

Quarterly Progress Report:

Project Number and Title: 4.9 Analysis of Covid-19 and Travel In Maine (ACTIME) – Validation Study

Research Area: Research Thrust Area: 4

PI: Dr. Jonathan Rubin, University of Maine Co-PI(s): Kathryn Ballingall, University of Maine

Dr. Per Garder, University of Maine

Reporting Period: *April 01, 2021 to June 30, 2021*

Submission Date: July 14, 2021

Overview:

Provide BRIEF overview and summary of activities performed during the reporting period.

- The project will support Maine DOT by validating the accuracy of Streetlight Insight® Metrics AADT data using data collected at permanent and temporary count stations in Maine. We are investigating the accuracy of seasonal (monthly), daily and hourly variations in AADT and as well as the road's classification and AADT.
- The monthly and daily variations in annual, monthly and weekly AADT streetlight and counter AADT were analyzed for statistical significance, and submitted to DOT for comment on July 7th.
- Turning count movements validation analysis is underway

Provide context as to how these activities are helping achieve the overarching goal(s) of the project.

This provides a first level of validation of the Streetlight data.

Describe any accomplishments achieved under the project goals.

An initial evaluation of the Streetlight metrics was completed.

| Table 1: Task Progress | | | | | |
|-----------------------------------|---------------------------------|--------------------|-----|--|--|
| Task Number | Task Number Start Date End Date | | | | |
| Task 1: Validating the AADT data | October 1, 2020 | August 31, 2021 | 75% | | |
| Task 2: Validating turning counts | April 1, 2021 | August 31, 2021 | 25% | | |
| Task 3: Reporting | June 1, 2021 | September 30, 2021 | 25% | | |
| Overall Project: | October 1, 2020 | December 31, 2021 | | | |

| Table 2: Budget Progress | | | | |
|--|-------------|-----|--|--|
| Project Budget Spend – Project to Date % Project to Date | | | | |
| \$26,097 | \$17,027.46 | 65% | | |

Describe any opportunities for training/professional development that have been provided.

N/A



Describe any activities involving the dissemination of research results (be sure to include outputs, outcomes, and the ways in which the outcomes/outputs have had an impact during the reporting period.

| Table 3: Presentations at Conferences, Workshops, Seminars, and Other Events | | | | | |
|--|-------|------|----------|---------|--|
| Title | Event | Type | Location | Date(s) | |
| | | | | | |
| N/A | | | | | |
| | | | | | |

| Table 4: Publications and Submitted Papers and Reports | | | | | | |
|--|---------------------------------|--|--|--|--|--|
| Type | Type Title Citation Date Status | | | | | |
| N/A | | | | | | |

Participants and Collaborators:

Use the table below to list all individuals who have worked on the project.

| Table 5: Active Principal Investigators, faculty, administrators, and Management Team Members | | | | | |
|---|------------------------------|-------------|------------------|--|--|
| Individual Name | Email Address | Department | Role in Research | | |
| Kathryn Ballingall | Kathryn.ballingall@maine.edu | MCSPC | Co-PI | | |
| Jonathan Rubin | rubinj@maine.edu | Economics | PI | | |
| Dan Candan | and an Omain and a | Civil | Co-PI | | |
| Per Garder | garder@maine.edu | Engineering | | | |

Use the table below to list all students who have participated in the project during the reporting. (This includes all paid, unpaid, intern, independent study, or any other student that participated in this project.)

| Table 6: Student Participants during the reporting period | | | | | | |
|---|--|--------|-----------|--------------------|--|--|
| Student Name Email Address Class Major Role in research | | | | | | |
| Sheldon Green | | Senior | Economics | Research Assistant | | |
| Peter O'Brien | | Senior | Economics | Research Assistant | | |
| | | | | | | |

Use the table below to list any students who worked on this project and graduated during this reporting period.

| Table 7: Student Graduates | | | | | |
|----------------------------|--------------------|-----------------------|--------------------|--|--|
| Student Name | Role in Research | Degree | Graduation Date | | |
| Sheldon Green | Research Assistant | Bachelor of Economics | May 1, 2021 | | |

Use the table below to list organizations have been involved as partners on this project and their contribution to the project.

| Table 8: Research Project Collaborators during the reporting period | | | | | | |
|---|----------|-----------|---------|-----------------------------|---------------------------|-----------|
| Со | | | | Contribution to the Project | | |
| Organization | Location | Financial | In-Kind | Facilities | Collaborative | Personnel |
| | | Support | Support | racilities | Collaborative Research | Exchanges |
| N/A | | | | | | |

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List all other outputs, outcomes, and impacts here (i.e. patent applications, technologies, techniques, licenses issued, and/or website addresses used to disseminate research findings). Please be sure to provide detailed information about each item as with the tables above.

N/A

Have other collaborators or contacts been involved? If so, who and how? (This would include collaborations with others within the lead or partner universities; especially interdepartmental or interdisciplinary collaborations.)

| Table 9: Other Collaborators | | | | | |
|---|--|--------------------------------|------------------------------|--|--|
| Collaborator Name and Title Contact Information Department Contribution to Research | | | | | |
| Ed Hanscom | | Maine DOT, Traffic Analysis | (i.e. Technical Champion) | | |

Who is the Technical Champion for this project?

Name: Dale Peabody Title: Director of Research

Organization: Maine Department of Transportation

Location (City & State): Augusta, ME Email Address: dale.peabody@maine.gov

Changes:

Discuss any actual or anticipated problems or delays and actions or plans to resolve them... N/A

Discuss any changes in approach and the reasons for the change... N/A

Planned Activities:

Description of future activities over the coming months.

- Task 1: Review Comments on MADT validation, complete day of week and hour of day validation.
- Task 2: Complete turning movement count analysis.
- Task 3: Submit final report for review by August 30th, 2021.

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