



**TEXAS
FREIGHT
ADVISORY
COMMITTEE**



Freight Advisory Committee
March 9, 2017, 8:30 a.m.
TxDOT Greer Building, Austin, Texas

Attendees

Committee Member	Organization	Attendance
Judge Judge Emmett, Chair	Harris County	Present
Carlos H. Cascos, Vice Chair		Not Present
Ron Beeson	Lubrizol Corp.	Designee Present (Scott Campbell)
Steve Boecking	Hillwood Properties	Present
Russell Boening	Texas Farm Bureau	Designee Present (Glen Jones)
Paul Cristina	BNSF Railway	Present
Michael Dyll	Texas International Freight	Present
John Esparza	Texas Trucking Association	Present
Todd Frease	McLane Global Logistics	Not Present
Roger Guenther	Port of Houston Authority	Present
Luis Hinojosa	Uni-Trade Forwarding, LLC	Present
Judge Clay Lewis Jenkins	Dallas County	Present
John LaRue	Texas Ports Association, Port of Corpus Christi	Designee Present (Jennifer Stastny)
Brenda Mainwaring	Union Pacific Railroad	Present
Kevin McIntosh	Kansas City Southern (KCSR)	Not Present
Rolando Ortiz	Killam Development, Ltd.	Present
Keith Patridge	McAllen Economic Development Corp.	Present
Juan-Carlos Ruck	HEB	Present
K. Alan Russell	The Tecma Group of Companies	Present
Carlton Schwab	Texas Economic Development Council	Not Present
Jack Todd	Trinity Industries, Inc.	Designee Present (Barrett Smith)
Ex-Officio Members		
Erin Ford	Retired – Houston County	Not Present
Mayor Pete Saenz	City of Laredo	Not Present
Gerry Schwebel	IBC Bank	Present
Senator Sylvia R. Garcia	Texas State Senate, District 6	Present
Rep. Armando Martinez	Texas House Member, District	Not Present

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Rep. Sergio Munoz, Jr.	Texas House Member, District 36	Not Present
Rep. Poncho Nevarez	Texas House Member, District 74	Not Present
Staff		
Barbara Koslov	Judge Emmett's Office	Present
Stella Savage	Texas State Senator Sylvia Garcia	Present
Bruce Mann	Port of Houston	Present

TxDOT, TTI, UNT, and FHWA			
Lauren Garduño	TxDOT	Peter Smith	TxDOT
Caroline Mays	TxDOT	Kale Driemeier	TxDOT
Roger Beall	TxDOT TPP	Eduardo Hagert	TxDOT
Norma Y. Garza	TxDOT-PHR	Brian Smallwood	TxDOT
Pete Alvarez	TxDOT	Kevin Pete	TxDOT
Diana Vargas	TxDOT	Arielle Carchidi	TxDOT Maritime
Stacey Strittmatter	TxDOT	Geena Maskey	TxDOT TPP
Mark Werner	TxDOT	Peter Espy	TxDOT
John Stott	TxDOT TPP	Rocio Perez	TxDOT
Michael O'Toole	TxDOT-BRG	Michael O'Toole	TxDOT-BRG
Emily Clisby	TxDOT	Allan Rutter	TTI
Kelly West	TTI	Bernie Fette	TTI
Gretchen Stoeltje	TTI	Parr Rosson	Texas A&M
Michael Bomba NorthTexas	University of	Georgi Ann Jasenovec	FHWA

Freight Plan Consultant Team			
Paula Dowell	Cambridge Systematics	Isabel Victoria	Cambridge Systematics
Kelsey Ahern	Cambridge Systematics	Elizabeth Welch	Cambridge Systematics
Chad McKeown	Cambridge Systematics	Will Walter	Cambridge Systematics
Joe Bryan	WSP/Parsons Brinckerhoff	Tina Walker	WSP/Parsons Brinckerhoff
Kim Sachtleben	Atkins	Janna Rosenthal	Atkins
Gloria R. Stoppenhagen	Atkins	Marie Lewis Adams	Nancy Ledbetter & Associates, Inc
William Long	RJ Rivera Associates		

Other Attendees			
Sherry Pifer	SH 130	Martin Molloy	Half & Associates
Mike Wilson	Port Freeport	Becky Wilbanks	Cass County Judge
Cliff Nelson	TxDMV	Bryan Elliott	TxDMV
Bruce Mann	Port of Houston	Gary Bushell	Alliance I-69 TX

Michael Sexton	Jacobs	Matt Woodruff	Kirby Corp.
Will Woodruff		Chad Burke	Economic Alliance
		Houston Port Region	
Chad Carson	Economic Alliance	Cristina Womack	Pasadena Chamber
Houston Port Region			
Stuart Robles	BGE, Inc.	Jim Griffin	Economic Alliance
		Houston Port Region	
Chris Sallese	Dannenbaum	Andrew Canon	Hidalgo County MPO
Engineering			
Luis Diaz	Hidalgo County MPO	Braulio Garza	Hidalgo County MPO
Jon Ray Bocanegra	Hidalgo County MPO	Maureen Crocker	Gulf Coast Rail District
Will Smithson	HNTB	Jeff Hathcock	NCTCOG
John Pitts, Jr.	Peloton Technology	Steve Boyd (speaker)	Peloton Technology

Meeting Action Items:

- TxDOT will provide a glossary of commonly used terms and acronyms.
- TxDOT will provide an overview of Unified Transportation Program (UTP) funding categories.
- TxDOT will send information about the corridor designation process including analysis metrics. TxFAC members will have five business days to review the information and return completed questionnaires.
- TxDOT will send additional information about Freight Plan goals and policies. TxFAC members will send back any suggested revisions.

1. Welcome & Introductions

Honorable Judge Judge Emmett, committee chair, introduced himself and welcomed the group. He began by noting that between meetings, he often loses track of the project process. He encouraged committee members to ask any and all “dumb” questions, because the Freight Plan is a complicated process. It may seem more complicated now because of the potential trillion-dollar infrastructure plan from Washington, but this plan relates to previous legislation. The committee needs to make decisions and keep moving.

The TxFAC members introduced themselves. Judge Emmett also welcomed another county judge in attendance, Becky Wilbanks from Cass County.

Judge Emmett introduced Texas Transportation Commissioner Victor Vandergriff. Commissioner Vandergriff communicated that there is a sense of urgency for committee members to report out on their priorities, in order to include them in TxDOT’s Unified Transportation Program (UTP). The Commission will vote on an update to the UTP in March. It includes about \$70 billion in funding, and there is very little that is not allocated. There is some freight money included. It is very important for the TxFAC’s voices to be heard – other projects will get the money if we do not act. Freight corridors should be part of the strategic funding decision. The UTP allocates money among 12 categories; every TxDOT district and MPO has a general idea of what to expect funding-wise over the next 10 years. The freight team needs to coordinate with MPOs and local districts now to make sure the major statewide priority corridors are addressed. He expressed interest in providing some “inside the gate” funding, in order see what the returns could be in terms of economic development.

Judge Emmett commented that there is also competition between states for funding at the federal level. The process needs to keep moving; whoever has projects ready to go will get the money. Texas needs to be “teed up” in case there is an opportunity.

2. Recap of Dec. 13 Meeting and Summary of Today’s Agenda and Meeting Objectives

Caroline Mays provided a recap of the last TxFAC meeting. One of the key discussion points was the new FAST Act requirements. Now, state departments of transportation are required to develop statewide freight plans as a condition of receiving funds. TxDOT does not get funds unless it has a FAST Act-compliant freight plan by December 4, 2017. There are three new elements under the FAST Act: critical urban freight corridors, critical rural freight corridors, and an investment plan. The investment plan differs from previous Freight Plan; it needs to include a fiscally-constrained five-year plan. There will be two components in the freight plan; the five-

year constrained plan, and a longer-term unconstrained plan. During the last meeting, the committee asked if the team will continue to focus on the multimodal nature of freight, and the answer is yes; we need to address all components of freight movement.

Ms. Mays continued, saying a comment was made at the last meeting about freight projects in the plan. During the previous Freight Plan process, the team spent about eight months combing through the project list. In response to a question from Paul Cristina on whether TxDOT can start the project selection process now, Ms. Mays confirmed the team will start going through projects early and will be bringing that information to the committee at next meeting so we can start making the discussions.

Ms. Mays stated that the MPOs in coordination with TxDOT will designate the critical urban freight corridors, while TxDOT will take the lead on the critical rural freight corridors. The team will go through that in more detail today, as well as provide more information about the investment plan.

Lauren Garduño, Director of Project Planning and Development, noted that TxDOT is moving towards performance-based criteria for projects in the UTP. The tools TxDOT is using will integrate well with what the Freight Plan and the committee is doing today; it will help freight be represented in the UTP, and will integrate into the overall prioritization process. Another category in the UTP, Category 4 (rural connectivity corridors), is now funded, and priorities are needed.

Peter Smith stated that a lot of work has gone on since the committee last met. The project team held eleven freight workshops around the state. He acknowledged Caroline Mays and the project team for their efforts.

Judge Emmett recognized ex-officio members Senator Sylvia Garcia, and Gerry Schwebel of IBC Bank. He mentioned that not many committee members know what “Category 4” is – members need to ask questions. He asked TxDOT not to assume the members know all the transportation terminology.

Commissioner Vandergriff said it was his fourth year on the transportation commission, and he too often assumes that everyone knows the same information. All the UTP funding has been preliminarily allocated to TxDOT districts and MPOs, so they can plan based on the amount they will likely receive. Again, TxDOT needs to hear committee members’ priorities so they can make those connections between funds and projects.

Ms. Mays stated at the next TxFAC meeting, there would be presentations regarding the UTP.

3. Overview of Round 1 Stakeholder Outreach

Paula Dowell began the discussion on stakeholder outreach, including eleven regional workshops held between Jan. 31 and Mar. 3, 2017. The workshops provided an overview of the Freight Plan update and gauged stakeholder input on economic, policy, consumer, and technology trends. She presented the results from questions asked during the workshops.

Senator Garcia asked whether the questions were part of a poll or part of the workshops. Ms. Dowell replied the polls occurred during the workshops, where attendees could vote on their smart phones. Sen. Garcia mentioned she usually thinks of polls as political polls, where people are called at home so she wanted to clarify.

Judge Emmett asked Ms. Dowell to clarify what near-shoring, off-shoring, and omni-channel marketing terms mean. She replied that near-shoring means bringing production back to the U.S. or at least nearby, such as to Mexico. Omni-channel is the “Amazon effect” of e-commerce. This entails not just bringing freight to a store, but to all sorts of delivery sites.

Ms. Dowell clarified that the team will be looking at existing and future projected volumes of freight, but projections are estimates based on economic and other trends, which change often. The team will be coming up with alternative freight scenarios, so the state can be prepared regardless of what the future brings.

Michael Dyll asked if the team had any takeaways as to why stakeholders thought economic analysis would be the least important metric. Ms. Dowell replied that it was about designating corridors that have the most potential for economic development. The economic analysis category represented a “bucket” of metrics meant to measure the overall ability of the corridor area to attract and maintain jobs. She also mentioned that the economic analysis was seen as either the most important criteria or the least important criteria. Mr. Dyll stated he did not agree with the idea that economic analysis is insufficient on its own.

Steve Boecking asked whether “facilities” referred to transportation facilities. Ms. Dowell replied yes.

Gerry Schwebel asked about the makeup of attendees at the stakeholder workshops. Ms. Dowell replied the majority were from the public sector. There were a good amount of economic development professionals, and some shippers.

Ms. Mays stated the team will ask committee members to help generate interest among the private sector for the next round of meetings, in order to get a more well-rounded group of

attendees. Attendance was high during this round, but the team wants to do even better next time.

Commissioner Vandergriff asked whether the team had identified key stakeholders that they would like to hear from, but did not come to the meetings. He suggested scheduling meetings with those stakeholders, rather than asking them to come to a TxDOT workshop.

Martin Malloy noted consumer retail is being roiled by Amazon and overall e-commerce trends. He asked if the team had reached out to Fedex, UPS, USPS, etc. about freight moving through urban areas. Ms. Mays replied that TxDOT needs the committee's help to reach out to these companies and encourage them to participate. TxDOT sends out invitations, but when information comes from people they know, they are much more likely to attend. For example, in Laredo, TxFAC members helped spread the word and it was a very successful workshop.

Judge Emmett asked TxFAC members to send ideas about who to contact. Traditional shippers do not really exist anymore. It may be worthwhile contacting transportation intermediary associations, although they may not be interested.

Roger Guenther brought up first/last mile corridors, and inquired whether they would be included in the state freight system. Ms. Dowell said stakeholders felt TxDOT should not overlook first/last mile issues. These corridors will remain local roads, but they can become part of the "official" freight network.

Steve Boecking asked the project team to provide specific guidance to the TxFAC as to what type of help is needed, if TxDOT plans to hold a workshop in their area.

Judge Jenkins stated Dallas County holds stakeholder meetings through the MPO, where they work with local groups and determine appropriate times to meet. He asked whether the project team has considered that type of process and maybe piggy backing on those meetings, instead of scheduling and holding their own workshops and asking people to come to them.

Ms. Mays replied that TxDOT works closely with the MPOs and the Dallas/Fort Worth workshop was held at NCTCOG. The Freight Plan is a statewide effort, and needs a more centralized stakeholder engagement process. The MPOs are not directly called upon by the FAST Act; TxDOT is.

Steve Boecking noted TxDOT does a good job of attending regional freight advisory committee meetings.

4. Freight System Designation

Paula Dowell began the discussion on defining critical freight corridors. The most important thing is to get the Texas freight system right. In coordination with MPOs, TxDOT will be defining critical urban and rural freight corridors.

Judge Emmett asked Ms. Dowell to clarify the difference between the Texas Primary Freight Network and the Primary Freight Highway System. She replied the primary freight network is multimodal, while the other refers only to highways.

Steve Boecking inquired about the acronym PFHS, which stands for the Primary Freight Highway System.

Rolando Ortiz said he was also confused by the acronyms used, such as AADT. He suggested having a reference available for acronyms. Ms. Mays agreed the team will provide a glossary for future use.

Mr. Ortiz also asked for a description of the UTP categories. Ms. Mays said the team would provide that to the TxFAC as well; Commissioner Vandergriff said there was a condensed version available online.

Ms. Dowell continued discussing the objective of the corridor designation process, how the process fits into the overall Freight Plan goal areas, and the methodology. Selection metrics are divided into four analysis categories: General Economic Analysis, Goods Movement, Supply Chain, and Market Access/Connectivity.

General Economic Analysis Metrics

Keith Patridge asked how the analysis handles border regions. Ms. Dowell said that was a good question; team may not have much, if any, data from the Mexico side.

Judge Emmett asked where the metrics came from; Ms. Dowell replied they were developed by the Cambridge Systematics research team based on regional economic development and industry site selection research.

Andrew Canon of the Hidalgo County MPO asked several questions about the corridor analysis. He inquired as to the level of data analysis (census tract), the Statewide Analysis Model (SAM) year TxDOT is using (2010 base year, 2040 projection), and the distribution of corridor miles. He feared that using the metrics discussed, smaller areas would not be able to compete for funding against large urbanized areas. Ms. Mays said the team would be addressing these questions further along in the discussion.

Judge Emmett thought the petrochemical industry should be included. He also suggested that universities do not generate much freight traffic.

Ms. Dowell asked the TxFAC members whether they wanted to include higher education facilities in the analysis; they are important for the economy, but not necessarily for freight.

Steve Boecking said university-related traffic would add to the congestion that freight has to deal with, but universities are not directly applicable to freight.

Judge Emmett believed the congestion impacts from universities would be minor; medical centers as well.

Judge Jenkins agreed that universities should not be a major factor.

Rolando Ortiz said the metrics should be focused like lasers on freight mobility.

Senator Garcia suggested it is more important to look at petrochemical areas, with high levels of shipping/trucks. Ms. Dowell responded that distribution centers were included in the supply chain metrics.

She also asked where airports are included within the metrics. Ms. Dowell replied they are part of the accessibility/connectivity metrics. Senator Garcia also noted that distribution centers should be included in the metrics.

Steve Boecking inquired whether freight employment intensity assumes a correlation between employment levels and number of trucks; sometimes it does, and sometimes it does not. Some big facilities with lots of trucks have few employees. Ms. Mays said many stakeholders raised that issue at the workshops.

Paula Dowell said it comes down to data availability question; employment numbers are readily available. However, that is why the analysis contains many metrics, so they balance each other out.

Luis Hinojosa and Judge Emmett asked about the highest scoring metrics and the highest score that a transportation facility could receive. Need a better understanding of what is the top highway segment. Ms. Dowell said she would check with her team on the exact values.

Bruce Mann from the Port of Houston asked if there was a way to “fact check” the results of the analysis against real-world examples. Ms. Dowell replied yes, the results of the analysis are being compared to existing transportation plans and priorities.

Goods Movement Metrics

Ms. Dowell moved on to discuss the Goods Movement metrics.

Judge Emmett asked about the highest scores for each category. Ms. Dowell said the team has a map that reflects the total scoring.

Steve Boecking asked how total freight value and total tonnage affect congestion; the value should not matter if the truck is on the road so tonnage is more important. Ms. Dowell agreed, but noted some high-value freight may have a large economic component even if it does not generate a lot of traffic. Also, these metrics are only being used to define the freight network, not to determine projects or lane miles. When the team develops project lists, then congestion is more important. Mr. Boecking said he could see it both ways – whether or not value should matter.

Rolando Ortiz asked if the team looked at how many statewide jobs are created by a supply chain. Ms. Dowell said when the team gets to project prioritization, they will look at statewide impacts.

Roger Guenther asked if other modes are going to be addressed and clarified that only roads were included in this analysis; Ms. Dowell said yes.

Michael Dyll said he did not understand how tonnage growth and value growth differ, since the methodology seems to be identical. He was concerned about double-counting. Ms. Dowell replied that heavy commodities often have lower values so their tonnage growth may be large with a relatively small gain in value. On the other hand, high value commodities tend to be lower weight so a small growth in tonnage could still represent a large increase in value.

Bruce Mann believed the tonnage growth range (25) is too big, because it is calculated on a percentage basis instead of total tonnage.

The Cambridge Systematics team showed maps of the results of the Economic Analysis and Goods Movement categories.

Judge Emmett said he did not think the value of goods should be factored in. He thought the team was coming close to analysis paralysis; too many factors, too complicated. It should be a rational process.

Supply Chain Metrics

Paula Dowell moved on to the third category, Supply Chain metrics. She mentioned stakeholders felt that military should be split out, and forestry/paper goods should be added.

Keith Patridge asked how the analysis handles facilities near the border. Ms. Dowell replied these facilities are part of the SAM, but the data is US-only, and does not include the Mexico side. However, as goods travel from Mexico into the US they will be captured. Ms. Mays stated the purpose of the analysis is to designate the freight network in the US. The team does not have the tools to do the same analysis across the border.

Steve Boecking suggested that Table 4 might be missing some industries, such as automotive, consumer goods, etc. Ms. Dowell replied they are included in manufacturing and trade/distribution categories. Mr. Boecking added that a lot of traffic on Texas highways is carrying things not made in Texas.

Judge Emmett noted under Advanced Technology and Manufacturing there is supposed to be an e.g., not an i.e.

Rolando Ortiz asked if the team was using information from the Department of Commerce. Ms. Dowell said they have requested it, but for now, the analysis includes results from Freight Finder. Mr. Ortiz noted there was a good article from the State Comptroller recently on the economic impact of Texas ports; their office could have some valuable data.

Bruce Mann thought that based on these metrics, busy first/last mile corridors that only support one industry will not be ranked as high as less busy corridors that serve multiple industries. Ms. Mays stated that busy corridors would score higher in the Goods Movement category.

Market Access and Connectivity Metrics

Ms. Dowell discussed Market Access and Connectivity metrics.

Luis Hinojosa inquired whether there would be an analysis of current infrastructure, once all the metrics had been analyzed. Ms. Dowell said yes; once the network has been determined, the team will analyze all roadways in terms of congestion, safety, design, etc. Ms. Mays added that the ultimate goal is to use this analysis as a framework to determine the right list of projects.

The Cambridge Systematics team displayed a map showing the summed results of all metrics.

Michael Dyll asked if the team was surprised by any of the results of the analysis. Caroline Mays said the in-depth process showed gaps, which were missed in the original Freight Plan. We were not surprised, however, by the levels of economic activity and congestion in eastern part of the state. Paula Dowell added that the team can drill down into results that are surprising or do not make sense.

Judge Emmett believed that the section of I-10 between Ozona and El Paso is not a very important freight corridor. Ms. Mays replied that it is definitely important, although Ms. Dowell mentioned that it is part of the national freight highway network, so it does not have to be designated as critical urban or rural miles for the states. This analysis helps the team to identify segments, not necessarily whole corridors, which are important.

Judge Emmett asked if the maps reflect 2010 data. Ms. Dowell replied the commodity flow data is from 2010, but the truck counts are more recent. The Eagle Ford Shale is reflected in terms of truck counts.

Bruce Mann asked if the team is looking at this data in comparison to capacity on existing roadways; Ms. Mays replied they are not at that point yet. He asked what happens if growth occurs faster than forecast; for example, Port of Houston container growth is about 20 percent a year, which is not part of any forecast. Ms. Mays said TxDOT could not control for that; forecasts are best guesses, but planning can help address some of the impacts.

Michael Dyll remarked that the analysis is very data rich, and asked if the team could have access to it to drill down.

Roger Guenther clarified that the team is trying to determine correlation between volumes of trucks, etc. and the economic impact they deliver to the state. Ms. Mays said yes, TxDOT is trying to determine the most strategically critical corridors so they can invest in the right places.

Judge Jenkins said he appreciated all the work that has gone into this; he felt it was only fair that the TxFAC get some time to review it before providing input. He asked the team to email the information, and give members some reasonable amount of time to fill out the questionnaire – such as five business days.

Caroline Mays apologized for not sending the information out ahead of time; the team had just completed the workshops on Friday and was working on the TxFAC meeting material up to last night.

Judge Emmett clarified that the team is asking for feedback on the criteria for determining the highway network, and not judging projects. Ms. Mays replied yes.

Judge Jenkins asked when the TxFAC would be reviewing project lists.

Caroline Mays said at the next meeting, the team would present the highway network, as well as potential projects to allow the committee to start talking about projects.

Martin Malloy noted the previous Freight Plan included a map of the primary and secondary freight networks. How does this process relate?

Caroline Mays said this new information would update and supersede that map. There will still be a primary and secondary freight network; the Texas network is broader than what will be designated under the FAST Act.

Mr. Malloy believed the primary network probably would not change; most changes would probably take place on the secondary network.

Ms. Mays replied that there are really three networks: the primary national freight network, then critical urban and rural corridors. Then there is the Texas freight network. The project team will designate the Texas network, and from there, select critical urban and rural corridors. However, yes, most changes will probably occur on the secondary network. It may get larger, because of the more robust data-driven analysis being used in the plan update.

Mr. Malloy asked whether projections were part of the criteria; Ms. Mays replied yes.

Paula Dowell held up the “homework” sheet, and described the input needed from TxFAC members on the analysis metrics.

Judge Emmett stated Caroline Mays would like a “preliminary” feedback on the homework sheet today, in case members did not send back their sheets within five days. He also asked whether all critical urban/rural corridors would be part of the primary/secondary Texas networks; Ms. Mays said yes.

Bruce Mann wondered whether the project list would only include projects in the UTP. Ms. Mays said the highway project list in the current plan was generated from the UTP, but for other modes, TxDOT needs project information from stakeholders from those modes (ports, rail etc.).

Judge Emmett asked the committee to provide feedback on criteria for designating corridors as the corridors will be used to rank projects.

Judge Emmett noted the I-69 bypass in Houston is not in UTP, but it is an important project. Ms. Mays said the previous Freight Plan included emerging corridors list and the recommendations are included in the aspirations portion of the plan.

Commissioner Vandergriff said the UTP is only 10 years and if a project is listed in the UTP, it is funded. The dilemma is that the major urban corridors are “short” on funding in the later years, and MPOs have to make choices. For example, in San Antonio, \$2.5 billion will go into that

market; the MPO can fund around 15 good projects, or could send that money towards Loop 1604 and I-35. 35 includes I-35 in Austin, which has a \$3 billion shortfall. MPOs want to spread funding around, but also know that I-35 funding can be leveraged with comprehensive development agreements (CDAs), etc. As of September 1, 2017, legislators are not going to expand CDAs. When funding is short, the solution is often partnerships, but then we end up with corridors that have are tolled and non-tolled. TxDOT is pretty stuck in terms of I-35 improvements in urban areas; there are huge funding gaps. I-35 in Austin, DFW and I-45 in Houston have huge funding gaps- how do we address that on freight corridor? How does that affect freight?

Rolando Ortiz said how do we create alternative routes to alleviate congested areas and key freight corridors.

Judge Emmett stated TxDOT can only fund projects on existing corridors and not on new corridors or facilities that are planned and identified in the UTP. Texas needs to lobby hard for money from Washington. We are stuck with legislators who do not want to raise any taxes or have tolls, but want free roads.

Paula Dowell requested the committee provide some preliminary feedback on the questionnaire sheets, but members can also send revisions within five business days.

Freight System Designation Poll Activity

Ms. Dowell introduced an interactive polling activity for TxFAC members. They used their smartphones or tablets to navigate to a website and answer questions about the corridor analysis.

- For the first question, “should all metrics be equally weighted?” most members voted “no.”
- For the second question, “should the metrics in the economic analysis be weighted...,” most members said “less heavily.”
- For the third question, “should the metrics in the goods movement analysis be weighted...,” most members said “more heavily.”
- For the fourth question, “should the metrics in the supply chain analysis be weighted...,” most members said “more heavily.”
- For the fifth question, “should the metrics in the market access/connectivity analysis be weighted...,” most members said “more heavily.”

Full poll results are provided in **Appendix A**.

Michael Dyll stated he changed his ideas since the beginning of the discussion. Economic viability is the most important metric, but not in terms of demographic preparedness, etc., but need to focus on economic elements. The other categories are more representative of actual economic impact.

Judge Emmett agreed that economic analysis is actually better captured by the other categories. It is not clear that the metrics under the current economic analysis category are important on their own.

Caroline Mays said she would send an email with further information on the analysis, and again requested feedback from the committee within five business days.

5. Working Lunch Speaker

Steve Boyd of Peloton Technologies delivered a presentation on connecting and automating trucks. Peloton provides technology to improve safety and efficiency through truck platooning and driver assistance. They have several high-profile partners including truck manufacturers and safety suppliers. In the past 20 years, there has been considerable advancement in truck platooning all around the world, particularly in Europe. The US is starting to catch up.

Trucking is a huge industry, fuel costs are massive, and accidents are very costly. Trucking has a net profit margin of around 3 percent. Platooning can help improve that figure. Mr. Boyd showed a video of how Peloton platooning technology works in practice.

Steve Boecking asked if the platooning system controls steering. Mr. Boyd said no, only speed. Peloton provides a low level of automation – Level 1. There are other options for Level 2, which controls some movement. With Peloton's system, drivers are fully engaged.

Mr. Boyd said the intent of the system is to make individual trucks safer all the time. Platooning occurs with two vehicles only, and in the right environment: multi-lane, divided highways. Braking and acceleration are synchronized. Drivers can talk to each other, which improves alertness. Trucks can drive closer together because braking is automated, and both trucks save fuel. There is real-time supervision from a network operations center.

Juan-Carlos Ruck asked if two trucks was the maximum possible, or just a starting point. Mr. Boyd said maybe in certain areas more than two could be possible, such as dedicated freight corridors.

Judge Emmett inquired about the minimum speed at which the system is useful. Mr. Boyd replied at above 40 mph, trucks get the “drafting” benefit. At 65 mph, the typical truck is

spending two-thirds of its fuel fighting air resistance. At lower speeds, the system has other safety benefits, but not drafting.

Mr. Boyd continued, stating different companies provide different levels of automation. Tesla is working on Level 2 automation, although when some steering is controlled, drivers may get too “comfortable” and not react quickly enough. Google is working on full automation. Peloton works hard on cybersecurity; safety is the highest priority. Active safety systems could really help reduce truck accidents, but they are not being deployed fast enough because of cost. Peloton is working with key truck safety suppliers. Fuel efficiency is the icing on the cake; safety is the main goal.

Fuel savings have been independently validated at 10 percent for rear trucks and 4.5 percent for front trucks. Over \$3 billion in savings per year is possible in crash reduction and congestion-related fuel savings. Payback periods are under a year. Platooning is viable on the US interstate system.

Many trucking fleets can platoon. There are no federal obstacles to platooning, and the states are working on legislation. Texas has platooning programs through the Texas Transportation Institute, and other initiatives. There is a Level 2 project with Navistar. Peloton starts testing Level 1 in Texas, with commercial trials on I-45, in the second half of this year.

Martin Malloy asked where Peloton gets its real-time accident and congestion information. Is it Google or Waze, or another service? Mr. Boyd said his team is working with the most up-to-date sources to get that information. Right now, if there is a problem ahead that the system does not catch, there is always an 800-ft. look-ahead that can slow trucks if needed.

Alan Russell asked where the fuel efficiency on the front truck comes from. Mr. Boyd said it comes from turbulence at the back of the truck, which is reduced when there is a truck following behind. It does not occur in all circumstances.

Brenda Mainwaring noted Mr. Boyd mentioned the potential for multi-truck platooning, perhaps near ports, but also said there is no benefit to platooning at low speeds. No port has high speeds and no traffic. Mr. Boyd said the main benefit to multi-truck platooning would be safety, and traffic jam assist. Right now Peloton does not offer assistance at lower speeds.

Ms. Mainwaring asked whether, with the increased safety potential, systems like Peloton’s would ever be mandated. Mr. Boyd said potentially, but that is an economic discussion. Ms. Mainwaring also asked about the potential public cost, such as lanes, cybersecurity, etc. Mr. Boyd said no new infrastructure at public cost is needed to see benefits. These systems can take advantage of upgraded infrastructure, like signal priority, but it is not needed.

John Esparza stated some state laws might deal with spacing between vehicles, etc. This development is important for the trucking industry; we want to be on the leading edge. These types of systems will help solve the driver shortage.

Juan-Carlos Ruck added that since 2010, safety features have been part of the H-E-B fleet. It makes H-E-B a more attractive employer.

6. Revisit/Re-Evaluate Texas Freight Network: Re-Evaluate and Refine Trends, Challenges and Needs

Paula Dowell introduced several key trends that will be drivers of freight demand in Texas in the future for discussion: trade, energy, business practices, consumer practices, technology, and regulations.

Trade

She began discussing trade trends in more detail, and asked for feedback on whether (and how) potential trade policy changes would affect freight flows and volumes.

Glen Jones noted on Slide 44, the title says exports, but the chart legend says imports. Ms. Dowell said the legend should say exports.

Gerry Schwebel believed trends will continue to favor more shipping by truck, and changing weight standards. Mexico has a higher truck weight standard than the US. He added that trade policies will likely be re-negotiated under the new administration. There may be more bi-lateral, not multi-lateral, agreements.

Rolando Ortiz said he was just in Washington D.C, and echoed there will probably be more bi-lateral agreements.

Keith Patridge said trade policies will affect freight volumes. If bi-lateral agreements go forward, we will see more movement of component parts between countries, instead of all production on one side.

Ms. Dowell asked how big an impact trade policy will have.

Gerry Schwebel said the team needs to look at the agriculture side and energy side; that is where the potential growth will be. He added that right now things are moderate because of uncertainty.

Senator Garcia agreed that there will be an impact, but it is too early to see how large.

Alan Russell said the focus seems to be rule of origins - blocking access from non-NAFTA countries bringing products into Mexico, which means NAFTA countries will be forced to change business practices, which will be good for Texas. If there are content requirements from different countries, that will also be good for Texas.

Energy

Joe Bryan of WSP/Parsons Brinckerhoff discussed trends in energy production and use. He particularly focused on the importance of natural gas replacing coal as the dominant energy source. Wind energy is also increasing. The team is projecting that these energy changes will have strong impacts on the freight industry, and he asked for feedback from TxFAC members.

Rolando Ortiz said the effects could definitely be aggressive with Mexico energy reform, and exports to Mexico.

Judge Emmett stated that natural gas replacing coal does not have much effect on freight movement except it is negative for rail. Mr. Bryan said yes, it may be aggressively negative for rail.

Gerry Schwebel asked whether gasoline exports to Mexico would change, with new refineries in south Texas.

Judge Emmett noted that barge travel was not mentioned. There may be a big positive impact related to shipping resins.

Roger Guenther said he did not think the projections were overly aggressive. Exports will continue to increase due to population growth and he thinks exports will continue to grow. He stated that the Port of Houston has seen 20% growth in just the first two months of 2017.

Business Practices

Paula Dowell discussed trends in business practices, such as off-shoring, near-shoring, advances in manufacturing, omni-channel marketing and distribution, shipping patterns, and pipeline construction.

Judge Emmett noted “re-shoring” and “near-shoring” terms kept getting used interchangeably. He thought “re-shoring” was a better term.

Juan-Carlos Ruck stated omni-channel and e-commerce trends are moving towards more facilities, closer to consumers. For example, Amazon has built six facilities in Texas in the last

few years in order to be closer to market and consumers. Instead of buying many items from one brick-and-mortar retailer, consumers are buying fewer items online from more retailers, which puts more delivery trucks on the roads. Congestion is moving closer to the consumer as well. Volumes are increasing on last miles due to e-commerce.

Steve Boecking said that Amazon, UPS, etc. use local streets and he believed they did not contribute to congestion on the highways.

Brenda Mainwaring said the team has not really had a conversation about the transition from big containers, to 18-wheelers, to panel trucks. It is hard to see how local delivery trucks fit into the bigger picture. She asked how we are incorporating Amazon, UPS, etc. into freight planning process.

Consumer Practices

Ms. Dowell discussed trends in consumer practices, including e-commerce, the “sharing economy,” population growth and demographic changes.

Judge Emmett did not believe percentage population change is a meaningful measure. If the goal is to measure traffic, absolute population numbers are more useful. Ms. Dowell said the team looked at both percentage and absolute change.

Martin Malloy wondered whether a UPS van making ten deliveries might also be taking ten cars off the road that would be traveling to stores.

Steve Boecking stated that there are essentially three trips- first the 18-wheeler brings products to warehouse, then the 18-wheeler takes products to UPS, then small truck delivers product door-to-door.

Rolando Ortiz said the increased demand would still tax the freight system, because an 18-wheeler needs to bring those goods in to fill the vans making local deliveries.

Juan-Carlos Ruck stated that net trips are increasing, because with e-commerce, consumers are more likely buy things from different sellers rather than consolidate as if they would if they went to a physical store. This means more delivery trucks on the road.

Gerry Schwebel asked Mr. Ruck whether he sees an increasing demand for fresh products, with more daily deliveries, vs. frozen products. It seems to be a generational trend, diets are changing, and the refrigerated warehouse concept is growing in the border regions. Mr. Ruck said that was true for H-E-B; they have moved towards more fresh products as demand is

growing, which impacts the types of warehousing needed and the transportation mechanisms to deliver them.

Technology

Paula Dowell discussed trends in technology, including autonomous trucks, connected trucks, drones, freight shuttles, cargo shipping, and warehouse and factory automation.

Juan Carlos Ruck stated that for HEB the general goal of technology applications is to improve efficiency.

Brenda Mainwaring said freight volumes are also increasing because people order more things online then send items back.

Paul Cristina noted there is a modal equity aspect to this discussion; as things change, each mode should pay the cost that it incurs to the system.

Regulations

Kim Sachtleben of Atkins discussed trends in regulations, including national and state existing and potential policies. These mainly involved trucking regulations, such as hours of service, truck weight regulations, and bridge vertical clearance. She also mentioned the likelihood of the new federal administration rolling back environmental regulations.

Roger Guenther stated the need to reduce competition between freight and private vehicles during the day. Trucks should be incentivized to travel during the off-peak hours. It would be very effective at improving mobility and congestion.

Judge Emmett suggested that if I-35 congestion continues to get worse, instead of the truck toll discount on SH 130, TxDOT could allow trucks to use SH 130 during certain times of day for free.

Paula Dowell noted that in Atlanta, GA trucks cannot drive through the center of town. They have to use I-285 as a bypass, but noted that is not a tolled facility compared to SH 130, which is tolled.

Brenda Mainwaring said all these ideas such as higher bridge clearance, overweight corridors, reducing tolls, etc. are clearly incentivizing trucks. These types of changes will drive more traffic onto the roads. Caroline Mays stated TxDOT is just capturing what exists today; they are not recommending these policies.

Paul Cristina reiterated that if these policies are mentioned in plan, they need to be accompanied by a discussion of modal equity and user-pay systems.

7. Review/Re-evaluate Freight Plan Goals and Policies

Goals

Kelsey Ahern of Cambridge Systematics discussed the previous Freight Mobility Plan's goal areas, and asked the committee whether updates were needed. She demonstrated how the goals align with relevant policies and programs, such as the FAST Act, the Texas Transportation Plan, and the TxDOT 2017-2021 Strategic Plan.

Judge Emmett said Goal #2, Asset Management, in TxDOT parlance means roads. He recommended using the term "utilization." We need to make sure the goals are multimodal – we want to utilize rail facilities, intracoastal waterways, etc. It's important not just to maintain what we have, but to develop and utilize all modes. Caroline Mays stated the goals need to include both, because maintenance is important. Suggested modification- Freight Asset Utilization and Management.

Ms. Ahern stated the FAST Act is focused on maintenance, although utilization is important as well.

Gerry Schwebel noted that the new federal administration's infrastructure initiative expressed preference for maintaining existing infrastructure, rather than building new infrastructure, to expedite implementation of construction.

Peter Smith inquired whether technology is a goal in and of itself, or whether it should be applied in service of other goals, such as safety. Ms. Mays stated the main goal of technology is efficiency, but safety is a side-benefit. Mr. Smith suggested technology should be included as a way to achieve other goals.

Rolando Ortiz asked how the team is addressing multi-state connectivity. Paula Dowell said the team is coordinating with border states; they have already talked with Oklahoma and Arkansas. Caroline Mays referenced the I-10 corridor initiative to address freight issues across four states. The team is also talking with Mexico about border issues.

Peter Smith mentioned TxDOT communication with the American Association of State Highway and Transportation Officials, and other research programs.

Martin Malloy noted the presentation shows “stewardship” aligning with “environmental” under the FAST Act guidelines, although based on the description of “stewardship,” it does not seem like they match up. Ms. Ahern said management of resources includes natural resources. Mr. Malloy suggested adding some words to this effect so the description includes environmental aspects.

Policies

Paula Dowell discussed the existing Freight Plan policy recommendations, and asked the committee for input on whether they should be updated.

Judge Emmett noted the bottom bullet on Slide 107 needs to be a square, not a dot. The fourth bullet on Slide 108 should say, “identify,” not “identity.” The recommendations should include reducing urban traffic congestion as a separate policy. He asked meeting attendees whether the fifth bullet on Slide 108, “collaborate with maritime stakeholders,” adequately covers barges. He suggested including “inland waterways.”

Caroline Mays encouraged the committee to provide additional feedback (“homework”) so the policy recommendations can be finalized before the next meeting.

Brenda Mainwaring suggested adjusting the first bullet on Slide 108 to include “utilization” and not just “management.” Judge Emmett suggested the bullet say “expand and improve” instead of just “improve.”

8. FAST Act Freight Formula Fund Projects

Caroline Mays opened the discussion by noting the FAST Act does not change the amount of funding TxDOT gets; it just changes the “color” of that money.

Kale Driemeier of TxDOT delivered a presentation on the FAST Act funding program for freight. The FAST Act establishes a new National Highway Freight Program to improve freight movement. Funding for Texas roadways is limited to the state’s Primary Highway Freight System and critical urban/rural corridors.

States are not eligible for funds unless they have developed FAST Act-compliant state freight plans. States are allowed to use up to 10 percent of their funding for non-highway freight projects. TxDOT will be receiving approximately \$550 million over the next five years. Mr. Driemeier discussed projects in the UTP that would be eligible for FAST Act funding based on the current Freight Plan.

Steve Boecking noted a Nueces County project on Slide 9 is shown as “low priority,” and wondered why it was included. Mr. Driemeier replied the rankings came from the TxDOT district, and many of these projects were not originally developed from a freight perspective.

Judge Emmett clarified that GR, STRS, SURF, etc. referred to re-grading and re-surfacing. He said those sounded like minor improvements. Caroline Mays agreed that the freight team wants to focus on larger-scale, more “tangible” projects, but re-surfacing can be very important for freight.

Commissioner Vandergriff asked how much time the team had between the FAST Act coming out and having to identify projects; Ms. Mays replied the timeline was short.

Judge Emmett suggested that higher priority be given to construction projects, and then work on the rehabilitation projects. Commissioner Vandergriff agreed with the suggestion.

Peter Smith noted he was concerned with the implication that the committee will be picking individual projects. That is not the role of the TxFAC. The committee will provide input on the scoring system used to select projects, not the projects themselves. Commissioner Vandergriff agreed.

Rolando Ortiz asked where the list of projects came from; Ms. Mays replied it came from the Freight Plan appendix. Pete Alvarez (TxDOT Laredo District Engineer) noted a project in Webb County (the mainlane overpass in the Laredo bundle) is not in the Freight Plan appendix even though it is being let this July. It is being funded with Coordinated Border Infrastructure (CBI) funds, although it was postponed twice in hopes of getting a Fastlane grant. Ms. Mays stated it might not be included because of the CBI funding, which works like an earmark. Sources of federal funding cannot be swapped.

Paula Dowell said the team would cover project screening criteria at the next meeting, so the committee can provide input on the scoring process.

Judge Jenkins asked how TxDOT coordinates with the MPOs on identifying freight corridors and designating critical urban/rural miles. Caroline Mays said the team has already requested information from the MPOs, and they are planning to have webinars soon. Not all MPOs have miles to designate. The team will bring back information on the networks at the next meeting.

Judge Jenkins asked that the committee be kept abreast of any non-alignment issues between TxDOT and the MPOs or stakeholders on the freight network.

Judge Emmett asked what the formula was based on for designating critical urban freight corridors. Kale responded that it was based on population. Judge Emmett believed the MPOs may send more miles than TxDOT can designate. Ms. Mays said no, the MPOs are aware of roughly how many miles they can designate, based on the proportion of population in the state.

Judge Emmett indicated he did not agree with using population as the criteria for designating critical urban freight corridors; what if El Paso had a lot more critical miles, even though they have less population? Mr. Driemeier said the population proportion is a guideline, not a firm rule, and MPOs have not challenged the methodology. Ms. Dowell said there are no limits to the amount of miles in the Texas freight system.

Judge Emmett noted he did not want to be handed a list of projects on May 11 and be expected to approve it; the committee will need to know what the alternatives are.

Commissioner Vandergriff asked if local agencies know that they are getting this money. Ms. Mays replied this is not new money, this is just changing the source of funds for existing projects that are ready to let given the five-year period of the funding

Paula Dowell said she wanted to downplay the whole critical urban/rural network issue; the number of miles allocated is not going to impact anything.

Judge Jenkins stated he wanted to make sure everyone is heard at the MPO and stakeholder level, and that the committee has enough time to review so all issues can be worked out by May 11. Information should be provided to the TxFAC as soon as possible – they should not get something May 9, and be asked to approve it May 11.

Commissioner Vandergriff added that districts and MPOs are responsible for planning and project development.

Peter Smith said it was important to tell the MPOs that any projects they might want under the FAST Act program are either already on the national network or part of the critical urban freight corridors.

Ms. Dowell reiterated the importance of the Texas freight system, and there is no limit to what can be part of that system. It cannot contain everything, or else it becomes meaningless, but if it includes everything that is important, then that becomes the universe from which the critical pieces are chosen.

Ms. Mays discouraged the committee from getting bogged down with the critical urban/rural networks, since the key to the plan is getting the Texas freight system right.

Mr. Driemeier noted the letting schedule for each project on the list could change, but the funds can be rolled over.

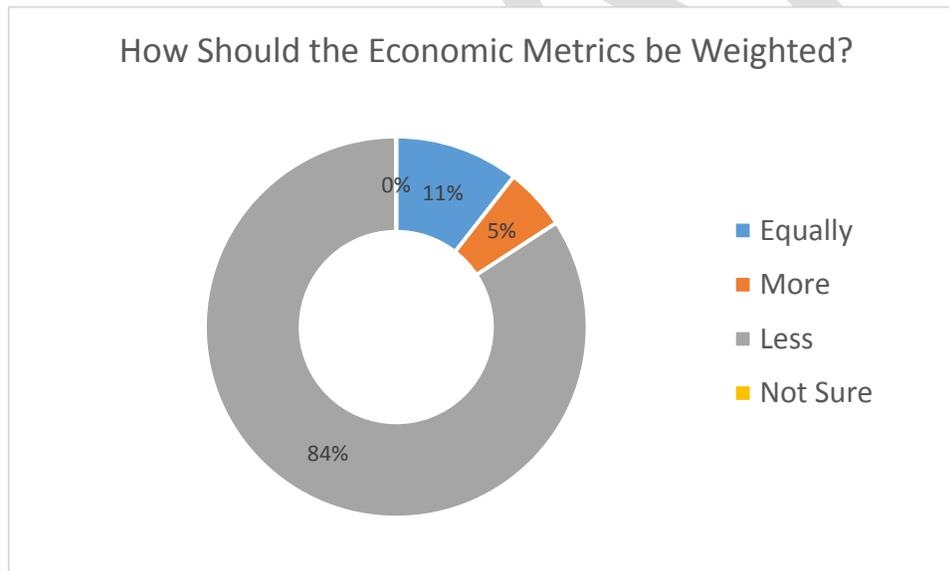
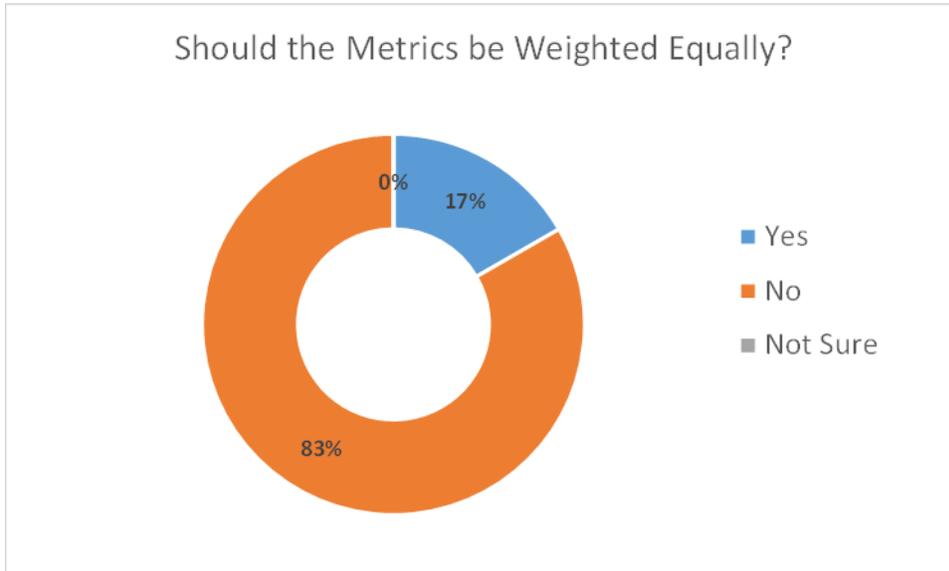
9. Open Discussion

Judge Emmett thanked Commissioner Vandergriff for attending, and acknowledged the hard work of Paula Dowell and Caroline Mays. The next TxFAC meeting will be May 11 in Austin.

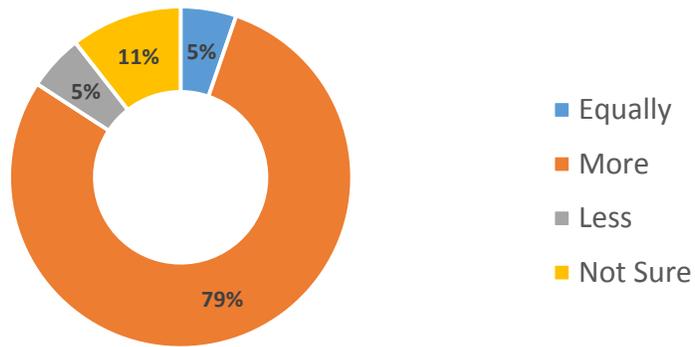
Ms. Mays asked if anyone could provide ideas on a location for the next meeting, as the TxDOT Greer Building conference room is unavailable. She said the team will send out information on the analysis criteria and Freight Plan goals and policies, and again requested committee members send back their updated questionnaire forms.

Meeting adjourned 3:10 p.m.

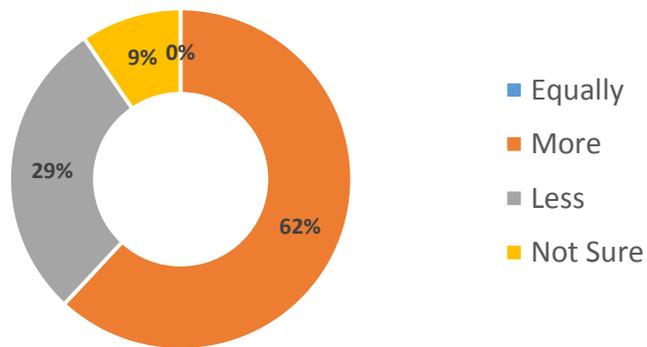
Appendix A: Corridor Analysis Metrics Poll Results



How Should the Goods Movement Metrics be Weighted?



How Should the Supply Chain Metrics be Weighted?



How Should the Access and Connectivity Metrics be Weighted?

