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Developing Best Practices for Successful Public-Private Partnerships

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Developing Best Practices for Successful Public-Private Partnerships

Farishta McCourt

Capstone
Spring 2021

 Martin School of Public
Policy and Administration

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Abstract

Many states and cities find themselves facing several serious long-term public infrastructure challenges due to rising maintenance costs. Infrastructure funding gaps arose from an inefficient approach to public infrastructure development and operation. States and local governments were faced with unfunded pension obligations and as a solution, they diverted tax revenues away from the maintenance and growth of infrastructure. The 2008 economic recession occurred and compounded these problems. Budget studies indicated that states needed new policies and strategies to slow down the pace of spending on infrastructure maintenance as the recession started to subside, further exacerbating the infrastructure funding gap.¹

This paper addresses the gap in infrastructure funding needs by identifying the essential role that public-private partnerships (P3) are now taking in infrastructure facilities that are open to the public for use along with examining opportunities and challenges for this transformative shift in the field. Contextualizing the need of P3 programs within recent developments and tracing the expansion of public-private partnerships in selected cities both successfully implemented, and failures is considered. In each city highlighted, I discuss the mutual advantages of a public-private partnership while also illustrating challenges that both public and private entities encountered as they worked to develop and implement the program.

Dynamics of the balancing act between the state and local government and private entities in decision making required by public officials when weighing the costs and benefits of

¹ Weller, C., Estep, S., & Hendricks, G. (2019 April 2). *Budgeting the Future*. American Progress.

accepting private donations is also considered. The paper also discusses the infrastructure funding along with a development approach that minimizes the need for new taxes. A conclusion is reached by discussing the ongoing challenges that need to be considered and addressed for public-private partnerships to be successful over the long term along with the risks and benefits of having such an agreement.

Introduction

The P3

There is widespread consensus that infrastructure across the United States is in urgent need of investment, replacement, and renewal.² It would take significant investment to repair the nation's highways, water treatment systems, schools, bridges, and transit infrastructure. From 2016 to 2025, the American Society of Civil Engineers (ASCE) estimate an underinvestment in our infrastructure by \$2 trillion.³ The upfront costs are prohibitive for many cities and states.

A public-private partnership (P3) can bring the financing component and expertise/innovation that adds value to the infrastructure. The public-private partnership, or P3, is a long-term agreement between a public entity and a private entity that is tasked with funding, developing, and execution of projects serving the populations' needs. In this arrangement, the public partner gives the private partner the exclusive right and compensation to engage in an activity that would otherwise be a public responsibility. P3s have been used to develop public services and infrastructure like roads and bridges, water treatment plants,

² Poole Jr., R. & Stuart, A. (2017 January). *Federal Barriers to Private Capital Investment in U.S. Infrastructure*.

³ American Society of Civil Engineers. 2017 ASCE Infrastructure Report Card.

wastewater facilities, courthouses, hospitals, and educational institutions including K-12 and universities. Infrastructure targets can be accomplished through the P3 for governments and resolve deficiencies arising from economic downturns.

State and local governments can take on projects they might not have otherwise been able to pursue when teamed up with a private entity. The P3 can be an alternative to providing services in an efficient manner, while avoiding the need for borrowing to sustain operations. In this model, transfer of capital investment obligations or services are transferred from the public to the private entity. Governments can pay for the infrastructure / technology over time versus making a single large upfront investment.

The value of the P3 relationship is illustrated by the coordinated construction and process of matching asset investments to the life cycle and asset renewal requirements. The complete cost of providing, maintaining, and operating the asset is priced over the contract term (typically 20-60 years). When the asset is returned to the public entity at the end of the period, the condition requirements set out in the contract must be complied with. The private entity performs the support and delivery of services and secures the public entity financial guarantees.

The Origination and Rise of the P3

The expansion to the west and development of the United States during the 19th century created a need for a better transportation infrastructure. State and local government had limited budgets along with limited experience. The success of Britain's private turnpikes in the 1600s to 1700s inspired American turnpike companies to build private roads in exchange for land grants from state and federal governments. The public benefited from roads and

railroads established on public land that were privately funded. The private companies operated the roads efficiently and were willing to make further improvements that created a cycle of economic development.⁴

The need for investment in overall U.S. infrastructure from 2010-2020 was critical; yet the expected public and private funding for projects during this period was insufficient to meet the needs. During this time, it was estimated that investment needs for all types of infrastructure reached \$2.749 trillion, while expected funding was only projected to reach \$1.657 trillion per Figure 1. The surface transportation including roads and bridges is only 51 percent funded which is concerning. Highways and bridges are the backbone of the United States transportation system and serve as the nation's central artery of commerce and activity. Motor vehicles traveling roads and bridges remain the primary mode of transportation in America, accounting for 88 percent of person miles of travel (PMT).⁵ To compare, air travel accounts for 8 percent of PMT, while buses and trains account for only 1 percent.⁶ The Committee for Economic Development recommended that a greater private-entity participation in road building and maintenance is needed.⁷

The United States has been deferring maintenance and inadequately investing in the road network. The problem occurred from prioritizing constructions of new roads and bridges instead of fixing existing facilities. Forty-three percent of the budget went to maintaining existing roadways even though they made up of 99 percent of the overall road system but 50

⁴ McNichol, D. *The United States: The World's Largest Emerging P3 Market*.

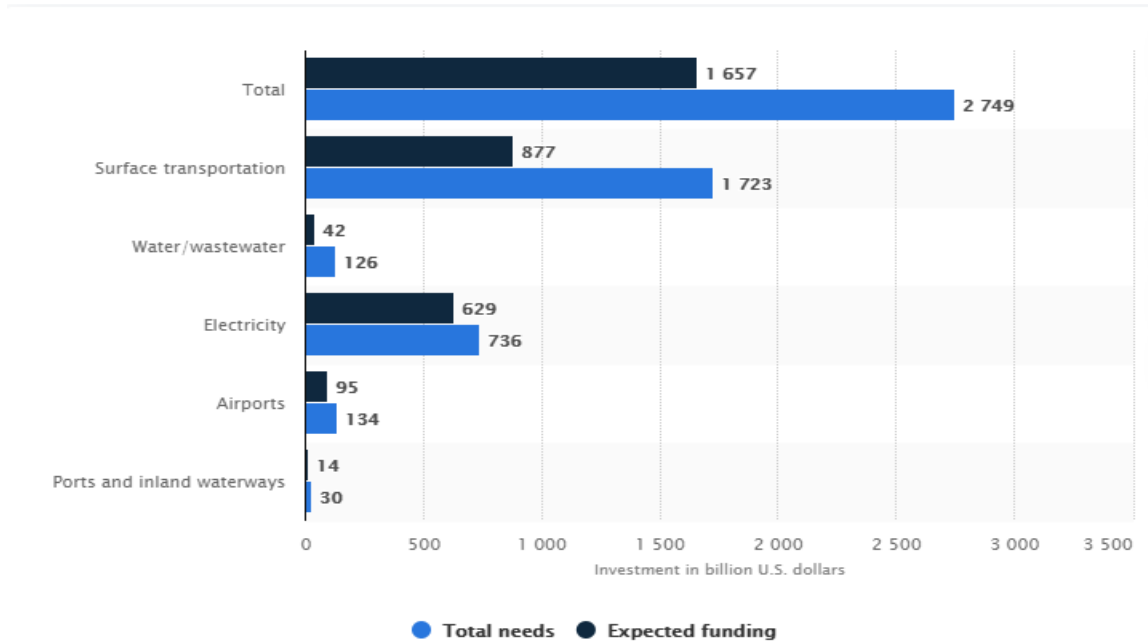
⁵ Geddes, R. and Madison, T. (2017). *Fixing America's Roads & Bridges*. Committee for Economic Development.

⁶ Ibid.

⁷ Ibid.

percent of state transportation dollars went to new construction projects during 2004 and 2008 which constituted only 1 percent of the entire system.

Figure 1:⁸



Taxes would not cover the trillions of dollars in overdue maintenance and upgrades for deteriorating public assets as tax raises are impractical for low-income constituents who may not benefit from the usage. Raising taxes could increase income inequality and may be regressive in which low-income households pay a higher share of their income than high-income households). To address the shortfall, ASCE stressed the need for more private-entity involvement, increased federal investment and the leveraging of state and local government revenues.⁹ The operating savings gleaned from the P3 project translates into a potential funding source for future capital projects or can be used in the General Fund for pension and

⁸ de Best, R. (2020). *U.S. Investment for Infrastructure needs in 2010 with a forecast for 2020*.

⁹ American Society of Civil Engineers. 2017 ASCE Infrastructure Report Card.

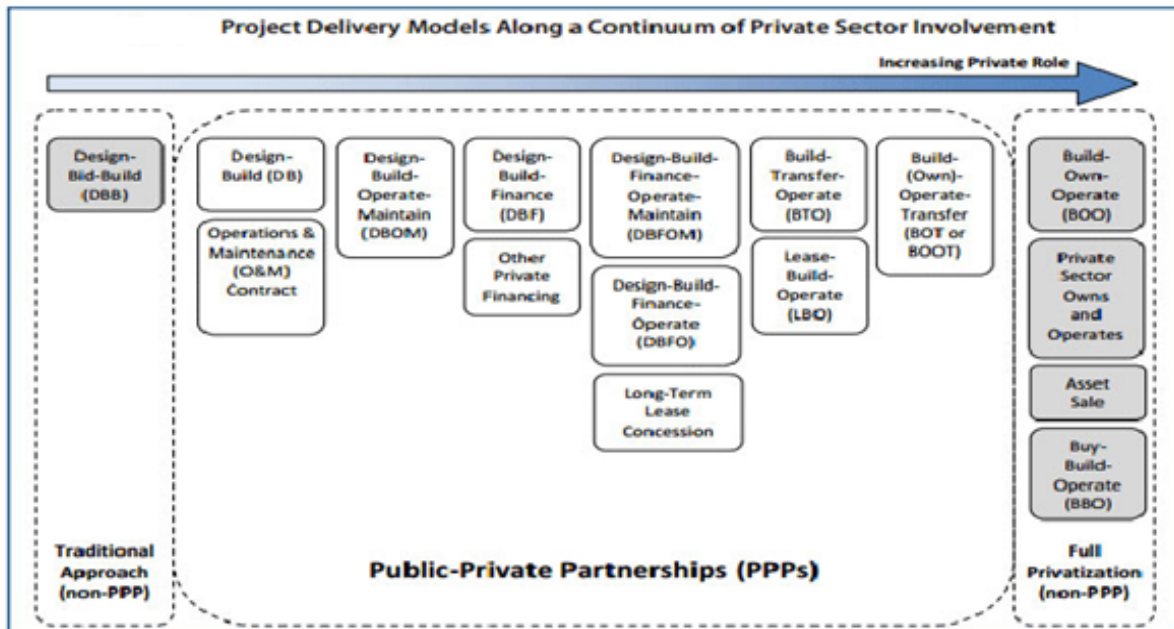
health care obligations. The federal government and a large amount of states have recognized the benefits of the P3 model with thirty-one states passing legislation for P3 activity.¹⁰

The COVID-19 pandemic has had a profound influence on state and local economies and their budgets. P3s are likely to increase as a result due to the unique economic and political strain from the ensuing recession. How the public entity operates and leverages the P3 partnership will define its success in serving communities.

Types of P3s

The structure of each P3 is tailored to the needs of the project. There are varying degrees of complexity and risk allocation. There are two main components of a P3 model: whether they are being used for major capital improvements (building new or upgrading existing asset) or for operations or maintenance services. Figure 2 demonstrates the continuum of private entity involvement among P3 procurement models.

Figure 2:¹¹



¹⁰ NCSL. (2015). *Public-Private Partnerships for Transportation: A Toolkit for Legislators*.

¹¹ NCSL. (2015). *Public-Private Partnerships for Transportation: A Toolkit for Legislators*.

Displayed below is an in-detail summary of delivery models considered during the P3 process:

O&M: Operations-Maintenance

A public partner contracts with a private partner to operate and maintain the asset. The public partner holds ownership and management of the asset.¹²

OMM: Operations-Maintenance-Management

A public partner contracts with a private partner to operate, maintain, and manage the asset. The public partner retains ownership of the asset, with the private party investing its own capital. Private investment is considered in relation to operations costs and potential savings over the term of the contract. Longer contract terms allow for increased private investment because there is more time to recover private investment.¹³

DBM: Design-Build-Maintain

A DBM is like a design/build project except the maintenance of the facility for some period becomes the responsibility of the private entity partner. The public entity partner owns and operates the asset.¹⁴

DBO: Design-Build-Operate

The private partner designs, builds, and operates the asset. Combining all three phases into a DBO approach maintains continuity of private involvement and facilitates private-entity financing of public projects supported by user fees generated during the operations phase.¹⁵

¹² Green, E. *ABCS of P3s: Understanding the Basics of This Project Model*. P3 Kentucky.

¹³ Ibid.

¹⁴ Green, E. *ABCS of P3s: Understanding the Basics of This Project Model*. P3 Kentucky.

¹⁵ Ibid.

DBOM: Design-Build-Operate-Maintain

The design-build-operate-maintain model couples the design and construction responsibilities of design-build procurements with operations and maintenance. These project components are procured from the private sector in a single contract with financing secured by the public entity. The public agency maintains ownership and retains a significant level of oversight of the operations through terms defined in the contract.¹⁶

DBFOM: Design-Build-Finance-Operate-Maintain

The responsibilities for design, construction, finance, operations, and maintenance are transferred to private entity partners. DBFOMs are partly or wholly financed by revenue streams generated by the project mainly through tolls and user fees.¹⁷

BOT: Build-Operate-Transfer

The private partner builds a facility to the specifications agreed to by the public agency, operates the facility for a specified period under a contract with the agency, then transfers the asset to the agency at the end of the period.¹⁸

LDO/BDO: Lease-Develop-Operate or Build-Develop-Operate

The private party leases or buys an existing facility from a public agency; invests its own capital to renovate, then operates it under a contract with the public agency.¹⁹

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Green, E. *ABCS of P3s: Understanding the Basics of This Project Model*. P3 Kentucky.

¹⁹ Ibid.

Advantages and Disadvantages

The advantages of the P3 models include the following:

- Infrastructure costs are lower for the public entity. Involved in the reduction are construction costs, overall life-cycle costs, and funding the project (through revenue streams such as tolls).
- The outcome is usually designed with performance-based specifications which includes innovation, higher quality, and timely provision of public services.
- Programs/services can be provided using long-term payments without increasing taxes. Governmental funds earmarked for the project can be reallocated in the budget.
- The private entity absorbs the risk, responsibility, cost of operations and maintenance.²⁰

The disadvantages of the P3 models include the following:

- Agreements are long-term and inflexible due to envisioning all events that can influence the project start such as policies, geological conditions, permits, and political will.
- Lower than expected usage resulting from user fees can negatively reflect future public entity fiscal indicators via decrease in available revenue.
- Market conditions and cost growth can change the project.
- The P3 procurement process is longer than the traditional public procurement.

Although individual priorities and strategies might differ, the potential advantages of P3 agreements benefit states and cities. These improvements include reduced construction costs through value engineering strategies, sped up project timelines, innovation, shifted risk,

²⁰ Engel, E., Fischer, F., and Galetovic, A. (2013). *The Basic Public Finance of Public-Private Partnerships*.

reduced overall life-cycle costs, improved technology, consolidated procurement, and improved accountability.

This performance and financial risk alignment over the contract period ensure that the expense of the life cycle is optimized. The transition of ownership to a private entity enables municipalities to benefit from the experience of the private entity that maintains a significant number of assets. The private entity can exploit its global supplier relationships during construction to reduce equipment and product costs. The collaboration also allows for the latest innovations that municipalities use.

Background

In the following sections, I examine different initiatives and facets of states and cities, highlighting the role of public-private partnerships in each project. Based on the topic of developing best practices for successful public-private partnerships, a descriptive and qualitative type of research approach is appropriate. This is completed by verifying data and fact finding with necessary interpretation.

Given the current expansive scope of public-private partnerships in the United States, the discussion is limited to select public-private partnerships, which have enjoyed varying levels of success and failures primarily in transit. The data is analyzed comparatively among each P3 project to see how it succeed or failed and the major themes contributing to the results. A comprehensive treatment of public-private partnerships in every aspect is beyond the scope of this paper. Nevertheless, the following discussion identifies some of the most significant P3 projects to date.

- New York: LaGuardia International Airport Central Terminal

- California: George Deukmejian Courthouse
- Indiana: Interstate 69 Highway
- Illinois: Chicago's Parking Meters

Research Design

This paper focuses on each partnership beginning with the background information, the wants and needs of the governmental organization, discussing the scenarios of the situations that led to the P3 need, and the bidding and selection process. I talk about the financing structure gleaned from published financial statements and transit authority contracts. A brief on a risk analysis of who were allocated specific risk categories is displayed. For the successful partnerships, I analyze what went right and what the parties did to ensure a beneficial contract for both sides. In the unsuccessful partnerships, issues are reviewed specifically on what led to the decline and dissolution of the agreement.

I also examine the benefits of the successful P3 projects and limitations of the failed P3 projects. Successful P3 projects included the community's vision and input and effectively communicated to all stakeholders. Failed P3 projects did not take in account of the longevity of the lease or ironically, the fine print i.e.: Chicago had to pay the P3 for parking meters taken offline for parades/road repairs. This negated any profit Chicago stood to earn from the P3 arrangement. The Chicago deal also infuriated stakeholders because the contract was pushed through the mayor to the City Council at last minute without input from constituents.

The primary sources for this research were public records. The detailed time frame of the process was provided by evaluating articles from newspapers. The concerns and controversies related to these projects and the views and actions of the stakeholders were also covered. Related city records, including contracts, financial reports, proposals for capital

development, agendas for city councils, and feasibility studies are reviewed. The paper's results and recommendations of best practices help understand the public-private relationship, to build a framework that can be used elsewhere. The best practices are displayed on tables and charts.

Using a qualitative method, I investigate data that seeks answers to my research question of "In What Scenario Does a P3 Work Best?" and how to develop best practices for the successful P3 partnership. The methods used to obtain data for the paper are necessary to figure out processes that the successful P3 partnerships employed and what the unsuccessful P3 partnerships failed to do. By choosing P3 projects that were frequently discussed in the media and subsequently cities with transparent policies, I ensured that there are plenty of research materials to examine.

The subject of this paper advances the topic to assure P3s will succeed as fiscal circumstances facing state and local governments will not improve greatly over the next decade due in part to the coronavirus pandemic. Infrastructure including roads and bridges are failing or in a state of disrepair across the United States. Raising taxes for transportation projects especially given the state of government funds would be a hard sell among politicians. Transportation P3s could assist with offsetting the direct expense of repairing or improving infrastructure across the nation.

Data

This section is devoted to the four P3 projects that I have selected with a review of what each P3 arrangement includes. The successful partnerships are LaGuardia International Airport

Central Terminal (New York City, NY) and George Deukmejian Courthouse (Long Beach, CA). The unsuccessful partnerships are the Interstate 69 (Indiana) and Chicago Parking Meters (Illinois).

New York City, NY: LaGuardia International

Airport Central Terminal

TYPE: Design-Build-Finance-Operate-Maintain (DBFOM) with fixed price Design-Build (DB)

component

RESOURCE/SERVICE:

- New Central Terminal building
- 2 new concourses and taxiway system with a new parking garage connector
- New Central Hall portal that connects with Terminal C and D, civil infrastructure frontage road improvements
- Total lease period: 35 years

TIMELINE: The project started in 2013 for the prequalification of selecting a P3 partner.

Financial close was achieved in late 2015. Construction commenced from late 2015 to 2020.

The terminal opened in June 2020 (within its planned opening date of 2020).

PARTNERS:

Public: Port Authority of New York and New Jersey (PANYNJ)

Private: LaGuardia Gateway Partners (LGP)

CONSTRUCTION:

Joint Venture: Skanska USA Building Inc., Skanska USA Civil Northeast Inc., and Walsh

Construction Company II, LLC

Capital Cost: \$4.2 Billion USD

WHY UTILIZE THE P3 MODEL:

Mainly serving domestic air travel markets in North America's most congested airspace, the LaGuardia Airport (LGA) is an important part of the New York region with a metropolitan area of 19 million people. LGA plays an important function in transporting goods and people. Since modern airline fleets are larger and deliver passenger loads that surpass the parameters of the original terminal building, LGA has exceeded its capacity to service air traffic demand.

The expansion of LGA was part of the PANYNJ's 10-year capital investment plan for the region's ports, airports, bridges, and tunnels.²¹ The airport originally had a design capacity of 8 million air passengers annually. PANYNJ estimated that by 2030, LGA's passenger traffic would exceed 34 million passengers, with 17.5 million passengers annually in the Central Terminal building alone.²² All facilities including restrooms, baggage handling areas, parking and utilities were past their useful life and are not adequately sized for current and planned demand growth.²³ PANYNJ thought the project would be done quicker, that the P3 partnership could bring technological solutions to alleviate challenges, and cost overruns risks could be the private entity's responsibility.²⁴

PROCUREMENT:

Owing to the project's size and scope, the procurement process took a while. The PANYNJ released a request for qualifications (RQ) including a strategic lease deal that positioned the public entity for future revenue sharing. The RQ had many proposed

²¹ Airport Advisory Panel. *A 21st Century Airport for the State of New York: The New LaGuardia*.

²² Vantage Airport Group. *LaGuardia Terminal B Fact Sheet Project Overview*.

²³ Ibid.

²⁴ Port Authority of New York and New Jersey. *May 28, 2015 Board Minutes*.

components with an assumed airline rate (to make it fair for airline competition), a fixed price and financing plan, and a minimum \$200M equity and \$20M bid security. The requests attracted 4 possible partners that met the criteria put forth by the RQ. PANYNJ ultimately chose LaGuardia Gateway Partners due to their 20-year experience in managing 9 airports around the world. The private entity had a fully integrated team invested in long-term partnerships with 19 airports being transitioned from public to private.²⁵

FUNDING SOURCES:

- \$2.5B tax-exempt bonds through New York Transportation Development Corp with LGP as the borrower²⁶
- \$1.5B funding from the PANYNJ²⁷
- \$200M equity from LGP²⁸

AGREEMENT:

LGP has the right to the 35-year lease that allows them to develop, design, construct, operate, and maintain the new Terminal B facilities and to charge, collect, and retain revenues from the operation of such facilities until expiration of the lease term in December 2050.²⁹

Figure 3 lists the structure of the special purpose vehicle which is the airport, and how it will be structured in the P3 model with the Port Authority (PA) funding a portion for the project, getting terminal lease payments back from the airport. LGP will generate revenues from availability payments, landing and terminal fees paid by airlines, and payments made by goods and services in the terminal itself under the concession contracts.³⁰ The airlines will be paying

²⁵ A Whole New LGA. *The New LaGuardia Airport: Project Overview ACRP – Public-Private Partnership Panel.*

²⁶ New York Transportation Development Corporation. *Special Facilities Bonds, Series 2016A.*

²⁷ Vantage Airport Group. *P3*

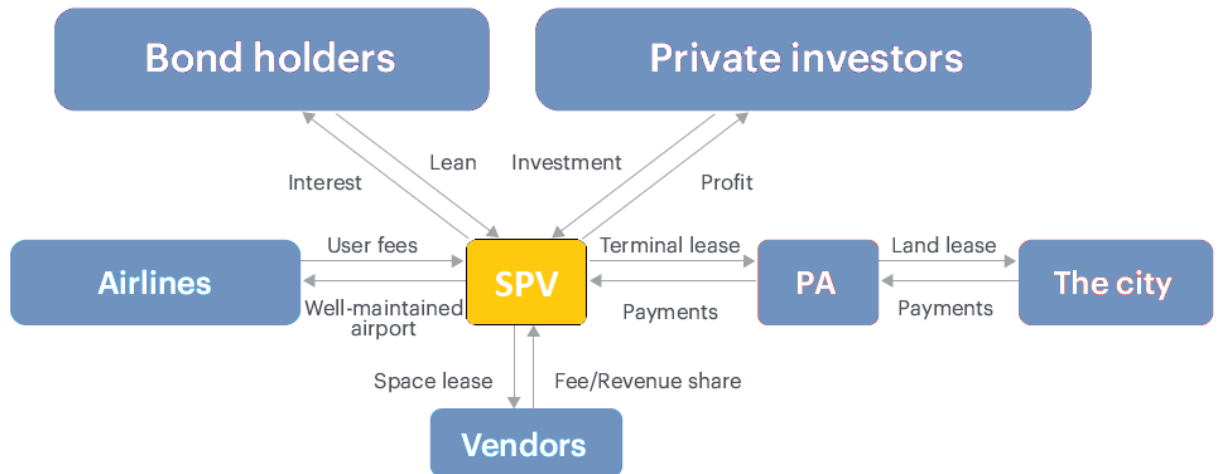
²⁸ Ibid.

²⁹ RFQ-31224. Port Authority of New York and New Jersey. *Request for Qualifications LaGuardia Airport.*

³⁰ Ibid.

user fees to the airport and get the benefit of a well-maintained airport in return. The private investors and bond holders give/loan money and get profit/interest back.

Figure 3:³¹



Long Beach, CA: George Deukmejian Courthouse

TYPE: Design-Build-Finance-Operate-Maintain (DBFOM)

RESOURCE/SERVICE:

- New Court facility with 31 courtrooms
- Basement-level secure parking, vehicle sallyport for secure inmate transfer, in-custody holding cells
- Leasable office and retail space
- Seismic upgrades
- Total lease period: 35 years

TIMELINE: A RFQ was issued by the California Administrative Office of the Courts in 2008

followed by the financial closing in 2010. Design and construction were completed in 2013.

³¹ RFQ-31224. Port Authority of New York and New Jersey. *Request for Qualifications LaGuardia Airport.*

PARTNERS:

Public: California Administrative Office of the Courts (CAOC)

Private: Long Beach Judicial Partners (LBJP) and Meridiam Infrastructure

CONSTRUCTION:

Joint Venture: Clark Design / Build of California

Capital Cost: \$490 Million USD

WHY UTILIZE THE P3 MODEL:

Functionally and physically, the former Long Beach Courthouse was deficient. In terms of safety and overcrowding, it was rated among the worst in the state of California. The 1959 era building, designed for a population of 344K, was therefore unable to meet the current needs of the state and the increasing demand for court facilities in the area, now with a population of 650K and growing.³² The CAOC wanted to use a delivery and operations method that would allow the Judicial Branch to deliver a new building without creating debt.

California was actively looking for innovative ways to shift risk and capital requirements due to the billions needed for courthouse repairs throughout the state. The P3 model afforded Long Beach the opportunity to replace the infrastructure during the financial crisis in 2008 when financing was non-existent among U.S. banks due to the subprime mortgage crisis.³³

³² Puente, K. (2013 August 27). *City's new courthouse shines*. Orange County Register.

³³ Long Beach Press Telegram. (2016 May 28). *Judges say high cost of Long Beach courthouse is depriving other areas of courtrooms*.

PROCUREMENT:

Eleven bidders submitted qualifications and five were selected for the final round. The finalists provided a comprehensive proposal to the CAOC. LBJP was selected based on its partnership with Meridiam, a global asset manager of public and community infrastructure and Clark Construction Group, one of the most experienced building and civil construction firms in the United States.³⁴

FUNDING SOURCES:

- \$441M in a 7-year mini perm financing on a club loan basis that was refinanced to a \$519M 34- year bond after construction
- \$49M Meridiam and LBJP equity investment

AGREEMENT:

The courthouse was the first U.S. social infrastructure project outside of transportation acquired under the principles of performance-based infrastructure (PBI), which uses a public-private partnership not only to finance design and development, but also to provide long-term operations and maintenance. This strategy relieved the state of upfront expenses as payments do not start until construction is completed.

For its part, LBJP will get an annual performance-based service fee on the lease, protected by the clause that the consortium can evict the state if availability payments are not made. The monthly rate was subject to satisfactory maintenance and can be used to deduct for any more than two-hour lapses or closures that decrease building performance i.e.: elevator shutdowns.³⁵ This incentivizes LBJP to design the building for endurance and operations in the

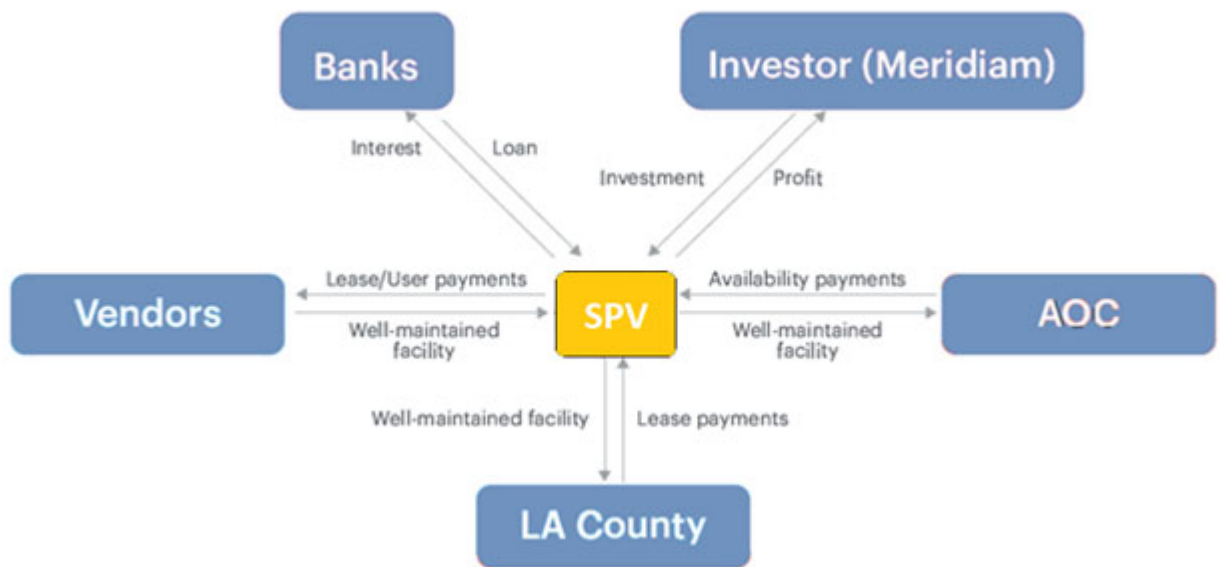
³⁴ Administrative Office of the Courts. *Fact Sheet: Long Beach Judicial Partners.*

³⁵ Judicial Council of California. *Report to the Judicial Council August 20, 2015.*

long-term. The building was agreed to be turned back to the state at 85% of new condition in 35 years. LBJP will also get lease, parking, and retail revenues in the concession contract from vendors.

Figure 4 lists the structure of the courthouse as a special purpose vehicle, and how it will be structured in the P3 model with the CAOC paying the service fees in return for a well-maintained facility. The county will be leasing the courtrooms for their dockets. The private investors and banks give/loan money and get profit/interest back.

Figure 4:³⁶



Indiana: Interstate 69

TYPE: Design-Build-Finance-Operate-Maintain (DBFOM)

³⁶ RFQ # OCCM 081105. California Courts: The Judicial Branch of California. *Request for Qualifications for New Long Beach Courthouse.*

RESOURCE/SERVICE:

- Reconstruct and upgrade 21 miles of State Route 37 to U.S. interstate regulations
- Additional travel lanes and overpasses
- Total lease period: 35 years

TIMELINE: A RFQ was issued by the Indiana Department of Transportation (IDOT) starting in 2013 with the expectation that the project would be completed by the end of 2016. IDOT selected I-69 Development Partners in 2014 as the concessionaire. The financial conditions of Isolux Infrastructure Netherlands (the main owner of I-69 Development Partners) and Corviam Construcción caused multiple construction delays. As a result, the state requested a dissolution of the P3 agreement in 2017.

PARTNERS:

Public: Indiana Department of Transportation (IDOT)

Private: I-69 Development Partners (IDP): umbrella company for Isolux Infrastructure Netherlands, Corviam Construcción, and Aztec Engineering

CONSTRUCTION:

Joint Venture: Corviam Construcción and Isolux Infrastructure Netherlands (which had no experience building roads and bridges in the United States)³⁷

Capital Cost: \$568.4 Million USD

³⁷ Alesia, M. & Lange, K. (2017 June 18). *Mike Pence's infrastructure mess: What went wrong with I-69?*

WHY UTILIZE THE P3 MODEL:

The I-69 project was needed to improve connectivity between Northern and Southern Indiana and to complete the route from Canada to Mexico.³⁸ IDOT wanted to deliver transportation infrastructure faster than expected and at the lowest cost to taxpayers. A P3 model was selected due to the complexity of the interstate project and to transfer the risk to the private company. An availability payment method was used to provide long-term value and the up-front payment from IDP was used to offset transportation expenses of other Indiana roadways.

PROCUREMENT:

The process took four weeks. IDP was chosen for its lowest bid (about \$73M less than the next lowest bid and \$22M less than the state's own estimate).³⁹

FUNDING SOURCES:⁴⁰

- \$243.6M private activity bonds (PAB)
- \$8M private activity bonds sale premiums
- \$115.8M equity
- \$108M from Indiana and the federal government
- \$93M Indiana Department of Transportation public entity funds

AGREEMENT:

I-69's contract relied on an availability payment model. IDP was responsible for offering a mix of PAB debt and equity capital to fund development under the terms of the agreement. In addition, if IDP met those construction milestones, IDOT was responsible for making a series of

³⁸ National Highway System. *FHWA Route Log and Finder List*.

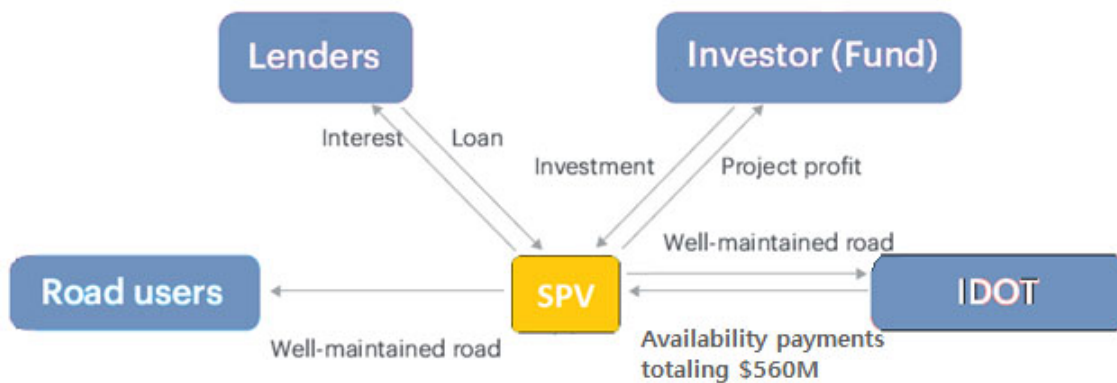
³⁹ Alesia, M. & Lange, K. (2017 June 18). *Mike Pence's infrastructure mess: What went wrong with I-69?*

⁴⁰ U.S. Department of Transportation. Federal Highway Administration. *Project Profile: I-69 Section 5*.

progress payments.⁴¹ Once done, IDOT would make regular payments for a period of 35 years to IDP, known as availability payments.⁴² These payments will, in theory, allow IDP to repay PAB bondholders; cover ongoing operations and maintenance costs; and provide equity investors with a return. There were two clauses in the agreement that allowed the state to take charge effectively if the project was not completed or delayed.⁴³ To help offset the additional expense of completing the project, IDOT included a \$50M bonus payment.⁴⁴ This payment would be insured by insurance policies that IDP had to buy as part of the agreement.

Figure 5 lists the structure of I-69 as a special purpose vehicle, and how it will be structured in the P3 model with the IDOT allowing IDP to operate and maintain the roads for availability payments of \$560M.⁴⁵ The investors and lenders give/loan money and get profit/interest back. The road users get a well-maintained road. The road users get a well-maintained road.

Figure 5:⁴⁶



⁴¹ DeGood, K. (2018 February 15). *When Public-Private Partnerships Fail: A Look at Southern Indiana’s I-69 Project*. Center for American Progress.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ DeGood, K. (2018 February 15). *When Public-Private Partnerships Fail: A Look at Southern Indiana’s I-69 Project*. Center for American Progress.

⁴⁵ Indiana Finance Authority. *I-69 Section 5 Request for Qualifications*.

⁴⁶ Ibid.

Chicago, Illinois: Parking Meters

TYPE: Operations, Maintenance, & Management (OMM)

RESOURCE/SERVICE:⁴⁷

- 36,000 parking meters converted from single-space coin operated meters to electronic payment pay stations
- Operations and maintenance of all parking meters along with management of all parking meters
- Installation of a 24-hour customer service center to assist with refunds and issues
- Total lease period: 75 years

TIMELINE: Early 2008, the city of Chicago projected a budget shortfall of \$500M for 2009. In 2008, the City Council voted to enter into an operating agreement for the parking meter system with Chicago Parking Meters, LLC. Shortly thereafter, the coin meters were replaced with pay-and-display boxes.

PARTNERS:

Public: City of Chicago (CC)

Private: Chicago Parking Meters, LLC (CPM) and Morgan Stanley Infrastructure Partners (MSIP)

OPERATION:

Upfront Payment: \$1.157 Billion USD

WHY UTILIZE THE P3 MODEL:

The first P3 contract Chicago signed was in 2004 for leasing out the Chicago Skyway for 99 years. The \$1.8 billion payment provided a large sum of money for future investments and

⁴⁷ Chicago Parking Meters. *About*.

helped the budget. In 2008, Chicago had a projected budget shortfall of \$500M for 2009 which caused the then mayor Richard Daley to seek out a P3 model to eradicate the budget deficit like he did with the Chicago Skyway deal.⁴⁸ Mayor Daley also wanted to establish a long-term reserve fund to replace revenue, retire debt, and shift risk.⁴⁹ The deal fit their profile of assets to long-term transaction which could provide substantial financial benefit to taxpayers. Additionally, Daley felt that Chicago could not efficiently manage the meters themselves.

PROCUREMENT:

In 2008, the city issued a RFQ for the lease on the parking meters. Ten responses were recorded and six were qualified. Several months were spent negotiating and defining the length of the lease with the potential vendors. The winning bid was the highest of all bids at \$1.157B from CPM. The mayor and CFO of Chicago pushed through the deal to the city council for a quick vote on the 75-year concession agreement.

FUNDING SOURCES:

- \$1.157B private note sale from MSIP

AGREEMENT:

For a one-time up-front lump sum of \$1.157B, CPM would take over 34,500 on-street meters and 1,240 metered spaces in 18 city parking lots.⁵⁰ CPM is required to provide metered parking services to include the operation, management, maintenance, and collection of parking

⁴⁸ Farmer, S. (2014 January 6). *Cities as Risk Managers: The Impact of Chicago's Parking Meter P3 on Municipal Governance and Transportation Planning*.

⁴⁹ Goldsmith, S. (2010 January 19). *More on Chicago Parking Meters*. Governing.

⁵⁰ Welty, A. & Tully, K. (2010 March). *The Parking Market: How Chicago's metered parking concession affects active transportation*.

meter revenue. CPM must pay for all infrastructure upgrades, including the transfer of coin meters to pay-and-display boxes accepting credit cards and cash.⁵¹ CPM will receive revenue from metered payments. However, the Chicago Department of Revenue will get money from ticketed vehicles.⁵²

Under the agreement, Chicago can at its own discretion, add, delete, and transfer meters and increase or lower meter prices.⁵³ As long as Chicago's system changes do not impact the net percentage of COM's total system activity, these changes are cost-free; however if there is a decline in the percentage of system in service (number of meters, their rates, and hours of operation) the city will have to pay CPM the difference.⁵⁴ To balance the missed service, the city could extend hours of operation at existing meters, change rates, or add meters.⁵⁵

Figure 6 lists the structure of CPM as a special purpose vehicle, and how it will be structured in the P3 model with Chicago leasing the meters to CPM and MSIP for a \$1.157B upfront payment. Chicago used the payment to replace revenue and retire debt. CPM would get revenue through meter fees. The road users pay the parking meter fees and get well-maintained meters and service.

⁵¹ Welty, A. & Tully, K. (2010 March). *The Parking Market: How Chicago's metered parking concession affects active transportation.*

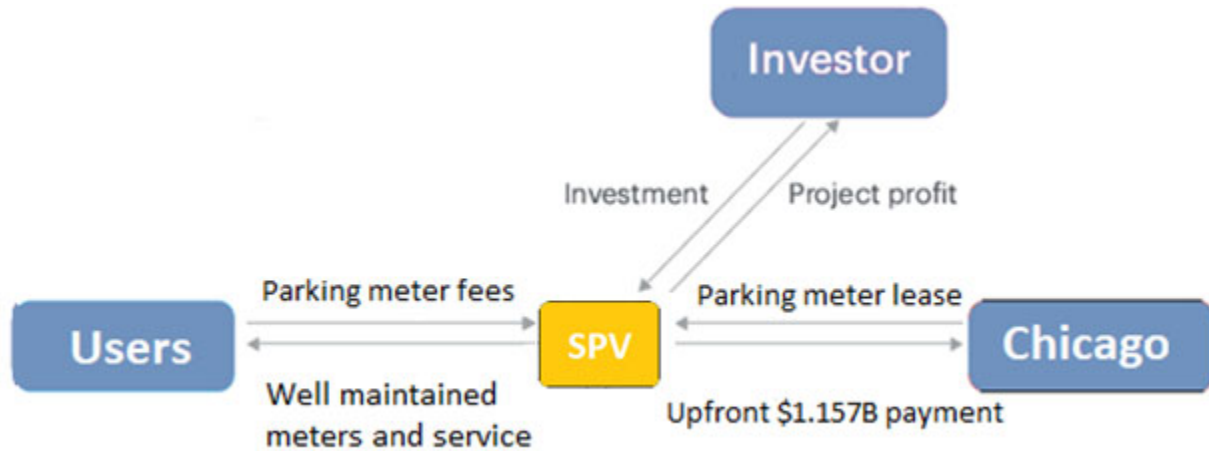
⁵² Ibid.

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Ibid.

Figure 6:⁵⁶



Analysis

Permitting the privatizing of public goods has sparked a slew of philosophical debates about the social, economic, and political ramifications.⁵⁷ During the research for this paper, I discovered that supporters of privatization often point to multiple productivity improvements and performance results as a result of denationalization, while opponents pointed to many failed privatization proposals where promised benefits were not realized or the cost of privatization became high. Notwithstanding the persistent hostility toward any new privatization and despite numerous cases of less or unsuccessful privatization, the P3 partnership still appears to be the most popular and viable public option available to many governments today facing multiple challenges. These challenges include declining efficiency and quality of government activities and not wanting to raise taxes to fund large-scale infrastructure improvements.

⁵⁶ City of Chicago. *Amended and Restated Chicago Metered Parking System Concession Agreement*.

⁵⁷ Rawls, J. (1999 September 30). *A Theory of Justice*. Belknap Press: An Imprint of Harvard University Press.

A P3 partnership allows for increasing effectiveness of public services by sparing risks and drawing from the experience of the private entity. It is not an easy procurement option for the government, nor do they offer a universal solution. There is clear evidence about specific advantages of the P3 model in terms of reducing the risks and enhancing the economic benefits associated with large-scale infrastructure investments. Successful P3 projects included the community's vision and input and effectively communicated to all stakeholders in addition to sharing risks associated with the project. Failed P3 projects did not take in account of the longevity of the lease or put too much risk on the private entity.

The P3s that were created consisted of three main reasons. First, the public entities needed funds to replace or repair infrastructure or to shore up budget deficits. Second, the public entities felt that they did not have the expertise or technology to improve efficiency and quality of service for their constituents. Third, the public entities felt that the P3 model can quickly change an outdated system and eliminate long-term risks such as operating and capital expenditures.

The P3 projects studied suggest that when the major risks are entirely allocated to one side or the other: design, construction, and finance that the probability of financial difficulty increases. Since revenue risk is the main risk in infrastructure projects, the secret to a successful project is its proper risk allocation. The attempts observed to fully pass this risk to the private entity have not been shown to be effective and led to either private partner bankruptcy (I-69) or an unexpected rise in the meter rate (Chicago Parking Meters). The more economically stable models either share the revenue risk or keep the public entity accountable for revenue differences (LaGuardia Airport Central Terminal and George Deukmejian Courthouse). The most

significant concern is ensuring that the risk distribution is allocated to the parties that can handle them. Since the revenue risk of civil infrastructure is scarcely ‘manageable” there is no real benefit to allocate it to the private entity, whereas the private entity includes the price of this risk in usage fees. If revenues are below the level needed to service the debt, the private entity is not experienced in the technical aspects of the project, all the project risk is shifted to the private partner, or financial problems plague the private partner to the point it has to file for bankruptcy, the state has to take over like what happened with the I-69 P3 project. The private partner can enjoy elevated profit that may otherwise be used by the public company when revenues are greater than projected. Not transitioning all the revenue risk to the private partner ensures that outcomes are more economically secure because the private partner would not need to restructure the agreement.

LaGuardia Airport Central Terminal P3 Project				
Risk Category	Description	Risk Allocation		
		Port Authority of New York and New Jersey	Developer	Shared
Political	Intergovernmental agreements needed for award of concession	X		
Financial	Appropriation risk for construction milestone payments and available payments			X
Right-of-Way	Areas with in preliminary right of way plan	X		
	Areas outside of preliminary right of way plan		X	
Permits	Obtaining federal, state, and local permits	X		
Utilities	Agreements, schedules, and relocations	X (only to relocate existing utilities out of Terminal B before construction)	X	
Procurement	Legislative and regulatory authorities for award of concession	X		
Construction	Unforeseen conditions			X
	Impacts on vehicle traffic			X
	Unforeseen increases in material costs and labor		X	
Operations & Maintenance (O&M)	Meeting availability and O&M criteria		X	
	Traffic exceeding specified levels			X
Hand-Back	Return O&M in specified condition when term lease period ends		X	
Force Majeure	Specified events not covered by insurance or performance specifications	X		

The P3 arrangement meant that LaGuardia Central Terminal could replace outdated facilities, reduce traffic congestion, obtain a modern infrastructure all at a minimal public risk and cost contribution. This successful P3 project was made possible by sharing financial risks in which the private entity contributed more than \$2B and the public entity contributed more than \$1B. Governor Andrew Cuomo saw through every step in the P3 project to ensure that it succeeded. The Governor put together a seven-member panel to come up with ways to modernize LaGuardia Airport. The members consisted of educated and skilled individuals from technology, planning, and economic development companies as well as including a Professor of Urban Planning and advisor for New York State infrastructure. A high number of public and private entity executives collaborated as a panel to put together a comprehensive vision for the airport that took in account of its current and future needs. By focusing on future needs and expanding the terminal to accommodate more people and bigger planes, they made it a highly valuable public infrastructure that could withstand the growth in air transportation. The panel made sure to include suggestions from the public by building a 3,000-spot parking garage to alleviate the congestion in neighborhood roads surrounding the airport. During construction, the panel monitored all stages to make sure LGP kept to the schedule and requirements put forth in the agreement.

The partners involved under the LGP umbrella were highly qualified and experienced. Skanska, one of the partners, is a world leading green project development construction group in Europe and the United States. Skanska renovated the United Nations Headquarters, the World Trade Center transportation hub, and MetLife Stadium. They worked together with public officials on the design of the terminal by elevating critical infrastructure such as

substations and heating/refrigeration plants to prevent hurricane and storm damage since the airport is on Flushing Bay.

George Deukmejian Courthouse P3 Project				
Risk Category	Description	Risk Allocation		
		California Administrative Office of the Courts	Developer	Shared
Political	Intergovernmental agreements needed for award of concession	X		
Financial	Appropriation risk for construction milestone payments and available payments			X
Right-of-Way	Areas with in preliminary right of way plan	X		
	Areas outside of preliminary right of way plan		X	
Permits	Obtaining federal, state, and local permits		X	
Utilities	Agreements, schedules, and relocations		X	
Procurement	Legislative and regulatory authorities for award of concession	X		
Construction	Unforeseen conditions			X
	Impacts on vehicle traffic			X
	Unforeseen increases in material costs and labor		X	
Operations & Maintenance (O&M)	Meeting availability and O&M criteria		X	
	Traffic exceeding specified levels			X
Hand-Back	Return O&M in specified condition when term lease period ends		X	
Force Majeure	Specified events not covered by insurance or performance specifications			X

The George Deukmejian Courthouse is another example of a successful P3 project. The project was executed with a price-certain contract and a strong commitment to the schedule. By being a PBI, the courthouse had a fully integrated design process involving both the public and private partners. A PBI agreement meant that the revenues due to LBJP could be reduced if the courthouse failed to meet the performance requirements. The interior of the building had

to be designed and built correctly to suit its users' needs.⁵⁸ The objective was to lower costs; long-lasting equipment and durable materials, while initially high, have lower life-cycle costs over the entire concession period. Cost-benefit analysis was determined on every stage of the courthouse build to either save money or improve a service. Both cost and quality were examined. One example is using terrazzo flooring instead of carpet; this meant eliminating costly frequent carpet replacement.⁵⁹

LBJP obtained stakeholders' feedback on the interior design and created a mock-up trial that included main interior courtroom fittings and furniture.⁶⁰ The State Judicial Council, Judges, court administration and the Sheriff were invited to test out the room. Their feedback was used to refine the layout of the courthouse. By doing this, LBJP prevented costly mistakes and time-consuming corrections from occurring. The LBJP met all CAOC's infrastructure goals and completed the project earlier than scheduled.

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⁵⁸ Meridiam. (2018 March 11). *Long Beach Courthouse: mock-ups for fit-out design.*

⁵⁹ Meridiam. (2018 March 11). *Long Beach Courthouse: mock-ups for fit-out design.*

⁶⁰ Ibid.

I-69 P3 Project				
Risk Category	Description	Risk Allocation		
		Indiana Department of Transportation	Developer	Shared
Political	Intergovernmental agreements needed for award of concession	X		
Financial	Financing all aspects of construction		X	
Right-of-Way	Areas with in preliminary right of way plan	X		
	Areas outside of preliminary right of way plan		X	
Permits	Obtaining federal, state, and local permits			X
Utilities	Agreements, schedules, and relocations			X
Procurement	Legislative and regulatory authorities for award of concession	X		
Construction	Unforeseen conditions		X	
	Impacts on vehicle traffic		X	
	Unforeseen increases in material costs and labor		X	
Operations & Maintenance (O&M)	Meeting availability and O&M criteria		X	
	Traffic exceeding specified levels			X
Hand-Back	Return O&M in specified condition when term lease period ends		X	
Force Majeure	Specified events not covered by insurance or performance specifications	X		

The I-69 project was an unsuccessful P3. IDOT’s goal was to leverage their funding appropriations to attract low-cost private entity finances. The winning bid came from IDP which bid the lowest, was \$73M less than the next closest competing bid, and \$22M less than the state’s own cost estimate.⁶¹ IDOT did not conduct a thorough cost-benefit analysis to determine if IDP provided the best overall value. Additionally, it appears that they did not do their due diligence in evaluating on whether to hire the company. IDP was a foreign entity that did not have experience building roads and bridges in the U.S. The company’s executives were arrested in Spain on embezzlement charges shortly after the P3 contract was signed.

⁶¹ Alesia, M. & Lange, K. (2017 June 18). *Mike Pence’s infrastructure mess: What went wrong with I-69?*

IDOT did not cancel the agreement which they could easily have done so since bonds had not been floated yet to finance the work. Soon thereafter, IDP was marked the riskiest company in the world and filed for bankruptcy. This led to IDP not paying the contractors so the workers walked off site which meant construction would not be done on time.⁶² All of the risk allocation especially the finances and construction were placed on the private entity. This description of risk transference means that the government will always remain the guarantor of the project delivery. IDOT was forced to take over the project delivery with delays and cost overruns. They could have risked a harmful effect on future project financing with higher interest rates on bonds because now investors lost trust in the government’s decision-making skills.

Chicago Parking Meters P3 Project				
Risk Category	Description	Risk Allocation		
		City of Chicago	Developer	Shared
Political	Intergovernmental agreements needed for award of concession	X		
Financial	Financing all aspects of construction		X	
Right-of-Way	Areas with in preliminary right of way plan	X		
	Areas outside of preliminary right of way plan		X	
Permits	Obtaining federal, state, and local permits	X		
Utilities	Agreements, schedules, and relocations		X	
Procurement	Legislative and regulatory authorities for award of concession	X		
Construction	Unforeseen conditions		X	
	Impacts on vehicle traffic			X
	Unforeseen increases in material costs and labor		X	
Operations & Maintenance (O&M)	Meeting availability and O&M criteria		X	
	Traffic exceeding specified levels			X
Hand-Back	Return O&M in specified condition when term lease period ends		X	
Force Majeure	Specified events not covered by insurance or performance specifications			X

⁶² Ibid.

Chicago's parking meters P3 came at an excessive level of risk for the public entity and consequently was an unsuccessful P3 model. The P3 deal resulted in significant adverse and unpredictable financial consequences on public funds. Contributing factors to cost escalation include having flawed risk reduction mechanisms embedded in the contract. This resulted in the city absorbing new costs and risks that negatively impacted city finances. A provision in the agreement was that CPM can bill the city for true-up payments to make up lost profit for the city taking parking meters offline for parades and road construction. The city estimated \$506M in true up obligations for 2020 and averaged \$27M in true-up payments to CPM since the P3 deal was finalized.⁶³ This negated any profit Chicago stood to earn from the P3 arrangement. The Chicago deal also infuriated stakeholders because the contract was pushed through the mayor to the City Council at last minute without input from constituents.

Another issue was that Chicago will be stuck with a congested, outmoded street system until 2083, when the deal expires. The P3 agreement required Chicago to maintain a costly supply of on-street parking while other cities are starting to look into biking lanes and increasing public modes of transportation such as busses and subways along with ride sharing programs such as Uber and Lyft. Additionally, the P3 model was analyzed by other cities. It was found that the investors will recoup the entire \$1.157B investment in 13 years of the deal leaving them with 62 further years of pure profit.⁶⁴ One lesser known provision is that Chicago has to pay the difference in inflation if the parking meters do not bring in revenues at any given year.⁶⁵ For example, let's say the parking system was worth \$100M last year and the consumer

⁶³ Vinicky, A. (2019 November 29). *Chicago Parking Fees Increasing, But City Set to Save Millions*. WTTW.

⁶⁴ Moreno, N. (2019 April 10). *What Lori Lightfoot Can Do About The City's Parking Meter Deal*. WBEZ Chicago.

⁶⁵ Vinicky, A. (2019 November 29). *Chicago Parking Fees Increasing, But City Set to Save Millions*. WTTW

price index rises by 2% which means the parking system is now worth \$102M. Chicago needs to pay CPM \$2M or the parking meters need to bring in that much more. As a result, Chicago had to increase the meter rates.

I-69 and Chicago's parking meters used a single-sided distribution of risk and management while a hybrid approach was used by LaGuardia Airport and George Deukmejian Courthouse. By comparing the two groups, I learned that all in the first group had financial difficulties and a lack of public review/participation of the P3 agreement, while those in the second group had not. Where the risk should be placed on the group best prepared to handle it, research showed much better results. The terms of the LaGuardia Airport and courthouse agreement stated that significant risks are to be shared in a true economic relationship between the public and private entity.

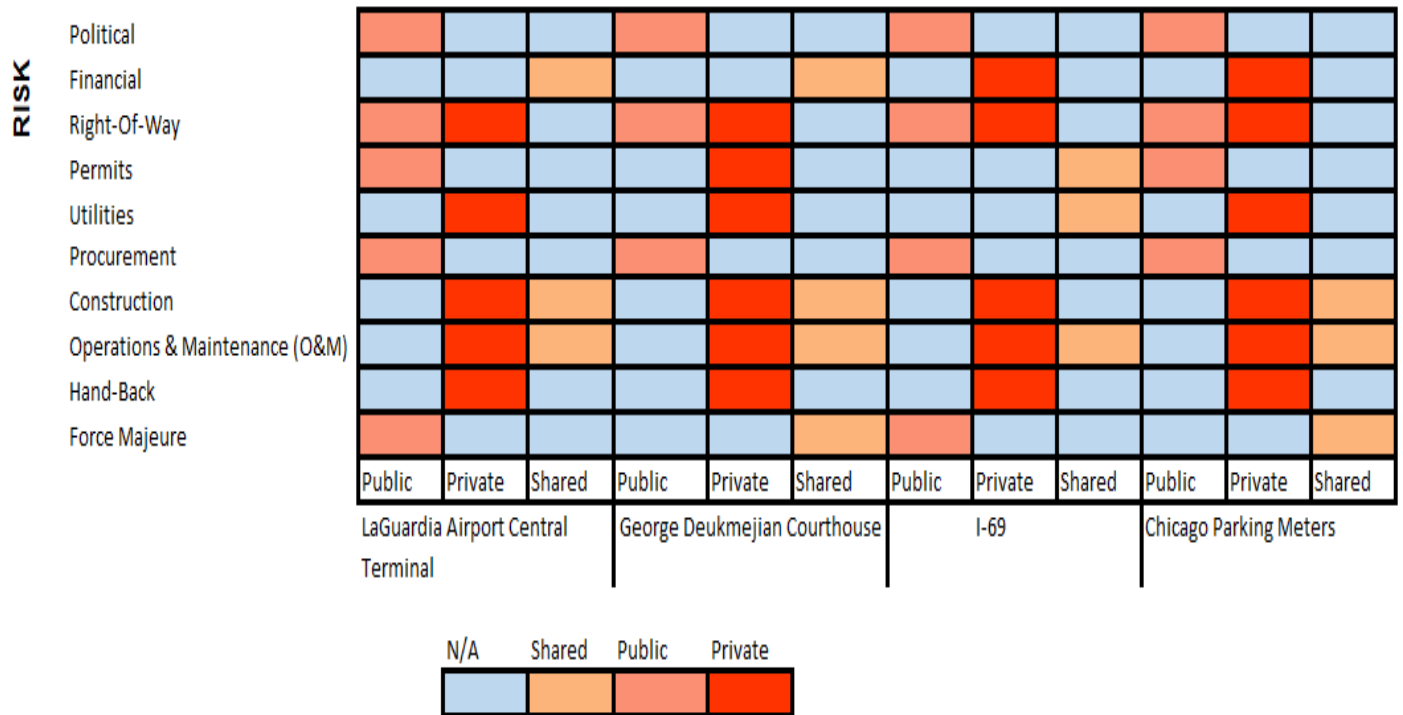
The next page contains a heat map which which represents the resulting qualitative evaluation of the probability of risk occurrence and the impact on the entity if a particular risk was experienced. The heat map is a great tool for visualizing complex statistical data. In this case, the values were represented by light blue (not applicable risk), light orange (shared risk), salmon (public risk), and red (private risk). The heat map shows in a visual way which entity gets responsibility of each risk category to assimilate and detect the typical behavior in each P3 partnership. Further the heat map presents different types of risk in a way that makes immediate sense by assigning different color to cells each representing a row providing for a literal sense in showcasing P3 risk.

The heat map demonstrates that in the two successful P3 partnerships (LaGuardia Airport Central Terminal and George Deukmejian Courthouse) the public and private entities

have shared the financial, construction, and operations and maintenance portion of the P3 partnership as denoted by the light orange color. In the unsuccessful P3 partnerships (I-69 and Chicago Parking Meters) the financial, construction, and operations and maintenance risk portion were assumed by the private entity as denoted in red color to refer to it as the most riskiest.

To have a successful public-private partnership, optimal risk allocation must be achieved and accepted by the party best able to handle them. Throughout the paper, it has been stated that the private entity did not have the ability to handle the finances, construction, and operations and maintenance portions themselves hence using the red color as a warning.

ALLOCATION



Best Practices

This section recommends best practices based on the research conducted to assure that the P3 mitigate overruns and avoid delays.

- **Have a good understanding of debt/equity structures and specialized development team.**

The ultimate responsibility for the success or failure of a P3 falls on government officials according to David M. Lick, a lawyer with over than 40 years of experience in public-private partnerships.⁶⁶ Members with special expertise and covering several disciplines in serving the public entity should be part of the team.⁶⁷ Private entities have the experience and expertise in negotiating P3 contracts so it is imperative that the public entity hire one or more consultants to match the abilities of the private entity, identify strengths and weaknesses, and to develop the partnership.⁶⁸ A consultant can help craft the RFQ and RFP language that can protect the public's interest and serve as a sounding board throughout the entire process. The RFQ and RFP will help eliminate weak proposals and ensure the remaining proposals can complete the project. Members must also understand standard P3 terms and contract structures, including the rationale behind the terms and structures.⁶⁹ The development team must thoroughly vet bidders and their work history to ensure that they can perform the requirements of the contract and are able to secure funding without issues. Financing is a key consideration in every

⁶⁶ Lick, D. (2021 February 1). *Personal Interview*.

⁶⁷ Ibid.

⁶⁸ Ibid.

⁶⁹ Lick, D. (2021 February 1). *Personal Interview*.

P3 project and to establish a plan that optimizes cost and efficiently allocates risks and rewards is important.⁷⁰ This will result in project commitments aligned with the strategy of the public entity. Lick recommends using an annual performance review of the private entity's operations, zero-sum reverter clauses (that allows the public entity to possession of outsourced facilities if a breach of contract occurred), and performance bonds or letter of credits.⁷¹

- **Identify performance metrics and benchmarks.**

The public entity must adopt standardized procurement practices and the procurement process must be explicitly accountable and transparent. The development team needs to consider the availability of performance data from comparable projects that the private entity completed versus similar other public entity projects. A lack of clarity about decision-making and project governance hampers effective project execution. The inefficient project execution issue can be overcome by requiring the public entity to record and negotiate performance metrics, risk allocation processes, obligations, and penalties in a feasible way. It is essential that the outcome-based performance specification is used; this way the private entity has the freedom to how achieve the standard rather than having it specified by the public partner's specifications. This truly allows innovative solutions while providing the public with the assurance that their requirements are met.

⁷⁰ Ibid.

⁷¹ Ibid.

- **Analyze cost-benefits for overall value.**

To guarantee a positive cost/benefit balance, the overall cost must be analyzed. The public entity needs to assess possible P3 agreements by comparing the cost of traditional procurement to the P3 offer. If the public entity overestimates the risk and underestimates the revenue potential of the project, as with Chicago, the private entity makes a profit. The long-term overall cost of ownership including O&M, can enable the private entity not to optimize the minimum capital needed, but to optimize the initial capital expenditure and the ongoing operating expenditure that actually maximizes the value.

- **Transparency for all involved.**

There must be a reconciliation of both the public and private entity's purposes and agendas in making sure the P3 project succeeds. Having multiple meetings and engagement can provide deeper talks on project specifications, potential savings, following compliance obligations, and avoiding failure. It is beneficial to have a partnership that will approach mediation, arbitration and disputes and resolve them efficiently and professionally as discussed by Lick. This enhances collaboration and increase successful outcomes.

- **Allocate risks appropriately and equally.**

It is important to enact a careful financial review of the P3 project to share the risk between the public and private entity. The public entity typically pass risks to a private entity, such as the likelihood of higher construction costs or lower than expected

revenue. However, the responsibility of risks should be allocated to the highly capable and well-resourced teams incentivized to perform through the negotiated contract terms. Sharing revenue risk can ensure that the private entity can manage the underlying risk drivers of traffic and revenue stream (economic conditions or demographic trends) and avoid charging a premium for the risk. This stops the inevitable higher price or lower concession fee for the public entity and reduction of societal value of the infrastructure.

- **Performance payments instead of a lump sum upfront payment.**

By providing milestone payments instead of a lump sum upfront payment ensures that the private entity will complete the project phases on time. The payments provide a long-term incentive for assets to be properly maintained. The case with Chicago is that the public entity took upfront payments in exchange for long-term leases that gave the private entity the ability to collect parking meters for decades. Sacrificing secure, long-term income for an one-time payment used to finance short-term needs is fiscally imprudent.

- **Include shorter leases with termination clauses and avoid non-compete and stabilization clauses.**

Long leases can prevent the public entity from meeting future transportation or planning needs. Chicago's 75-year parking meter lease made it cost prohibitive for them from changing out existing roads for bike lanes. Chicago incurs costs known as "true up" payments whenever parking meters are out of service/removed. Long-term deals can also constrain lawmakers' policymaking options for decades. A termination clause can protect public and private entities if performance or revenue goals are not met. Both

sides will need to ensure the termination clause covers any type of default with defined circumstances addressed. Roads might need to be expanded to alleviate congestion but non-compete clause can prevent it from happening. Stabilization clauses could also restrict the public entity from taking action that could reduce the private entity's revenue. Long-term leases, non-compete, and stabilization clauses can end up costing the public entity more than it anticipates if it must renegotiate a deal due to disputes over control.

- **Monitor every stage in the process.**

Several members of the development team who have the requisite credentials must be given roles: dedicated project manager, financial analyst, and legal team. Their role is to make sure everything is documented and monitored due to the many parties and elements involved. To recognize, handle, and minimize deviations from the project, the members can deploy project-wide systems and resources resulting in better contingency planning and quicker response to changes. The outcome is a greater alignment of public and private priorities, higher efficiencies, incentives, and progress if the agreement is kept by both sides and each stage of the P3 project is pursued.

Conclusion

In conclusion, the P3 process was discussed and analyzed based on whether the model can be successful in the United States or not. The P3 model may be a response to the general state of aging infrastructure that needs to be replaced when funds from the state and local government are being diverted for more urgent budget needs, such as pensions and healthcare. Inadequate infrastructure has a negative impact as it prevents efficient use of highways,

bridges, and other resources critical to an efficient and expanding economy. Due to the coronavirus pandemic, budgetary conditions facing state and local governments are not expected to change significantly, so it is necessary to recognize the P3 model's ability to provide public services.

Four examples of high-profile P3 projects were discussed thoroughly in this paper from the timeline of the process to the wants and needs of the governmental organization, discussing the scenarios of the situations that led to the P3 need, and the bidding and selection process. The financing structure was also reviewed. For the successful partnerships, I identified what went right and what the parties did to ensure a beneficial contract for both sides. In the unsuccessful partnerships, I named issues that led to the decline and or dissolution of the agreement.

There are several considerations that are important concerning the use of private financing versus traditional public sector tax-exempt financing. The private entity can help fast track projects when public funding/financing is not available or insufficient. The P3 model may allow some projects to be delivered with no effect on the public entity's debt capacity.

The benefits outweigh the risks of the P3 model as this concept enhances government accountability while protecting citizens from higher taxes and wasteful public spending. The innovative technical private sector can bring the value of beneficial modernized long-term lasting life cycles to public assets. The P3 model, when held to specific metrics, can stay on budget, time, and lower the cost of infrastructure. A P3 project can leverage advanced technology and innovation to bring greater efficiency to the infrastructure.

Hidden risks are always a potential in a P3 partnership. In particular, if there is a non-compete clause in the agreement for a revenue-generating infrastructure that relies on user fees or tolls, the public entity will be required to make up the difference if the P3's toll revenue falls after infrastructure is built. This unforeseen and unanticipated risk can increase costs. There are many other unexpected risks: design, construction, availability, demand, and financing risks that can disrupt the P3 project's success. There is a fear that private entities may cut corners in the operations and maintenance of the P3 project. However, a well-structured P3 contract will contractually obligate the private entity to meet operating standards that define limits for the asset condition and design, standards in cleanliness and safety along with incident detection and response. The private entity must abide by these requirements or risk financial penalties or termination of the P3 agreement and loss of investment. However, when following the best practices outlined above, the public entity must be involved in every stage of the project to prevent surprises and self-advocate for their constituents by way of generating efficiency.

Ultimately, a successful public-private partnership can provide improved services to more people and at a lower cost than either organization working alone.⁷² Implementing a competitive procurement and risk sharing approach, the access to equity investment allows the P3 partnership to potentially leverage a significantly greater amount of up front capital than a public-financed approach under equivalent or comparable project scope and assumptions.

Based on my research, I recommend the P3 model if best practices are followed because it will bring a successful P3 partnership. It is important to apply competently and in the right manner

⁷² Lick, D. (2021 February 1). *Personal Interview*.

the best practices because the P3 model allows public government the ability to create solutions that can differentiate their state/city.

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The interview in this Capstone paper are not subject to Institutional Review Board review process as it does not impose an intervention to human subjects nor on their personal information and rights.
