

December 12, 2019



National Transportation Library End-of-Year Update 2019

<https://transportation.libguides.com/TLR>

Audio call-in number: 877-336-1274; Access code: 5759713

National Transportation Library

End of Year Update 2019

Mary Moulton, Digital Librarian
Jesse Long, Fellow
Leighton Christiansen, Data Curator
Xin Wang, Systems Librarian
Vinod Koduri, Senior Web Engineer
Lisa Curtin, STIPDG Intern



U.S. Department of Transportation
Office of the Secretary of Transportation
Bureau of Transportation Statistics

General NTL Update

Mary Moulton, Digital Librarian



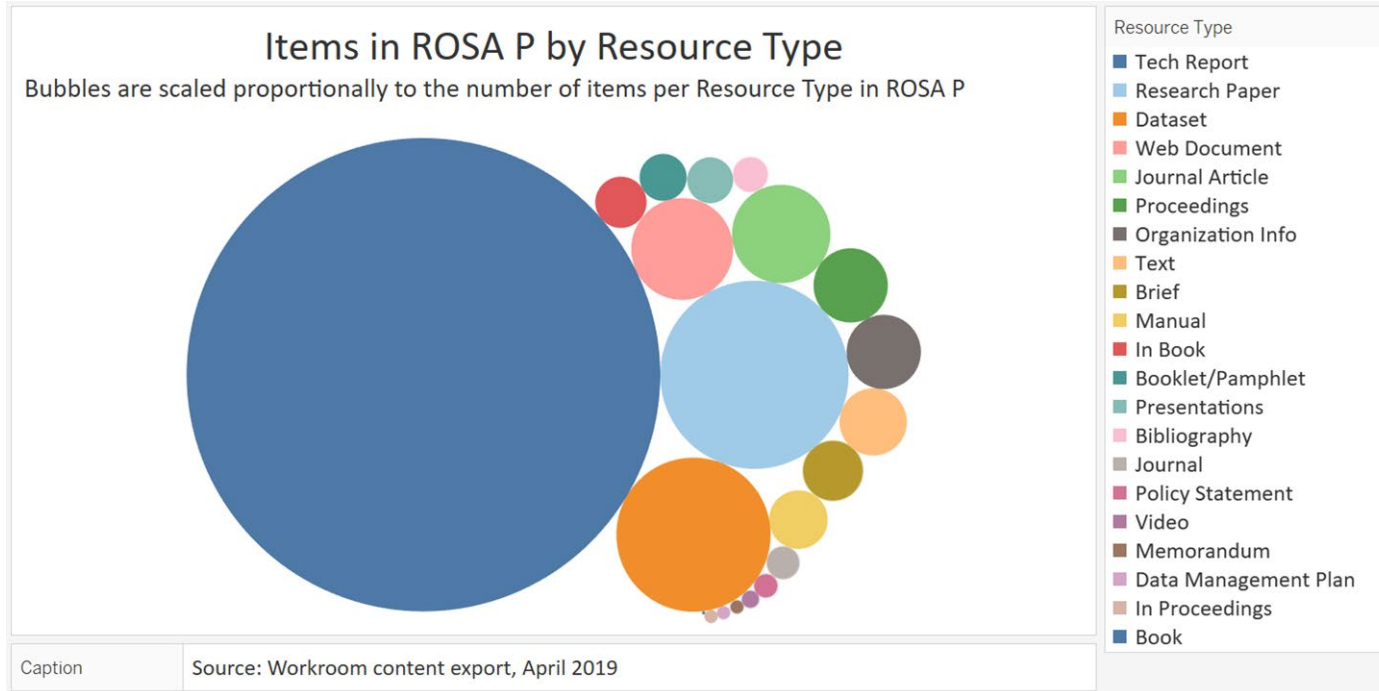
U.S. Department of Transportation
Office of the Secretary of Transportation
Bureau of Transportation Statistics

ROSA P: New Collections

- NTL Digital Special Collections
 - Advisory Circulars
 - CAA and FAA Reports
 - Civil Aeronautics Manuals
 - Civil Aeronautics Regulations
 - Federal Aviation Regulations
 - Historic CAB/DOT Orders
 - Investigations of Railroad Accidents
 - Investigations of Aircraft Accidents
 - National Conferences on Street and Highway Safety
 - Papers by Fairbank, Turner & Macdonald
 - US Coastguard Circulars
- US DOT modal research
 - Federal Motor Carrier Safety Administration (FMCSA)
 - Federal Highway Administration (FHWA)
 - Federal Railroad Administration (FRA)
 - Pipeline and Hazardous Material Safety Administration Office of Pipeline Safety
 - Federal Transit Administration (FTA)
 - National Highway Traffic Safety Administration Vehicle Safety Research
 - National Highway Traffic Safety Administration Behavioral Safety Research

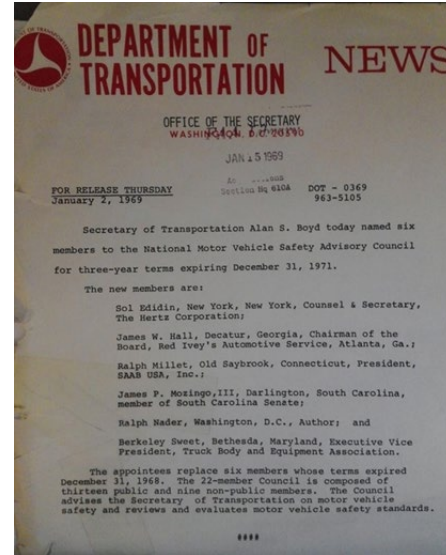


ROSA P: Metrics & Actions



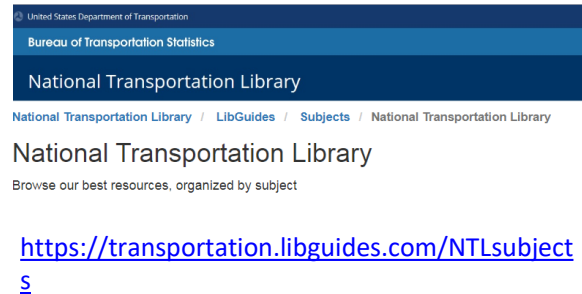
Digitization Projects

- Public Roads
- USACE Port Series
- US DOT Newsletters



NTL Subject Guides

- Accessibility
 - Checklist, training resources, NTL policy
- Persistent Identifiers
 - Recommended practices, glossary, references
- Research Tools
 - Transportation information sources, with focus on government and public domain
- ROSA P
 - Guide to search and navigation
- Transportation Librarians Roundtable

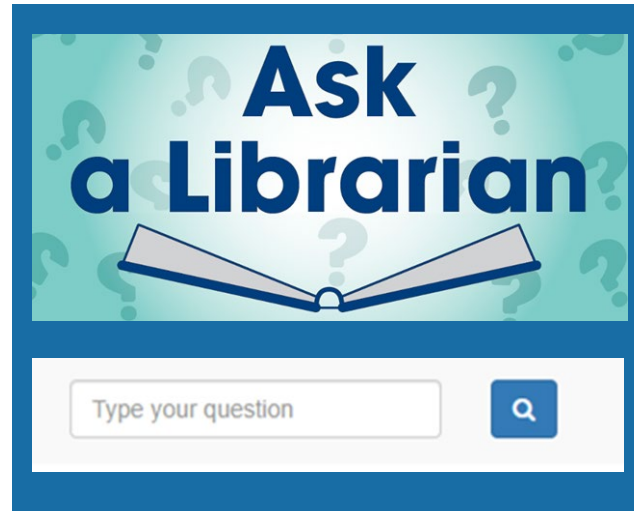


Ask-A-Librarian

Using LibApps virtual tools, NTL Reference Librarians provide:

- Place of entry to folks, from congress to the public, that have questions of DOT
- Basic research help for BTS products
- ROSA P assistance
- Referrals to US DOT OAs when appropriate
- Curated selection of answers to FAQs
- Understanding of what is on the public's mind

<https://transportation.libanswers.com/>



NTL @ TRB 2020

- **US DOT OST-R/NTL/BTS Booth**
 - Exhibit Hall 835
- **Section 508 Compliance and Document Accessibility: How to Make Your Reports Accessible for Everybody**
 - Workshop 1008
 - Sunday, January 12, 9:00 AM – noon
 - Convention Center, 147B
- **Research Data Management for State DOTs**
 - Workshop 1770
 - Thursday, January 16, 8:00 AM – noon
 - Convention Center, 103B
- **National Transportation Data Preservation Network (NTDPN) Workshop 2**
 - Thursday, January 16, 1:00 PM – 2:30 PM
 - Convention Center, 305, or remote participation
- **Moving Forward and Advancing Society with Transportation Libraries, Information, and Data**
 - Poster Session 1486
 - Tuesday, January 14, 10:15 AM – noon
 - Convention Center, Hall A



Data Team Update

Jesse Long, Fellow

Leighton Christiansen, Data Curator



U.S. Department of Transportation
Office of the Secretary of Transportation
Bureau of Transportation Statistics

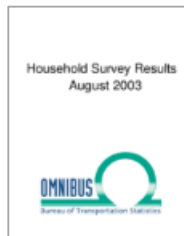
Omnibus Survey Program: 2000-2009

- Goal:** Create Data Packages for each time the survey was conducted.

Omnibus Household Surveys (OHS) = 35

Omnibus Targeted Surveys = 7


Starting Point: Final Reports in ROSAP



Household Survey Results August 2003

Published Date: 2003-08-01

Abstract: The Bureau of Transportation Statistics (BTS) is conducting a series of monthly surveys to monitor expectations of and satisfaction with the transportation system and to gather event, issue, and mode-specific information. The surveys will serve as an...

File Type:  [PDF - 478.96 KB]





Working with Legacy Data:

Data Package

Key Elements:

1. Dataset
2. Readme.txt
3. Metadata file
4. Data Management Plan

Optional:

5. Codes or Scripts
6. Supporting files, tables, etc.

	A	B	C	D	E
1	Date	Data	Documentation	Supporting Files Found	Data Package Complete
2	2000-08	Y	Y	Summary Tables (also in documentation doc)	Yes
3	2000-09	Y	Y	Summary Tables (also in documentation doc)	Yes
4	2000-10	Y	Y	Summary Tables (also in documentation doc)	Yes
5	2000-11	Y	Y	Summary Tables (also in documentation doc)	Yes
6	2000-12	Y	Y	Summary Tables (also in documentation doc)	Yes
7	2001-01	Y	Y	Summary Tables (also in documentation doc), Data Collection Report	Yes
8	2001-02	Y	Y	Summary Tables (also in documentation doc), Data Collection Report	Yes
9	2001-03	Y	Y	Summary Tables (also in documentation doc), Data Collection Report	Yes
10					
11	2001-07	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
12	2001-08	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
13	2001-10	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
14	2001-11	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
15	2001-12	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
16	2002-01	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
17	2002-02	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
18	2002-03	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
19	2002-04	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
20	2002-05	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
21	2002-06	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
22	2002-07	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
23	2002-08	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
24	2002-09	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
25	2002-10	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
26	2002-12	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
27	2003-02	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
28	2003-04	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
29	2003-06	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
30	2003-08	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
31	2003-10	Y	Y	data dictionary (.xls), survey table results (.xls, .pdf, .doc, .txt), SASLabels (.txt), SASFormat Library (.txt)	Yes
32					
33	2004-12	N	N	Nothing found	
34	2005-10	Y	N	data dictionary (.xls), survey table results (.txt), SASLabels (.txt), SASFormat Library (.txt), List of Variables to BTS (.xls)	
35	2006-11	Y	Y	data dictionary (.xls), survey results/frequency tables-also in stats format (.txt, .xls), SASFormat Library (.txt), SAS Labels (.txt), BTS Special Report for OHS 2006-2007 data (.pdf)	
36	2007-11	N	Y	data dictionary (.doc), data collection plan (.doc), stats for response rates (.xls), BTS Special Report for OHS 2006-2007 data (.pdf), BTS Special Report for OHS 2007-2008 data (.pdf)	
37	2008-11	Y?	Y	report tables (.xls), data dictionary (.xls), BTS Special Report for OHS 2007-2008 data (.pdf), BTS Special Report for OHS 2008 data (.pdf)	
38	2009-10	Y	Y	Survey results/frequency tables for both NAT and MSA data (.xls)	Yes

Omnibus Household Surveys (OHS) Inventory:





Common Issues:

Inconsistent or unknown naming structure

- + Hard to find files
- + Basic names
- + Repeating names
- + Unknown contents

Various file locations

- + Found new data at various stages of the project and had to back track

Limited Documentation

- + Creates gaps that make understanding and preserving the data difficult



Progress:

National Transportation Data Archive (NTDA)


<https://doi.org/10.21949/1504517>

- + 30 uploaded
- + 6 in-progress
- + 5 missing information

Omnibus Household Survey (OHS) 2002-06 [supporting datasets]

Published: 2002-06-18

Abstract: The Bureau of Transportation Statistics (BTS) conducts the Omnibus Household Survey (OHS) to monitor public expectations of and satisfaction with the transportation system and to gather event, issue, and mode-specific information. OHS, which is condu...

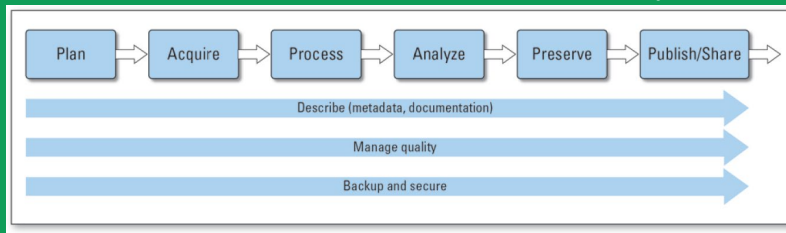
File Type:  [PDF - 114.25 KB]

Looking Ahead:

Preventing issues identified by legacy data through:

- + Data Management and Sharing Plans
- + Embedded Data Curators

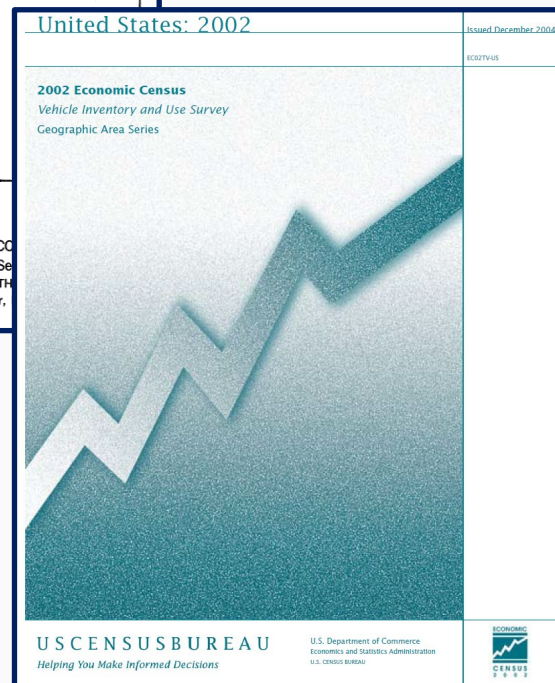
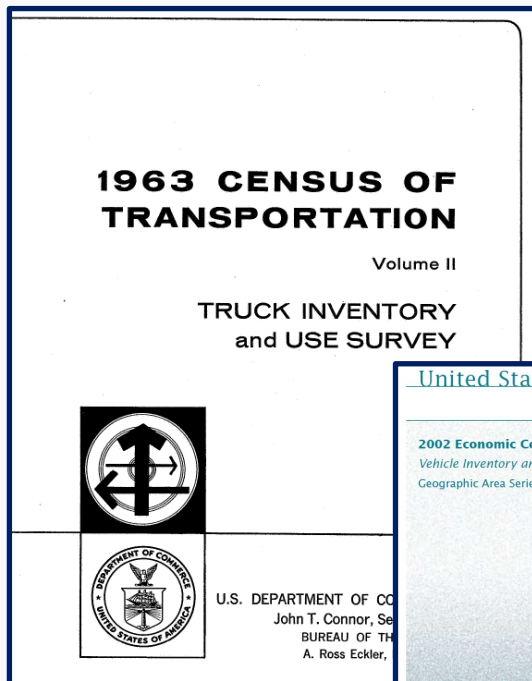
USGS Data Lifecycle Model



Vehicle Inventory & Use Survey (VIUS)

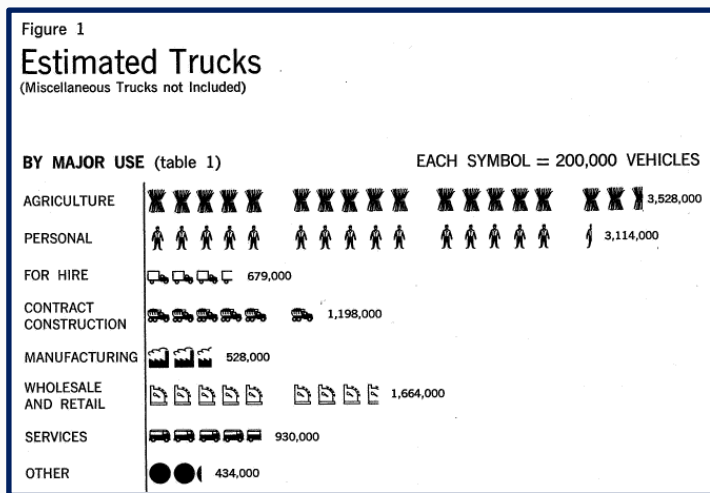
Historic Census Surveys halted in 2002

<https://www.census.gov/library.html>



VIUS Print Data: PDF Prisoners

1963, Figure 1



2002, Table 1a

Table 1a. Trucks—Comparative Summary: 2002

[Estimates are shown as percents and are based on data from the 2002 and 1997 Vehicle Inventory and Survey. Estimates may not be additive]

Vehicular and operational characteristics	2002	1997	1992	1987
Total	100.0	100.0	100.0	100.0
BUSINESS¹				
Agriculture, forestry, fishing, or hunting	2.6	5.0	6.4	8.5
Mining2	.3	.4	.5
Construction	5.3	8.3	8.4	10.0
Manufacturing9	1.0	1.3	1.3
Wholesale and retail trade	2.7	4.8	5.2	5.6
For-hire transportation or warehousing	1.5	1.5	1.5	2.2
Utilities and all services	5.2	6.7	6.2	5.5
Personal transportation	76.7	70.0	68.3	65.7
Other, not reported, and not applicable	4.9	2.4	2.2	.6



VIUS 2002 Data

Now in Machine-
Readable Format!!
With “Documentation”
(Amaze your friends!)

The screenshot shows the National Transportation Library (NTL) website interface. At the top, it displays the United States Department of Transportation logo and the Bureau of Transportation Statistics. The main header is "National Transportation Library" with navigation links for Home, Collections, Recent Additions, Public Access, and Submit Content. Below the header is the ROSAP logo and a search bar with the text "All Collections" and "Enter keyword or phrase...". The search results page shows the title "Vehicle Inventory and Use Survey (VIUS) 2002 [supporting datasets]" and indicates it is "Record #: 1 of 1". The publication date is "2004-12-01" and the language is "English". A "Download" button is visible next to a PDF icon labeled "(PDF-115.07 KB)". Below the main content area are tabs for "Viewer", "Details", "Supporting Files", "Related Documents", and "You May Also Like". The viewer window shows a document titled "README for 'Vehicle Inventory and Use Survey (VIUS) 2002' dataset." with the following text:

README for "Vehicle Inventory and Use Survey (VIUS) 2002" dataset.
Bureau of Transportation Statistics (BTS), U.S. Department of Transportation (USDOT)
2019-11-14

LINKS TO DATASET

A. Dataset archive link:
<https://doi.org/10.21949/1506070>

SUMMARY OF DATASET

The Vehicle Inventory and Use Survey (VIUS) provides data on the physical and operational characteristics of the nation's truck population. Its primary goal is to produce national and state-level estimates of the total

<https://doi.org/10.21949/1506070>



Public Access Updates

GAO Report

FEDERAL RESEARCH:
Additional Actions
Needed to Improve
Public Access to
Research Results

“implement mechanism to
ensure researcher compliance”

<https://www.gao.gov/products/GAO-20-81>

PA Plan Review

- Published in December 2015
- Planned Review
- Reflect:
 - ~ GAO report;
 - ~ Evidence-Based Policy Act;
 - ~ Lessons learned

Feed Back?

public.access@dot.gov

National Transportation Data Preservation Network (NTDPN):

“Workshop 2” at TRB,
January 16

<https://doi.org/10.21949/1506118>



Systems Team Update

Xin Wang, Systems Librarian

Vinod Koduri, Senior Web Engineer



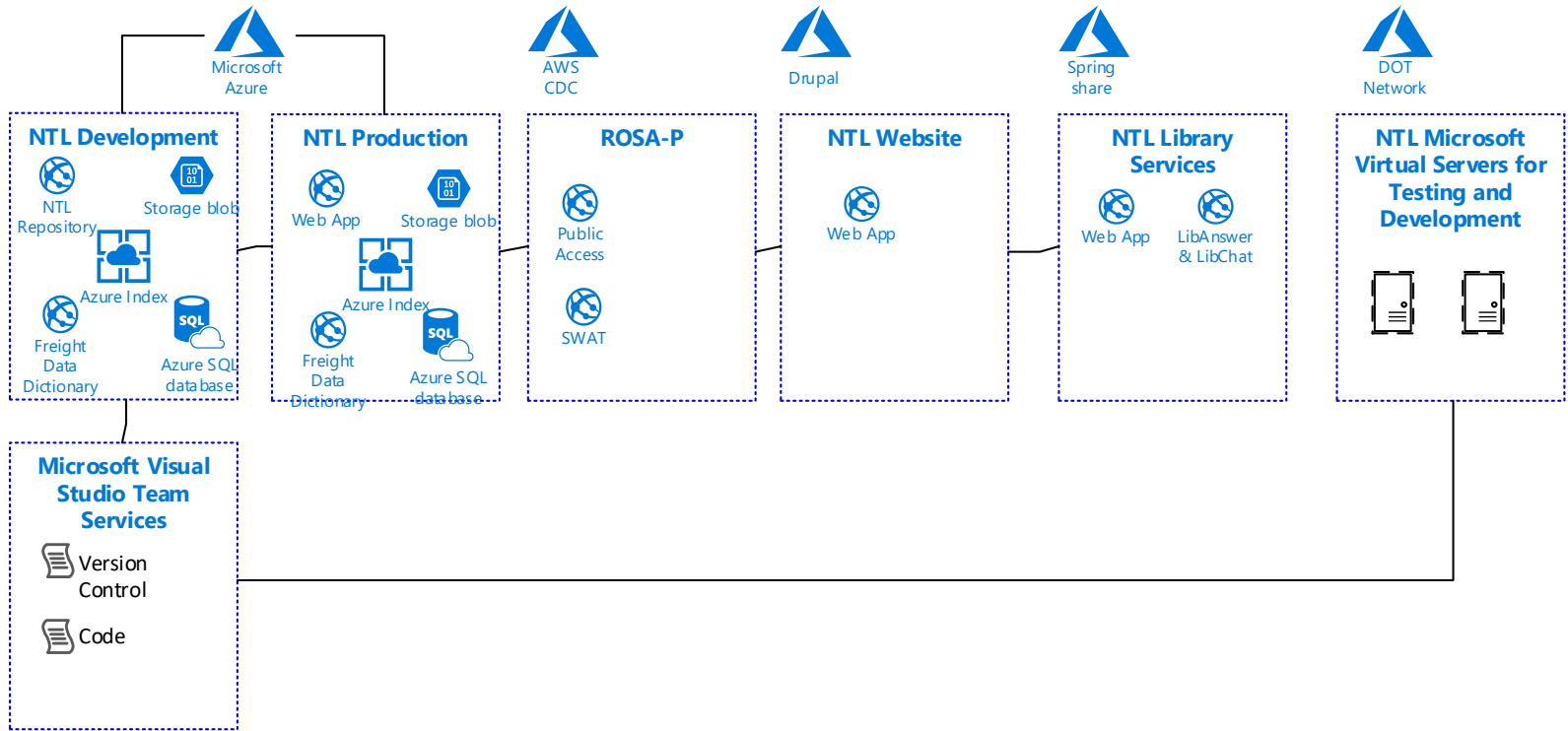
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Office of the Secretary of Transportation
Bureau of Transportation Statistics

NTL IT System Improvements

- NTL Repository 2.0 in Azure
- ROSA_P (NTL DC for public access)
- NTL Repository 3.0 in AWS
- Mediated Submission APP



NTL Infrastructure Environment



NATIONAL TRANSPORTATION LIBRARY REPOSITORY

Who?

As part of the Bureau of Transportation Statistics, the National Transportation Library maintains a broad collection of statistical and transportation information. The goal is to provide information to DOT staff, transportation researchers, and policymakers at all levels.

What?

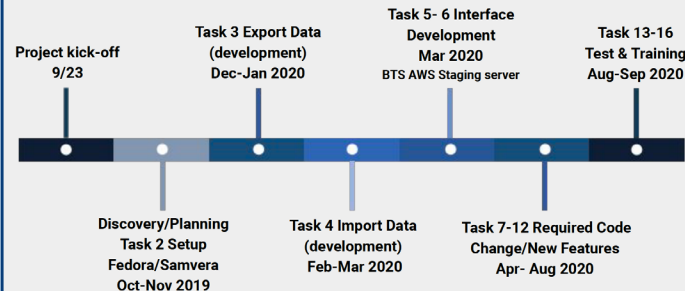
- Build a new repository with Fedora in AWS
- Utilize ROSA-P interface and Workroom to handle current functionality during development
- Integrate with required internal and external interfaces
- Simple and intuitive user experience

Why?

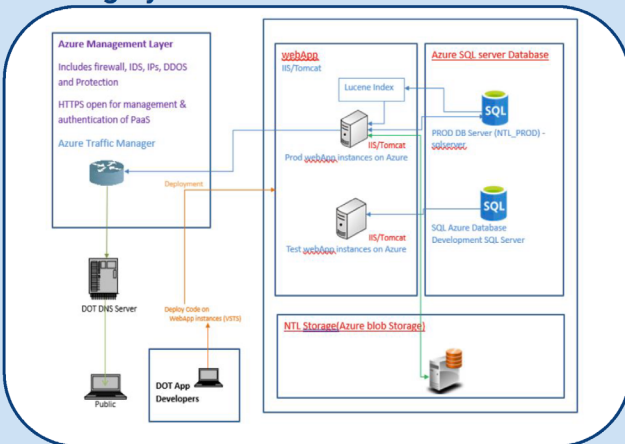
Modernize the NTL repository system to improve business user experience and realize potential cost savings.

When?

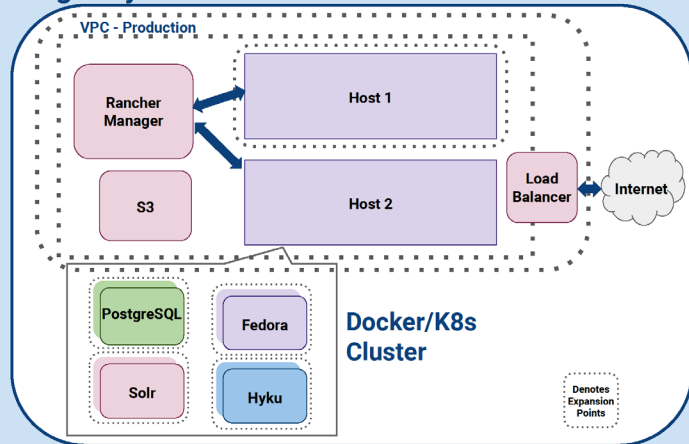
12-month development timeline, to launch September 2020



Existing System Architecture



Target System Architecture



NTL Submissions

Xin Wang, Systems Librarian

Vinod Koduri, Senior Web Engineer



U.S. Department of Transportation
Office of the Secretary of Transportation
Bureau of Transportation Statistics

Background

Submissions page is designed to replace the email submission system where NTL catalogers used to receive data and documents thru emails.

- Improved metadata accuracy
- More efficiency and less work for catalogers
- More flexibility for catalogers
- Improved analysis and decision making



Features

- Let users input all the required metadata fields to submit
- Catalogers can view/edit/update/delete the user submitted records
- All the work is archived for the future needs
- Records can be directly transferred to workroom



Where is it now

- Development completed
- Completed user testing and changes/fixes
- Added New standard BTS headers and footers
- Production ready in couple of weeks



More Updates..

- UI changes on how the data is displayed
- Integrate spell check functionality





Submission home page

Bureau of Transportation Statistics

Search BTS site



Topics and Geography

Statistical Products and Data

National Transportation Library

Newsroom

About BTS

NTL Submissions Request Form

vinod.koduri | [Logout](#)

The NTL Submission Form allows users to submit reports and datasets to the National Transportation Library digital repository.

For guidance on the types of research NTL collects, please see the NTL Collection Development and Maintenance Policy:
<https://ntl.bts.gov/policies/collection-development>

Fields marked with an asterisk () are required.*

REQUESTER INFORMATION

*Name

vinod.koduri

*E-mail

vinod.koduri.ctr@dot.gov

*Agency

OSTR

Submitters notes

Submission home page

Report Number [?](#)

e.g., report1;report2 .. (add multiple numbers separated by semicolon ";")

*Title [?](#)

*Author's ORCID numbers [?](#)

enter author's orcid number or select 'YES' for next field.. (add multiple numbers separated by semicolon ";")

Organization Authorship: ORCID request does NOT apply? NO YES

*Performing Organization Name [?](#)

enter the performing organization name as supplied.. (add multiple names separated by semicolon ";")

Contract or Grant Number [?](#)

enter the contract or grant under which report was prepared.. (add multiple numbers separated by semicolon ";")

*Sponsoring Agency Name [?](#)

enter the sponsoring agency name(s).. (add multiple names separated by semicolon ";")

*Abstract [?](#)

Is this ReSubmission YES NO

(If YES - In the Submitters Notes field describe what information has changed (e.g., revised PDF, updated Technical Report documentation page metadata) also include the old Record ID if possible)

Is this report SPR funded? YES NO

*Report Accessibility Acknowledgement Agree Disagree

Submit Request

Clear Form

Reviewer Page

Reviewer Workroom

[Home](#) | [Archive Page](#) | [User Admin](#) | [Profile](#) | [Logout](#)

Pending Records

Submission ID	Requester Name	Requester Agency	Report Number	Title	ReSubmit	View/Edit Delete	Transfer to Workroom
109	test name	OST	F3334	Testing		view/edit delete	transfer
110	Rales	FHA	test123	Test title		view/edit delete	transfer
124	xin.wang	OSTR		dddddddddddddddddddddddd		view/edit delete	transfer
125	judith.salter	OSTR	Submissions_Test_Firefox_Judith_1	Submissions_Test_Firefox_Judith: Test 1		view/edit delete	transfer
150	vinod.koduri	OSTR		testing		view/edit delete	transfer
155	vinod.koduri	OSTR	test	ttestupdate		view/edit delete	transfer

Archive Page

Reviewer Workroom

[Home](#) | [Archive Page](#) | [User Admin](#) | [Profile](#) | [Logout](#)

Deleted/Submitted Records

Submission Id ▾ Submission Id ▾

Submission ID	Requester Name	Requester Agency	Report Number	Performing Organization	Contract Number	Sponsor Agency	WorkRoom ID	Title
87	JST	FHWA	FC2453	TestMN	Test123	OST	0	Test it
88	Bird	FHWA	FT24	FAA	Test1233	FHWA	62525	Test Title
89	Ted	FAA	D1433	DOT	Test123D	DT	0	Testing Title
90	Ten	Two	ONE2FOUR	MNTD	T12;T13	OST	0	Testing Testing Testi
91	Test name	OST	Brooklyn12	TestMNTT	43312F	OSTR	0	Bridge Construction
92	Vinod	OST	BD 549 WO 52; 77805	TestMNTN	BD 549 WO 52	FHWA	62531	Quantifying the net s
93	TName	OSTR	3456F	kk	lkihkih	klasidflh	62524	test the title

2019 Intern Projects @ NTL

Legacy Data Rescue Research
Persistent Identifier LibGuide

Lisa A. Curtin

MSIS '20, University of Tennessee-Knoxville
USDOT STIPDG Intern, Summer 2019

<https://orcid.org/0000-0003-1137-7789>



U.S. Department of Transportation
Office of the Secretary of Transportation
Bureau of Transportation Statistics

Legacy Data Rescue

“Rescuing data usually expands the temporal and/or spatial coverage of a database’s holdings which can be accessed for study.” - Griffin, 2015

Legacy data are data collected or compiled in the past, stored in an obsolete format.

Obsolete formats include data on paper, and other physical storage media such as video and audio cassettes, magnetic tape, floppy disk, etc.

Data rescue is the process of making legacy data accessible.

This may be as simple as scanning documents or copying data from an old storage device to a newer one.

It may be as complex as using deep-learning or crowd-sourcing to translate legacy data into machine-readable data.





NTL's Current Capability for Data Rescue

Using Adobe Acrobat DC Pro on scanned PDFs

- Enhance scans
- Recognize text (OCR)
- Highlight text
- Export selection as .docx
- Format text in Word
 - "Normal" text formatting
 - Remove artifacts
 - Standardize font & text size
 - Remove spacing errors and OCR noise
- Paste .docx content into Excel

TABLE 2. LANE MILE TABLE
SAN DIEGO FREEWAY

Station	NORTHBOUND			SOUTHBOUND		
	Distance Between Stations	Number of Lanes	Lane Miles	Distance Between Stations	Number of Lanes	Lane Miles
SD01-SD02	0.64	4	2.56	0.64	364	2.54
SD02-SD03	0.54	4	2.16	0.54	4	2.16
SD03-SD04	0.62	4	2.48	0.62	4	2.48
SD04-SD05	0.66	4	2.64	0.66	4	2.64
SD05-SD06	0.53	4	2.12	0.53	4	2.13
SD06-SD07	0.53	4	2.12	0.53	4	2.13
SD07-SD08	0.33	4	1.32	0.33	4	1.32
SD08-SD09	0.34	4	1.36	0.34	4	1.36
SD09-SD10	0.49	4	1.96	0.49	4	1.96
SD10-SD11	0.37	4	1.48	0.37	4	1.48
SD11-SD12	0.42	4	1.68	0.42	4	1.68
SD12-SD13	0.56	4	2.24	0.56	4	2.24
SD13-SD14	0.42	4	1.68	0.42	4	1.68
SD14-SD15	0.57	4	2.28	0.57	4	2.28
SD15-SD16	0.47	485	2.34	0.47	4	1.88
SD16-SD17	0.49	564	2.11	0.49	4	1.96
SD17-SD18	0.64	4	2.56	0.64	4	2.56
SD18-SD19	0.49	4	1.96	0.49	4	1.96
SD19-SD20	0.48	4	1.92	0.48	4	1.92
SD20-SD21	0.44	4	1.76	0.44	485	2.14
SD21-SD22	0.49	4	1.96	0.49	564	2.36
SD22-SD23	0.66	485	2.94	0.66	4	2.64
SD23-SD24	0.40	4	1.60	0.40	4	1.60
SD24-SD25	0.50	4	2.00	0.50	4	2.00
SD25-SD26	0.68	4	2.72	0.68	4	2.72
SD26-SD27	0.33	4	1.42	0.33	4	1.32
SD27-SD28	0.70	4	2.80	0.70	4	2.80
SD28-SD29	0.51	4	2.04	0.51	4	2.04
SD29-SD30	0.47	4	1.88	0.47	4	1.88
SD30-SD31	0.58	4	2.32	0.58	4	2.32
SD31-SD32	0.77	483	3.05	0.77	4	3.08
TOTALS	16.12		65.46	16.12		65.26



NTL's Current Capability for Data Rescue

Using Adobe Acrobat DC Pro on scanned PDFs

- Enhance scans
- Recognize text (OCR)
- Highlight text
- Export selection as .docx
- Format text in Word
 - "Normal" text formatting
 - Remove artifacts
 - Standardize font & text size
 - Remove spacing errors and OCR noise
- Paste .docx content into Excel

TAPIE 2 LATE MILE TABLE
SAN DIEGO FREEWAY

Station	X)Rnm.Jiffl			set.mmh'll		
	Distance Between Stations	Number of Lanes	Lane Miles	Distance Between Stations	Number of Lanes	Lane Miles
SD01-SD02	0.64	4	1.56	0.64	3&4	2.54
SD02-SD03	0.54	4	2.16	0.54	4	2.16
SD03-SD04	0.62	4	2.18	0.62	4	2.48
5004-SD05	0.66	4	2.64	0.66	4	2.64
S005-SD06	0.53	4	2.12	0.53	4	2.1
S006-SD07	0.53	4	2.12	0.53	4	2.13
S007-SD08	0.33	4	1.32	0.33	4	1.32
SD08-SD09	0.34	4	1.36	0.34	4	1.36
5009-S010	0.49	4	1.96	0.49	4	1.96
SD10-SD11	0.37	4	1.48	0.37	4	1.48
SD11-SD12	0.56	4	1.68	0.42	4	1.68
SD12-SD13	0.56	4	2.24	0.56	4	2.24
SD13-SD14	0.42	4	1.68	0.42	4	1.68
SD14-SD15	0.57	4	2.28	0.57	4	2.28
SD15-SD16	0.47	4&5	2.34	0.47	4	1.88
SD16-SD17	0.49	5&4	2.11	0.49	4	1.96
SD17-SD18	0.64	4	2.56	0.64	4	2.56
SD18-SD19	0.49	4	1.96	0.49	4	1.96
SD19-SD20	0.48	4	1.92	0.48	4	1.92
S!>20-SD21	0.44	4	1.76	0.44	4&5	2.14
S021-SD22	0.49	4	1.96	0.49	5&4	2.16
SD22-SD23	0.66	4&5	2.94	0.66	4	2.64
SD23-SD24	0.40	4	1.60	0.40	4	1.60
SD24-SD25	0.50	4	2.00	0.50	4	2.00
SD25-SD26	0.68	4	2.72	0.68	4	2.72
S02.6-S027	0.53	4	1.42	0.33	4	1.32
SD21-S028	0.70	4	2.80	0.70	4	2.80
SD28-SD29	0.45	4	1.80	0.45	4	1.80
SD29-SD30	0.45	4	1.80	0.45	4	1.80



NTL's Current Capability for Data Rescue

Using Adobe Acrobat DC Pro on scanned PDFs

- Enhance scans
- Recognize text (OCR)
- Highlight text
- Export selection as .docx
- Format text in Word
 - "Normal" text formatting
 - Remove artifacts
 - Standardize font & text size
 - Remove spacing errors and OCR noise
- Paste .docx content into Excel

SD01-SD02	0.64	4	1.56	0.64	3&4	2.54
SD02-SD03	0.54	4	2.16	0.5-t	4	2.16
SD03-SD04	0.62	4	2.-18	0.62	4	2.48
S004-SD05	0.66	4	2.64	0.66	4	2.64
S005-SD06	0.53	4	2.12	0.53	4	2.1
S006-SD07	0.53	4	2.12	0.53	4	2.1
S007-SD08	0.33	4	1.32	0.33	4	1.32
SD08-SD09	0.34	4	1.36	0.34	J	1.36
S009-S010	0.49	4	1.96	0.49	4	1.96
SD10-SD11	0.37	4	1.55	4	1.48	
SD11-S012	0.72	4	1.68	0.42	4	1.68
SD12-SD13	0.56	4	2.24	56	4	2.24
SD13-SD14	0.42	4	1.68	0.42	4	1.68
SD14-SD15	0.57	4	2.28	0.57	4	2.28
SD15-SD16	0.47	4&5	2.34	0.57	4	1.88
SD16-SD17	0.49	5&4	2.11	0.49	4	1.96
SD17-S018	0.64	4	2.56	0.64	4	2.56
SD18-SD19	0.49	4	1.96	0.49	4	1.96
SD19-SD20	0.5	4	1.92	0.48	4	1.92
S1>20-SD21	0.44	4	1.76	0.44	4&5	2.14
S021-SD22	0.49	4	1.96	0.49	5&4	?- *j- 6
SD22-SD23	0.66	4&5	2.94	0.66	t	2.64
SD23-SD24	0.4	4	1.6	0.4	4	1.6
SD24-SD25	0.5	4	2	0.5	4	2.00
SD25-SD26	0.68	4	? .72	0.68	4	0.72
S02.6-S027	0.53	4	1.42	0.33	4	1.32
SD21-S028	0.7	4	? .80	0.7	4	2.80
SD28-SD29	0.51	4	2.04	0.51		2.04
SD29-SD30	0.47	4	1.828	0.47	4	1.88
SD30-SU.51	0.58	4	0.55		4	2.32
S031-SD32	0.77	4&3	3.05	0.77	4	3.08
TOTALS	16.12		65.46	16.12		65.26

Other Options for Legacy Data Rescue

Commercial solutions in the form of paid services or dedicated OCR software such as ABBYY or OmniPage

DIY/open-source solutions including Python scripts for “fixing” OCR’d text

“Scholarly” solutions focus on document analysis and table detection using OCR/analytics, deep learning AI, and/or crowdsourcing

Solutions from other Gov. Agencies

NSF awards grants for legacy data rescue projects

USGS uses OmniPage to OCR their documents, has dabbled in crowdsourcing

NLE contracts w/Internet Archive for digitization

NLM’s PMC converts documents to HTML

NIST contracts with PMC to convert documents to HTML

LC and Smithsonian offer crowdsourcing platforms

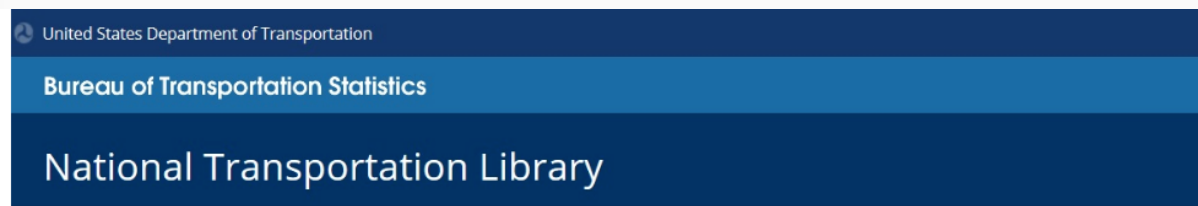


Persistent Identifier LibGuide

Created a resource for use in socializing DOIs & ORCID IDs with researchers across USDOT

DOIs & ORCID IDs are required by the USDOT 2015 Public Access Plan but remain unknown to and underused by USDOT researchers

transportation.libguides.com/persistent_identifiers



National Transportation Library / LibGuides / Persistent Identifiers / Introduction to Persistent Identifiers

Persistent Identifiers

NTL Guide to DOIs & ORCID IDs for DOT Researchers

Introduction to Persistent Identifiers

Persistent Identifiers

Glossary

Digital Object Identifier (DOI)

Open Researcher & Contributor Identifier (ORCID ID)

Why Does NTL Recommend DOIs & ORCID IDs?

How to Get an ORCID ID

References

LibGuide Contributors
s.gov

Persistent Identifiers

This LibGuide focuses on persistent identifiers (PIDs), with in-depth coverage of Digital Object Identifiers (DOIs) & Open Researcher and Contributor Identifiers (ORCID iDs). This guide's primary purpose is to explain why and how DOT researchers should acquire and use PIDs for themselves and their research.

What is a Persistent Identifier (PID)?

A PID is a long-lasting digital reference to an object, contributor, or organization, "a code which remains constant as a means of identifying a digital object regardless of changes to its location on the internet" [10]. An "identifier" is "an association between a string (a sequence of characters) and an information resource" [6]. Web URLs are an example of a common identifier. The term "persistent" refers to the need for an identifier to provide continued access to and provenance for the object it refers to for years to come.

The long-term persistence of identifiers for objects, contributors, and organizations is vital to robust data management strategies. Publishers, funders, and other organizations have implemented PIDs in their established research workflows to enable the creation of trusted digital connections between objects, contributors, and organizations.

PID is a new name for a concept that has been a part of publishing for decades. In the past publishers used identifiers such as ISBNs and ISSNs to distinguish unique textual objects [8]. However, the proliferation of digitally available research and technical publications has created a need for machine-readable, interoperable PIDs. Machine-readable PIDs such as DOIs and ORCID iDs



U.S. Department of Transportation
Office of the Secretary of Transportation
Bureau of Transportation Statistics

Thank you!

Working at NTL for the summer was a great experience.

- Learned from the NTL staff and met other information professionals in DC
- Learned to use LibGuides and developed professional research skills
- Chose related courses this year including GIS, information architecture, metadata, web design
- Inspired to pursue an additional government information center experience—spring practicum at the Dept. of Energy's Office of Scientific and Technical Information (OSTI) here in Oak Ridge, Tennessee

Feel free to contact me with any questions or future opportunities!

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Come see us at TRB 2020!

- Exhibit Hall Booth 835
- Section 508 Compliance and Document Accessibility: How to Make Your Reports Accessible for Everybody
- Research Data Management for State DOTs
- National Transportation Data Preservation Network (NTDPN) Workshop 2
- Moving Forward and Advancing Society with Transportation Libraries, Information, and Data
Poster Session 1486

