Alright hello everybody and welcome to this napkin webinar which is titled using technology to inform alcohol regulatory and enforcement practices before I introduce our speaker Schuyler Genest I wanted to address a few housekeeping notes and I guess I should also introduce myself. I'm Maggie Marcin IAM director of communications for NAB. So I wanted to welcome you all again to the webinar and to let you know that this webinar is one of a series of several planned through 2019. We've got another webinar addressing U.S. alcohol regulation in January so you can stay tuned for details about that.
Erickson

0:00:53.060,0:00:56.660
a former regulator and researcher will

0:00:55.220,0:01:00.710
be the presenter for that one and

0:00:56.660,0:01:02.870
another webinar addressing the increase

0:01:00.710,0:01:04.879
in alcohol-related emergency room visits

0:01:02.870,0:01:06.979
with Dr. Erin white of the National

0:01:04.879,0:01:10.249
Institute of Health is scheduled for

0:01:06.979,0:01:12.619
April so again stay tuned for details so

0:01:10.249,0:01:15.079
now back to today's webinar

0:01:12.619,0:01:18.109
this webinar will last about one hour

0:01:15.079,0:01:20.659
however if there are a lot of questions

0:01:18.109,0:01:22.759
which we hope that you do have and

0:01:20.659,0:01:24.619
attendees don't mind we can stay a

0:01:22.759,0:01:27.380
little bit longer to answer these

0:01:24.619,0:01:30.740
questions and if you do have a question

0:01:27.380,0:01:32.569
I encourage you to type it into some may

0:01:30.740,0:01:35.719
have a chat box or some may have a

0:01:32.569,0:01:39.679
question box and I'll be able to see
them and at the end I will come back on

and have Skyler answer those questions

for you let's see the presentation is

being recorded and we will it will be

available through NABC a.org our website

within seven to ten business days you

can find it under the resources tab so

now on to our presenter I'd like to just

say a few things about Skyler he joined

the University of Vermont Police

Department in 2005 by 2012 he was

promoted to Detective becoming

responsible for all major investigations

he was hired by the Vermont Department

liquor and lottery in 2013 his

responsibilities included investigations

of regulatory and criminal violations in
August 2017 Schuyler was appointed as chief and assigned as the director of the office of compliance and enforcement. Schuyler continues to innovate liquor enforcement by placing emphasis on intelligence and leveraging technology to modernize the regulatory environment. Thank you for being our presenter today. Schuyler now give me a second and I'm going to change to handing over the webinar to you and let's see audience viewing. Let's see where did that go. Pardon me while I figure out how to hand the file over to Schuyler sharing there. We go change presenter and Schuyler it is now coming over to you. Okay there we go.
awesome Thank You Maggie appreciate the
introduction I just want to take a real
brief moment to thank Maggie for setting
this up and additionally just think NAB
CA for allowing me to spend some time
with you all today and talk about some
of the innovative stuff that we are
working on here in Vermont additionally
thank you all for taking the hour to
take a peek I like to start before I
jump in the presentation and just let
everybody know that I'm condensing a lot
of this into an hour to give you kind of
a glimpse of what we're doing and this
is kind of a high-level preview however
I caveat this entire presentation by
saying I am NOT an IT guru I'm not a
computer programmer or designer I'm a
knucklehead police officer with a badge

and a gun an idea and I was able to pull

this off

with relatively little resources and

we'll talk a lot more about that as we

go forward but I say all that to just

kind of sell at home that

nothing that I think we pulled off here

in Vermont is anything that you would

have a hard time exporting to your own

locations if this this approach makes

sense to you so I wonder just want to

make myself available ahead of time and

it will leave some time for questions as

we go on today but I encourage just

reaching out to me if I can help with it

all or any of this that you'd be
interested in so like Maggie said

Schuyler Genest with the Vermont Department of liquor and lottery and I make it a point to say the full name as we recently were changed the department name changed as we merged with our division of lottery July 1st of this year just a little about me like Maggie said I am a full-time sworn law enforcement police officer in Vermont I began my police career in 2005 at the University of Vermont I served in some supervisory roles there before ultimately becoming the only full-time detective at that organization and I was there until 2013 when I took a job with the Vermont Department of liquor control
at the time as a liqueur investigator I
was assigned to our North Central where
I conducted liquor and tobacco
investigations for several years until I
was promoted to chief in August of last
year. I mentioned that I'm not a computer
programmer although full disclosure I do
have a little bit of background with
technology. I did begin my bachelor's degree program at the
University of Vermont in computer science so I come from at least a pretty
strong background of IT in computer technology however certainly law
enforcement has risen as my focal point in my career. I want to take a
little bit of time to talk about my department the department of liquor and
lottery what it is and that kind of will
give some context as to what project
rabbit turned in for us so the
department of liquor control or now
liquor and lottery is comprised of four
separate but related offices the first
is the office of compliance and
enforcement the second is the office of
education the office of licensing and
lastly as a control state Vermont has a
retail division where we
acty cell spirituous alcohol to our
public through agent contract stores i
am going to be focusing today on my
office the office of compliance and
enforcement and really just talk about
some of the innovations that we've made
in the realm of our compliance and our investigative and regulatory inspection work so what you're looking at here is my team I like to show this picture for a couple of reasons the first is just to kind of give you a really quick graphic view of the size of my office so you're looking at everyone assigned for the entire state of Vermont these are all of our sworn liquor investigators the second reason why I like to show this image is because I always like to give full credit to the team for any of the successes that this program has brought to our office in the state of Vermont without their willingness to embrace innovation and truly you know be willing
to upend years of past practice and ways

of doing things we would have failed

before inception so I always like to

just kind of briefly give a thanks to my

team

every time I present on this topic so

law enforcement duties as in the office

of compliance and enforcement we are

full sworn law enforcement officers with

the same authorities of state police in

Vermont which means we can effect arrest

for any and all crimes however our

office has a specific focus on our title

seven laws in the state which revolve

around the sale of spirituous alcohol

malt adventists and tobacco products we

have looming some cannabis legislation

in the state which will potentially
become an issue for us we've had no bills officially entertained yet in the legislature however our governor's regulate and tax committee has suggested that our agency who's been engaged in this practice since 1933 has probably got the the right skill set to engage in the regulation and enforcement of cannabis laws but being the first state to do this at least our legalization as a total legislative agenda you really have no guarantees of what this will quite look like so we anticipate an interesting year in our legislature so again my division the picture you saw earlier is comprised of eleven field investigators and each individual
investigator covers an area of responsibility dispersed across the state we take our public safety mission very seriously and we focus on a social responsibility piece especially being in control state knowing that our division engages in the retail sale of alcohol we do that knowing that there is social cost to the society and engaging in that so generally we we put a lot of emphasis on our social responsibility really simply put we just endeavor to ensure that responsible sale and service of alcohol is kept in the forefront amongst our licensees so my division as I mentioned earlier is complemented by a robust education division our state
mandates that all of our sellers and
servers take a training offered by the
department or a third party trainer
every two years and we've got some
metrics that show that that's has some
positive outcomes for our community we
have a dedicated licensing division and
then I didn't given time the state has
around 1,600 active alcohol licenses but
with our temporary permits we can swell
to as high as 7,000 outlets in any given
day my division the office of compliance
and enforcement we operate in three key
focused programs the first program is
our compliance program the second is an
inspection or regulatory audit program
and lastly is investigations so I'm just
going to take a couple of seconds and
break down each one I know at least some of the attendees have similar arrangements in their states but what you'll find with liquor enforcement is it varies widely across the country so I just want to give some context for all of this our compliance program on both the alcohol in the tobacco front is primarily comprised of undercover UB buys which looks like us recruiting minors which we employ and send in to establishments to attempt to purchase alcohol or tobacco products underage our inspection program is mostly comprised of unannounced site visits where the liquor investigators perform a regulatory audit in
in compliance with all of our state laws
and regulations and lastly our
investigations routinely focus around
complaints we received from the public
as well as supporting other state and
local law enforcement partners with
supplemental investigations some good
examples of that you may be familiar
with source investigations where maybe
some criminal activities such as a DUI
stems from a licensed establishment in
those scenarios my investigators support
the local law enforcement with source
investigations and just aid that
potential DUI create case or other
criminal case with additional
investigative resources so goals for
today what I'd like to achieve for all

of the attendees today is just kind of
give you like I said that high level
overview of what project rabbit is and
how we are using it in Vermont and
direction for project rabbit in the
future and really crucial for you all
attending is how this approach can be
adopted in each of your own local areas
so given those goals let me just state
that the what I really would like to do
is just kind of detail for you all
paradigm shifts that we've instituted in
the way that we collect analyze and use
data to drive our decision-making here
at the office of compliance enforcement
at a very very operational level on
literally a daily basis and I have some
opportunity to show you our live stream
of the data and I can show you a demo
for you today exactly how we use this
data so here's where we'll start the
problem statement that I encountered
when I was promoted to chief very simply
broke down as you see here so when I
took on the roles of director the first
challenge I saw and this is not unique
to Vermont and it's a matter of fact
it's a consonant with in almost every
law-enforcement agency was that my
resources were infinite or finite and
limited at best Vermont is in the grips
of a very very complex opioid crisis and
vying for state resources and enforce
it is difficult public opinion certainly
puts a lot of emphasis on the opioid
problem and I'm not disagreeing with that but I think statistics can can support certainly the the dangers of alcohol sometimes out wÂ™re can overshadow some of those underlying causes there so knowing that I certainly wasn't going to get any additional resources my job was simply to just figure out how I could do more with less so additionally another problem point was that we covered a generally vast geographic area as a state-level entity so Vermont even though it's a it's a very very small state we do have 9600 square miles and the joke for us a New Englanders up here is whenever you try
and ask directions from a local you'll
get the the response of oh well you
can't get there from here
tavel in the Green Mountain State can
be very difficult we have a number of
mountain ranges north and south travel
sometimes is easier than East and West
so figuring out a way to disperse my
investigators statewide and adequately
cover problem areas knowing the
limitations of geography was certainly a
challenge additionally you see my
problem of our large outlet universe so
with over potential 7,000 outlets
serving alcohol and tobacco in any given
day it becomes very incumbent upon
myself as a director to ensure that I'm
allocating resources to areas that need
our attention the most you may know or
you may not know that Vermont for
several years running now has been
ranked as the highest the number one
state for a number of breweries per
capita we have a very booming craft brew
industry in the state and what that
means for our our citizens of the state
is that alcohol flows just as freely as
the maple syrup in spring up here matter
of fact our economic services division
in the state has has listed our craft
brew industry as a bigger economic
driver in Vermont then
maple syrup which maybe be surprising
because Ramon is fairly well known for
its maple syrup but even more
surprisingly is it's on a five-year trend to outpace our ski industry as far as an economic driver so all of that is to say that alcohol plays a huge role in Vermont society the next biggest challenge that I encountered as I took the job was data collection where it existed was inefficient at best being and I jokingly admitted I am a millennial being a millennial I struggled with some of our processes here in regards to data collection and I am not exaggerating to say that a lot of it was done with a pen a paper and a clipboard and that can cause a lot of problems is when problems when you try and leverage data as a force multiplier
and that last out of point there kind of speaks to that that last statement data collected when it was collected really went nowhere so those were like the those were the biggest challenges I observed so even though data was one of those challenges I nearly on that data was going to be probably the best approach to kind of overcome those challenges so I mentioned earlier we had an incomplete or non-existent data collection by my investigators for all three of our key programs and because of that we were really unable to develop a picture of alcohol issues statewide so I mentioned the clipboard and the paper and the pens we certainly did collect data at times
but the sad fact of the matter is is

those forms ended up in bankers boxes

and filing cabinets and that's kind of

where they died and I saw a really huge

opportunity lost there to use that data

to help better allocate our resources

where they were needed the most in the

last point and I'm going to illustrate

this for you some of our live data in a

little while is that investigators were

applying our compliance and inspection

models horribly and efficiently we had

an existing paradigm in the state where

there was an expectation that every one

of our licenses received a basically the

same regulatory attention regardless of

the type of license they were where they
were located and that's a it's kind of an unfair paradigm as you can imagine Vermont being a very rural State we have a huge bed-and-breakfast community a cottage industry if you will no pun intended and to expect that those licenses serving maybe a case of wine a year we're gonna present the same regulatory issues that may be a busy college bar would or even some of the unknown outliers may may present was a really kind of a false paradigm so we decided to change all that so in late 2016 we drastically redesigned our workflows in the way we did business and restructured everything we did with a clear and concise goal of data
collection and more importantly
0:18:16.240,0:18:21.770
collecting data in a way that would lend
0:18:18.260,0:18:24.320
itself to rapid and easy analysis again
0:18:21.770,0:18:26.870
collecting data for the efforts of just
0:18:24.320,0:18:29.030
collecting data really does this doesn't
0:18:26.870,0:18:30.560
cut the mustard what's more important is
0:18:29.030,0:18:33.770
collecting data in a way that can be
0:18:30.560,0:18:37.310
useful so this was kind of the inception
0:18:33.770,0:18:40.400
of project rabbit and now obviously this
0:18:37.310,0:18:43.340
is an acronym people either love it or
0:18:40.400,0:18:45.530
hate it it stands for a resource
0:18:43.340,0:18:49.700
allocation based on an intelligence
0:18:45.530,0:18:52.070
toolkit and what we said a really the
0:18:49.700,0:18:53.390
concept for rabbit was for years we've
0:18:52.070,0:18:55.700
been kind of crawling around in the dark
0:18:53.390,0:18:57.710
making assumptions about where should
0:18:55.700,0:19:00.530
where should we be directing enforcement
0:18:57.710,0:19:03.620
resource is instead of letting data make
those decisions for us so the upside was
that this would lead to a more infest
efficient use of investigators time and
the decisions would certainly be
objective and defensible so knowing the
acronym let's talk about what it really
comprises of so rabbit is to individual
applications the first is a mobile app
that we configured to collect our data
for us and when I say our data I'm
talking about every single data point
that you could potentially imagine we
are collecting via a very easy to use
iOS mobile app everything from our
compliance data to literally the fuel
consumed by our cruisers we collect all
of the data from that via that app and
then the second application is off-the-shelf software that we use to visualize interpret and drive decision-making and what that allows for is data-driven allocation of resources to areas of the state that needs it the most so we knew that this program was going to have two steps to begin with so we started with probably the hardest one right away but we really needed to start kind of baby steps so the first goal was to just completely do away with paper paper only increased our inefficiencies and workflows it didn't lend itself to any real data analysis and frankly just drove this millennial mad
so I started surveying the landscape for

the development of an application that

investigators could use to collect data

and what I found was rather than putting

out an RFP for a very expensive in-house

data collection program there were some

off-the-shelf

user configurable applications on the

market that were very cost effective and

able to very easily be manipulated in

kind of counter sorry somewhat tailored

effectively to what we wanted to do so from

May first the 2017 onward my division

uses no paper at all we don't collect

any would generate any paper from our

from our work so our mobile data

solution and there's a video here but

I'm going to skip over I'm going to tell
you one of the I'm not a Salesman for

any any particular software and I and I

will be the first to tell you that there

is a whole universe of applications out

there that can achieve the same goal my

department landed on an application

called fast field which is produced by a

company called merged mobile and really

simply it is a form app that allows you

to configure forms for data collection

and this particular program had some

upsides as opposed to some others and

we'll talk about those so the first was

that fast field was cost-effective so it

was $13 per user per month and that's

not it's a monthly billing cycle so as

my staffing levels may change that that
fee structure changes accordingly

it was a OS Android and PC functional

meaning I didn't have to add any

additional hardware or any sort of any

sort of infrastructure investment we

were able to institute this with the

equipment that my investigators already

had the application and this was a huge

sticking point for us in Vermont works

without a full-time data connection

Vermont again is very rural and it's

it's frequent that you don't have

cellular connectivity so I needed to

ensure that we had an app that was able

to collect data but wouldn't lose any

data with absent flows in cellular

connectivity there'd be nothing more


frustrating for my investigators than to
have to deal with the you know the
reality of maybe lost data and the last
piece is that fast field had a
configurable API which allowed for
automated and seamless data uploading so
the upside really for fast field for us
was that it could integrate with our
in-house licensing software and that is
a feat because our in-house licensing
software was developed in the early 80s
it's a cobalt programmed kind of one-off
licensing application that up until just
two years ago ran on physical tape deck
servers in our building we have since
virtualized that server however the the
program still exists as a command-line
interface very painful to use program
but the beauty is that even given that reality it still can configure and talk with fast field our mobile application which was a huge win for us prior to bringing on fast field my investigators had no way to real time verify licensing data in the field they had the hope and pray that the licensee was abiding by the regulation and posting their license on the wall because at 8 o'clock on a Friday night they had no good way to verify whether or not that license was in fact valid but now investigators have that ability in the field so the second step the second application involves data modelling and what we lightly call
pallet predictive policing and I'm gonna dive into that a little bit more but in late 2017 we were collecting data in a large enough scale to move on to that second step to start analyzing the data and having it paint the picture of alcohol issues for us so again I mentioned earlier the goal was to leverage again off-the-shelf software particularly business intelligence software to visualize and interpret all of that data that we have collecting so I mentioned it somewhat simply earlier contemporary public service just really demands that any agency strive to do more with less and we were no exception there so knowing
that it was my responsibility to ensure

that I could leverage every tool I could

so I started surveying areas of state government that did the most work with data and I landed with the agency of transportation and met a couple of programmers there in early 2018 I met one particular one programmer in particular who was really doing some kind of innovative work with a ot's data now if any of you are familiar with your agencies of transportation in your state's they are fans of data and they collect heaps of data on everything from road surface to traffic flows to bridge infrastructure they kind of live and breathe in the world of data um so what I was able to do was figure out kind of
how they were leveraging technology and
one program particular explained to me
what he was doing with predictive
modeling in an application called power
bi now power bi stands for business
intelligence it's a Microsoft software
and essentially what it allowed our
agency of Transportation to do was to
develop an algorithm that could weigh
the predictive coefficients and that's a
that's a big word it could essentially
take a look at any data point and assign
a number to that data point for
predictive likelihood of failure in
particularly with Road infrastructure
they could take a look at a road surface
survey and based on all sorts of related
data sets things like weather traffic
flow substrate infrastructure all of the
kind of really nuanced datasets about
roads they could use those relationships
in the data to say given
everything we know projecting it out in
the future here's the likelihood that
we're gonna have a failure in this
particular location and I thought that
was really innovative so I asked if that
works for civil engineering can we kind
of use this for social science if I can
collect enough data on any giving
license can I do can I leverage the same
algorithm to tell me where and when a
violation of law or regulation is most
likely to occur and I expected a really
funny look and then tell me no way that
0:27:01.940,0:27:04.909
could work but they actually said oh
0:27:03.470,0:27:07.730
yeah absolutely we can we can pull that
0:27:04.909,0:27:09.110
off so I started working with them to
0:27:07.730,0:27:12.889
kind of learn my way through power bi
0:27:09.110,0:27:14.330
and how to build an algorithm and there
0:27:12.889,0:27:16.399
is a video here that I'm gonna skip for
0:27:14.330,0:27:18.799
the sake of time it's just a demo video
0:27:16.399,0:27:23.149
for power bi but I encourage you to give
0:27:18.799,0:27:25.940
power bi at Google it's a it's a really
0:27:23.149,0:27:29.690
powerful program so by mid-february of
0:27:25.940,0:27:31.549
2018 Microsoft power bi began generating
0:27:29.690,0:27:33.470
a list of licensed establishments in
0:27:31.549,0:27:36.980
Vermont with a predictive coefficient of
0:27:33.470,0:27:38.809
likelihood for future violations so I
0:27:36.980,0:27:41.240
know I'm using some some really high
0:27:38.809,0:27:42.889
tech crazy math words here but I'm gonna
0:27:41.240,0:27:44.330
do my best to explain this to the point
where I can understand it because again

I mentioned I am NOT a math guru or a researcher I'm a knucklehead police officer so the algorithm is is fairly multi-dimensional and lengthy and basically Greek to me but I'm gonna give you a Cliff Notes version of what it really looks like so a license is quantified by its geographic location in the state considering factors such as population density DUI arrests per capita and licensee density and the next thing that happens is the algorithms checks to see what the past historical incidents of violations of law or regulation looks like and covered during the history of our inspection or
compliance programs if though if there
is a history the coefficient increases
and then the algorithm looks at the data
determine if the licensee has ever
received a complaint from the public or
been the target of one of our internal
investigations and again the coefficient
is weighted accordingly and lastly the
algorithm takes a look at some
associated data sets and some some time
related data sets so factors like one of
the last time
one of my investigators went into the
establishment apologize and again that
algorithm is weighted accordingly and as
the algorithm development continued we
found other related datasets that we
weren't quite aware of and we're going
to show you some of those in just a
little while but the bottom line is that
the higher the coefficient climbed the
more we believed the probability of
future incidents of violations and
therefore we strategically identified
those licenses as places where we needed
to apply educational or enforcement
resources so I'm going to show you what
that looks like in a minute but here are
the upsides of power bi again I'm not a
Salesman for Microsoft there are there
are other programs on them on the
marketplace that are very similar and do
do a lot of the same thing but the first
upside was that it was cost effective we
pay $99 per user per month and we only
have one licensing fee and the only reason we have a license fee with Power BI is that we can publish it to our website if we didn't do any publishing with it it would have been a completely free program for us it is iOS Android and PC functional again we had no capital expenditure as far as upgrading equipment the last two were the crucial ones it allowed for a completely automated uploading and refreshing of data so once we were able to configure the algorithm and set the the software to connect to the live data sets we didn't have to manually update anything a data gateway through Power BI allows it to just automatically refresh so and
in many ways it's a living and breathing organism now at this point and the last data point is again it's customized as new data sets are connected to new research supports when new research supports how we should apply our resources so as we were developing the algorithm and looking at the data sets we were connecting to I've always been very candid in Frank that it started with some just hunches some guesses at what we thought made sense but as we continued to develop it we we started to kind of question ourselves and said well let's let's pump the brakes there's got to be a science or public health based approach that can
make this a little bit

more meaningful so I was actually very

fortunate to connect with Dr. Penleric

John Stein at some napkin verses and as

well as as get tied into some

resources from the NLL EA and found that

there was some great research going on

that actually could have some serious

impact on on the way this algorithm is

weighting our licensees in particular

looking at outlet type access to alcohol

and violent crime in the link that Dr.

Tran John Stein is working did with

Johns Hopkins and in the paper that she

published there alcoholism clinical and

experimental research additionally there

were some National Institutes of Health

studies that had some impact and we just
decided well there's no reason to rely on hunch let's kind of route this in some science-based approaches and we've actually worked with an epidemiologist who is on staff at our part our Burlington police department our biggest cities police department who's taking a look and evaluated our algorithm and given us some great input as far as how and why we should wait some of the different disparate data sets so without further ado let's take a look at at rabbit live so I'm going to transition this now to a browser window and the first thing you see I'm glad it's pulled up this is our our state
websites department liquor control dot
Vermont gov the important thing about rabbit is that we've made all of this data publicly available we did that very purposely for a couple of reasons one none of this was secret squirrel it would all be available to a public records or Freedom of Information Act request and additionally we found that there's a lot of utility to making this data public publicly available and I'll explain that as we kind of take a look at it so I clicked on our link for compliance and enforcement and right down here at the bottom of this page you're going to see project rabbit refresh and pull live so I'm going to
full screen this so that we're not we're
not killing our eyes to take a look at
what this does here so what we're
looking at is what we call the welcome
page
this is a dashboard that every
investigator uses on a daily basis to
again formulate that picture of alcohol
issues across the state of Vermont so
the beautiful thing about power bi is
that the data becomes very pliable and
very easily easy to manipulate so as I
bring my mouse over I can filter this by
a number of different ways I can filter
it by investigator and all of the data
pertinent to that individual
investigator is filtered and presented
so what you see over here to the right
is a list of our top three licenses
based on that algorithm that I talked
about earlier so these three licenses
have a coefficient of the highest
coefficient of licenses assigned to
Sergeant Andy Tebow and we'll dive into
strategic inspections in just a minute
additionally you see a couple of pie charts here visualizes on both our
tobacco and compliant our tobacco and alcohol compliance rates for sergeant
t-bo's area of responsibility and this is again real-time refresh so our last update there's a slight delay but last update was about 12:30 for this afternoon so this would reflect any compliance activity that sergeant Tebow
would have done up until a little after noon today you see a couple of maps here graphically representing our active complaints in sergeant t-bo's area and recent DUI activity as well so again this is rapidly updated its frequently fresh data and our investigators use this on a daily basis so the way this works is they log in to this welcome page they see their top three to inspect if sergeant Evo was to go and conduct a regulatory inspection of any one of these licensees right now the results of that inspection would then play into the algorithm and this list would refresh and change accordingly so we're going to jump in
we're in walk through a couple pages and
0:35:11.310,0:35:17.050
I'm gonna show you a couple of areas
0:35:13.500,0:35:19.180
where we've leveraged this data analysis
0:35:17.050,0:35:20.710
to kind of help again further deepen
0:35:19.180,0:35:22.020
that picture of alcohol and tobacco
0:35:20.710,0:35:25.230
issues in Vermont
0:35:22.020,0:35:27.680
so as I slide one page to right we get
0:35:25.230,0:35:29.970
our tobacco compliance data visualized
0:35:27.680,0:35:32.340
this is all going to be filtered at this
0:35:29.970,0:35:33.600
point for sergeant Tebow because the
0:35:32.340,0:35:36.270
filter it's remembering the filter I
0:35:33.600,0:35:39.390
applied so this isn't statewide I'm just
0:35:36.270,0:35:41.340
going to jump back one page clear that
0:35:39.390,0:35:45.690
out so we can take a look at statewide
0:35:41.340,0:35:47.850
data so again
0:35:45.690,0:35:52.200
statewide tobacco compliance data you
0:35:47.850,0:35:55.290
can see since October of 2017 we've done
0:35:52.200,0:35:57.630
you know 1246 tobacco compliance checks
we get some metrics and statistics on our compliance rate as well as activity by by town by jurisdiction this is helpful not only for us we have again a state statute that says we have to apply a tobacco compliance check to every one of our tobacco licenses but we also have a ton of community stakeholders that want to know how retailers are responsibly selling regulated products in their community so this this data was really useful to our community coalition's and local control commissioners to kind of conceptualize what in their individual jurisdiction what tobacco sales looks like to minors so if they click on any given town data
is refreshed and up to date for that town next page is a checklist that our investigators use again I we have a statutory requirement to apply a compliance check to every tobacco license so that's used by my investigators to ensure that we meet that statutory requirement this page is our alcohol compliance data very similar to our tobacco compliance just giving us some metrics on when and where we are applying our alcohol compliance program similar just like there's a checklist for tobacco licenses this is a checklist for our alcohol tobacco licenses so we know when and when the last time a check was performed at that license so we're
spent a lot of time on this page because

this has been a kind of an eye-opener

for us so this is all of the data

collected from our regulatory inspection

program first of all you can see a map

of all of the activity the app that we

use collects GPS coordinates

so each time an investigator performs an

inspection it drops a pin on the map for

us we can get some metrics based on time

and this is kind of interesting I'm glad

that filters remembered the last time I

filtered this so right now we're looking

at a time frame of May 1st of 2017 to

right around May 1st of 2018 so this is

the data set prior to our strategic

inspection model you can see we did

around almost 4,000 inspections in that
time frame we collect that on our licensee contacts in public contacts

this this pie chart here was a big eye-opener for us so I mentioned earlier that there was evidence that showed that our inspection program was being applied pretty inefficiently and this is one of the key performance indicators that we use to make that determination so you can see this is violation rate per inspection so of 100 inspections you can see that we only observed a violation in about 2% so out of 100 inspections only two of them really resulted in an observed violation now what this told me is not that we were not good at observing violations because we issued
plenty of tickets we certainly see them

what to tell what it told me most is

that it's also not reflective of the

fact that there weren't a lot of

violations out there what it was a

reflective of is that we were just

simply in the wrong place at the wrong

time so the idea with resource

allocation based on data is let's use

the data to tell us when when and where

to go so I'm just going to filter this

data to reflect the time frame and the

data is refreshing right now I'm gonna

just manipulate this over to right

around May 1st of 2018 and let the data

refresh and it's still working it's

getting late in the afternoon on the
state network so I'm sure everyone's

0:39:30.740,0:39:35.720 finishing anything up their day so that

0:39:34.070,0:39:38.990 is refreshed now and you can see in that

0:39:35.720,0:39:42.140 time frame that 2 percent jumped to 11

0:39:38.990,0:39:44.210 point to 1 percent and realistically we

0:39:42.140,0:39:47.930 didn't change anything other than

0:39:44.210,0:39:48.800 letting rabbit tell us where to where to

0:39:47.930,0:39:51.530 perform our

0:39:48.800,0:39:53.900 our inspections so a pretty significant

0:39:51.530,0:39:54.980 increase there the only other thing I

0:39:53.900,0:39:56.330 want to mention i'm going to talk a

0:39:54.980,0:39:59.900 little bit about it more in just a

0:39:56.330,0:40:01.400 minute but this doesn't mean we wrote

0:39:59.900,0:40:02.870 more tickets as a matter of fact since

0:40:01.400,0:40:04.220 the same timeframe we actually issued

0:40:02.870,0:40:06.050 more written warnings and we've issued

0:40:04.220,0:40:08.000 less tickets and I'd like to think

0:40:06.050,0:40:10.910 that's because we're using this not as a
guise to tell us where to it's not a
revenue generator it's not about where
we can write more tickets I don't
necessarily need the data to do that
what we look at that it is is it's given
us a great opportunity to educate our
licensees on issues and get to places
where they can frankly need education so
I am running a little bit short on time
I want to leave plenty of time for
questions I'm gonna go to places real
quick I'm just going to jump to DUI data
and the reason I show this is because
while this is certainly useful for our
algorithm this became incredibly useful
for our licensees so we actually take
this data in with us during our
educational programs in our inspections

and we share this data with our licensees and what we found is that almost universally when we ask bartenders who gets arrested for DUI leaving your community almost universally they would say you know it's the 21 year old new drinkers they don't know how to do this responsibly they make all bad decisions and Oh similarly almost always the case that's not your highest percentage of person getting arrested for DUI so this allows us to kind of analyze and break down our DUI data by jurisdiction and we'll go to into a location I'm going to pick one that's got some fairly busy DUI activity
and we'll go to that bar and we will ask
them that question who gets arrested for
for DUI leaving your establishment and
again they'll say the 21 year old and
we'll show them the data and we'll just
the reaction on their faces is a
somewhat priceless so what we'll go in
and show them is that actually
statistically it's your 28th 24 year olds and your 56 year olds are getting
arrested in your community and they're
getting arrested around let's see if
them right around 325 in the morning is
the high time and it looks like on
Saturdays at around
the 16th day of the month so we can
really drill down deep into the data and
what we find is that these licensees are
blown away by this you know they say
we've been cutting the wrong people off
you know so the 30 the 30 30 year olds
and the 56 year olds that will give the
extra drinks to but we're cutting the 21
year olds off so this is just a opening
data that's really powerful to share
with our licensees in a couple more
minutes I'm going to dive into our
strategic inspection dashboard just to
kind of show you what how the algorithm
plays into where we go so again if I
select an investigator Sergeant Andy
Tebow for example the data is going to
filter to those licensees that the
algorithm has strategically focused on
and this kind of gives you a snapshot of
why they are strategically focused

so this quote-unquote points column here

that's the coefficient that we use that

the algorithm produces and if I click on

any given one licensee the data will

filter and tell me why so Mont View

vineyard in Corinth Vermont it's risen

highest on the top of our list because

we haven't been there in a long time

additionally the location and it's in is

quantified as a risky location and

that's again based on outlet density and

DUI arrests per location so let me be

really clear I'm going to jump back to

my powerpoint so rabbits got some room

to grow and it's going to go it's going

to continue to evolve as time goes on
police'll last drink is a program that's being brought to Vermont with the help of the NLRA and NFTA and we think that being able to extra bling the you IRS to licensed establishments is certainly going to help our model additionally we're going to use rabbit to help quantify some data in regards to trade practice violations and I know I throw that word around because in liquor law enforcement trade practice seems to be a buzzword but we we certainly believe that there's room for it to be assist us in our investigations going forward here's all the things that we're doing with place to the last drink data on the sake of time I'm going to skip over it other than to say we really believe it's
going to improve our model and this is an area where we like our program can be developed so we're doing a very very rudimentary container based model as far as outlet density across the state the CDC has a guide for measuring alcohol density that really puts a lot of emphasis on some more quantitative measurements in particular spatial access would be very very useful in helping us quantify any given location so we are actively working with some epidemiologists and some GIS analysts who can potentially help us get there and we think that's only going to again strengthen our model so how can this approach work
for other agencies and again I know as a high-level discussion on what we're doing here but I think there is utility in just the process that we use across across the country so first step really evaluate your organization's ability to collect meaningful data that really lends itself to analysis your I think you're missing great opportunities if you don't take a look about how your workflows lend itself to analysis and then expand your association your connections to datasets that may or may not be your own it can often be a big lift but once we started to see what was out there in the state for data it really strengthened our model for a
quick example the health department has 

0:45:35.059,0:45:39.049
a program called counterbalance that 

0:45:36.769,0:45:41.509
does a detailed inventory of our 

0:45:39.049,0:45:44.180
licenses that sell risky products like 

0:45:41.509,0:45:46.220
flavored tobacco products and alcopops 

0:45:44.180,0:45:49.430
and connecting to their data sets also 

0:45:46.220,0:45:52.009
strengthened our data the next step I 

0:45:49.430,0:45:55.039
suggest looking at using intelligent 

0:45:52.009,0:45:57.440
software to find relationships amongst 

0:45:55.039,0:45:59.829
your data because it's it's really a 

0:45:57.440,0:46:02.059
force multiplier and then lastly 

0:45:59.829,0:46:04.640
incorporate this data-driven approach to 

0:46:02.059,0:46:07.400
tackle a problem you might have and I 

0:46:04.640,0:46:09.890
know this seems this may seem scary but 

0:46:07.400,0:46:11.660
I always quantify it like this I have 

0:46:09.890,0:46:13.849
about a hundred hours of programming 

0:46:11.660,0:46:15.710
time into this entire program and our 

0:46:13.849,0:46:18.859
capital expenditure at this point is
well under three thousand dollars so we
were able to pull this off with almost
no resources and has certainly been a
game changer for us
so with that I think we have some time
for questions and I think I think
Maggie's gonna kind of curate the
questions and and speak them out and
I'll address them as they come yes I
will and we actually have had a couple
that have come in this one is from Nina
if the data is available to the general
public do they also see the list of top
three establishments on the officers
to-do list as well if so do you want to
do them one at a time or should I read
it all and then no go ahead read it all
okay so if so does that ever give an
establishment a heads up that a
compliance check is about to occur or
are parts of the system hidden from real
time view great question so the answer
is that yes any public even the
licensees would be able to see the top
three establishments and that there we
were very calculated in doing that on
purpose we've partnered with a lot of
licensees and actually shown shown this
program to them we believe that
operating this in may be a cloak and
dagger fashion behind the scenes really
is the antithesis of what we were trying
to achieve my goal and we've been very
clear with both my investigators as well
as our licensees is that despite any
licensee being at the top of the list
our goal would be that they never have a
violation because we're able to get
there potentially ahead of time and cut
cut problems off at the pass if you
follow what I'm saying so I
realistically it doesn't say exactly
when and where we're going to an
establishment it just it just kind of
puts them on that list and that's just
for our inspection activity we don't do
any sort of for gassing of where we're
gonna apply our compliance model so they
they you know other than we're coming at
some point in time they don't know
exactly when we're getting there
and again I think a collaborative
approach I would hope that licensees would check this list and and have the same sentiment that I have that will despite me being on the top of that list I'm not going to have a violation because I'm gonna pay attention to the way we responsibly sell alcohol or tobacco okay this question may be very similar to what you are ready ants answered but the questions from Elizabeth and the question is are there any savvy licensees out there who use the public rabbit data to predict when you might do a check yeah I guess it's maybe a little too early to tell I don't I don't I don't have any
evidence that anybody has done that but

again it doesn't say exactly you know

when it doesn't say exactly when we're

coming in so even if they check the list

and saw that they were on the top it

doesn't sit you know it doesn't say that

your investigator will be arriving at

you know 6 o'clock on a Friday night it

doesn't say that that's still a little

bit of inside baseball but again I think

there's value and licensees knowing sure

the same reason there's value for us

knowing all of those predictive values

for why there could be violations okay

this one is from Derek I am providing

prevention to communities in an area

similar to yours opioid crisis versus
alcohol enforcement tips on engaging community members parents on this issue a question do you have any I guess I assume do you have any tips for that it continues not focus only on opioids but also to focus on a Tod that's okay so I'll start with do I have tips well you know I guess I would also turn that bag on you do you have any tips for me it's a struggle for sure I always I'm a big data fan so I like we have a pretty robust youth risk behavior survey in the state and consistently over the years we see high rates of alcohol risky alcohol experimentation early early on in our youth long before they engage in more risky opioid exploration so realistically I like to
say that you know and not to be cliche and call alcohol a gateway drug but it focusing on risk risky behavior alcohol seems to be an area where youth learn to engage in risky so if we can work in education if we can work in prevention and certainly an enforcement in keeping the youth access down in regards to alcohol I'm a firm believer that it reaffirms and supports risk aversion so you know I use data quite a bit that's that's always been a fan of mine but it's a it's a struggle and I will apologize I'm I'm not quite familiar with the acronym that he used at the end of the question a Tod if anybody wants
to clue me in hear me yeah I I know I've
heard of it before but I'll be honest on
the acronym in terms of what it means is
not coming to me so if somebody knows
that if you can please come in all right
so I've got another question from a
Cassandra H did you have trouble
transitioning your field staff to the new model from paper to no paper did I
have trouble I would say that there it was certainly there were certainly some skeptics in the crowd and knowing that frankly knowing that they were you know following under the leadership of a millennial chief I was going to struggle with cultural clashes anyway I made it very a very clear goal of mine that if
this was the solution we were going to

use that it needed to be very reliable

and very easy to use because there's

nothing more frustrating than

implementing technology for the sake of

implementing technology and having that

technology just make your job harder so

that being said I really researched out

the tools that we brought on board merge

mobile to fast filled product as well as

power bi and I just wanted to make sure

that it was paint as painless as

technology as technology could be and

you know I think that was bored out in

my presentation when I talked about you

know the offline capability we make it

very streamlined very easy to use and

that's kind of crucial but there were
some skeptics for sure okay Skylar I got clarity on what the a Tod is alcohol Tobacco and Other Drugs so I got it not focus only on opioids but also focus on Alcohol Tobacco and Other Drugs thank you very much I appreciate that yeah I think I think I covered I covered that my biggest tip is use data it's I wouldn't say that that's a panacea either it's a hard hard element of what we do here in prevention and then certainly in liquor law enforcement is vying for attention in the midst of all of these other struggles and challenges okay and this one is from a Cassandra G can you talk about if there's been any political blowback from this tool how
upset were licensees we did a couple of focus groups where we showed some of the status of licensees and there were certainly again just like our investigators were a little bit skeptical I think some of our licenses were skeptical too but I think what helped in regards to somewhat winning them over is that we did make it public facing again this wasn't cloak-and-dagger we didn't have private dossiers on licenses we made this you know this is as open and transparent as possible and I think I said it a couple times now I my hope is that licensees are coming to this this this project and taking a look at this data again it's
not about writing violations or where I
can go to write more tickets I don't
really need a program for that I need
the program for putting my resources
where they will make the biggest impact
and that's the goal if that's achieved
by you know maybe some self regulations
himself policing by licensees coming to
the data set learning about their area
learning about the risk factors present
there and then maybe adjusting their
business practices based on that that's
that's a win that's a win without
expending any resources realistically
okay we've got several more
this one's from Elizabeth any public
interest in the rabbit data and the
public wanting to frequent more
responsible establishments so do you see an incentive for establishments to look good on rabbits you know it's pretty early on and we haven't and we did certainly field some concerns about the insurance industry again this isn't this not nothing visualized here would be exempt from a public information request so if an insurance company asked about the information or a citizen asked you know what's the safest bar in my community and they asked for specific data regarding to that we were required by law to provide that anyway so we're just making it easily very easily available up front I don't know of any specific any specific cases where anyone
is using this data as a consumer but I think there's some utility there potentially I know our community coalition's are interested in having the data for recognition for Responsible sale and service so licensees that pass our compliance checks based on the the alcohol compliance and tobacco compliance page of project Gravatt they get recognition from the community for essentially doing doing their job well so I don't think I answer that question real succinctly but no I don't have any specific information about consumers using it okay a couple more questions here and I know we are close to that our signal
so it's from Sandra our county seat has

a college and we experience a lot of

underage drinking and fake IDs

do you receive data about alcohol

poisoning from EMS and hospitals so that

has been a very very tough challenge I

want nothing more than that connected to

what's called our siren data in Vermont

but our Department of Health very and

and rightfully so is very protective of

their data so finding a way that kind of

aggregate the data without releasing

potentially HIPPA related information

has been a little bit of a struggle so

right now I am not accessing EMS data

but it's on a high high priority for me

to be able to quantify locations based

on that but you did mention fake IDs and
I'm going to just just spend just a quick second and jump back over to rabbit and we use some technology to help us interdict fake IDs and we visualize that data here which is helpful for us to kind of future plan where we will apply our fake ID interdiction resources so you can see a year today we've we've we scan 939 fake IR IDs and we've detected 875 fake IDs and we can see a breakdown by state here so we use this to visualize that data and you can see when we seized those fake IDs dates and times so we use this in planning for other fake ID details so again I don't know if I answer that question 100% we don't have
EMS data yet but we want it and we do quite a bit of work with fake IDs okay another question this is from Tamara are you integrated with the licensing Department in Vermont or only enforcement yes well we are separate offices but I'm we are integrated into their data set so our app real-time connects to our licensing database so our licensing division is made up of civilians their non law enforcement officers but we have access to all of their same data ok let's see I apologize if you're hearing that my computer is chiming in with some emails let's see a couple more ok it looks like actually we've we've answered all of the
questions I just want to make sure I'm
scanning that question box so if you've
got a question I missed it please retype
it otherwise I'm just going to begin to
wrap up our presentation today oh here
we go is your complaint process online
and how does that feed into this tool
yes
so we we do receive online anonymous
complaints the way we handle that is we
have a we use a cat RMS system that
is utilized statewide for all law
enforcement agencies that we actually
access that data as well for our law
enforcement specific data
a complaint comes in on an establishment
we punch a CAD case or a rms case and
that data feeds then into project rap
Additionally we receive complaints from you know people who walk into our office we receive complaints through the mail we're very open agency in regards to how we receive complaints ok some more came in so thank you guys for your interest we're gonna continue if you're able to stay on please do if you need to leave thank you very much for attending the webinar this is another one from Derek speak to how you and the NLL ei were able to get pol D integrated into Vermont's DUI protocol yes so it may be pretty specific our RP load the project with n ll EA is not limited to duis it's actually all open to all law enforcement calls for service it's in a
pilot right now we're only actually working with one select law enforcement agency I'm hoping that it will gain traction and and spread so the way it works as the NLL ei through some funding from nitsa has a online place of last drink database and law enforcement officers from this pilot agency when they encounter individuals who have been consuming and that place of last consumption was a licensed premise they report through that database and that database then dumps the information into project rabbit and I don't know if you saw on the Welcome page but I will I'll actually navigate us right back to there you can see place of last drink data
this is a little bit in beta test right now but it arrives here so our investigators every time a new place of the last drink report pops up our investigators can see that and then follow up on that complaint as well as far as you IRS go I'm actually working with our state forensic lab who manages our data our DMT data masters and we are adding a place of last drink question to that data master program similar to what arching tonneaus to collect place of last drink data at the time of DUI arrest but that that isn't quite lie yet in the state okay and I've got one more question for you to answer this one's from Michael how closely do you work with community collaboratives
and if so what can they do to make your efforts more effective how closely do you work oh sit where repeat of the same question okay so yeah that was one question it just was repeated twice sure we are always increasing our relationships with our local coalition's and our local prevention organizations as far as you know I think those relationships are getting better as time goes on and we're finding synergies and ways that we help each other out as far as I think the question asked how can they help us do our job better I you know specifically Vermont I think education is an area where we could certainly use a lot of help we're very
limited in our education resources I have two people we have two people in our office of education so given you know it it's very easy for us to use this data and because it's publicly available I you know I believe that this data could be used by anyone so prevention groups could do focus groups with their licenses in their community and they could do a deep dive into this data and maybe even go further than we could ever really go instead of asking you know you know getting to the root cause issues potentially you know we wanna we kind of our triage I guess if you look at it in some ways we want to stop the bleeding where it occurs but
potentially I think that prevention
1:03:35.710,1:03:40.030
organizations have the have the unique
1:03:38.050,1:03:41.650
ability to to really address maybe root
1:03:40.030,1:03:43.480
issues and kind of suss out what's a
1:03:41.650,1:03:46.599
deep deep deeper than even what I'm
1:03:43.480,1:03:49.240
visualizing here in the data and address
1:03:46.599,1:03:53.140
that so certainly education I think is
1:03:49.240,1:03:57.819
is an area where we could use some
1:03:53.140,1:03:59.470
plussing up okay awesome all right thank
1:03:57.819,1:04:01.660
you guys so much for hanging in there
1:03:59.470,1:04:03.609
for all of your questions and thank you
1:04:01.660,1:04:06.520
Skyler for your time and for sharing
1:04:03.609,1:04:09.369
your valuable knowledge with us on this
1:04:06.520,1:04:11.020
namco webinar if we if you have
1:04:09.369,1:04:14.050
questions if anyone still has
1:04:11.020,1:04:15.880
questions and we did not address them or
1:04:14.050,1:04:18.100
if you think of something afterwards you
1:04:15.880,1:04:22.000
guys have Skylar's contact information
and you have my email address so feel free to send it to either one of us and I will make sure Skylar gets it also please visit the NAB Co website at WWF white papers previous webinars and other materials and just a reminder this webinar is being recorded and will be available on the website same place on the resources under namco website in seven to ten days and again teaser we've got two more webinars coming up one in January and one in April so if you interested in receiving that invitation please send me a note as well thank you guys so much the webinar is now going to conclude so have an awesome evening