Transcript

April 30, 2025, 2:03PM

Harding, Ed H (KYTC) started transcription

Harding, Ed H (KYTC) 0:03

And welcome to our K track meeting today.
I appreciate everyone arriving today for the the presentations of the proposals for fiscal year 2026.
I was gonna say I apologize about the slides going out this morning, but I got tied up with a bunch of different stuff and had some updates yesterday afternoon.
So I'm gonna go ahead and tell it to share my screen so y'all can see what what we're talking about for the agenda for today.
So plan was I was going to give just a brief update on where we were at on the ashuwa safety.
Project and then we're going to go ahead and hop into all of our fiscal year 2026 proposals.
So we're going to have each one of the the different potential.
Grantees go through and talk about their project briefly, and at that time, after each one of those, any questions or anything that anybody has, please, please feel free to to speak up, or if you're nervous about going through and speaking up in the meeting, you can you can.
Go ahead and send me an e-mail later and I'll I'll get in touch and and make sure that your concerns are addressed.
But after after we go through and hear everything, then hopefully at the end, we'll go ahead and as group decide, hey, we're gonna go ahead.
Go forward with them or or or not on each one of these.
So without any ado, I'm gonna go ahead and hop on to the next slide here.
So the azurewe safety product, you'll remember that we had the optional meeting back in the fall where we went through and presented some of the capabilities that it would go through and provide.
With that project is going to be starting in May.
Here they were issue with resources being available inside of it.
Transportation. And so they went through and wanted us to to delay until now.

So we've we've we've delayed till now for implementation, but quite a few of you all will probably be hearing from us as as we go along here and we'll reach out with some additional details there.
Just just wanted to remind you all that it's a a shared effort where we're using some of these net 45C funding dollars.
In conjunction with money from the Highway Safety Improvement program.
Which is a group inside of the division of traffic operations here at Kytc and with the quality assurance branch that's within the division of Hwy. Design.
And so the three of us together are are pooling our money to to go through and bring this this software out for everybody to be able to use.
Or our proposals.
Did anyone have any questions about the actuar safety before we hop into the proposals?
If not, we'll go ahead and hop into the proposals.
So I we went through and we've got slides to go through and show for each one of these projects. And I did have them in order, but some people had some meeting conflicts and so forth.
So we played with the order a little bit on where the projects are here, but so they're known by whatever whatever it automatically signed to you, which is just the name of your organization with a sequence number on the end of it.
So I've copied across what the title of your proposal is.
And then the description that you had provided, now I've gone through and in there tried to indicate who the principal investigator is on those and then trying to go through and say which of the traffic record systems that were going through and addressing or working with in this?
And then what? The performance attribute is that we're going to to be going through and looking at. And then I tried to go through and say what the goals were that you identified.
One of the things to keep in mind is I'm probably going to be in contact with with you all.
Quality go through and probably tweak a little bit how we've worded what the goals are on those to make sure that they're measurable.
Marks of progress so we can go through and and and and good phase turn into nitsa and say hey this this is what we're trying to do.
Here's here's how we're measuring how we're going through and accomplishing

what we're looking to do here.
So without further ado, let me go ahead and start with the first one here. So.

Costich, Julia 4:34
No can I?
I have a few slides myself.

Harding, Ed H (KYTC) 4:39
OK.

Costich, Julia 4:40
Just.

Harding, Ed H (KYTC) 4:40
Well, I was gonna say so.
The very first one was the upgrading the Kentucky trauma databank for actionable contents and Dr. Julia Kostich. And if you want to go ahead and tell it to share your screen, Julia, go ahead.

Costich, Julia 4:53
Thank you.
Here we go.

Harding, Ed H (KYTC) 5:14
It helps. I'll tell it to stop sharing on my side and that might change where the toolbar shows for you there.
I know, I know, our office.
We've got some people doing zoom and some people doing teams and I think that's the same for everybody.

Costich, Julia 5:30
Wake up. OK, so very quickly.
What you have to happen is, you know, issues with our legacy data management vendor. And so we issued a request for proposals.
With the option of changing vendor, one of the issues is that our data bank function

has not kept up with times.
We really do want to do more than just bare compliance.
So we want to identify priorities for assistant things like if this sounds familiar, tinselen is completeness. You don't want uniformity, accuracy and accessibility and develop a time to implement the recommendations.
Some of them we can implement.
Quite readily.
Want to use the new data management system to generate more timely and actionable data.
And figure out what users actually need.
Right now that data is kind of sit there until somebody makes a request.
And looking at the development of assessment metrics is timely or data useful to people?
The E there could be a conflict between timeliness and completeness.
We can obviously get partial data out faster than complete data.
We need to capture some missing data elements like time of injury.
Accuracy.
I still think at some point we need to have some random electronic health record reviews to check for accuracy.
And also Alaska partners, whether accuracy of some elements is more important than others.
And then as built which is missing.
Or HIPAA, we could construct a data set that could be available for public access right now. Anybody who wants to access the data has to ask for special permission.
But students, for example, might be able to work productively with a limited.
Data set.
So that's what we are.
Working on.
Hope to be able to move forward and I will quit sharing now.
City.
OK.
Thank you. OK.

HH **Harding, Ed H (KYTC)** 8:28
I'll go ahead and take it and that'll that'll uncheck for you, so.

So, so again on the the goals that you're going through and working on, Julia, you're gonna go through and and work on the the ones that I've got on the item here and and what you were showing on your slides. So did anyone have any questions or concern?
Or any insights for for Julia?

SR **Souleyrette, Reginald R.** 8:50
Just a quick comment, Julia, that you mentioned accessibility and we do have the KTSDS project and I don't we've gotten any or many requests in the past for any kind of health data. But if we can generate some demand for that, perhaps maybe your information could be use.
To them, so keep us in mind if if you need us to, you know, work with you to disseminate any information. Once you get that.
Publicly available data set ready.
If you are able to do that.

CJ **Costich, Julia** 9:22
Thank you.

HH **Harding, Ed H (KYTC)** 9:32
Any any other questions or concerns?
I'm. I'm really hoping Juliet, that the transition to the the new vendors is gonna go well.
But I've I've got my fingers crossed for you.

CJ **Costich, Julia** 9:46
We are actually going to be updating the addictionary in case anybody needs to know.

HH **Harding, Ed H (KYTC)** 9:57
Good day.
Good to know.
Good to know.
Any any other questions for Julia?
If not, then we'll go ahead and hop down to the the next project here.

So that next one on the list here is ROM Kluger.
So working on the data linkage project that he's he's done for a couple of years here.
So so Rob, do you have slides or just want to go off of these?

KR **Kluger, Robert** 10:26
Yep, we can go off of these.

HH **Harding, Ed H (KYTC)** 10:28
I.

KR **Kluger, Robert** 10:28
I've got like some some notes written down from what we submitted, but it looks like you kinda copy pasted a lot of what we submitted in as well.
But thank you, Ed.
This project's been going on a little bit more than a couple years now, even though it still feels like it's a little slow.
But this is a collaborative project that I work on with Reg and Alex, and then we also work with partners.
In Julia and Doug, who provide data to us, but the core of this project is really.
Taking data from various safety related sources and working to link them together in a kind of like DE identified way where anyone with access to one of these kind of more sensitive data sets could produce a a linked data set.
So the first few years we really worked on the methodology for how we approached the linkage process it we we bring in emergency medical service data, trauma registry data.
Trash data and then a variety of other kind of.
Like peripheral data sources with like, you know, GIS based data formats and we try to kind of put them all into a like unified format.
So that's kind of the history of this.
Lately we've been kind of generating enough critical mass of data where we can start, can start to do some more like traditional safety analysis as well.
So a lot of our continuing objectives is going to be to continue to link data.
Bring in data from the Emergency Medical Service group over at K beams.
Bring in trauma registry data so that updated dictionary sounds like a really useful thing for us, actually.

And then the motor vehicle crash data bring those in, identifying new datasets to bring in to these linked parts as well.
And now we're gonna start to kind of try to apply some sort of modeling processes to look at the validity of injury data.
And also start to quantify like the bias in using these data for.
Specific like modeling exercises 'cause it's a it's a new data set that kind of naturally eliminates a lot of.
Trashes, if you're like, really only focused on those that get linked, and there's quite a few like external factors that affect the linkage quality, so.
That's the problem that we're kind of exploring in addition to continuing to build out the.
Data set and then we're also I know Reg and Alex were planning to kinda try to develop some AI based models to check that injury validity while we kind of assess the bias problem.
Additionally, last year we did an investigation of the travel time, reliability of lights and sirens and we we found that while license hireings don't necessarily greatly improve.
Travel time.
Compared to safety.
They do improve their reliability of travel time, so that was like a fun finding from last year that we're kinda working on getting published.
So yeah, that's that's our thing.
Does anybody have any questions or concerns?
Awesome. Well, thank you to Julia and Doug again for all the support and we'll be in touch soon.

HH **Harding, Ed H (KYTC)** 13:55
I appreciate all all three of you all working together on this to to go through and and make sure that you can get the the data shared between each other to to go through and and work on this.
I I do appreciate it.

KR **Kluger, Robert** 14:06
Yes, same.
Thank you.

Harding, Ed H (KYTC) 14:11

Well, there aren't any questions still.
Then we'll go ahead and go for our our next proposal here so.
Doug Taylor over at the board of Emergency Medical Services.
I'll turn it over to you, Doug.

Taylor, Douglas S (KBEMS) 14:26

Thank you very much.
So this year I'm I'm apologize for not creating a little better PowerPoint to share alongside this to keep me oriented and make it flow more easily.
But my major improvement I'm planning to enforce. If you're essentially our software and our database.
Is Internet based.
And as such, we have to use the built in report writer tool in the software.
To query and extract data.
It's a GUI based. It's not very powerful.
It makes it extremely difficult to pull lengthy time periods of data or large quantities of data in a single extract.
Doctor Kluger familiar a lot of times I have to send him data in 12 segments.
You know something like that where you have to piece it all back together.
And it's kind of a hit and miss.
Sometimes they extract successfully, sometimes they don't.
So our solution to this is to gather the funds to purchase or subscribe to the add on Data Mart module from our software vendor.
We plan to stand up a local SQL Server.
So that we can start pulling all of our all of Kentucky board of EMF of EMS data into that local server. Or then we can use tools such as maybe power BI or others to extract that data in an attempt to.
Make sharing more complete and more accurate, much more timely.
Possibly create forward facing dashboards.
Whether on the KBM side.
Or with our partners. Essentially we give the the GUI based report writer that we use now is extremely limited and non reliable. And whenever the software vendor update for software, sometimes they break my queries.

I have to go and rebuild them, so I'm stuck in that GUI. The limitations that GUI.
So that's essentially it. We we want to have a local SQL Server and start using much more powerful.
Data analysis tools to extract and share.
That data with with all of our business partners.

HH **Harding, Ed H (KYTC)** 16:49
Like one of the the things to think about is so.
So we did complete a urgency medical services assessment for Kentucky and one of the pieces that came out of that was to try to go through and work on making it more accessible to get to this information, to make it easier for us to to do analysis to.
This and I I wait with my dog and the board of EMS and and so we we're going to to go through and help them with with going through and building their front end applications for going through and and making it avail.
Well, so helping him with going through and making the dashboards and so forth.

TS **Taylor, Douglas S (KBEMS)** 17:24
I think it's worth the investment. It sounds like a, you know, I consider this datamark module in the past, but knowing my amount of free time being zero, I didn't want to bring on a new endeavor.
But essentially I think it's going to be a a big return on investment once once we get it up and running.
The usability for not only K beams, but for all of the partners. Looking at the trauma, you know trauma data, crash data, etcetera. We should be able to make things much more timely and much more efficient.

HH **Harding, Ed H (KYTC)** 17:58
So did anyone have any questions or concerns for Doug?
Well, if not, then let me go ahead and move on to the the next project here.
So I think Tony Fields.
Has a proposal in for going through and working on data quality control of fecal attributes using the fecal identifier numbers.
So, Tony, I think I've I've got some slides that Eric had sent across. So just just let me know when to when to go to the next slide there.

Fields, Michael 18:35

Yeah, yeah.
OK.
Thank you, Ed.
Yeah, I appreciate you.
We, we sneaked these these slides into the big presentation as opposed to taking over the the screen share, but I appreciate you doing that.
So, so this project proposes to use use.
The information gleaned from the VIN, so the manufacturer, the vehicle manufacturer.
Data to sort of QC and and you know ultimately improve the.
Kind of accessibility of of what we're thinking of as ground truth unit information.
It'll maybe make sense in a couple of slides.
It's a little easier to look at.
We go to the next one.
As just an example, this isn't.
Indicative of of everything we do but.
When we look at commercial motor vehicles, as long as I've been working in this space, we've used six unit type codes, you know truck and combination truck and bus and whatever and that's used across a lot of, you know, occupational health indicators and different CMV research that we.
Do.
So if you filter the unit table.
By those six unit types, the NCIC vehicle type codes that you get.
Yeah, this is just for one year, but.
We, we we came across this in in some research where we needed to know some information about units and what's better unit type or NCIC and you get a very very different sample depending on where you look and so you can see here that some some of them.
Are are good semi trucks and and whatever, but there are motorcycles and sedans and convertibles and and everything that's.
Almost everything.
Is is represented here so so we need. We need to have a little bit better handle on on some some of the unit information.

Can you go to the next one please?
So the idea here is to develop a custom software solution that that decodes the VIN, and I don't know how many of you have experience with working with vents, but it's not a table, it's not a look, it's an actual decoding process that has to happen in it.
And Nitsa has tools online that will let you do it in a very small, you know, one at a time or maybe up to 50 I think.
But you know we we need to decode 400,000 at a time.
So that's a that's a tough that's a tough SQL Python based kind of software solution.
But we're we're working on that for other other uses. And you know once we're able to decode the VIN and pull out every bit of.
Of attribution for the unit.
We wanna compare.
That attribution to what's collected at the crash scene.
Quantify the disagreement and you know, ultimately sort of store.
A.
A.
A more.
A more accurate, more complete.
Data element or data elements.
I guess I should say in the crash record we we collect VIN unit type vehicle, make model year, body type, cargo, body type, gross Vehicle Weight Rating which becomes very important and is really hard to.
Hard, hard to do some research without complete vehicle weight ratings. They're all complete.
And then, but not not unless the CMV checkbox was used in the crash.
Special use codes and trailer.
Some trailer information then and body type.
So. So we we'll have access to all that. And just just FYI, VIN is very, very complete, 99% of of units.
With the exception of hit and run, units have a complete bin, so you know to to be able to sort of.
Quantify, I want to say 100% of units.
That you know where we want to know all this attribution, but it's really 100% of kind of the available data.
So, yeah, long term we we obviously want to be able to make better research

decisions.
But.
This this could be a sort of.
A turnkey operation where when.
The New year crash data comes in.
We just run it through the system and collect all that and store it so.
Yeah, we could do some some make some suggestions.
I don't.
I don't want to be the trainer of law enforcement, obviously, but we can make some suggestions on.
Maybe what attributes are are missing more or inaccurate more?
Umm, you know, we wanna find. We wanna find patterns and and see how we can systematically improve the the unit information for for use in the future so.
That's that's all all I got.

HH **Harding, Ed H (KYTC)** 24:32
I was gonna say you you had those as your your goals there so.
So those are the the different pieces you were looking at doing?
Do you so?
Do you know are you using which tool from nitza are you using Tony?
Do do you know yet or?

FM **Fields, Michael** 24:52
There's a there's a VIN decoder.
What a website and you can type in Vin.
You have to have a VIN in a year and it and it outputs everything that they know about. You know from the manufacturer's decoding process or whatever.
And then there's a there's an API website that links from there.
Where you can you can download.
It's a database.
It's a SQL database.
And again, it's not.
It's not a giant table that you look up a VIN and then you know everything.
It's a very, very complicated algorithm that decodes the the 17 character Vin and thus outputs what the manufacturer you know did or built or whatever.

But the I guess the answer to your question Ed is the.
Is the API.

Harding, Ed H (KYTC) 25:51
Is it?
So is it vibrick VPI Steve?

Fields, Michael 25:52
But.

Harding, Ed H (KYTC) 25:54
That one is the one that you are using.

Fields, Michael 25:57
What? What was that?

Harding, Ed H (KYTC) 25:59
Vpic is the acronym that it uses.

Fields, Michael 26:01
Yeah. Yes, that's it.

Harding, Ed H (KYTC) 26:04
OK.
I.
I I download it every month and execute the stored procedures to to check and see if we're going through and trying to see self driving attribution.
That's the the best piece that I'd run into.
That was a a free piece that you could go through and run right now.
So if you're trying to go through and tell whether or not something had adaptive cruise control or something like that.
Um.
If you're are trying to get mainly a gross vehicle weight characteristics on these.
If if you could reach out to me the cabinets tool that we already have purchased.
I already have a sequel view setting out there that goes through and ties like the

registered vehicle population to calculate what the gross vehicle weight categories are.
So so I could tell it to to tie to the the unit.

Fields, Michael 26:54
Umm.

Harding, Ed H (KYTC) 26:58
So we're involved in the crash, so I guess I I would.
I would be more concerned with if if that goes through in in resolves, most of what you all were trying to garner from that linkage.
I guess I I'd rather save you the time on that and let you do more on your analysis and trying to go through and come up with with recommendations rather rather than spending as much time on that that linkage.
So so if.

Fields, Michael 27:21
Yeah. I appreciate the the offer help.
We we've actually collected all the the vehicle weight ratings for for another project and that was the impetus to get into Vins. For that one. You know that one data element.
Collecting all the data from Ben's is a like I said, it's a pretty it's a pretty heavy lift in terms of coding and like, like I said, the API will let you.
Download.
It download a database of.
The sort procedures that they that they use.
So we're trying to collect, I guess, more more than vehicle weight rating.
To to know everything we can possibly know about the about the unit.
But yeah, we can talk offline.

Harding, Ed H (KYTC) 28:18
OK.

Fields, Michael 28:19
Love, love to get your get your thoughts on it.

Harding, Ed H (KYTC) 28:27
Any other questions for Tony?
Any questions or concerns?
No.
If not, thank thank. Thank you Tony for presenting this morning.

Fields, Michael 28:40
Thank you.

Harding, Ed H (KYTC) 28:43
The next project we got up on the the list here is for the assessment of Kentucky traffic records, data quality and Reg.
I see you're on here, so I'll turn it over to you.
You're you're muted right now, Reg.
On your mic.

Souleyrette, Reginald R. 29:02
Why be the best presentation I've ever made? If you didn't make me do that?
Hey, it's good to see y'all this morning, Tony.
Thanks for your good report and also thanks for putting in pictures which we now have.
No more pictures now, so thanks a lot.
I tried to find a graphic for this next one, but I came up with the nitza tire inflation graph, so that doesn't that really help us too much. But anyway, so we got some word slides here.
We'll try to make it interesting for the group. The first project that we want to talk about is a continuation of the.
So-called assessment project that we do every year, this is going to continue the regular assessment and also monitor the implementation and the recommendations of the 2022 NETSA Traffic records assessment as well as to keep in lock step with the traffic records improvement plan that we.
Have this in the traffic record strategic plan. The benefit of this project is to coordinate continuous improvement of the quality of traffic records in Kentucky, resulting in improved.

Analytical capabilities, selection and countermeasures, and ultimately safer roads in the state, Ed.
I hope that's the kind of benefit that you were that you were hoping to see this project's unique because it really touches all of the data systems and goes across the whole 6 pack of the performance attributes of the six by six. Matrix is what we use.
The work that primarily Lynn and Sam, who are with us today, conduct.
Next slide please.
Sorry for the small text, but we do a number of things throughout the year.
I'll just go down through these real quick to continue the coordination with appropriate database liaisons.
I think we have some of them on the call this morning.
Thank you for putting up with us and for for allowing us to contact you on a regular basis to see what's going on in your areas. We review the performance metrics for each database.
We look back at the traffic records assessment to see if there's any good stuff in there that we can make, you know, improvements.
Toward we facilitate our discussions among the different liaisons to improve integration between the databases.
In addition to that, we also work with the with the people that are doing projects underneath the K track umbrella to see, see what's going on throughout the year. We monitor and document progress toward fulfilling goals and timetables in the strategic plan.
That's just not the highway strategy plan.
This is the the traffic record strategic plan.
We document any necessary changes in the goals, and this comes from the liaisons.
We don't tell the liaisons what to do.
We just work with them and how their goals and objectives and strategies might be morphing over time.
And then our big product we do is we produce a final report to address each database with quantitative measures where possible for each attribute quality attribute. If you go to the next slide.
I've listed out how you can.
Kind of measure how how we're doing.
So our deliverable is that annual report and has four chief components. One we look at each database with a quantitative measures for activities along with the projects

identified for improvement.
Two, we include a description and supporting documentation of any work completed to reach the goals that are laid out on the traffic records strategic plan #3 we include changes in goals and projects with the reasons for any changes or delays.
And then lastly we document.
Well, we we intend to document quarterly interactions with liaisons or analysis using third party information.
Well, what does that mean?
Well, Ed, you were talking a little bit about, we ought to have, if you say you're going to do this and at the end can you can you look back and say that you did it, OK?
So our intention is to document the quarterly interactions.
Now, sometimes we don't have a quarterly interaction with a particular liaison primarily.
There, there could be many reasons for that.
One reason is just those folks are busy doing.
You know their day jobs and don't really have time to talk to us.
Another reason might be that there's nothing you know really to report since the last quarterly update, but we'll document the attempt to contact the polite attempt to contact, and if we don't have any contact, then our new idea is that we would do some sort of Internet search.
Or what?
Our third party third party consideration of what's going on to see if we can find anything that might be of any benefit.
To those database liaisons.
Lynn is going to take care of that over the next year.
So who implements this?
Well, it's. It's basically we do the project, but it's really up to the data stewards who are responsible for implementation and recommendations.
And so we just need to remind them we have this because, you know, people, there's just so much material out there, you know, we expect everybody to go and look and find our work to help them.
So we'll try to be proactive on that at least once a year, if not more frequently with the liaison.
To show them what we're coming up with and in the hopes that it's of a benefit to them and improving the quality in their areas.

Harding, Ed H (KYTC) 34:15

Well, thank you, Reg.

Anyway, you have any questions for for Reg or Sam or Len?

Well, if not, thank.

Thank you for expanding on the on the description there, Reg.

One of the things that I did is I I did already reach out like I talked about at the beginning.

I reached out to each of the the different proposals here in ask them to go ahead and elaborate a little bit.

So we could go through and and try to make sure that we we had, OK.

Well, what is it that our target is to to go through and achieve with with each one of these projects?

So trying to make sure that we had that documented a little bit, a little bit more distinctly than we did before.

So and after after this I may reach out to you all again.

So don't don't see read anything into that.

I'm just trying to make sure we've got the the best, the best description for what we're gonna do that that we can get.

Souleyrette, Reginald R. 35:13

Yeah. I thank you for the opportunity to do that, Ed.

We have.

We have updated in IGX what you see today and if any additional input or changes are needed, please let us know and I'll be particularly interested in hearing from our friends at Nitza if they have any because they see what's going on in other States and they may.

Have some ideas for us on things that we can do for any of these projects and so I'm glad to see all three of you here today.

Sinclair, Samuel (NHTSA) 35:43

Thank you.

I appreciate the opportunity to to review these before they become projects, you know, in a lot of states we we don't see that.

Harding, Ed H (KYTC) 35:50
I'm.

Sinclair, Samuel (NHTSA) 35:52
So we appreciate.
Kohs inviting us to be a part of this process.

DeFisher, Joshua (NHTSA) 35:59
And especially just passing along a. Kudos to to Kentucky and all the people on on the call right here, the the variety and the amount of traffic records projects that you all are trying to think of and and move forward to improve traffic records is is definitely des.
Some kudos.
I know many states struggle with just trying to develop projects each year. When it comes to 405 C.
So thank you for trying to be innovative and think of issues and solutions for traffic records.

Souleyrette, Reginald R. 36:30
Great. Thank you.

Harding, Ed H (KYTC) 36:31
Thank. Thank you.

Souleyrette, Reginald R. 36:34
Are you ready for me to go to the next one, Ed?

Harding, Ed H (KYTC) 36:37
I was going to say if there aren't any more questions, then yes, we'll go ahead and hop on to the the next proposal here.
So the next one is the Kentucky Traffic Safety Data service.
So surge, and I think Alex said they had to hop off for for a previous appointment.
So go go ahead, Reg.

Souleyrette, Reginald R. 36:56

OK.
Yeah, I'll try to do fill in for Alex here.
He's he's got a dental appointment that he had.
He can change.
So this is the second project I'm going to talk about is the Kentucky Traffic Safety Data Service. For those of you not aware, this is a service that we maintain this based upon a service that we first started back when I was in Iowa at Iowa State and.
So it's been going for a number of years where we put funding in place that enables us to respond rapidly.
To requesters for data and all things traffic records related, they don't have to come to the university and go through the cumbersome contracting process. They simply need to fill out a form that we have on the web stating what their request is, and then we depending upon the.
Type of request.
It is.
We either go ahead and fulfill that request.
And document that request or if it requires some approval.
By, say, the transportation cabinet or other state agencies before we proceed, then we'll get that approval. And then depending on what they say, those approvals involve things like any kind of legal request.
A.
A legislative request.
Let's see. What are the other categories.
Oh, anytime.
Say consultants request us to do their work for them and they're already.
Getting paid? That would be something that we would want to work out in terms of division of responsibility and that we're not, you know, taking pay twice for the for the same work. And so it's it's worked out pretty smoothly and we do get requests from all of.
Those different types a lot from citizens, interest groups and and lately we've been getting a lot of requests from say, other universities and research institutes that know that we have good access to quality.
Crash data and traffic data here in Kentucky.

And so we'll help them out with.
There are a number of.
Projects that we did this year.
So you can go to the next slide.
Ed.
The the goals of and I already did a little bit of this in this meeting this morning by following us out to to Julia is to continue marketing the ktsds so that we get enough requests to meet our goals every year.
We do that at conferences.
I did that at the Department of Highways leadership Team meeting yesterday. And so Ed, we'll start documenting all those interactions.
So at the end of the year, you'll see you'll be able to see the the groups that we reach out to you.
Will receive and record the data and data analysis request.
Paul Ross, who I think is on the call here, put together a real nice database for us to keep track of all this and and we work with the requesters to understand and help them understand what they're asking for.
Because a lot of times what they're asking for, you know, they may not really exactly know how to ask the question. And I think any kind of research that asking the questions.
Is 90% of getting you to the right, you know direction of where you need to be. We conduct these small studies or data assemblies or maps or whatever in response to request and then we will improve the ktsds website. When Rob was talking earlier I thought about.
Maybe some mapping, Rob that we could do to identify the bias that you were talking about in, in, in the linkage project?
Next slide, Ed.
OK, someone up for this project?
What is going to be delivered?
We we intend to provide 20 to 25 small studies of Traffic Safety to end users by the end of the fiscal year and to promote ktsds and at least three or more state and national level online or offline transportation events. I suspect it's going to be many. More than that, but we needed to put a number in here and so we will at least document three major attempts to market the service.
And who is implementing this?

Well, This Is Us.
We are actually doing it so.
Are there any questions about Ktsds?
OK.
Well, I encourage all of you to to reach out if you have any, any. Anything we can do for you.

Harding, Ed H (KYTC) 41:22
Thank you, Reg.
And we're not trying to make you talk for for a whole long time in a row here, but the next proposal we've got here is actually Reg and Alex as well here.

Souleyrette, Reginald R. 41:35
OK.
All right, I'll try to.
I'll try to be quicker.
I like to talk. As you all know.

Harding, Ed H (KYTC) 41:39
Now, right?

Souleyrette, Reginald R. 41:42
All right. So so this next one is is a bit of a departure from our typical K track project where we are going to be looking into a really interesting database called Kentucky from above and to see if that can be used for traffic records improvement Kentucky from.
Above is actually high quality digital aerial LIDAR that covers the entire state of Kentucky at a very high resolution.
If you go to the next.
Slide, I guess you know what, Ed.
I've been forgetting to say this.
I forgot to say it for ktsds.
Perhaps it was obvious, but if you go back to the previous slide just real quick, you'll see that each one of these projects that slides that Ed put together.
He put.

Let's see.
Not that one.
Go to the next slide.
Yes.
No. Next slide.
Sorry. Stay on Kentucky from above. The first slide for Kentucky from above.

HH **Harding, Ed H (KYTC)** 42:38
Oh, OK.

SR **Souleyrette, Reginald R.** 42:39
Sorry. OK, right there. That each one of these, you'll notice.

HH **Harding, Ed H (KYTC)** 42:42
Yeah. So we were trying to trying to make sure that we say what the exact system is. So like Reg mentioned on the assessment project, it's all six and then going through and saying the performance attributes. So again in the that other example, it's all six, so on.
Each one of these trying to make sure that we know clearly what is it that we're going through and working to to improve here.

SR **Souleyrette, Reginald R.** 43:03
Yeah, yeah. And I really, I really enjoyed that.
This is living on.
This is something Bob Pollock and I did many years ago at NetSuite was to have that six pack and six by six matrix up there.
So thanks Ed for putting these in here.
So for for Kentucky from above, the intent is to improve the roadway database and in terms of its completeness, OK, next slide please.
All right, so the goals of this project are going to be to improve the completeness by developing a method to measure Rd. attributes, including super elevation and.
Roadside slopes and grade.
And pavement slopes or grade?
For for the for the database. These are things we do not have in the current H is database for Kentucky.

And they're all three extremely important for predictors of safety. And so we don't directly improve safety with this project, but we improve the database that will allow for better countermeasure selection and ultimately safe, safer roads in the state.
The next slide is that one more.
Yeah, one more for this, OK.
So what's going to be delivered? OK.
So our initial intent and we haven't done this before, so I'm kind of taking a guess at how many of these we can do.
But we until we're going to try to measure the road super elevation, the roadside slopes and the pavement slopes at 12 sites around the state.
One in each district, and then we're going to do our analysis and provide a report that describes the methodology for doing this using the LIDAR data. And then we're also going to expand that to OK.
Well, what would it cost us to do this for the entire state?
And if it's too expensive to do it for the entire state, what would it cost on a road mile basis?
For various kinds of roads, so that the cabinet can then in turn look and see what the, you know, the benefit would be of collecting these data using the lid on and expanding that to the whole system.
So who's going to implement it? Well, after we provide the report, we will turn that over and then it will be the decisions of the division of planning.
For incorporation in his database, the Office of Design for consideration for use in hot and Safer Hwy. design.
And the division of maintenance for consideration of improved maintenance or paving to promote safety.
And I've already got people from all three of those areas interested in this project, and so we've got a kind of a natural steering committee, if you will, that, you know, is kind of interested in this work.
So it doesn't just sit on the shelf at the end.
Any questions about Kentucky from above?

HH **Harding, Ed H (KYTC)** 45:47
I'm I'm glad to hear you've already got a a natural steering committee already assembled there.
You might want to make sure that you include traffic operations so the high highway

safety improvement program is in traffic operations as well.
So if you reach out to Mike Vaughn or to yeah.

SR **Souleyrette, Reginald R.** 46:02
Michael's lion.
Yep, I sure will.

SS **Sinclair, Samuel (NHTSA)** 46:07
Just out of curiosity, do you know if this lidar approach is being used elsewhere?

DJ **DeFisher, Joshua (NHTSA)** 46:08
And.

SS **Sinclair, Samuel (NHTSA)** 46:14
Is this the first time it's being used in Kentucky?

SR **Souleyrette, Reginald R.** 46:19
It's the first time it's being used in Kentucky. When I was at Iowa, I did some work for the National Consortium for Remote Sensing and Transportation, doing preliminary proof of concept to see if the data are good enough to do things like cross slopes and super elevations of.
The roads at that time, at that time the data were not, unless you specifically like flew a drone or something or had a truck going down the road collecting the lidar, you could get that kind of quality.

SS **Sinclair, Samuel (NHTSA)** 46:37
Mm hmm.

SR **Souleyrette, Reginald R.** 46:49
From from that.
But now that we've got that holistically for the whole state at a high quality, I think the time is ripe to see if if this can actually be done economically on a large scale.

SS **Sinclair, Samuel (NHTSA)** 47:02
Yeah, that's very interesting.

Harding, Ed H (KYTC) 47:02
Just just.

Sinclair, Samuel (NHTSA) 47:04
I I could see almost 2 two sides of it. If if it's not something that would be used in the end statewide, you know, it makes sense to possibly use it where in very kind of isolated areas it may be difficult to get around to in a time.
Manner.
Or almost the reverse. If it's the data quality is easier in your main known, you know roadways, then maybe use it for that. And then the time savings allows you to go to those remote places.
But it'll be interesting.

Souleyrette, Reginald R. 47:36
Well, that's a great comment.
Do you mean a second just to scribble that down here?
Specific sites.

Sinclair, Samuel (NHTSA) 47:44
I was in a previous job here at Nitza I worked with.
Alongside federal highways, federal lands, working with tribes, and they were using this as as you described it, mounted onto a a truck, a vehicle and just driving down the roadways and capturing it.
But this would be, you know, far less labor intensive.

Souleyrette, Reginald R. 48:10
Mm hmm.

Harding, Ed H (KYTC) 48:11
Well, well, here's Sam. We do.
So we have a photo log for all of our state maintained roads and we do profiling with that.

Sinclair, Samuel (NHTSA) 48:17
Mm hmm.

Harding, Ed H (KYTC) 48:20
So we actually have a laser mounted that goes through and creates A3 dimensional profile as that vehicle drives along here.
So. So we do have that profile. So we can go through and measure what the the routing is and so forth on our on our roadways.
There's also so Reg. Did they talk about the scrim data set?
When you were talking with maintenance by chance.

Souleyrette, Reginald R. 48:44
Say that.
Say it again.
Spell it for me.

Harding, Ed H (KYTC) 48:46
Scrim SCRI MID have to double check my e-mail for so so it specifically was a project where maintenance and traffic operations were working together to get information about the Super elevations of curves. So they do already have some of that and they came.

Souleyrette, Reginald R. 48:52
No.
Yeah.

Harding, Ed H (KYTC) 49:08
Up with a way that they could do digital ball bank indicator testing as well.

Souleyrette, Reginald R. 49:13
Yeah, I think even KTC was involved in some of the evaluation of that. And I had never heard of Scranton before.

Harding, Ed H (KYTC) 49:20
OK, Liam.

Souleyrette, Reginald R. 49:22
But what you and Mr. Sinclair are talking about is that is very useful to the project because there are some databases out there for limited sections of the road that we can use for calibration and validation of what we're doing.
But what Kentucky from above allows us to do is to get off the road.
Which I don't think the laser indicator gets very far off of the road at all.
And also let's us to get into the secondary system where a lot of the crashes occur that when the state does not maintain.
Hardly any data at all.
So that's that's the intent and I've got some some great notes from you guys and I'll make sure that goes into the work plan.

Kluger, Robert 50:00
Hey, Reg, I got five years of scrim data also. So next time we chat you can.
Bring this up.
Mike Vaughn sent me that.

Souleyrette, Reginald R. 50:09
OK. No, we won't have to bother him then.

Kluger, Robert 50:10
So.

Souleyrette, Reginald R. 50:11
That'll be great. Thanks, rob.

Kluger, Robert 50:12
Yeah. Yep. Ed, I have to run, by the way. So I'll talk to you later. Thank you, everybody.

Harding, Ed H (KYTC) 50:18

Thank you, rob.
Is there anyone?

SR **Souleyrette, Reginald R.** 50:22
OK. And should we get?
Yeah. Should we get going on?

HH **Harding, Ed H (KYTC)** 50:25
Any any other questions or anything for Reg?

DJ **DeFisher, Joshua (NHTSA)** 50:30
Yeah, this is Joshua benitza.
So again, Rhett, I'll echo Sam. Really interesting project with your site selection in the 12 counties. I know it mentioned you were trying to look at reducing the possibility of drainage and and ponding or hydroplaning.
Are you gonna be looking at crash data for like wet surface or any other crash factors related to that crash type? When you're looking at selecting your sites in each of those districts?

SR **Souleyrette, Reginald R.** 50:54
There will be now.
Thanks for the tip.

DJ **DeFisher, Joshua (NHTSA)** 51:00
Yep, no problem.

HH **Harding, Ed H (KYTC)** 51:05
So if there aren't any other questions, we'll go ahead and hop down to the the next one here.
So are you on the call, Sir?

CM **Chen, Mei** 51:15
Hi everyone.
Xu is out of the office and up. Make the presentation on his behalf.

Harding, Ed H (KYTC) 51:21
Thank you, Mai.

Chen, Mei 51:23
OK.
So yeah, so this project is about generating, you know, networkwide pedestrian and bicycle traffic volume data for Kentucky.
So, you know, first of all, you know it.
Is it deals with the roadway system and and you know it deals with also the accessibility and incompleteness aspect of the data record.
You know, why does bicompet data matter?
Because, you know, we are doing safety analysis especially for those that involves vulnerable road users.
You know you do want, you know, an understanding of the volume bicompet volume. You know, as a basic metric for exposure.
So what the challenge is, you know, right now is that, you know, we don't have in Kentucky.
We don't have.
A.
You know comprehensive data set for PED and bike volumes.
Uh, what we do have is perhaps here and there.
You know, some of the municipalities or, you know, NPO, you know and and for the state you know did some study, you know, in certain corridors in certain areas. But there is not a systemic place where these data can be retrieved or or.
Looked at and then to see if it can be used.
In other.
Studies. So you know what we're proposing to do is to, you know, generate pen and bike volume data for.
The roadways in Kentucky where you know we have data and then we can also extract some data from streetlights platform streetlight. For those of you who haven't heard of it, it is.
A like a data vendor service.
That the KYTC has subscriptions for in the past couple of years.
Now they do provide some pen and bike data on roadways.

You know, So what we're trying to do here is to, you know, compile all the observed data.
Ed, can you move to the next slides please?
So basically, you know, we wanted to.
Compile all the observed pattern bike data.
From Kytc and you know local partners into a single database and also.
You know extract.
And access, you know, the street lights statewide.
You know, pattern bike volume data and using their custom API and then basically you know do comparison and evaluation where we can.
And also model and estimate, you know built models to you know to estimate pattern bike ADT. You know at locations where we can basically build models for and then calibrate the model and then in the end you know the model should.
Have the capability of estimating you know pen and bike volumes for places where we don't have any counts.
So and then ultimately?
You know, when we built the the model and then have the estimates ready, you know we can disseminate it using a.
Let's say an easy to use platform. For example Arcgis Online, where you know users can zoom in and then click on roads and it'll show pen and bike volume.
And you know, of course, this the end goal is to, you know, compile this data altogether and then to help the safety analyst help the planners.
You know when they need to.
Access this data and then when they need to, you know use them for various applications.
So that is, you know that is what I have.
Yeah. So yeah.
So on the slides, you know there is, you know he talks about the online portal and then we're also provide technical memo on the methodology and also you know a compiled list of data used.
And then, you know, I think what we intend to have, let's say the planning Division, I mean, as far as I know, you know in the shift process that you know the planning division is going, you know it's working through every other year.
That pen and bike, you know, volume is something that, you know the process needs.

And you know, we intend for this data to be readily available to, you know, all the stakeholders.
So any questions?

DJ **DeFisher, Joshua (NHTSA)** 56:21
Yeah. Hey, this is Joshua from Nets again.
Thank you for putting forth this idea.
It's definitely a common problem across the nation when trying to figure out bicycle and pedestrian counts, so I just had a couple of things just real quick. So part of it.
Is going to be on site observational data, right?

CM **Chen, Mei** 56:40
Right.

DJ **DeFisher, Joshua (NHTSA)** 56:42
OK.
In addition to collecting counts, are you going to be collecting any other safety related data? Since you already have the observers out there?
So is there any secondary data like distraction?
A near miss use of facilities like crosswalk pedestrian refuge, bike lanes, stuff like that.
Or is it gonna be strictly counts?

CM **Chen, Mei** 57:01
I think you know we're going to compile data for the, you know, petabyte data counts from various sources and at the same time, I think, you know, in our prior work with, you know, state his network, you know, which is linked to all the, you know, crash record.
There is.
You know, I'm not sure about near misses, but there is definitely.
Roadway attributes linked to certain locations.
And then.
Also, you know the the the the crashes involving.
Bicyc are, you know, part of that?
So. So yes, I think you know that certainly I think creates you know I guess gives us more complete information as to you know where we have.

Safety issues with pen and bike that involves pen and bike.
Users umm. So.
You know, we I think we do.
You know, we do intend to.
You know, perhaps spend some time, you know, actually collecting data ourselves.
But I think, you know right now I think bulk of the plan is to, you know, compile data that's already collected.

DJ **DeFisher, Joshua (NHTSA)** 58:24
OK, OK.
Yeah. I would just say, yeah, if you're gonna. If we're gonna have actual. If you're gonna have actual observers out there just, you know, you wanna take advantage of that time and think of what are some other other issues you wanna collect data on potentially for safety of.
Pedestrians. And then last thing, I'll, I'll drop it in the chat.

CM **Chen, Mei** 58:41
Yeah, absolutely.

DJ **DeFisher, Joshua (NHTSA)** 58:45
There's an interesting article over from United Kingdom using AI smart sensors and one of their one of their regions, and it aligns with the regional Rd. safety.
The action plan for 2024 through 2030, but it was implementation of some AI smart centers.
They have like 40 of them within within their city or their district, and it was collecting some information similar to this and also near Miss information when it came to bicycle and pedestrian.
So I'll throw that in the chat just for interest.

CM **Chen, Mei** 59:16
OK.
Thank you for that.

DJ **DeFisher, Joshua (NHTSA)** 59:19
OK.

Chen, Mei 59:22

I mean we we we just wanted to mention that we currently have a project you know looking at basically using the AI, you know, language model to go through the crash narrative basically to extract.
The circumstances that you know leading to crashes involving.
Pedestrian and bicycles.
So, you know, I think that can also, you know, provide some kind of really interesting. I guess.
Context information right 'cause you know when you're talking about looking at the crash report.
Yeah, you get a check mark that involves pedestrian, but you know, where does that happen and what leads to it?
And then what could be you know?
What? You know what could be done basically to to mitigate that risk.

Harding, Ed H (KYTC) 1:00:18

Any other questions or concerns for Mike?

Yates, Claire 1:00:23

Hey, good morning. Y'all Clary, aids Louisville, KY.
Thanks as always Ed for inviting me into these.
These are wonderful. I I'll just say I know that Louisville would absolutely greatly appreciate PED bike volume data.
I I totally agree that this is this is kind of a missing data point and particularly for streets.
In low income areas where like the traffic volume might be low.
But anecdotally, I know that there there's quite a bit of PED and people who are on bikes kind of using that same Rd.
And so I I think this would be immensely valuable.
So thank you.

Chen, Mei 1:01:15

Thank you.

Harding, Ed H (KYTC) 1:01:24
Comments or questions?
If not, thank thank you may.
I think Paul Ross, you're up next.
I see you turn your camera on there, so go ahead.

Ross, Paul A. 1:01:40
Thank you. So for this one, we're gonna be looking at the the crash system and there are a couple of performance attributes. So I've got listed their accuracy and uniformity, but probably completeness could also be thrown into the mix as well.
The intent here is that we were going to use an AI tool to examine crash data with the purpose of looking for anomalies within the data.
This one was kind of inspired by the scooter project that we did last year.
Where we found over 50% of electronic scooter crashes were coded incorrectly and that got me wondering. Like what other potential problems do we have in the data that we're not seeing?
Because we're not looking for it.
And is there a tool out there that is capable of doing that?
So we would like to apply an offline and open source tool or try several offline and open source tools.
That way we're not shuttling data to 3rd party companies or.
Risking being in any kind of breach of our MOU, but we would like to try to do that analysis just on our servers. If we're able to do that and we hope to use that to potentially detect.
Errors within the data anomalies within the data that may point to errors within the data. If we could go to the next slide there.
So I was told use smart objectives, though I was later told maybe smart wasn't always the best application.
So that's the framework I'm using here, though that may be subject to change just based on feedback, but the ideal goal is going to be to identify a specific tool which will be capable of reading Crouch data and identifying anomalies within the data.
We would plan to initially run this on one year worth of crash data.
As Tony had mentioned earlier, when he was speaking, there's a lot of records and so you can throw small samples at these tools.

They do pretty well, but you get into larger data sets and some of these tools do tend to choke and so.
As you and me can probably speak to as well, depending on the type of feature classification that you do, whether you're going with the supervisor, an unsupervised model that may come with some.
Overhead.
Computationally speaking, that may be difficult to work with, so we may start with a supervised feature classification and then if we find that's working well, we may even try an unsupervised model.
But I would consider this achievable if we're able to run the tool.
And get it to produce something that we're able to read as far as relevancy is concerned, I think this does speak to the point of of the four oh, fives.
We're we're looking at the data quality of this crash database and as far as being time bound, of course we've got a year, so I'd welcome any questions or or feedback or if folks have experience using an AI anomaly detector tool.
If they've got suggestions for products that we might start with, I've looked at Microsoft's AI anomaly detector.
Third eye and and a few other options that would probably be tools that we would try to kick this off with.

HH **Harding, Ed H (KYTC)** 1:05:15
Thank you Paul, for for going through and and and hitting smart on the head there.
I appreciate it.
Yes, that's what I was going for.
Just trying to make sure that OK, well, what what?
What exactly are we going to to achieve here?
So did anyone have any questions or or any insights? And again if if you all have them and you're just afraid to speak up now, just just e-mail me later.
And if you have any suggestions for Paul, please please make sure to reach out to him.

RA **Ross, Paul A.** 1:05:45
Awesome. Thank you guys.

HH **Harding, Ed H (KYTC)** 1:05:48

Thank you, Paul.
There's not any other questions.
And go ahead and hop down to the the next proposal here.
So I'm not sure. I think Eric and may are both on here.
So whoever whoever wants to speak?

Chen, Mei 1:06:03
I guess I'll start.
So.
You know, this project is about, you know, improving accessibility of ADT data for safety analysis.
Eric and I, you know the Co principal investigator and this project deals with roadway data and you know the primary goal is to provide accessibility to the latest and greatest data.
So, so, So what this project does is to develop tools and methodologies to improve.
Move the accessibility and usability of AADT data for all public roads and with a particular emphasis on local, rural and off system roads.
So next slide please, because Kytc maintains you know counting stations and then data counts program that would provide estimates of of aadts on state owned state operated roads.
But the safety analysis is not limited.
To the, you know, state maintained roads. So there is a great need of ADT data for you know.
All the roads, and especially the ones that do not currently have a a data volume monitoring.
Program. So what we intend to do is to build upon.
You know, existing studies that have.
You know, developed, you know, prototype of models, machine learning models to estimate Adts on all roads, including the low volume roads or you know non state roads.
And you know, intend to, you know, use the latest data and implement the best trained models to, you know, to, to, to.
Provide the estimates and obviously.
An important part would be to validate the accuracy of the you know and reliability of the model output through the field data and statistic analysis.

So we've been, you know, working closely with kytc planning data.
Data collection group to, you know, look at their data, both long term continuous construction data as well as the short term construction data.
And then we've been kinda using it for various purposes.
So you know, using that to you know to validate the model is obviously an important part for this study.
And then, you know, we also want to create a user friendly interfaces and workflows to facilitate the integration of ADT data. You know into safety analysis processes and then state and local agencies. Municipalities wanted to use this data.
Can easily find it.
So the deliverables, what we will produce would be the first aadd estimates and the online map, and then it'll also give the ability to download data.
And then the target users would be, you know, the safety analyst transmission planners, you know at the state and local authorities that can use this information.
So here I am, you know.
Putting a link into the chat so that is something that we produced a few years ago.
You know we we envision.
You know our products going to look like at least look like this.
Where you know, you click on it. That'll take you to a statewide map, and then you can zoom in. The blue lines represent the volumes, you know, generated by Kytc's counts program.
And then if you further zoom in.
And you will see a bunch of, you know, green lines. Those are the.
Roads that do not have you know ADT estimates.
So those volumes come out of, you know, a prior project and what we're trying to do with this new project is to, you know, update the data, you know, use the latest and greatest input and methodology you know to to provide the best estimate.
Going forward.
So that is all. Any questions?

HH **Harding, Ed H (KYTC)** 1:10:35
The link you just shared, I actually shared that in a meeting where we were talking about Rd. safety assessments we were doing as part of the rural high 5 project earlier this week.

Chen, Mei 1:10:45
OK.

Harding, Ed H (KYTC) 1:10:46
Where last, last week. And so we we had gone through and and and we had some. Some of those were local roads where we didn't have ADT values, and so I was like, OK.
Well, here's here's something that at least gives us some idea of of what we're looking at for relative volume in those counties.

Chen, Mei 1:11:04
Yeah, I'm glad you know it's useful, but if you look at if you click any road, it'll pull up the, you know, the actual volumes and then it'll tell you, you know, the data source and then it'll also show it is for 20/21.
So yeah.

Harding, Ed H (KYTC) 1:11:20
I I noticed that I didn't point it out very loudly to them, but I I did notice that yes, but it but but yes, I was encouraged that it said what the model was, that it had been used on each of the particular ones that we had click.

Chen, Mei 1:11:25
Mm hmm yeah.

Harding, Ed H (KYTC) 1:11:32
On so. So I was encouraged by that.

DeFisher, Joshua (NHTSA) 1:11:35
Yeah, yeah, that was a really interesting, not necessarily a question for you, but maybe just overall, just since we've had a couple of roadway data collection projects. Where is Kentucky in relation to like, you know, we're getting to the deadline for the Meyer FTE requirements.
Are any of these going into that or is Kentucky sitting pretty good when it comes to meeting that?

Harding, Ed H (KYTC) 1:11:58
I think Ramsey was on the call and he's he's still on here.
I think the fundamental Dale wants on Meyer.
We were pretty close.
I think we maybe had one that we still needed some work on, but everything else we were in good shape.

DeFisher, Joshua (NHTSA) 1:12:12
Awesome. Cool.

Harding, Ed H (KYTC) 1:12:13
Is is that right, Ramsey?

Quarles, Ramsey M (KYTC) 1:12:16
Yes, Ramsey.
Yeah, we're we're pretty good.

DeFisher, Joshua (NHTSA) 1:12:20
Excellent. That's great to hear.

Harding, Ed H (KYTC) 1:12:28
Any other questions from?
A. Are you going to be coordinating with the ATD values that are generated from the bike and pedest?
Rian. Platform that you are looking at building here.

Chen, Mei 1:12:46
Yeah, yes, definitely. You know what we?
Plan for the bicompet volume estimation project is to deliver something similar to this. You know it could be, you know different layer on the same platform or it could be you know two different URL.

Harding, Ed H (KYTC) 1:13:02
OK.

Why? Just just trying to make sure that somebody could get to both things at the same time.
Hopefully is is sounds sounds like you are so great. Great.

CM **Chen, Mei** 1:13:08
Yeah.

DJ **DeFisher, Joshua (NHTSA)** 1:13:08
Mm hmm.

CM **Chen, Mei** 1:13:11
Yeah.

DJ **DeFisher, Joshua (NHTSA)** 1:13:11
Hey, Ed, real quick. Have you been in contact with with Doug with TR coordinator in Maryland at all recently?

HH **Harding, Ed H (KYTC)** 1:13:13
Yes, Sir.
I have not.
Does he have a similar project to this?

DJ **DeFisher, Joshua (NHTSA)** 1:13:21
OK.
Well, not.
Yeah, they've done a lot with ADT and also developing some public and and internal dashboards with with ABT.
So might be someone. I'll. I'll connect you guys just so you can ask what they've been doing there.

HH **Harding, Ed H (KYTC)** 1:13:37
OK.

CM **Chen, Mei** 1:13:37
OK.

Harding, Ed H (KYTC) 1:13:37
Thank you. I appreciate it.

Chen, Mei 1:13:37
Yeah, yeah. You said it's Marilyn.

DeFisher, Joshua (NHTSA) 1:13:38
If.
Yes, yes, ma'am.

Chen, Mei 1:13:42
OK.
Yeah, that that'll be great.
I'll be interested in seeing what they have.

Harding, Ed H (KYTC) 1:13:52
Any other questions for me?
If not, thank you may and we'll go ahead and and hop on to the the next project here.

Chen, Mei 1:13:59
I can't.

Harding, Ed H (KYTC) 1:14:03
So next one.
Here it looks like Eric, are you on the call, Eric?

Green, Eric R. 1:14:08
Yep, guys, here we.

Harding, Ed H (KYTC) 1:14:10
Yes, Sir.

Green, Eric R. 1:14:11

All right.
Yeah. So this one actually kind of builds off of the work Mei and Chu have done in the previous ADT estimation because we use that in here, which I think is a good fit.
This is using equivalent rear end crashes and I'll explain what what that means to.
Prioritize intersection improvements.
It definitely tackles roadway data.
Certainly Adt's and then obviously crash data as well.
I had integration on there as well.
The main performance attribute, but I put completeness and I started a parenthesis because I was gonna try to make a philosophical argument that the completeness here that we're talking about is we're hoping to use the crash types and the speeds to kind of predict what the severity could.
Have been so it it the there's nothing wrong with the severity data.
In in these crashes that we're arguing, we're just saying it may be a predictor of something else.
Else. So I'll I'll kind of explain my argument here with the next slide please.
So you kinda building off a safe system approach which a lot of states are adopting.
We're starting to focus more on fatal and serious injury crashes.
So these are just the K's and the A's. That leaves out a lot of other crashes that could have been AK or an A had something small changed and and and I think there there was a study from Maine dot that that came to our H.
Group.
That caught Mike Vaughn's attention, and he he brought it to us and it it's.
Using the idea that the speed of vehicles and the types of crashes that are happening, particularly here, we're talking about intersection crashes.
Could help predict the likelihood of AK and Na crash.
So maybe maybe it didn't result in AK or NA, but it certainly could have based on on on these these factors.
So something we've we've seen in the past to use and and the HSIP program and other other groups use severity as a way to to look at crash data differently.
But obviously O crashes are.
Very abundant.
But there's there's no severe injury.
So there's a there's a a technique called equivalent PDL where you normalize all the crashes down to an O crash.

So if you had AK crash, it would be converted to some number in there various models that states used to create this calculation.
But you'll you'll have so many O crashes that basically I'll say in air quotes equal AK crash.
And the idea there would be.
You know, we could give a lot more weight to intersections or segments that have. K's or A's or B's by by basically boosting the number of O's so you can you can normalize all your data just down to the O's and that way you're not having to distinguish between AK or an A and things like that so.
We want to use a similar technique.
Based on speed, so the speed of the vehicles at the time of crash and again here we're we're starting with intersection crashes because I think that's where it can be the most, most helpful, but also the type of crash and.
Here we're thinking.
Manner of collision.
So if we normalize everything down to the least likely crashed result in a severe crash, this might be slow speeds and maybe a rear end crash, right? So the.
Opportunity for severe injuries is is low and we can term this equivalent rear end crashes.
So now we're using the same principles for EPDO, but now for equivalent rear end crashes.
So that gives us a number of of crashes normalized down to.
The the least likely resulting in severe that we can use as our number of crashes now for intersection.
So the next slide walks us through.
Yeah. So we'll, we'll use these ERC counts as I'm calling these equivalent rear end crash counts.
And integrate them with our ADT counts, which would include the local Rd. ADT estimates that may ensue of have collected, and we already have an intersection database that includes all roads, state and local, so these will be assigned equivalent rear end crash counts.
So again, if if, if, if some of these intersections.
Maybe didn't have a high number of K's and as, but they did.
High number of high speed angle collisions. Those might be predictors of you know, OK, the crash hasn't happened.

The bad crash hasn't happened yet, but based on the geometry and based on the driver behavior and other things, we think it may result in some some more K's. And as so again it's it's more of a proactive approach instead of a reactive approach, which the E.
Is a reactive approach because we're using existing.
Injury data.
So we ultimately create a safety score, what we call an EEC.
We do this already for for KAB crashes KA crashes.
Oo crashes, C&O crashes, so we can do models like that.
But again, we're using the injury severity that resulted from the crash, not the ones that could have resulted.
So this'll give us.
Eec which is our safety score based on a potential prediction and then in terms of measurement because with 405 studies we want to be able to.
Measure progress here. Here we'll want to measure it by the number of intersections that we identify.
With an EEC based on those Erc's and we should be able to do that for all intersections in the state as long as we have the Adt's and the crash data and the severity data which we do, we should be able to do that for a.
100% of the intersections send that off to the Highway Safety improvement program and they can use that as another way to prioritize 'cause. They already use cab crashes.
Then they use Co crashes in different ways.
This will give them another.
List so last slide please, Ed.
So we'll likely integrate this into the kind of annual work we do if it's if it's very successful.
And again, it'll just be another priority.
List that.
Hsip and others can use to to identify these intersections, but we'd also like to share it with local governments, mpos and even police agencies.
We've shared our other EEC maps and lists with them.
This is again another one that just maybe will give a better prediction of where these severe crashes will happen.
Again, factoring kinetic energy into it with speeds and and crash types and then Reg.

I don't know if.
Yeah, if he's still on the call.
I haven't really talked to you about this, but I would also make a pitch that we might want to consider adding this into the next shift calculation too, as it might be another another metric.
So that's that's what I have, Ed.

SR **Souleyrette, Reginald R.** 1:21:18
That's interesting. Yeah.

HH **Harding, Ed H (KYTC)** 1:21:23
Sounds like a good concept to me.
Anyone have any comments or questions? I was gonna say Reg did put in the the chat there that he has a PhD student who was looking at something similar there. If you take a look in the chat there.

GR **Green, Eric R.** 1:21:40
Mm hmm.
Yeah, well, it might be a good opportunity to synergize.

HH **Harding, Ed H (KYTC)** 1:21:46
So anyone have any questions for Eric?

GR **Green, Eric R.** 1:21:47
Have to take questions.
Yeah.

DJ **DeFisher, Joshua (NHTSA)** 1:21:54
Yeah. And Eric, great project.
So always good to have more information to make safety improvement recommendations when you're going through. You said you have an all roads intersection database for state maintained and local roads.
Within that database is there, you know.
Do you have information about some of the like infrastructure improvements related to those intersections?

Like what type of signal?
Or if there's back plates or maybe even.
I know sub there's been limited use of like high friction surface treatments at intersections and stuff like that.
That that might counteract rerun crashes, but and then also when you provide the list to.
To the folks that'll be making the decisions be segregated up into, like intersections.
You know, whether it's number of lanes or rural versus urban and stuff like that.
So did you plan to segregate it down to that that level and make different groupings as well?

GR **Green, Eric R.** 1:22:48
Yeah, absolutely.
Maybe I'll tackle the second one first.

DJ **DeFisher, Joshua (NHTSA)** 1:22:50
OK.

GR **Green, Eric R.** 1:22:52
We the way we do our intersection priority list is we group them in. I think about 37 different intersection types, whether it's T intersection divided, undivided number of lanes, rural, urban things, things like you're saying, and we use those classifications to create safety performance functions for each.
Of them.
So all of this would be based on the process we currently use, which is in line with the Highway safety manual. The only difference would be we'd.
We add in these equivalent rear end crashes to the model so.
The the same model used in it the old way you know, might have. Well, it would have fewer crashes because it would just be case Ace B season OS.
Whereas this one would be all normalized down to the equivalent rear end crash.
So yes, we we we do have those different categories and we can share state maintained local roads with with any of the parties. And then to your your other question, yes we do.
Have as I said, you know, lane number of lanes and divided verse undivided. We do have intersection control and skew angle and type of intersection and even even our

innovative intersections like the roundabouts and and R cuts, which I don't think we call R cuts anymore.
But so we have those we don't have like back plates and I don't know how many high friction surface treatment intersections we have, but we we probably could flag those intersections.
But were there other other things?
Maybe we're missing that because we update the intersection database every year.
So it's it's something we can we can use to improve.

HH **Harding, Ed H (KYTC)** 1:24:31
I might be wrong here, but I think the hsip group overseas all of the high friction surface treatments that we've applied on state maintained roads.
So there would be actually contracts where we could go through and find where those are and see. So we could go through and run some queries against the site manager database to go through and find those potentially.

GR **Green, Eric R.** 1:24:39
Mm hmm.
Yeah.
I'm I'm not sure how many there would be, but but we may have, we may have a good number.

DJ **DeFisher, Joshua (NHTSA)** 1:24:55
Awesome. Thank you. Sounds great, Eric.

GR **Green, Eric R.** 1:24:57
Thank you.

HH **Harding, Ed H (KYTC)** 1:25:02
I was gonna say so. We do have a statewide signal inventory for all of our state maintained signals.
Joshua that traffic operations maintains so. So we do have those and then inside of his all of the auxiliary lanes are indicated.
So if you're at an intersection and you do have two turn lanes coming in the cardinal direction on the left side, there's a record for each one of those.

So it goes through and says how many left turn how many right turn where the location is in cross-sectional position at each one of those.
So any other questions for Eric?
If not, I think this is the the last one that we had for today.
So I think I saw you hop on the call earlier, Ben.

BB **Blandford, Benjamin** 1:25:57
Yeah. Thanks for moving me to the end here, Ed.
I was in class earlier so I missed the first hour of this, but happy to go over this.

HH **Harding, Ed H (KYTC)** 1:26:00
Mom.

BB **Blandford, Benjamin** 1:26:05
So this project is about integrating citation data with newly published shsp.
Just earlier this year, we completed an update of that SHSP for 2025 to 2029.
And as part of that, we actually added new changed some of the emphasis areas.
And added new emphasis areas as well.
So whereas the prior SH SBN 6 this Shsp had now has nine.
So based off that, we want to acquire.
An updated citation data for 23/20/24. I think the prior project had acquired data for 2018 to 2022, so this would be A to acquire that more recent data and then for all of the data that we have going back to 20.
18 to.
Classify.
That data to match the new.
9 Strategic Highway safety plan. Emphasis areas that as appropriate.
So in terms of.
Performance attributes then. So in terms of measurables.
It would be the.
Integration of citation data with roadway data. So.
Taking that citation data, linking it by Route Mile Point to the roadway data, and then you know, bringing all those roadway attributes together with the with the citation data, and then also then to improve this integration of citation data with crash data.
So it'll be based off the percentage of citation records successfully integrated with

crash data based upon those.
Shsp.
The new 9 emphasis areas and so the the goal with all of this there I think it's on the next slide, Ed.
Trying to remember what I put on the slide here.
Yeah. So that those four that I put there at the top, the enhanced crash analysis.
So these are, I think, one of these we wanted to emphasize.
Here is how this how this project can be implemented.
How it can be used and So what they enhance crash analysis. We can look at it to examine how citation frequency interacts with crash rates.
If it does, to what extent it does?
Maybe does more at certain locations or for certain citation types, or for different roadway types.
Can be help be used to help target roadway improvements, for example, identifying how citation rates.
They relate to specific roadway attributes, other certain types of roads where, for example, speeding may be more common based upon the roadway attributes, or the OR or whatnot. It can be used for better law enforcement strategy.
So identifying roadways, perhaps with poor safety performance, were more enhanced or focused enforcement might be effective at reducing those crash rates.
And then it can also be used for improved policy and education programs for identifying trends in the citation data, the policy or educational programs can help address and improve upon and in the future.
So the specific strategies and activities obviously to acquire the citation data for those years, update the classification for all the years going back to 2018, identifying longitudinal trends in the citation data.
And also identifying those longitudinal trends alongside and in comparison to crash and roadway data for the shsp emphasis areas.
That the number 5 there. So in working on Shsp update.
Things we noted in Shsp was that.
During the the COVID-19 pandemic, citation rates certainly went down for for numerous reasons during that period, and they've begun to rebound since then.
But that we thought it might be useful to do a more systematic analysis of those citation trends during that time period, in particular because crash severities.
Went up during that.

Period and citations went down, so I think might be more. It might be beneficial to examine that more closely.
And then, yeah, and that that 6th one there identifying locations and opportunities were increased, citation issuance could promote safer driving so.
That's what we get and happy to take any questions on it.

HH **Harding, Ed H (KYTC)** 1:30:54
Anyone have any questions for Ben?
Well, if not, thank. Thank you. Thank you for presenting there, Ben, and thank you to everyone for presenting today.
I appreciate everyone talking about your projects and and giving us an idea of of what you're what you're planning to do on each one of these.
So I guess the the bigger question is, did anyone have any concerns that they wanted to to voice with any of their proposals?
And again, I I had already reached out to to some of the potential grantees here and and I will be reaching out to you probably with some some more tweaks that we'll go through and and go through and try to make sure that we've got the the goals.
And activities described in a in in a more succinct way to to make sure that's something that we can quantify and say, hey, we've, we've accomplished this inside of each one of our our grants here.

SR **Souleyrette, Reginald R.** 1:31:52
Ted, I do have a quick quick point. Unless I stepped away and missed it, but Bill had put in a comment somewhere along the way in the chat that I thought that you might want to say a word or two about.

HH **Harding, Ed H (KYTC)** 1:32:07
So one of the the concerns.
So for those of you all that aren't aware, because we're a state agency in the executive cabinet.
Every time that we enter into a contract for any type of different project, whether it's Rd. project or whether it's a a project to go through and do these improvements, there's a group in the legislature that goes through and meets and goes through and will.
Every so often go through and ask for us to defend why we went through and

entered into each one of these contracts, and so that usually for us usually hits sometime in October or November.
Sometimes early December is when we usually end up with a finalized contract for our projects and I think the the, the point that the regulations are here, they bill said in the chat.
If you all take a look at it, there is that.
In those committee review meetings.
They they really wanna know. Why is it that we're doing this?
Who is it this actually benefiting from this and who is it that's using this inferration?
And that's that's again one of the the reasons of why I was going through and and making sure that we reach out to everybody to go through and be able to say, OK, well, this is exactly what we're going to be doing with this information. This is how.
We're going to do it.
And this is this is where we're going to to use that information.
And so I I think it's it's not that we're picking on you.
We've gone through and and asking for more details and trying to clarify that we're just trying to make sure that we can we can better justify.
Why it is that we we do the the projects that we're doing?
Is that that pretty good description there, Reg?
I I I think that's it's a good point to to go through and make sure that yes, it is nothing personal against any of y'all. We're just trying to make sure that, hey this so that we can defend what we're what we're doing against any scrutiny that might.
Come up about it.

SR **Souleyrette, Reginald R.** 1:34:06
Yeah, that's really good wise these days to to do that.
Share that our federal partners will agree, and I think we can probably give Bill a CHEAT SHEET of impact for each one of these and put it in real layman's terms and try not try to avoid the technical, you know, jargon. But basic House is helping the people.
Of Kentucky would be a good thing for them to hear.

HH **Harding, Ed H (KYTC)** 1:34:28
Exactly.
Well, if if no one had any concerns, then I I would think that we would go through

and say that.
We go ahead and and proceed with trying to go move forward with all of these proposals for this upcoming fiscal year.
So again, I'll I'll be reaching out to you all and and you should be receiving information on those, our federal partners on here.
So Sam Wellington and Joshua I will be going through and working on what's in these exactly.
And going through and building out kind of like a a sentence describing what each one of these are doing to go through and and goes through and talk specifically about that matrix.
So going through and talking about the the six different data sets as well as the the six different categories or measures.
So so I will be sending you all a synopsis of those with these. And again I I did hit record here, so I'll have a a transcript to go through and talk about what we had from today. And I I made some notes.
Of some of the the links that we had. And so I'll I'll make sure that I share the links that were in the chat because I know teams sometimes will make it to where you all might not be able to click on that after after we end the.
Call today.
I did want to go through and mention that we will be going through and doing a monitoring visits.
Or in May, most likely I'll try to reach out to each of you all and we'll go through and and go through what the the progress is.
On each one of your your projects, so hopefully in May here. Maybe it'll be the the first week of June, but but I'll be reaching out to our our current year grantees to go through and and schedule those.
For our next meeting, I was hoping that we can meet in either June or or potentially July, but I'd like to have each each one of the current year grantees go through and just give kind of a a brief description of of how your projects going right now.
And kind of a a highlight version of what you found out and what your progress is.
So far, so I look forward to doing having that meeting and being able to hear from you on the good work that you're doing.
For that next one I will send out a doodle, probably in in May towards the end of May to try to go through and figure out a a good time for all of us to to be able to meet on that.

So, and I was gonna say I can see there's some new messages.
Yes, Araya, I will be reaching out to you to talk about some of the the data that we had talked about on these projects here and we really appreciate you all being an awesome partner with giving access to the data and helping us out every, every time that.
You can.
But again, if no one has anything else, I appreciate everyone being here today and I would look forward to to seeing you all in the future.

SR **Souleyrette, Reginald R.** 1:37:34
Good meeting, Ed. Thank you.

HH **Harding, Ed H (KYTC)** 1:37:36
Thank you all.

GR **Green, Eric R.** 1:37:38
Thank you, Ed.

FW **Felix, Wellington (NHTSA)** 1:37:38
Thank you.

CM **Chen, Mei** 1:37:39
Thank you.

DJ **DeFisher, Joshua (NHTSA)** 1:37:39
Thank you.

Harding, Ed H (KYTC) stopped transcription