b>37</b>
<b>Conclusion</b>	<b>38</b>
<b>Appendices</b>	<b>40</b>

## Introduction

---

The Illinois transportation network is a rightful source of pride for residents of the Prairie State. Illinois boasts more than 100 public-use aviation landing facilities, one of the nation's largest freight rail systems, nearly 150,000 miles of highways, streets, and roads, and tens of thousands of bridges. The state also counts dozens of public transportation systems, more than a thousand miles of navigable waterways, and hundreds of miles of bicycle and pedestrian paths.

Though this large, diverse transportation system plays an important role in supporting both Illinoisans' quality of life and the state's economic competitiveness, it also complicates efforts to effectively plan for future development and maintenance. As part of its mission to provide safe, reliable, and sustainable transportation options for nearly 13 million residents, the Illinois Department of Transportation (IDOT) must balance competing needs, priorities, and visions for the future. The agency's task is further complicated by the state's wide spectrum of rural and urban environments.

In order to assist IDOT in effectively gauging public priorities, the University of Illinois at Chicago's Institute for Policy and Civic Engagement (IPCE) conducted a statewide public engagement process in early 2017. The findings of that process will inform the development of IDOT's 2017 Long-Range Transportation Plan (LRTP).

IPCE's public engagement process was designed to engage more Illinoisans and improve the quality of public input, while also obtaining a final set of findings that is statistically representative of the statewide population. Researchers accomplished these goals by conducting engagement in separate phases: first, by allowing all interested residents to submit feedback and respond to others' suggestions, and second, by convening a representative sample to complete an online survey and provide responses to statewide transportation goals, modal prioritization, and specific ideas about transportation. The unique strength of this multi-phased process was its ability to capture high quality ideas from the public *and* statistically representative public priorities – it was both open and representative.

This report summarizes the findings of the aforementioned engagement process. It is intended to provide additional context for IDOT personnel as they attempt to draft an LRTP that represents the needs and concerns of the citizens they serve.

### About the Research Team

*Institute for Policy and Civic Engagement (IPCE):* Based at the University of Illinois at Chicago, IPCE focuses on transforming democracy by creating a more fully engaged citizenry with more effective leaders. As a catalyst for learning and action, the Institute creates opportunities for scholars, concerned citizens, students, and government officials to actively participate in social discourse, research, and educational programs on policy issues and social trends.

*Urban Transportation Center (UTC):* The Urban Transportation Center (UTC) at the University of Illinois at Chicago is dedicated to conducting research, inspiring education and providing technical assistance on urban transportation planning, policy, operations and management. Since 1979, the UTC has delivered innovative research and education to solve real-world transportation problems. The strategic goal of UTC transportation research is to promote livable communities throughout the nation.

## **About the Long-Range Transportation Plan**

IDOT is federally mandated to prepare an LRTP every five years in accordance with 23 USC 135(f), 49 USC 5304(f), and 23 CFR 450-210.<sup>4</sup> State law also requires the creation of an LRTP, as outlined in Public Act 097-0032.<sup>5</sup> The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) expect these plans to inform the development and implementation of Illinois' multimodal transportation system while also identifying how the network will meet the state's economic, transportation, development, and sustainability goals. Federal requirements dictate the plan account for a 20+ year period.

Illinois' most recent LRTP was completed in 2012. That document – *Illinois State Transportation Plan: Transforming Transportation for Tomorrow* – focuses on a wide range of local transportation goals and challenges confronting the state. IDOT sought public input through traditional venues, including telephone, online, and paper surveys, as well as at public meetings. Information about public involvement in the plan can be found in IDOT's supplemental report to the 2012 LRTP entitled *Agency Coordination and Public Involvement*.<sup>6</sup>

In anticipation of its 2017 LRTP, IDOT prioritized improving its public outreach process. In 2016, IPCE and UTC produced a report for IDOT entitled *Recommendations to Enhance Quality Engagement*. As the report describes, IDOT commissioned the report in order to “study ways in which it could improve and enhance its public engagement practices, especially those involving underserved or disadvantaged populations. The agency wished to increase the quality and quantity of public feedback received and extend its reach into disadvantaged communities.”<sup>7</sup>

This report is a continuation of last year's work, building on its suggestions and expanding IDOT's public outreach methods using an innovative web survey platform.

---

<sup>4</sup> *Long-Range Statewide Transportation Plan*. Federal Transit Administration.

<https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/long-range-statewide-transportation-plan>. Accessed May 11, 2017.

<sup>5</sup> Illinois General Assembly, Public Act 097-0032.

<http://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=097-0032>. Accessed on July 30, 2017.

<sup>6</sup> Illinois Department of Transportation, “Statewide Transportation Plan: Agency Coordination and Public Involvement,” Dec. 2012.

[http://www.illinoistransportationplan.org/pdfs/final\\_report/08\\_agency\\_coordination.pdf](http://www.illinoistransportationplan.org/pdfs/final_report/08_agency_coordination.pdf). Accessed July 30, 2017.

<sup>7</sup> Institute for Policy and Civic Engagement, “Recommendations to the Illinois Department of Transportation to Enhance Quality Public Engagement,” June 2016. <https://utc.uic.edu/research/recommendations-to-the-illinois-department-of-transportation-to-enhance-quality-public-engagement/>. Accessed July 30, 2017.

## Research Questions

The purpose of this report is to generate high quality and representative input from the public regarding priorities and ideas for the transportation network in Illinois. In order to do so, this study sought to answer three main questions:

1. To what extent does the public prioritize the transportation goals put forth in the LRTP?
2. To what extent does the public prioritize the transportation modes included in the LRTP?
3. What specific ideas does the public feel are most important for transportation in Illinois?

## Methodology

In this section, IPCE seeks to be as explicit and transparent as possible regarding the methodologies employed in the current study. This is in keeping with American Association for Public Opinion Research (AAPOR) recommendations, which emphasize that “transparency is essential” and “a clear description of methods and assumptions is essential for understanding the usefulness of the estimates,” especially when working with a non-probability sample where respondents are self-selected and not randomly chosen to participate.<sup>8</sup>

The two primary phases of the engagement process designed by IPCE:

**Phase 1: Public idea generation**

**Phase 2: Representative public prioritization**

IPCE’s multi-phase study enabled researchers to obtain information that satisfied goals of both openness and generalizability. A wide range of the involved public was reached through the pairwise comparison wiki survey in Phase 1, while the online survey in Phase 2 was completed by a representative sample of the population, allowing for findings to be generalized to the entire population of Illinois. The research process is depicted in the Figure 1 on the next page:

---

<sup>8</sup> Baker and Brick, et. al., “Report of the AAPOR Task Force on Non-Probability Sampling,” June 2013. [https://www.aapor.org/AAPOR\\_Main/media/MainSiteFiles/NPS\\_TF\\_Report\\_Final\\_7\\_revised\\_FNL\\_6\\_22\\_13.pdf](https://www.aapor.org/AAPOR_Main/media/MainSiteFiles/NPS_TF_Report_Final_7_revised_FNL_6_22_13.pdf). Accessed on July 30, 2017.

# Fig. 1: Overview of Online Public Engagement for IDOT's Long Range Transportation Plan

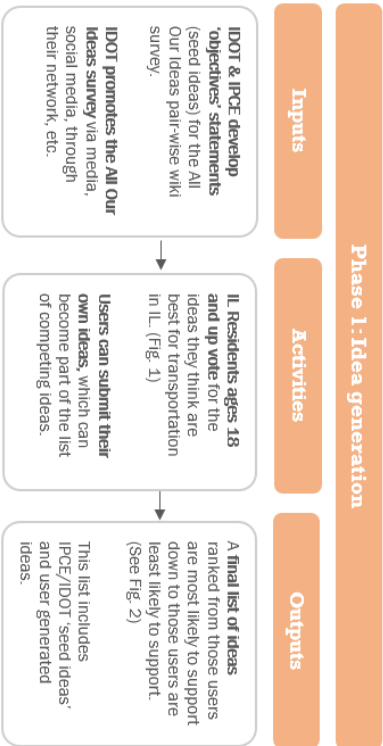


Fig. 1: Users vote for one of the two ideas, and may add their own idea below  
Which idea do you think is more important for transportation in Illinois?

**Subsidize bus and rail travel for users**

**Be consistent in ways that respect both pedestrian and vehicles. For ex. use public funds to shovel sidewalks and not only streets.**

I can't decide  
3300x votes on 155 ideas

Add your own idea here...

---

**Ideas**

Score (0 - 100)

Increase road repairs that are in desperate need of repair now before creating new highway access.	78
Reduce overall costs by performing maintenance before improvements are in critical need of repair	77
Invest in long-term material solutions - not patching and short-term asphalt	76
Repairing the roads and bridges we already have. It's time to stop doing minor repairs to make them look good	76
Our infrastructure is need of desperate repair, due to the age	74

Fig. 2: Example results, with the idea most likely to win a head to head comparison on top

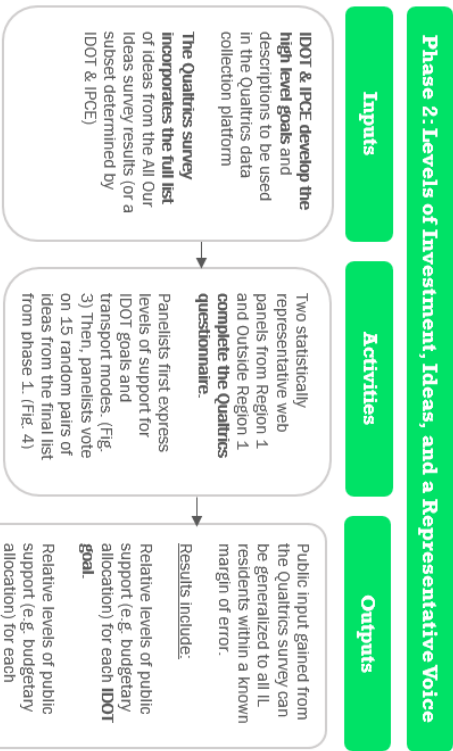


Fig. 3: Users input a dollar amount based on their preferences.

Imagine you have \$100 to spend on these goals. Please write in the amount you would give to each goal to show how important you think it is. You can give as much or as little as you'd like to each. (NOTE: Values must add up to 100.)

<b>Access:</b> Support all modes of transportation to improve accessibility and safety by improving connections between all modes of transportation.	\$ 0
<b>Economic Growth:</b> Improve Illinois' economy by providing transportation infrastructure that allows for the efficient movement of people and goods.	\$ 0
<b>Resilience:</b> Ensure Illinois' infrastructure is prepared to withstand and sustain hazards and extreme weather events.	\$ 0
<b>Stewardship:</b> Safeguard existing funding and increase revenues to support system maintenance, modernization and strategic growth of Illinois' transportation system.	\$ 0
<b>Liability:</b> Enhance quality of life across the state by ensuring that transportation options are safe, provide multimodal options and preserve the environment.	\$ 0
<b>Safety:</b> Ensure the highest standards in safety across the state's transportation system.	\$ 0

Fig. 4: Like the All Our Ideas platform, but with a statistically representative sample of Residents

Which idea do you think is more important for transportation in Illinois?

Invest in long-term material solutions - not patching and short-term asphalt	Adopt pedestrian enhancements	I can't decide
--	-------------------------------	----------------

## Phase 1: Public idea generation

This initial phase involved launching a publicly accessible pairwise comparison wiki survey prompting Illinois residents to answer the question: “Which idea do you think is more important for transportation in Illinois?” (Figure 2). Researchers utilized an open-source wiki survey platform called *All Our Ideas*<sup>9</sup> for this phase, due to its unique features not found in traditional survey research.

As the creators of the *All Our Ideas* platform explain, wiki surveys are inspired by online information aggregation systems such as Wikipedia as well as traditional survey research.<sup>10</sup> Such tools function by presenting users with two randomly selected pieces of information (in this case, project and/or priority ideas for transportation in Illinois) and allowing them to select a preferred response, indicate they cannot decide between the two, or offer an alternative. User submissions that meet a set of researcher-specified criteria (see Appendix V) are then added to the pool of ideas from which the *All Our Ideas* algorithm selects to present to users.

**Fig. 2 The All Our Ideas wiki survey platform**

Which idea do you think is more important for transportation in Illinois?

Subsidize bus and rail transit for users

Be consistent in ways that respect both pedestrian and vehicles. For ex, use public funds to shovel sidewalks and not only streets.

I can't decide

33926 votes on 185 ideas

Add your own idea here...

The wiki survey format has numerous characteristics that are valuable for collecting public input, which the *All Our Ideas* creators enumerate in their article *Wiki Surveys: Open and Quantifiable Social Data Collection*.<sup>11</sup> It allows for “greediness” in that it permits users to contribute as much (or as little) information as they would like. It is “collaborative,” as many of the best ideas are submitted by users and their distinctive phrasings can reveal the public’s preferences. It is also “adaptive,” as it is “continually optimized to elicit the most useful information, given what is already known.” Finally, by randomly generating pairs that users are not able to control, the pairwise comparison format prevents users from gaming or

<sup>9</sup> <http://allourideas.org/>

<sup>10</sup> Salganik MJ, Levy KEC, “Wiki Surveys: Open and Quantifiable Social Data Collection,” *PLoS ONE* 10(5): e0123483, 2015. <https://doi.org/10.1371/journal.pone.0123483>. Accessed July 30, 2017.

<sup>11</sup> *Ibid*, p. 2-4.

manipulating the results, while also preventing collective effects where users become increasingly more likely to vote for only the top-rated ideas. Following the conclusion of the voting process, researchers are able to generate a ranked list that identifies which items are mostly likely to be preferred by the public.

On the day IPCE launched its public-facing *All Our Ideas* survey, it contained 64 “seed” ideas that IDOT and IPCE developed, many of which were based on the *Transforming Transportation for Tomorrow* 2012 LRTP. The wiki survey opened on February 8, 2017 and closed on March 8, 2017. During this time, there were 823 unique visitors to [allourideas.org/IDOTideas](http://allourideas.org/IDOTideas), of which 698 were from Illinois.<sup>12</sup> Seventy percent of the participating Illinoisans were from the Chicago metro area. In total, visitors voted 36,353 times and eight of the top ten ideas were user-submitted.<sup>13</sup>

It is important to note that participants in this phase were not representative of the overall Illinois population. In fact, because the survey was publicized by IDOT staff through existing channels of communication, it is likely that a large percentage of users were disproportionately aware of or otherwise involved in IDOT’s work. Still, the results generated in this phase provided a foundation for the second phase of engagement that sought to build on Phase 1 results, while generating a clearer picture of the transportation concerns of the broader Illinois population.

## ***Transition to Phase 2***

In total, 322 ideas were submitted by users in Phase 1, though only 121 were included in the *All Our Ideas* survey for others to vote for or against.<sup>14</sup> In preparation of Phase 2, IPCE and IDOT created the final idea dataset by removing duplicates, comments, specific locations, and very low-ranking ideas. The final dataset was comprised of 134 competing ideas, 63 of which were IDOT seed ideas and 71 of which were submitted by users in Phase 1.

As IPCE deliberated on how to proceed with Phase 2, selecting the appropriate research firm became a primary focus. One concern was the quality of non-probability surveys. The authors of an AAPOR study of 60 non-probability surveys in 2013 found that these surveys varied widely in efficacy and accuracy. Though the authors raise numerous concerns about non-probability surveys, they also note that it is difficult to generalize about non-probability surveys, as there is a wide variety of methodologies rather than one simple non-probability framework. The authors do maintain, however, that technology is constantly evolving and improving and that some online vendors perform substantially better than others as a result of their methodology.

---

<sup>12</sup> Google.com. (2017). *Features – Google Analytics*. Available at: <http://www.google.com/analytics/features/> Accessed Mar. 10, 2017.

<sup>13</sup> To see the full list of results from phase 1, see <https://www.allourideas.org/IDOTideas/results>

<sup>14</sup> The number 121 is a better indicator of the actual number of ideas submitted. Of the ideas NOT included, the main reasons for not being included were: 108 were actually comments (often about one of the ideas they saw or about the survey itself); 60 were not applicable to all IL residents (i.e. they were too specific); and 32 ideas were duplicates. See appendix V for a complete breakdown.

With these concerns in mind, IPCE researched online vendors of non-probability panels with the primary goals of the study being high-quality, cost-effective, and generalizable to the entire population of Illinois. An invaluable resource during this effort was a Pew Research Center report entitled, “Evaluating Online Nonprobability Studies.”<sup>15</sup> This study provided some similar observations to the AAPOR study (for example, non-probability studies are not monolithic and vary in quality), while also highlighting more specific insights, such as:

A representative demographic profile does not predict accuracy. For the most part, a sample’s unweighted demographic profile was not a strong predictor of the accuracy of weighted survey estimates...The implication is that what matters is that the respondents in each demographic category are reflective of their counterparts in the target population. It does not do much good to get the marginal distribution of Hispanics correct if the surveyed Hispanics are systematically different from Hispanics in the larger population.

In other words, online vendors must do more than simply fill demographic quotas. The Pew report also ran a quantitative experiment to compare the performance of eight non-probability samples. One vendor consistently came out ahead of all other non-probability samples in these tests: YouGov (Sample I). It even outperformed Pew’s in-house probability sample, ATP, by multiple metrics. Due to its sophisticated methodology and exceptional performance, IPCE decided to work with YouGov for Phase 2.

YouGov’s multi-staged sampling method is called *sample matching*.<sup>16</sup> First, YouGov draws a *target sample* from the existing target population. Then, in the second stage, YouGov creates a *matched sample*, whereby it matches respondents to the sampling frame using a few different methods and then assigns variables a weight. These details, provided by YouGov, describe the sampling process and margin of error for this study:

YouGov interviewed 1282 respondents who were then matched down to a sample of 1000 to produce the final dataset (500 in Cook, Lake, McHenry, Kane, DuPage, and Will counties, and 500 in other Illinois counties).<sup>17</sup> The respondents were matched to a sampling frame on gender, age, race, and education. The frame was constructed by stratified sampling from the 2013 American Community Survey (ACS) sample (subset on the relevant geographic areas) with selection within strata by weighted sampling with replacements (using the person weights on the public use file).

In each sample group of 500, the matched cases were weighted to the sampling frame using propensity scores. The matched cases and the frame were combined and a logistic regression was estimated for inclusion in the frame. The propensity score function included age, gender, race/ethnicity, and years of education. The propensity scores were grouped into deciles of the estimated propensity score in the frame and post-stratified according to these deciles. A four-way post-stratification was then applied to these weights on age, gender, race, and education level, to produce the final country group weight.

---

<sup>15</sup> Pew Research Center, May 2016, “Evaluating Online Nonprobability Surveys.”

<sup>16</sup> For an extensive description of YouGov’s sampling method, see: Ansolabehere and Rivers “Cooperative Survey Research,” *Annual Review of Political Science*, 2013. <http://www.annualreviews.org/doi/abs/10.1146/annurev-polisci-022811-160625>. Accessed on July 30, 2017.

<sup>17</sup> For a detailed description of response rates, see appendix VI.



The sample was then combined and the group weights were post-stratified to the country group distribution, as well as a four-way post-stratification on age, gender, race, and education level, to produce an overall weight

The sample from Cook, Lake, McHenry, Kane, DuPage, and Will counties has a weighted margin of error of +/-5.35, and the sample from other Illinois counties has a weighted margin of error of +/-5.54. The full sample has a weighted margin of error of +/-4.09. Each was calculated at a 97.5% confidence level.<sup>18</sup>

The total sample contains 1,000 IL residents consisting of two geographically bound groups each containing 500 people: the “Region 1” group represents residents from the NE corner of Illinois in Cook, Lake, McHenry, Kane, DuPage and Will counties, and the “Outside Region 1” group represents residents of Illinois who live in an area other than Region 1. The resulting weighted summary statistics can be seen in Table 1 below:

**Table 1: Weighted Summary Statistics By Geographic Area**

Demographic	ILLINOIS			REGION 1			OUTSIDE REGION 1		
	Unweighted Sample	Weighted Sample	Frame	Unweighted Sample	Weighted Sample	Frame	Unweighted Sample	Weighted Sample	Frame
Unweighted N	1,000	1,000	10,000	500	500	10,000	500	500	10,000
<b>GENDER</b>									
Male	46%	48%	48%	47%	48%	48%	45%	49%	49%
Female	54%	52%	52%	53%	52%	52%	55%	51%	51%
<b>AGE</b>									
18-29	16%	22%	22%	19%	23%	22%	13%	20%	21%
30-44	25%	27%	26%	30%	28%	28%	19%	24%	24%
45-64	41%	34%	34%	35%	33%	34%	46%	35%	35%
65+	19%	18%	18%	17%	16%	16%	21%	21%	20%
<b>RACE</b>									
White	79%	67%	66%	67%	56%	56%	91%	85%	85%
Black	9%	13%	14%	14%	17%	17%	4%	8%	8%
Hispanic	6%	13%	14%	11%	18%	19%	2%	4%	4%
Other	6%	6%	6%	9%	8%	8%	4%	3%	3%
<b>EDUCATION</b>									
HS or Less	30%	39%	39%	26%	36%	37%	33%	43%	43%
Some College	35%	32%	31%	32%	31%	29%	39%	35%	35%
College Grad	24%	18%	19%	27%	21%	21%	20%	15%	14%
Post Grad	12%	11%	11%	15%	13%	13%	8%	7%	7%

<sup>18</sup> Also provided by YouGov: “The ‘margin of error’ is calculated using model-based standard errors, which estimate the variability of estimates from repeated application of the same procedures. Model-based standard errors depend on the assumption that responses are independent and that the selection mechanism is ‘missing at random.’ (See R.J.A. Little and D.B. Rubin, Statistical Analysis with Missing Data, 2nd ed., Wiley, 2002.) This means that . . . given any specific combination of matching and weighting variables, we assume that panelists have the same likelihood [answering other questions in the survey] as non-panelists with the same characteristics. It does not assume that the data come from a probability sample with known probabilities of selection.”

## ***Phase 2: Representative public prioritization***

The Phase 2 survey asked YouGov's sample of 1,000 Illinois residents to complete three tasks:

1. Indicate what percentage of IDOT's budget they would invest in various transportation goals. Their submissions were required to add up to 100. Options included:
  - a. Economic growth
  - b. Livability
  - c. Access
  - d. Resilience
  - e. Stewardship
  - f. Safety
  
2. Indicate what percentage of IDOT's budget they would invest in various transportation modes. Their submissions were required to add up to 100. Options included:
  - a. Aviation
  - b. Bicycle and pedestrian
  - c. Freight
  - d. Rail
  - e. Public transit (trains and busses)
  - f. Road network
  - g. Waterways and ports
  
3. Vote on 15 randomly selected pairs of ideas.
  - a. 134 competing ideas: 63 of these were (IDOT) seed ideas and 71 were submitted by the public in Phase 1<sup>19</sup>

In designing this survey, IPCE randomized nominal response options to prevent any bias introduced by the ordering of response options (e.g. 'satisficing' bias). As a result:

- a. For the goals and modes questions, the order was randomized for each respondent.
- b. For the pairwise comparisons, the selection of 2 of 134 ideas was randomized for 14 of the 15 comparisons. Pairwise comparison #5 was a data quality check.<sup>20</sup>

---

<sup>19</sup> These ideas only appear in the pairwise comparisons part of the survey (i.e., the 15 questions that all begin with the question: "Which idea do you think is more important for transportation in Illinois?")

<sup>20</sup> For the pairwise comparison questions, the left response option was a randomly selected idea, the right idea option stated "Please select this response to show that you are reading through all response options in this survey," and the final option was the 'I can't decide option' that appeared in all pairwise comparisons. Only respondents who passed the data quality check were included in the final sample.

## Section 1: Public Prioritization of IDOT Goals

---

IDOT's LRTP will address the following transportation goals: Economic Growth, Livability, Access, Resilience, Stewardship, and Safety.

### All Illinois Resident Priorities

Illinois residents were asked to imagine they had \$100 to spend on these goals and to indicate the amount they would give to each transportation goal to demonstrate its level of importance. Figure 3 shows what the respondents saw for this budget priorities question, and Figure 4 shows the results: the average amount residents give to each goal based on perceived importance.

### Fig 3. Snapshot from the online questionnaire

IDOT's Long Range Plan must address the following goals.

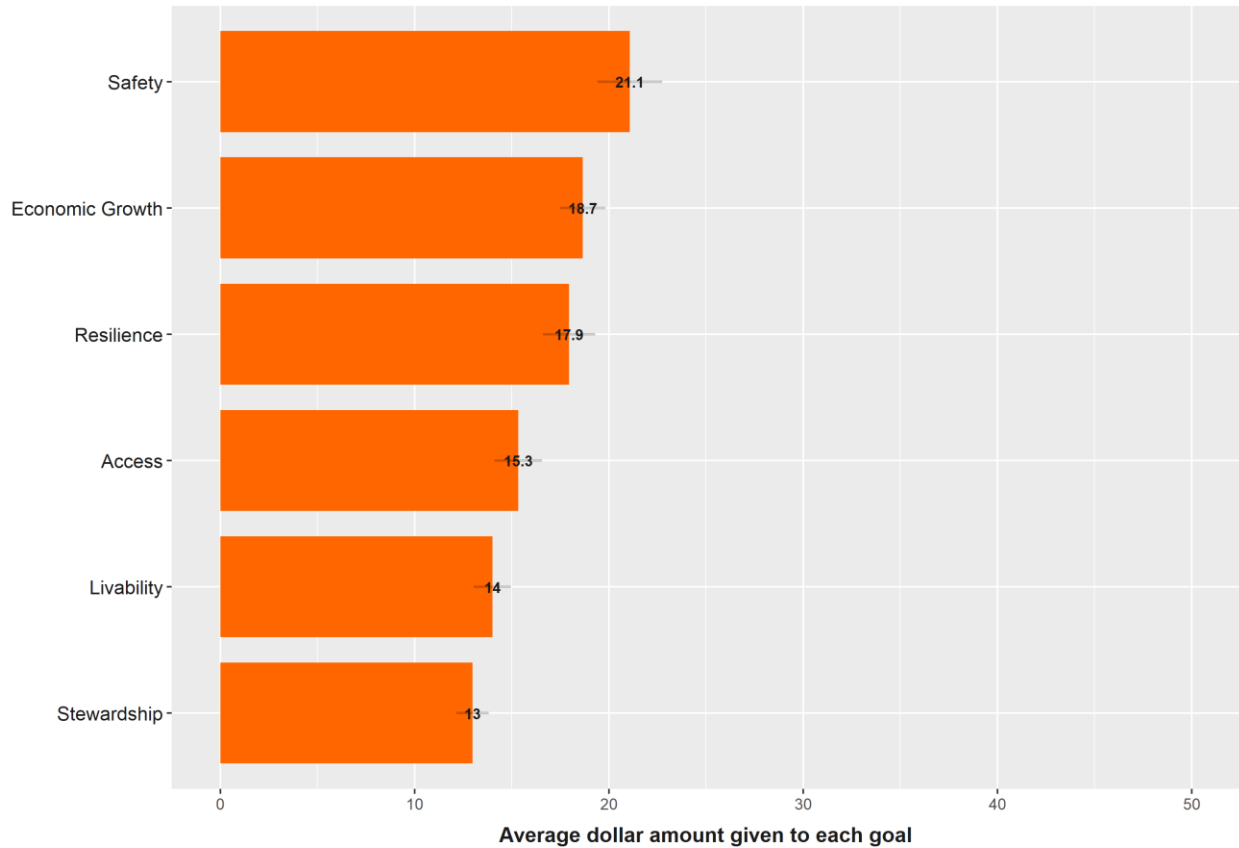
We want to know how important you think these transportation goals are for Illinois.

Imagine you have \$100 to spend on these goals. Please write in the amount you would give to each goal to show how important you think it is. You can give as much or as little as you'd like to each. (NOTE: Values must add up to 100.)

<b>Economic Growth:</b> Improve Illinois' economy by providing transportation infrastructure that allows for the efficient movement of people and goods.	\$ <input type="text" value="0"/>
<b>Livability:</b> Enhance quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options and preserve the environment.	\$ <input type="text" value="0"/>
<b>Access:</b> Support all modes of transportation to improve accessibility and safety by improving connections between all modes of transportation.	\$ <input type="text" value="0"/>
<b>Resilience:</b> Ensure Illinois' infrastructure is prepared to withstand and sustain hazards and extreme weather events.	\$ <input type="text" value="0"/>
<b>Stewardship:</b> Safeguard existing funding and increase revenues to support system maintenance, modernization and strategic growth of Illinois' transportation system.	\$ <input type="text" value="0"/>
<b>Safety:</b> Ensure the highest standards in safety across the state's transportation system.	\$ <input type="text" value="0"/>
Total	\$ <input type="text" value="0"/>

### Fig. 4: The Illinois Public's Transportation Priorities

Given \$100, the average amount the public gives to each goal based on perceived importance. Grey bars represent confidence intervals.

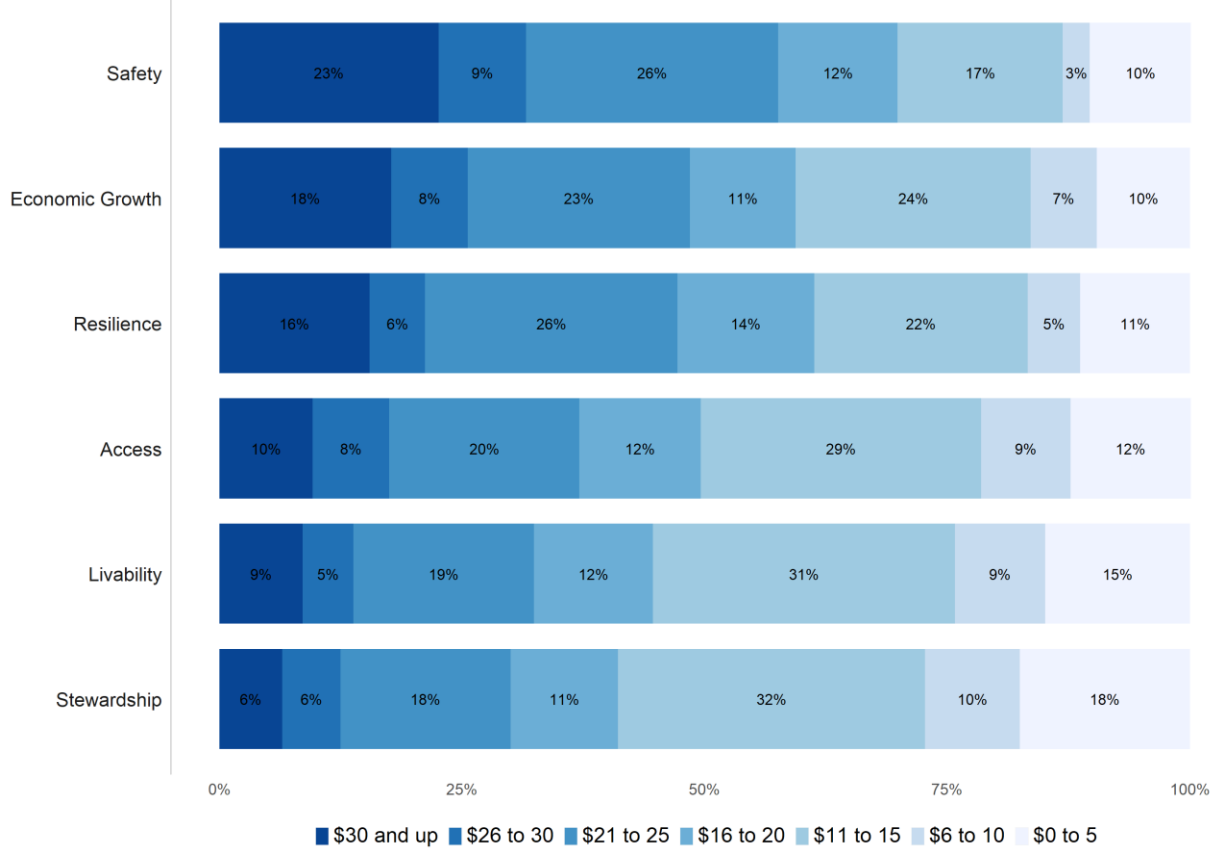


The public prioritizes Safety and, on average, gives \$21.10 toward this goal. Economic Growth and Resilience are the next two most important goals identified by the public. On average, people allot \$18.70 and \$17.90 to these goals, respectively. For the goal of Access, residents give an average of \$15.30. Livability and Stewardship are low priorities for the public, as seen by the averages attributed to each; the public gives an average of \$14 to Livability and \$13 to Stewardship.

Figure 5 provides another way of looking at how Illinois residents prioritize transportation goals and reveals patterns hidden when looking just at averages. For example, 23% of residents distribute one-third or more of their money to Safety, while only 6% of residents give that amount to the Stewardship goal.

### Fig. 5: Transportation Goals Priorities for Illinois Residents

Given \$100, the average amount the public gives to each GOAL based on perceived importance



Over one-half of residents (58%) distribute \$21 or more to Safety, and nearly one-third (32%) of residents give over one-quarter of their dollars to this goal. For Economic Growth, almost one-half (49%) of residents allot \$21 or more to this goal, and just over one-quarter (26%) of residents give over one-quarter of their money. The results were similar for Resilience, where 48% of residents give \$21 or more to this goal, and 22% give \$26 or more. However, for Access, Livability, and Stewardship, over one-half of residents distribute \$15 or less to these goals, demonstrating their low priority. More specifically, 50% of residents give \$15 or less to Access, 55% give \$15 or less to Livability, and 60% give \$15 or less to Stewardship. Nearly one-quarter of residents (24%) give \$10 or less to Livability, and 28% of residents give \$10 or less to Stewardship.

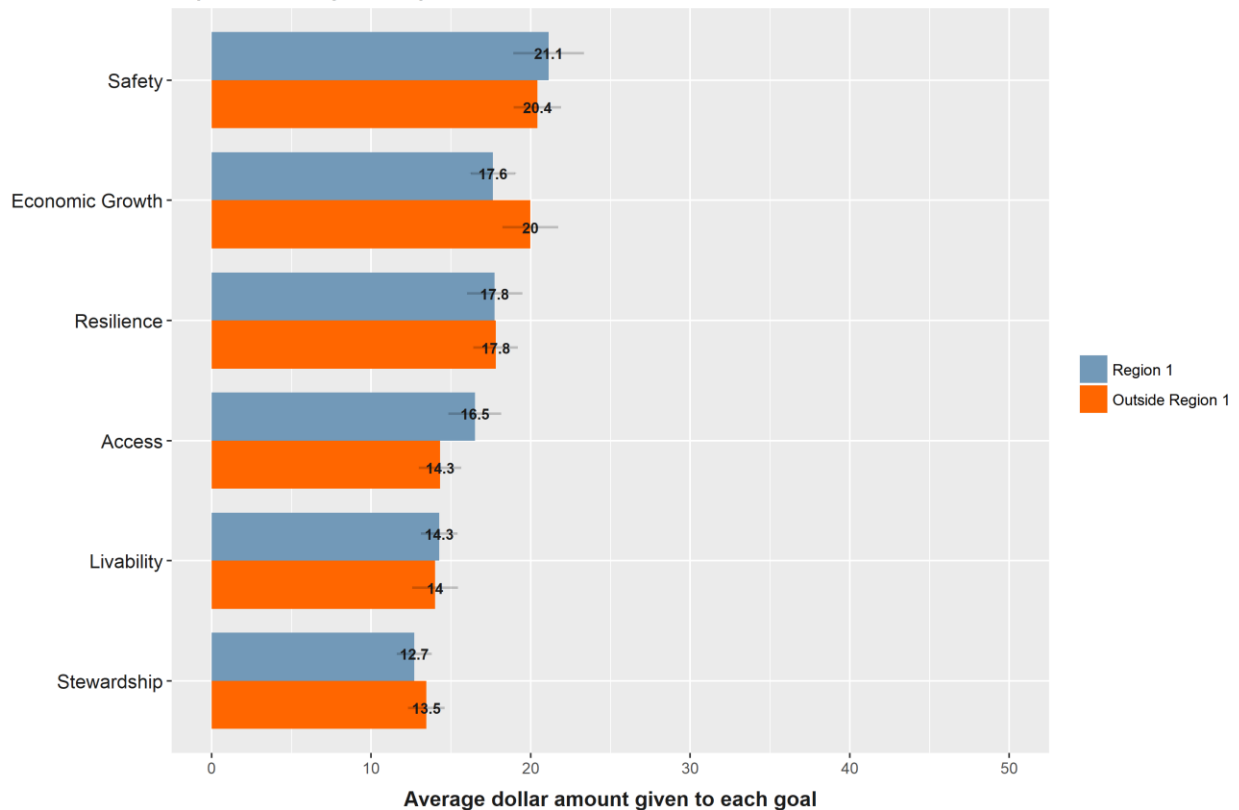
### Resident Priorities by Regions

Analyzing residents’ prioritization of goals by group reveals differences in how residents of Region 1 prioritize goals versus those from other parts of the state. For Region 1, the priority order of goals nearly matches that of All Illinois residents, where the public prioritizes Safety first and attributes an average of \$21.10 to this goal. However, unlike All Illinois Residents,

Resilience is prioritized second, followed closely by Economic Growth. In Region 1, the public gives an average of \$17.80 to Resilience and an average of \$17.60 to Economic Growth. In terms of Access, the public allocates an average of \$16.50. For Livability and Stewardship, residents give \$14.30 and \$12.70, respectively.

**Fig. 6: The Illinois Public's Transportation Priorities by IDOT Region**

Given \$100, the average amount the public gives to each goal based on perceived importance. Grey bars represent confidence intervals.



For those living outside of Region 1, the priority order of goals is the same as All Illinois residents. The public indicates Safety as the number one priority and, on average, gives \$20.40 to this goal. This is closely followed by Economic Growth, where the public gives an average of \$20. Regarding Resilience, they attribute an average of \$17.80. For the lower priorities, the public gives Access an average of \$14.30, Livability an average of \$14, and Stewardship an average of \$13.50.

The high similarity of ranking of goals by region is notable. The two goal areas with the largest difference between regions are Economic Growth and Access, and these differences are statistically significant (p-value is below 0.05).

Figure 7 below shows how Region 1 residents distribute \$100 based on importance. As it is for All Illinois residents, Region 1 residents tend to assign the largest amounts to the Safety goal,

with 22% assigning \$30 or more to that goal. One interesting observation is that for Region 1 residents, although the average amount given to Resilience is slightly higher than Economic Growth, a higher percentage give more than \$30 to Economic Growth (16%) than to Resilience (13%).

**Fig. 7: Transportation Goals Priorities for Illinois Residents Living within IDOT Region 1 (the Chicago Area)**  
 Given \$100, the average amount the public gives to each GOAL based on perceived importance

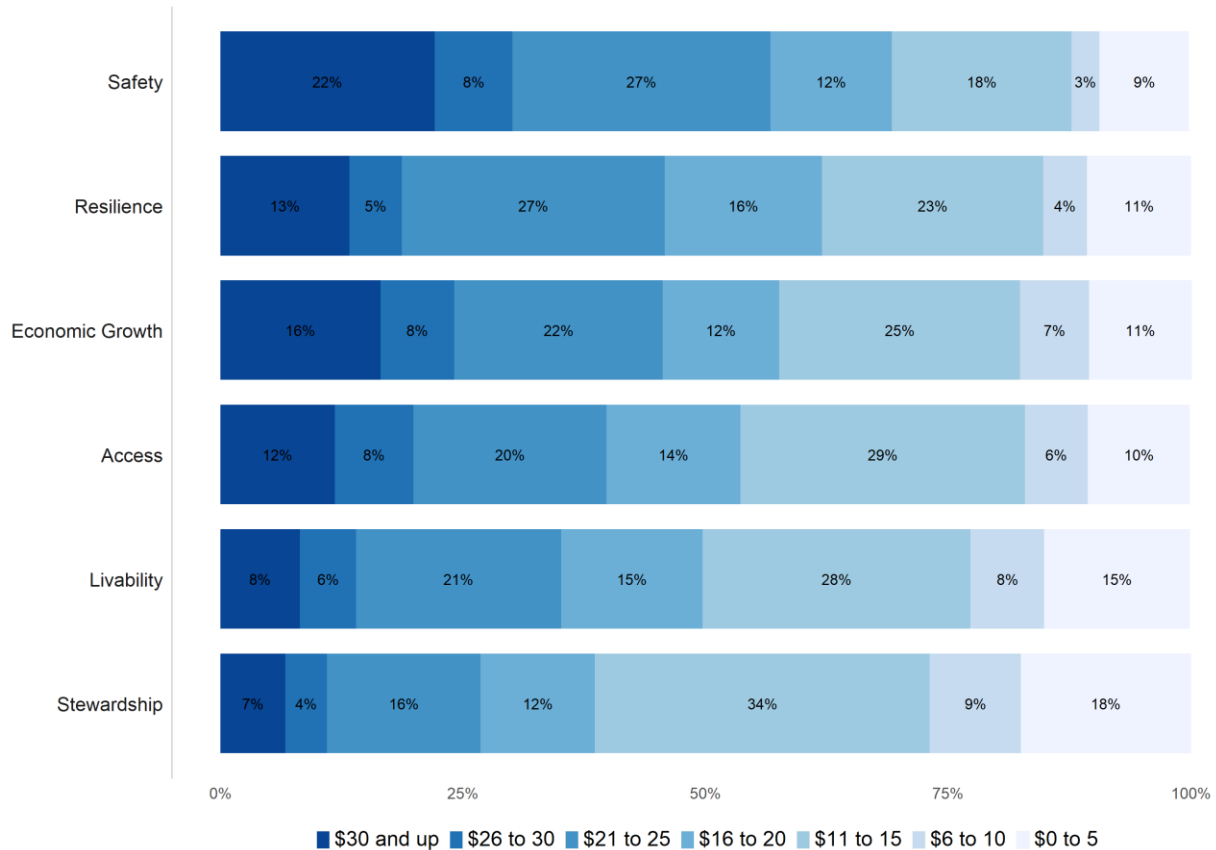
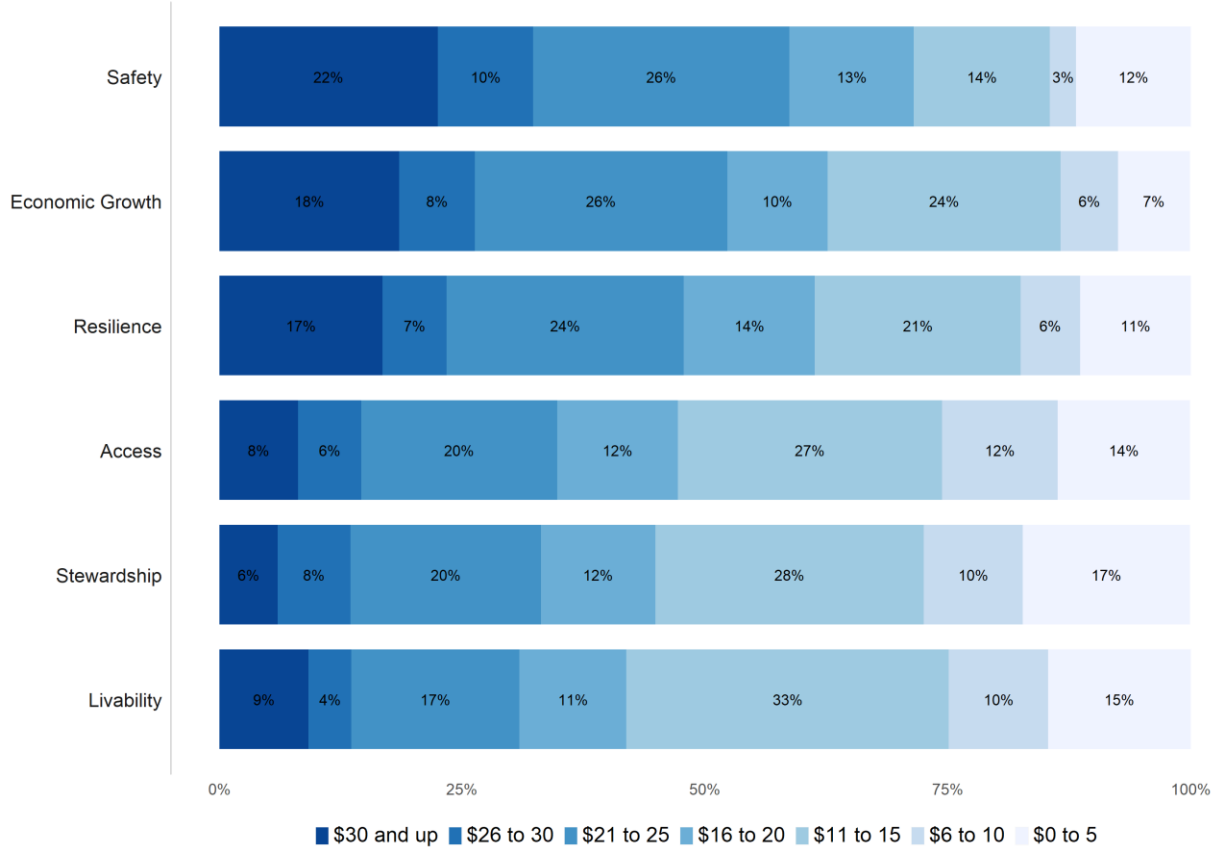


Figure 8 below shows how Outside Region 1 residents distribute \$100 based on importance. Again, Outside Region 1 residents tend to assign the largest amounts to the Safety goal, with 22% of those who give money to it assigning \$30 or more to that goal. Outside Region 1 residents give \$30 or more to Economic Growth at a slightly higher rate than Resilience, which flips the order of those two goal areas compared to the Region 1 residents. Overall, Outside Region 1 residents more evenly distribute \$100 across all goal areas than Region 1 residents.

**Fig. 8: Transportation Goals Priorities for Residents living outside of IDOT Region 1**

Given \$100, the average amount the public gives to each GOAL based on perceived importance



## Summary

When asked to distribute \$100 across the IDOT LRTP goal areas, residents clearly prioritize Safety as the most important goal, based on the average amount given to that goal area. Economic Growth and Resilience goals follow next, although Outside Region 1 residents rank Resilience slightly higher than Economic Growth. Access consistently ranks in the middle, while Stewardship and Livability rank the lowest as priority goal areas.



## Section 2: Public Prioritization of IDOT Modes

---

IDOT’s LRTP must also address the following modes of transportation: Aviation, Bicycle and Pedestrian, Truck Freight, Rail Freight, Public Transit (trains and buses), Road Network, and Waterways and Ports.

### All Illinois Resident Priorities

To understand how important each mode of transportation is to the public, Illinois residents were again asked to imagine they had \$100 to spend on these modes and to indicate how much they would give to each mode based on its importance. Figure 9 shows what the respondents saw for this budget priorities question, and Figure 10 shows the results: the average amount residents give to each goal based on perceived importance.

#### Fig 9. Snapshot from the online questionnaire

IDOT’s Long Range Plan must address the following modes of transportation.

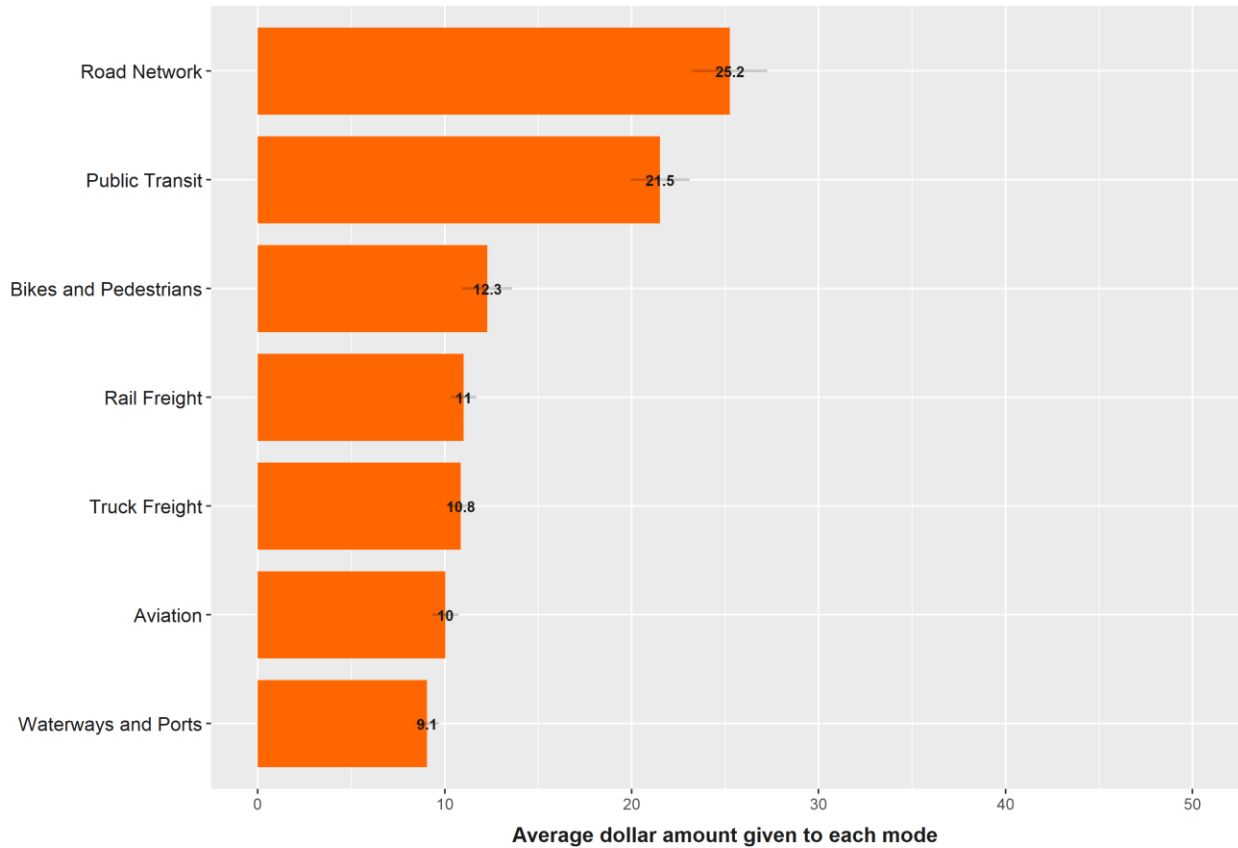
We want to know how important you think these modes of transportation are for Illinois.

Imagine you have \$100 to spend on these modes of transportation. Please write in the amount you would give to each mode to show how important you think it is. You can give as much or as little as you'd like to each. (Note: Values must add up to 100.)

Aviation	\$ <input type="text" value="0"/>
Bicycle and Pedestrian	\$ <input type="text" value="0"/>
Truck Freight	\$ <input type="text" value="0"/>
Rail Freight	\$ <input type="text" value="0"/>
Public Transit (Trains and buses)	\$ <input type="text" value="0"/>
Road Network	\$ <input type="text" value="0"/>
Waterways and Ports	\$ <input type="text" value="0"/>
Total	\$ <input type="text" value="0"/>

**Fig. 10: The Illinois Public's Transportation Priorities**

Given \$100, the average amount the public gives to each mode based on perceived importance. Grey bars represent confidence intervals.

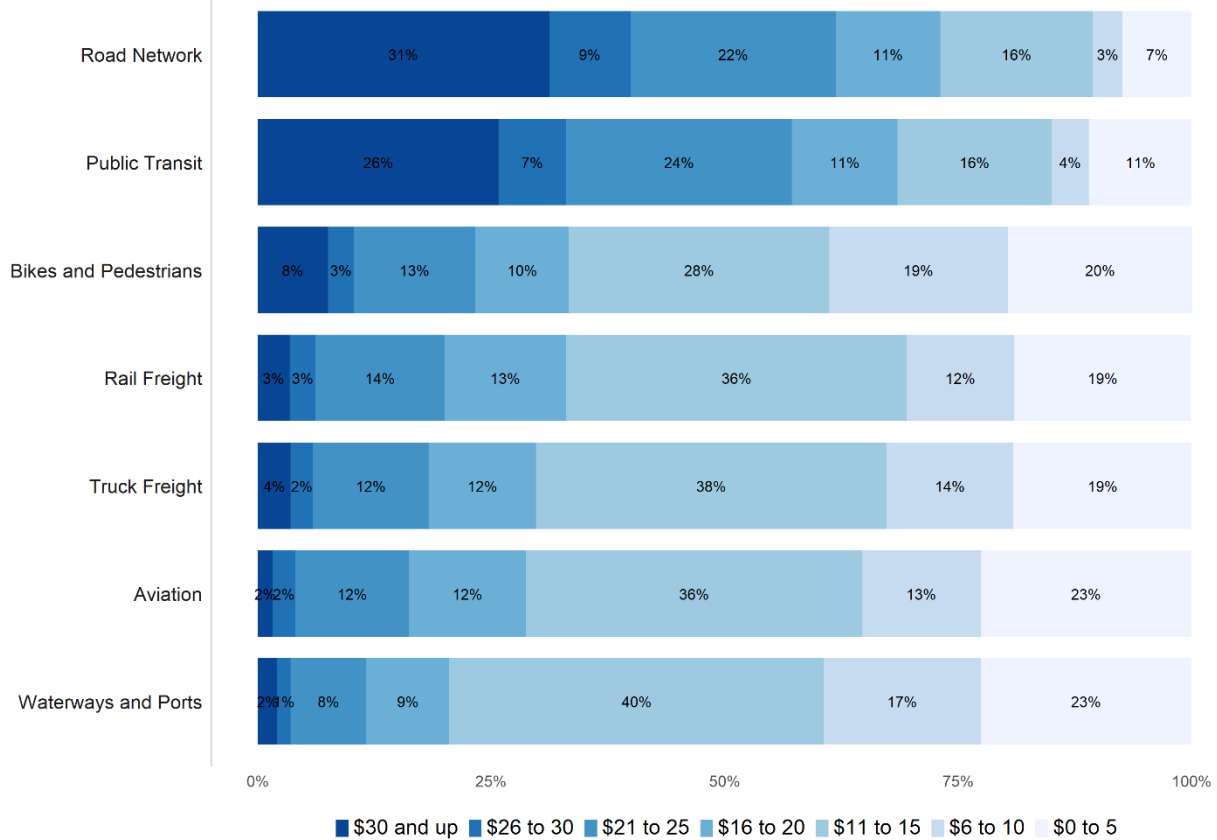


Road Network and Public Transit emerged as the most important modes based on the average attribution of dollars to each. Illinois residents give an average of \$25.20 to Road Network, and \$21.50 to Public Transit. Bikes and Pedestrians ranks third most important. The public gives an average of \$12.30 to this mode, which is nearly half of that which they give to road networks. They also attribute an average of \$11 to Rail Freight, \$10.80 to Truck Freight, and \$10 to Aviation. Waterways and Ports is least important, as residents indicate an average of \$9.10 for this mode.

Figure 11 shows how Illinois residents tend to distribute \$100 across the modes. The Road Network and Public Transit modes are by far given the highest amounts most often, with 31% and 28%, respectively, giving \$30 or more to those modes. The next highest percentage of those assigning \$30 or more to a mode is 8% given to the Bikes and Pedestrians mode category. The distribution within the remaining modes of Rail Freight, Truck Freight, Aviation, and Waterways and Ports is fairly similar, with the largest percentages giving between \$11 and \$15 of \$100 to these categories.

## Fig. 11: Transportation Modes Priorities for Illinois Residents

Given \$100, the average amount the public gives to each MODE based on perceived importance

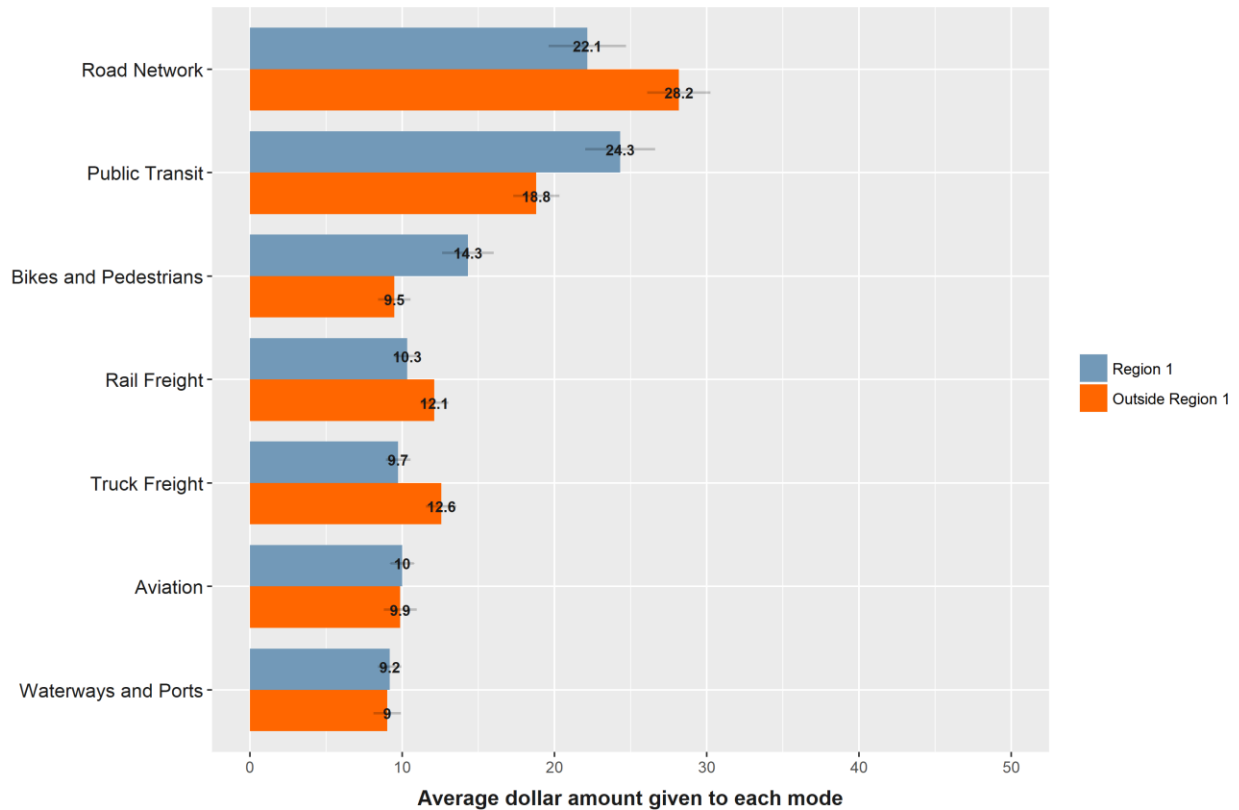


### Resident Priorities by Regions

Region 1 residents prioritize Public Transit over Road Network, giving Public Transit an average of \$24.30. However, Road Network is a close second priority, as Region 1 attributes an average of \$22.10 to this mode. Bikes and Pedestrians receives an average of \$14.30, and Rail Freight receives \$10.30. Unlike with All Illinois residents, Region 1 residents prioritize Aviation over Truck Freight, giving Aviation an average of \$10 and Truck Freight an average of \$9.70. As the least important mode, Waterways and Ports receives \$9.20 from Region 1.

## Fig. 12: The Illinois Public's Transportation Priorities by IDOT Region

Given \$100, the average amount the public gives to each mode based on perceived importance. Grey bars represent confidence intervals.



Outside Region 1 residents give the highest priority to Road Network at \$28.20. The next highest priority is nearly \$10 less, with \$18.80 being given to Public Transit. While Bikes and Pedestrians ranks third most important for All Illinois residents and for Region 1, it proves to be a low priority for those living Outside Region 1. Instead, they identify Truck Freight and Rail Freight as the third and fourth most important modes, with Truck Freight receiving an average of \$12.60 and Rail Freight an average of \$12.10. Residents attribute an average of \$9.90 to Aviation, \$9.50 to Bikes and pedestrians, and \$9 to Waterways and Ports.

There are evident differences between how residents from the two regions prioritize modes; the greatest differences are with respect to Road Network, Public Transit, and Bikes and Pedestrians. The difference between the regions is statistically significant ( $p$ -value is below 0.05) for Road Network, Public Transit, Bikes and Pedestrians, Rail Freight, and Truck Freight.

Figure 13 shows how Region 1 residents distribute \$100 across modes based on level of importance. Public Transit and Road Network are given the largest amounts most frequently at 30% and 25%, respectively. Note that this distribution order flips the order of the two highest

ranked priorities based on average amount given. Bikes and Pedestrians is third with 10% of Region 1 residents assigning \$30 or more. Less than 3% of Region 1 residents give \$30 or more to the remaining modes of Aviation, Rail Freight, Truck Freight, and Waterways and Ports, in that order.

**Fig. 13: Transportation Modes Priorities for Illinois Residents living within IDOT Region 1 (the Chicago Area)**  
 Given \$100, the average amount the public gives to each MODE based on perceived importance

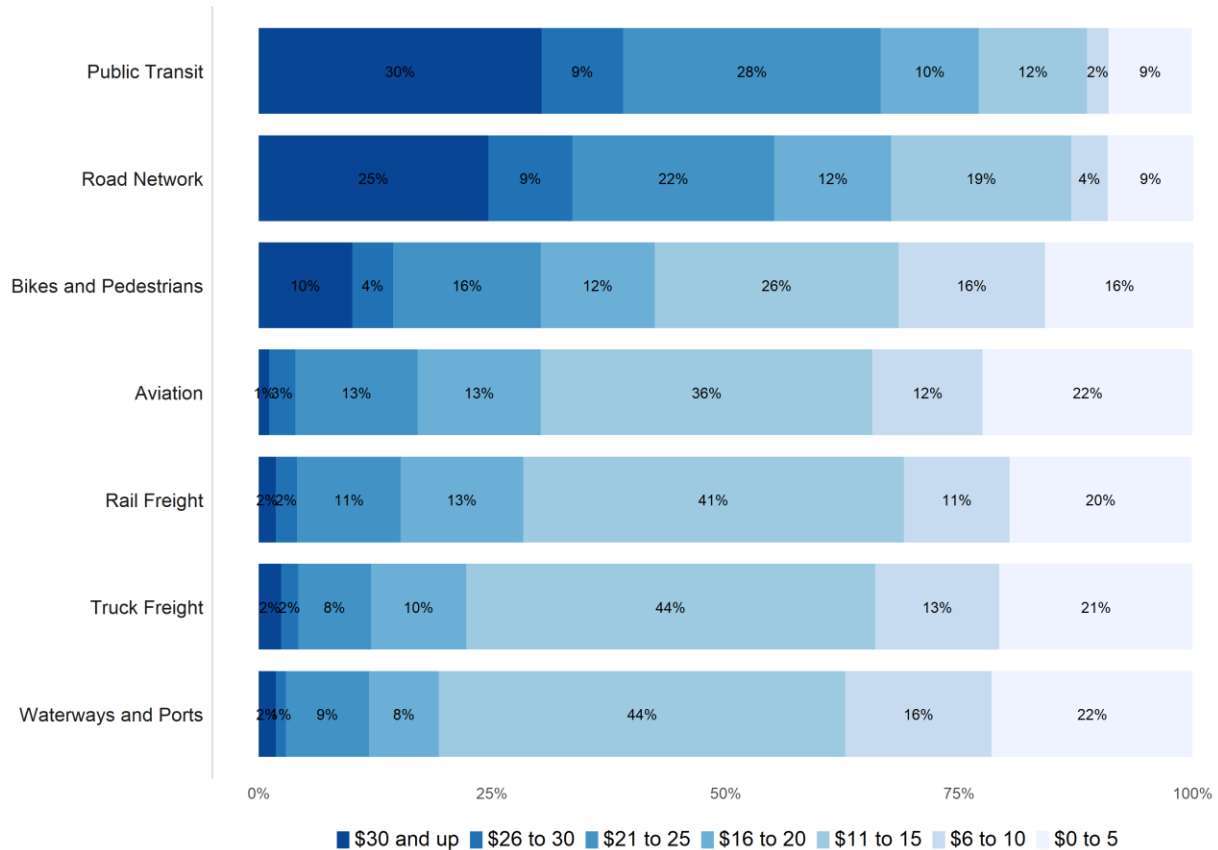
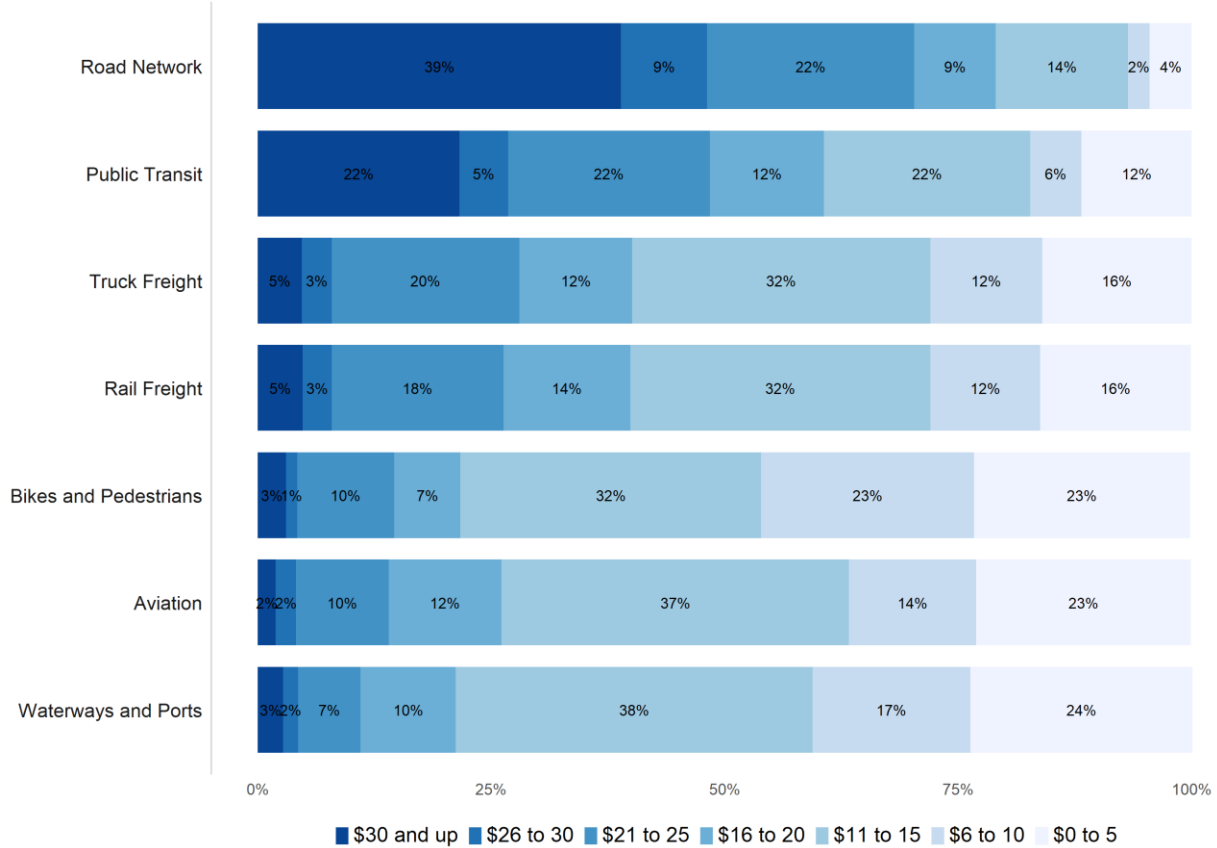


Figure 14 shows the distribution of \$100 for Outside Region 1 residents. With 39% giving \$30 or more, Outside Region 1 residents give the most to the mode Road Network far more frequently than other mode categories. Public Transit ranks second highest with 22% assigning more than \$30 of their \$100 to that mode. The remaining categories of Truck Freight, Rail Freight, Bikes and Pedestrians, Aviation, and Waterways and Ports all have less than 5% giving \$30 or more. It is notable that the last three categories, Bikes and Pedestrians, Aviation, and Waterways and Ports, have large percentages of residents (23% or more) assigning \$0 to \$5 of their \$100 allocation to them.

**Fig. 14: Transportation Modes Priorities for Illinois Residents living outside of IDOT Region 1**

Given \$100, the average amount the public gives to each MODE based on perceived importance



### Summary

Within modes, the public prioritizes Road Network and Public Transit as most important. For Region 1, Public Transit is of higher priority, while for Outside Region 1, Road Network is a higher priority. Bikes and Pedestrians is the third highest priority for Region 1; however, for those classified as Outside Region 1, Bikes and Pedestrians is a low priority and instead Truck Freight and Rail Freight were of next highest priority.

There are statistically significant differences between the two regions in how they prioritized Road Network, Public Transit, Bikes and Pedestrians, Rail Freight, and Truck Freight.

## Section 3: Public Prioritization of Transportation Ideas

---

This section presents findings from the pairwise comparisons completed by the representative YouGov sample.<sup>21</sup> As discussed in more detail in the Methodology section, pairwise comparison is a process by which survey takers choose among two different ideas or a third, “I can’t decide,” option. In this survey, Illinois residents responded to the question: “Which idea do you think is more important for transportation in Illinois?” (Figure 15) Each of the 1,000 residents completed up to 15 randomly selected pairwise comparisons, which led to 13,370 total matches included in the analysis.<sup>22</sup> The resulting data from these head-to-head match-ups will provide IDOT with unique insights about the transportation ideas and priorities of Illinois residents.

**Fig. 15: Questionnaire snapshot. Users who select “I can’t decide” see the follow-up question “Please tell us why you can’t decide”**

Which idea do you think is more important for transportation in Illinois?

Use the application of roundabouts where possible	Support data-driven decision-making	I can't decide
---	-------------------------------------	----------------

Please tell us why you can't decide:

I like both ideas
I don't like either idea
I don't know enough about one or both ideas
Other

---

<sup>21</sup> Note: this pairwise comparison wiki survey was based on the *All Our Ideas* format, but was hosted on the Qualtrics online survey platform.

<sup>22</sup> Of 15,000 possible pairwise comparisons: 1,000 were excluded because they were part of the data quality check (see footnote 20 on page 17 for more information); 553 were excluded as “I don’t know enough about one or both ideas” responses; 77 were excluded as “other” responses or skips; 12,404 were included as a win or a loss; and 966 were included as a tie (“I don’t like either idea” or “I like both ideas” responses).

Each idea included in the Phase 2 pairwise comparisons was ranked based on its performance. IPCE ranked the ideas using an Elo rating, rather than a pure winning percentage, because Elo takes into account the strength of an opponent and it allows for the incorporation of ties (in addition to wins and losses) and survey weights.<sup>23</sup> The three tables below show the top 10 highest-rated ideas statewide and within each region. Among these top-performing ideas, there was a relatively even distribution between user-submitted and IDOT seed ideas, with Illinois and Region 1 both having five user-submitted ideas in the top 10 and Outside Region 1 having four. Table 2 depicts the results for the entire sample of Illinois residents. The Final Score is the likelihood the idea will beat a randomly chosen idea.

## All Illinois Resident Idea Prioritization

**Table 2**

<b>Top 10 Ideas - All Illinois Residents</b>	<b>Rank</b>	<b>Final Score</b>	<b>Public Idea?</b>
Increase road repairs that are in desperate need of repair now before creating new highway accesses	1	85	Yes
Invest in streets that enable safe and comfortable travel for users of all abilities and for all modes of transportation	2	84.6	No
Increase the standards that roads are built with to ensure they last	3	83.1	Yes
Invest in long-term material solutions - not patching and short-term asphalt	4	79.2	Yes
Reduce overall costs by performing maintenance before improvements are in critical need of repair	5	78.8	No
Better distribute projects throughout the state to maximize benefits to all regions	6	73.4	No
Reduce vehicle damage due to deteriorated infrastructure	7	73	No
Match transit mode to ridership demand, with all modes on the table including priority bus and light rail	8	72.8	Yes
Invest in construction of major transit improvements	9	72.1	No
Create more visionary long-term plan for transportation assets for all modes and works to ensure Illinois regains its place as USA's crossroad	10	70.9	Yes

The first four ideas of the top 10 ideas, as ranked by the panel representative of All Illinois residents, are explicitly related to road networks. Additionally, Illinois residents express a strong desire for investment in repairs and maintenance. Half of the top 10 ideas explicitly request more spending on repairs, particularly related to roads, as well as investing in long-lasting materials before infrastructure deteriorates. The top three user-submitted ideas, ranked first, third, and fourth, all call for road repairs and investment. Support for large public transit

<sup>23</sup> For more on the Elo calculations in this study, please see Appendix III. Much of the work using Elo ratings in this study is based on: Langville, Amy N. and Meyer, Carl D., "Who's #1: The Science of Rating and Ranking," *Princeton University Press*, Dec. 2013.



investments is also evident in the top 10 ideas, with one highly-rated transit idea submitted by residents (seventh) and one by IDOT (ninth).

## Resident Idea Prioritization by Regions

IPCE also compared the ten highest-scoring ideas in each region, which are represented in Table 3 (Region 1) and Table 4 (Outside Region 1) below.

**Table 3**

<b>Top 10 Ideas - Region 1</b>	<b>Rank</b>	<b>Final Score</b>	<b>Public Idea?</b>
Increase the standards that roads are built with to ensure they last	1	87.2	Yes
Invest in streets that enable safe and comfortable travel for users of all abilities and for all modes of transportation	2	86	No
Increase road repairs that are in desperate need of repair now before creating new highway accesses	3	83.3	Yes
Invest in long-term material solutions - not patching and short-term asphalt	4	82.2	Yes
Reduce overall costs by performing maintenance before improvements are in critical need of repair	5	78.5	No
Match transit mode to ridership demand, with all modes on the table including priority bus and light rail	6	74.8	Yes
Plan to quickly alleviate traffic jams due to crashes/fatalities/construction	7	74.7	Yes
Ensure all schools areas are safe for pedestrians and cyclists	8	71.9	No
Provide transit service or increased transit services in areas where viable demand exists	9	71.9	No
Identify rail freight bottlenecks and prioritize rail improvement for reducing highway freight traffic and improving passenger rail	10	70.1	Yes

**Table 4**

<b>Top 10 Ideas – Outside Region 1</b>	<b>Rank</b>	<b>Final Score</b>	<b>Public Idea?</b>
Increase road repairs that are in desperate need of repair now before creating new highway accesses	1	88	Yes
Better distribute projects throughout the state to maximize benefits to all regions	2	81.8	No
Invest in streets that enable safe and comfortable travel for users of all abilities and for all modes of transportation	3	80.8	No
Reduce overall costs by performing maintenance before improvements are in critical need of repair	4	76.4	No
Increase the standards that roads are built with to ensure they last	5	76	Yes
Invest in construction of major transit improvements	6	75.3	No
Improve capacity and promote congestion relief on road and rail networks	7	74.3	No
Reduce vehicle damage due to deteriorated infrastructure	8	74	No

Create more visionary long-term plan for transportation assets for all modes and works to ensure Illinois regains its place as USA's crossroad	9	73.8	Yes
Be holistic in thinking about repairs and improvements. Savings can be made if all departments work together and are updated on initiatives	10	73.5	Yes

Exploring the differences between the relative performance of ideas in different regions will enable IDOT to glean insights related to how populations in the different regions of Illinois prioritize transportation issues differently. Some observations include:

“Increase road repairs that are in desperate need of repair now before creating new highway accesses” was the top performing idea among all residents in Illinois. It ranked third in Region 1 and first in Outside Region 1. This aligns with broader results, as the top five ideas in both regions and throughout Illinois were all related to roads and/or repairs and maintenance.

“Better distribute projects throughout the state to maximize benefits to all regions” was an IDOT seed idea that was ranked second among residents outside of the Chicago region. It was so popular among these residents that it was ranked sixth for All Illinois residents, despite it placing 17<sup>th</sup> among Region 1 residents.

Interestingly, public transit appeared explicitly for the first time in the sixth highest-ranked idea for the residents of both Region 1 and Outside Region 1. This is perhaps indicative of the value that the majority of Region 1 residents still place on cars, driving and roads, despite the Chicago region’s robust public transit network.

### ***Differences in Idea Rankings by Region***

Beyond examining the top ten performing ideas in each region, IPCE ranked every idea by Elo score in Region 1 and Outside Region 1. It then compared the rankings, took the absolute value of the difference and sorted them by largest rank difference. Table 5 lists the 20 ideas with the largest difference in ranking irrespective of which region ranked each idea higher.

**Table 5\***

<b>Top Ideas by Difference in Rank between Regions</b>	<b>Absolute RANK Difference</b>	<b>Region 1 RANK</b>	<b>Outside Region 1 RANK</b>	<b>Public Idea?</b>
Enhance IDOT's ability to advocate for sound transportation policy and funding	93	114	21	No
Improve road safety by making roads more freight-friendly	77	107	30	No
Improve highway access for rural populations	63	83	20	No
Charge trucks a toll on all expressways if they operate during AM and PM peak hours as a way to reduce congestion	54	60	114	Yes
Make sure new or improved roads don't interfere with residents' way of life	52	67	15	Yes
Support sustainable practices in the delivery of public transportation	49	72	23	No

Safety for cyclists and pedestrians where there are gaps in local networks and/or dangerous conditions	47	33	80	Yes
Make IDOT data publicly available and easy to share	46	75	29	No
Prioritize multiuse trails for walking and biking for transportation and recreation across the state	46	63	109	Yes
Identify gaps in transit service	45	20	65	No
Expand funding for mass transit in Chicago and other urban areas. It's by far the most efficient, cost-effective, and sustainable mode	45	24	69	Yes
Increase rail service access for low-income, elderly, and special needs groups	43	12	55	No
Minimize roadway freight by supporting more waterway and rail freight	42	82	40	Yes
Do more to get high-speed rail built	41	58	99	Yes
Increase rail safety	39	112	73	No
Invest in construction of major rail improvements	39	55	94	No
Enhance connections from public transit to the bike, car, and ride-sharing network	38	28	66	No
Improve transit user experience	38	29	67	No
Improve efficiencies between service providers	37	40	77	No
Plan to quickly alleviate traffic jams due to crashes/fatalities/construction	36	7	43	Yes

\*The ideas highlighted in orange indicate that residents from outside Region 1 ranked the idea HIGHER than Region 1.

The three ideas with the greatest disparity are all IDOT seed ideas that residents outside of Region 1 rank much more highly than Region 1 residents. Based on this metric, residents living outside of Region 1 are more concerned with issues related to rural highways, roadway freight, safety, and “IDOT’s ability to advocate for sound transportation policy and funding,” which was the idea with the greatest disparity in ranks. Seventy-five percent of the ideas that Outside Region 1 residents value more highly than Region 1 are IDOT seed ideas rather than user-submitted ideas.

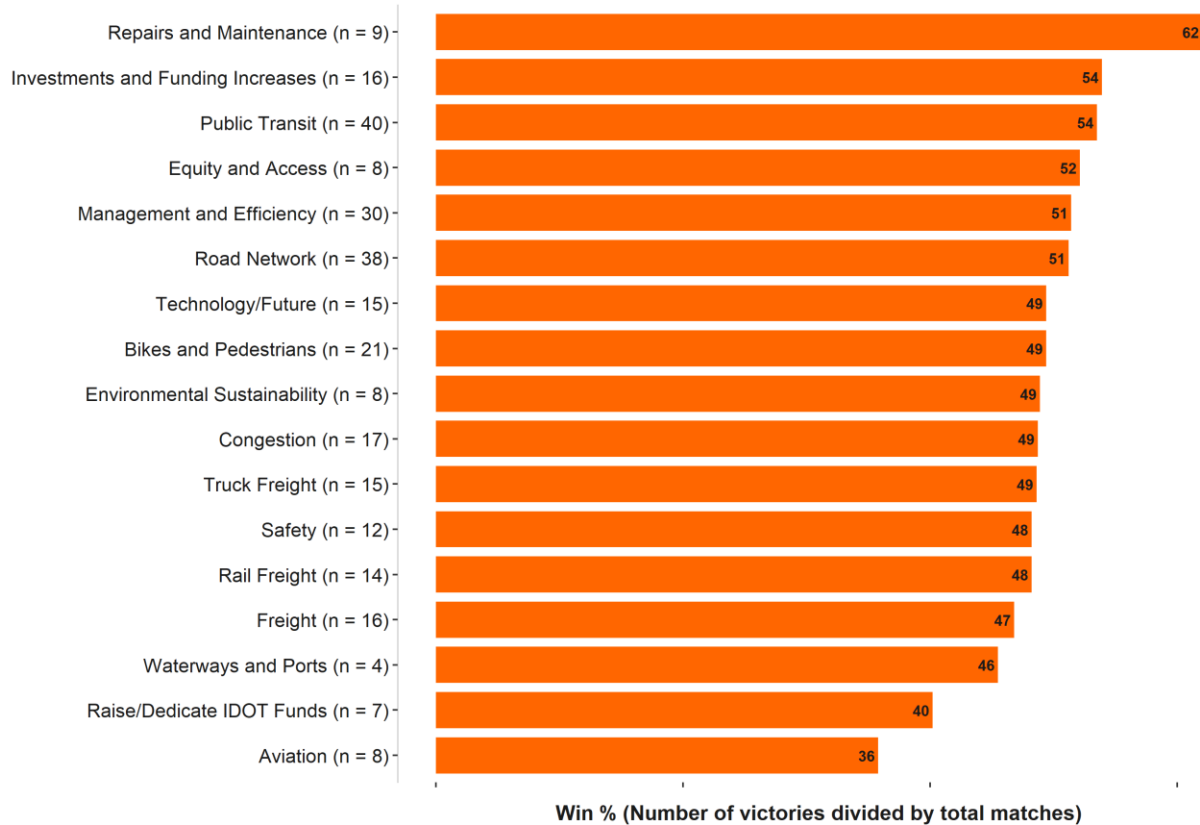
By contrast, 50% of the ideas that are more highly-prioritized by Region 1 residents were submitted by users during Phase 1 of this project. Though only one of the ideas in this category mentions freight, it is also the idea with the highest disparity in favor of Region 1. Interestingly, it mentions tolls and reducing congestion in the context of freight, which the residents outside of Region 1 do not address. Most of the ideas that Region 1 residents are more likely to prioritize compared to Outside Region 1 residents are related to public transit (buses, trains and rail) and bikes and pedestrians. Finally, Region 1 expressed a strong desire for more rapid alleviation of traffic jams; that idea ranked sixth but was less popular outside of Region 1 (43<sup>rd</sup>).

## Priorities Based on Ideas Categorization

In addition to grouping ideas by IDOT’s predetermined categories, IPCE also utilized qualitative data analysis software (QDA Miner) to classify ideas into thematic categories. IPCE used two groups of categories to perform data analysis: the modes group as defined by IDOT and an IPCE created group similar to IDOT’s goals, but more comprehensive and inclusive of residents’ contributed responses. The winning percentage of each category was then calculated and the results for All Illinois residents are listed below in Figure 16.

**Fig. 16: The Types of Transportation Ideas Illinois Residents Think are Important**

Percent of the time ideas in different categories win. For example, 'Repairs and Maintenance' won 62% of the time. The 'n' refers to the number of ideas included in the category

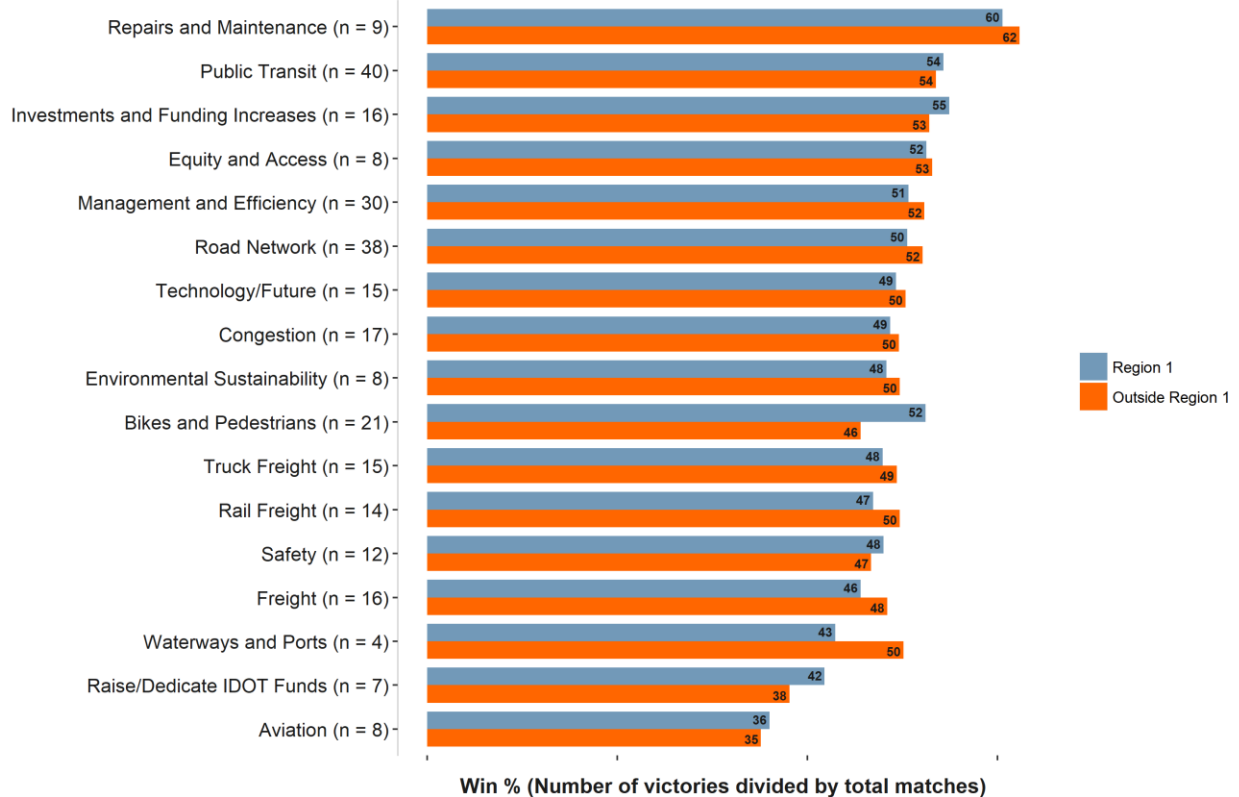


Repairs and Maintenance (62%), though a relatively small category, dramatically outperforms all other categories by this metric. Especially notable is the fact that the top category and the second-place category are separated by eight percentile points, while the following 14 categories have a range of eight percent (46% - 54%). Conversely, Aviation-related ideas (36%) has the lowest winning percentage of any category. Ideas about Public Transit (54%) are slightly more likely to win as compared to Road Network (51%) ideas, which conflicts with the results of the budget allocation exercise, where Illinois residents allocate more money to the Road Network than to Public Transit. Though the Investments and Funding Increase category has the

second-highest winning percentage, indicating strong levels of support from the public for increased transportation spending, the category with the second lowest winning percentage was Raise/Dedicate IDOT funds. These results are perhaps contradictory, but also not surprising, as the public both recognizes the need for increased infrastructure investment and demands this of public officials but does not approve of increased taxes to fund such spending.

**Fig. 17: The Types of Transportation Ideas Illinois Residents Think are Most Important by Region**

Percent of the time ideas in different categories win, by IDOT Region. For example, 'Waterways and Ports' ideas won 50% of the time for residents living outside of IDOT Region 1. The 'n' refers to the number of ideas included in the category



IPCE also ran these calculations for each region as depicted above in Figure 17. The most notable regional differences in the winning percentages of these categories are related to Bikes and Pedestrians, as well as Freight-related categories. The Bikes and Pedestrians category is six percent more likely to win for Region 1 residents than for residents living outside of Region 1. Conversely, Freight-related ideas perform better outside of Region 1 with Waterways and Ports seven percent more likely to win in other regions and Truck Freight, Rail Freight, and Freight all performing moderately worse in Region 1, too.

Finally, IPCE examined the ideas that received the greatest number of “I don’t know” votes. The ten ideas that were involved in pairwise comparisons for which respondents clicked on the “I don't know enough about one or both ideas” button are listed below in Table 6.

**Table 6**

<b>Top Ten Ideas for which “I Don’t Know” was chosen most often</b>	<b>Don’t Know</b>	<b>Final Score</b>	<b>Public Idea?</b>
Implement a Transportation Demand Management Program (TDM)	24	38.3	Yes
Support Illinois business by improving access to ports and waterways	22	32.2	No
Increase transparency in project selection	21	40.1	No
Enhance IDOT's ability to advocate for sound transportation policy and funding	20	49.8	No
Leverage aviation infrastructure for economic development	19	32.5	No
Design with physical disabilities in mind	18	50.2	No
Reduce freight congestion	18	42.4	No
Support data-driven decision-making	18	34.1	No
Involve citizens in determining where freight traffic is allowed	17	37	Yes
With the Federal Performance Measures requirements, provide sufficient resources for data collection/management for decision-making	17	36.2	Yes

Notably, though the first idea was submitted by the public, the next 7 ideas with the most “I don’t know” votes were IDOT seed ideas. In addition to being the hardest ideas to understand, these ideas also performed poorly overall.

## Summary

Road Networks and Repairs and Maintenance are mentioned most frequently in the top 10 highest-ranked ideas for all statewide residents, as well as residents from both regions independently. This is true for both IDOT seed ideas and ideas submitted by the public. Regarding ideas with the greatest disparity in rankings between the regions, Outside Region 1 residents are more likely to prioritize issues related to Rural Highways, Roadway Freight, Safety, and “IDOT’s ability to advocate for sound transportation policy and funding,” which is the idea with the greatest disparity in ranks. Region 1 residents, on the other hand, are more likely to be concerned with issues related to Public Transit (buses, trains and rail) and Bikes and Pedestrians.

Finally, in this section, IPCE used qualitative data analysis software to create thematic categories in two groups: IDOT’s modes and an IPCE-created group similar to IDOT’s goals, but more comprehensive and inclusive of residents’ contributed responses. Using this metric, Repairs and Maintenance is the category with the highest win percentage by a substantial margin. The following categories also had win percentages over 50%: Investments and Funding Increases, Public Transit, Equity and Access, Management and Efficiency, and Road Network. These IPCE-created categories perform similarly both in Region 1 and Outside Region 1 other than Bikes and Pedestrians, which is more favored by Region 1 residents and Freight-related categories, which are more favored by Outside Region 1 residents.

## Conclusion

---

As noted in the introduction to this report, IDOT has devoted institutional attention and resources towards improving its public outreach processes. This study serves as a continuation of those efforts and builds on the suggestions outlined in the 2016 *Recommendations to Enhance Quality Engagement* report that IPCE and UTC prepared for IDOT in 2016. In particular, this IPCE engagement process was commissioned to bolster IDOT's efforts to address Recommendation #8 in that report, "Use Technology to Enhance and Complement Outreach."<sup>24</sup>

At IDOT's request, IPCE sought to provide data for the following research questions:

1. To what extent does the public prioritize the transportation goals put forth in the LRTP?
2. To what extent does the public prioritize the transportation modes included in the LRTP?
3. What specific ideas does the public feel are most important for transportation in Illinois?

IPCE utilized an innovative web platform (*All Our Ideas*) to maximize the amount and quality of feedback that IDOT could generate from an online survey of Illinois' residents. The online survey was structured in two phases and IPCE partnered with YouGov on Phase 2 to create statistically-representative groups of 500 Illinois residents each in two geographic areas of the state: IDOT Region 1 and Outside Region 1. The unique strength of this multi-phased process was its ability to capture high quality ideas from the public and statistically representative public priorities – it was both open and representative.

Upon completion of the data collection process, Illinois residents had provided IDOT with substantial amount of data that reflect the transportation priorities of the residents of Illinois (both statewide and for Region 1 and Outside Region 1). The wealth of high-quality, representative data presented in this report allows IDOT to examine Illinois residents' responses in the budget simulation exercises, to compare regional differences among Illinois residents' transportation ideas and priorities, and to incorporate the public's feedback into the 2017 LRTP.

Beyond the LRTP planning process, this new methodology for obtaining high quality and representative from Illinois residents also has exciting potential applications for future IDOT public outreach efforts, both at the statewide and the local level. For example, IPCE removed ideas related to specific locations and projects in order to make each idea applicable to all IL residents. On the local level, however, those insightful, publicly-submitted ideas would not only be allowed, but encouraged. Furthermore, IDOT could partner with municipalities, counties and Metropolitan Planning Organizations (MPOs) to conduct regionally-specific, pairwise

---

<sup>24</sup> See: <https://utc.uic.edu/eight-recommendations-proposed-to-guide-idot-to-engage-in-more-effective-public-engagement-practices-news-story/>

comparison wiki surveys to generate fresh ideas and local priorities about upcoming projects, discretionary transportation spending, and long-term planning efforts.

Finally, this type of public outreach process provides an opportunity to broaden IDOT's reach and engagement with many different populations throughout the state. As one publicly-submitted idea noted, public transportation hearings can occasionally be dominated by the loudest voices in the room, yet those voices don't necessarily speak for all residents in the state. IDOT's continued experimentation and implementation of new outreach methods will enable the department to improve its ongoing engagement with Illinois residents, while elevating the voices and perspectives of residents whose opinions and priorities can be difficult to accurately ascertain through traditional IDOT outreach methods.





IDOT's Long Range Plan must address the following goals.

We want to know how important you think these transportation goals are for Illinois.

**Q1:** Imagine you have \$100 to spend on these goals. Please write in the amount you would give to each goal to show how important you think it is. You can give as much or as little as you'd like to each.  
**(NOTE: Values must add up to 100)**

\$ \_\_\_\_ Economic Growth: Improve Illinois economy by providing transportation infrastructure that allows for the efficient movement of people and goods.

\$ \_\_\_\_ Livability: Enhance quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options and preserve the environment.

\$ \_\_\_\_ Access: Support all modes of transportation to improve accessibility and safety by improving connections between all modes of transportation.

\$ \_\_\_\_ Resilience: Ensure Illinois' infrastructure is prepared to withstand and sustain hazards and extreme weather events.

\$ \_\_\_\_ Stewardship: Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois transportation system.

\$ \_\_\_\_ Safety: Ensure the highest standards in safety across the state transportation system

---

IDOT's Long Range Plan must address the following modes of transportation.

We want to know how important you think these modes of transportation are for Illinois.

**Q2:** Imagine you have \$100 to spend on these modes of transportation. Please write in the amount you would give to each mode to show how important you think it is. You can give as much or as little as you'd like to each. **(Note: Values must add up to 100)**

\$ \_\_\_\_ Aviation

\$ \_\_\_\_ Bicycle and Pedestrian

\$ \_\_\_\_ Truck Freight

\$ \_\_\_\_ Rail Freight

\$ \_\_\_\_ Public Transit (Trains and Busses)

\$ \_\_\_\_ Road Network

\$ \_\_\_\_ Waterways and Ports

---

**Q3:** How informed, if at all, do you feel about IDOT projects (road repairs, construction) in your area?

Very informed

Somewhat informed

Not very informed

Not at all informed

For the next 15 questions, you will be asked to respond to the same question:

*Which idea do you think is more important for transportation in Illinois?*

You will be presented with two ideas at a time. Though these ideas may seem unrelated, we ask that you choose the idea that you think is most important for transportation in Illinois. If you cannot decide, choose the option 'I can't decide.'

Note that some of the ideas were created by IDOT staff and some of them were created by the public. May the best ideas win!

**Q4 – Q18<sup>25</sup>:**

Which idea do you think is more important for transportation in Illinois?

- [Randomly chosen idea]
- [Another randomly chosen idea]
- I can't decide

[Please tell us why you can't decide:

- I like both ideas
- I don't like either idea
- I don't know enough about one or both ideas
- Other]

Thank you for taking part in this survey!

For more information about IDOT's Long Range Transportation Plan, visit [bit.ly/2hB9akR](http://bit.ly/2hB9akR)

---

<sup>25</sup> Except for Q8 (the fifth pairwise comparison), which was a data quality check. For this question, the left response option was a randomly selected idea, the right idea option stated "Please select this response to show that you are reading through all response options in this survey," and the final option was the 'I can't decide option' that appeared in all pairwise comparisons.

## APPENDIX II: List of All Idea Rankings

Table 7

Idea	Final Score ALL	Final Score REGION 1	Final Score OUTSIDE REGION 1	Public Idea?
Increase road repairs that are in desperate need of repair now before creating new highway accesses	85	83.3	88	YES
Invest in streets that enable safe and comfortable travel for users of all abilities and for all modes of transportation	84.6	86	80.8	NO
Increase the standards that roads are built with to ensure they last	83.1	87.2	76	YES
Invest in long-term material solutions - not patching and short-term asphalt	79.2	82.2	72.6	YES
Reduce overall costs by performing maintenance before improvements are in critical need of repair	78.8	78.5	76.4	NO
Better distribute projects throughout the state to maximize benefits to all regions	73.4	66	81.8	NO
Reduce vehicle damage due to deteriorated infrastructure	73	69.7	74	NO
Match transit mode to ridership demand, with all modes on the table including priority bus and light rail	72.8	74.8	69.7	YES
Invest in construction of major transit improvements	72.1	68.1	75.3	NO
Create more visionary long-term plan for transportation assets for all modes and works to ensure Illinois regains its place as USA's crossroad	70.9	68.6	73.8	YES
Be holistic in thinking about repairs and improvements. Savings can be made if all departments work together and are updated on initiatives	70.5	68.8	73.5	YES
Improve capacity and promote congestion relief on road and rail networks	69.5	66.5	74.3	NO
Ensure all schools areas are safe for pedestrians and cyclists	69.2	71.9	57.2	NO
Plan to quickly alleviate traffic jams due to crashes/fatalities/construction	68.8	74.7	56.8	YES
Provide transit service or increased transit services in areas where viable demand exists	68.5	71.9	64.4	NO
Identify rail freight bottlenecks and prioritize rail improvement for reducing highway freight traffic and improving passenger rail	66.8	70.1	61.9	YES
Help the state and municipalities secure funds for public transit	65.8	65.5	67.9	NO
Develop projects that support the goals of the state, surrounding community, and users	64.5	63.3	65.9	NO
Support freight transportation projects that create growth and employment opportunities in all regions throughout the state	64.2	65.5	60.4	NO
Improve access to essential destinations such as hospitals and employment centers	64	61.6	70.3	NO
Use construction applications that reduces impacts on the environment	63.4	63	63	YES
Better coordinate with regional transit agencies to improve statewide transportation connections	63.1	55.9	70.1	NO
Increase rail service access for low-income, elderly, and special needs groups	61.7	69.2	52.1	NO
Invest in new traffic and transit technologies	61.6	57.3	66.3	NO
Prepare transportation network for more severe weather conditions	60.9	58.2	62.7	NO
Invest in transportation alternatives for low-income/rural areas	60.6	56.4	68.9	NO
Be consistent in ways that respect both pedestrian and vehicles	60.6	62.2	53.5	YES
Incorporate road improvements for multi-modal transportation in regularly scheduled projects	60.6	57	60.2	YES
Make sure new or improved roads don't interfere with residents' way of life	59.8	50.3	69.5	YES

Idea	Final Score ALL	Final Score REGION 1	Final Score OUTSIDE REGION 1	Public Idea?
Prioritize designs and investments that attract more people to take transit instead of driving	59.5	61.8	61.4	YES
Improve reliability, convenience, and efficiency of rail transportation	59.3	58.7	59.3	NO
Expand mass transit along all interstate corridors	59.3	57.4	62.7	YES
Help local governments re-design roads dangerous for walking and biking	58.9	65.1	52.1	YES
Better coordinate with other state transportation departments to efficiently move freight and passenger trains	58.8	55.3	63	NO
State routes that have railroad crossings should have either an overpass or viaduct constructed if feasible	58.6	60.7	54.9	YES
Leverage technology to improve transportation	58.4	57	56.6	NO
Identify gaps in transit service	58	65.3	49.8	NO
Encourage freight traffic to use designated truck routes	57.8	61.1	59.3	YES
Improve coordination and connectivity between transportation service providers	57.7	55.4	59.1	NO
Improve intercity rail passenger service and expand to new markets	57.2	56.9	53.9	YES
Implement best practices to improve return on transit investments	56.9	60	52.9	NO
Build active, ground-level support for transit among residents, businesses, and local leaders	56.8	53.3	61.4	NO
Reduce freight shipments on roads by improving freight connections to rail, water, and air	56.8	53.3	59.3	NO
Increase transit and intercity rail funding	56.8	58.8	53.8	YES
Emphasize environmental sustainability in construction and network expansion	56.5	56.9	54.3	NO
Support highway investment	56.4	52	58.3	NO
Public involvement should consider that the people with the loudest voices don't represent the majority and shouldn't derail projects	56.4	56.6	51.6	YES
Make IDOT data publicly available and easy to share	56.1	47.3	61.7	NO
Expand funding for mass transit in Chicago and other urban areas. It's by far the most efficient, cost-effective, and sustainable mode	55.8	62.4	49.1	YES
Improve transit user experience	55.4	61.5	49.5	NO
Enhance connections from public transit to the bike, car, and ride-sharing network	55.1	61.5	49.5	NO
Emphasize environmental sustainability in design and planning of projects	54.6	49.5	57.2	NO
Replace aging traffic signals with modern equipment	54.3	55.5	54.1	YES
Support sustainable practices in the delivery of public transportation	53.9	48.6	63.1	NO
Design to increase the flow of people and decrease the flow of cars: more commerce, less congestion	53.8	58	52.8	YES
Safety for cyclists and pedestrians where there are gaps in local networks and/or dangerous conditions	53.3	59.5	47.3	YES
Improve efficiencies between service providers	52	57	47.4	NO
Improve highway access for rural populations	52	44.7	65.2	NO
Pass a state budget that includes a more sustainable revenue source for transportation – i.e. update the gas tax	51.9	51	50.2	YES
Reduce congestion by investing in other modes of transportation such as bikes and transit	51.3	54.6	47.9	NO
Price the monetary benefit of reduced roadway congestion provided by transit and increase funding to transit agencies by that amount	51.1	50.6	52	YES

Idea	Final Score ALL	Final Score REGION 1	Final Score OUTSIDE REGION 1	Public Idea?
Continue to expand pedestrian and/or bicycle facilities near urban areas to allow multiple user types within public right-of-ways	51	56	50.9	YES
Improve road safety by making roads more freight-friendly	50.7	36.8	61.6	NO
Design with physical disabilities in mind	50.2	48.9	48.9	NO
Use more environmentally friendly practices in right of way management	50.2	55.1	47.4	YES
Improve ability to identify locations that are least safe for pedestrians and cyclists	50.1	54.8	46.9	NO
Minimize roadway freight by supporting more waterway and rail freight	50	44.9	58	YES
Enhance IDOT's ability to advocate for sound transportation policy and funding	49.8	34.4	64.9	NO
Create an app allowing drivers to notify IDOT of needed road repairs	49.6	46.4	53.6	YES
Explore better bike/transit/pedestrian trip counting to help prioritize transportation dollars	48.8	50.8	42.8	YES
Use newer methods of ice removal such as road heating	48.4	45.7	50.1	YES
Invest in construction of major rail improvements	48.3	54.1	42.1	NO
Prevent pedestrian fatalities by improving rail safety	48.1	42.8	52.7	NO
Businesses that bring us all the traffic should be required to pay a good portion of road repairs	48.1	49.1	46.3	YES
Support the development of residential units near transit and rail stations	48	48.2	44.5	NO
Ensure there are adequate airport services provided to the state's largest population and employment centers	47.8	51.4	42.5	NO
Increase funding for transit	47.7	49.1	45.4	YES
Promote the use of new technologies for ride sharing to reduce traffic during peak hours	47.6	53.3	47.4	YES
Improve department efficiency, particularly for minor permits and local agencies	47.5	48.3	45.2	YES
Add acceleration and deceleration lanes for future intersection improvements	47.1	42.3	51.3	YES
Continue work to make inter-city bus stations (Megabus, Greyhound, Trailways, etc) co-located at intermodal rail stations	46.6	46.5	49	YES
Charge trucks a toll on all expressways if they operate during AM and PM peak hours as a way to reduce congestion	46.3	52.3	36	YES
Build a dedicated high-speed rail corridor not using existing rail infrastructure	45.7	45.3	47.6	YES
Articulate strategies for future priorities based on technologies, market, industry, and societal trends - not on dated infrastructure/modes	45.6	42.9	50.4	YES
Ensure airports are respectful of wildlife and surrounding environment	45.5	47.1	38.9	NO
Prioritize multiuse trails for walking and biking for transportation and recreation across the state	44.7	51.3	37	YES
Work with surrounding states to sponsor new passenger rail routes	44.5	41.4	50.4	YES
Improve ability of businesses to connect freight shipments between transportation modes (such as rail to waterways)	44.4	41.4	47.6	NO
The highest ridership transit corridors should have dedicated lanes and signal priority	44.3	42.9	49.4	YES
Adopt pedestrian enhancements	43.5	44.7	38.2	YES
Do more to get high-speed rail built	43.5	53.3	38.8	YES
Increase safety for freight transportation	42.9	39.1	47.7	NO
Increase speed limits on rural interstates to improve traffic flow	42.9	44.7	44.2	YES
Minimize roadway freight	42.6	40.2	46.5	YES

Idea	Final Score ALL	Final Score REGION 1	Final Score OUTSIDE REGION 1	Public Idea?
Reduce freight congestion	42.4	39.4	46.8	NO
Make first and last mile easy for people of all abilities	42.2	42.5	45.5	YES
Increase safety for cyclists	42	44.4	38.4	NO
Give local government more design control over roads owned by IDOT	41.3	34.8	44.7	YES
Increase transparency in project selection	40.1	46.9	36.4	NO
Increase rail safety	40	35.4	47.8	NO
Establish rail environmental sustainability programs	39.4	39.5	41.9	NO
Implement a usage tax (miles driven) in lieu of gas tax, so all users (hybrid & electric) contribute to road improvements	39.3	42.8	38.6	YES
Find ways to encourage drivers to drive during non-peak hours	39.2	41	37.1	YES
Improve pedestrian crossing signage and enforcement	39.1	37.1	35.3	YES
Implement a Transportation Demand Management Program (TDM)	38.3	40.5	36.1	YES
Support improvements to rural roads for better bicycle safety/friendliness	37.5	36.3	33.3	YES
Utilize taxes collected on aviation fuel sales to fund a dedicated State/Local Airport Improvement Program	37.5	38.1	38.4	YES
Involve citizens in determining where freight traffic is allowed	37	37.9	34.1	YES
Fund sidewalk and trail development	37	38	37.2	YES
With the Federal Performance Measures requirements, provide sufficient resources for data collection/management for decision-making	36.2	36.4	38.6	YES
Support freight transportation projects that have access to global markets	35.6	34	36.8	NO
Involve stakeholders in transportation planning processes	35.5	32.4	38.5	NO
Enhance airport compliance with state and federal standards	35.3	35.7	44.8	NO
Mark minimum speed limits by lane	35.2	30.5	40.4	YES
Increase aviation safety	34.5	37.8	31.8	NO
Support data-driven decision-making	34.1	32.2	40	NO
Install more electronic message boards statewide to communicate travel times to motorists	33	30.8	29.4	YES
Leverage aviation infrastructure for economic development	32.5	33.7	32	NO
Utilize green space to create pollinator gardens	32.4	36.3	34	YES
Support Illinois business by improving access to ports and waterways	32.2	29.8	38.1	NO
Identify and plan public-private partnership opportunities	31.8	27.8	35.3	NO
Adopt drones for infrastructure maintenance and traffic accident investigations to reduce time and costs	31.5	32.2	33.2	YES
Convert an existing lane to a priced lane to test demand before adding new lanes	31.4	41.1	23.9	YES
The amount of space devoted to parking should decline as a city becomes more dense and populous to encourage transit and reduce congestion	31.4	30.5	28.8	YES
Embrace and plan for the coming of autonomous vehicles	31.3	32.2	34.8	YES
Increase bike safety	30.3	29.3	30.4	NO
Support a connected, statewide bike network	29.4	34.2	25.3	NO
Use the application of roundabouts where possible	29.4	24.9	36.7	YES
Decrease regulatory burdens on freight movement	27.9	32.5	22	YES

<b>Idea</b>	<b>Final Score ALL</b>	<b>Final Score REGION 1</b>	<b>Final Score OUTSIDE REGION 1</b>	<b>Public Idea?</b>
Invest in airport improvements	27.8	27.1	26.7	NO
Improve airport access for rural populations	26.1	25	28.2	NO
Gather appropriate funding by raising the gas tax for all personal vehicle drivers on the road	24.2	33.7	17.1	YES
Increase no passing zones on rural state routes	21.1	22.8	21.7	YES
Support increased user fees for transportation	17.6	16.3	18	YES



### APPENDIX III: R Programming Package Citations

R Core Team (2017). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.

Milan Bouchet-Valat (2014). SnowballC: Snowball stemmers based on the C libstemmer UTF-8 library. R package version 0.5.1. <https://CRAN.R-project.org/package=SnowballC>

Adrian A. Dragulescu (2014). xlsx: Read, write, format Excel 2007 and Excel 97/2000/XP/2003 files. R package version 0.5.7. <https://CRAN.R-project.org/package=xlsx>

Ingo Feinerer and Kurt Hornik (2017). tm: Text Mining Package. R package version 0.7-1. <https://CRAN.R-project.org/package=tm>

T. Lumley (2016) "survey: analysis of complex survey samples". R package version 3.31-5.

Erich Neuwirth (2014). RColorBrewer: ColorBrewer Palettes. R package version 1.1-2. <https://CRAN.R-project.org/package=RColorBrewer>

Rinker, T. W. (2013). qdap: Quantitative Discourse Analysis Package. 2.2.5. University at Buffalo. Buffalo, New York. <http://github.com/trinker/qdap>

Christof Neumann & Lars Kulik (2014). EloRating: Animal Dominance Hierarchies by Elo Rating. R package version 0.43. <https://CRAN.R-project.org/package=EloRating>

Christof Neumann (2015). EloChoice: Preference Rating for Visual Stimuli Based on Elo Ratings. R package version 0.29. <https://CRAN.R-project.org/package=EloChoice>

Hadley Wickham and Evan Miller (2016). haven: Import and Export 'SPSS', 'Stata' and 'SAS' Files. R package version 1.0.0. <https://CRAN.R-project.org/package=haven>

Hadley Wickham (2007). Reshaping Data with the reshape Package. Journal of Statistical Software, 21(12), 1-20. URL <http://www.jstatsoft.org/v21/i12/>.

Hadley Wickham (2017). stringr: Simple, Consistent Wrappers for Common String Operations. R package version 1.2.0. <https://CRAN.R-project.org/package=stringr>

Hadley Wickham (2017). tidyverse: Easily Install and Load 'Tidyverse' Packages. R package version 1.1.1. <https://CRAN.R-project.org/package=tidyverse>

## APPENDIX IV: The Elo Rating Method

For this study, the Elo rating method ranks the 134 ideas included in the survey based on the set of 13,370 pairwise comparisons (matches) completed by the respondents. The Elo rating method was used because its formula includes a mechanism for incorporating ties and survey weights, and because the final scores take into account the strength of opponent, meaning that it "rewards a weaker player for defeating a stronger player to a greater degree than it rewards a stronger player for beating a weaker opponent."<sup>26</sup>

### The Elo Formula

$r(old)$  = current Elo score (before the match)

$K$  = a constant that affects how many points each player can win or loss at each match. A larger  $K$  means that more points may be won/lost.

$i$  = refers to idea  $i$ . So,  $r_i(old)$  = the current Elo score for idea  $i$

$j$  = refers to idea  $j$

$d_{ij}$  = the difference in Elo scores between  $i$  and  $j$ . So,  $d_{ij} = r_i(old) - r_j(old)$

$\mu_{ij}$  = the number of points that idea  $i$  is expected to score against idea  $j$ . This assumes that  $\mu_{ij}$  is a logistic function of the difference in ratings such that  $\mu_{ij} = 1 / (1 + 10^{-d_{ij}/400})$ . For example, if idea  $i$  has the current Elo score of 100 and idea  $j$  has the current Elo score of 20,  $\mu_{ij} = 1 / (1 + 10^{-80/400}) = .61$ . This means that idea  $i$  is expected to win .61 points, i.e. has a 61% chance of winning.

$S_{ij}$  = result of the match (1 =  $i$  beats  $j$ , .5 = tie, 0 =  $j$  beats  $i$ )

$r(new)$  = updated Elo score (after the match). For  $i$ ,  $r_i(new) = r_i(old) + K(S_{ij} - \mu_{ij})$ . For  $j$ ,  $r_j(new) = r_j(old) + K(S_{ji} - \mu_{ji})$ .

For example, if  $r_i(old) = 200$  and  $r_j(old) = 300$ ,  $S_{ij} = 1$  (meaning that idea  $i$  beats idea  $j$ ), and we set the  $K$  value to 40, then the new score for idea  $i$  is:

$$r_i(new) = r_i(old) + K(S_{ij} - \mu_{ij})$$

$$r_i(new) = 200 + 40(1 - (1 / (1 + 10^{100/400})))$$

$$r_i(new) = 200 + 40(1 - .36)$$

$$r_i(new) = 200 + 26$$

$$r_i(new) = 226$$

AND the new score for idea  $j$  is:

$$r_j(new) = r_j(old) + K(S_{ji} - \mu_{ji})$$

$$r_j(new) = 300 + 40(0 - (1 / (1 + 10^{-100/400})))$$

$$r_j(new) = 300 + 40(0 - .36)$$

$$r_j(new) = 300 - 26$$

$$r_j(new) = 274$$

---

<sup>26</sup> Langville, Amy N. and Meyer, Carl D., "Who's #1: The Science of Rating and Ranking," Princeton University Press, Dec. 2013, p. 55.

### Tuning the K value and incorporating weights

The K value used in this study is  $K = 40$ , which is the value that minimized squared error (which is the square of the difference between the predicted S and actual S).

A beneficial feature of the Elo method is that it has a “built-in mechanism for weighting”<sup>27</sup> via the K value. In order to incorporate the survey weights, the following adjustment was made to the Elo formula presented above:

$w$  = weight. This is the survey weight associated with the respondent for each match.

$$K = 40 * w$$

For example, if respondent  $z$  has a survey weight of 2.4, then all matches for this respondent have  $K_z = 40 * w_z = 40 * 2.4 = 96$ . Since the survey weights for all respondents average to 1, the K value averages to 40.

### Calculating the Final Elo Scores for each idea

The raw order of matches is chronological based on the time when each respondent responded to the survey. Unlike the use of Elo in other applications where time matters, in this case it does not, and in fact, cases where an idea happens to win or lose a high percentage of its final games are problematic as the idea’s ending score is likely not representative of its true strength. In order to address this issue, the order of matches was randomized 500 times, and the average final Elo score for each of the 500 tournaments was used to create the Final Score for each idea. To improve the accuracy of the scores, starting with tournament #2 the rolling average of final tournament scores was used as the starting score for each idea.

#### Tournament #1:

**Step 1:** The starting Elo scores for all 134 ideas are set to 0.

**Step 2:** Randomize the order of all 13,370 matches.

**Step 3:** Calculate updated Elo scores for all 134 ideas based on the results of the 13,370 matches.

**Step 4:** Record the final tournament Elo scores for all 134 ideas.

#### Tournaments #2 through #500:

**Step 1:** The starting Elo score for each of the 134 ideas is set to its current average final tournament Elo score. For example, if idea  $i$  has final tournament Elo scores of 132, 80, 120 and 62 for tournaments #1, 2, 3, and 4 (respectively), then its current average final tournament Elo

---

<sup>27</sup> Ibid, p. 150

score is  $(132 + 80 + 120 + 62) / 4 = 98.5$ . Accordingly, for tournament #5 idea i will have a starting Elo score of 98.5.

**Step 2:** Randomize the order of all 13,370 matches.

**Step 3:** Calculate updated Elo scores for all 134 ideas based on the results of the 13,370 matches.

**Step 4:** Record the final tournament Elo scores for all 134 ideas.

The Final Elo Score for each idea is its average final tournament Elo score for all 500 tournaments.

### **Converting the Final Elo Score to Final Score (it's win probability)**

As stated on the first page of this appendix,  $\mu_{ij}$  is the number of points that idea i is expected to score against idea j -- this assumes that  $\mu_{ij}$  is a logistic function of the difference in ratings such that  $\mu_{ij} = 1 / (1 + 10^{-d_{ij}/400})$ .

In order to convert Final Elo Scores for each idea into a more interpretable measure of strength, for each idea we take the average number of points that the idea is expected to win against all other ideas, based on all of the other ideas' Final Elo Score. This gives us the average win probability for each idea against all other ideas.

For example, let's say we have 5 ideas i, j, k, l, and m – and we want to calculate the average win probability for idea i against the other 4 ideas, and we have the following Final Elo Scores for each idea:

$$r_i(\text{final}) = 230$$

$$r_j(\text{final}) = 100$$

$$r_k(\text{final}) = 30$$

$$r_l(\text{final}) = -20$$

$$r_m(\text{final}) = 400$$

First, we calculate the expected number of points idea i will win in each matchup:

$$\mu_{ij} = 1 / (1 + 10^{-130/400}) = .68$$

$$\mu_{ik} = 1 / (1 + 10^{-200/400}) = .76$$

$$\mu_{il} = 1 / (1 + 10^{-250/400}) = .81$$

$$\mu_{im} = 1 / (1 + 10^{170/400}) = .27$$

Then, we average these to get the average win probability against these four ideas:

$$(.68 + .76 + .81 + .27) / 4 = .63$$

## Appendix V: Criteria for Excluding Publicly-Submitted Ideas in Phase 1

Exclusion Criteria Definitions	Number of Exclusions
Entry is a comment rather than an idea for improving transportation	108
Scope of idea is too narrow or specific, meaning that not all IL residents can evaluate it	60
Idea contains information that would compromise user privacy	1
Idea suggests action outside of IDOT's authority	2
Idea was rewritten and resubmitted to account for faulty grammar or the inclusion of two separate ideas	8
Idea contained offensive content	1
Idea is a repeat of previous entry by same user	1
Idea is imprecise or otherwise incomprehensible	3
Idea is a repeat of previous entry	32

**Appendix VI: Outcome Rate Information for Phase 2 provided by YouGov**

**Table of AAPOR Outcome Rates**

	<b>Counties</b>	<b>Rest of State</b>
<b>Interview (Category 1)</b>		
Complete	741	599
Partial	106	103
<b>Eligible, non-interview (Category 2)</b>		
Refusal	0	0
<b>Unknown eligibility, non-interview (Category 3)</b>		
No answer	1671	1069
<b>Not eligible (Category 4)</b>		
Out of sample – other strata than originally coded	456	162
<b>Total email addresses used</b>	<b>2974</b>	<b>1933</b>
I=Complete Interviews (1.1)	741	599
P=Partial Interviews (1.2)	106	103
R=Refusal and breakoff (2.1)	0	0
NC=Non Contact (2.2)	0	0
O=Other (2.0, 2.3)	0	0
Estimate of e is based on proportion of eligible households among all numbers for which a definitive determination of status was obtained (a very conservative estimate). This will be used if you do not enter a different estimate in line 62.	0.650	0.813
UH=Unknown household (3.1)	1671	1069
UO=Unknown other (3.2, 3.9)	0	0
<b>Response Rate 1</b>		
$I/(I+P) + (R+NC+O) + (UH+UO)$	0.294	0.338
<b>Response Rate 2</b>		
$(I+P)/(I+P) + (R+NC+O) + (UH+UO)$	0.336	0.396
<b>Response Rate 3</b>		
$I/((I+P) + (R+NC+O) + e(UH+UO))$	0.383	0.381
<b>Response Rate 4</b>		
$(I+P)/((I+P) + (R+NC+O) + e(UH+UO))$	0.438	0.447

Cooperation Rate 1 $I/(I+P)+R+O)$	0.875	0.853
Cooperation Rate 2 $(I+P)/((I+P)+R+O))$	1.000	1.000
Cooperation Rate 3 $I/((I+P)+R)$	0.875	0.853
Cooperation Rate 4 $(I+P)/((I+P)+R)$	1.000	1.000
Refusal Rate 1 $R/((I+P)+(R+NC+O) + UH + UO))$	0.000	0.000
Refusal Rate 2 $R/((I+P)+(R+NC+O) + e(UH + UO))$	0.000	0.000
Refusal Rate 3 $R/((I+P)+(R+NC+O))$	0.000	0.000
Contact Rate 1 $(I+P)+R+O / (I+P)+R+O+NC+ (UH + UO)$	0.336	0.396
Contact Rate 2 $(I+P)+R+O / (I+P)+R+O+NC + e(UH+UO)$	0.438	0.447
Contact Rate 3 $(I+P)+R+O / (I+P)+R+O+NC$	1.000	1.000

ILLINOIS DEPARTMENT  
OF TRANSPORTATION

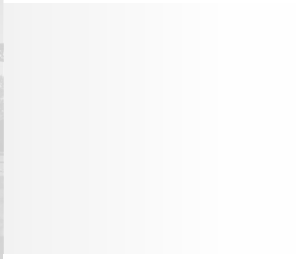


LONG RANGE  
TRANSPORTATION PLAN

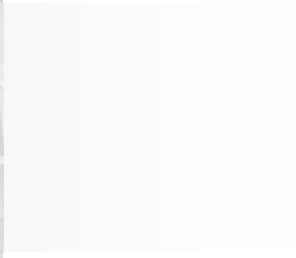


## ATTACHMENT 1.2

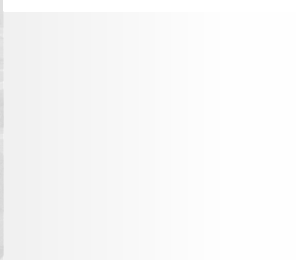
MPO Outreach Presentation



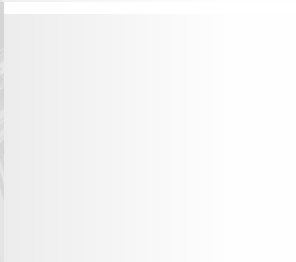
A



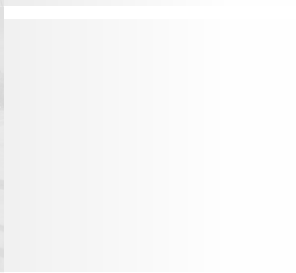
B



C



D



E



ILLINOIS DEPARTMENT  
OF TRANSPORTATION



LONG RANGE  
TRANSPORTATION PLAN



# Overview

- ❑ Why does Illinois need a Statewide Plan?
- ❑ *2012 State Plan: Transforming Transportation*  
*For Tomorrow 2017 Plan Update*
- ❑ Performance Measures
- ❑ Modal Strategies
- ❑ Outreach
- ❑ Next Steps

# Why does the state need a Long Range Transportation Plan (LRTP)?

“We want our Long Range Transportation Plan to drive how we operate as an agency and how we are making investment decisions. By working together with members of the public and our industry partners, we are confident we can develop a solid vision for how we are going to invest in transportation in Illinois over the next 10 to 20 years.”

-Illinois Transportation Secretary Randy Blankenhorn

## Federal Requirements

- ❑ 23 USC 135(f) and 49 USC 5304(f)
- ❑ 23 CFR 450.210

## State Requirements

- ❑ Public Act 097-0032

ILLINOIS DEPARTMENT  
OF TRANSPORTATION



LONG RANGE  
TRANSPORTATION PLAN



# 2012 *Transforming Transportation for Tomorrow*

- ❑ IDOT considered eight policy factors in development of the 2012 Plan
- ❑ 184 action items were established, examples include:
  - Establish a statewide advisory committee for freight
  - Develop a Climate Change Adaptation Plan
- ❑ 135 are complete or in process as of today
- ❑ The 2017 Plan Update will continue to build on these action items with updated objectives & strategies

# 2017 LRTP Goals

- **Economic Growth:** Improve Illinois' economy by providing transportation infrastructure that allow for the efficient movement of people and goods.
- **Livability:** Enhance quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options and preserve the environment.
- **Access:** Support all modes of transportation to improve accessibility and safety by improving connections between all modes of transportation.
- **Resilience:** Proactively plan and invest in the state's transportation system to ensure that our infrastructure is prepared for extreme weather events.
- **Stewardship:** Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system.
- **Safety:** Ensure the highest standards in safety across the state's transportation system.

# Making Progress...

- Measuring LRTP Implementation
- Project Selection
- Federally Required Performance Management

# Measuring LRTP Implementation

Sample objective:

Goal	Mode	Objective	Strategy	Implementer(s)	Proposed Measure	Data
Livability	Highways	Ensure highway projects achieve local goals	When developing the purpose and need of a project, consult the goals of the State, surrounding community, and fiscal realities	IDOT - project development	Increase in project accomplishment, decrease in environmental impacts, reduced congestion, decrease in incidents and incident severity	# of projects accomplished, environmental impacts, traffic flow, incident data

# Project Prioritization

IDOT utilized a Performance Based Project Selection Process to evaluate and help prioritize major expansion projects within the FY2018-2023 Proposed Highway Improvement Program.

The measures developed based on the LRTP goals:

- ❑ Traffic Operations/Congestion
- ❑ Safety, Economic Development
- ❑ Accessibility/Multimodalism
- ❑ Livability/ Environmental Impacts
- ❑ Regional Ranking





# Federal Performance Measures

## National Goals

- ❑ **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- ❑ **Infrastructure Condition** - To maintain the highway infrastructure asset system in a state of good repair
- ❑ **Congestion Reduction** - To achieve a significant reduction in congestion on the National Highway System
- ❑ **System Reliability** - To improve the efficiency of the surface transportation system
- ❑ **Freight Movement and Economic Vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- ❑ **Environmental Sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- ❑ **Reduced Project Delivery Delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

[[23USC §150\(b\)](#)]

ILLINOIS DEPARTMENT  
OF TRANSPORTATION



LONG RANGE  
TRANSPORTATION PLAN

# Coordinated Plans



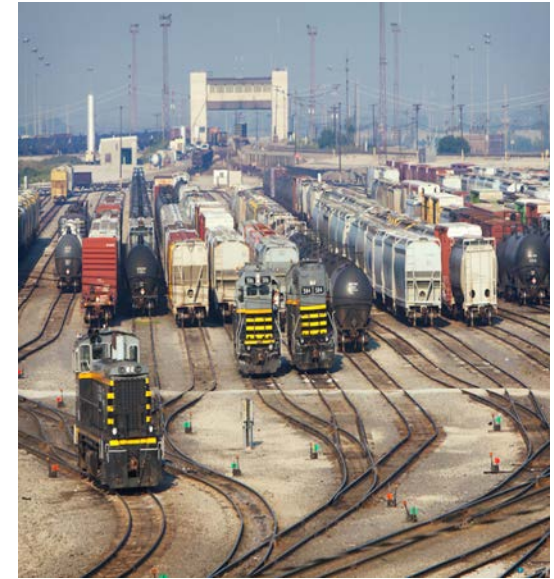
ILLINOIS DEPARTMENT  
OF TRANSPORTATION



LONG RANGE  
TRANSPORTATION PLAN

# Freight Plan

- ❑ The FAST Act provides freight formula funds to states with an FHWA approved freight plan
- ❑ The Freight Plan will:
  - Identify trends, needs, bottlenecks, goals, and performance measures, and develop strategies for improving freight movement in Illinois.
  - Projects slated to use these funds, and how we are identifying & measuring projects.
  - This plan will contribute to the national freight goals established under the FAST Act and align with the goals of the 2017 LRTP.
  - Designate Illinois critical urban & rural freight corridors with input from the MPOs
- ❑ Slated for release in November 2017



# Rail Plan

- ❑ The Illinois State Rail Plan will present a vision for the role of passenger rail and freight services in Illinois and illustrate what these services will look like in the future
- ❑ The Rail Plan will:
  - Present existing and future passenger and freight rail services, conditions, and needs in Illinois
  - provide a framework to implement rail initiatives in Illinois and guide future rail investments
- ❑ The Rail Plan will be included in the December LRTP



# Asset Management Plan

- ❑ Federal transportation requires all states to develop an Asset Management Plan .
  
- ❑ The Plan will include:
  - Description and condition of pavements and bridges on the National Highway System
  - Asset Management objectives and measures
  - Summary of gaps between targeted and actual performance
  - Life-cycle cost and risk management analysis
  - Financial plan that addresses performance gaps
  - Investment strategies and anticipated performance
  
- ❑ Interim Transportation Asset Management Plan is due on April 30<sup>th</sup> 2018, with the final plan slated for FHWA review on or before June 30<sup>th</sup> 2019.



# Transit Plan

- ❑ Bolster the competitiveness of our urbanized areas
- ❑ Improve mobility and access for all Illinoisans
- ❑ Maximize coordination of public transportation resources
- ❑ Result in the achievement of concrete deliverables like the provision of GTFS feeds for every fixed-route system in Illinois, new geospatial analysis tools, and performance and management tools that can be used to pursue Plan goals into perpetuity



# Outreach

- ❑ Outreach for the LRTP started in the summer of 2015 with communication amongst key internal and external stakeholders.
- ❑ In the summer of 2016, IDOT produced a Draft Goals survey and promoted the survey through social media and at the 2016 Illinois State Fair. This survey was available online and received over 700 responses were received.
- ❑ In early 2017, IDOT enlisted the help of UIC to conduct 2 rounds of outreach pertaining to objectives for the goals.
  - February, saw the release of the interactive outreach site [AllOurIdeas.org/IDOTideas](http://AllOurIdeas.org/IDOTideas). We received 541 visitors, provided 36,353 votes on individual objectives.
  - May, IDOT solicited feedback on budgeting prioritization six goals, continued refinement of the objectives
  - June/July MPO Presentations, Transport Chicago
  - July IDOT will hold 3 stakeholder workshops:
    - Chicago
    - Springfield
    - Metro East



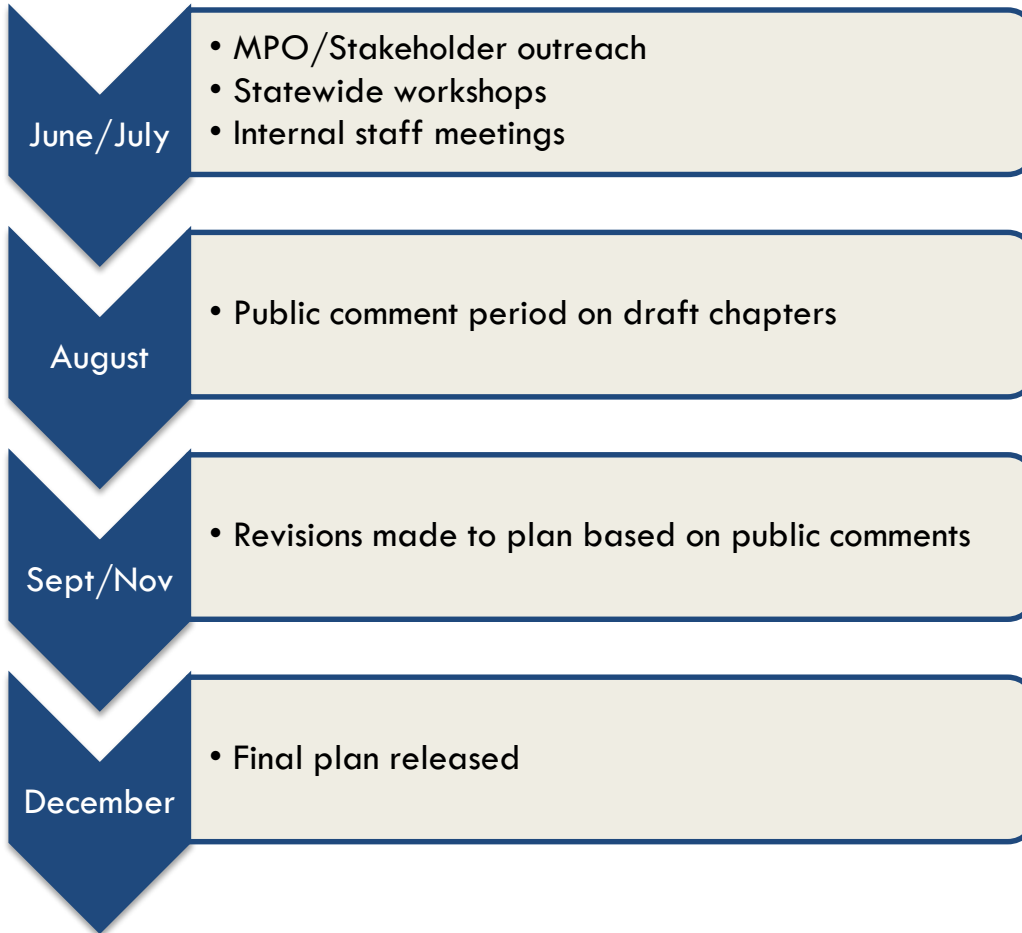
# Current Status

- Working with consultant to draft Chapters:
  - System Update
  - Integrate Modal Plans
  - Identify Priorities
  - Financial Plan
  - Appendixes & detailed research, requirements





# Next Steps



# Questions?

Updates on the IDOT LRTP can be found at:  
**[goo.gl/5DITzf](https://goo.gl/5DITzf)**

Specific questions about the plan can be  
emailed directly to  
[Christopher.Schmidt@illinois.gov](mailto:Christopher.Schmidt@illinois.gov)

**Connect with us!**



Subscribe to **IDOT in Motion** for IDOT news  
and announcements at **[idot.illinois.gov](http://idot.illinois.gov)**.

ILLINOIS DEPARTMENT  
OF TRANSPORTATION



LONG RANGE  
TRANSPORTATION PLAN



## ATTACHMENT 1.3

MPO Outreach Matrix

		A
		B
		C
		D
		E

L RTP Outreach Schedule for MPOs 2017

\*Please make sure that you provide 1 meeting per MPO in either June or July. Please try and not double book for we have limited staff. If there is an issue with this please contact Chris Schmidt

Name of MPO	MPO Contact Person & Email	Date of Meeting	Time of Meeting	Metro Manager for MPO	Questions	Attendees
		6/1/2017	10:30am			Doug Staske, Vermillion County Highway Robert Nelson, IDOT District 5 Chris Milliken, City of Danville Lisa Beith, Danville Mass Transit Amy Brown, CRIS Mike Potter, Vermillion Regional Airport Jim Wilson, Newell Township Shelley Darnell, Village of Catlin Tom Caldwell, IDOT Chris Schmidt, IDOT
DATS	David Schnelle/dschnelle@cityofdanville.org			Chris Schmidt	No Questions	
		6/7/2017	11:00am			Mr. David Blalock, Bootheel Regional Planning & Economic Development Commission (Bootheel RPC) Mr. Rodney Bollinger, City of Jackson Mr. Drew Christian, Southeast Missouri Regional Planning & Economic Commission Mr. Cary Harbison, Southeast Missouri Regional Port Authority (SEMO Port) (alternate for Mandi Brink) Mr. Joe Killian, Missouri Department of Transportation (MoDOT) Mr. Alex McElroy, City of Cape Girardeau Mr. John Mehner, Cape Girardeau Area MAGNET Mr. Larry Payne, Cape Girardeau Area Chamber of Commerce Transportation Committee Mr. Kirk Sandfort, Southeast Missouri State University (SEMO University) (alternate for Beth Glaus) Ms. Kelley Watson, Cape Girardeau County Transit Authority (CTA) Ms. Elquin Auala, Missouri Department of Transportation (MoDOT) Mr. Curtis Jones, Illinois Department of Transportation (IDOT) Mr. Brian Okenflus, Missouri Department of Transportation (MoDOT) Ms. Betsy Tracy, Federal Highway Administration (FHWA) (via teleconference) Ms. Eva Voss, Missouri Department of Transportation (MoDOT) (via teleconference) Mr. Ryan Shrimplin, City of Cape Girardeau Ms. Kelly Green, KLG Engineering
SEMPO	Ryan Shrimplin <rshrimplin@CityofCapeGirardeau.org>			C. Jones	No Questions	
		7/13/2017	12:00 PM			
DMATS	Chandra Ravada/ Cravada@ecia.org			Doug DeLille	No Questions	Buol, Timmerman, Hecimovic*, DeLille, Connors, Rios, Barklow*, Klein, Lynch, Nagle*, Deutmeyer* *serving as proxy
DUATS	Joselyn Stewart/JStewart@decaturil.gov	6/13/2017	10:30am	Tom Caldwell	Asked about when the Freight Plan will be coming out. Tom gave them Jim's Contact info	Scanned Copy Attached
		6/14/2017	10:30am		Where can I find progress status information for the 2012 IDOT LRTP? Are there objectives for each of the IDOT goals/modes?	Amy Snyder Rob Kowalski Chris Sokolowski Libby Tyler Lorrie Pearson Craig Shonkwiler Betsy Tracy (via conference call) Tom Caldwell Brian Trygg
CUUATS	Rita Black/rmorocoi@co.champaign.il.us			Tom Caldwell	Lengthy question I recommended sending to Chris Schmidt.	
		6/16/2017	9:30am		Ms. Becker asked if the bicycle/pedestrian plan will be integrated into the long range plan and Ms. Aleman replied it will be integrated as well. Mr. Zuchero complimented the survey and requested that the feedback be shared with the committee. Ms. Aleman agreed to send the feedback to staff for distribution to the committee.	Jennifer Killen – Cook County, Chair, Jennifer Becker – Kendall County, Gabrielle Biciansas – NIRPC, Darwin Burkhart – IEPA (via phone), Brian Carlson – IDOT District 1, Michael Connelly – CTA, John Donovan – FHWA, Doug Ferguson – CMAP, Jackie Forbes – Kane County, Tony Greep – FTA, Jessica Hector-Hsu – RTA, Emily Karry – Lake County, Tom Kelso – IDOT Central Office, David Kralik – Metro, Christina Kugowski – Will County, Mayor Leon Rockingham – Council of Mayors, Dave Seglin – CDOT, Lorraine Snorden – Pace, Chris Snyder – DuPage County, Audrey Wennink – MPC, Rocco Zucchero – Illinois Tollway, Daniel Aguirre, Mike Albin, Erin Aleman, Garland Armstrong, Heather Armstrong, Ryan Bigbie, Susan Borucki, Len Cannata, Kevin Carrier, Sherry Chen, Bruce Christensen, Jackie Forbes, Mike Klemens, Barbara Klipp, Dennis Latto, Ashley Lucas, Leah Mooney, Brian Pigeon, Chad Riddle, Adam Rod, David Spacek, Anthony Vega, Mike Walczak, Alex Beata, Anthony Cefali, Teri Dixon, Kama Dobbs, Jesse Elam, Augusta Gudeman, Kelvin Harris, Lindsay Hollander, Leroy Kios, Tom Kotarac, Tim McMahon, Martini Menninger, Ross Patronskey, Kevin Peralta, Russell Pietrowski, Allison Porton, Liz Schuh, Gordon Smith, Joe Szabo, Yiyuan Wang, Barbara Zubeck
CMAP	Teri Dixon/TDixon@cmajllinois.gov			Erin Aleman		IDOT x Jim Ardis, City of Peoria x Terrisa Worsfold,* IDOT x Leon Ricca, Bartonville x Tom O'Neill, Peoria County x Bob Lawless,* Bartonville x Stephen Morris, Peoria County x James Dillon, West Peoria x Greg Sinn, Tazewell County x Kinga Krider,* West Peoria x Mike Harris, Tazewell County x Jeff Kauffman, Village of Morton x Greg Niemold*, Tazewell County x Ginger Herman,* Village of Morton x Doug Huser, Woodford Co. x Matt Fick Peoria Heights x Donald White, Chillicothe x Kyle Smith,* Peoria Heights x John McCabe, City of Pekin x Fred Lang, Creve Coeur x Dave Mingus, City of E. Peoria x Terry Keegel* Creve Coeur x
Tri-County PRC	Eric Miller/emiller@tricityprc.org		9:00am	Chris Schmidt	No Questions	
		6/23/2017	10:30am			
MCRPC	Jennifer Sicks/JSicks@mcplan.org			Tom Caldwell	No Questions	Scanned Copy Attached



L RTP Outreach Schedule for MPOs 2017

	<p>7/27/2017 1:15PM</p>	<p>How were decisions of MYP projects made prior to the Performance Based Project Selection tool? How much will the L RTP address the Great Lakes Basin Railroad project?</p>	<p>Major Mike Chamberlain, City of Belvidere Chairman Frank Haney, Winnebago County Mr. Ken Terrinoni, Boone County Mr. Todd Cagnoni, City of Rockford Mr. Tim Savage, Village of Machesney Park Mr. Dan Jacobson, City of Loves Park Mr. Steve Ernst, RMTD Ms. Kris Tobin, IDOT District #2 Michael P. Dunn, Jr. Christina Washington Jon Paul Dipla Anna Ma, Ben Rohr, Sydney Turner Colin Belle Ivy Hood, RMAP Doug DeLille, IDOT Planning &amp; Programming; Don Massier Jim Haldee Jack Armstrong Glenn Trommels WinGIS Policy Board</p>
<p>RMAP</p>	<p>Jon Paul Dipla/ JonPaul.Dipla@rockfordil.gov</p>	<p>Doug DeLille</p>	<p>Policy Committee Members Present (7): Adams, Luebke [10:23 AM], McKearn, Jencius, Reininger, Vanderwerff, Koprowski  Policy Committee Members Absent (3): Marchek, Sweeney, Anclam  Technical Committee Members Present (9): Flesch, McKearn, Boysen, Coopman, Reininger, Hecox, Vanderwerff, Koprowski, Pennington  Technical Committee Members Absent (6): Gavin, Long, Rock Co. Planning, Barber, Bomkamp, Dornbush Non-Voting Members Present (2): Forlenza, Turner Others present: Patricia Diduch (Rockton Planning), Patty Hansberry (RSVP), Lee &amp; Lynda Johnson (Citizens), Dan Williams, (NLI), Gordon Neese (Citizen), Rick Barder (Citizen), T.J. Nee (SLATS/City of Beloit), Jason Dupuis (City of Beloit)</p>
<p>SLATS</p>	<p>T.J. Nee/ NeeT@beloitwi.gov</p>	<p>Doug DeLille</p>	<p>What is the state's position/involvement in the Great Lakes Basin Railroad project?</p>

ILLINOIS DEPARTMENT  
OF TRANSPORTATION

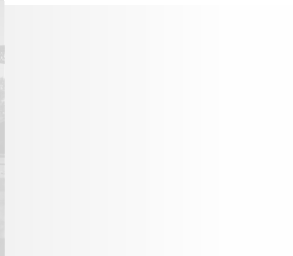


LONG RANGE  
TRANSPORTATION PLAN

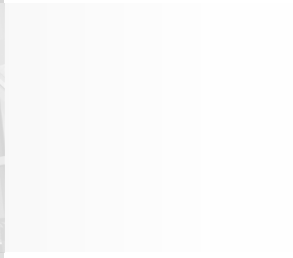


## ATTACHMENT 1.4

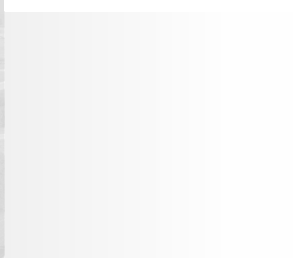
Conversation Café Attendance Sheets



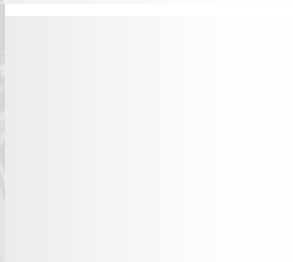
A



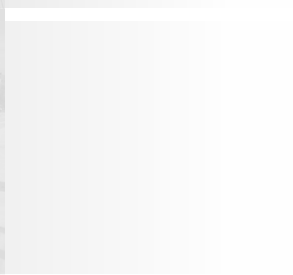
B



C



D



E





## CONVERSATION CAFÉ SIGN-IN SHEET

Meeting Date: July 21<sup>st</sup> 2017

Place/Room: CMAP Cook County Room

Name	Company/Organization	E-Mail
Tiana Brazzale	Ray Graham Assoc.	tianab@raygraham.org
Daniel Payette	BHRC	<del>daniel</del> daniel.payette@blackhankhills.com
Geoff Olson	Kankakee MPO	golson@k3count.net
Christina Kupkowsk	WCDOT	ckupkowski@willcountyil.nois.com
Kristen Andersen	Metra	kandersen@metra.r.com
Sis Killen	Cook County	jennifer.killen@cookcountyil.gov
Tomohiko Music	Cook County	tomohiko.music@cookcountyil.gov
Kelwin Harris	CMAP	kharris@cmapp.illinois.gov
Wei Luo	CMAP	wluo@cmapp.illinois.gov
Jane Grover	CMAP	jjgrover@cmapp.illinois.gov
Jamy Lyne	WSP	jamy.lyne@wsp.com
Stacy Meyers	Openlands	smeyers@openlands.org
JAMIE SIMONE	IDOT	JAMIE.SIMONE@ILLINOIS.GOV
David Phillips	TransSystems	dphillips@transystems.com
P. S. SRIRAJ	UIC	sriraj@uic.edu
Russell Flincham	IDOT	russell.flincham@illinois.gov
Henry Guemico	Tollway	hguemico@getipass.com
Andrey Wennink	MPC	awennink@metroplanning.org



## CONVERSATION CAFÉ SIGN-IN SHEET

Meeting Date: July 31<sup>st</sup> 2017

Place/Room: District \* - Collinsville, IL

Name	Company/Organization	E-Mail
Kent Ahrenholtz	KEG	kahrenholtz@kaskaskiaeng.com
Randy George	JCrew Co	rgeorgene@stclaircovehwy.com
Andrew Parker	Tran Systems	arparker@transystems.com
MOLLY BARLETTA	KEG	mbarletta@kaskaskiaeng.com
James Leopold	BMG	James L e Barber Murphy Group.com
Dennis Kress	City of Collinsville	dkresse@collinsvilleil.org
Troy Turner	City of Collinsville	tturner@collinsvilleil.org
Mitch Bair	City of Collinsville	mbair@collinsvilleil.org
Josh Schaufelberger	So. Ill. Builders Assoc	indrel@siba-agc.org
Donna Richter	So. Ill. Builders Assoc	siba@siba-agc.org
John Miller	City of Collinsville	jmiller@collinsvilleil.org
Jim Moller	IDOT Local Roads	James.moller@illinois.gov
Kevin Jemison	IDOT - Programming	Kevin.jemison@illinois.gov
DAN SOMMER	IDOT BURS	Daniel.Sommer@ILLINOIS.GOV
JAMIE SIMONE	IDOT	JAMIE.SIMONE@ILLINOIS.GOV
Dave Clark	ESI Consultants	dclark@esiltl.com

ILLINOIS DEPARTMENT  
OF TRANSPORTATION

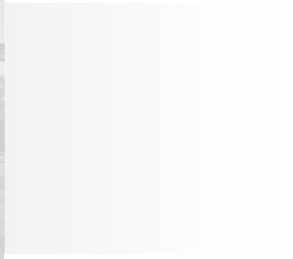


LONG RANGE  
TRANSPORTATION PLAN

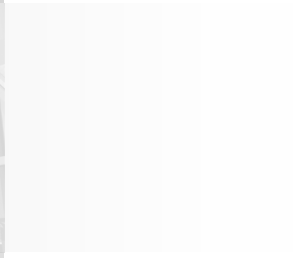


## ATTACHMENT 1.5

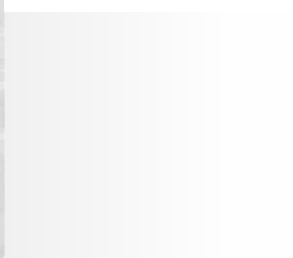
Conversation Café Final Report



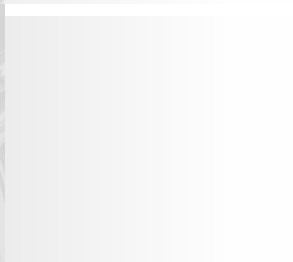
A



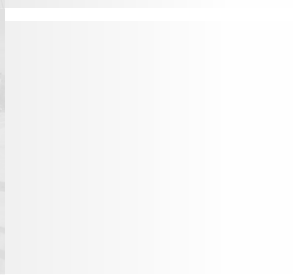
B



C



D



E

## Conversation Café Final Report

### Intro

In late July the Illinois Department of Transportation (IDOT) embarked on its latest round of public outreach to support the upcoming 2017 Long Range Transportation Plan (LRTP). Three conversation cafes were held across the state to help identify objectives, strategies, and in some cases measures for each of the 5 overarching goals. The conversation cafes were held in Springfield on Wednesday July 19th, Chicago on Friday July 21<sup>st</sup>, and Collinsville on Monday July 31<sup>st</sup>.

### Structure

For each location a list of transportation professionals and officials were invited to participate. The attendees were broken up into small groups and each group was presented with each goal separately for discussion. Each goal had two IDOT staff members assigned to help facilitate the group conversation. The attendees spent approximately 20 minutes with each goal. Within this 20 minute block the IDOT staff would define the goal, spur discussion on what the goal's objectives should be, the strategies associated with the given objective, and finally if time permitted - measures to help track the goals progress towards achieving said objectives. Ideas from the group were captured on a poster board and then later reviewed and typed up in greater detail by IDOT staff. The results provide a wide range of possible additions and subtractions to the draft objectives, strategies, and measures. Below you will find the results from the conversation café as written on the flip boards and then reviewed by the facilitators. Please note that some groups were not able to get to all the objectives.



### Results

**Economic Growth** - Improve Illinois' economy by providing transportation infrastructure that supports the efficient movement of people and goods.

*Objective #1- Encourage regional coordination in the identification of solutions to transportation problems to provide for efficient movement of goods, people, and services allowing for economic growth.*

Notes for Objective #1

## Conversation Café Final Report

### Objective

- Regional coordination should include interaction with MPOs, particularly coordination of STIPs/TIPS.
- Participants felt this objective is too broad; concentrate on areas where you want growth to happen. Ex., “Encourage coordination with Midwest MPO’s in the identification of solutions to transport problems to provide for efficient movement of goods, people, and services to enhance economic growth”
- Change the wording in Obj. #1 – instead of using “allowing for economic growth”, maybe use “to enhance economic growth” to make the statement more productive
- Participants also mentioned that IDOT should focus on areas that do not have transit systems
- Should be a stronger verb – instead of “allowing for economic growth”, use “ensure” or “enhance”.

### Strategy

- Coordination of all MPOs; particularly when a project involves a lineal corridor
- Assess/improve poor passenger rail routes in downtown Chicago and O’Hare areas
- Promote Complete Streets
- Focus on existing freight assets and utilize them to improve poor rail routes
- Establish better interaction/coordination between state/local agencies
- More dynamic message signs for regional movement.
- Establish economic growth grants

### Measure

- Number of coordination meetings with MPOs
- Passenger satisfaction – No other input from participants on PMs for Obj. 1

Objective #2 - Improve and increase connectivity and efficiency between modes and services to promote system usage and economic growth.

Objective #4 - Support projects that improve intermodal connectivity and coordination of services to enhance continuity and accommodate the efficient movement of people, goods, and services across all modes to address intermodal efficiency.

Notes for Objective #2 & #4

(In many cases the attendees thought that objective 2 and 4 were very much the same. Consequently, staff at the direction of the stakeholders combined objectives 2 and 4)

### Objective 2 & 4

- Obj. 2 - Issue was with the definition of “economic growth” and who will benefit from this growth – Is this all things freight? Ex., “Support rail freight projects that increase intermodal connectivity and efficiency between modes and coordinate services to promote rail freight system usage and economic growth”.

## Conversation Café Final Report

- Obj. 4 – Definition needs clarification –this objective is more intermodal specific. Is it just for Freight? Participants also asked “Who is benefitting from these policies”? State? Industry? Municipalities? Industry differential was also mentioned – how to balance the stakeholders to try to get a “buy-in” from different industries.
- Participants asked “What role does the private sector play? How do we balance economic growth”?
- Obj. 2 is more economic/freight related; Obj. 4 is more livability/quality of life related.

### Strategy 2 & 4

- Better communication with stakeholders
- Adding signage/notification and alternate routes/times (ex., lane signage such as arrows for accidents)

### Performance Measures

- Increase in number of investments; reliability of passenger services increased

Objective #3 - Support transit-oriented development land use and transportation planning connectivity.

Notes for Objective #3

### Objective 3

- Support TOD to ensure connectivity between land use and transportation planning. Participants asked how this objective would apply to smaller towns; make objective broader so that it would apply more to the entire state.
- Provide pedestrian, bicycle, and connecting transit access
- More MPO/local authority related than IDOT related and pertains more to transit than economic growth.

### Strategy

- Focus on development of a statewide guide (like PACE) to encourage development of TOD investments
- Develop hubs of transit development and prioritize pedestrian/bike infrastructure along IDOT transit corridors
- Ensure IDOT standards encourage Transit-Oriented Development

### Performance Measures

- Transit ridership figures
- On-Time Performance measurements
- Measure population/employment in TOD area.

## Conversation Café Final Report

Objective #5 - Support autonomous/connected freight vehicles.

Notes for Objective #5

### Objective 5

- Support small scale autonomous vehicle pilot projects for smaller sites (ex., logistics parks, parking lots)

### Overall Top 3 Takeaways

- Advanced communication for participants – Provide material before the meeting so participants will be aware of type of feedback we are requesting
- Break up meetings by organizations/agencies: one meeting for MPOs, one meeting for local governments, one for public, and one for IDOT District personnel.
- Provide more visual aids – PowerPoint and/or story boards to explain the LRTP process and their role in the process.

**Livability** - Enhance quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options and preserve the environment.

Objective #1 - Enhance the transportation experience through better traveler information; utilizing technology, where possible, to maximize efficiency of existing facilities and services.

### Objective #1

- Issue with lack of detail of state/local bidding process
- Communication with local authorities
- Move obj 1 to Access Goal
- Remove “Where possible” not necessary
- “Equitable” and “affordable” emphasis could be added as well as “efficiency” (to be maximized)
- Issue with lack of communication of local authorities (mentioned but may not be applicable to this objective)
- Technology improves traveler experience
- Add equitable
- Add efficiency and equity; Remove where

### Strategies

- Increase level of detail
- Active traffic management, dynamic message focus
- Vehicle – information integration
- New technology pilot testing, partner with private firms and develop technologies
- Increase level of detail in letters/communication such as list type of materials that will be used in improvements: oil and chip vs. HMA



## Conversation Café Final Report

- Increase dynamic messaging
- Active traffic management
- E-signage: Do not just mention a delay yet give multi-modal options and driving detours
- Interface partnership dynamic messaging
- Vehicular technology – navigational system and audible guide which sync to provide real-time multimodal and detour information “Crash ahead, consider train departing in X minutes X miles away off Exit X.”
- Be adaptable to future
- Fiber in place?
- Pilot testing of new technology
- Work towards legislation and funding

### Measure

- Measure with camera on freeway yet only shows one portion of their ride
- Leverage technology as a way to fund
- Develop a comprehensive survey
- RTA customer service survey allowing for comments
- App-based travel surveying (need statewide data)
- Custom satisfaction survey(s)
- Charge E.J. to “equity” definition unclear
- Increase or enhance equity
- Remove bare minimum etc.
- How well, how much congestion during construction and after improvement

Objective #2 - Enhance existing policies related to Environmental Justice so these activities occur early and often and go beyond meeting the bare minimum requirements.

### Objective #2

- EJ – Clarify meaning
- Federal objectives = goals? Is this what we need?
- Underserved pops instead of EJ
- Promote instead of enhance
- Remove “often”
- Promote existing
- Remove the word “often”
- Change environmental justice – equity
- Enhance ex. Policies to increase or enhance equity
- Remove “go beyond the bare minimum”
- If “going beyond” then identify in the goal

### Strategies

## Conversation Café Final Report

- Non-traditional outreach meetings
- Connect and collaborate with events already occurring and established – bus stops, set up table at community events
- Partner with respected liaison of trust within community
- Ensure projects are actually benefiting community and not just those in power
- Ensure long-term planning has goal of connectivity
- Shared use path outside Right of Way (ROW)
- Create standard so people know what to expect
- Get people involved
- Accessible utility information for more than just those involved in infrastructural changes – think of businesses – may want to do an improvement simultaneously
- Add equity performance measure as a part of project prioritization
- Engage community
- Decrease commutes times especially for low income; ease job access

### Measure

- Count number of meetings, events, people reached, attendees, repeat contacts, time before in efforts to contact early
- How much of the affected population in community was contacted through outreach; then increase their engagement

Objective #3 – Utilize a sustainable approach to transportation planning and engineering which promotes environmental stewardship and energy conservation.

### Objective #3

- Remove “sustainable” or place it after “environmental”
- Add “repeatable or reproducible” approach
- Investments seem to have equitable connections
- Multimodal aspects applicable to Access goal
- Add “experience”
- Replace environment, add “comfort, safety, services”
- Local connection
- Use “energy conservation” in strategy not necessarily
- Pay-as-you drive insurance plans
- Check with other states for best practices
- Environmental performance measures – optimal performance measures
- Emissions – vehicular miles traveled
- Include local input
- Multimodal implies modes should work well together (coordination)
- Emphasize number of people moving rather than single occupancy vehicles moved
- Being on cutting edge of new materials
- Amount of energy

## Conversation Café Final Report

- Assess carpooling and how to increase
- Integrate rural demand response systems
- Consider context sensitive solutions – Complete Streets in consideration of all users

### Strategies

- Communication with local communities?  
\* Informing local officials of funds, projects, opps
- EV charging station
- Merge projects – what you have done and what you are looking to do
- Use recyclable roadway materials, LED for aviation

### Measures

- Looking at transit ridership
- Look at benefits of zero car households
- How many people use more than 1 mode of transportation
- Prioritize “Road congestion” “should be assessed – increase mode options and increase capacity and shifting from road to rail
- See immediate reactions to congestion
- Develop different metrics for different regions throughout state with local engagement on necessary measure
- Ensuring integration
- Look at availability of longer mileage trips and increase of such
- Trip planning across modes which are user friendly and get users from door to door
- Long distance bus trips

**Access** - Support all modes of transportation to improve accessibility and safety by improving connections between all modes of transportation.

Objective #1 – Enhance intermodal connectivity and coordination of services to improve continuity and accommodate the efficient movement of people, goods, and services.

### Objective #1

- Coordinate access efforts ports/air/hwy access.
- Freight mobility - re-establish freight stops/stations in rural communities to promote economic activity.
- Define Movements
- Examine intermodal connectivity
- Prioritize investments in bike facilities/signs
- Enhance bike mobility
- Provide truck parking

## Conversation Café Final Report

Objective #2 – Establish a bicycle facilities inventory and identify areas for improvement to better the total network to provide safe, efficient, multi-modal access to bicycle facilities.

### Objective #2

- Identify first/last mile connections trails/paths to from stations.
- Invest in bike infrastructure on transit modes
- Maintain existing facilities
- Identify and prioritize gaps.
- Add “safe efficient” – delete “strategic”.
- Designate funding for bike/ped project around ITEP for non-motorized projects.
- Better way finding and traveler info to promote transfer to and from bike to other modes.
- Identify and prioritize needed linkages on high volume roads.
- Make bike facility info available on traveler info systems.
- Add bike improvement requirement in IDOT private development permitting.
- Consider both transportation and recreation in project prioritization.

### Strategies

- Make bike facility and destination info more accessible to users and from users.
- Promote 1st mile/last to improve bike usage
- Make more bike sharing available
- Utilize a larger, consistently applied, and pragmatic vision when implementing “complete streets”.
- Support legislation/policy when needed.
- ID and prioritize critical bike connections to fill gaps.
- Privacy protected facilities
  - Particularly on high volume roads.

Objective #3 – Improve accessibility of truck, rail, ports, and waterway freight information through innovative communication techniques to provide more accurate data sets.

### Objective #3

- Information on facilities for truck parking availability.
- Truck route info type of route
- Identify needs of agencies and companies
- Prioritize funding

Objective #4 – Invest and support multi-modal transportation infrastructure improvements and strategic performance-based expansion of services that support the efficient movement of people, goods, and services.

### Objective #4

## Conversation Café Final Report

- Prioritize enhancements to existing infrastructure rather than system expansion.
- Promote multimodal access for all users.
- Strategy- higher project programming weight for multimodal projects
- Strategy- collect more data using common measures across jurisdictions to achieve common programming practices.
- Bring private sector data into use.
- Innovative communication technique to get valuable info to users.
- Integrate and display information so that is easily understood and accessed.
- Data available in multiple media formats and channels.
- “Transport infrastructure” also should mean “services” that support/promote multi-modal trips.

### Strategies

- Facilitate holistic planning across regions and locals to support balanced land uses. Purpose and need to statement that better reflect the broad plan.
- Coordinating information and structure investment w/municipalities
- Break out of silo project thinking – projects need to include or consider all modes of transportation.
- Sharing info across agencies with common data standards.

**Resilience** - Proactively assess, plan and invest in the state's transportation system to ensure that our infrastructure is prepared to sustain extreme weather events.

Goal Notes - Much discussion centered on the actual Goal wording, before the groups jumped into the Objectives. General consensus being that the wording is too specific. The lowest impact change would be deleting the word weather from the goal definition. This would open up to the goal to any extreme event obviously. Hazardous material spills, acts of terror, asset damaged due to vehicle impact, design flaws.

Objective #1 - Improve access to data, information, and people needed for effective resiliency planning.

### Objective #1

- Not only improve the access to the data but the relationships with the different local and state agencies that have the data so that when changes happen that agency will have buy-in to provide that information.
- Add in a new objective that focuses on maintaining established relationships
- Make that data available to the public so they can stay informed
- This is stakeholder building, remember that
- Define that data you need, find out what you have and then work with partners to fill in the gaps where the data you seek does not exist.

Objective #2 - Minimize impacts to natural, cultural, and historic resources and promote sustainability in project design and delivery.

### Objective #2

## Conversation Café Final Report

- Don't start the objective with minimize, it sounds like hey we already do this but we are going to try and do less. Replace Minimize with Avoid.
- A rewrite: Promoting sustainability in project design and delivery, while avoiding impacts to natural, cultural and historical resources.
- Some said this does not fit with Resilience
- Change the objective to focus on context sensitive solution.
- Enhance the value of all objectives

### Strategies

- Identify cultural and historical resources that the local community identifies as historic or cultural. Just because it is not on the national register of historic places does not mean that that site is not important to the community.
- Plan for weather events, design with nature in mind, areas that flood - don't build in those areas.
- Minimize the impact by designing new projects which work with the natural landscape as opposed to defying it. Just because you can build a 2 mile bridge over a canyon does not mean you should.
- The assets should work with the natural landscape

Objective #3 - Utilize asset management to increase the lifecycle of infrastructure for improved maintenance performance.

### Objective #3

- Some folks felt like this should go under the Access and Mobility goal.
- Remove, "for improved maintenance".
- Does IDOT have a Chief Sustainability Officer?

### Overall Top Takeaway

- Many folks asked about why Safety was not a goal of the plan, this was asked in all three locations. Folks at the Chicago meeting said they would think that safety would be a greater priority to the department than some of these goals.

**Stewardship** - Safeguard existing funding and increase revenues to support system maintenance modernization, and strategic growth of Illinois' transportation system.

Objective #1 - Invest in improvements for airports, streets, freight, ports, waterways, and new traffic and transit technologies

### Objective #1

#### Strategies

#### Measures

## Conversation Café Final Report

Objective #2 - Ensure prioritization of projects is guided by sound policy, data, and performance.

### Objective #2

- Perception
  - we are transparent
  - we use data
  - invite feedback
- Lessons learned/measure actual benefits
- Performance rate
- Leverage funds
- Encourage locals to document project prioritization methods
- Multi-criteria prioritization methods
- Transportation asset management plan

### Measures

- How much \$ we receive.

Objective #3 - Collaborate with freight providers to create sustainable rail programs.

### Objective #3

- Remove Rail Programs
- Provide incentives – renewable fuel
- Provide disincentives – manage traffic
- Overreaching goals with model specific considerations
- Develop evaluations matrix within mode
- Specific for each mode.
- How well are projects prioritized in MPO?
- Shared Rail
  - research
  - collaboration
- First /Last mile
  - Connections need to be maintained for sustained success.
  - Recovery ratio
- Look at best practices in Europe.

### Strategies

- Data sharing with locals
- Measure road & bridge conditions
- Performance of the system
- Look at before & after of project
- Develop better tools and data

## Conversation Café Final Report

- Communicate data and performance

### Measures

Objective #4 - Support public-private partnership opportunities.

### Objective #4

- Communicate data and performance
- Best practices
- Communication of education
- Evaluate projects
- Protect public interest
- Make sure a good value – you can't afford to now but is it less expensive to build yourself.
- Pass 3P supportive legislation.
- Proposed projects need to be evaluated.
- Require exploratory for all major projects.
- Support but don't undercut public interest/accessibility/control.
- Private investment to match state/local funds.
- Normalize borrowing b/w public & private financing.
- Buildout maintenance with stewardship without giving up control.
- Quality not quantity
- What is the incentive for private sector?
- Delineation of benefits to public & private.
- Increase communication
- Involve more private involvement in planning/policy making.
- Leverage private development because they are ??? usage.

### Measures

- How much interest there is from private groups?
- Measure performance the same as non-P3s

Objective #5 - Identify funding sources and leverage resources wisely to maximize the value of investments.

### Objective #5

#### Strategies

#### Measures

Objective #6 - Increase transparency in project selection by making data and performance-based decisions and presenting them in a user-friendly format.

### Objective #6



# Conversation Café Final Report

## Strategies

## Measures

DRAFT