Pandemic Impact Statement

- **Cross-cutting Impact**
  - During 2020, I had major increase in caregiving responsibilities due to illnesses and a death in the family and the closure of care facilities.
  - Starting March 2020, the state and local governments requested help in analyzing the SafeGraph COVID-19 spatial big data and produce bi-weekly reports to help monitor the impact of the pandemic and policy interventions. Given the societal need, our group volunteered to fulfill the need. This added substantial additional service load on me and my research group.
  - Additional time involved with responding to government and media requests for expert opinions: I had an unusually high number of requests including Minnesota (MN) House of Representative Transportation Policy and Finance committee, MN Department of Health, MN Management and Budget, MN Department of Transportation, Metropolitan Council, Center for Transportation Studies (multiple events). Media requests included Scientific American, MIT Press Reader, ZDNet/CBS Interactive, Star Tribune, Pioneer Press, Bloomberg CityLab, Business North, Winona Post, UMN News, UMN CSE News, etc.

- **Impact on Teaching**
  - Conversion from on-campus to Zoom teaching was a major burden for everyone in Spring 2020 due to the need for professional development, changes in evaluation process and training teaching assistants. Unfortunately, it was twice the burden for me as I was teaching two courses in Spring 2020.
  - My teaching relies heavily on student interactions, in-class activities such as active group learning and class discussion. For example, every student visits office hours a couple of time to work on course related presentations, which often involve difficult conversations. This became much harder in the zoom environment due to the difficulty in reading body language.

- **Impact on Research**
  - Mingzhou Yang could not join my research group in Fall 2020 due to pandemic related travel and visa restrictions. This impacted our ability to make progress on training new graduate students.
  - Two graduate students got into a major disagreement refusing to work with each other. It took many conversations to learn that one had lost his father in summer 2020 and was in emotional distress. It also impacted projects requiring hiring and training of new students.
  - Loss of research laboratory reduced opportunities for training new graduate student (e.g., Majid, Arun) via organic interactions with senior Ph.D. students and faculty advisor. It substantially increased demand on my time to mentor the younger Ph.D. students.
  - I also received an unanticipated service requests to lead a very large UMN-led proposal to the NSF AI Institute program (due Dec. 2020). This took substantial time away from my own research program.

- **Impact on Service**
  - Due to the pandemic, CRA Snowbird postponed the Earth Day panel I was co-organizing. It was initially postponed by a year and eventually cancelled.
  - Due to the pandemic, the in-person GeoInformatica editorial board meeting at the annual meeting of the ACM SIG-Spatial conference was cancelled. This delayed the plans to expand the scope of the journal and increase the number of papers.