

5-2017

# Geospatial Solutions for Insurance

Erica Moody

Clark University, [emoody@clarku.edu](mailto:emoody@clarku.edu)

Follow this and additional works at: [https://commons.clarku.edu/idce\\_masters\\_papers](https://commons.clarku.edu/idce_masters_papers)

 Part of the [Environmental Studies Commons](#), [International and Area Studies Commons](#), and the [Urban Studies and Planning Commons](#)

---

## Recommended Citation

Moody, Erica, "Geospatial Solutions for Insurance" (2017). *International Development, Community and Environment (IDCE)*. 173.  
[https://commons.clarku.edu/idce\\_masters\\_papers/173](https://commons.clarku.edu/idce_masters_papers/173)

This Practitioner Report is brought to you for free and open access by the Master's Papers at Clark Digital Commons. It has been accepted for inclusion in International Development, Community and Environment (IDCE) by an authorized administrator of Clark Digital Commons. For more information, please contact [mkrikonis@clarku.edu](mailto:mkrikonis@clarku.edu), [jodolan@clarku.edu](mailto:jodolan@clarku.edu).

# Geospatial Solutions for Insurance

Summer Internship with The Travelers Indemnity Company

Erica Moody

May 2017

Submitted to the faculty of Clark University, Worcester, Massachusetts,  
in partial fulfillment of the requirements for the degree of Master of Science  
in the department of International Development, Community, and Environment

And accepted on the recommendation of:

Yelena Ogneva-Himmelberger: Academic Advisor

## ABSTRACT

My Internship with the Travelers Indemnity Company (Travelers) took place from June 7<sup>th</sup> to August 12<sup>th</sup>, 2016, where I worked as a Geospatial Intern in the Business Intelligence and Geospatial (BIG) internship program. Located at one of Travelers' main offices in Hartford, CT, the BIG program manager was Bill Tarinelli and my working manager was Jerrod Bowman. The central focus of my work dealt with communicating the value of geospatial data and analysis as a tool to better understand territorial differences in workers compensation claims. Working with 3<sup>rd</sup> party as well as internal data, I produced an online story map that revealed new insights into the claim process, medical care quality, and outcomes for workers compensation claims across various regions in the United States. The web map served as a prototype for enabling self-service spatial analysis for the workers compensation analytics team at Travelers as well as a presentation tool for communicating Travelers' analytical advantage to Business customers. I also completed several ad-hoc projects including data acquisition, custom geocoding, and GIS training sessions for the information delivery team within the Claim Business Intelligence and Analytics (CBIA) department. Following the requirements of the M.S. GISDE program at Clark University, this report provides information on the mission and structure of Travelers, details of my primary project, visual examples of the products produced, and an assessment of my overall experience.

## ACADEMIC HISTORY

**Name:** Erica Rose Moody

**Place of Birth:** Ellington, Connecticut

**Date:** August 21<sup>st</sup>, 1991

**Baccalaureate School:** Mount Holyoke College

**Date:** May, 2013

**Baccalaureate Subject:** B.A. Geographic Analysis

### **Occupation and Academic Connection since date of Baccalaureate Degree**

Community Development Planner - Pioneer Valley Planning Commission

**Date:** 2013- 2015

## DEDICATION

This one goes out to my brothers, Sam and Rowan. Together we will have a combined 12 years and 4(+?) degrees from Clark and I'm grateful to have shared this experience with both of you. I would also like to express my sincere gratitude to my GISDE classmates for their comradery and support both in and out of the lab. You have taught me so much.

## ACKNOWLEDGEMENTS

Many thanks to the IDCE department for their generosity in helping to fund my education at Clark University. This has been an exceptional and formative experience due to the guidance, advice, and support of my teachers, mentors, and friends. In particular, I would like to thank Yelena Ogneva-Himmelberger, Ron Eastman, John Rogan, Jie Tian, Florencia Sangermano, James Toledano, and all the brilliant folks at Clark Labs who provided me with opportunities to improve my technical skill set as well as my professional acumen. Finally, I would like to thank Bill Tarinelli and Jared Bowman of Travelers Insurance for giving me this internship opportunity and for their continued support.

## TABLE OF CONTENTS

Chapter 1: Introduction.....	6
Chapter 2: Organization Description.....	7
Chapter 3: Internship Description.....	14
3.1 Project motivation.....	14
3.2 Data acquisition.....	16
3.3 Web map creation.....	16
Chapter 4: Internship Assessment.....	17
4.1 Program Organization.....	17
4.2 Professional Development.....	18
4.3 Technical Development.....	19
Chapter 5: Conclusion.....	20
References.....	21

## CHAPTER 1: INTRODUCTION

The Geographic Information science for Development and Environment (GISDE) program at Clark University has been on my radar since 2010. As a sophomore at Mount Holyoke College, I was planning my Junior semester abroad. After an earthquake demolished much of the University I'd planned to study at in New Zealand, I asked my advisor, Thomas Millette, if I could study "abroad" at Clark. It seemed natural that I would find my way to Clark seeing as most of my geography professors had PhDs from Clark and were excellent spokespersons for the University's excellence in all things geographic. The semester I spent at Clark in 2011 was challenging and exhilarating. I knew that I wanted to return to this place where students and professors were so passionate and dedicated to the field of Geographic Information Science. After a couple of years spent working for a State Planning Commission, I was ready to devote time to pursuing my Master's degree and knew that Clark's GISDE program was the right fit for me. This program has helped me expand my geospatial tool kit to include remote sensing, programming, cognitive computing, and software development. As a result of this unique and excellent education, I obtained a competitive internship at Travelers Insurance and happily accepted a full-time position with them as a Geospatial Analyst for after graduation. The GISDE program was the right choice for me and although I am eagerly anticipating the start of my professional career in June, I know that my final semester at Clark will be formative and rewarding and I cherish the remaining time that I get to spend as part of the IDCE and Clark community.

## CHAPTER 2: ORGANIZATION DESCRIPTION

Founded in 1853, Travelers is one of the nation's largest property casualty insurance companies. A component of the Dow Jones Industrial Average, Travelers has more than 30,000 employees, 13,000 independent agents and multiple market segments across the personal, business, financial, and international insurance groups.<sup>1</sup> Travelers is a data-driven company that analyzes information, processes perspectives, and measures results to create the best combination of insurance products and services. Travelers' mission is to "minimize risk, prevent loss, and help customers prepare for the unknown".<sup>2</sup> Travelers' comprehensive products, services, and support give individuals and businesses the confidence they need to feel secure.

As a leader in property casualty insurance for auto, home, and business, Travelers' success is built on the ability to provide innovative insurance and risk protection products and services that meet customers' needs. Travelers' market leadership and financial strength provides security for their customers and opportunities for their employees.<sup>3</sup> Travelers has operations in the United States, United Kingdom, Canada, Lloyd's of London, and the Republic of Ireland. In Brazil, the company also has a joint venture partnership with JMalucelli, Brazil's market leader in surety.<sup>4</sup> The main offices are located in New York, N.Y., Hartford, Conn. and Saint Paul, Minn.

There are three major business areas within Travelers. Business and International Insurance, Bond & Specialty Insurance, and Personal Insurance. There are also two business areas that are involved across all lines of business, Enterprise Business Intelligence and Analytics (EBIA) and Claim

---

<sup>1</sup> "About Travelers." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/index.aspx>>.

<sup>2</sup> Ibid

<sup>3</sup> "Who We Are." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/careers/life-at-travelers/who-we-are.aspx>>.

<sup>4</sup> "About Travelers." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/index.aspx>>.



Business Intelligence and Analytics (CBIA). See figure 1 for organizational diagram. EBIA and CBIA operate across all lines of business. While CBIA is involved in managing and improving how claims (external transactions) are handled across lines of business, EBIA focuses on how the lines of business are working together within Travelers (internal transactions).

Business and International Insurance offers a broad array of property and casualty insurance products and services to its clients in the United States and property and casualty, bond and specialty products and services through domestic operations in Canada, the United Kingdom, the Republic of Ireland, Brazil and through Lloyd's of London. The company also has joint venture investments in surety businesses in Brazil and Colombia. Clients for Business and International insurance range from small "Main Street" businesses to mid-sized and specialty companies to large corporations and, in Canada, individuals. In the United States, Business and International Insurance distributes its products through approximately 10,500 independent agencies and brokers across the country.<sup>5</sup>

Bond & Specialty Insurance provides a wide range of customers with surety and management liability products and risk management services. Coverages include performance, payment and commercial surety bonds for construction and general commercial enterprises, as well as fidelity and crime coverages and directors & officers, employment practices, fiduciary and professional liability coverages, primarily for U.S.-based businesses. In addition, the business provides traditional property and casualty coverages to financial institutions.<sup>6</sup>

---

<sup>5</sup> "What We Do." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/careers/life-at-travelers/what-we-do.aspx>>.

<sup>6</sup> *ibid*

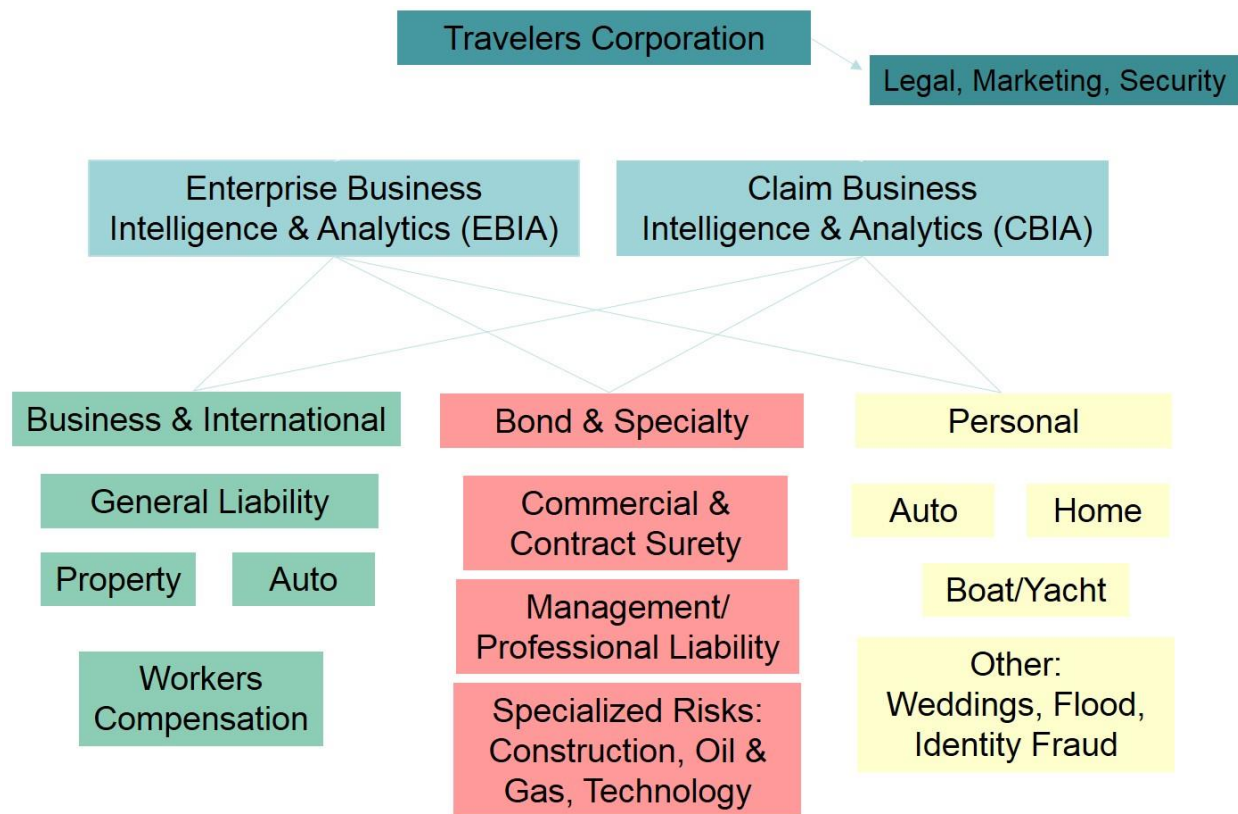


Figure 1. Travelers organizational structure

Personal Insurance offers a broad array of property and casualty insurance products for individuals, including automobile, homeowners, umbrella, condominium, tenant, identity fraud protection, valuable items, boat and yacht, and wedding coverages. Personal Insurance distributes through a network of approximately 12,000 independent agencies and a direct-to-consumer channel, as well as through employee and affinity groups, and joint marketing arrangements.<sup>7</sup>

Travelers also has 13,000 trained Claim professionals located in 30 Claim field offices serving every state, as well as a self-contained dedicated Catastrophe Response Team that can move into a disaster area within hours. Customers can report claims 24 hours a day, 7 days a week, 365 days a

---

<sup>7</sup> ibid

year. To help Claim professionals better serve customers, Travelers has created Claim University, a leading-edge educational facility designed to give Travelers' claim professionals the in-depth training and expertise they need to provide knowledgeable, accurate and efficient claim service for customers and agents.<sup>8</sup>

Diversity, and the ideas it brings, is essential to Travelers' success as an insurance company. Travelers has won many awards recognizing their strong commitment to community and diversity, including 25 Noteworthy Companies, *DiversityInc*, 2013 – 2016, Best Places to Work for LGBT Equality, Human Rights Campaign Foundation, 2016, Top 100 Military Friendly Employers, *G.I. Jobs Magazine*, 2007-2016, and Outstanding Corporate Citizen, Urban League, 2012.<sup>9</sup> As an intern in CBIA, I was part of a 5,000 person team. The primary team that I worked with throughout the summer was 12-15 people. The Geospatial community at Travelers is small but growing and throughout the summer I met the eleven other Geospatial staff, including four interns.

There are seven diversity networks which are voluntary organizations led by a team of selected employees dedicated to fostering a diverse and inclusive work environment. They are open to all employees and aim to help in fostering the retention, development and success of Travelers employees. In addition, these groups may be leveraged to provide insight to business leaders to help give the organization a competitive advantage. The current Diversity Networks are: Asian Diversity Network, Black/African American Diversity Network, disAbility Network, Hispanic/Latino Diversity Network, LGBT & Allies Diversity Network, Military and Veterans Diversity Network, and Women's Diversity Network (Women in Actuarial & Analytics and Women in Technology).<sup>10</sup>

---

<sup>8</sup> Ibid

<sup>9</sup> "Awards and Recognition ." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/careers/life-at-travelers/awards-and-recognition.aspx#diversity>>.

<sup>10</sup> "Diversity Networks." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/careers/diversity/diversity-networks.aspx>>.

Travelers is a data-driven company whose leadership values and supports geospatial analytics. The company has geospatial strategies across eight areas of business. They are: auto, property, general liability, workers compensation, claim legal & subrogation, Traveler's Investigative Services (TIS), marketing, and security. The primary software used is ESRI's ArcGIS suite of geospatial processing programs which has been operational at Travelers since 2014. GIS is also heavily relied upon in the Catastrophe department where analysts use GIS to simulate, track, and respond to catastrophic loss from natural and man-made perils.

Travelers also uses satellite imagery but has yet to harness the power of satellite data. Business needs are often so specific (location, temporal, and resolution-wise) that it is often more cost effective to send someone out into the field to collect the necessary data. Airborne imagery however is a fast growing area of data collection since the Federal Aviation Administration (FAA) published its new drone rules in June, 2016. Drone operators no longer have to comply with FAA airworthiness standards or aircraft certification, rather, the controller will only have to perform a preflight visual and operational check of the drone to ensure that safety systems are functioning properly.<sup>11</sup> Drones are helpful from both an underwriting perspective, helping to determine property values and conditions before issuing policies, as well as for claim and risk control after an incident has occurred. For example, drones can go into situations more safely, like a chemical spill or burned-out home, than claims staff can. Travelers began a drone operating training program about two years ago after it was granted two early exemptions for research purposes by the FAA. Drones also increase safety and efficiency of claim handlers tasked with data collection. Currently, Travelers trains claims professionals to scale roofs with

---

<sup>11</sup> "Travelers' drone program expansion ready to take flight next month." *CRAIN'S CONNECTICUT NEWSLETTER*. Ed. James Mosher. N.p., n.d. Web. 15 Sept. 2016. <<http://connecticut.craains.com/article/travelers%E2%80%99-drone-program-expansion-ready-take-flight-next-month>>.

ladders to reach multi-story roofs, a risky and hazardous task. A drone can survey roof damage in real-time and relay that to claims agents' phone and/or tablets.

As the demand for geospatial solutions grows, Travelers is moving away from expensive desktop licensing for individual users, to an Enterprise geospatial model. Travelers recognizes that not everyone who uses geospatial products needs to have the full functionality of ArcGIS on their desktop. It is more efficient to build business applications that get the geospatial information to the people who need it across the various business lines. In other words, rather than bringing everyone to geospatial, Travelers is bringing geospatial to everyone. For the geospatial community at Travelers, there is an online “innovation environment” or “portal” where data and map products can be shared. This reduces redundant data storage and promotes collaboration. There is also a testing ground for new geospatial applications that are being tested. I participated in the user application testing (UAT) process for a new geospatial application being developed for the prospecting team to allow them to easily identify geographies and businesses for new business. With the development of the portal, people who need a simple map can quickly access available layers and create the product they need themselves, rather than put in a request with a geospatial analyst. This type of self-service mapping and spatial analysis will ultimately enable more integration of geospatial analysis across the business, while freeing up the geospatial analytics team to focus on developing specialized applications.

As mentioned previously, Travelers is transitioning to an Enterprise model for geospatial information delivery and analysis. This process is challenging as no one likes to learn a new system or process. However, with the discontinuation of MapPoint in 2014, transition became necessary. MapPoint was a software program and service created by Microsoft in the late 1990s that allowed users to view, edit and integrate maps into Microsoft office products such as

Excel. Although perpetual desktop application licenses, such as Travelers had, meant that MapPoint would continue to work past the discontinuation date, leadership decided that it would transition MapPoint users to the Arc platform. This is definitely an area that needed attention and the transition process is a slow but necessary one to make. Another benefit of the transition is that ESRI integrates with Qlikview, which is a business intelligence and visualization software that Travelers uses extensively. As more business areas become accustomed to the ESRI suite, there will need to be standardization of colors and map graphics in order to ease communication among pillars of business and take full advantage of the data sharing opportunity the portal provides.

Over the past few years Travelers have been investing in their data and technology and using increasingly sophisticated predictive modeling techniques throughout the Claim Life Cycle. This includes everything from the assignment processes, fraud & subrogation identification, capacity optimization, and quality process to attorney/provider analytics and supporting the Travelers Medical Advantage (which will be discussed further in chapter 3). Another strength area is that Travelers has been taking advantage of open data and therefore avoiding having to purchase data from 3<sup>rd</sup> party vendors. When data can be obtained directly from the source, there is substantial savings of both time and money.<sup>12</sup> Geospatial plays an important role at Travelers and they continue to develop talent and analytic capabilities across lines of business. Ultimately, the better an insurance company can understand the risk they are taking on, the better they will do; and geospatial is critical to this mission.

Travelers has a long history of success in terms of financial stability, innovation, performance, and reliability. From the first ever auto and space travel policies and hybrid car discount, to the 2009

---

<sup>12</sup> Open data sources: Opportunity.Census.GOV, Socrata open data, ArcGIS OpenData, CivicData.

founding of The Travelers Institute for public policy, their history of advancements has propelled the company—and the industry—towards ever higher standards.<sup>13</sup> Their continued innovation and ability to transform the property casualty industry is a strong testament to their dedication to protecting customers from loss. While many companies suffered and/or collapsed during the 2008 recession, Travelers has survived both the great depression and the great recession. Travelers is a component of the Dow Jones Industrial Average and generated revenues of approximately \$27 billion in 2015.<sup>14</sup>

### CHAPTER 3: INTERNSHIP DESCRIPTION

Working in Claim Business Intelligence and Analytics (CBIA) for the summer meant that I was exposed to projects across all three of the major business areas at Travelers; Business & International, Personal, and Bond & Specialty. The main project that I worked on was to benefit the Workers Compensation (WC) business line within Business and International Insurance. In this chapter I will provide background regarding the motivation for this project and my methodology. The methods discussed include data acquisition and the creation of the web map. I will also briefly discuss additional tasks that I completed during my internship.

#### **Project Motivation**

Travelers is the largest provider of WC insurance in the United States and WC products make up a very significant portion of Travelers business (\$4 Billion in 2014). Recent rising medical costs have motivated Travelers to analyze medical industry dynamics so as to better

---

<sup>13</sup> "About Travelers." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/index.aspx>>.

<sup>14</sup> "Corporate Profile." *Travelers Investor Relations*. Ed. = =. N.p., n.d. Web. 15 Sept. 2016. <<http://investor.travelers.com/Investor-Relations-Home>>.

understand how to reduce losses while ensuring that the injured employee receives optimal care. Pharmacy is a very important part of the medical strategy and one that is largely impacted by where an injured employee (IE) goes for their first point of care. Most injured employees (IE) will go to an emergency room (ER) as their first point of care after an accident at work. Injured employees will typically wait in the ER for more than 2 hours.

The goal of my project was to create a web map that would help the Travelers WC analytic team better understand the complex medical industry dynamics and enable comparison medical care across different areas of the US. This project will be referred to as the Workers Compensation Territorial Analysis (WCTA). Through the WCTA, Travelers hopes to better understand medical provider behaviors to ensure the quality that their network of medical providers delivers. For example, Travelers wants providers that identify pre-existing conditions, understand the impact of these pre-existing conditions on an injury, and manage them. Pre-existing conditions or comorbidities may include having a history of seizures, being a current smoker, having high blood pressure, being obese, having diabetes or any other chronic condition.

Specific provider behavior I examined included average waiting times at hospitals and ERs, opioid prescribing rates, screening for tobacco use, and screening for obesity. The goal is to ensure that IEs that have more severe injuries are seen at providers that have the same goal of getting injured employees back to work as soon as medically appropriate. The motivation for creating a web map was to illustrate to large business insurance clients the data and analytic advantage that Travelers has in the Property Casualty marketplace. The story map will be part of a presentation at a Safety Symposium that will be held in October, 2016 for Travelers business clients. It also served as a proof of concept for a hardened application that would help identify where businesses should send their employees for care if they were injured on the job.



## Data acquisition

This first step was determining what data was available from third-party sources that could be strategically layered with internal WC claim data (due to the confidential nature of the internal claim data it will not be discussed). Table 1. documents the third-party data sources used. I did extensive research and documentation of the data quality and accuracy as Travelers had never before used these data sources.

Source	Data set	Metric
Centers for Medicare and Medicaid Services (Medicare.gov)	Hospital Compare	Average time spent waiting in a hospital/ER before being seen by a medical professional.
Centers for Medicare and Medicaid Services (Medicare.gov)	Physician Quality Reporting System (PQRS)	Percent of doctors that screen for obesity and tobacco use.
Centers for Medicare and Medicaid Services (Medicare.gov)	Part D Prescriber Public Use File (PUF)	The percentage of opioid prescriptions individual prescribers write.

Table 1. Third- party data sources

The data sets in table 1 were extremely large (hundreds of thousands of rows) and complex (100s of columns), and so required the use of custom SAS (Statistical Analysis System) scripts to manipulate the data into a useable form. Some of the datasets lacked address information and so had to be joined by a unique identifier to other datasets from CMS that contained the address information. The joins were also done in SAS. Once the data was cleaned, I used additional custom SAS scripts to geocode the data through Trillium, an external geocoding service that Travelers uses.

## Web Map Creation

Travelers uses the ESRI product suite so I used ArcGIS online and ArcGIS Server to create and host the web map. Unfortunately, due to the propriety and confidential nature of most

of the data used in the web map, I could not include visual examples of the products I created. The process for web map development through ArcGIS online is fairly straight- forward with lots of documentation and guidance to be found online. That said, I was one of the first to create a Story Map at Travelers so documenting the process was an important and time consuming part of the project. After the web map was completed, I conducted a training for my colleagues on the CBIA team on how to develop a Story Map and utilize the layers that are hosted through the Travelers online portal. The goal of the WCTA web map was to illustrate to WC analysts and business clients how geospatial data can be used to create better claim outcomes. The application pulls third party data and provider characteristics to understand the behaviors of providers and the difference of care at a geographic level. It also enables analysts to overlay claimant characteristics to help get IEs the right care, in the right place, at the right time.

## CHAPTER 4: INTERNSHIP ASSESSMENT

### **Program Organization**

Previous internships I had held were generally with small non-profits where I was the only person with GIS skills. The BIG internship was the complete opposite experience. Although the program was only in its second year, its structure was modeled on other successful internship programs that Travelers runs in Actuarial Science, Advanced Analytics, and Internet Technology services. The BIG program is managed by Bill Tarinelli. Starting in February, he sent bi-monthly emails to all the up-coming interns with links to suggested readings, online trainings, and industry relevant news. We were also all invited to join a LinkedIn group which included past interns as well as current employees at Travelers so that we could network and share resources prior to the internship starting. There was constant communication from

Travelers leading up to the first day including parking, dress code, required paperwork and orientation information. The first two weeks of my internship I spent primarily in trainings and workshops with other interns and new employees which will be discussed in the following sections. Overall, I felt very supported by the internship program and was impressed with the organization and attention that was given in order to provide an internship experience that aligned with my professional interests and goals. I would highly recommend the BIG internship to GISDE students and would encourage them to also explore the Advanced Analytics internship program.

### **Professional Development**

The internship provided ample opportunities to development professional and business acumen. From formal networking events to casual meetings with mentors, the structure of the internship facilitated my professional development and enabled me to learn about Travelers as a company and the insurance industry as a whole. Below are some examples of the resources and experiences provided to interns throughout the summer.

- Intern symposium: A three-day event held at a local hotel which featured executive and guest speakers, team-building challenges, elevator-pitch development sessions, networking dinners, and panel sessions with various groups from Travelers. Over 200 Travelers interns from all over the U.S. participated in the symposium, giving us a chance to learn about various areas within the company.
- Mentor program: Each intern was assigned a peer mentor and a senior mentor to consult with over the summer. My mentors were geospatial analysts in different areas of the company and with different levels of experience which gave me a broad range of experiences to learn from.

- Intern Directory: The entire company received an intern directory (basically a paper version of Facebook) to encourage networking.
- Executive Speaker Series: Each week a Senior Vice President would meet with the interns for an informal presentation/question and answer session.
- Industry trainings: I attended information sessions on the structure and history of Travelers as well as a full day tour of the Travelers Claim University and Risk Control Center in Windsor, CT.
- Presentation Prep: In preparation for the end-of-summer intern presentations, multiple prep sessions were offered by past interns (now employees) to help current interns deliver the best possible presentation.
- Interview Opportunities: Mid-way through the internship, interns were given the opportunity to apply for internships the following summer and/or for full time positions.

### **Technical Development**

In addition to learning about the insurance industry, the internship provided great opportunity for technical development. Some skills and knowledge sets such as ArcGIS, Excel, statistical concepts, and technical writing, I had prior to the internship (and indeed were instrumental in obtaining the internship). The Advanced Vector course at Clark in particular provided me with necessary skills as did the SQL online tutorials that I completed as part of the GISDE Professional Seminar. However, there were many skills that I learned over the summer (through trainings and/or self-learning) that were crucial to fulfilling my responsibilities as a Geospatial intern. These included:

Excel	SAS
Python	SQL
Machine Learning	BI & Geospatial Emerging Trends
Cognitive computing	Data Lakes
Information security	R

## CHAPTER 5: CONCLUSION

Overall, my internship experience at Travelers was extremely rewarding and I would highly recommend the internship to future GISDE students. I was able to practice and refine many skills obtained at Clark University while gaining professional experience and learning about the insurance industry. This internship greatly expanded my technical skillset and helped me to refined my career goals in a way that reinforced and supplemented my studies at Clark. The BIG internship program at Travelers exceeded my expectations by challenging me as a Geographic Information Science professional and expanding my knowledge of geospatial applications and opportunities in the insurance industry. I had a truly wonderful and brilliant manager who provided invaluable support throughout the summer. I was included in meetings, projects, and activities as part of the team, not just as an intern. From feedback from my manager, as well as senior leadership, I felt that I made valuable contributions throughout the summer and produced an end product that I was satisfied with and proud of. I am grateful for the opportunity I had to intern at Travelers and I look forward to continuing my professional career with the company.

## REFERENCES

"About Travelers." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/index.aspx>>.

"Awards and Recognition ." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/careers/life-at-travelers/awards-and-recognition.aspx#diversity>>.

"Corporate Profile." *Travelers Investor Realties*. Ed. = =. N.p., n.d. Web. 15 Sept. 2016. <<http://investor.travelers.com/Investor-Relations-Home> >.

"Diversity Networks." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/careers/diversity/diversity-networks.aspx>>.

"Travelers' drone program expansion ready to take flight next month." *CRAIN'S CONNECTICUT NEWSLETTER*. Ed. James Mosher. N.p., n.d. Web. 15 Sept. 2016. <<http://connecticut.crains.com/article/travelers%E2%80%99-drone-program-expansion-ready-take-flight-next-month>>.

"What We Do." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/careers/life-at-travelers/what-we-do.aspx>>.

"Who We Are." *Travelers*. N.p., n.d. Web. 14 Sept. 2016. <<https://www.travelers.com/about-us/careers/life-at-travelers/who-we-are.aspx>>.