
Pennsylvania Data Lab 90780
Section A and B Course Proposals

Course Instructor:

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1.0 Introduction

The Heinz College, Carnegie Mellon requires that each student seeking to earn a masters degree must participate and pass a one semester group project course dealing with a public policy issue. The project must be organized as follows: a client, a review panel, and a professor responsible for overseeing the project and issuing a grade to each student. The course, 90780 Pennsylvania Data Laboratory, taught by Professor Robert Strauss qualifies as such a required project course for graduation.

This document describes *two* sections of 90780 which are separate 90780 course projects for Fall 2025 enrollment by interested students. Each is an extension of earlier, completed project; they are briefly explained below. Interested students should email Professor Strauss at rpstrauss@gmail.com to discuss their interest and background for course section A or B below.

Project A: Further analysis of Pennsylvania school safety Memos of Understanding

Project A deals with the Natural Language Programming and spatial analysis of statutorily required signed school Memoranda of Understanding between 500 Pennsylvania school districts and approximately 1300 local law enforcement agencies and the Pennsylvania State Police. Ascii versions of each of the 1200 agreements for the most recent 2 years are in hand from the Office of School Safety of the Pennsylvania Department of Education. Also in hand is the preliminary GIS linkage between each of 3,000 school buildings and the nearest local law enforcement facility in Excel format which was generated through the GIS analysis of Google maps and address lists of each.

The project will characterize whether or not each of the MOUs compares favorably to the suggested format of MOUs provided by PDE to local school districts, and the extent to which each school building is linked spatially to the closest law enforcement or State Police barrack.

Interested students should read the Fall, 2023 90780 Final Report on the matter at:
http://www.andrew.cmu.edu/user/rs9f/rpstrauss_school_safety_final_report_1_18_2023.pdf

Project B: Further financial analysis of storm water run off issues in Pennsylvania

Project B deals with the financial analysis of the impact of a pending PA Supreme Court decision that will decide whether or not historical storm water fees, imposed currently by local municipal public authorities and local governments, are classified as permissible “property taxes” or not. The relevant list of Pennsylvania Municipal Authorities, municipal bond offerings in Pennsylvania for water projects, spatial data on rainfall, and consolidated financial statements from the Governments Division of the US Census as well as from the Pennsylvania Department of Community and Economic Development are in hand in Excel and other formats.

The project will ascertain the risks to current storm water run off financing of local municipal public authorities, especially for operations and debt service, should the Pennsylvania Supreme Court prohibit the imposition of storm water fees [because they are deemed to be real property taxes] for that purpose. Also, the implication of using a more rational measurement of environmental responsibility than current practice will be ascertained through counter-factual analysis of rainfall data as well as application of a responsibility formula developed and applied by local governments in Michigan.

Interested students should read the Fall, 2024 90780 Final Report on the matter at:

https://www.andrew.cmu.edu/user/rs9f/summers_storm_water_run_off_12_2024.pdf