

FEBRUARY 2022 | ISSUE NO. 1

# YOUNG PROFESSIONALS IN INFRASTRUCTURE CAREER GUIDE



COMMENTS, ADVICE, AND  
SUGGESTIONS FROM  
PROFESSIONALS IN THE FIELD OF  
INFRASTRUCTURE.

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# YPI's Goal

Dear Reader,

Thank you for your interest in Young Professionals in Infrastructure. YPI is an industry focused non-profit organization that was founded in 2015 by young professionals active in the US infrastructure space. Bringing together young professionals across the American infrastructure industry, YPI fosters growth and development through conferences, workshops, networking socials, university lectures and exclusive initiatives.

YPI's latest effort to help early career professionals learn more about infrastructure is the creation of this Infrastructure Guide. Implementing infrastructure projects requires collaboration across many fields which may seem overwhelming at first. The goal is to use this guide as a resource for college students and others in the early stages of their careers who would like to learn more about infrastructure and what career paths are possible.

The Infrastructure Guide provides insight and an overview of roles from professionals in this field. The participants in the guide include two project managers, a project director, an attorney, an assistant vice president for a P3 investment banking group, a former investment director of a global infrastructure developer, a vice president and senior credit officer, an assistant city manager, a project development consultant, and a managing director and head of North America infrastructure. The guide provides the personal experiences of these individuals and how they started their careers. Furthermore, the guide is equipped with advice, suggestions, and ways to get involved in the field of infrastructure.

After reading this guide, we hope you gain the necessary knowledge and the passion to pursue your interest in infrastructure.

Sincerely,

The YPI Team

<https://ypinfrastructure.com/>

# Special thank you to...



## **Sindi Daci**

YPI 2021 Intern

Yale University Undergraduate Student

Sindi Daci is the editor and lead author of the 2022 Infrastructure Career Guide. Sindi conducted interviews with leadership in the field of infrastructure to gain their perspective on P3 projects. She designed the guide, communicated with participants, and developed a resource for the reader to learn more about infrastructure.



## **Allison Larr**

YPI Vice President Professional Development

Director in Citi's P3 investment banking group within the Municipal Securities Division.

Allison Larr has been the lead advisor for the guide. Allison has provided advice, suggestions, and guidance regarding the creation and completion of this guide. She has also been involved in communicating with participants.



## **Kevin MacKinnon**

Investment Professional at IFM Investors

Kevin MacKinnon has actively been involved in outreach and connecting with potential participants. Kevin has frequently communicated with colleagues about participating in this guide.



## **Roberto Alvarado-Vazquez**

Principal, Management Consultant at CDM Smith

Roberto Alvarado-Vazquez has actively been involved in outreach and connecting with potential participants. Roberto has frequently communicated with colleagues about participating in this guide.



## **Joshua Goldman**

YPI Vice President Education

Director of Strategy and Business Development at Via

Joshua Goldman provided the initial idea and concept for the YPI Infrastructure Career Guide.

# Anne Rehfuss

Vice President in Citigroup's P3 investment banking group within the Municipal Securities Division.



## Educational Background and First Introduction to Infrastructure

Anne Rehfuss graduated from Williams College with a B.A. in Political Economy and Art History. After receiving her degree, Anne was introduced to infrastructure when applying for Citi's public finance summer analyst internship. During the interview process she learned more about infrastructure based on the job and tasks associated with the position. It is important to note that Citi usually hires college students as interns. Interns have the opportunity to work on transactions and current projects which is a great way to learn more about infrastructure.

## Mentors and Guidance

At the beginning of her internship, Anne did not have a mentor. As she got to know more individuals at Citi, she was able to develop relationships with colleagues. Anne believes relationships with mentors happen naturally. It involves finding a person that can teach and guide you.

## Job Tasks

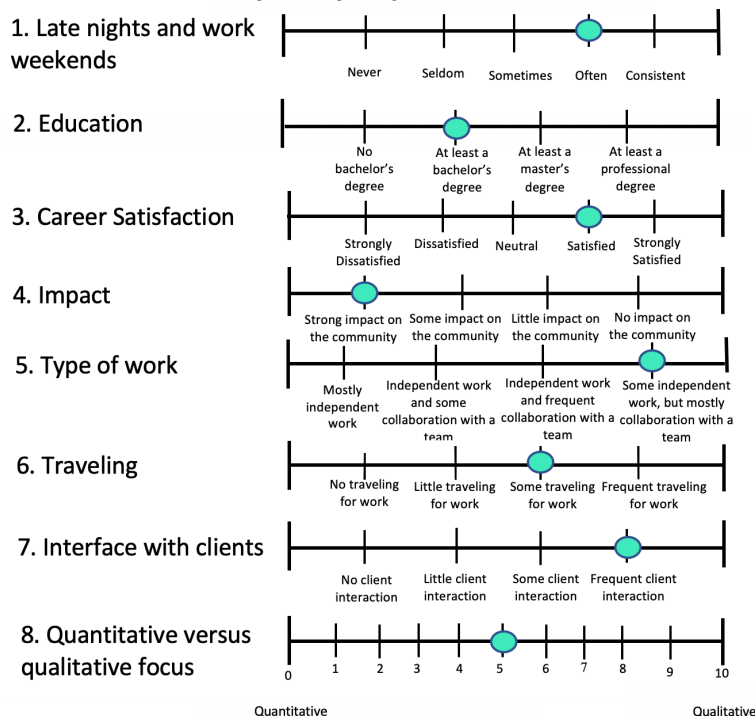
Like most people in this profession, Anne's typical day-to-day tasks change very often. She usually works on any aspect of a transaction which includes pitching, working on a request for proposals (which is issued by the entities who will choose which firm to hire), and working on the quantitative analyses. Recently, Anne worked on the Prince George's County Education P3.

The goal of this project was to, "Design, build, finance, operate and maintain five new middle schools and one new K-8 school as part of the Alternative Construction Financing Package 1 Schools in Prince George's County, Maryland"(Citi). Citi supported the Sponsors and used a shadow book to establish the foundation for a committed financing package (Citi). Projects like these are extremely important and pave the path for future P3 projects in regards to US publics schools.

## Advice and Suggestions

If individuals are inspired by projects similar to the one above, Anne encourages students to "pursue what you are actually interested in and everything else will fall into place". Find the interest that you are able to speak fluently and passionately about in life. Use any resources to get involved. This field is very broad, so there is a lot of contacts to reach out to and start a conversation. YPI is a great resource and Anne recommends that students look into this opportunity.

### Day-to-Day Snapshot



# Daniel Vargas

Project Manager for Arup Advisory. Arup is an engineering and design company. According to their website the "Advisory Services team help clients to identify new revenue, manage their risks and improve their performance."



## Educational Background and First Introduction to Infrastructure

Daniel was first introduced to infrastructure in high school. He took classes in architectural design as electives in high school. Daniel then went to The University of Texas at Austin to study architectural engineering. In addition, Daniel has a master's degree in civil engineering with a focus in construction and a finance certificate from Rice University. Daniel also had an interest in public policy and government before attending college, so he tried to find a way to connect both fields.

## Mentors and Guidance

Daniel claims that he has always had mentors. He believes finding mentors does not have to be a formal process. It involves finding people that can teach and provide guidance. In addition, internships are another great way to get involved. Daniel participated in internships in high school. In college, Daniel focused on research. Daniel encourages students to explore different career paths in infrastructure throughout high school and college. Those experiences are important because the intern can learn about the building blocks and every aspect of a project.

## Job Tasks

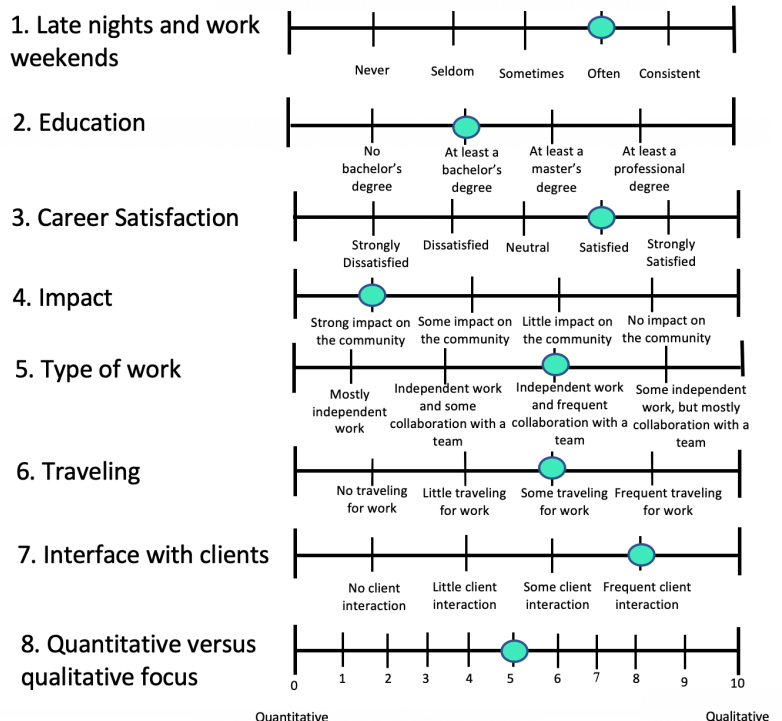
Daniel has an advisory role and is involved in consulting clients in regards to developing projects. He helps financial institutions that lend money to infrastructure clients. Furthermore, he assists with mergers and acquisitions. Daniel supports either the buyer or seller of a project with the technical and economic risk profiles. Daniel must assess the project and communicate with different parties. He also works with public entities during the procurement process. Daniel and his team help clients select contractors, partner with the right groups, and ensure that the contracts are appropriate.

## Inspiration to Pursue Infrastructure

Daniel strongly believes that the most rewarding part of the work is seeing a project complete a phase and move on to the next part. Daniel is proud that at the end there are "very tangible, physical results from the work". He encourages students who have a passion and interest in infrastructure to pursue this career path.

*"Deliver on your commitments. Develop and grow the people that work for you. Be product and customer driven, focus on developing the best product you can for your internal and external customers." - Daniel Vargas*

### Day-to-Day Snapshot



# Roberto Alvarado-Vazquez

Principal, Management Consultant at CDM Smith, a construction and engineering firm. According to the CDM Smith website, they provide, "legendary client service and smart solutions in water, environment, transportation, energy and facilities."



*"Do not underestimate the value of networking." - Roberto Alvarado-Vazquez*

## Job Tasks

In Roberto's previous job there was a lot of coordination. He was responsible for aligning resources and ensuring projects were running smoothly. Roberto was managing and overseeing the development of Tolling, ITS, and Operations and Maintenance technical provisions that would be available to developers, so they can bid on the projects. When working on P3 projects, Roberto interacts with a lot of different fields. For example, he often coordinates with attorneys, planners, environmentalists, and economists. Roberto enjoys that this industry is multi-disciplinary.

## Advice and Suggestions

Roberto encourages college students to enter this career field because it is very dynamic. There are many opportunities for people with different skillsets and interests.

## Educational Background and First Introduction to Infrastructure

Roberto Alvarado-Vazquez has a dual-background in engineering and business. Roberto knew from an early age that he wanted to pursue a career in infrastructure. In high school, Roberto decided that studying civil engineering would be the ideal course of action. In order to learn more about infrastructure, he recalls asking a lot of questions and communicating with individuals in this field. Roberto recommends current high school and college students take advantage of networking opportunities and attend conferences or lectures that discuss infrastructure.

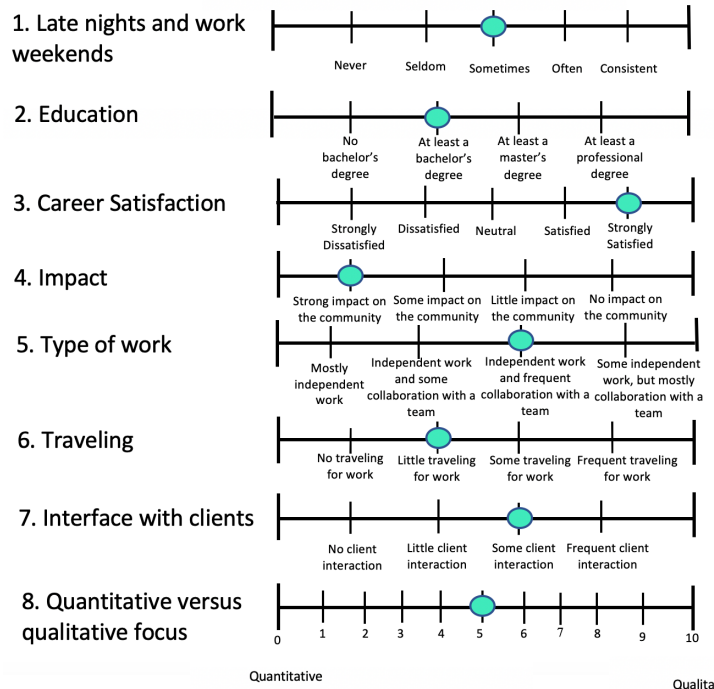
## Post College Experiences

After college, Roberto started working at an architecture and engineering firm. However, after two years, he decided to go back to school to complete a master's degree in infrastructure at the management level. He was driven by his interest to learn how infrastructure systems are managed and operated from multiple perspectives. Roberto gained a lot of knowledge from working in the field before going back to school. He recommends students take advantage of job opportunities after college because it can be "very eye-opening and it gives you real life exposure". After completing his master's degree, Roberto started working at a transportation consulting firm advising public sector clients on financial, management, and strategic initiatives to advance infrastructure programs and projects.

## YPI

Roberto joined YPI as a member in summer 2020. He currently serves as the co-chair for the Professional Development committee. According to Roberto, the goal of the Professional Development committee is "building out initiatives to increase knowledge transfer and professional development of YPI members through workshops, book club, and jobs platform among other initiatives". Therefore, participating in YPI events can be an enlightening experience for individuals that would like to learn more about infrastructure.

### Day-to-Day Snapshot



# John Medina

Vice President - Senior Credit Officer in Moody's Global Project and Infrastructure Finance Team. In his current position, John is "covering a diverse portfolio of project financings, public private partnerships (PPPs), and municipal infrastructure issuers in the transportation, energy and social infrastructure sectors."



## Educational Background and First Introduction to Infrastructure

When he was growing up, John worked with his father at his small construction company. That experience initiated his interest in the field of infrastructure and construction. He became interested in transportation after living in Australia at age of 11 and because his parents worked at FedEx and in the rail industry. Growing up in Texas, Sydney, and Memphis, John constantly saw new construction in his neighborhoods.

After studying health care economics at Stanford, John lived in LA before moving to NYC to continue his graduate degree at NYU, where he, studied public sector economics and discovered Moody's. John chose credit analysis over banking or consulting because it integrates different types of analysis and skillsets including economics, finance, legal, policy, writing, client interactions and public speaking. After working on Moody's local government team, John took an internal course on PPP's and project finance where he discovered his true passion.

## Mentors

John had several informal mentors over the years, including family, friends, professors, coworkers and colleagues. One boss helped John transition into a true professional by helping him acknowledge his shortcomings and focus developing more soft skills to further his career over the long-term.

## Job Tasks

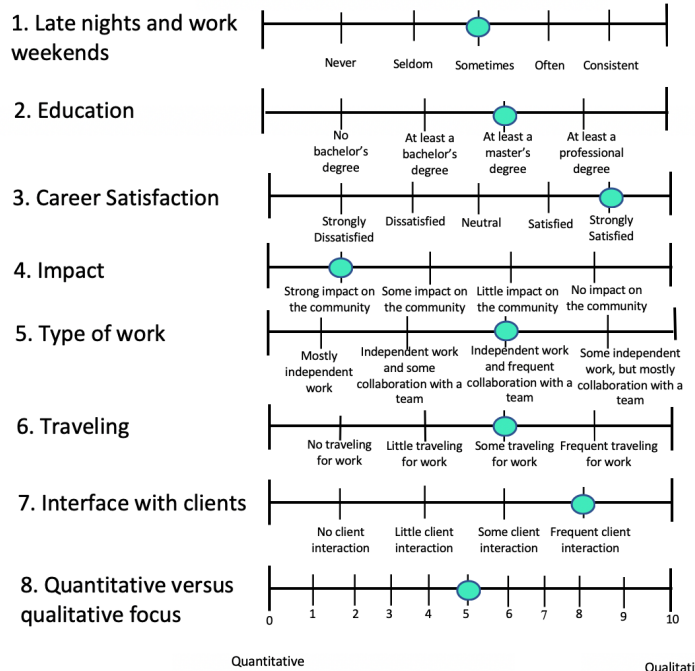
John says that it is hard to define typical day-to-day tasks as they change constantly. One consistent activity is the hours spent reading multiple news sources. As a subject matter expert, John must stay informed, updated, and current on the market and other events that occur in the multiple industries he covers, as well as the performance of the credits he monitors. Investors and the media often call with questions and his job is to have a timely and informed view.

His job can be challenging. Forecasting future performance and firmly supporting a position requires confidence in the analysis. Understanding the interface between complex legal, financial, engineering, and insurance documents for a project requires significant interaction with lawyers, bankers, technical advisors and engineers. John presents his summarized analysis to a senior group of analysts that vote on the rating in a "rating committee" and then Moody's publishes a written research report summarizing the rating analysis. John annually authors sector research about credit trends, sector outlooks and the impact of current events on credit. John also speaks at numerous conferences about PPPs and project finance, toll roads and infrastructure broadly.

## Advice and Suggestions

John believes infrastructure as a field is extremely important. John claims "to develop an economy you need functioning infrastructure". In order to learn more about infrastructure, John recommends taking both civil and industrial engineering classes. They will provide insight into both how things are built and how they fit into the larger systems of our society.

### Day-to-Day Snapshot





# Scott Zuchorski

Managing Director and Head of North America Infrastructure. According to Scott, "Fitch ratings provides independent credit assessments of debt obligations focusing on an issuers ability to make timely repayment of debt. My group specifically rates debt obligations in the infrastructure space which ranges from traditional transportation (airports, seaports, toll roads) to Public Private Partnerships (P3s), energy projects, and any one-off project financings involving infrastructure assets."



## Educational Background and First Introduction to Infrastructure

Scott has a Bachelor of Science from Cornell University and a Master of Public Administration from the Maxwell School at Syracuse University. According to Scott, "It is fairly common for analysts on the team to have completed Masters level graduate work either in public or business administration". Before working at Fitch, Scott worked in the surveillance group and credit remediation group at Ambac Assurance Corporation. While working in those teams, Scott encountered many infrastructure projects. As Scott worked with different individuals, he was able to find mentors.

Scott initially worked as a business consultant at Arthur Andersen LLP where he was exposed to projects. Scott recommends exploring different paths before specializing. He suggests, "the key is to have an experience that exposes you".

## Job Tasks

Scott runs the North American Infrastructure Team. An important part of his team's responsibilities is to provide surveillance of all the existing ratings in the portfolio. Analysts spend part of their day reviewing financial statements and cash flow projections to determine how assets are performing relative to expectations. They communicate frequently with the issuers during the surveillance process and in certain instances publish market commentary.

In addition to monitoring existing ratings, Scott's team also works on assigning ratings to new transactions. In evaluating new transactions, they also look into the legal documents and how the deal is structured. They communicate with bankers and the financial advisors that are structuring the transaction. The team must also manage the completion risk element. The analysts on Scott's team talk to independent engineers and evaluate the completion plan proposed by the contractors.

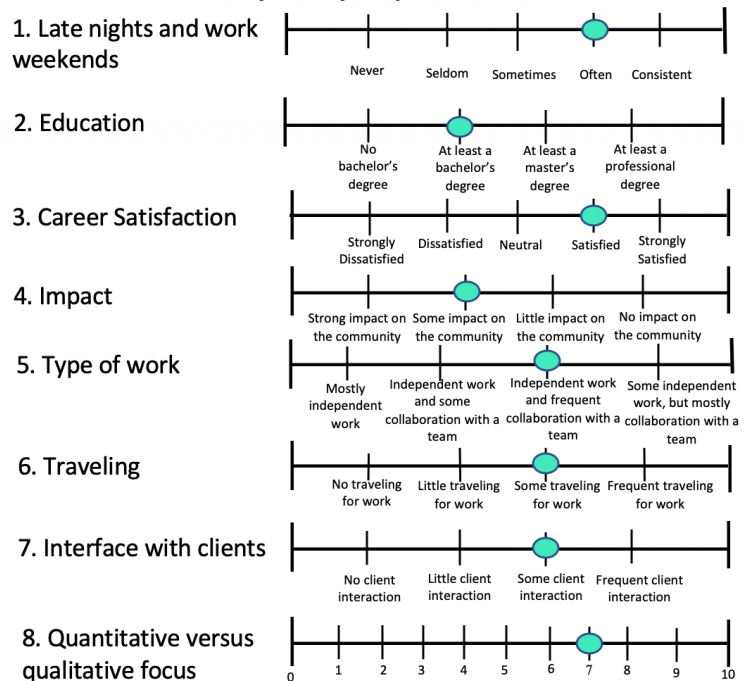
The challenge of being part of a rating agency is that they enter the discussion towards the end of developing a project. However, the impact the projects they rate will have on the community following completion and during operations often times outweighs any challenges.

Scott's team have recently been involved in The New York State Thruways Rest Areas P3 Project. Their analysis includes evaluating the completion risk of multiple rest areas, ensuring that they can be completed on time and budget, and evaluating revenue risk. Building a completely new facility involves new revenue projections and forecasts that are used to pay back bonds.

## Advice and Suggestions

Scott believes that individuals in their early careers are like "sponges, they absorb a lot of information". By paying attention to day-to-day tasks in the infrastructure space an individual can learn a lot. In addition, Scott believes on the job training is extremely important and an opportunity that interns should accept. In addition, networking is very powerful. Listening to other people and their journey can provide insight and inspiration.

### Day-to-Day Snapshot



# Matthew Bezanson

National practice consultant. According to Matthew, HNTB is an engineering firm that is very dominant in the transportation sector. The advisory group is, "focused on trying to bring the best innovative practices to large complex projects with a heavy focus on alternative delivery and private financing".



*"A career in infrastructure is a great opportunity to be part of something bigger than yourself" - Matthew Bezanson*

## Educational Background and First Introduction to Infrastructure

Mathew's interest in infrastructure started during high school when he worked on construction projects. He learned about building residential houses. Matthew was fascinated by the structures and the civil elements. He was inspired to study civil engineering. Later in his career, Matthew was introduced to P3 projects and started working for a P3 developer. Matthew claims, "I have always been interested in construction and then seeing new financing tools come along, I decided to pivot my career a little bit to focus on the funding and financing side of things". Like many other professionals in this field, Matthew has communicated with assigned and informal mentors. Matthew encourages people to establish relationships with informal mentors because they can provide a different perspective.

## The Importance of Internships

Matthew also strongly encourages people to take advantage of internships. Matthew believes that "the earlier you get the exposure the sooner you will find out what you don't like and you will gravitate towards what you do like". He was very active in the American Society of Civil Engineers and was able to maintain leadership roles. He also participated in internships in several different infrastructure sectors including design, construction, and environmental engineering. Internships are important because they open the door for networking and on the job experience. Interns have the opportunity to meet people from various companies and learn about different positions.

## Job Tasks

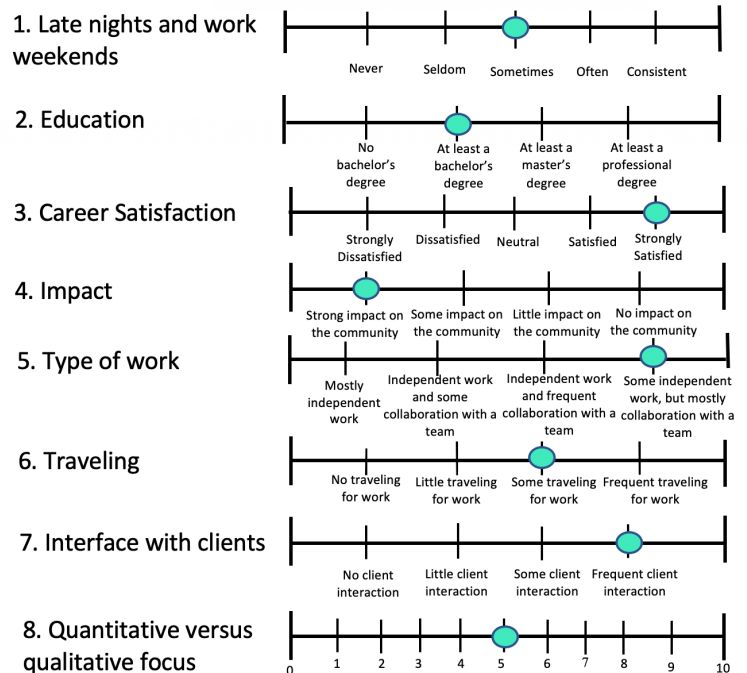
Matthew has worked as both a consultant and an investor. From the consultant side, Matthew claims his job is extremely client dependent. There are multiple clients trying to accomplish different goals. He usually works with experts in technical, financial, and legal fields. He is responsible for identifying project risks and finding the best way to mitigate those risks. Matthew also helps clients evaluate cost impacts related to risk sharing between clients and their contractual counter parties to find the most appropriate allocation of risk. Day to day tasks usually involve presentations and reports to clients.

Matthew also worked as a director at Meridiam, a private equity investor in infrastructure. His responsibility in regards to business development included identifying which projects to pursue, which contractors to team with, and how to win P3 contracts. During the procurement phase, he focused on contract negotiations, project financing, and driving to a competitive bid. The typical day to day tasks included reviewing and negotiating contracts with the public sector client as well as the contractor, and reaching financial close on P3 transactions.

## Advice and Suggestions

In order to learn more, Matthew encourages college students to "make any excuse to talk to people". It is about communicating with individuals in your preferred field and showing an interest in their area of expertise. You might be surprised by how willing people are to lend you career advice and hearing their career stories can be both insightful and inspiring.

### Day-to-Day Snapshot



# Michael Rooney

Project Development Consultant at HNTB, a full-service transportation engineering firm in the US.



## Educational Background and First Introduction to Infrastructure

As a little kid, Michael grew up near the light rail system in San Diego. That system connected very diverse communities. As a child Michael was very interested in that system. Later in college, Michael was introduced to a civil engineering class and learned about different professions in infrastructure.

## Mentors

In college, Michael was assigned a mentor who was a professor. The mentor helped Michael understand and explore the different paths to take in the field of infrastructure. Michael was also introduced to infrastructure projects occurring in California.

## Job Tasks

Defining a typical day-to-day task is very difficult for Michael's position. Michael is involved in framing decisions in a matter that allows the executive leaders to act. It requires coordination with different teams, conducting analyses on data regarding financial and social implications, and creating reports summarizing all of this information.

Michael believes his job is about "reading between the lines to understand the real issues that people might not be saying directly. Trying to understand what is motivating different players." Michael claims that the most rewarding aspect of the job occurs when a project is completed and it is available for the public to use. In order to complete these projects, Michael frequently works with financial advisors, engineers, planners, lawyers, and political consultants.

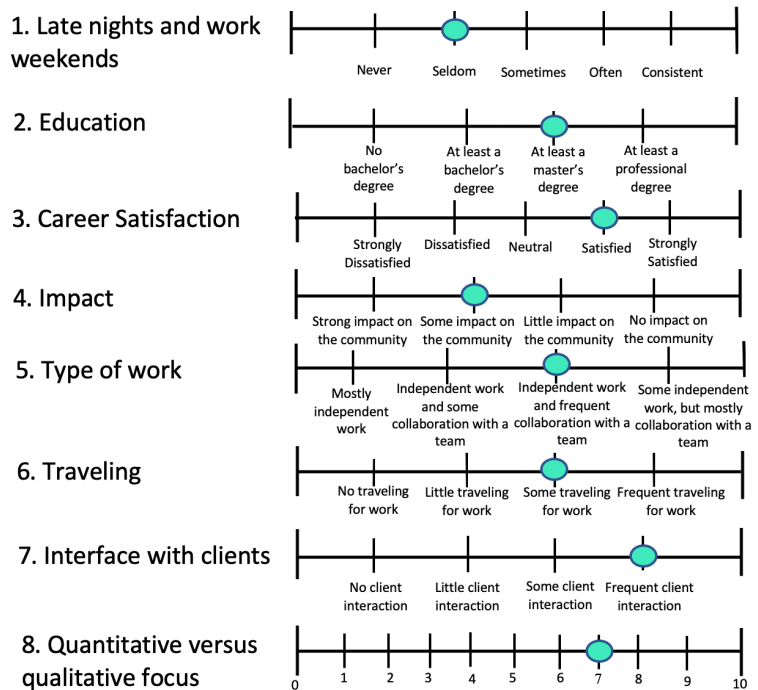
Currently, Michael is working on the P3 project in San Diego called The Central Mobility Hub. The project is in its early stages. Michael and his team are trying to find out what roles the private sector can potentially deliver more efficiently than the traditional public sector group. It involves a lot of conceptual thinking. In addition, it is a very collaborative process.

## Advise and Suggestions

There are a lot of detailed documents and resources online that provide helpful insight about projects. Michael also suggests that individuals should try to listen to meetings and city council debates about projects. In addition, Michael claims YouTube provides multiple videos about infrastructure that are both engaging and informational.

Michael also encourages students to consider a career in infrastructure because it is one of the most direct ways to impact and make a difference in the community. He believes it is a great way to address social issues by trying to better connect people and create more opportunities in various communities.

### Day-to-Day Snapshot



Quantitative Qualitative

# Julian J. Gonsalves

Assistant City Manager for Public-Private Partnerships for the City of Alexandria, Virginia



## Educational Background and First Introduction to Infrastructure

In college, Julian studied civil engineering where he discovered his passion for infrastructure. After completing his undergraduate degree, Julian worked as a consultant with Habitat for Humanity India. Working with that organization, Julian was able to travel across India working on projects related to affordable housing and sanitation. In his travels, Julian saw the lack of stable infrastructure across various sectors such as energy, water, and transportation in certain areas. According to Julian, “civil engineering helped me speak the language of infrastructure, and made me realize that I wanted to build a career in infrastructure”.

## Mentors

During graduate school at Stanford University, an infrastructure consultant who was also a professor acted as a mentor for Julian. This professor taught classes that explained how to develop, plan, and implement infrastructural projects, and also organized seminars with industry leaders who presented real world project examples.

## Job Tasks

In Julian’s position there are no typical day-to-day tasks. Projects and assignments change frequently. Julian often prepares for city council meetings that occur every few weeks. These meetings provide a forum to make a case to City Council for projects and initiatives while also informing the public. Currently, Julian is working on P3 guidelines and new initiatives for the city. He is also actively working on existing transactions and negotiating agreements with the private sector.

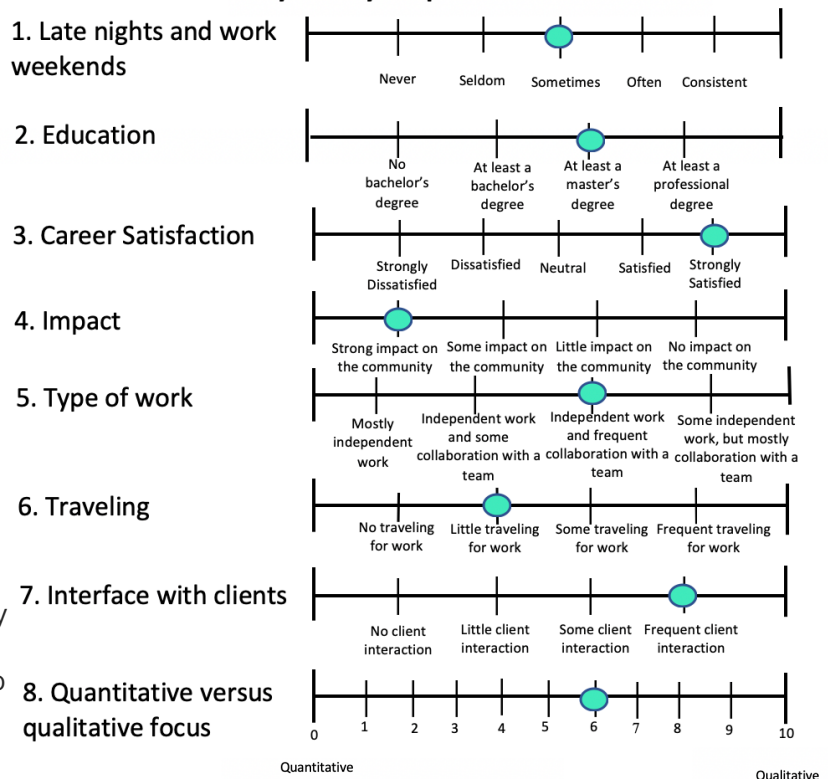
Julian asserts that the most rewarding part of his job is fulfilling unmet local needs. His role is to find partnering opportunities with the private sector to address the community’s goals.

Julian works closely in partnership with various City departments and related agencies such as planning and zoning, economic development, general services, infrastructure, project implementation, procurement and contracting, financing, and legal to coordinate the development, negotiations and execution of public-private partnerships.

## Advise and Suggestions

According to Julian, students should have an interest in infrastructure because “Infrastructure and public-private partnerships allow different stakeholders to come to the table and come up with solutions that one of the other stakeholders might not have thought of initially”. Having worked in non-profit, private and public sectors, Julian advises students to use summer internship and independent study options to expose yourself to different perspectives. Julian recommends individuals become involved in organization such as YPI. In addition, Julian highlights the importance of finding mentors, professors, and classes in college that are insightful and supportive.

### Day-to-Day Snapshot



# Racquel A. Muindi

Associate Attorney at Ballard Spahr LLP. According to the firm's website, "Ballard Spahr is a national leader in counseling both public- and private-sector clients in alternative project delivery and, in particular, public-private partnership (P3) projects to build and improve infrastructure—from transportation systems to energy facilities to social infrastructure".



## Educational Background and First Introduction to Infrastructure

Racquel A. Muindi obtained her J.D. from The George Washington University Law School. After graduating from law school, she spent one-year clerking at a state court in Virginia before moving to Beijing to work as a corporate attorney for a PRC law firm. After about a year in Beijing, Racquel moved back to California and a recruiter contacted her about an opportunity to work in the infrastructure practice group for a boutique law firm based in Los Angeles. The opportunity played on her corporate background and interest in government contracts at the local, state, and federal level. For Racquel, "Infrastructure was a unique area that involved so many interests I had in various legal substantive areas such as government contracts, project finance, procurement, national security, corporate formation and structuring...."

## Mentors and Guidance

Racquel did not initially have a mentor who worked in the infrastructure field when she first began her infrastructure practice. Most law firms provide associates with at least one mentor as part of the formal mentor process, so Racquel was able to take advantage of this particular resource along with others offered by her current law firm. As Racquel gained more exposure to the infrastructure sector she was able to build relationships and establish informal mentoring relationships that she hopes to maintain throughout her career.

## Job Tasks

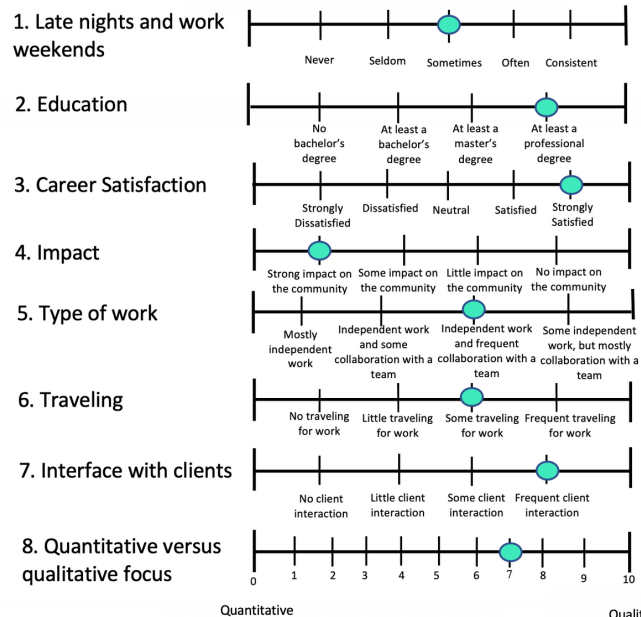
As an attorney, much of the work Racquel does involves legal analysis and drafting. Her day-to-day tasks vary depending on whether she is serving as Owner's counsel, Sponsor's counsel or Lender's counsel for a particular deal. According to Racquel, "knowing and understanding who your client is, what the client's goals are and how those goals can best be achieved or how identified risks can be mitigated are what lay the foundation for a successful client relationship." As Sponsor's counsel, she is currently drafting drop-down design-build and operations and maintenance agreements for a client who recently bid on a digital utility project. As Owner's counsel, she is currently assisting with reviewing and responding to requests for clarifications submitted by respondents in response to a request for qualifications.

Racquel has learned a lot about infrastructure since entering the field. Part of the challenge in advising on a long-term contract like a P3 is determining how to account for and allocate risks that are either unknown or have some varying degree of certainty. But for Racquel, this is also part of what she enjoys most about her role as a legal advisor. There are so many alternative types of project delivery to more traditional design-bid-build or even design-build.

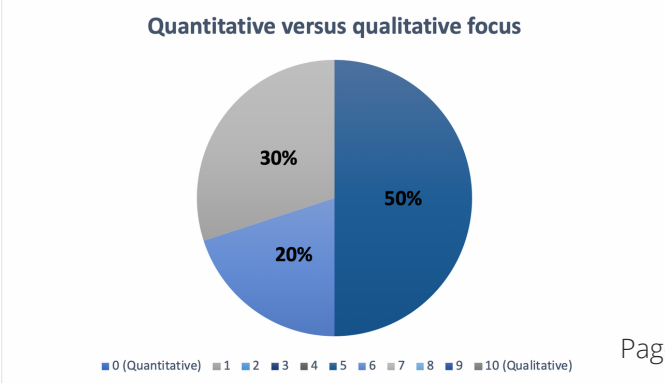
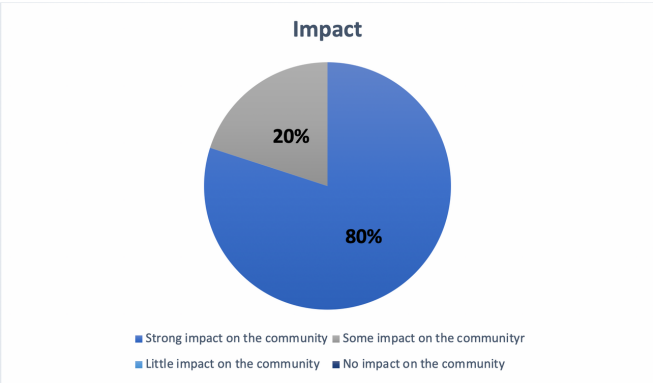
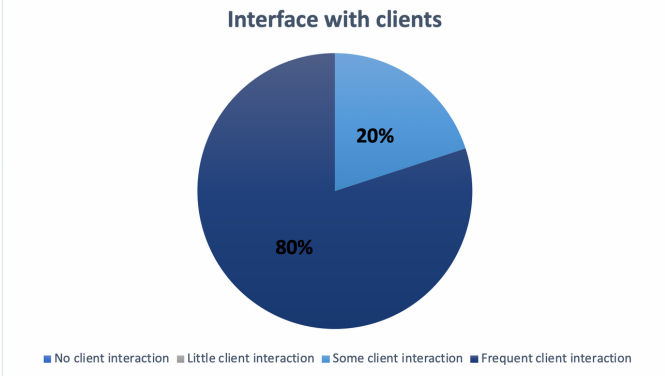
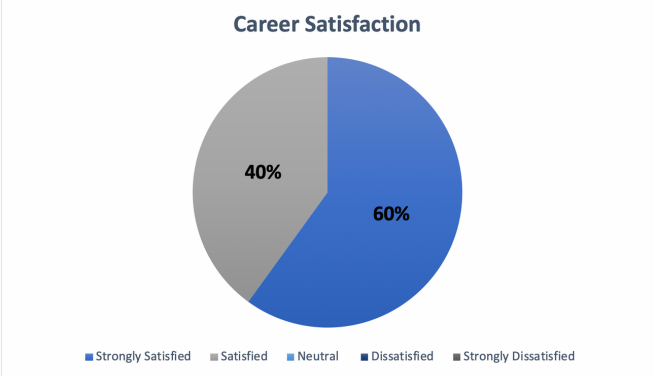
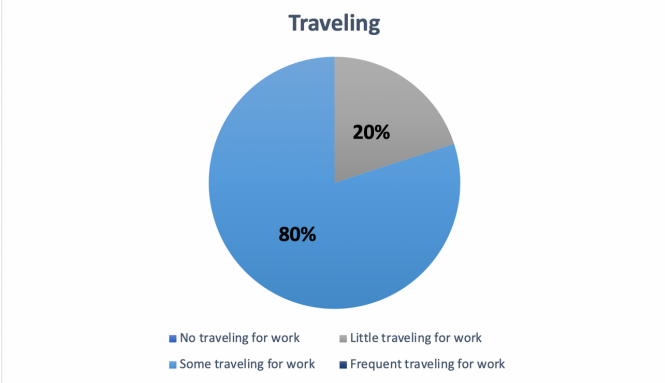
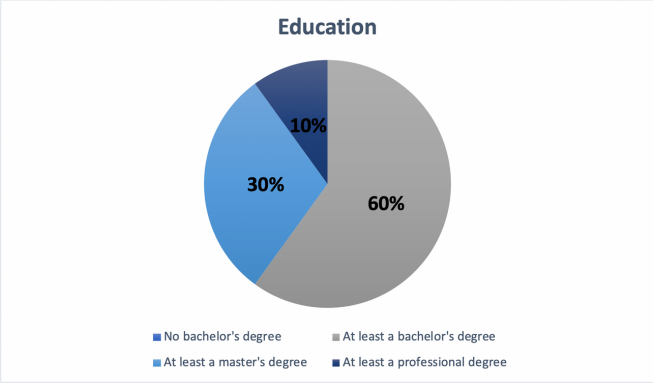
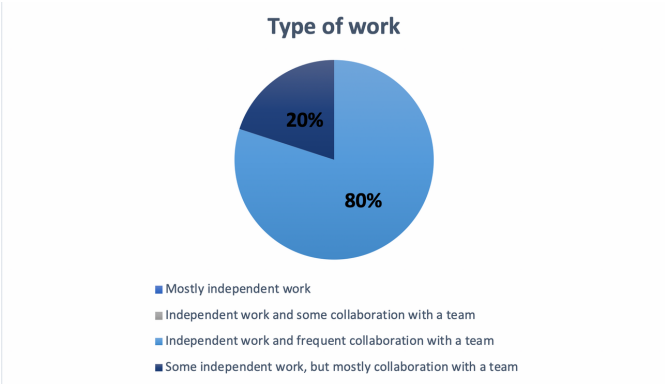
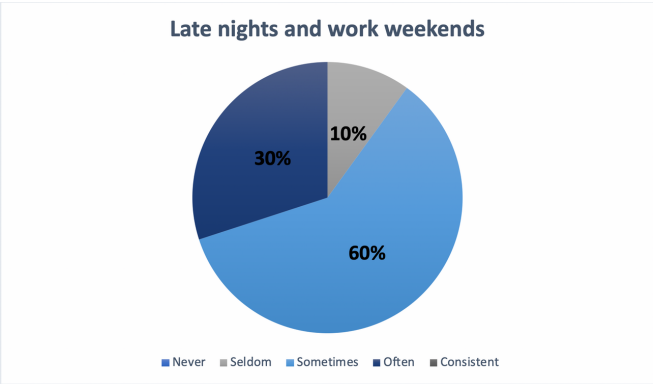
## Advice and Suggestions

Racquel encourages students to consider infrastructure because "there will always be a need. There will always be infrastructure that needs to be built, that needs to be rehabilitated...". In order to get involved, networking is a crucial first step. Racquel recommends individuals participate in organizations such as YPI and other more industry-specific organizations to connect with both newer and more seasoned professionals in the field.

### Day-to-Day Snapshot



# Summary of the Day-to-Day Snapshots



## GLOSSARY

**Escrow Agreement:** "An escrow agreement is a contract that outlines the terms and conditions between parties involved, and the responsibility of each. Escrow agreements generally involve an independent third party, called an escrow agent, who holds an asset of value until the specified conditions of the contract are met."

- <https://www.investopedia.com/terms/e/escrowagreement.asp>

**Procurement:** "Procurement is the act of obtaining goods or services, typically for business purposes. Procurement is most commonly associated with businesses because companies need to solicit services or purchase goods, usually on a relatively large scale".

- <https://www.investopedia.com/terms/p/procurement.asp>

**Public-Private Partnership, P3:** "Public-private partnerships involve collaboration between a government agency and a private-sector company that can be used to finance, build, and operate projects, such as public transportation networks, parks, and convention centers".

- <https://www.investopedia.com/terms/p/public-private-partnerships.asp>

**Request for Proposal, RFP:** "An RFP explains the work that is needed and the requirements of the project and then 'requests' that interested bidders submit their plan for the work, estimate of costs, and other details relevant to the project such as the company history and its capabilities"

- <https://study.com/academy/lesson/request-for-qualifications-vs-request-for-proposal.html>

**Request for qualification, RFQ:** "An RFQ simply allows vendors to show their credentials and work history to determine if they are the best for an available project. Typically, an RFQ precedes an RFP because it establishes a pool of vendors eligible to submit a bid to do the work. Inside an RFQ, you might find a vendor's skills, abilities, and relevant prior jobs, but it does not include any details on how the work would be performed or what the charges might be".

- <https://study.com/academy/lesson/request-for-qualifications-vs-request-for-proposal.html>

**Risk Profile:** "A risk profile is an evaluation of an individual's willingness and ability to take risks. It can also refer to the threats to which an organization is exposed. A risk profile is important for determining a proper investment asset allocation for a portfolio. Organizations use a risk profile as a way to mitigate potential risks and threats."

- <https://www.investopedia.com/terms/r/risk-profile.asp>

# Common Questions

## Questions

## Explanations and Description

What is a public-private partnership?

Involves collaboration between a government agency and a private sector company.

Why are P3 an ideal solution?

<p><b>City Government</b></p> <p>Heavily indebted.</p> <p>Cannot support capital-intensive building projects.</p>	<p>+</p>	<p><b>Private Sector Company</b></p> <p>Interest to fund a project.</p> <p>Necessary resources.</p> <p>Receives operating profit after the completion of a project.</p>	<p>=</p>	<p><b>Public-Private Partnerships</b></p> <p>Both parties collaborate to complete a project.</p> <p>The public partner monitors if the objectives and goals are met.</p> <p>The private partner designs, implements, and funds the project.</p>
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What are the advantages of P3 projects?

They improve operational efficiency and create economic diversification. In addition, bundling is possible with P3 projects.

What is risk allocation?

Deciding which party in the contract will bear the costs of changes that occur due to risk factors. Central principal of risk allocation: "risk should be allocated to whoever can manage it best".

Timothy Irwin's book "Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects"

1. "Risk should be allocated to the party best able to control the likelihood of the risk occurring."
2. "Risk should be allocated to the party best able to control the impact of the risk on project outcomes."
3. "Risk should be allocated to the party best able to absorb the risk at lowest cost, if the likelihood and impact of risks cannot be controlled."

There are also other approaches to risk allocation.

"Based on the OECD's publication on risk sharing and value for money in PPPs (OECD 2008a, 49-50), applying these principles does not imply transferring the maximum possible risk to the private sector." (PPP Knowledge Lab) <https://pppknowledgelab.org/guide/sections/59-allocating-risks>

What does the future of infrastructure look like?

President Biden is supporting the \$1.2 trillion Infrastructure Framework. The plan is to rebuild roads, bridges, and support other infrastructure projects. In addition, many participants in the YPI Infrastructure Guide emphasize the necessity of infrastructure and the different opportunities available for people with various skills.



# P3 Projects

## Examples

### LaGuardia Airport P3:

The LaGuardia Airport P3 is a recent P3 project involving the designing and building of Central Terminal B at LaGuardia Airport. It is a \$3.6 billion project with the private sector contributing more than \$2 billion and the Port Authority contributing more than \$1 billion. The partnership is between LaGuardia Gateway Partners and the Port Authority of New York and New Jersey. The risk allocation involves transferring the risk of cost overruns and scheduled delays from Port Authority to the private partner, LaGuardia Gateway Partners. <https://sustainableinfrastructure.org/project-awards/la-guardia-airport-ctb-replacement-project/#:~:text=Under%20the%20P3%2C%20LaGuardia%20Gateway,the%20New%20CTB%20through%202020%2050.>

### University of California Merced 2020 Project:

On June 1, 2020 UC Merced completed a \$1.2 billion project to expand their campus. This social infrastructure project was completed on time and helped the university respond to the pandemic by providing additional space for social distancing. Many key players were involved in the completion of this project. For instance, the P3 project involved Plenary Properties Merced (designing, building, and maintaining), "developer and equity provider Plenary Group in partnership with Webcor, lead campus planner Skidmore, Owings & Merrill LLP and Johnson Controls Inc., which led operations and maintenance." This P3 project has received a lot of recognition including the 2016 P3 Award and a 2017 award for P3 Social Infrastructure Project of the Year.

<https://news.ucmerced.edu/news/2020/merced-2020-project-wraps-stands-largest-public-private-partnership-completed-us>

### Central Park Conservancy:

The Central Park Conservancy is a not-for-profit organization responsible for managing and maintaining Central Park. The organizations tasks include raising \$74 million for the annual operating budget, capital improvements, and other maintenance activities. The Conservancy was initially created in response to the deterioration of Central Park. Its aim was to combat the concerns regarding cleanliness and safety throughout the park. The City and Conservancy signed a Memorandum of Understanding in 1993 which outlined their objectives and goals for the partnership. This agreement has been renewed throughout the years. Furthermore, the Conservancy has public authority to manage the park. The Conservancy raises 75% of the annual operating budget while the City provides 25% to complete the budget. In response to indemnification concerns, it was determined that the City, not the Conservancy, would be presented as the defendants.

<https://www.centralparknyc.org/>

# Internship Opportunities

## *YPI Executive Organizational Members*

### **YPI Jobs Portal:**

- YPI has a Jobs Portal page on the YPI website with active job listings from partner/member organizations.
- For more information, please visit the website, <https://ypinfrastructure.com/jobs-portal/>

### **ARUP:**

- They provide internship opportunities in the Americas, Australasia, East Asia, the UK, India, Middle East, and Africa.
- To learn more information, please visit <https://www.arup.com/careers/early-careers/internships/americas-internships>

### **CIBC:**

- The annual CIBC U.S. Commercial and Corporate Summer Internships.
- For more information, please visit <https://us.cibc.com/en/about-us/careers.html>

### **Cintra:**

- Cintra provides the "Challenge by Cintra" internship program.
- Registration closes May 30.
- For more information, please visit the website <https://newsroom.ferrovial.com/en/local-news/cintra-launches-its-sixth-edition-internship-program-challenge-by-cintra/>

### **HNTB:**

- HNTB provides various opportunities.
- For more information, please visit <https://hntb.jobs/university-careers/>

### **INSTAR:**

- To learn more about opportunities at INSTAR, please visit <https://instarinvest.com/2020/08/how-connectivity-builds-stronger-teams-2/>

# More about YPI

YPI has three main pillars that guide its mission for helping the community. YPI focuses on relationship building which involves cultivating a network of leaders across the public and private sectors. Furthermore, YPI places importance on Education & Professional Development by providing opportunities for growth and knowledge transfer. In addition, YPI promotes diversity and fosters inclusion by addressing critical workforce issues through the Diversity & Workforce pillar.

The YPI team consists of:

- Co-President: Judah Gluckman
- Co-President: Mariana Torres
- VP Events: Noah Jolley
- VP Membership: Wilson Ortiz-Vega
- VP Professional Development: Allison Larr
- VP Diversity: Jen Kim
- VP Education: Josh Goldman
- Treasurer: Anne Rehfuss
- Secretary: Zachary Woods



YPI is excited to announce the extensive progress made on their 2021 goals. At the beginning of the new year, YPI established goals that the organization would strive to accomplish and fulfill. With the success of YPI over the past year, the majority of these goals have been accomplished with the remainder in progress. For instance, one of YPI's goals has been to expand. Currently, the organization has a total of 14 general members with 4 volunteers to spearhead initiatives. With YPI's growth facing an upward trajectory, YPI is confident in the continued increase in their general members population. In addition, YPI has gained new academic partners. Furthermore, in order to hold more interactive events, YPI was able to hold two large events with one in Dallas and one in DC. In addition, YPI has evaluated their diversity principles by developing an organization-wide survey for circulation in December. Finally, YPI is continuously updating the member contact list, documents information controls, and committee enrollment lists in order to remain organized and efficient. These are just a few of YPI's accomplishments over the past year.

# YPI Resources

The organization provides many opportunities for its members. From the YPI 2021 goals, it is evident that one of YPI's main objectives is to expand and reach new members. The organization produces a collaborative environment where experts in the field of infrastructure can connect to students and individuals who are interested in pursuing this career. The YPI mentorship program is a great opportunity to provide advice and guidance to individuals starting their career. The mentorship program is always looking for mentors and participants. Furthermore, YPI develops a supportive system where people with similar interests can communicate and learn. To receive more information about YPI, please visit <https://ypinfrastructure.com/>. In addition, interested individuals should absolutely explore the YPI events page on the website. There are lists of both virtual and in-person upcoming events with information regarding meeting the team and getting involved in YPI. The organization is dedicated to making resources accessible to everyone. Therefore, there are many ways to get involved and join Young Professionals in Infrastructure.

The YPI 2021 Fellowship is designed to provide graduate students with the opportunity to engage with professionals in the infrastructure sector to help further their academic research and contribute to important industry issues. Grants will be awarded to two Fellows of up to \$5,000 to support their research. For more information please visit <https://ypinfrastructure.com/young-professionals-in-infrastructure-2021-fellowship-program/>.

The YPI Building the Future Grant is an award for both undergraduate and graduate students, which is designed to support greater diversity within our organization and the infrastructure industry. Selected students will receive free membership to YPI and be eligible for an award of up to \$2,500. For more information regarding the application, please visit <https://ypinfrastructure.com/young-professionals-in-infrastructure-2021-fellowship-program/>.