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**PUBLIC-PRIVATE PARTNERSHIPS
IN TRANSPORTATION INFRASTRUCTURE: SURVEY OF
EXPERIENCES AND PERCEPTIONS**

by

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Research Report SWUTC/13/600451-00072-1

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ABSTRACT

The use of public-private partnerships (PPPs) for transportation infrastructure delivery has increased in the U.S. However, concerns about and opposition to these agreements exist due to a variety of factors. This paper explores the perceptions that a variety of PPP stakeholders have about PPP usage to deliver transportation infrastructure in the U.S., including stakeholders from fields at times overlooked in PPP literature but that are key to these transactions, such as professionals in legal, banking and finance, and concessionaire organizations. The paper reports the results of a survey taken by 101 professionals, with responses classified based on different aspects of the respondents' backgrounds. Results indicate that stakeholders' perceptions about benefits, barriers, and valuation of PPPs vary—at times greatly—depending upon the respondent's work type, location, and especially whether they had previous experience with PPPs. While this is not surprising, in some cases, such variations in perceptions were unexpected in both type and magnitude. It is understandable that some misperceptions still exist among PPP stakeholders due to various reasons, yet some responses showed deep misunderstandings, fears, or unrealistic expectations about PPPs. The fact that respondents were targeted because of their assumed familiarity with these transactions is worrisome and it indicates the need to educate decision-makers, staff, and the general public about what PPPs really are, why they are needed, and what they can and cannot do.

EXECUTIVE SUMMARY

INTRODUCTION

The past decade has seen an increase in the number of public-private partnerships (PPPs) used for the delivery of U.S. transportation infrastructure. Historically, countries other than the U.S. have been more receptive to non-traditional infrastructure finance methods such as PPPs, but in recent years several factors have driven this increase. As a result, several U.S. states have implemented new policies to accommodate them; thus, the landscape of PPPs has been changing. This report explores issues related to the benefits, barriers, and evaluation of transportation PPPs in the U.S. First, it identifies previous studies and surveys that tried to assess PPP benefits, success factors, and issues. Then, it presents the results of a survey completed by stakeholders of varied backgrounds revealing industry sentiments and concerns regarding these agreements.

MOTIVATION

There is a need for evidence-based findings to dispel myths and provide clarity on what PPPs can and cannot offer to help public agencies make informed decisions on whether to use them. If a comparison is made of the roles of the public and private sector for the provision of infrastructure, the result is a continuum of mechanisms ranging from full public delivery to full privatization, with PPPs lying in between. Thus, PPPs don't allow for either side of the partnership to have full control; however, a recurrent theme expressed by opponents of PPPs is that governments may be privatizing infrastructure. The fact that there is a large variety of contractual agreements that can be classified as PPPs creates confusion and helps to fuel the perpetuation of myths. In addition, frequently those speculating about PPPs tend to have a stake in these deals or an ideological position to defend or criticize them. As a result, there seems to be a shortage of balanced, empirically derived information to tell the story of PPPs in the U.S.

In an attempt to help correct this, a survey was developed to try to understand the transportation industry's sentiments toward PPPs in terms of the benefits they may offer; obstacles to their successful implementation; evaluation of PPP proposals; and other topics. In this era of increasing public accountability and participation, decision-makers and the public need to not only have access to information, but also need to know where the information comes from. Thus,

the survey's main goal was to assess sentiments from diverse PPP stakeholders and compare them based on the respondent's background.

PREVIOUS STUDIES

Both the funding for and the delivery of transportation infrastructure are changing. Factors leading to these changes include decreasing revenues from the fuel tax and a political resistance to increase taxes; these factors make raising the funds to build, maintain, and operate transportation infrastructure difficult. State departments of transportation (DOTs) and federal agencies have noted that increased use of innovative finance methods may help accelerate the provision of back-logged transportation projects by leveraging expertise and funding from the private sector.

Surveys have been completed with the purpose of investigating barriers, opinions, and success factors that relate to PPPs. Three noteworthy surveys have been completed: the first by Zhang in 2005, a second by the National Cooperative Highway Research Program (NCHRP) in 2009, and a third by Papajohn in 2009.

In Zhang's survey, knowledge of barriers to successful PPPs was sought from 46 international experts. Findings showed that the top barriers were related to risk (social, political, or legal); project economics; financial engineering; and poor procurement frameworks. The *NCHRP Synthesis 391: Public Sector Decision Making for Public-Private Partnerships* gathered opinions from 49 officials at U.S. state DOTs and Canadian ministries of transportation, and from 25 PPP stakeholders. Questions were intended to reveal factors that influenced the decision to use PPPs; finance mechanisms; project selection; and other topics. Survey results were provided; however, a synthesis and summary was not provided nor were conclusions drawn regarding sentiments of respondents. The study recommended further research on PPP valuation tools and methodologies. Papajohn's survey targeted state DOT planning engineers to determine the state of practice of transportation PPPs in the U.S. with 34 responses received. The study classified respondent states in four groups according to experience with PPPs; it identified financing as the primary reason for states to consider PPPs, followed by time and cost savings. Interestingly, no state mentioned risk transfer as a primary reason to consider them, even though proper risk

allocation is a major attribute of a PPP. The study concluded that more research is needed on tools for evaluating PPP proposals and brought attention to transparency in PPPs.

Other studies have been completed to assess barriers and success factors related to PPPs, some of which developed metrics and methods of success measurement. An example is a follow-up piece by Zhang, who in 2006 assessed attitudes toward specific PPP success factors from academic researchers and industry experts. Results revealed that top success factors were related to transfer of risk and minimized public debt. Findings showed no significant disagreement in the rankings between academic and industry professionals.

The previously mentioned studies are useful to obtain insights on barriers and success factors related to PPPs; however, their results are not fully generalizable to the current PPP landscape in the U.S. First, the survey by Zhang in 2005 had an international focus. Second, both the NCHRP and Papajohn surveys primarily focused on the public view while Zhang looked at academic and private sector sentiment but did not include the public sector. Third, the PPP landscape in the U.S. has changed in recent years with more agreements implemented and PPP-enabling legislation enacted or modified in several states.

Following the recommendations of the NCHRP, Papajohn, and Zhang studies to focus on valuation methods, and on Papajohn's claim that the current debate lacks theory and research to support the various views of PPPs, this survey was designed to investigate issues related to the valuation of PPPs, and to compare the views of a variety of stakeholders on the U.S. PPP market. The authors believe that the exclusive U.S. focus and the diverse pool of respondents make this survey an interesting contribution to the body of literature on PPPs in the United States.

METHODOLOGY

Survey Development and Administration

The survey used in this project, titled "*Public-Private Partnerships (PPPs) for Transportation Infrastructure in the U.S.*," was developed by researchers at the Center for Transportation Research (CTR) at The University of Texas at Austin, with support from industry experts. Targeted respondents were transportation, legal, finance, and academic professionals, from both the public and private sectors. Invitations to take the survey were emailed to over 350 people

identified by the research team as having experience, knowledge, or connections to entities that deal with PPPs in the U.S. The survey was administered online and remained open from mid-May to mid-June 2013.

Survey Design

Background questions on survey respondents

Respondents were asked to report the classification that best characterized the organization for which they work, identify their position within their organization, whether they had been involved with PPPs, and the state they were based in.

Questions assessing attitudes toward PPPs

Twenty-seven questions were asked to assess attitudes toward PPP benefits, barriers, legislation, valuation, and other topics. Some questions were multiple choice and ranking questions with space for respondents to explain their answers. Other questions were open-ended.

RESULTS

Of the 101 people that started the survey, 77 completed it. As a result, the number of responses per question varied throughout the survey.

Respondents Characteristics

Respondent Employment Organization

Given 12 categories, respondents were asked to select the one that best described the organization in which he or she worked. The highest proportion of respondents were from consulting firms (24%), state level government (14%), think-tank or research organizations (10%), design and construction firms (9%), and law firms (9%).

Respondent Work Position

Less than one-third of respondents identified their position as a department head or similar (30%) and 18% identified as president/director/CEO or similar. Other positions were section leader and senior staff (14% each), “other” (12%), partner (9%), and junior staff (4%).

Respondent Involvement with PPPs

The survey asked whether respondents or their organizations had been previously involved with PPPs. Approximately 7% indicated that they had no prior involvement, 49% indicated past experience in a lead role, and 44% indicated experience in a supporting role.

Respondent Location

Texas was the most represented state with 26% of respondents, followed by California and Virginia with 13% each. Colorado, Washington, D.C., and Florida had 8%, 7%, and 4%, respectively.

Types of Responses Classifications

Responses were categorized based on the respondent's organization type; previous involvement in PPPs; and the state where they were based. Based on their employment organization, respondents were grouped into three sectors: public, private, and independents. The latter corresponds to people working in academia, think-tanks, or related entities.

PPP Benefits and Extent of Benefits

The survey asked how respondents perceived that the sponsoring agency, the private sector, and society benefit from PPPs, and in what capacity. Figure ES1 shows the perceived degree of benefits to the three potential beneficiaries by respondent sector.

The Sponsoring Agency

Results showed strong agreement about sponsors benefiting from PPPs (99%); 95% identified those benefits as either moderate or significant. Yet only 33% of independents considered PPPs as providing significant benefits to the agency, compared to 73% and 71% from the private and public sectors. Only 17% of those with no PPP experience reported significant benefits compared to 82% of those who previously in a lead role, and 56% of those previously in a supporting role. Thus, the degree of experience with PPPs played an important role in their perceptions.

The Private Sector

Overall, responses were similar to those regarding sponsoring agency benefits. Yet a higher proportion of independents (93%) perceived that the private sector benefits moderately or

significantly, compared to the proportion that see the same degree of benefits for the sponsoring agency (80%). The public sector’s opinion, although still supportive, was less positive than in the previous question with 58% seeing significant benefits.

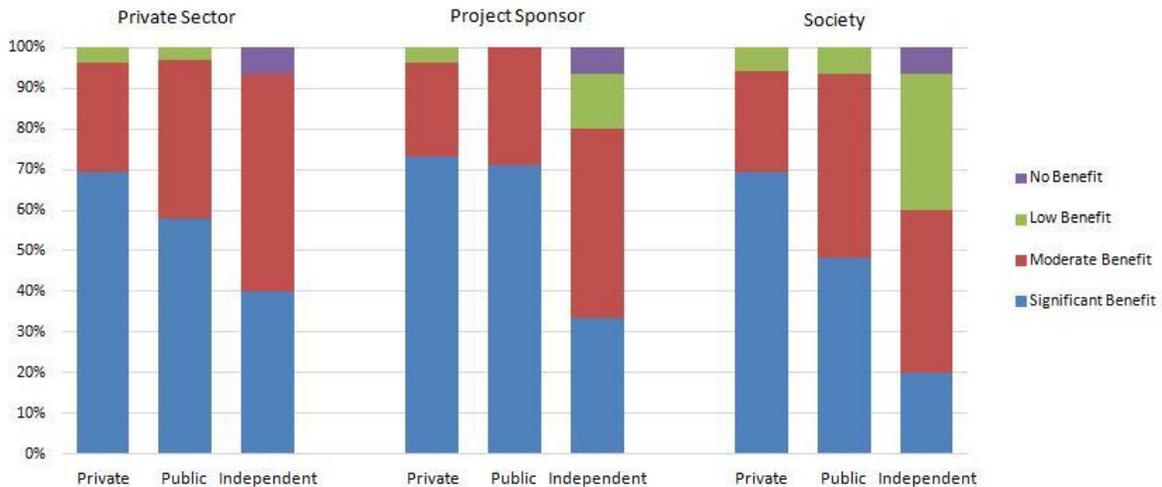


Figure ES1. Degree of benefit to beneficiary by respondent employment sector.

More respondents from the private sector felt that both the sponsoring agency and the private sector receive significant benefits from PPPs (73% and 69% respectively) than did the public sector (71% and 58%) and independent respondents (33% and 40%). When previous PPP involvement was considered, 67% of those in leading roles and 61% of those in supporting roles saw significant benefits for the private sector compared to 17% of those with no PPP experience.

Society

The private sector expressed the most positive opinions in terms of how significantly beneficial PPPs are to society (69%), followed by public sector (48%) and independent respondents (20%). The same trend was maintained when PPP involvement was considered: those previously involved either in a leading or a supporting role, identified significant benefits to society at 69% and 44%, respectively, compared to 17% of those with no PPP experience.

In summary, there was agreement among all respondents that PPPs offer at least moderate benefits to the three potential beneficiaries with respondents from the private sector being the most optimistic, and independents the least optimistic. A theme was evident and can be summarized with a comment from one respondent who said “when you have seen one PPP, you

have seen one PPP,” illustrating the notion that benefits from PPPs are project-specific. Yet a commonly mentioned benefit was that PPPs serve to accelerate project delivery.

PPPs to Expedite Development

The majority of respondents (92%) agreed that PPPs expedite development. However, recurring comments cautioned that while PPPs *can* accelerate development, that is not the case for every project. Of those that indicated that PPPs do not expedite projects none were from the public sector. Comments indicated that PPPs could fill the funding gap while others highlighted that PPPs are a financing and not a funding tool; here lie contradictory perceptions about what PPPs are.

Non-Monetary Implications of PPPS

Discussions of the advantages of PPPs generally focus on the capital that private partners bring. Although this is an important benefit, PPPs represent a change in the traditional roles for the provision of infrastructure beyond the provision of capital. As such, the sentiment on whether PPPs provide non-monetary benefits, or create non-monetary costs to society, was sought.

Respondents agreed (91%) that PPPs provide non-monetary benefits. Sector-specific results showed that 97% of public sector respondents recognized non-monetary benefits, followed by 90% from the private sector, and 85% from independents. Of those that did not perceive non-monetary benefits, 71% were from the private sector. Non-monetary benefits were more highly perceived among respondents previously involved in PPP agreements (94%) than among those that had not (67%). Again, comments noted that a common non-monetary benefit is the ability of PPPs to expedite delivery. Also mentioned were the transfer of risk to the private sector, innovation, and the more customer-oriented approach of the private sector.

There was less agreement on PPPs creating non-monetary costs to society (54%). Public sector and independent respondents acknowledged such costs at higher rates (62% and 85%) than the private sector (41%). The proportion of respondents that stated that PPPs create non-monetary costs to society was much higher among those that have not had experience with PPPs (83%) than among those with lead role (40%) or supporting role (65%) experience. Among respondents, involvement in a PPP project decreased the notion that they create non-monetary

costs. This could signal that some of the negative connotations about PPPs could be based on myths or misperceptions rather than actual experiences.

Misperceptions still exist among PPP stakeholders. These include the beliefs that PPPs are synonymous with tolls, and with loss of public sector control. Inadequate public information and transparency were identified by the NCHRP report as concerns; comments received in this survey confirm those two issues remain as barriers to the implementation of PPPs.

Legal Framework

Eighty-nine percent of respondents acknowledged the existence of a legal framework that allows PPPs in their states. Yet only 60% of all respondents considered them to be adequate; none of the legal professionals considered the frameworks adequate. The most mentioned causes for such inadequacies were that current legal frameworks are very limiting and also that they are subject to legislative intervention. Attitudes varied by state: California showed a much lower proportion (27%) of respondents perceiving their legal framework as adequate while Florida, Colorado, Virginia, and Texas had high shares of respondents who considered them adequate: 100%, 85%, 83%, and 71% respectively. There was no notable difference in perceptions as a result of previous involvement with PPPs.

Perceived Barriers to PPPs

Respondents were asked about the presence and severity of barriers to the implementation of PPPs among seven topics, as shown in Figure ES2. Highlights of the results are discussed below.

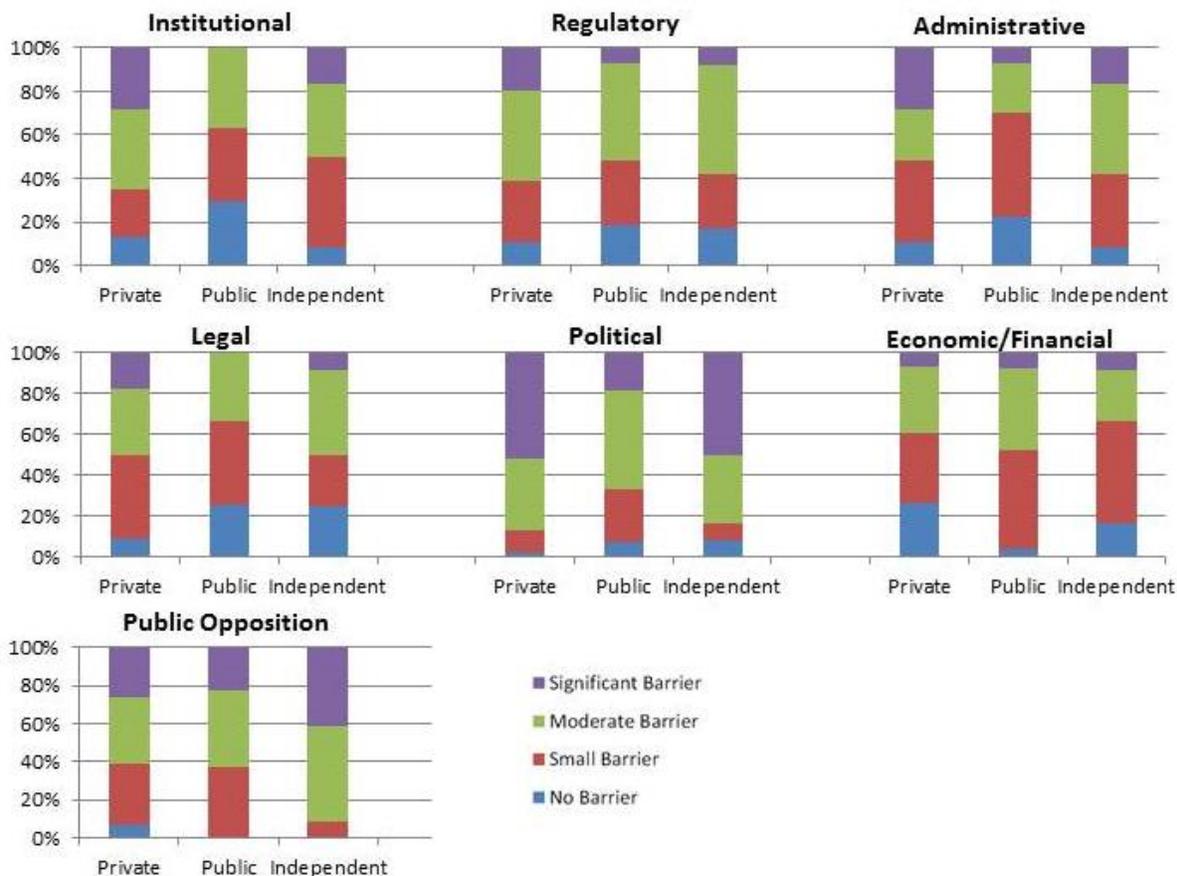


Figure ES2. Strength and type of barriers to PPP implementation by respondent employment sector.

Institutional

Overall, institutional barriers were perceived as significant by 18% of respondents, as moderate by 36%, and as small by 28%. The remaining respondents perceived no barriers. No public sector respondents considered institutional barriers to be significant while 30% did not perceive a barrier at all. This trend is perhaps to be expected as institutional issues are likely related to the public sector respondents’ institutions. Because institutional issues are location-dependent, responses were analyzed based by state. The analysis focused on the states with the most respondents: all California respondents perceived institutional issues as barriers, with 60% of them considering them significant. On the other hand, neither Florida nor Virginia had respondents claiming these to be significant barriers—Texas had only 9%—and instead, they had 25% (FL), 17% (VA), and 30% (TX) of respondents seeing no institutional barriers to PPPs.

Administrative

Administrative barriers were perceived overall as small (40%) with 14% of respondents not considering them a barrier at all. By sector, 28% of private respondents considered administrative barriers to be significant, against 8% of public respondents and 17% of independents. Within those previously involved in PPPs, the consensus was that administrative issues are small to moderate barriers. Geographically, all of Colorado and California respondents considered administrative issues to be barriers to PPPs. The least optimistic was California, where 80% of respondents considered them either moderate (40%) or significant (40%) while respondents from Florida, Virginia, and Texas, saw them as significant barriers in much lower proportions (0%, 0%, and 9% respectively).

Economic/Financial

These results were surprising given recent financial turmoil. Economic and financial issues were considered small barriers by 41% of respondents, moderate by 34%, and significant by 7%. Differences between the private and public sector were noteworthy; responses varied greatly for those that do not consider them barriers at all (26% vs. 4%). Furthermore, 67% of those working for a “Bank or Investment Firm” said economic or financial issues are no barriers. These results could signal the existence of a potential demand for PPPs that is eager to materialize under the right circumstances. Also, the difference in perceptions between the public and private sectors could indicate lack of understanding of market conditions by the public sector.

Political

Of the seven categories of issues, political issues were considered to be the most problematic. A total of 80% of respondents considered them to be an either moderate (39%) or significant (41%) barrier and only 5% did not perceive political barriers. Responses from private sector and independents were similar, with 52% and 50% perceiving significant barriers, against 19% of public sector respondents. Because political issues are location-specific, responses from the federal government were compared to those of state governments. Federal respondents had a widespread view with equal proportions (29%) seeing them as either small, moderate, or significant barriers, while 58% of state respondents saw moderate and 8% saw significant barriers. California (60%) and Texas (57%) respondents perceived significant political barriers to

PPPs in their states while no respondents in D.C. or Florida observed significant political barriers.

Public Opposition

Public opposition was considered a barrier by 96% of all respondents, with almost 67% considering it either a moderate or significant barrier. Independents had the most negative perception with over 90% sharing this view. Particularly concerned were respondents from academic institutions, who had the largest proportion of respondents perceiving significant barriers (68%). Responses among public and private sector respondents were roughly equal with about 40% seeing moderate barriers. Federal respondents tended to see public opposition as a small barrier (43%), while state government respondents centered on the perception of a moderate (50%) barrier.

Opposition from the public has been a prominent topic in the PPP debate in the U.S. Perhaps because of this, the perception among people that have not been involved with PPPs was more negative than among those that have been involved; the proportions that considered it as either a moderate or significant barrier were 100% vs. 64% respectively. Again, lack of direct involvement in these transactions tends to translate into a more negative view about them. Since most studies tend to come from academic and think-tank type of organizations, the question arises as to whether the concerns expressed in the literature about public opposition could be less prominent in reality.

Regulatory

Overall, regulatory barriers were ranked as a moderate barrier to PPPs, with the private sector showing the most concern as 20% of its respondents identified them as a significant barrier, compared to 8% and 7% of independent and public sector respondents. Those with no previous involvement had the most negative perception as 100% of them perceived regulatory issues as a barrier (of all strengths) compared to 80% of those with previous involvement.

Legal

Most respondents characterized legal issues as small (39%) or moderate (34%) barriers. Responses varied widely among the public and private sector while independents mostly aligned

with public sector respondents. The proportion of respondents who did not consider legal issues as a barrier was 26% and 9% of public and private respondents. Again, previous involvement made a difference as those without it avoided the extremes: small (40%) and moderate (60%) were their ratings. Among those who had been involved with PPPs, the main difference was that those that had been in a lead role tended to identify legal issues as either small (50%) or moderate (33%) barriers while those in previous support positions ranged from “No Barrier” to “Moderate Barrier.” It could be said that, among respondents, increased involvement with PPPs tends to decrease the perception of legal issues as a barrier to implement them.

In general, when the seven categories of issues were analyzed based on previous involvement with PPPs, it was found that 100% of respondents without experience saw a barrier associated with all seven topics. On the contrary, respondents with some sort of previous PPP involvement often answered “No Barrier” in response to the seven topics. Could it be that some of the barriers to PPPs for transportation infrastructure in the U.S. are more perceived than real?

Latent Demand

Overall, 58% of respondents believed that there was a latent demand for PPPs that was not materializing due current conditions (e.g., legal, financial, political, etc.); 16% perceived no such demand, and 26% were not sure. More respondents in the private and independent sectors had this perception (75% and 63%) than in the public sector (27%). When experience with PPPs was considered, little variation was found. Respondents from states that are leaders in PPP implementation showed a higher recognition of this: Florida (75%), California (70%), Texas (55%), and Virginia (50%). However, pooled responses from the remaining states only showed 10% of respondents perceiving such demand.

Public and Private Benefits and Limitations

Comments were sought regarding the inherent benefits and limitations that the public and private sector partners bring to PPPs for transportation infrastructure.

Public Sector Benefits and Limitations

The most commonly identified benefit was the protection of the public interest, which was associated with more comprehensive planning and prioritization of projects as well as a concern

with project costs. Access to lower cost funds and institutional knowledge of the regulatory and environmental planning processes were highlighted, while sovereign immunity was identified as allowing governments to take on certain risks. The main limitations were said to be bureaucracy and politics, identified as constraints that slow down the processes and limit innovation. Lack of experience and technical knowledge on risk management and PPP procurement were also frequently mentioned.

Private Sector Benefits and Limitations

The most commonly identified benefit was expedited project delivery, followed by life-cycle cost analysis. The latter relates to lower costs from improved efficiencies stemming from the integrated planning of multiple project phases to be handled by a single entity. Additional benefits included the acceptance of increased risk by the private sector, access to private capital, a customer-oriented approach, and innovation. In terms of limitations, respondents most commonly noted public opposition. This was mostly related to the fact that private companies are motivated by profits, which was associated with increased costs of projects and the desire to focus on commercially attractive projects, rather than the most needed ones. Another concern was the notion that the public loses control of a public good. Additional comments indicated that projects with tolls or long-term leases are likely to face increased opposition.

PPP Evaluation

PPPs are not a one-size-fits-all solution, so how should government decide whether to use one? This was one of the main themes identified by the NCHRP survey, which called for more research on valuation tools “the most pressing research need surrounding PPPs.” *Value for money* (VfM) is a well-known evaluation technique for PPPs. Of the 88% of respondents that acknowledged familiarity with these types of methodologies, 72% claimed to have either personally used them or belonged to an organization that had. Among them, 98% believed that their results are useful to decision-makers. However, 76% of those respondents acknowledged the existence of inherent limitations—in particular their subjectivity, since they are based on assumptions. Other issues include the allocation and pricing of risk. Additionally, roughly 50% of private and public sector respondents and 67% of independents believed that there are external factors that inhibit the usefulness of such analyses. Politics was the most mentioned of such factors.

Risk Management

Allocating projects risks to the party that can better manage them is considered one of the main benefits of a PPP. Yet the literature calls for better risk valuation and allocation strategies to improve VfM. To explore these issues, respondents were asked their opinion on how the public and private sectors deal with risk in PPPs. Results can be seen in Figure ES3.

Risk in the Public Sector

Identification: When asked if public sector entities correctly identify risk, 42% of respondents said “Yes” while 31% responded that they were not sure. Among those that believed they do were 44% of private sector and 46% of public sector respondents. More than half of independents (54%) did not believe the public sector correctly identifies risk. No respondent without previous involvement with PPPs answered “Yes,” compared to 45% of those with some previous experience.

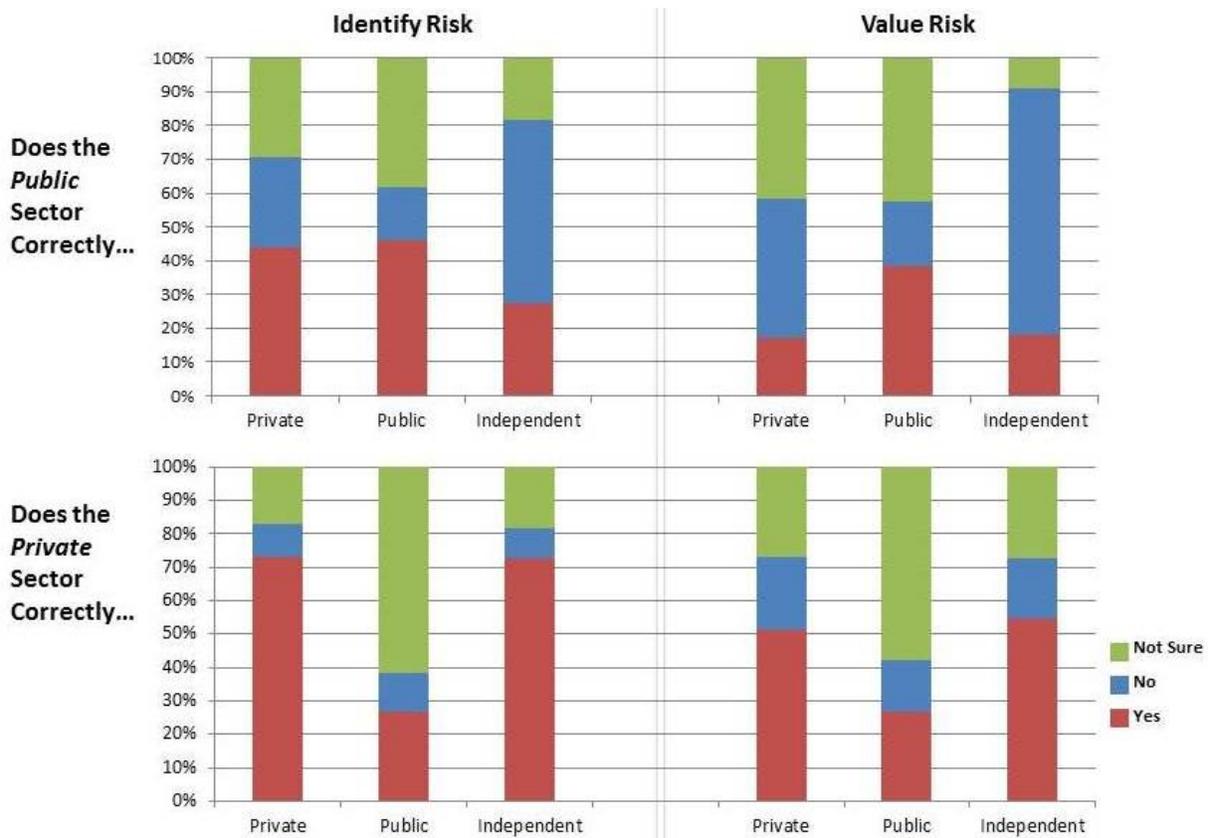


Figure ES3. Perception of risk management by respondent employment sector.

Valuation: The public sector’s ability to value risk was rejected by 73% of independent, 42% of private sector, and 19% of public sector respondents. On the other hand, 39% of public sector responses perceived that the public sector correctly values risk. Respondents with no previous PPP involvement avoided an affirmative response: 50% said “No” and 50% said “Not sure.”

Management: Deciding which risks should be retained and which should be transferred to the private sector is a key decision for a PPP sponsor agency. Results showed that 40% of respondents approved how the public sector manages risks, 30% did not, and 30% was not sure. Public respondents had the most positive opinion with 54% approving vs. 37% of private sector, and 18% of independents. Interestingly, 67% of respondents working for “Infrastructure Developer/Concessionaire” firms disapproved of how the public sector deals with risk while 50% of all government respondents (federal, state, and other) approved their management of risk.

Risk in the Private Sector

Identification: In evaluating the private sector’s ability to identify risk in PPP transactions, 73% of private and independent sector respondents perceived that the private sector does it correctly. In comparison, only 27% of public sector respondents perceived the same while 62% were not sure. Previous experience with PPPs was not a significant factor among those agreeing with the question but the respondents’ type of work was. Significant agreement with the way that the private sector identifies risk was found among respondents from academia (100%), bank or investment firms (100%), and law firms (88%) while respondents from the federal, state, and other government organizations had some of the lowest proportions (33%, 33%, and 17%).

Valuation: A little over half of private and independent sector respondents perceived that the private sector values risk appropriately (51% and 55%) compared to 27% of public sector respondents. Here, public sector respondents expressed doubts in an important proportion (58%). Not having experience with PPPs was associated with a positive perception of private sector’s risk valuation at 25%, compared to 45% among those with previous involvement. The majority of government responses showed a lack of familiarity with private sector practices as 50% of federal, 59% of state, and 67% of other government respondents answered “Not sure.”

Additional Issues with PPPs

Two main themes arose as prominent concerns among the survey's respondents: educating the general public and politicians about PPPs; and improving risk management within valuation methodologies such as VfM. Other topics identified as needing further research and attention were the relationship of PPPs with the environmental planning process, better comparisons of PPPs to traditional procurement, and the role of government in these transactions.

CONCLUSIONS

Survey responses indicate that the perceptions about PPPs varied among different stakeholders—at times greatly—depending upon the respondent's work type, location, and especially with whether they had previous experience with PPPs. Specifically, it was found that this experience was associated with a more positive opinion of their benefits, and a less negative opinion of both their limitations and implementation barriers. Also of interest was to note the conflicting views of respondents about topics such as the roles of the public and private sectors in the provision of infrastructure; the appropriateness of risk management by the public and private sectors; and the evaluation of PPP proposals.

Respondents in the leading PPP states believed that there is a latent demand for PPPs that is not materializing due to current conditions; this is reasonable given the outlook on transportation funding. Decreasing public funds will continue to put pressure on public agencies to identify alternative funding mechanisms, such as PPPs. Consequently, their usage is likely to increase in the coming years. The following is a summary of observations and recommendations aimed at developing successful PPPs for the delivery of transportation infrastructure in the U.S. They are based on the responses to this survey.

i. Public Opposition

A common theme was that public opposition poses a significant barrier to PPPs. Opposition was identified as stemming from the belief that a PPP involves the loss of control of a public good to a private company, and that the profit-seeking nature of the private sector is in direct conflict with the public interest. Yet if such loss of public control was true, it would be odd that public sector respondents would be supportive of PPPs. However, such concerns are important and call for efforts to maximize transparency in PPPs and to improve education so that decision-makers

and the general public understand, first, what PPPs are and what the reasons are for their use, and second, how they could be of benefit, not only to the project partners, but to society.

ii. Combining Strengths and Mutually Overcoming Limitations

Benefits and limitations of the public and private sectors were identified in regard to PPPs for transportation infrastructure. However, what is crucial to understand is that for these agreements to succeed and be beneficial to everyone involved, the importance of the third “P,” the partnership element, needs to be emphasized; distrust among the public and private sectors should be minimized. Each sector has its own goals, expectations, and stakeholders to respond to, and this should be understood by each party when these agreements are being crafted and negotiated, as opposed to trying to take advantage of their counterpart. Efforts should be made to avoid what one respondent called the “us vs. them” approach to risk management and contract negotiation.

iii. Risk Management/Risk Evaluation Methods

Rigorous and objective risk management should be the norm, and should focus on both project-specific and system-wide risks. This is of the utmost importance as an appropriate risk distribution is at the core of a successful PPP. To accomplish this, stakeholder understanding of the importance of risk management is of crucial importance. Consequently, risk management training for public sector staff should be a central element of any serious attempt to stimulate PPP usage both at the federal and state levels.

VfM and similar evaluation methods were noted as helpful to the public and private sectors in analyzing projects in a comprehensive manner. Also, they were said to be very sensitive to assumptions and not as good for the evaluation of a project’s non-monetary aspects. A common argument was that these evaluations are often performed with bias and the outcomes may be shaped by political will. Because of the difficulty in overcoming these limitations, respondents suggested that those evaluations should be seen as one tool in the decision-making process and not the only factor; that they should consider a large range of procurement options to encourage innovation; and that they should measure how well a procurement method helps to meet the project’s goals, not just assess monetary aspects.

Finally, it is understandable that misperceptions still exist among PPP stakeholders as a result of the broad application of the PPP term, the stakeholders' inherent biases affecting the type and tone of information they convey, and the limited experience with such projects in the U.S. However, some responses showed deep misunderstandings, fears, or unrealistic expectations about PPPs, what they are, and their potential benefits and limitations. The fact that such misperceptions came from respondents that were targeted because of their assumed familiarity with these transactions is worrisome, and it validates recommendations in the literature as well as from respondents of this survey to educate decision-makers, staff, and the general public about what PPPs really are, why they are needed, and what they can and cannot do.

LIMITATIONS AND FUTURE WORK

A novel aspect of this survey is that it shows the differences in perceptions of a variety of PPP stakeholders about PPPs' ability to deliver transportation infrastructure in the U.S., with responses filtered by the respondents' backgrounds. Besides, the survey sought responses from PPP stakeholders that are at times overlooked in the literature but play key roles in these transactions, such as professionals in legal, banking and finance, and concessionaire organizations.

Several limitations were identified in this survey. First, potential respondents were identified using an unstructured approach. As a result, despite the diligent effort of the research team to achieve maximum distribution for the survey, many individuals and organizations were not reached and the distribution of respondents based on work type and location was not balanced. Because of that the results cannot be considered representative of the PPP landscape for the entire U.S.

Second, the answer choices in some of the questions could have been structured to give respondents more flexibility. For example, some questions only had "Yes" and "No" as answer choices but could have included options such as "It depends" or "Not sure," as suggested by some respondents. Also, the questions about the legal framework of the respondents' states were said to be restrictive for respondents that live in one state but perform most of their work elsewhere.

Third, more specific questions on PPP valuation techniques could have been asked to gain a more in-depth understanding of the technical aspects of such methodologies. In particular, questions about typical assumptions used in these analyses would have been useful in addition to the questions of risk management.

Future research to obtain direct feedback from PPP stakeholders should attempt to overcome this survey's limitations. For example, follow-up interviews with a random sample of respondents could be conducted to clarify issues and discuss results.

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CHAPTER 1. INTRODUCTION

Over the past decade there has been an increase in the number of public-private partnerships (PPPs) used for the delivery of transportation infrastructure in the United States and abroad. Historically, countries other than the U.S. have been more receptive to non-traditional infrastructure finance methods such as PPPs, but in recent years several factors have driven this increase (1, 2). As a result, several U.S. states have begun to explore and implement new policies to accommodate them; thus, the landscape of PPPs has been changing.

This report explores issues related to benefits, barriers, and evaluation of transportation PPPs in the U.S. First, it identifies previous studies and surveys that have tried to assess PPP benefits, success factors, and issues. Then, it presents the results of a survey completed by transportation stakeholders of varied backgrounds, revealing industry sentiments and concerns regarding these contractual agreements.

CHAPTER 2. MOTIVATION

There is a need for evidence-based findings to dispel myths and provide clarity on what PPPs can and cannot offer; these findings would help public agencies make informed decisions on whether to use PPPs. PPPs are seen by many as a new delivery mechanism that offers quicker delivery of projects, increased efficiency through private sector practices, and the freeing up of public funds through the leverage of private capital. In reality PPPs may be just a different name for something that have been happening for a long time, as the private sector has long been involved in public service provision (1, 3).

If a comparison is made of the roles of the public and private sector for the provision of infrastructure, the result is a continuum of mechanisms ranging from full public delivery to full privatization, with PPPs lying in between (4). Thus, PPPs don't allow for either side of the partnership to have full control; however, a recurrent theme expressed by opponents of PPPs is that governments may be privatizing infrastructure and relinquishing control over a public good and service. The fact that there is a large variety of contractual agreements that can be classified as PPPs in the U.S. (1, 2) creates confusion and helps to fuel the perpetuation of myths, as mentioned by Papajohn (3). Besides, frequently those speculating about PPPs tend to have a stake in these deals or an ideological position to defend or criticize them. As a result, there seems to be a shortage of balanced, empirically derived information to tell the story of PPPs in the U.S. (2).

In an attempt to help correct this situation, a survey was developed to try to understand the transportation industry's sentiments toward PPPs in terms of the benefits they may offer; obstacles to their successful implementation; evaluation of PPP proposals with a focus on risk allocation; and other topics. In this era of increasing public accountability and participation, decision-makers and the public need to not only have access to information, but also need to know where the information comes from. Thus, the survey's main goal was to assess sentiments from diverse PPP stakeholders and compare them based on the respondent's background. It was also the intention to have respondents identify the issues that they feel need additional research.

CHAPTER 3. PREVIOUS STUDIES

The idea that funding for and the delivery of transportation infrastructure are changing appears throughout the public policy, urban planning, and civil engineering literature. Morillos et al. (2009) succinctly described the factors that have led to these changes, with decreasing revenues from the fuel tax and political resistance to increasing taxes creating difficulties in collecting enough funds to build, maintain, and operate the transportation infrastructure. State Departments of Transportation (DOTs) and federal agencies have noted that increased use of innovative finance methods, namely PPPs, may help accelerate the provision of back-logged transportation projects by leveraging expertise and funding from the private sector through the use of carefully designed project contracts (5, 6).

Surveys have been completed with the purpose of investigating barriers, opinions, and success factors that relate to PPPs in the U.S. and abroad (2, 3, 7). Three noteworthy surveys have been completed: the first by Zhang in 2005, a second by the National Cooperative Highway Research Program (NCHRP) in 2009, and a third by Papajohn in 2009.

In Zhang's 2005 survey, knowledge of barriers to successful PPPs was sought from 46 international experts. Findings showed that the top barriers were related to risk (either social, political, or legal); project economics; financial engineering; and poor procurement frameworks.

The 2009 NCHRP survey (*NCHRP Synthesis 391: Public Sector Decision Making for Public-Private Partnerships*) gathered opinions from 49 officials at U.S. state DOTs and Canadian ministries of transportation, as well as from 25 PPP stakeholders. Survey questions were intended to reveal factors that influenced the decision to use PPPs; finance mechanisms; project proposals and selection; and other topics related to PPP use. Complete survey results were provided in the report; however, a synthesis and summary was not provided nor were conclusions drawn regarding sentiments of respondents. Ultimately, a recommendation from the NCHRP was that further research should focus on PPP valuation tools and methodologies.

Papajohn's 2009 survey targeted state DOT planning engineers to determine the state of practice of transportation PPPs in the US. Thirty-four responses were received. The study classified

respondent states in four groups according to experience with PPPs and identified financing as the primary reason for states to consider PPPs, followed by time and cost savings. Interestingly, no state mentioned risk transfer as a primary reason to consider PPPs even though proper risk allocation is a major attribute of these agreements. The study concluded that more research is needed on tools for evaluating the viability of PPP proposals. It also brought attention to transparency in PPPs as typically complex projects that can create confusion and misunderstanding in the general public.

In addition to surveys, other studies have been completed to assess barriers and success factors related to PPPs, some of which developed metrics and methods of success measurement. An example comes from a follow-up piece by Zhang, who in 2006 assessed the attitudes of academic researchers and industry experts toward specific PPP success factors through “Best Value Contributing Factor Significance Indexes.” These factors were analyzed through an indexing exercise that ultimately revealed that the top success factors were related to transfer of risk and minimized public debt. Findings showed no significant disagreement between academic and industry professionals on the rankings of the most important success factors.

The previously mentioned studies are useful to obtain insights on barriers and success factors related to PPPs in certain contexts; however, their results are not fully generalizable to the current PPP landscape in the U.S. due to some limitations. First, the survey by Zhang in 2005 had an international focus and did not specifically assess attitudes and barriers in the U.S. Second, both the NCHRP and Papajohn surveys primarily focused on the public sector view while Zhang looked at academic and private sector sentiment but did not include the public sector. Third, the PPP landscape in the U.S. has changed in recent years, with more agreements implemented and PPP-enabling legislation enacted or modified in several states.

Following the recommendations of the NCHRP, Papajohn, and Zhang studies to focus on valuation methods, and on Papajohn’s claim that the current debate lacks theory and research to support the various views of PPPs, this survey was designed to investigate issues related to the valuation of PPPs, and to compare the views of a variety of stakeholders about the U.S. PPP market. The authors believe that the exclusive U.S. focus and the diverse pool of respondents make this survey an interesting contribution to the body of literature on PPPs in the U.S.

CHAPTER 4. METHODOLOGY

4.1 SURVEY DEVELOPMENT AND ADMINISTRATION

This project's survey, which was titled "*Public-Private Partnerships (PPPs) for Transportation Infrastructure in the U.S.*," was developed by researchers at the Center for Transportation Research (CTR) at The University of Texas at Austin, with support from industry experts. Survey questions were designed to help researchers understand industry-perceived benefits and obstacles to PPPs, evaluation of PPP proposals, risk management, and to identify critical topics that warrant further PPP research.

Targeted respondents were key transportation, legal, finance, and academic professionals, from both the public and private sectors. Initially the research team contacted a few industry professionals and asked for suggestions of people and organizations to send the survey to. Later, a comprehensive online search was performed for PPP stakeholders from a wide variety of PPP-related organizations. Finally, invitations to take the survey were emailed to over 350 persons who were identified by the research team as having experience, knowledge or connections to entities that deal with PPPs in the US, and who represented the professional fields typically involved in such projects, as well as research and academic institutions. Survey recipients were asked to also share the survey with other professionals that were known to have an interest in, or experience with PPPs for transportation projects in the U.S. Because the persons invited to take the survey tended to be located in a limited number of U.S. States, and some of the questions were targeted at the respondents' states only, the survey results should not be considered representative of the entire nation.

The survey was administered online and remained open from mid-May to mid-June 2013. It was developed to be administered through an online survey provider to facilitate distribution and collection. Responses to each question were not made mandatory, and respondents were able to exit the survey at any time.

4.2 SURVEY DESIGN

The following sections describe the results to the survey's questions. For the full list of questions, see Appendix A.

4.2.1 Background Questions on Survey Respondents

Respondents were asked to report the classification that best characterized the organization for which they work, i.e., federal government, state government, academia, etc. Additionally, they were asked to identify their position within their organization, whether they had been involved with PPPs, and the state they were based in. Answers to these background questions were used to filter and compare responses to the questions about PPPs.

4.2.2 Questions Assessing Attitudes toward PPPs

Twenty-seven questions were asked to assess attitudes toward PPP benefits, barriers, legislation, benefits, valuation, and other topics. Some of the questions were multiple choice and ranking questions with space provided for respondents to explain their answers. Other questions were open-ended to fully capture respondents' perceptions.

CHAPTER 5. RESULTS

Over 350 PPP stakeholders were invited to take the survey. Of the 101 people that started it, 77 completed it—a sample larger than in similar surveys. As a result, the number of responses per question varied throughout the survey.

5.1 RESPONDENT CHARACTERISTICS

The employment, PPP involvement, and location characteristics of the survey's respondents are described in the following sections.

5.1.1 Respondent Employment Organization

Respondents were asked to select from among 12 categories the one that best described the organization in which he or she worked. Figure 1 shows the results.

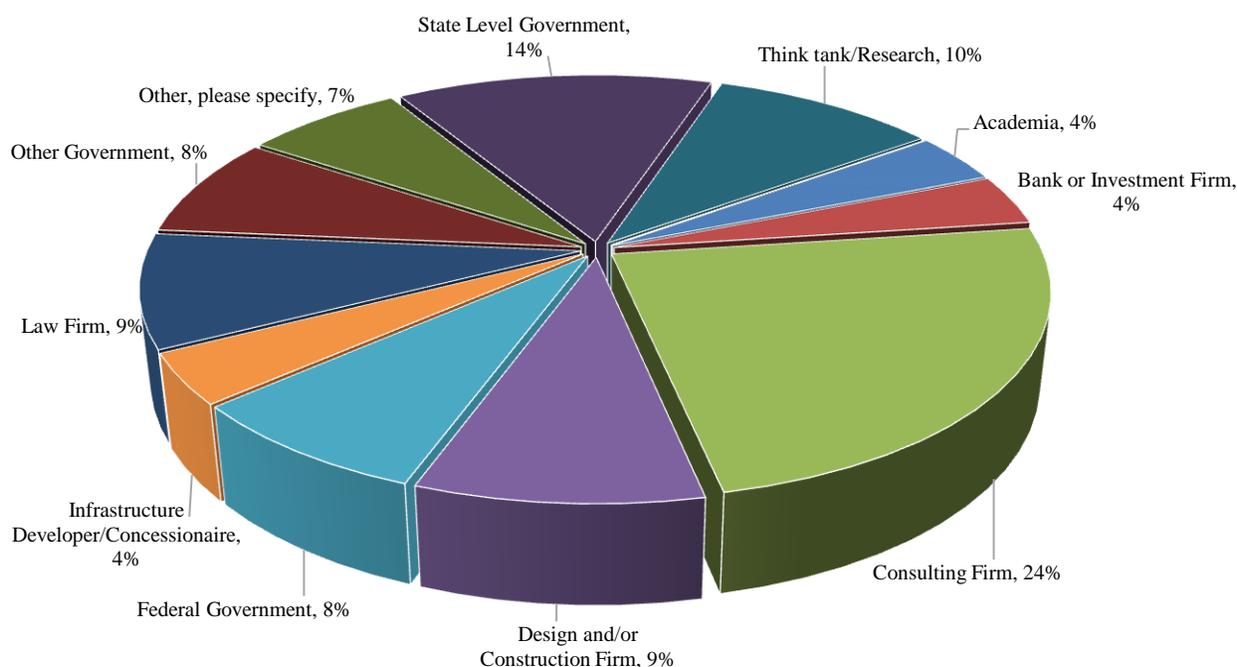


Figure 1. Respondents' employment organizations

The highest proportion of respondents were from consulting firms (24%) followed by state level government (14%), think tank or research organizations (10%), design and construction firms (9%), and law firms (9%). Seven percent of respondents indicated that their organization did not

fall under a predetermined category; “other” responses included municipal financial adviser, labor union, public toll road, and private transit operator.

5.1.2 Respondent Work Position.

A question was asked about the respondents’ work position within their organization, with seven predetermined categories. Results are shown in Figure 2.

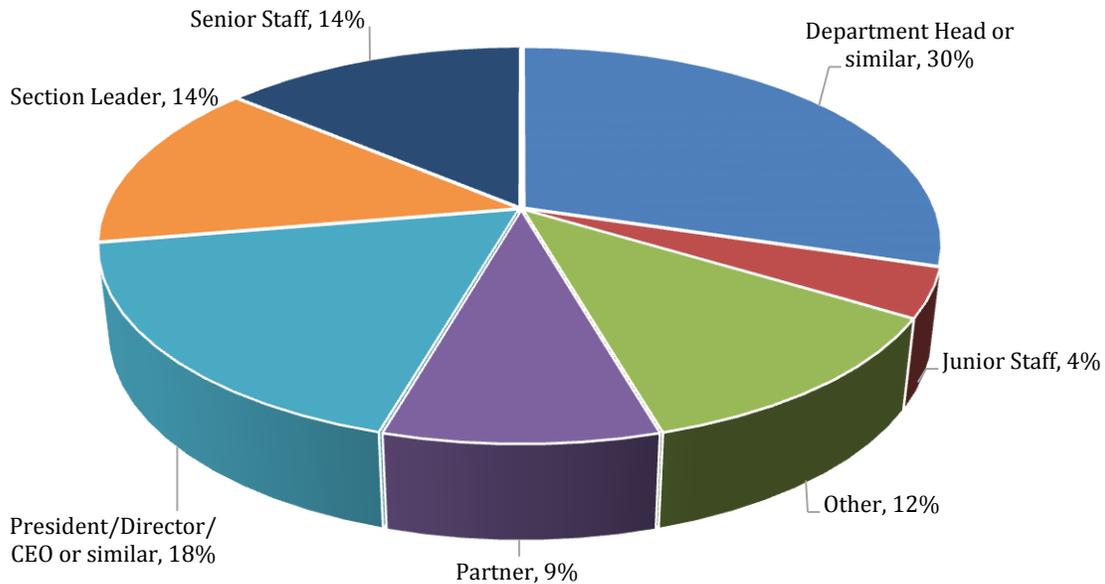


Figure 2. Respondents’ positions within organizations

A little less than one-third of respondents identified their position as a department head or similar (30%), and a little less than one-fifth classified their position as president/director/CEO or similar (18%). Those within the ‘other’ category indicated that their position could be described as an academic or research position, or as a project/program manager.

5.1.3 Respondent Involvement with PPPs

Whether the survey respondents or their organizations had been previously involved with PPPs was asked. Approximately 7% indicated that they had no prior involvement, 49% indicated past experience in a lead role, and 44% indicated past experience in a supporting role.

5.1.4 Respondent Location

Texas was the most represented state with 26% of respondents, followed by California and Virginia with 13% each. Colorado, Washington, D.C., and Florida had 8%, 7%, and 4%, respectively.

5.1.5 Types of Responses Classifications

To capture response variation, responses were categorized based on respondent's organization type; whether they had been involved in PPPs; and the state where respondents were based. Furthermore, based on their employment organization, respondents were grouped into three sectors: public, private, and independents. The latter corresponds to people working in academia, think tanks, or related entities. A summary of the main findings from the survey is presented next.

5.2 PPP BENEFITS AND EXTENT OF BENEFITS

A question was asked to assess if respondents perceived that the sponsoring agency, the private sector, and society benefit from PPPs, and in what capacity they benefit. Figure 3 shows the perceived degree of benefits to the three potential beneficiaries, with responses classified by respondent sector.

5.2.1 Benefits to the Sponsoring Agency

Results showed strong agreement among respondents that project sponsors benefit from PPPs (99%); 95% identified those benefits as either moderate or significant. However, looking at the responses by sectors, differences arise with independents having a less optimistic view: only 33% consider PPPs as providing significant benefits to the sponsoring agency, compared to 73% and 71% from the private and public sectors, respectively. Instead, 47% of independents saw PPPs as providing moderate benefits, versus 23% and 29% of the private and public sector respondents.

Comparing opinions between respondents with prior PPP involvement and those without it provides an interesting contrast. The latter had much less positive views of the benefits that PPPs provide; only 17% recognized significant benefits, compared to 82% of those who were previously involved in a lead role, and 56% of those previously involved in a supporting role.

This indicates that the degree of experience with PPPs plays an important role in the perception of PPP benefits.

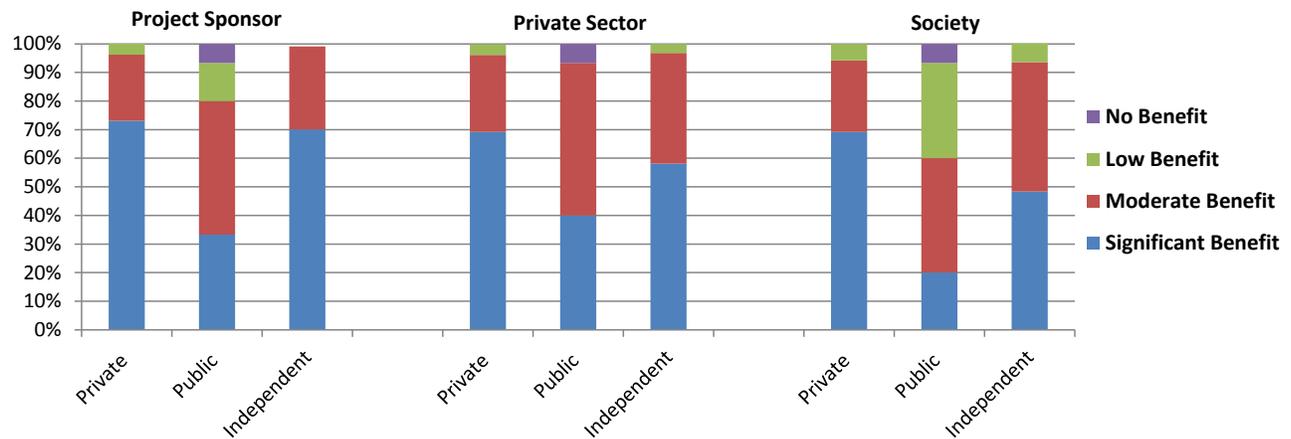


Figure 3. Degree of benefits to beneficiary by respondent sector

5.2.2 Benefits to the Private Sector

Overall, responses were similar to those regarding the benefits to sponsoring agencies. However, a different perception was revealed when answers were analyzed by respondent employment sector. A higher proportion of independents (93%) perceived that the private sector benefits substantially—i.e., moderately or significantly—compared to the proportion that see that level of benefits for the sponsoring agency (80%). The public sector’s opinion, although still large, was less positive than in the previous question, with 58% seeing significant benefits.

More respondents from the private sector considered that both the project-sponsoring agency and the private sector receive significant benefits from PPPs (73% and 69% respectively), than did public sector (71% and 58%) and independent respondents (33% and 40%). When previous PPP involvement was considered, a clear difference was revealed in how respondents perceived the private sector benefits from PPPs: 67% of those with involvement in leading roles and 61% of those with involvement in supporting roles saw significant benefits, compared to 17% of respondents with no PPP experience.

5.2.3 Benefits to Society

As in the previous two questions, the private sector expressed the most positive opinions in terms of how significantly beneficial PPPs are to society (69%), followed by public sector (48%) and

independent respondents (20%). The same trend was maintained when PPP involvement was considered: those previously involved with PPPs, either in a leading or a supporting role, identified significant benefits to society from PPPs at 69% and 44%, respectively, compared to 17% of those with no PPP experience.

In summary, when transportation PPP agreements in the U.S. were evaluated in terms of who they benefit and to what extent, there was agreement among all respondents that PPPs offer at least moderate benefits to the three potential beneficiaries. Respondents from the private sector tended to be the most optimistic, while independent respondents were the least optimistic.

Analyzing additional comments from this set of questions, a theme was evident and can be summarized with a comment from one respondent: “when you have seen one PPP, you have seen one PPP.” This illustrates the notion that benefits from PPPs are project-specific. Yet a benefit that was commonly mentioned was that PPPs serve to accelerate project delivery.

5.3 PPPs TO EXPEDITE DEVELOPMENT

Respondents were asked to indicate whether they agreed with the statement: *“The use of PPPs benefits society by allowing expedited development of projects compared to what it would take under traditional funding mechanisms.”* The majority of responses were affirmative (92%).

Recurring respondent comments cautioned that while PPPs *can* accelerate development, that is not the case for every project. Of the 8% of respondents that indicated that PPPs do not expedite projects, none were from the public sector. Some comments indicated that PPPs could fill the funding gap, while others encouraged the recognition that PPPs are, in fact, a financing tool and not a funding tool; here lie contradictory perceptions about what type of tool PPPs are. The comments reinforced the idea that under the right conditions, PPPs can benefit the public and private partners as well as society in general.

5.4 NON-MONETARY IMPLICATIONS OF PPPS

Discussions of the advantages of using PPPs generally focus on the capital that private partners bring to the provision of public infrastructure. Although this is evidently an important benefit, PPPs represent a change in the traditional roles that public and private sectors play for the

provision of infrastructure, beyond the mere provision of capital. Consequently, the sentiment on whether PPPs provide non-monetary benefits, or create non-monetary costs to society, was sought.

Overall, most respondents (91%) agreed that PPPs provide non-monetary benefits. Sector-specific results are shown in Figure 4 and indicate that that 97% of public sector respondents recognized non-monetary benefits, followed by 90% from the private sector, and 85% from independents. Of those that did not perceive non-monetary benefits, 71% were from the private sector, especially from consulting firms.

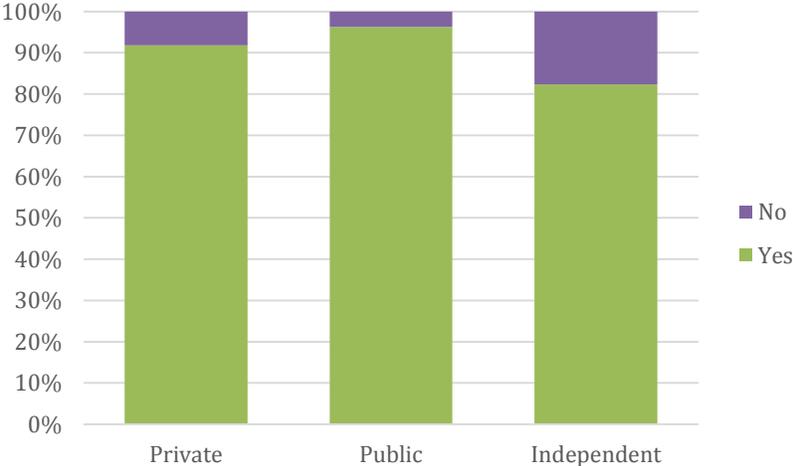


Figure 4. Non-monetary benefits of PPPs by employment sector

Figure 5 shows perceptions of non-monetary benefits according to respondents’ experience with PPPs. The existence of such benefits was more frequently perceived among respondents previously involved in PPP agreements (94%) than among those that were not (67%). Once again, recurring comments noted that a common non-monetary benefit is the ability of PPPs to expedite delivery. Additional non-monetary benefits highlighted by respondents included the transfer of risk to the private sector, as well as innovation, and a more customer-oriented approach by the private sector.

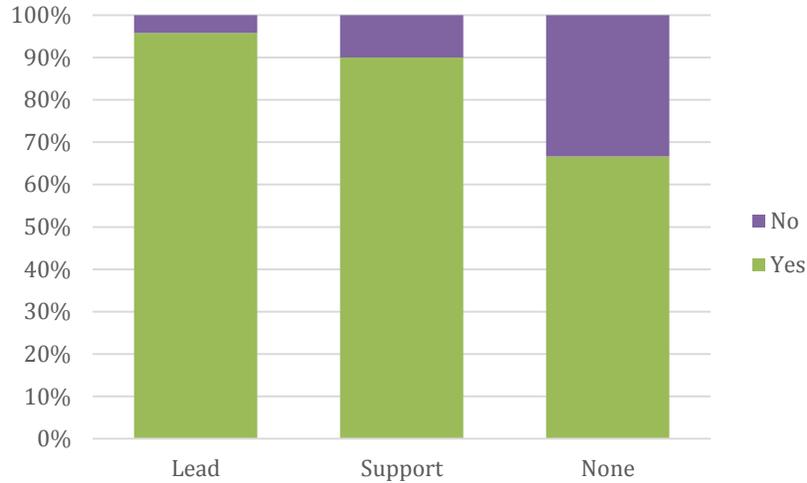


Figure 5. Non-monetary benefits of PPPs by experience with PPPs

Less agreement was found on whether PPPs create non-monetary costs to society. Overall results showed divided reactions, with a slightly higher proportion of respondents recognizing the presence of these costs (54%). Public sector and independent respondents acknowledged the creation of non-monetary costs at higher rates (62% and 85%) than private sector respondents (41%). These results are shown in Figure 6.

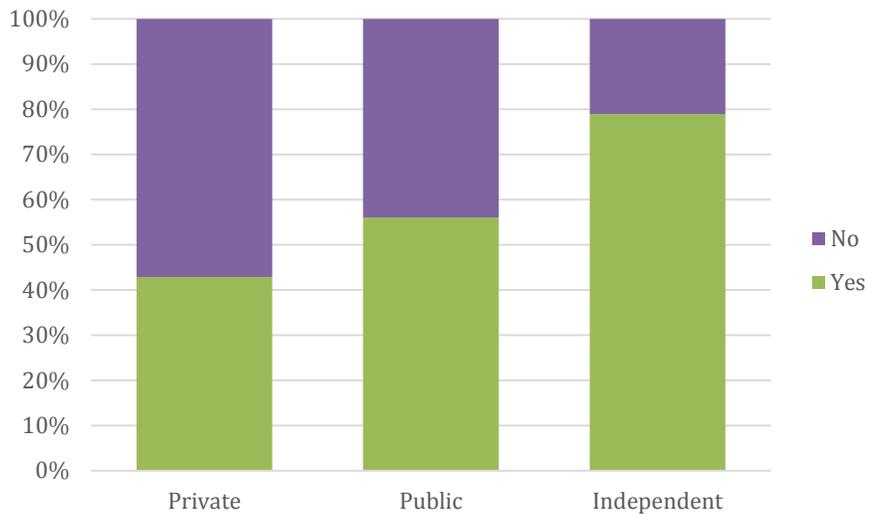


Figure 6. Non-monetary costs of PPPs by employment sector

Important differences in opinions were noticed when previous involvement with PPPs was considered: the proportion of respondents that stated that PPPs create non-monetary costs to society was much higher among those that have not had experience with PPPs (83%), than

among those with a lead role experience (40%), or a supporting role experience (65%). Results are shown in Figure 7.

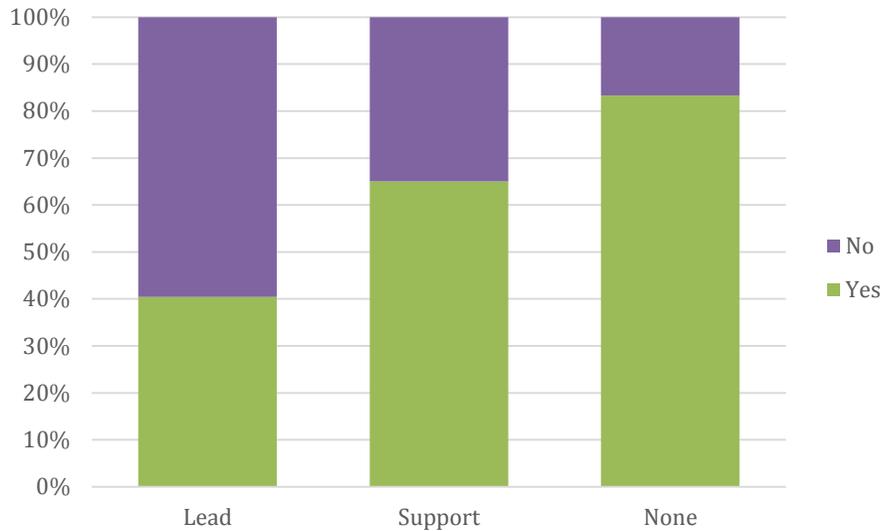


Figure 7. Non-monetary costs of PPPs by experience with PPPs

From these results, involvement in a PPP project may seem to support the idea that PPPs offer non-monetary benefits, and decreases the notion that they create non-monetary costs. This finding is important to highlight as it could signal that some of the negative connotations that PPPs have, even within people working in organizations akin to PPPs, could be based on myths or misperceptions rather than actual experiences. Even if this is not the case, it is still interesting to see how experience with PPPs seems to affect perceptions toward these agreements.

Despite increased media and industry attention and an increasing number of PPPs in the U.S., some misperceptions seem to still exist among PPP stakeholders. These included the beliefs that PPPs are synonymous with tolls, and with the loss of public sector control. Inadequate public information and transparency were identified by the NCHRP report as concerns; comments received in this survey confirmed those two issues remain as barriers to the successful implementation of PPPs.

5.5 LEGAL FRAMEWORK

Eighty-nine percent of respondents acknowledged the existence of a legal framework that allows the establishment of PPPs in their states. Yet only 60% of all respondents considered the

framework adequate; none of the legal professionals considered the frameworks adequate. The most mentioned causes for such inadequacies were that current legal frameworks are very limiting and also that they are subject to legislative intervention. Attitudes towards such adequacy, as expected, varied by respondent location. Results are filtered by state in Figure 8, where California clearly has a much lower proportion (27%) of respondents perceiving their legal framework as adequate, compared to other key PPP states. Namely, Florida, Colorado, Virginia, and Texas had high shares of respondents who considered such frameworks adequate: 100%, 85%, 83%, and 71% respectively. The pooled proportion of respondents indicated in all other states was 50%.



Figure 8. Perceptions of adequate legal framework by respondent state

There was no notable difference in the perceptions toward legal frameworks as a result of a respondent’s previous involvement with PPPs. When responses were grouped by respondent sector, the public sector showed more positive opinions toward the existing legal frameworks (82%) compared to the private sector (45%) and independent (68%) respondents. Sector-specific responses are shown in Figure 9.

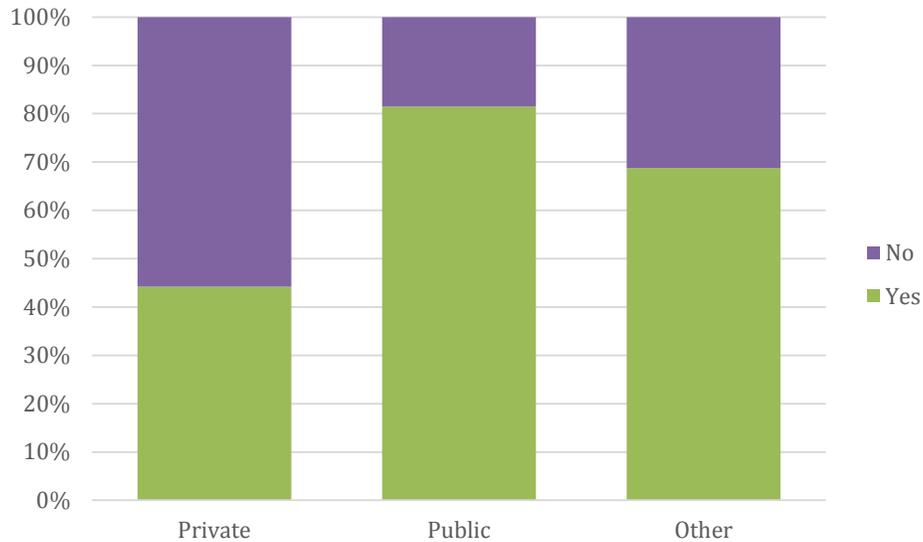


Figure 9. Perceptions of adequacy of legal framework by employment sector

5.6 PERCEIVED BARRIERS TO PPPs

The survey asked about the presence and the severity of barriers to the implementation of PPPs among seven major topics, as shown in Figure 10. Highlights of the results for each of those topics are discussed below.

5.6.1 Institutional

Overall, institutional barriers were perceived as significant by 18% of respondents, as moderate by 36% of respondents, and as small by 28%. The remaining perceived no institutional barriers. Considering employment sector, 41% of independents perceived institutional issues to be small barriers while 37% of both public and private considered them moderate. Still, there was significant variation within sectors as 28% of private sector respondents identified significant institutional barriers while 13% perceived no barrier. In contrast, no public sector respondents considered institutional barriers to be significant while 30% did not perceive a barrier at all. This is perhaps to be expected as institutional issues are likely related to the public sector respondents institutions or similar entities.

Because institutional issues are very location-dependent, responses were also analyzed based on the respondents origin, in this case represented by the state in which they were based. This analysis was focused on the states with the most respondents at this point in the survey: Texas,

California, Virginia, Colorado, Florida, and Washington D.C. All the California respondents perceived institutional issues as barriers, with 60% of them considering them significant. On the other hand, neither Florida nor Virginia had respondents claiming these to be significant barriers—Texas had only 9%; instead, they had 25% (FL), 17% (VA), and 30% (TX) of respondents seeing no institutional barriers to PPPs in their states.

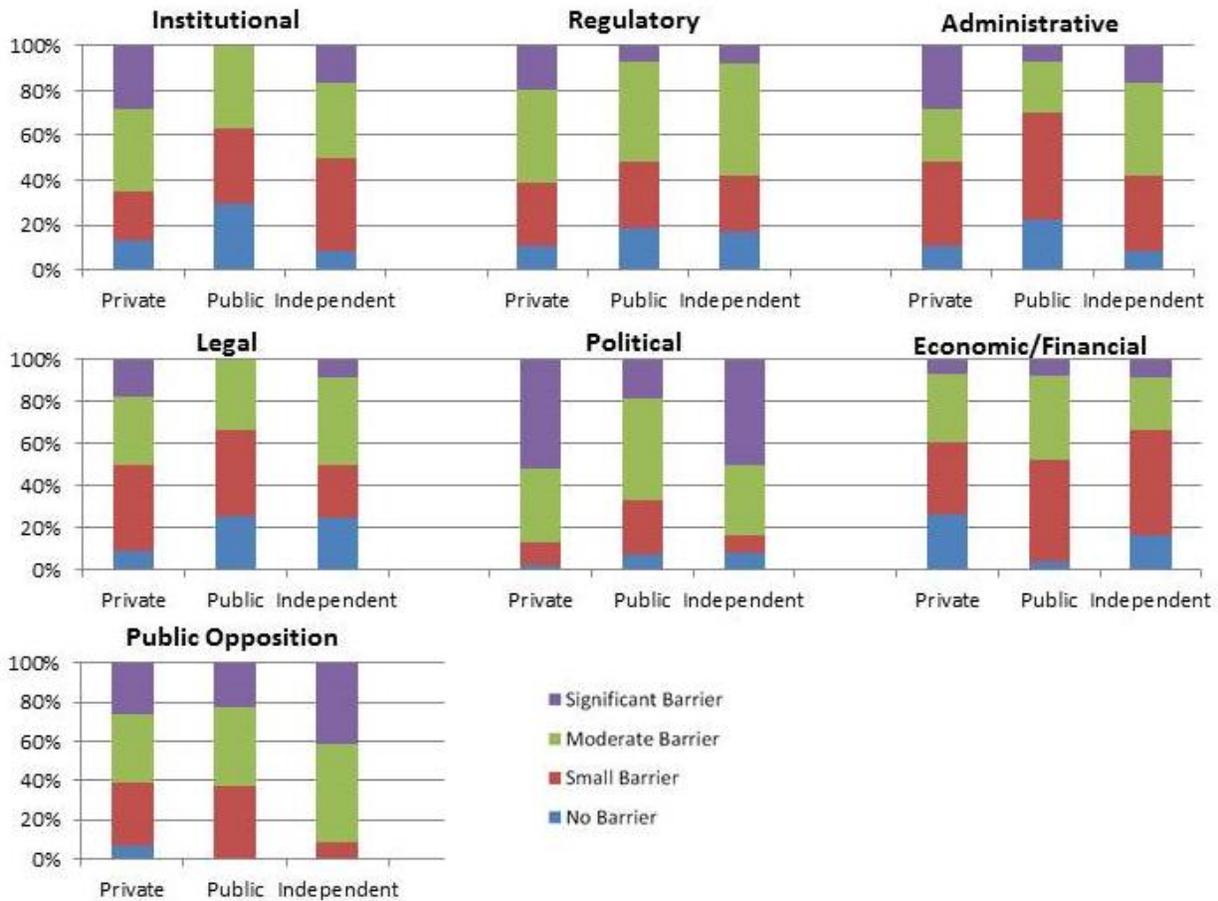


Figure 10. Type and severity of barriers to the implementation of PPPs for transportation infrastructure, by respondent employment sector

5.6.2 Administrative

Administrative barriers were perceived as small (40%), with 14% of respondents not considering them a barrier at all. Again, different sectors showed different perceptions as 37% of private respondents considered administrative barriers to be small, and 28% identified them as significant. In contrast, significant barriers were perceived by 8% of public respondents and by

17% of independents. Within those previously involved in PPP arrangements, the consensus was that administrative issues are small to moderate barriers.

Geographic differences were also noted with all Colorado and California respondents considering administrative issues to be barriers to PPPs. The less optimistic view was held in California, where 80% of respondents considered them to be either moderate (40%) or significant (40%). In contrast, respondents from Florida, Virginia, and Texas, which are considered leaders in PPP usage, saw them as significant barriers in much lower proportions (0%, 0%, and 9% respectively).

5.6.3 Economic/Financial

The results in this area were surprising given recent financial turmoil. Economic and financial issues were considered small barriers by 41% of respondents, moderate by 34%, and significant by only 7%. The differences in points of view between the private and public sector were noteworthy since, despite having similar proportions of respondents considering them to be significant (between 6% and 7%), responses varied greatly for those that do not consider them to be barriers at all (26% vs. 4%). Even more interesting was the perception among those who identified themselves as working for a “Bank or Investment Firm,” where 67% said that economic or financial issues are no barriers at all, and none considered them to be either moderate or significant barriers to PPP agreements.

The large difference in perceptions between the public and private sectors could indicate a general disconnect or a lack of understanding of current market conditions by the public sector, especially in the face of such an overwhelmingly positive view by those respondents in banking organizations. This could be interpreted as the existence of a potential demand for PPPs that is eager to materialize under the right circumstances.

5.6.4 Political

Of the survey’s seven categories of issues representing potential barriers to PPPs in the U.S., political issues were considered to be the most problematic. A total of 80% of respondents considered them to be an either moderate (39%) or significant (41%) barrier and only 5% did not perceive political barriers.

Responses from the private sector and independents were similar, with 52% and 50% perceiving significant political barriers, against only 19% of public sector respondents. Because political issues are location-specific, two other analyses were performed. First, responses from the federal government were compared to those of state governments. This showed that federal respondents had a more widespread view with equal proportions (29%) seeing them as either small, moderate, or significant barriers, while 58% of state respondents saw political issues as moderate barriers, and 8% as significant. Second, responses were considered based on the respondents' location, which, as expected, showed great variation with California (60%) and Texas (57%) respondents seeing significant political barriers to PPPs in their states. Conversely, no respondents in D.C. or Florida acknowledged significant political barriers.

5.6.5 Public Opposition

With over 96% of respondents considering it a barrier to PPPs, public opposition is also worth some attention. A prominent issue in the literature, overall opinion on this topic showed a wide range of perceptions, with respondents considering it to be a small (31%), moderate (39%) or significant (27%) barrier. However, almost two-thirds of total respondents considered public opposition to be either a moderate or significant barrier; independent respondents had the most negative perception of the three sectors with over 90% of them sharing this view. Those who were particularly concerned with this issue were respondents from academic institutions; they had the largest proportion of respondents perceiving public opposition as a significant barrier (68%) with respondents from think tanks/research organizations following with 38%. Responses among public and private sector respondents were roughly equal with about 40% of each seeing public opposition as a moderate barrier to PPP implementation.

Because its purpose is to protect the public's interest, the public sector likely has to deal more directly with public opposition and thus has it as a higher concern. A closer look into the responses from government shows that these respondents all saw public opposition as a barrier, but were not as concerned as independents were. It is worth noting the difference between the three government categories of respondents. Among federal and state government respondents, the former showed less variation among their views and a tendency to see public opposition as a small barrier (43%), contrary to state government respondents, who showed a greater internal difference in their views, centered on the perception of a moderate (50%) barrier. Still, the

proportion of those that saw public opposition as a significant barrier was higher among federal respondents than among state respondents (29% vs. 17%). Instead, respondents from “other government” entities expressed the most balanced set of views with equal proportions among the three barrier categories.

Geographically, there is a lot of variation in this regard. Public opposition was ranked as a significant barrier by 48% of Texas respondents, 33% of Virginia respondents, and 20% of both California and D.C. respondents while other states showed a much smaller proportion or had no respondents regarding public opposition as a barrier. But in general, public opposition is seen as a barrier to PPPs in the U.S., and as such, it has been a prominent topic in the PPP debate, especially in relation to some of the earlier projects. Perhaps because of this, the perception among people that have not been involved with PPPs was shown to be more negative than among those that have been involved, with the proportions of those who considered public opposition as either a moderate or significant barrier at 100% vs. 64% respectively. Yet the level of concern expressed by those within the public and private sector was not nearly as high as that expressed by independent respondents, and in particular by academic respondents.

As with the perception that PPPs create non-monetary costs to society, lack of direct involvement in these transactions tends to translate into a more negative view about them. Seeing that most studies tend to come from academic and think-tank type of organizations, the question arises as to whether the concerns in the literature about public opposition could be less prominent in reality. Furthermore, this highlights the importance and the need for better education about what this delivery mechanism really is, its advantages and disadvantages, so that decision-makers and the general public can make informed decisions regarding what is more beneficial to their communities.

5.6.6 Regulatory

Overall, regulatory barriers were ranked as a moderate barrier to PPPs, with the private sector showing the most concern as 20% of its respondents identified them as a significant barrier, compared to 8% and 7% of independent and public sector respondents respectively. Those with no previous involvement had the most negative perception as 100% of them perceived regulatory issues as a barrier (of all strengths) compared to 80% of those with previous involvement.

5.6.7 Legal

In general, most respondents characterized legal issues as small (39%) or moderate (34%) barriers to implement a PPP agreement. Nevertheless, responses varied widely among the public and private sector respondents while independents mostly aligned with public sector respondents. In particular, it is interesting that no public sector respondents considered legal issues a significant barrier, while 17% of private sector respondents did. More telling perhaps is the comparison of the proportion of respondents who did not consider legal issues as a barrier: 26% and 9% of public and private respondents, respectively.

Here again, previous involvement makes a difference as those without it voted in a very different way, mainly avoiding the extreme positions: small (40%) and moderate (60%) were their ratings. Among those who had been involved with PPPs, the main difference was that those that had been in a lead role tended to identify legal issues as either small (50%) or moderate (33%) barriers while those in previous support positions offered varied assessments ranging from “No Barrier” to “Moderate Barrier.” Then, it could be said that, among this survey’s respondents, increased involvement with PPPs tends to decrease the perception of legal issues as a barrier to implement them.

In general, when the seven categories of issues were analyzed based on previous involvement with PPPs, it was found that every single respondent with no past involvement saw a barrier on each of the topics. On the contrary, within the respondents with some sort of previous PPP involvement there was at least one, and most of the times a few, considering each of the seven topics as a “No Barrier” to PPPs. Could it be that some of the concerns about barriers to implement PPPs for transportation infrastructure in the U.S. are more perceived than real?

5.7 LATENT DEMAND

Overall, 58% of respondents believed that there was a latent demand for PPPs that was not materializing due current conditions (e.g., legal, financial, political, etc.), 16% did not, and 26% were not sure. A different and interesting trend is revealed when looking at responses by sector. As shown in Figure 11, more respondents from the private and independents sectors perceived a latent demand for PPPs (75% and 63% respectively), than in the public sector (27%).

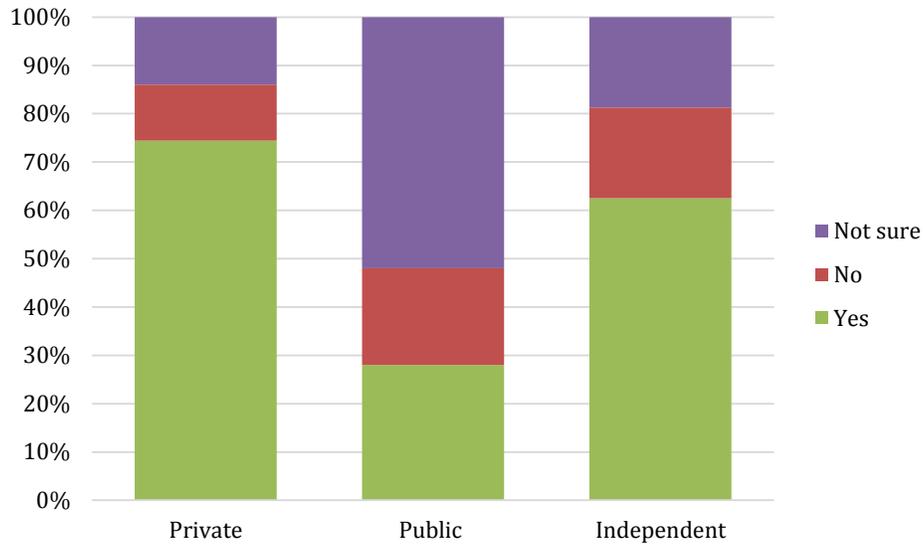


Figure 11. Latent demand for PPPs by employment sector

When experience with PPPs was incorporated in the analysis, little variation was found; the proportions of respondents acknowledging a latent demand ranging between 12% and 19%. Results grouped by experience are shown in Figure 12.

When considering the same question with regard to respondents' locations, the responses showed more variation. Of interest, respondents from states that are leaders in PPP implementation showed a higher belief that there is latent demand in their state. The highest proportion was found in Florida with nearly 75%, followed by California with 70%. Approximately 55% of Texas respondents believed that there was latent demand for more PPPs that could be realized; 50% and 39% of respondents from Virginia and Colorado believed the same. Looking at pooled responses from all other states, only 10% of respondents perceived a latent demand for PPPs. Figures 13 and 14 show results by location.

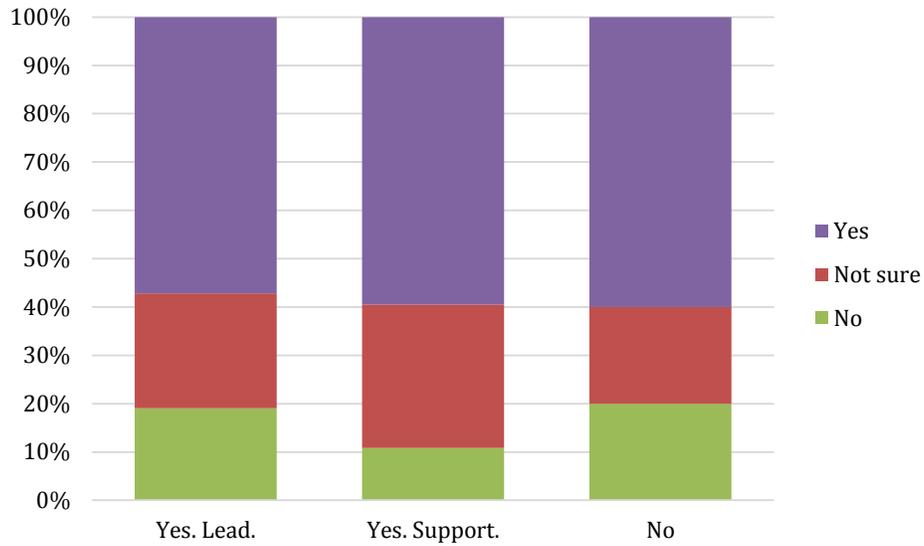


Figure 12. Existence of a latent demand for PPPs by experience with PPPs

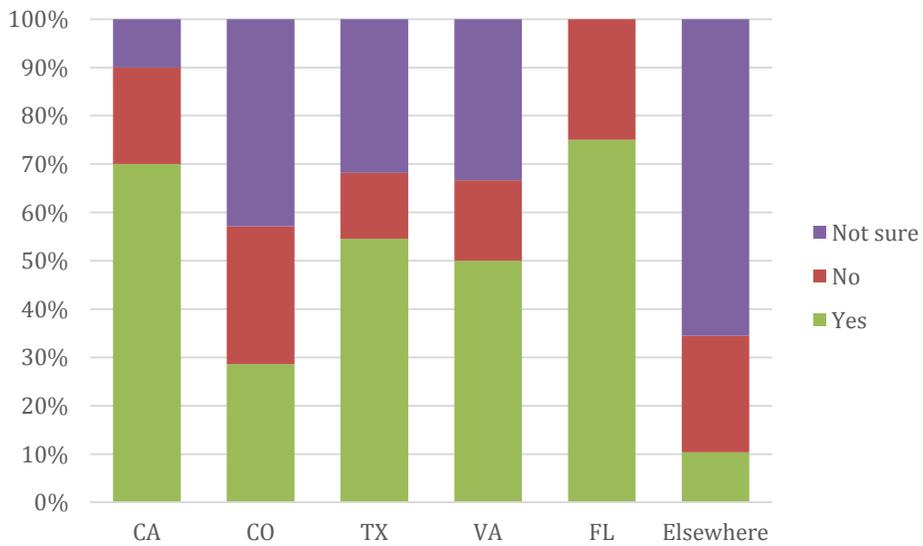


Figure 13. Existence of a latent demand for PPPs in key PPP states, by respondent location

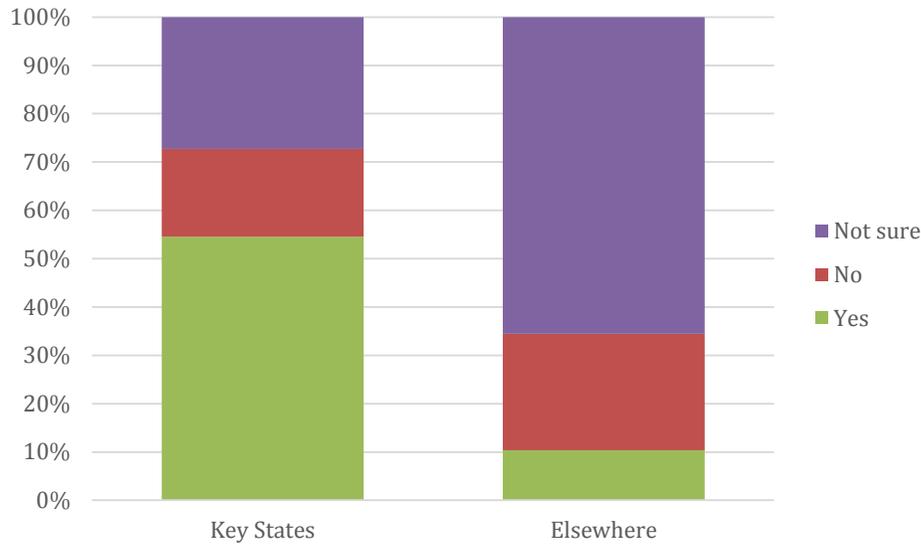


Figure 14. Existence of a latent demand for PPPs, by respondent location

5.8 PUBLIC AND PRIVATE BENEFITS AND LIMITATIONS

Comments were sought regarding inherent benefits and limitations that the public and private sector partners bring to PPPs. The following summarizes the most common sentiments.

5.8.1 Public Sector Benefits and Limitations

The most commonly identified benefit provided by the public sector was the protection of the public interest, which was associated with a more comprehensive planning and prioritization of projects as well as a concern with projects costs. Access to lower cost funds and institutional knowledge of the regulatory and environmental planning processes were also highlighted, while sovereign immunity was identified as a benefit that allows governments to take on certain risks by making them the best party to manage them.

The main limitations of the public sector in regard to PPPs were said to be bureaucracy and politics, which were identified as constraints that slow down and interfere with the processes, while also limiting innovation. Lack of experience and technical knowledge of risk management and PPP procurement were also frequently mentioned.

5.8.2 Private Sector Benefits and Limitations

When asked to assess what benefits the private sector could bring to transportation infrastructure provision, the most common theme was expedited project delivery, followed by life-cycle cost

analysis. The latter relates to better analysis and implementation of life-cycle cost plans, resulting in lower costs from improved efficiencies. These efficiencies were said to stem from the integrated planning of multiple project phases (such as design, construction, operation, rehabilitation, and maintenance) to be handled by a single entity. Additional benefits identified included the acceptance of increased risk by the private sector, access to private capital, a customer-oriented approach, and innovation, which respondents feel emerges from competition among private sector firms.

In relation to the inherent limitations that the private sector faces when engaging in PPPs, respondents most commonly noted public opposition. This was mostly related to the fact that private companies are motivated by profits, which was associated with increased costs of projects and misaligned objectives due to the desire to focus on commercially attractive projects, rather than the most needed ones. Another common concern was the notion that the public loses control of a public good when the private sector is involved. Additional comments indicated that projects with tolls or long-term leases are likely to face increased opposition.

5.9 PPP EVALUATION METHODS

PPPs are not a one-size-fits-all solution, so how should government decide whether to use one or not? This was one of the main themes identified by the NCHRP survey, which called for more research on valuation tools “the most pressing research need surrounding PPPs” as it found little understanding among the public about PPP evaluation.

Value for money (VfM) is a well-known evaluation technique for PPPs—usually a comparison of net present costs between the PPP and conventional procurement (8)—but it is not the only methodology that has been used in the U.S. (2). Of the 88% of respondents that acknowledged familiarity with these types of methodologies, 72% claimed having personally used them or belonging to an organization that had. Figures 15 and 16 show the proportion of respondents that acknowledged familiarity with, or having used, VfM or similar evaluation methods. In both instances, the private sector reported higher proportions than did the public sector; independents were less likely to be familiar with or have used such methodologies.

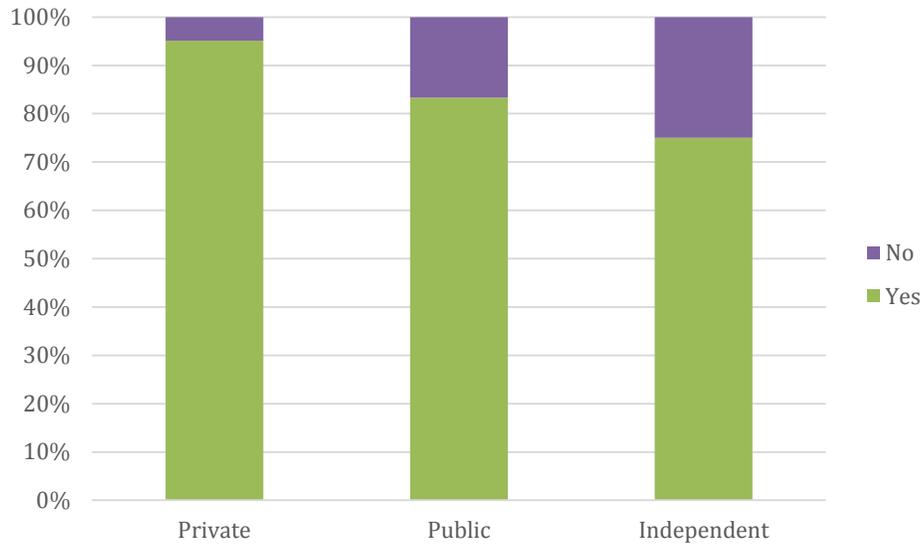


Figure 15. Familiarity with VfM (or other evaluation method), by employment sector

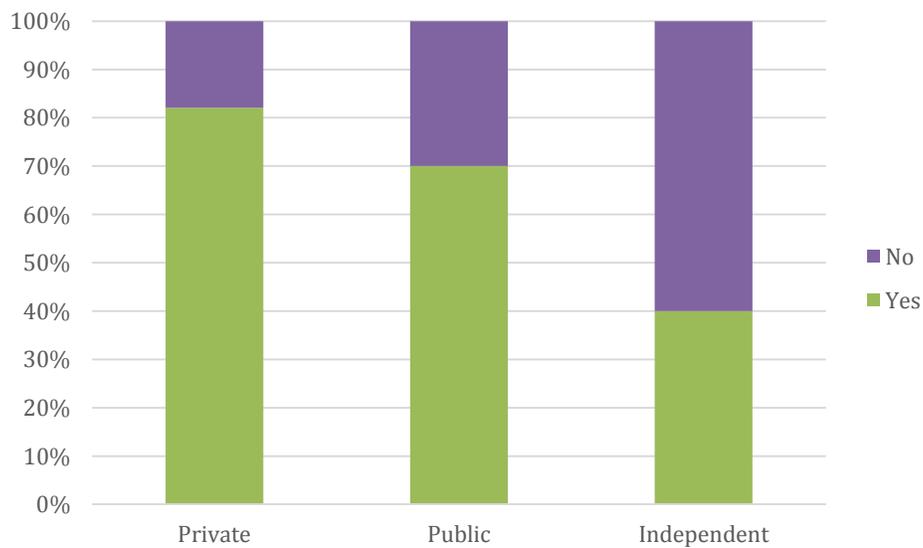


Figure 16. Previous utilization of evaluation methods, by employment sector

Among the respondents that have previously used evaluation methods such as VfM, 98% believed the results are useful to decision-makers for selecting the most beneficial procurement method for a project. However, 76% of those respondents acknowledged the existence of inherent limitations of such techniques, and in particular, their subjectivity since they are based on assumptions about the future. Additionally, issues with the allocation and pricing of risk were identified. Furthermore, roughly one-half of private and public sector respondents believed that

external factors inhibit the usefulness of such analyses, whereas two-thirds of independent respondents perceived the same. Politics was the most mentioned of such factors.

5.10 RISK MANAGEMENT

Allocating projects risks to the party that can better manage them is considered one of the main benefits of a PPP (2). As such, Morillos and Amekudzi identified the optimization of risk transfer as the primary driver of VfM (8). Yet Aldrete (9) found that transportation agencies in the U.S. lack a structured process to measure risk exposure and to integrate the cost of risk bearing in PPP evaluation, and Morillos and Amekudzi (8) called for better risk valuation and allocation strategies to improve VfM. To explore these issues, respondents were asked how the public and private sectors deal with risk in PPPs.

5.10.1 Risk in the Public Sector

Identification: When asked if public sector entities correctly identify risk, 42% of respondents said “Yes” while 31% responded that they were not sure. Among those that agreed were 44% of private sector and 46% of public sector respondents. More than half of independents (54%) did not believe the public sector correctly identifies risk while public sector respondents showed the largest proportion of “Not sure” responses (39%). No respondent without previous involvement with PPPs answered “Yes,” compared to 45% of those with some previous experience.

Valuation: The public sector’s ability to correctly value risk was rejected by 73% of independent, 42% of private sector, and 19% of public sector respondents. While the proportion of respondents that said not to be sure was important among private (42%) and public (42%) respondents, 39% of public sector responses perceived that the public sector did correctly value risk. Here again, respondents with no previous PPP involvement avoided an affirmative response: 50% said “No” and 50% said “Not sure.”

Management: Deciding which risks should be retained and which should be transferred to the private sector is a key decision for a PPP sponsoring agency. Results showed that 40% of respondents approved how the public sector manages risks, 30% did not, and 30% was not sure. Among the three sectors, public respondents had the most positive opinion with 54% approving versus 37% of private sector, and 18% of independents. Interestingly, 67% of respondents working for “Infrastructure Developer/Concessionaire” firms disapproved of how the public

sector deals with risk in PPPs while 50% of all government respondents (federal, state, and other) approved of their management of risk (Figure 17).

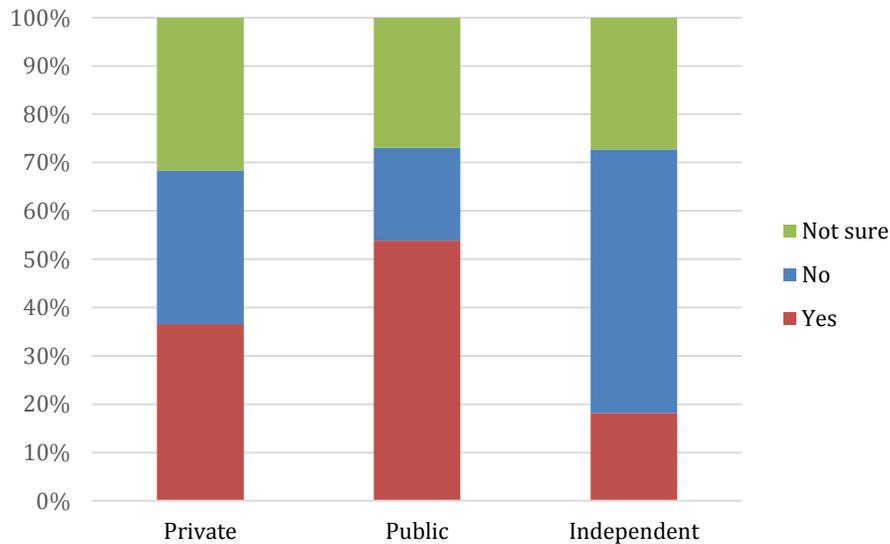


Figure 17. Does the public sector correctly manage risk?

5.10.2 Risk in the Private Sector

Identification: In evaluating the private sector’s ability to identify risk in PPP transactions, 73% of private and independent sector respondents felt that the private sector does it correctly. In comparison, only 27% of public sector respondents perceived the same while 62% were not sure. Previous experience with PPPs was not a significant factor among those agreeing with the question but the respondents’ type of work was. Significant agreement with the way that the private sector identifies risk was found among respondents from academia (100%), bank or investment firms (100%), and law firms (88%) while respondents from the federal, state, and other government organizations had some of the lowest proportions (33%, 33%, and 17%).

Valuation: A little more than half of private and independent sector respondents perceived that the private sector values risk appropriately (51% and 55%) compared to 27% of public sector respondents. As with the identification of risk, public sector respondents expressed doubts in an important proportion (58%). Not having experience with PPPs was associated with a positive perception of private sector’s risk valuation at 25%, compared to 45% among those with previous involvement. The majority of government responses showed a lack of familiarity with

private sector practices (Figure 18) as 50% of federal, 59% of state, and 67% of other government respondents answered “Not sure.”

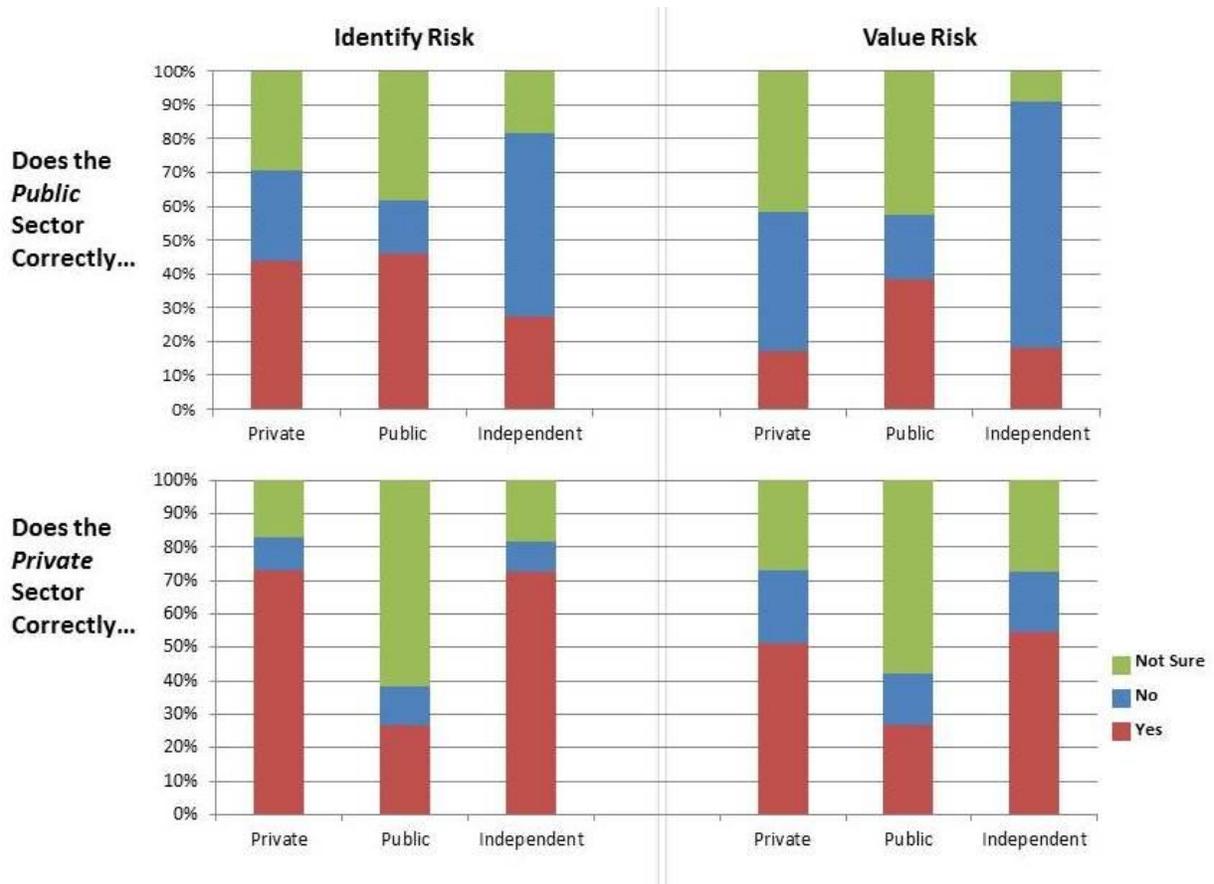


Figure 18. Perception of overall risk handling by the public and private sectors, by respondent employment sector

5.11 ADDITIONAL ISSUES WITH PPPS

Two main themes arose as prominent concerns among the survey’s respondents: educating the general public and decision-makers about PPPs; and improving risk management within valuation methodologies such as VfM. Other topics identified as needing further research and attention were the relationship of PPPs with the environmental planning process, better comparisons of PPPs to traditional procurement, and the role of government in these transactions.

CHAPTER 6. CONCLUSIONS

Survey responses indicate that perceptions about public-private partnerships (PPPs) varied among different stakeholders—at times greatly—depending upon respondent work type, location, and especially with whether they had previous experience with PPPs. Specifically, it was found that experience with these type of contractual agreements was associated with a more positive opinion of their benefits, and a less negative opinion of both their limitations and implementation barriers. In general, although it is not surprising that stakeholders’ backgrounds shape different views, in some cases the variations in perceptions were unexpected, in both type and magnitude. Also of interest was to note the conflicting views of respondents about certain topics such as, the roles of the public and private sectors in the provision of infrastructure; the appropriateness of risk management by the public and private sectors; and the evaluation of PPP proposals.

Respondents believed that there is a latent demand for PPPs that is not materializing due to current conditions; this perception is reasonable given the outlook on transportation funding. Decreasing public funds will continue to put pressure on public agencies to identify alternative funding mechanisms, like PPPs. Consequently, their usage will surely increase in the coming years.

The following is a summary of observations and recommendations aimed at developing successful PPPs for the delivery of transportation infrastructure in the U.S. They are based on the responses to this survey.

i. Public Opposition

A common theme among survey responses was that public opposition poses a significant barrier to PPPs. Namely, opposition was identified as stemming from two reasons: the belief that there is a loss of control of a public good to a private company, and that the profit-seeking nature of the private sector is in direct conflict with the public interest. Yet if such loss of control was true, it would be odd that public sector respondents had positive views of PPPs. However, those concerns are important and call for efforts to maximize transparency in these processes as well as to improve education so that decision-makers and the general public understand, first, what are

the reasons for their use, and second, how they could be of benefit, not only to the project partners, but to society.

ii. Combining Strengths and Mutually Overcoming Limitations

Benefits and limitations of the public and private sectors were identified in the survey in regard to PPPs for transportation infrastructure. Yet what is crucial to understand is that for these agreements to succeed and be beneficial to everyone involved, the importance of the third “P,” the partnership element, needs to be emphasized; distrust among the public and private sectors should be minimized. Each sector has its own goals, expectations, and stakeholders to respond to, and this should be understood by each party when these agreements are being crafted and negotiated, as opposed to trying to take advantage of their counterpart. Efforts should be made then to avoid what one of the respondents called the “*us vs. them*” approach to risk management and contract negotiation.

iii. Risk Management/Risk Evaluation Methods

Rigorous and objective risk management should be the norm, and should focus on both project-specific and system-wide risks. This is of the utmost importance as an appropriate risk distribution is at the core of a successful PPP. To accomplish this, stakeholder understanding of the importance of risk management is of crucial importance. Consequently, risk management training for public sector staff should be a central element of any serious attempt to stimulate PPP usage both at the federal and state levels.

Value for money (VfM) and similar evaluation methods were noted as helpful to the public and private sectors in analyzing projects in a comprehensive manner. Also, they were said to be very sensitive to assumptions and not as good for the evaluation of a project’s non-monetary aspects. A common argument was that these evaluations are often performed with bias and the outcomes may be shaped by political will. Because of the difficulty in overcoming these limitations, respondents suggested that those evaluations should be seen as one tool in the decision-making process and not the only factor; that they should consider a large range of procurement options to encourage innovation; and that they should measure how well a procurement method helps to meet the project’s goals, not just assess monetary aspects.

Finally, it is understandable that misperceptions still exist among PPP stakeholders as a result of the broad application of the PPP term, the stakeholders' inherent biases affecting the type and tone information they convey, and the limited experience with such projects in the U.S. However, some responses showed deep misunderstandings, fears, or unrealistic expectations about PPPs, what they are, and their potential benefits and limitations. The fact that such misperceptions came from respondents that were targeted because of their assumed familiarity with these transactions is worrisome, and it validates recommendations in the literature, as well as from respondents of this survey to (as mentioned before) educate decision-makers, staff, and the general public about what PPPs really are, why they are needed, and what they can and cannot do.

CHAPTER 7. LIMITATIONS AND FUTURE WORK

A novel aspect of this survey was the unique perspective offered. The survey shows the different perceptions that a wide variety of PPP stakeholders have about using PPPs to deliver transportation infrastructure in the U.S., with responses classified based on different aspects of the respondents backgrounds. Besides, the survey sought responses from some PPP stakeholders that are at times overlooked in the literature but play key roles in these transactions, such as professionals in legal, banking and finance, and concessionaire organizations.

Several limitations were identified in this survey. First, as explained in the “Survey Development and Administration” section of this report, potential respondents were identified using an unstructured approach. As a result, despite the diligent effort of the research team for achieving the maximum possible distribution for the survey, not only were many individuals and organizations not reached, but the distribution of respondents based on work type and location was not as balanced as desired. Because of that the results cannot be considered representative of the PPP landscape for the entire U.S.

Second, the answer choices in some of the questions could have been structured to give respondents more flexibility, which would have allowed for a better capture of a respondent’s familiarity, perception, and concern with PPPs. For example, some questions only had “Yes” and “No” as answer choices but could have included options such as “It depends” or “Not sure,” as suggested by some respondents. Also, the questions about the legal framework in the respondents’ states were said to be restrictive for respondents that live in one state but perform most of their work elsewhere.

Third, more specific questions on PPP valuation techniques could have been asked to gain a more in-depth understanding of the technical aspects of such methodologies since that is a crucial topic. In particular, questions about typical assumptions used in these analyses would have been useful in addition to the questions of risk management.

Future research to obtain direct feedback from PPP stakeholders should attempt to overcome this survey's limitations. For example, follow-up interviews with a random sample of respondents could be done to clarify issues and discuss results.

APPENDIX A. SURVEY QUESTIONNAIRE

1. You have been informed about this study's purpose, procedures, possible benefits and risks. You may ask questions before confirming, and understand that you can ask other questions at any time. You voluntarily agree to participate in this study. By confirming, you are not waiving any of your legal rights.

- Agree and confirm

2. Describe the organization that you work for by selecting from the categories below. (If more than one applies, please select the one in which you have more PPP experience and write the other one(s) in the comments field).

- Federal Government
- State Level Government
- Other Government
- Bank or Investment Firm
- Consulting Firm
- Design and/or Construction Firm
- Toll Road Operations Firm
- Infrastructure Developer/Concessionaire
- Law Firm
- Academia
- Think-tank/Research
- Other, please specify

3. What is your position within the organization?

- Board Member
- Partner
- President/Director/CEO or similar
- Department Head or similar
- Section Leader
- Senior Staff
- Junior Staff
- Other, please describe

4. Do you serve on any boards, task forces, or committees, which focus on infrastructure development, infrastructure finance, etc.?

- Yes
- No

If you do, please specify in what type(s)

5. Have you or others in your organization been involved with Public Private Partnerships (PPPs)?

- Yes. Support
- Yes. Lead
- No

6. In your opinion, how do they benefit from PPPs? In what capacity?

Project Sponsor Agency

- Significant Benefit
- Moderate Benefit
- Low Benefit
- No Benefit

Private Sector

- Significant Benefit
- Moderate Benefit
- Low Benefit
- No Benefit

Society in general

- Significant Benefit
- Moderate Benefit
- Low Benefit
- No Benefit

7. *“The use of PPPs benefits society by allowing expedited development of projects compared to what it would take under traditional funding mechanisms.”*

Do you agree with this statement?

- Yes
 - No
- Please explain

8. Do PPPs provide non-monetary benefits to society?

- Yes
 - No
- Please explain

9. Do PPPs create non-monetary costs to society?

- Yes
 - No
- Please explain

Legal framework

10. In which state are you based?

11. Is there a legal framework in place that allows the use of PPPs in your state?

- Yes
- No
- Not Applicable

12. If there is a legal framework in place, do you think is adequate?

- Yes
- No

Please explain

13. What would you change, add, or remove from it?

14. Have there been any attempts to implement a legal framework, including current proposals?

- Yes
- No

Please explain the status of current proposals or the reason for unsuccessful attempts

15. From the list below, please identify barriers to the successful implementation of PPPs in your state.

<u>Barrier</u>	Significant	Moderate	Small	No Barrier
Institutional				
Regulatory				
Administrative				
Legal				
Political				
Economic/Financial				
Public Opposition				
Other				

16. Do you think that there is a latent demand for private sector involvement in transportation infrastructure provision that is not materializing because of the current conditions (legal, financial, political, etc)?

- Yes
- No
- Not sure

Please explain

Private Sector in PPPs

17. What BENEFITS, if any, do you believe the PRIVATE sector can bring to transportation infrastructure provision?

18. What are some of the inherent LIMITATIONS, if any, of the PRIVATE sector in relation to infrastructure provision and PPPs?

Public Sector in PPPs

19. What BENEFITS, if any, do you believe the PUBLIC sector can offer to transportation infrastructure provision?

20. What are some of the inherent LIMITATIONS, if any, of the PUBLIC sector in relation to infrastructure provision and PPPs?

Value for Money and other Comparison Methodologies

The following questions refer to the methodologies used to try to determine whether developing a project as a PPP, as opposed to under a traditional procurement method, is more beneficial to the sponsoring agency and to the public.

21. Are you familiar with Value for Money (VfM) or any other methodologies used to compare the potential outcomes of using different procurement mechanisms?

- Yes
- No

22. Have you or anybody in your organization used one of those methodologies?

- Yes
- No
- If the methodology used was not VfM, please specify which one.

23. Are the results of these methodologies helpful to decision-makers for deciding what procurement method provides the most benefit?

- Yes
- No

24. Are there any factors EXTERNAL to the methodologies that inhibit or preclude their development, or their results from being useful?

- Yes
- No

25. Do you think that there are INHERENT limitations of VfM and similar procurement-comparing methodologies?

- Yes
- No
- Not sure

If you think there are, please specify which ones

Risk Management – Public Sector

26. Currently, does the PUBLIC sector correctly IDENTIFY risks in PPP projects?

- Yes
- No
- Not sure

Please explain your answer

27. Currently, does the PUBLIC sector correctly VALUE risks in PPP projects?

- Yes
- No
- Not sure

Please explain your answer

28. Currently, does the PUBLIC sector correctly decide which risks should be RETAINED and which ones should be TRANSFERRED to the private sector?

- Yes
- No
- Not sure

Please explain your answer

Risk Management – Private Sector

29. Currently, does the PRIVATE sector correctly IDENTIFY risks in PPP projects?

- Yes
- No
- Not sure

Please explain your answer

30. Currently, does the PRIVATE sector correctly VALUE risks in PPP projects?

- Yes
- No
- Not sure

Please explain your answer

Additional PPP issues

31. What issues related to PPPs do you feel warrant more attention, awareness, or further investigation?

32. Additional comments about the survey or PPPs

33. Email address to receive a copy of the results.

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