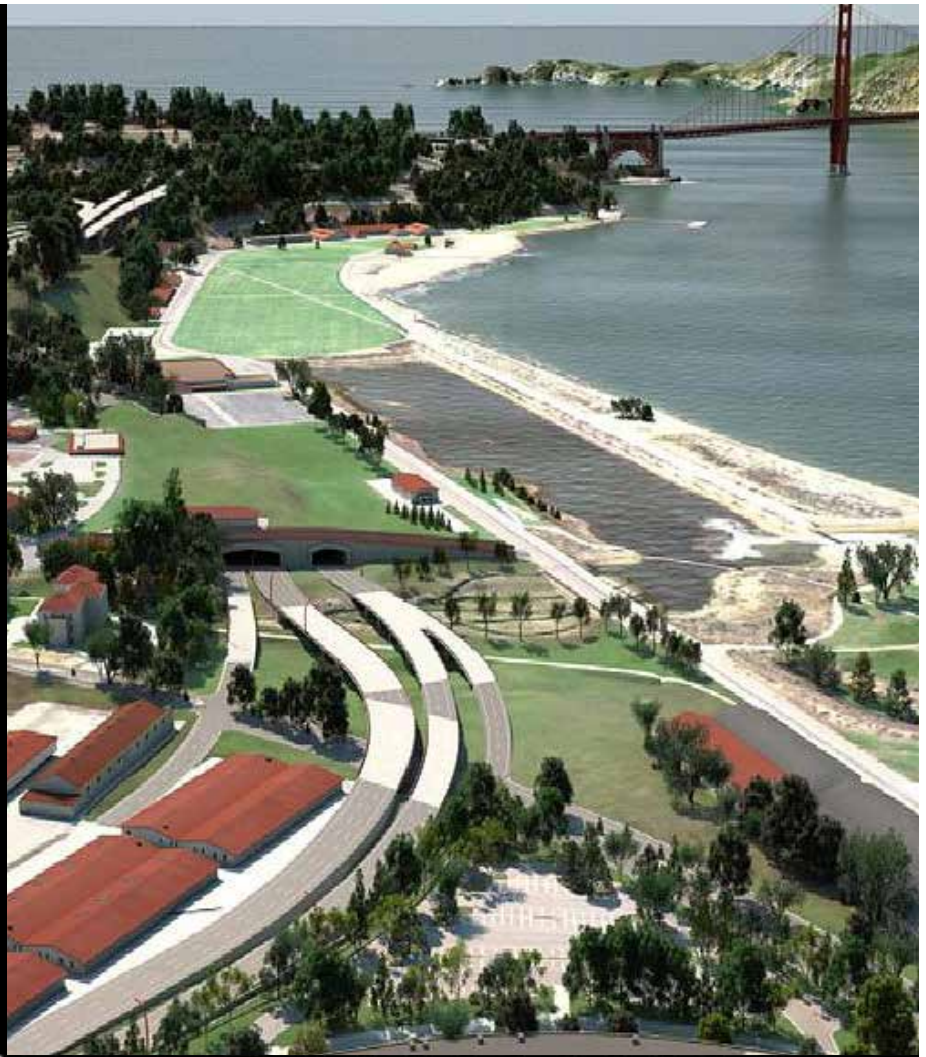FHWA Research
and Technology
Evaluation

Public-Private Partnership
Capacity Building Program

Final Report
February 2018

U.S. Department of Transportation
Federal Highway Administration

Foreword

The Federal Highway Administration (FHWA) has initiated an effort to evaluate the Research and Technology (R&T) development program and communicate the full range of benefits of their program. The R&T evaluation program helps FHWA assess how effectively it is meeting its goals and objectives and provides useful data to inform future project selections.

This report examines how FHWA's investment in the Public-Private Partnership (P3) Capacity Building Program helps build knowledge and technical expertise and improve decisionmaking for this innovative project delivery method.

This report should be of interest to researchers, practitioners, and decisionmakers involved in the P3 implementation process.

Monique Evans,
Acting Associate Administrator
Research, Development, and Technology

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16. Abstract This report details the evaluation of the Federal Highway Administration's Office of Innovative Program Delivery Public-Private Partnership (P3) Capacity Building Program (P3 Program). The evaluators focused on the P3 Program's P3 Toolkit as an educational resource for transportation practitioners that aimed to build knowledge and technical expertise to inform decisions related to the consideration, development, and implementation of P3 projects. The study concluded that, while less experienced practitioners found value in P3 Program materials, the P3 Program had limited impact on the implementation of new P3 legislation and adoption of P3s. The P3 Toolkit itself is still recognized by practitioners as a valuable resource and is noted by various sources as one of the most comprehensive resources on P3s.		
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SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
AREA				
in^2	square inches	645.2	square millimeters	mm^2
ft^2	square feet	0.093	square meters	m^2
yd^2	square yard	0.836	square meters	m^2
ac	acres	0.405	hectares	ha
mi^2	square miles	2.59	square kilometers	km^2
VOLUME				
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft^3	cubic feet	0.028	cubic meters	m^3
yd^3	cubic yards	0.765	cubic meters	m^3
NOTE: volumes greater than 1000 L shall be shown in m^3				
MASS				
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
TEMPERATURE (exact degrees)				
$°F$	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	$°C$
ILLUMINATION				
fc	foot-candles	10.76	lux	lx
fl	foot-Lamberts	3.426	candela/m^2	cd/m^2
FORCE and PRESSURE or STRESS				
lbf	poundforce	4.45	newtons	N
lbf/in^2	poundforce per square inch	6.89	kilopascals	kPa

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
AREA				
mm^2	square millimeters	0.0016	square inches	in^2
m^2	square meters	10.764	square feet	ft^2
m^2	square meters	1.195	square yards	yd^2
ha	hectares	2.47	acres	ac
km^2	square kilometers	0.386	square miles	mi^2
VOLUME				
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m^3	cubic meters	35.314	cubic feet	ft^3
m^3	cubic meters	1.307	cubic yards	yd^3
MASS				
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
TEMPERATURE (exact degrees)				
$°C$	Celsius	1.8C+32	Fahrenheit	$°F$
ILLUMINATION				
lx	lux	0.0929	foot-candles	fc
cd/m^2	candela/m^2	0.2919	foot-Lamberts	fl
FORCE and PRESSURE or STRESS				
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in^2

*SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380.
(Revised March 2003)

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List of Abbreviations

Abbreviation	Term
AASHTO	American Association of State Highway and Transportation Officials
BATIC	The Build America Transportation Investment Center
FAST Act	Fixing America's Surface Transportation Act
FAQs	frequently asked questions
FHWA	Federal Highway Administration
IPD	Office of Innovative Program Delivery
NCSL	National Conference of State Legislators
P3	public-private partnership
P3 Program	Public-Private Partnership Capacity Building Program
PDF	portable document format
PSC	public sector comparator
PWF	public works financing
R&T	FHWA Research and Technology
RD&T	FHWA Office of Research, Development, and Technology
RFP	request for proposal
TRB	Transportation Research Board of the National Academies
VFM	Value for Money
USDOT	U.S. Department of Transportation

Executive Summary

Purpose of the Evaluation

This report is part of the larger compilation of the Federal Highway Administration's (FHWA) effort to evaluate their Research and Technology (R&T) Development Program. For each evaluation, the FHWA's R&T Evaluation Program evaluation team (referred to as the "evaluation team" throughout this report) is made up of non-FHWA, third-party evaluators not involved in the research programs and projects being evaluated. This specific report is the evaluation of the Office of Innovative Program Delivery's (IPD) Public-Private Partnership (P3) Capacity Building Program (P3 Program). The purpose of the evaluation is to understand how the program helps transportation practitioners build knowledge and technical expertise on P3s to inform decisions related to the consideration, development, and implementation of P3 projects.

Program Description

The P3 Program is part of the newly formed Center for Innovative Finance Support (formerly the Strategic Delivery Team in IPD). The center provides tools, expertise, and support for financing to help the transportation community explore and implement innovative financing strategies to deliver costly and complex infrastructure projects.[2] The main component of the P3 Program is the P3 Toolkit. The P3 Toolkit is an educational resource consisting of analytical tools and guidance documents that assist those exploring, developing, and implementing P3s. The P3 Toolkit addresses Federal requirements related to P3s and covers four key phases in P3 development and implementation: legislation and policy, planning and evaluation, procurement, and monitoring and oversight.[3] The Toolkit forms the base of the P3 Program, which also includes a curriculum of training courses and webinars.

Methodology

The evaluation team developed four hypotheses to assess how the activities and outputs of the P3 Program support short-term outcomes and long-term impacts. For each hypothesis, evaluation questions and key performance measures were developed:

1. The FHWA P3 Program provides the most complete set of information resources to assist transportation practitioners in all phases of the P3 implementation process.
2. The FHWA P3 Program helps increase legislative and policy support for transportation P3s in State and local governments.
3. The FHWA P3 Program has led to more informed decisions on consideration and use (approval) of P3s for appropriate transportation projects.
4. The FHWA P3 Program improves the decisionmaking capabilities of transportation practitioners in the areas of P3 development, procurement, and oversight.

Both qualitative and quantitative methods were used to inform the evaluation. The evaluation team used a literature search and document reviews to gain an initial understanding of the P3 Program, its users, and its outputs. In-depth interviews with FHWA staff, State and local transportation agencies, legislators and policymakers, and P3 advisors provided a deeper understanding of P3 information needs and provided examples of program use. Information from the qualitative research was used to develop an online survey that captured data on P3 information needs and program

usage by FHWA Division Office staff. P3 Program resource usage data, including outreach event attendance, website usage, and document downloads, provided additional quantitative data for the evaluation.[1]

Findings

The findings section presents an overview of P3 Program usage and then highlights findings for the four evaluation hypotheses.

P3 Program Users and Resource Use

An analysis of website usage shows that the P3 Program serves hundreds of diverse stakeholders in the transportation community. The P3 Toolkit website reaches 1,500 to 2,500 users per quarter, spiking when new documents, tools, or webinars are introduced. Analysis of other usage data collected from P3 Program outreach registrations and document download forms indicates that there are multiple user groups accessing the program. The most active users fall into three groups: State and local transportation agencies; FHWA Division Office staff; and P3 advisory firms who provide legal, financial, or engineering support. Smaller groups of academics, interest groups, and international users round out the audience.

Aggregate statistics were available to assess usage of the P3 Toolkit website. Since its inception, the website has had two main landing pages, the P3 Toolkit homepage and the P3-VALUE Analytical Tool homepage.[3,4] Although both pages received more than 1,000 views per quarter in early years, the P3-VALUE Analytical Tool homepage has recently become more popular, while P3 Toolkit homepage views have declined. The homepages for other popular resources have also seen views decline, although the fact sheet and publications' homepages are still widely used.[3]

P3 Program usage data that could be linked to groups show that each has a distinct resource use as follows:[2]

- P3 advisory firms gather P3 information from webinars and outreach activities as well as through P3 Toolkit website downloads such as the P3-VALUE tool and related documents.
- State and local agencies use webinars and outreach sessions more than other sources.
- Academics and interest groups are involved in P3 Program development and outreach activities.

An online survey along with program usage data provide additional detail on the resource usage of FHWA Division Office staff. These users tend to attend webinars and also view fact sheets, primers, and other documents on the P3 Toolkit website. They are also likely to attend P3 outreach events.

> Finding: The P3 Program currently has only a limited impact on P3 legislation and policy.

Despite increases in P3 legislation and activity in recent years, P3 Program usage data and in-depth interviews suggest that there is not a strong connection between the P3 Program, legislators, and

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[1]Internal information was received from P3 Program staff and from Google® Analytics™.[42]

[2]Resource usage tied to individuals/groups came from P3 Program event registrations and a form on the P3 Toolkit website download page (https://www.fhwa.dot.gov/ipd/p3/toolkit/download). Document use/views through the website are not included.

policymakers. Few involved in legislation or policy directly accessed P3 Program resources. This does not mean, however, that information from the P3 Program does not reach this audience. In many cases, the link between the P3 Program and those in legislative or policymaking positions is indirect. That is, the program provides knowledge to Federal, State, and local transportation agencies and P3 advisors who bring the information to decisionmakers. The P3 Program also provides content to other organizations that develop P3 materials specifically for legislators and policymakers.

> Finding: There is not enough evidence in this evaluation to conclude that the P3 Program influences P3 consideration decisions, but evidence does indicate that program materials positively influence project approval decisions.

P3 Consideration Decisions

Neither P3 Program usage data nor in-depth interviews with P3 teams provided solid evidence that program usage impacts P3 project consideration decisions. States using the P3 Program were shown to be slightly less likely to announce consideration of a P3 project than those who did not, and the few interviews conducted did not connect consideration with use of P3 Program resources. To better understand the relationship between P3 Program resources and P3 project consideration, a more thorough identification and exploration of project-screening decisionmakers is needed.

P3 Approval Decisions

There is more evidence demonstrating that P3 Program resources help State and local agencies make informed P3 project approval decisions. An analysis of the Public Works Financing (PWF) Major Projects Database shows that roughly 30 percent of P3 projects announced in the years 2013–2015 were approved. P3 Program use was associated with the vast majority of States who approved transportation P3 projects in this period. Interviews with State and local agencies indicated that knowledge gained from the P3 Program was often used to support the case in favor of P3s.

> Finding: Less experienced practitioners value the combination of P3 Program materials and staff when making decisions throughout the P3 process; more experienced practitioners have only limited use of the resources.

Research on State and local agencies led to mixed conclusions about the value of the P3 Program for project decisionmaking. Less experienced States who took advantage of P3 Toolkit resources and FHWA staff found program resources to be valuable during project decisionmaking. States who had little or no FHWA staff support struggled to find helpful resources using the P3 Toolkit website. In addition, very experienced P3 States, most of whom have their own P3 education programs, had only limited use for the current materials, using them mainly for introductory information.

Interviews with a limited set of P3 advisors led to conclusions similar to those seen in State and local agencies. Experienced practitioners at established firms see value in the P3 Program through its use as an introductory resource but rarely use or recommend advanced analytic tools. Newer employees at P3 advisory firms, however, report attending webinars and using documents from the website. Although the evaluation interviews indicate limited P3 Program use among advisors, usage data on P3 Toolkit website downloads contradicts this, showing that advisors are a dominant user group. Additional research is recommended to understand more about this large user group, their use of the P3 Program, and their information needs.

P3 Program resources are increasingly valued by FHWA Division Office staff as more States are considering P3s. According to a survey of FHWA Division Office staff, more than one-third of those in roles that support P3s have accessed the P3 Toolkit website or attended webinars. They look to the program for materials to support teams at each stage of the P3 implementation process. P3 Program documents and webinars provide information that FHWA staff share with State and local agencies. Fact sheets, primers, and webinars provide general P3 information used during planning and evaluation, while model contract guides, project agreements, and oversight documents provide specific examples used when developing project documents during the procurement and implementation phases.

> Finding: The P3 Program was found to be one of several resources that are used and valued when researching P3s and making decisions throughout the P3 process.

To address whether the P3 Program offers a complete set of P3 resources, program satisfaction and the use of other resources were assessed. The results indicate that the P3 Program is a valued resource among some user groups but not used by all. In addition, even among satisfied users, other resources are necessary to supplement the information provided by the P3 Program.

Satisfaction

Depending on their level of experience, satisfaction varied between users:

- Those newer to P3s from State and local agencies who have a relationship with the P3 Program are most satisfied; newer employees at P3 advisory firms also expressed satisfaction.
- Inexperienced practitioners from State and local agencies who tried to navigate the P3 Program website without support were less satisfied.
- Experienced practitioners from agencies and P3 advisory firms were less satisfied, noting that most P3 Program resources were not geared to their level.
- FHWA Division Office staff tended to be moderately to very satisfied with materials but saw room for improvement.

Completeness (Other Resources Used)

Depending on their background, users accessed a variety of resources for P3 information:

- Those developing P3 legislation and policy looked to other States' legislation and materials for examples and guidance. Legal advisors were also described as critical in conducting a P3.
- State and local agencies noted that P3 advisory firms continue to play a major role in P3 implementation. Some States developed their own peer exchanges to bring real-life P3 examples and issues to the table. Other resources include P3 conferences, training, and other organizations.
- FHWA Division Office staff noted that they use information from more experienced FHWA offices. They also learned from experienced State and local P3 teams and from P3 advisors.
- Other than the use of in-house materials, P3 advisors mentioned gathering information from organizations such as AASHTO and the Design-Build Institute of America.

Recommendations

The P3 Program is already recognized as a valuable resource, but the evaluation process has identified the following five actions that could improve the reach and usefulness of the program:

1. The P3 Program should recognize the distinct user groups that access program resources and identify their information needs. Content development should be focused on a few key target groups and communication plans developed to reach them.
2. Marketing efforts should focus on target groups who are currently underusing P3 Program resources. The program should monitor resource use and seek to improve awareness among target groups not attending events, accessing webinars, or accessing guidance documents.
3. The P3 Program should segment its offerings, aligning documents and tools with the needs of practitioners at different experience levels to better serve those in all user groups.
4. The P3 Toolkit website should be organized in a way that allows distinct user groups to easily identify and access the content needed. The P3 Program team should look to its user groups for guidance on how to organize the website to best meet their information needs.
5. Future resources should include more "real-world" P3 information, examples, and experiences to help teams find information applicable to their unique P3 projects. Examples include actual P3 legislation, peer exchanges, and a P3 project database.

1. Introduction

1.1 Evaluation Purpose

The Federal Highway Administration (FHWA) has initiated an effort to evaluate their Research and Technology (R&T) Development Program. Leaders of governmental transportation R&T programs need to be able to effectively communicate the impacts of their programs. The R&T evaluation program helps FHWA assess how effectively it is meeting its goals and objectives and provides useful data to inform future project selections. For each evaluation, the FHWA's R&T Evaluation Program evaluation team (referred to as the "evaluation team" throughout this report) is made up of non-FHWA, third-party evaluators not involved in the research programs and projects being evaluated. The FHWA Center for Innovative Finance Support (formerly the Strategic Delivery Team in the Office of Innovative Program Delivery (IPD)) identified the Public-Private Partnership (P3) Capacity Building Program (P3 Program) as one of its efforts to be evaluated. The purpose of this evaluation is to understand how the P3 Program helps transportation practitioners build knowledge and technical expertise on P3s that inform decisions related to the consideration, development, and implementation of P3 projects.

The Center for Innovative Finance Support's P3 Program addresses the FHWA *R&T Agenda* through the following three objectives:[5]

1. Conduct research in the areas of financial stewardship and innovative program delivery.

2. Develop innovative procurement and revenue generation tools and technical resources.

3. Build technical expertise at the Federal, State, and local levels in the use and stewardship of innovative program delivery methods and programs.

Through these objectives, the P3 Program seeks to improve the state of the practice regarding the consideration and use of P3s. The P3 Program researches and reports on P3 methods, develops tools and technical resources to guide P3 consideration and use, and helps the transportation community build expertise through education programs and technical assistance in support of these objectives.

The evaluation team identified four hypotheses for the P3 Program evaluation through initial discussions with members of the R&T Evaluation Team and P3 Program staff. An iterative series of discussions led to the development of the P3 Program logic model (see section 2.1), which identifies the inputs, activities, and outputs from the program that produce short-term outcomes and long-term impacts. These hypotheses are detailed in table 1 below.

Table 1. Hypotheses by impact type.

Impact Type	Evaluation Hypothesis	Description
Short-term outcome	The FHWA P3 Program provides the most complete set of information resources to assist transportation practitioners in all phases of the P3 implementation process.	The degree to which P3 Program resources are used to inform P3 enabling legislation as well as P3 project development, procurement, and oversight, and the perceived value of the resources compared to those available elsewhere.
Medium/long-term impact	The FHWA P3 Program helps increase legislative and policy support for transportation P3s in State and local governments.	The extent to which P3 Program resources have been used by States to inform legislation and policy that support transportation P3 use.
Medium/long-term impact	The FHWA P3 Program has led to more informed decisions on consideration and use (approval) of P3s for appropriate transportation projects.	The extent to which consideration and approval decisions for transportation P3s, since the inception of the P3 Program, can be linked to use of P3 Program resources.
Medium/long-term impact	The FHWA P3 Program improves the decisionmaking capabilities of transportation practitioners in the areas of P3 development, procurement, and oversight.	The degree to which P3 Program resources contribute to increasing the knowledge and decisionmaking capabilities of transportation practitioners at each stage of the P3 implementation process.

1.2 Report Structure

Section 1 provides an overview of the purpose of the evaluation and a high-level description of the P3 Program.

Section 2 describes the evaluation methodology, including data sources, data collection methods, and data analysis methods.

Section 3 summarizes the depth and breadth of the P3 Program's usage.

Section 4 summarizes the findings of the evaluation. This section is broken down into four sections based on the evaluation hypotheses.

Section 5 describes the evaluation team's recommendations for the P3 Program based on the findings of the evaluation. The recommendations are proposals that the evaluation team developed to address certain findings about the program.

Section 6 contains general conclusions that the evaluation team drew from the evaluation.

1.3 P3 Program Background

Origins of the P3 Program

FHWA established the IPD in October 2008 and restructured it in May 2016. Under its prior structure, the mission of IPD was to expand State and local government capacity to consider, evaluate, and exercise appropriate stewardship in implementing alternative strategies for funding and financing transportation infrastructure.[2] IPD promoted innovative financing strategies to help overcome resource constraints, address energy and environmental considerations, and promote efficiencies in transportation project delivery.[2] P3s are one of the innovative strategies supported.

P3s differ from traditional methods of procuring and financing highway projects where the public sector maintains responsibility for each project phase. In P3s, a private entity assumes responsibility for some combination of the design, construction, financing, operations, and maintenance of an infrastructure project. Proponents claim that the private entity's financial stake increases motivation for effective management of costs, schedule, and risks.[4]

To improve the transportation community's understanding of the structure, development, and implementation of P3s, IPD launched the P3 Toolkit in June 2013. The P3 Toolkit is an educational resource consisting of analytical tools and guidance documents that assist those exploring, developing, and implementing P3s. The P3 Toolkit addresses Federal requirements related to P3s and covers four key phases in P3 development and implementation: legislation and policy, planning and evaluation, procurement, and monitoring and oversight. The toolkit forms the base of a broader P3 Program, which includes a curriculum of training courses and webinars.

The P3 Program is part of the newly formed Center for Innovative Finance Support in IPD. The center provides tools, expertise, and support for financing to help the transportation community explore and implement innovative strategies to deliver costly and complex infrastructure projects. FHWA encourages the consideration of P3s in the development of transportation improvements. The increased involvement of the private sector can bring creativity, efficiency, and capital to address complex transportation problems facing State and local governments.

P3 Toolkit Resources

The P3 Toolkit consists of fact sheets, publications, analytical tools and checklists, and outreach and training materials.

Fact sheets are short documents (1–2 pages) presenting a high-level overview of key topics covered in the P3 Toolkit. Fact sheet topics include the following:[6]

- *FHWA P3 Toolkit*.[4]
- *Analytical Studies for Public-Private Partnerships*.[3]
- *Risk Valuation and Allocation for Public-Private Partnerships*.[7]
- *Conducting Procurements for Public-Private Partnerships*.[8]
- *Value for Money Analysis for Public-Private Partnerships*.[9]
- *Monitoring and Oversight for Public-Private Partnerships*.[10]
- *Financial Structuring of Public-Private Partnerships*.[11]
- *Benefit-Cost Analysis for Public-Private Partnerships*.[12]

Publications are a collection of documents that inform P3 consideration, development, and implementation, building on overviews provided in the fact sheets. Publications include the following:

- Primers introduce decisionmakers and practitioners to P3s as a financing alternative for major capital projects, educating them on the development and evaluation activities involved when considering these arrangements. Four of these primers include the following:

    - *Establishing a Public-Private Partnership Program*.[13]
    - *Financial Structuring and Assessment for Public-Private Partnerships*.[14]
    - *Risk Assessment for Public-Private Partnerships: A Primer*.[15]
    - *Value for Money Assessment for Public-Private Partnerships*.[16]

- Guidebooks provide advanced information on P3s to practitioners as they undertake the P3 evaluation process. Four of these guidebooks include the following:

    - *Guidebook for Risk Assessment in Public Private Partnerships*.[17]
    - *Guidebook for Value for Money Assessment*.[18]
    - *Guidebook on Financing of Highway Public-Private Partnership Projects*.[19]
    - *Benefit-Cost Analysis for Public-Private Partnership Project Delivery: A Framework*.[20]

- Contract development guides are available to assist practitioners during the P3 procurement process. Four of these contract development guides include the following:

    - *Availability Payment Concessions Public-Private Partnerships Model Contract Guide (Draft)*.[21]
    - *Model Public-Private Partnership Core Toll Concession Contract Guide—Final (Part 1)*.[22]
    - *Model Public-Private Partnerships Toll Concessions Contract Guide—Draft Addendum (Part 2)*.[23]
    - *Public-Private Partnerships: Labor Best Practices (Draft)*.[24]

- Oversight documents provide an overview of Federal-aid stewardship and oversight practices for P3s and include the following:

    - *Public-Private Partnership Oversight: How FHWA Reviews P3s*.[25]
    - *Predevelopment Costs for Public-Private Partnership Projects—Federal-aid Highway Program Eligibilities*.[26]

- There are currently two discussion papers available detailing specific aspects of the P3 process, including the following:

    - *Revenue Risk Sharing for Public-Private Partnerships*.[27]
    - *Use of Performance Requirements for Design and Construction in P3s*.[28]

- There are currently two informational reports available detailing specific aspects of the P3 process, including the following:

    - *Report on Highway Public-Private Partnership Concessions in the United States*.[29]
    - *Successful Practices for P3s*.[30]

Analytical Tools and Checklists

Analytical tools, such as the P3-VALUE 2.0 Analytical Tool, and checklists are available for practitioners to aid in understanding the process and concepts of procuring and conducting P3s:

- Checklists identify the different factors and analytical processes involved in making key decisions regarding potential P3 procurements (e.g., *P3-Screen Supporting Guide*).[31]

- The P3-VALUE 2.0 Analytical Tool is a Microsoft® Excel-based tool that helps practitioners better understand the concepts, inputs, key assumptions, and outputs of P3 evaluations that are used to compare the aggregate financial benefits and costs of a P3 alternative with those of traditional procurement.

The original P3-VALUE Tool presented a simplified example of the P3 evaluation process to help practitioners understand what goes into this complex activity. Version 2.0 of the P3-VALUE Analytical Tool presents an updated process with enhanced P3 evaluation modules, including benefit–cost analysis. The current version was released in January 2016 and includes the following modules:[32]

- The *Risk Assessment* component assists the user in understanding the process used for identifying, defining, valuing, and allocating risks. The outputs from this component are used as inputs into the Value for Money, Benefit–Cost, and Financial Viability components.

- The *Value for Money Analysis* component assists the user in understanding the process used for conducting an evaluation of the financial impacts of P3 delivery in comparison with conventional delivery.

- The *Benefit–Cost Analysis* component assists the user in understanding the process used for conducting an evaluation of the societal impacts of P3 delivery in comparison with conventional delivery.

- The *Financial Viability Analysis* component assists the user in understanding the process used for conducting an evaluation of the affordability to the public agency of P3 delivery option and the conventional delivery option.

The P3-VALUE 2.0 Analytical Tool is supported by a guide that provides information on the concepts behind the tool modules as well as a Quick Start Guide and Frequently Asked Questions (FAQs).[33,34]

Outreach and training activities bring the resources of the P3 Program directly to transportation practitioners. Outreach and trainings were designed to educate the transportation community on P3s and support the use of the P3 Toolkit.

The following series of webinars was developed to help practitioners understand the P3 evaluation process and the application of the P3-VALUE tool to this process:

- "Introduction to Public-Private Partnerships."[35]
- "Evaluating P3 Options: An Overview."[36]
- "P3 Project Risk Assessment."[37]
- "Value for Money Analysis."[38]
- "Financial Viability Assessment."[39]
- "Project Delivery Benefit-Cost Analysis."[40]

The P3-VALUE 1.0 webinar series was conducted twice, once in 2013 and once in 2014, and an updated series for P3-VALUE 2.0 was delivered in early 2016. A brief description of the webinar series offered is described as follows:

- The P3 Program team developed a series of training sessions for interested State, regional, and local governments. The trainings provide information and tools to government officials and agencies looking to better understand how to develop and evaluate P3 proposals. The trainings are tailored to meet the needs of each requesting agency and can include any of the following six modules:[41]

  – Module 1: P3 Evaluation Overview.
  – Module 2: Risk Assessment and Valuation.
  – Module 3: Value for Money Analysis.
  – Module 4: Financial Viability Analysis.
  – Module 5: P3 Benefit–Cost Analysis
  – Module 6: P3 Evaluation Case-Study Using P3-VALUE.

- As of January 2016, the training has been delivered in Louisiana, Maryland, North Carolina, and the District of Columbia. In addition to the webinars and training, the Center for Innovative Finance Support presents P3 materials at industry meetings and conferences, holds peer exchange events, and provides technical assistance on a case-by-case basis.

2. Evaluation Design

2.1   Logic Model

A logic model is a tool used to visualize the relationship between program components (inputs, activities, outputs, outcomes, and impacts). It is not intended to be a comprehensive or linear description of all program processes and activities but rather a tool to make explicit how program stakeholders expect program activities to effect change. While the hypotheses and evaluation questions seek to uncover the effect of program inputs and activities, the logic model shows how each step in the process plays a role in the creation of outcomes and impacts.

An iterative series of discussions with members of the R&T Evaluation Team and P3 Program staff led to the development of the P3 Program logic model (see figure 1). This logic model shows how inputs, including congressional direction, R&T funding, and the mission of the Center for Innovative Finance Support, gave way to activities focused on developing information for the P3 Program. This information became the publications, analytical tools, and materials for P3 outreach and training activities. These P3 outputs and activities are the vehicles by which P3 knowledge is transferred to legislative and executive staff; transportation practitioners at the Federal, State, and local levels; and other stakeholders. Lastly, the building of expertise within these stakeholder groups yields the longer-term impacts of the P3 Program on decisions and actions related to the consideration and use of P3s.

Inputs	Activities	Outputs	Short-Term Outcomes	Medium/Long-Term Outcomes

• FHWA R&T funding.
• Congressional direction.
• Executive direction— Center for Innovative Finance Support Mission.
• FHWA labor.
• Existing P3 research.
• State DOT P3 experience.
• International P3 experience.
• Other industry P3 experience.
	• Developed resources.
	• Held webinars and training sessions.
	• Targeted P3 outreach and activities to practitioner and researchers.
	• Sponsored the AASHTO Center for Excellence in Project Finance, aka the Build America Transportation Investment Center (BATIC) Institute.
		• Fact sheets.
		• Publications.
		• P3 Screen (checklist).
		• P3-VALUE Tools (analytical tools).
		  ○ P3-Value guidance documents.
		• White papers.
		• Webinars/ recordings.
		• Training sessions.
		• Notebooks.
		• Peer exchanges.
		• Conference presentations.
			• Educates legislative and executive staff on P3s.
			• Supports accrual of P3 knowledge by industry practitioners.
			  ○ Planning & Evaluation.
			  ○ Procurement.
			  ○ Oversight.
			• Provides transportation community with most complete set of resources on (US-focused) P3s.
				• Improves legislative and policy support for transportation P3s within states.
				• Improves decisions on P3 consideration and use (approval) for appropriate transportation projects.
				• Improves P3 decisionmaking capabilities impacting P3 development, procurement and oversight.
				• Leads to more efficient transportation projects.

Note: Outcomes inside the dashed box are not covered within the scope of this evaluation.

Source: FHWA

Figure 1. Flow chart. P3 Program logic model.

2.2 Evaluation Hypotheses

The evaluation team developed the following four hypotheses to show how the activities and outputs of the Center for Innovative Finance Support's P3 Program led to the short and medium/long-term impacts:

1. The FHWA P3 Program provides the most complete set of information resources to assist transportation practitioners in all phases of the P3 implementation process (referred to as Complete P3 Resource).
2. The FHWA P3 Program helps increase legislative and policy support for transportation P3s in State and local governments (referred to as Legislative and Policy Support).
3. The FHWA P3 Program has led to more informed decisions on consideration and use (approval) of P3s for appropriate transportation projects (referred to as P3 Consideration and Use).
4. The FHWA P3 Program improves the decisionmaking capabilities of transportation practitioners in the areas of P3 development, procurement, and oversight (referred to as Practitioner Decisionmaking).

Through these hypotheses, the evaluation team investigated how P3 Program outputs in the form of information resources, training, and direct support improve State and local agencies' knowledge of P3s. This knowledge may impact legislative and policy actions related to P3s as well as initial decisions to consider and use P3s for major transportation projects. The knowledge is also put to use throughout the evaluation process that feeds into the final approval for P3s and the resulting vendor procurement. As P3 projects progress, the resources can also play a role in informing the P3 monitoring and oversight process. A list of evaluation questions that address each hypothesis is shown in table 2. The key performance measures that inform the evaluation questions are also shown. Section 2.3, Evaluation Methodology, provides detailed information on the data collection methods used to inform the key performance measures.

Table 2. Evaluation hypotheses and key performance measures.

Hypothesis	Evaluation Questions	Key Performance Measures

The FHWA P3 Program provides the most complete set of information resources to assist transportation practitioners in all phases of the P3 implementation process.	• Who are the P3 Program users?
	• What resources are P3 Program users accessing?
	• How satisfied are users with P3 Program resources?
	• What other resources are used to fill P3 information needs?
	• What changes could the P3 Program make to better serve transportation practitioners?
		• P3 Program activities.
		  • User profile.
		  • Number and type of interactions/events.
		• P3 downloads.
		  • User profile.
		  • Number and type of downloads.
		• Usage of other P3 resources.
		  • Anecdotal information on users.
		  • Anecdotal information on resources used.
		• P3 Toolkit website usage (users, views, etc.).
		• Examples of P3 Program resource citations in documents or by other programs.
		• Qualitative assessment of P3 Program and alternative P3 information sources.

The FHWA P3 Program helps increase legislative and policy support for transportation P3s in State and local governments.	• Has the P3 Program led to greater awareness of P3 opportunities and challenges among legislators, policymakers, and transportation leaders?
	• Have the resources provided by the P3 Program informed legislation or policies supporting the use of transportation P3s at the State or local level?
		• Use of P3 resources by legislative or executive branch staff.
		• Publications, documents, etc.
		• Webinar or event attendance.
		• Measures of indirect support.
		  • State or local transportation department, P3 Office, or P3 advisor use.
		  • Links to or citations of P3 Program resources in other documents.
		• Qualitative assessment of impact of P3 resources to inform legislation or policy.

The FHWA P3 Program has led to more informed decisions on consideration and use (approval) of P3s for appropriate transportation projects.	• Has the P3 Program influenced consideration of P3s for major transportation projects?
	• Has the P3 Program influenced decisions on the use of P3 for projects?
		• Number of projects considered and approved for P3 delivery by State and local governments.
		  • States using P3 program resources.
		  • States not using P3 Program resources.
		• Qualitative assessment of P3 Program impact on consideration and approval decisions.

Hypothesis	Evaluation Questions	Key Performance Measures

The FHWA P3 Program improves the decisionmaking capabilities of transportation practitioners in the areas of P3 development, procurement, and oversight.	• Have State transportation departments and local agencies with knowledge made informed decisions at each phase of the P3 implementation process?
	
	• Has the P3 Program served as an information resource for consultants who advise State and local agencies at each phase of the P3 implementation process?
	
	• Has the P3 Program provided information that helps FHWA Division Office staff support P3 projects and manage Federal requirements?
		• Use of P3 resources by State or local agencies.
		  • Publications, documents, etc.
		  • Webinar or event attendance.
		• Use of P3 resources by FHWA or other Federal employees.
		  • Publications, documents, etc.
		  • Webinar or event attendance.
		• Use of P3 resources by P3 advisors/consultants.
		  • Publications, documents, etc.
		  • Webinar or event attendance.
		• Qualitative assessment of impact of P3 resources on decisionmaking during P3 development, procurement, and oversight.

2.3 Evaluation Methodology

This evaluation has both summative and formative elements. Where possible, the evaluation is focused on measuring the success of the P3 Program in transferring knowledge and building expertise on P3s in the transportation community. The evaluation then attempts to link this knowledge to impacts related to P3 actions and decisions. Where information to provide summative findings is lacking, because of the relative newness of the P3 Program, the evaluation takes on a more formative nature, providing recommendations on how the program can best meet its objectives as it moves forward.

The evaluation team used data from four main sources to inform this evaluation:

1. Literature and document review.
2. Interviews with P3 Program users (FHWA employees from headquarters as well as division offices, State, and local non-FHWA P3 conducting agencies, and P3 advisors/consultants).
3. Online survey with FHWA Division Office staff.
4. Program usage data (website usage, outreach activity and webinar attendance, and document downloads).

The literature search, document reviews, and in-depth interviews provide qualitative information for the evaluation. Data from these sources provide examples of and context for P3 Program use to support all of the outcome and impact areas. Additional sources provide more quantitative data for analysis. An online survey conducted with FHWA Division Office staff provides information on program use as well as information on specific P3 information needs. Program usage data, including outreach event attendance, website usage, and document downloads, provide additional information on the level of P3 Program resource use.[1]

The next section describes the data collection and evaluation methodologies in detail and links them to specific hypotheses.

Literature Search and Document Review

The evaluation team conducted a literature search to gain an initial understanding of the P3 Program, its users, and program outputs such as publications, tools, and trainings. This information came from multiple sources, including the P3 Program website, which provides detailed information on the program's goals and is the source of all available information resources.[2] The website is home to the P3 Toolkit, a source for "analytical tools and guidance documents to assist in educating public sector policymakers, legislative and executive staff, and transportation professionals in implementation of P3 projects."[4] The website also provides current information on the state of P3s in the United States, including links to P3 legislation, P3 project profiles, and other procedural documents. Additional background documents on the P3 Program and P3s in general were found using web search engines, the Transportation Research Board (TRB) database, and Volpe library resources.[42] Findings from the initial literature review were used to develop questions/topics for in-depth interview guides and the online survey.

The literature search and document reviews support all hypotheses.

Interviews with P3 Program Users

The evaluation team conducted 31 in-depth, semi-structured interviews with a range of P3 Program users, including the following:

- FHWA Division Office staff (eight interviews).
- Leaders of State-level P3 Programs (five interviews).
- State and local transportation department/P3 office specialists in finance and project delivery positions (eight interviews).
- P3 advisors/consultants (seven interviews).
- State-level executive and legislative staff (three interviews).

The interviews were used to better understand the distinct information needs of those involved at different phases of the P3 implementation process, from passing State- or local-level P3-enabling legislation to the implementation and oversight of a P3 project. Once the information needs were identified, the discussion focused on the sources of information, support, and training used to fill the information needs. Those using resources from the P3 Program were probed on their level of satisfaction with the P3 information resources and tools used. Respondents were also asked to

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[1]Program usage data provided to the evaluation team by the P3 Program staff were pulled from program records and reporting systems.

identify any gaps in the information currently available from the P3 Program, name other information sources used, and identify future information needs. Interview guides were tailored to each group based on their role in the P3 implementation process. A summary of interview questions as well as a list of interviewees is provided in appendix A.

To address the intricacies in R&T evaluation, the evaluation team interviews many stakeholders. The team assures all interviewees that their identities will remain confidential to achieve more unbiased answers to questions they may be asked. Throughout the document, when interviewees are quoted we note the month and year of interview as well as the interviewer, but the interviewee name is redacted. However, to maintain continuity and comparability between interviewee responses, a generic title is attributed to each interviewee. The aforementioned information is placed in a footnote for each interview.

Information from the interviews informs all hypotheses and findings.

Online Survey with FHWA Division Office Staff

Information from the interviews with FHWA staff was used to develop an online survey. The survey collected information on State, regional, and local P3 activity, P3 information needs, and P3 Program usage. Invitations to the survey were sent via email to 620 FHWA Division Office staff from four disciplines: project delivery/major projects, planning/environmental finance, and technical services. The 10-minute survey was completed by 259 respondents who provided information about their involvement in State or local P3 projects. If involved, the respondents were asked about the type of support provided, the information sought by P3 teams, and the P3 Program resources used to obtain the information. The respondents were also asked to rate their satisfaction with the P3 Program resources used and to identify any aspects of the program that could be improved. Combined with the more contextual information from the in-depth interviews, this information presents a solid picture of how the P3 Program is used and perceived within the FHWA Division Offices.

Data from the survey primarily inform Hypothesis 1, Complete P3 Resource, and Hypothesis 4, Practitioner Decisionmaking.

P3 Program Usage Data

Data on P3 Program usage was gathered from multiple sources to provide an idea of whom the P3 Program serves and to identify the type of information accessed by users. Contact lists from the P3 Program's outreach efforts, training sessions, and webinar registrations were combined in a P3 Activity Database and broken out by user type: State or local government, Federal government, P3 advisors/consultants, organizations/interest groups, and academics. While this database may not be representative of all P3 Program users, as information was captured opportunistically on multiple dates from multiple sources, analysis of the database provides insight into the type of users who make up the P3 Program's audience. The P3 Activity Database is supplemented by recently collected P3 Toolkit website download data (January 2016–June 2016) showing what documents were downloaded from the P3 Toolkit website and the type of users downloading them (e.g., international versus domestic, academic versus government).

Information on P3 Program users was complemented by usage information from the P3 Toolkit website. This information was collected internally by the P3 Program using Google® Analytics™.[43]

Quarterly usage sessions from the website and views of homepages that house P3 content, publications, and analytic tools were collected for the period January 2013–June 2016. These aggregate data were analyzed to understand the frequency and nature of usage.

The program usage data described above informs all hypotheses and findings.

3. Findings on P3 Program Usage

This section presents findings related to P3 Program usage. Although the evaluation questions listed below are linked to Hypothesis 1, the usage findings are presented separately from the hypothesis to allow for a more holistic assessment of usage prior to the presentation of other findings. Hypothesis 1 will be more thoroughly covered in section 4.4.

This section covers two evaluation questions:

1. Who are the P3 Program users?

2. What resources are P3 Program users accessing?

The following four data sources assembled for the P3 Program evaluation were used to identify P3 Program users and resource usage:

- P3 Toolkit statistics (aggregate usage).
- P3 Program activity database (specific usage).
- P3 Toolkit website downloads (aggregate and specific usage).
- FHWA district office online survey (specific usage).

Although these sources may not capture all usage, looking at the usage data and user profiles (where available) provides information on the range of users who access the P3 Program.

3.1 Summary Findings

Evaluation Question 1: Who are the P3 Program users?

Finding: The P3 Program serves a large and diverse set of stakeholders involved in the development and implementation of P3s, including Federal, State, and local transportation agencies; P3 advisors/consultants; interest groups/organizations; and academics.

An analysis of P3 Program usage shows that the P3 Program serves hundreds, if not thousands, of diverse stakeholders in the transportation community. P3 Toolkit website usage statistics, which are not linked to individual users, provide aggregate information on website use. The P3 Toolkit website reaches 1,500 to 2,500 users per quarter, spiking when new documents, tools, or webinars are introduced.

Other usage data collected from P3 Program activities and document downloads provide information on distinct user groups. Although the available data may not represent all users, they indicate that there are multiple user groups with different information needs. The most active users fall into three groups: State and local transportation agencies; FHWA Division Office staff; and consultants who advise P3 teams on the legal, financial, and engineering aspects of P3 projects. Smaller groups of academics, interest groups, and international users round out the audience for the P3 Program.

Evaluation Question 2: What resources are P3 Program users accessing?

Finding: There are distinct resource usage profiles for each P3 Program user group.

Based on P3 Program usage data that could be tied back to individual users, we see that those from P3 advisory firms gather P3 information from webinars and outreach activities as well as through P3 Toolkit website downloads.[1] The most popular downloads include the P3-VALUE Tool and related documents. State and local agency users are less likely to download P3 evaluation related documents but look to webinars and other outreach sessions for information. Academics and interest groups are less likely to download documents or attend webinars, but they are involved in outreach activities.

More usage information was available on FHWA Division Office staff who provide direct support to State and local P3 teams. An online survey of these employees shows that although P3 projects have been implemented in only a small number of States, representatives from FHWA Division Offices in most States have looked to the P3 Program as a resource for general knowledge on P3s. Those who use the program tend to attend webinars and view fact sheets, primers, and other documents on the P3 Toolkit website. They are less likely than other groups to view or download P3-VALUE-related materials.

3.2 Detailed Findings

Evaluation Question: Who are P3 Program users?

P3 Web Statistics—Overall Usage
When the P3 Toolkit website was released in the beginning of 2013, it brought in approximately 750 users during the first quarter. Usage quickly increased after P3 evaluation-based webinars began in March of 2013 (second quarter). After the initial increase, usage ranged from roughly 1,500 to 2,500 users per quarter. Usage peaked on three separate occasions that fell within the first quarter of each year. The most recent spike coincides with the start of the latest round of webinars, supporting the updated P3-VALUE 2.0 Tool. This trend is shown in figure 2.

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[1]The only document-specific download data that could be linked to user groups were the most recent download data available, provided for the period January 2016–June 2016.
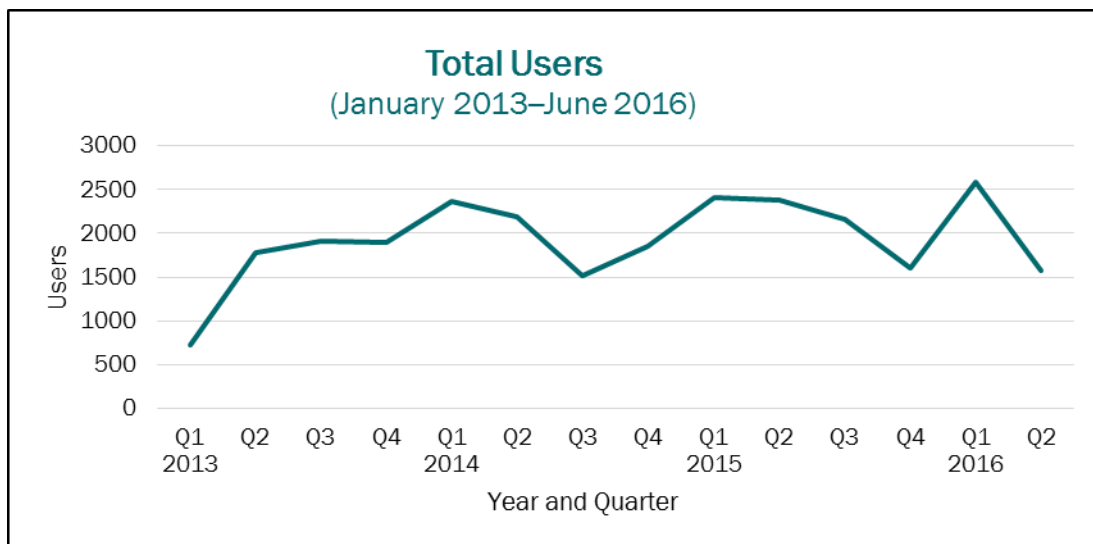
Source: FHWA

Figure 2. Graph. P3 Toolkit website users.[4]

Although usage numbers are strong, Google® Analytics™ reports a bounce rate of 63 percent. A user is considered to have "bounced" if he or she left the landing page without browsing the website further. Therefore, a majority of users either found what they were looking for on the landing page or left without searching the website. It also indicates that 37 percent (approximately 500 to 800 users per quarter) search further through the website after landing.

P3 Web Statistics—Landing Page Views
The P3 Toolkit website appears to have two main landing pages. Not surprisingly, the first is the website homepage.[4] This page attracted close to 1,800 views as the website was starting up, but views soon leveled off to about 1,000 page views per quarter and began to decline throughout 2015. The Analytical Tools homepage has usage that tends to increase in the first quarter and then decline through the fourth quarter.[32] This homepage has seen its usage increase starting in the fourth quarter of 2014, with page views ranging from approximately 1,200 to 1,400 through the end of 2015. This webpage has become a second homepage for the P3 Program website. This is likely because of support activities such as webinars and trainings held by the P3 Program staff focusing on the P3-VALUE Analytical Tool and its supporting documents. Usage for both homepages increased markedly in early 2016 as a new webinar series started and the new P3-VALUE tool was released. A trend of these homepage views over time is shown in figure 3.
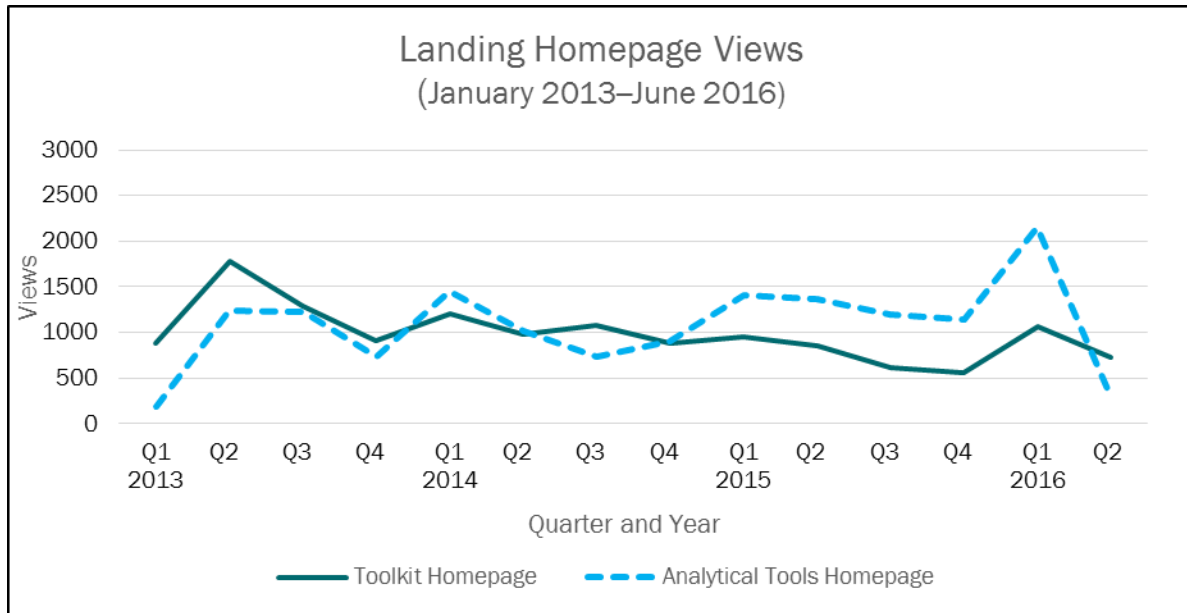
Source: FHWA

Figure 3. Graph. Landing homepage views.[(4)]

P3 Web Statistics—Other Content Page Views
The homepages for other P3 Program resources generally see lower usage numbers. While fact sheet and publication homepage views spiked upon introduction (approximately 1,500 and 1,000 views, respectively), views leveled out and declined to as low as 500 views in some quarters. The webinar homepage saw a similar pattern, with a spike in usage shortly after introduction and then a rapid decline, ending up below 500 views per quarter. Checklists have a smaller number of views, typically under 200 per quarter and declining. Although there is still decent viewership per quarter for the fact sheets, publications, and webinars, these resources could benefit from some publicity to reenergize usage. Views did increase in the first quarter of 2016 for fact sheets and webinars. A trend of these views is portrayed in figure 4.
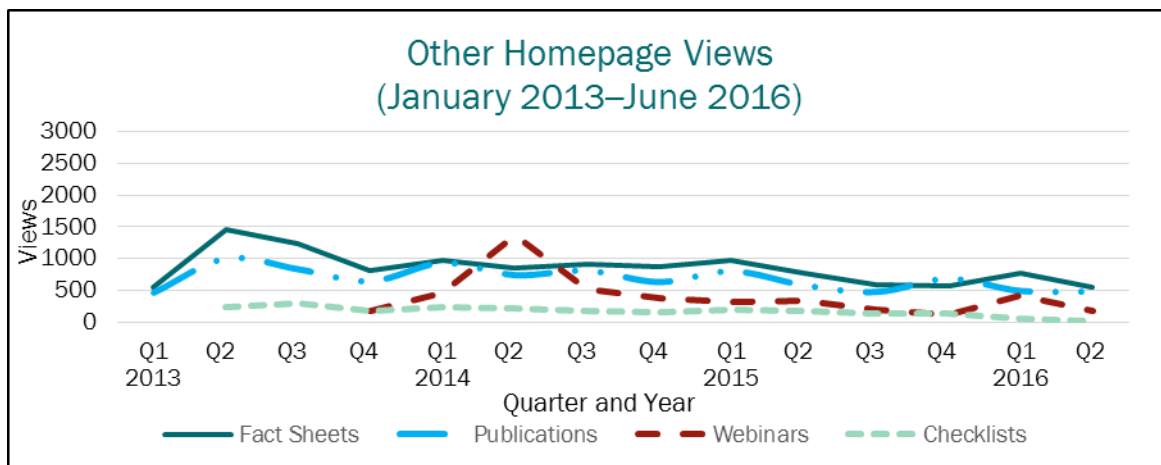
Source: FHWA

Figure 4. Graph. Other homepage views.

P3 Program Activity Database—User Groups

Using information available from the P3 Program activity database (see section 2.3), a profile of P3 Program users was developed. The database includes contact data from attendees of P3 Program outreach activities, webinars, and training programs. It does not include data on users of the P3 Toolkit website or other resources. Figure 5 shows the breakdown of contacts from State or local agencies, Federal agencies, P3 advisory firms, interest groups/organizations, and academic institutions.
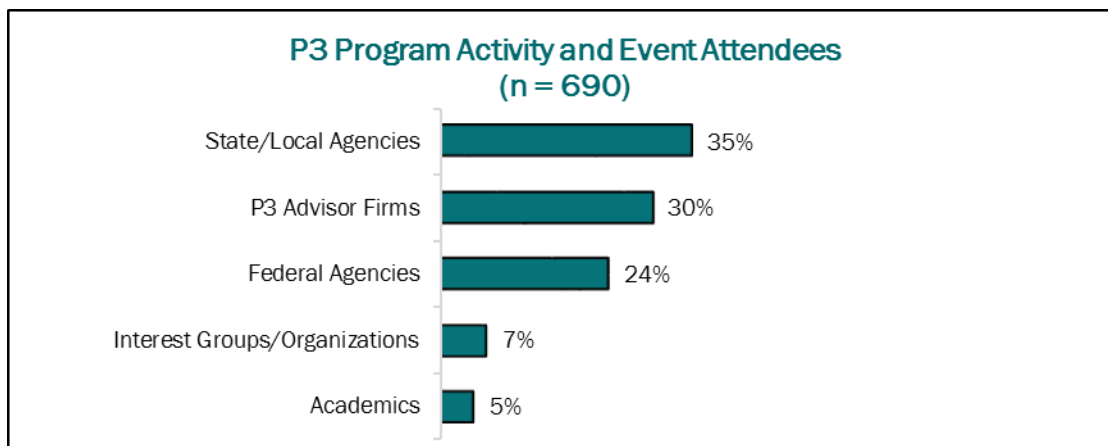
Source: FHWA

Figure 5. Chart. P3 Program activity profile.[2]

Employees from government agencies at the Federal, State, and local levels constitute the majority of attendees at the P3 Program events. Contacts from P3 advisory firms, including those providing legal, finance, and engineering support, are also well represented, contributing almost a third of

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[2]Survey information can be located in appendix B.

attendees. A smaller set of interest group/organization members and academics round out the user groups.

P3 Toolkit Website Downloads—Email Contact Scan (User Groups)
Another source of information on P3 Program users comes from the P3 Toolkit website. Starting in January 2016, the P3 Toolkit website required users to provide information such as email address, title, and agency when downloading select documents from the website. An analysis of the contacts helped identify basic user groups. Because of incomplete fields and unidentifiable organizations, the email field was used for analysis. Where possible, the email domain information was supplemented using the job title or agency field. A breakdown of user type is shown in figure 6.

Type of User (by email domain)
(n = 292)

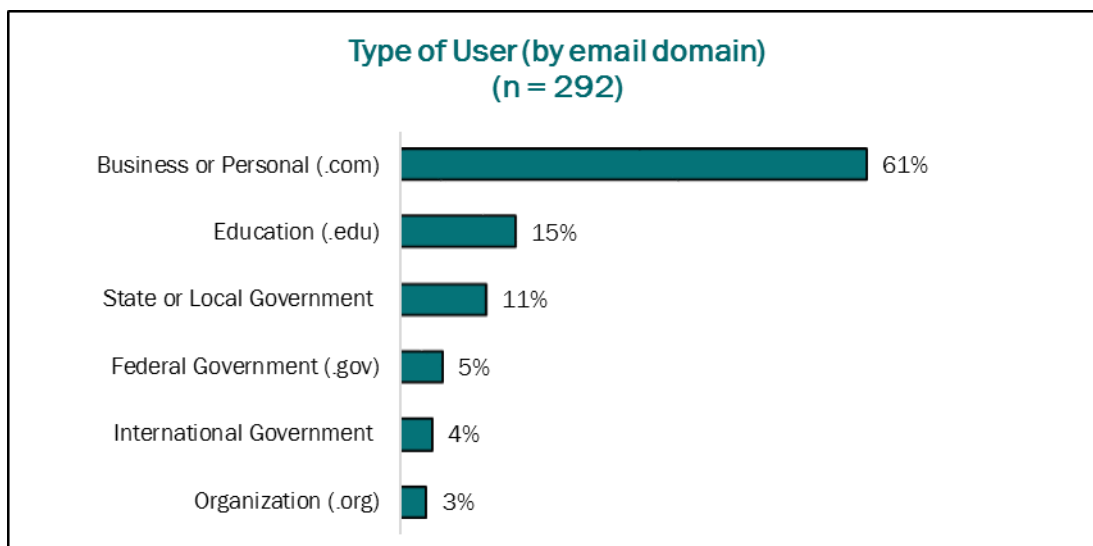| Type	Percent
Business or Personal (.com)	61%
Education (.edu)	15%
State or Local Government	11%
Federal Government (.gov)	5%
International Government	4%
Organization (.org)	3%

Source: FHWA

Figure 6. Chart. P3 Toolkit download profile.[3]

The email contact scan showed that the majority of download requests came from business or personal email addresses, most with the ".com" suffix. Roughly 20 percent of these were identified as international. Many of the non-international addresses were recognized as advisory firms that provide finance, legal, or engineering consulting services to U.S. agencies implementing P3s. Other groups that could be identified include academics and students (.edu), Federal employees (.gov), and those from State and local government agencies (various). A few domestic and international organizations and representatives from foreign government agencies were also seen.

FHWA Division Office Online Survey—FHWA Users
An online survey of FHWA Division Office staff provided additional detail on P3 Program usage among Federal employees. Employees from 44 of the 52 States/territories responding to the survey indicated that P3s had been considered, evaluated, or implemented in their States.[4] Thirty-four percent of respondents (88 total) from 42 States indicated that they had used P3 Program resources to learn about this project delivery method. FHWA Division Office employees in project delivery/major

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[3]Survey information can be found in appendix B.
[4]Not all FHWA staff surveyed in these 44 States/territories were equally aware of interest or actions taken on P3s. In 20 States/territories, FHWA staff gave conflicting answers (both "yes" and "no" answers recorded).

projects and finance-related positions made up the majority of users within the FHWA Division Offices. Interestingly, only half of those gaining knowledge through use of P3 Program resources had previously supported a P3 project in their State. Many seem to be preparing for possible future P3s in their States. A bar chart of this information is shown in figure 7.
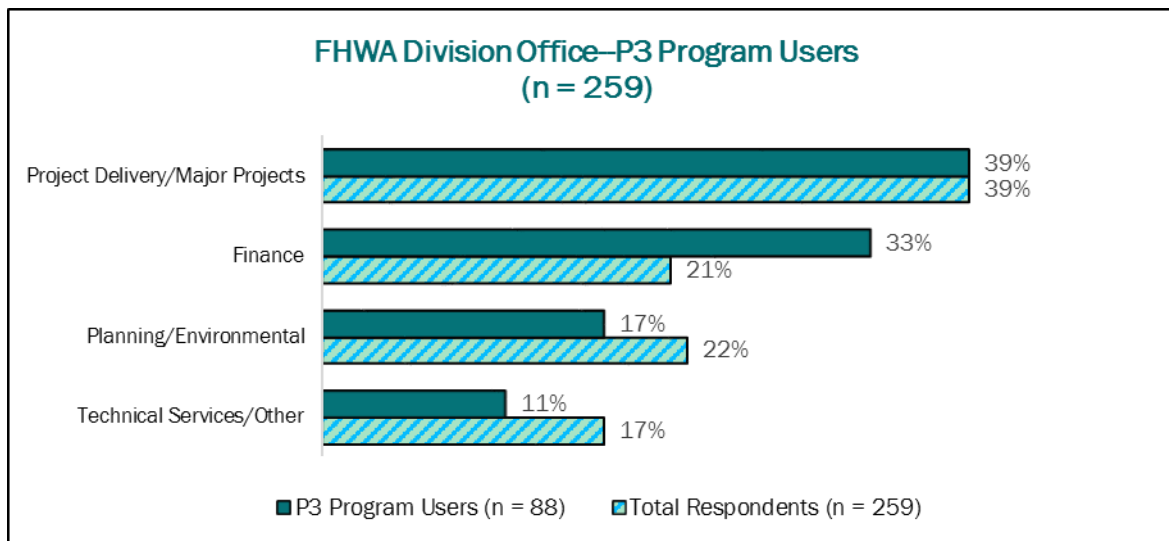
Source: FHWA

Figure 7. Chart. P3 Program users in FHWA Division Offices.[5]

Evaluation Question: What resources are P3 users accessing?

P3 Program Activity Database—Activity and Event Attendance
The outreach and training activities of 690 P3 Program activity database contacts were grouped into four categories for analysis: P3 Program development activities (e.g., listening sessions, roundtables, beta tests), P3-VALUE webinars, individualized State training sessions, and other P3 outreach activities. Table 3 shows the activity breakdown for the distinct user groups. For this analysis, State and local agencies were broken out into two groups, those who attended individualized trainings for their State and those who did not. The numbers in bold text highlight areas used the most by each user group.

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[5]Survey information can be found in appendix B.

Table 3. P3 Program activity breakdown.

User Group	Total Contacts	P3 Program Development Activities (Percent)	P3-VALUE Webinars (Percent)	Individual State Trainings (Percent)	Other P3 Outreach Activities (Percent)	Total Events and Activities (Percent)
Federal agencies	163	13	**48**	10	29	100 (n = 336)
FHWA Division Offices	97	4	**52**	12	**32**	100 (n = 225)
Other U.S. Department of Transportation (USDOT) or Federal	66	**32**	**41**	5	23	100 (n = 111)
State and regional agencies (excluding State training sessions)	111	27	**59**	NA	13	100 (n = 237)
States training sessions (MD, DC, LA, NC)	134	0	1	**99**	1	100 (n = 136)
Advisors/consultants	206	**33**	**40**	0	27	100 (n = 343)
Academics	32	**36**	21	0	**43**	100 (n = 42)
Interest groups/other organizations	45	**58**	11	0	**30**	100 (n = 53)

Note: Bold text indicates areas used the most by each user group.
MD = Maryland; DC = District of Columbia; LA = Louisiana; NC = North Carolina.

The P3 Program activity database shows differences in the types of activities attended by each group. Webinars are primarily attended by FHWA and USDOT staff, State and local agencies, and advisory firms. Contacts from States newer to P3 who attended customized State P3 trainings have generally not attended other events or activities. USDOT headquarters staff, advisors, academics, and interest groups have been the most involved in the P3 Program development activities. Other P3 outreach activities, including P3 TRB subcommittee events and poster sessions, attract academics more than other groups.

P3 Toolkit Website Downloads—Google® Analytics™ Downloads and P3 Program Download Capture
There were two sources of the P3 Toolkit website downloads available for analysis. The first shows downloads recorded by Google® Analytics™.[43] These downloads cannot be linked to users or groups. They are provided to show what documents were most accessed from January 2013–March 2016. The second source of data comes from a P3 Program document download platform, which does capture user information but shows only downloads from a limited set of documents from January through June 2016.

P3 Toolkit website download statistics pulled from Google® Analytics™ (January 2013–March 2016) shows the top 10 documents downloaded during a 3-year period. These documents were located throughout the P3 Toolkit website and could be viewed as hypertext markup language, portable document format (PDF), or Microsoft® Excel files. The download statistic shows how often the files

were saved once opened. These statistics represent only a fraction of all usage, because document views are not included. Even though downloads were infrequent, they do provide some data on the P3 Program resources that were important enough to download. Table 4 shows download numbers for the most downloaded documents.

Table 4. Google® Analytics™ top P3 Toolkit document downloads.[6]

Document	Type	Downloads
P3-VALUE 1.0 Risk Assessment Tool (Microsoft® Excel)	Analytical tool	171
P3-VALUE Tool 1.0 Orientation Guide (PDF)	Analytical tool	165
P3-VALUE 1.0 Risk Assessment Manual (PDF)	Analytical tool	101
P3-VALUE 1.0 Financial Assessment Manual (PDF)	Analytical tool	64
P3-VALUE 1.0 Public Sector Comparator (PSC) Tool (Microsoft® Excel)	Analytical tool	62
P3-VALUE 1.0 Shadow Bid Tool (Microsoft® Excel)	Analytical tool	56
P3-VALUE 1.0 Financial Assessment Tool (Microsoft® Excel)	Analytical tool	52
P3-VALUE 1.0 PSC Manual (PDF)	Analytical tool	44
P3-VALUE 1.0 Troubleshooting Guide (PDF)	Analytical tool	36
P3-VALUE Webinar: P3 Evaluation (PDF)	Webinar	31
P3-VALUE 1.0 Shadow Bid Manual (PDF)	Analytical tool	31
P3-VALUE Webinar: Value for Money (PDF)	Webinar	27
P3-VALUE Webinar: Risk Assessment (PDF)	Webinar	25
P3 Toolkit Overview (PDF)	Fact sheet	18

The most downloaded documents include the four original P3-VALUE (1.0) Tool modules and their supporting manuals on risk assessment, financial assessment, shadow bids, and PSC. Webinar presentations on related topics, including P3 Evaluation, Risk Assessment, and Value for Money, were also saved by several users. Only one publication, an introductory fact sheet, made the list.

Another look at document downloads comes from more recent statistics. Beginning in January 2016, the P3 Program began capturing information on select documents downloaded from the P3 Toolkit website. These documents represent 16 of the latest publications, analytical tools, and screening tools available through the website. This file-download platform represents a change in how documents were made available on the website, making it easier to find and download multiple documents. The change in the download format resulted in significantly more downloads in the 6-month period (January 2016–June 2016) compared to the previous 3 years (see table 4). In total, 292 users downloaded an average of 9 documents each during the 6-month period. A breakdown of these downloads is shown in table 5.

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[6]Internal information provided by FHWA.

Table 5. Recent P3 Program download capture.[7]

Documents	Downloads	Percent Downloading
Financial Structuring and Assessment for Public-Private Partnerships: A Primer[14]	198	66
P3-VALUE 2.0 Analytical Tool[32]	195	65
Risk Assessment for Public-Private Partnerships: A Primer[15]	190	64
Value for Money Assessment for Public-Private Partnerships: A Primer[16]	184	62
P3-VALUE 2.0: Quick Start Guide[33]	184	62
Guidebook for Value for Money Assessment[18]	182	61
Establishing A Public-Private Partnership Program: A Primer[13]	180	60
Benefit-Cost Analysis for Public-Private Partnership Project Delivery: A Framework[20]	180	60
P3-VALUE 2.0 User Guide and Concept Guide[44]	179	60
P3-SCREEN - P3 Delivery Options Screening Checklist[31]	173	58
P3-SCREEN - Supporting Guide[31]	171	57
Public-Private Partnership Oversight: How FHWA Reviews P3s[25]	163	55
Guidebook for Risk Assessment in Public-Private Partnerships[17]	158	53
P3-VALUE 2.0:Frequently Asked Questions[34]	156	52
Predevelopment Costs for Public-Private Partnership Projects— Federal-Aid Highway Program Eligibilities[26]	151	51
Guidebook on Financing of Highway Public-Private Partnerships Projects[19]	107	36

Despite the fact that these downloads are not directly comparable to those from previous periods, they still provide information on the use of P3 Program resources. The most popular downloads are evaluation related: financial structuring and assessment, risk assessment, value for money (VFM) assessment, and the new P3-VALUE 2.0 materials. These tools and documents have similar themes to the documents downloaded in previous periods. It is also interesting to note that the P3 screening tools were frequently downloaded from the new platform, giving new purpose to these documents.

FHWA Division Office Survey–P3 Resource Use
FHWA Division Office Survey respondents (n = 259) were asked if they attended webinars or used P3 Program resources through the P3 Toolkit website. Thirty-four percent of those surveyed indicated use (n = 88). Figure 8 shows which resources were used by FHWA Division Office staff.

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[7]Internal information provided by FHWA.
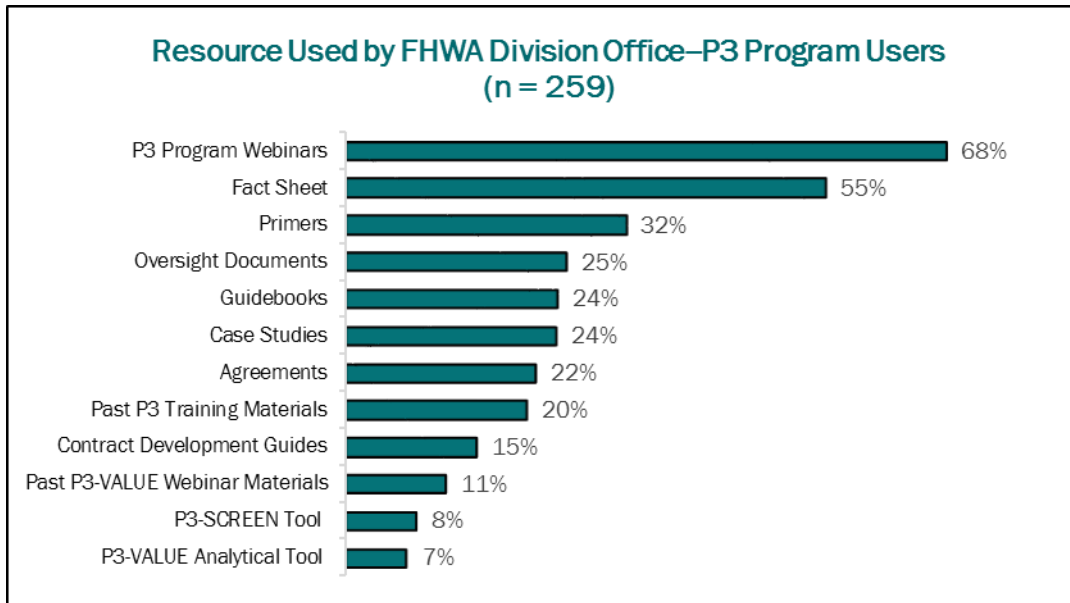
Source: FHWA

Figure 8. Chart. FHWA Division Office P3 Program resource use.[8]

FHWA staff tend to attend webinars and look at introductory materials (fact sheets and primers). Few look at P3-VALUE tools and related documents. Of FHWA employees, financial managers tend to use the most materials, an average of four per user. They skew higher on webinars and previous training materials (79 and 31 percent, respectively). They are also slightly more likely to use the P3-VALUE Analytical Tools (10 percent). Project delivery/major projects staff use an average of three resources, skewing higher on oversight documents (30 percent) and contract development guides (24 percent). Planning and technical positions use few resources (on average two per user) but do skew higher on use of case studies (28 and 3 percent, respectively).

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[8]Internal information provided by FHWA.

4. Evaluation Findings

This section presents evaluation findings for each of the four hypotheses by addressing the evaluation questions using the key performance measures. This section is broken up into four separate subsections as detailed in the following list:

- 4.1: FHWA P3 Program use increases legislative and policy support for transportation P3s in State and local governments (referred to as Legislative and Policy Support).
- 4.2: The FHWA P3 Program has led to more informed decisions on consideration and use (approval) of P3s for appropriate transportation projects (referred to as P3 Consideration and Use).
- 4.3: The FHWA P3 Program improves the decisionmaking capabilities of transportation practitioners in the areas of P3 development, procurement, and oversight (referred to as Practitioner Decisionmaking).
- 4.4: The FHWA P3 Program provides the most complete set of information resources to assist transportation practitioners in all phases of the P3 implementation process (referred to as Complete P3 Resource).

4.1 P3 Program Influence on Legislation and Policy

As States continue to assume a larger share of infrastructure project funding and need to develop funding and financing solutions, transportation leaders are more often considering P3s as a financing alternative.[45] As a result, enabling legislation and other P3-related bills are increasingly submitted to State legislatures for consideration. Such legislation determines which government entities are permitted to engage in P3 agreements, for which type of projects, and under what terms and conditions. Statutes and bills vary from State to State depending on the specific needs and desires of each State, and legislation updates are submitted as new project situations or challenges arise. This section of the evaluation examines the impact of the P3 Program on P3-related legislation and policy at the State and local level.

> **Hypothesis: FHWA P3 Program use increases legislative and policy support for transportation P3s in State and local governments.**

This section reviews how State legislators and policymakers are informed about P3s and the P3 implementation process, allowing them to make informed legislative and policy decisions. The evaluation team sought to identify the specific materials, trainings, and knowledge partners that bring P3 information to the legislative and executive branches. The role of the P3 Program and its resources was assessed using the following two evaluation questions:

1. Has the P3 Program led to greater awareness of P3 opportunities and challenges among legislators, policymakers, and transportation leaders?
2. Have the resources provided by the P3 Program informed legislation or policies supporting the use of transportation P3s at the State or local level?

The evaluation team attempted to schedule interviews with States who recently passed P3 enabling legislation and was successful in reaching legislative contacts from three States new to P3s. Interviews with legislative and State transportation department contacts in four other P3-enabled States offered additional insights on how P3 information reaches legislators and policymakers. In addition, information from the P3 Program activity database and P3 Toolkit website downloads was examined in an attempt to link the P3 Program to those involved with P3 legislation.

Background: Current Legislative Environment

The evaluation team reviewed P3-related legislative activity for 3 years (2013–2015) as well as P3 enabling legislation from 2016 and years prior. This information allowed the team to assess the level of interest in P3s across States and to identify the State and local agencies who were likely to be looking for P3 information. Figure 9 shows five different time periods from 2000 to 2016 detailing the number of States passing P3-enabling legislation.
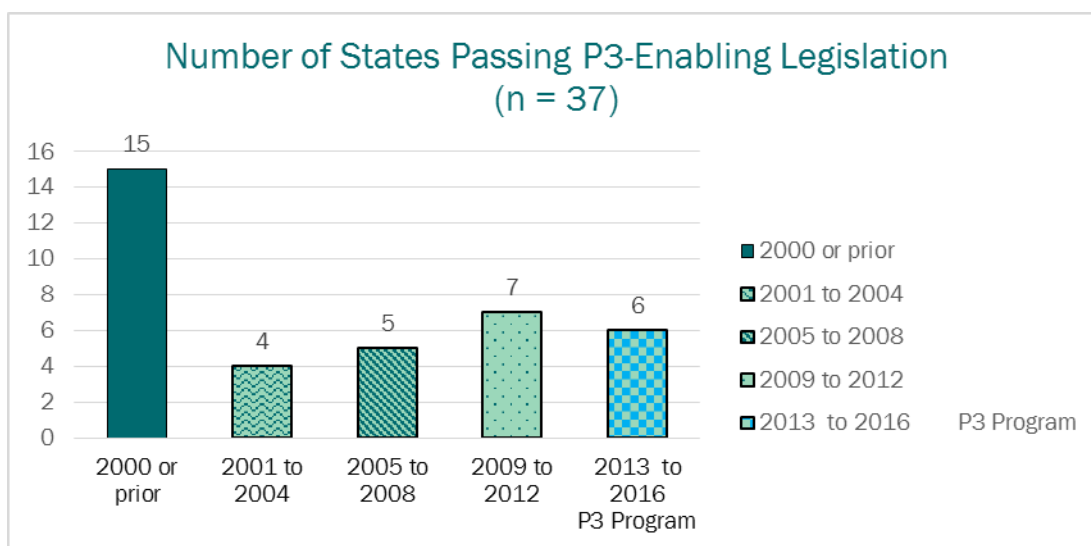
Source: FHWA

Figure 9. Chart. P3-enabling legislation.[1]

The legislative activity and enabling legislation review showed that six legislative bodies had passed P3 enabling legislation since the 2013 release of the FHWA P3 Toolkit and the start of the P3 Program. Georgia, Tennessee, Kentucky, Louisiana, New Hampshire, and the District of Columbia recently passed the legislation, making them potential candidates for P3 Program use. Representatives from three of these States were interviewed.

A review of all legislative activities involving P3s pointed to the fact that more than just a few States were actively pursuing legislation related to transportation P3s. In the P3 Program period (2013–2015), the number of P3-related bills proposed more than doubled compared to the previous 3-year period (2010 to 2012). Each year more than 20 States were pushing P3-related bills. In total, this hot topic was addressed in 36 States/territories during the P3 Program period. Several States continue to pursue enabling statutes, while others are updating P3 laws to approve P3 procurement

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[1]"States" refers to 35 States as well as the District of Columbia and the territory of Puerto Rico.

on new projects, allow for tolling or availability payment terms, establish P3 Program offices, and support multiple other issues. Table 6 summarizes this information.

Table 6. P3 legislation considered/adopted.[45]

Year	Legislation Proposed	States Proposing Bills	Legislation Adopted	States Adopting Legislation	Percent Passed
2015	47	24	6	6	13
2014	70	22	16	11	23
2013	80	28	21	15	26
2012	30	16	N/A	N/A	N/A
2011	40	20	N/A	N/A	N/A
2010	22	9	N/A	N/A	N/A

N/A = not applicable.

Summary Findings

> Finding: The P3 Program currently has only a limited impact on P3 legislation and policy. Information from the program reaches legislators and policymakers indirectly through Federal, State, and local transportation agencies; P3 advisors/consultants; and other P3 information resources.

Despite increases in P3 legislation in recent years, P3 Program usage data and interviews with States who recently passed P3-related legislation suggest that there is currently not a strong connection between the P3 Program and legislators and policymakers. Few directly involved in legislation used P3 Program resources. This does not mean, however, that information from the P3 Program does not reach this audience. In many cases, the link between the P3 Program and those in legislative or policymaking positions is indirect. That is, the P3 Program provides knowledge to Federal, State, and local transportation agencies and P3 advisors, who then bring the information (along with other knowledge and experience) to decisionmakers. The P3 Program also provides content that is used by other websites and interest groups who develop materials that more directly target legislators and policymakers.

Detailed Findings

Evaluation Question 1: Has the P3 Program led to greater awareness of P3 opportunities and challenges among legislators, policymakers, and transportation leaders?

Evaluation Question 2: Have the resources provided by the P3 Program informed legislation or policies supporting the use of transportation P3s at the State or local level?

Direct Impact of P3 Program Resources

The first evaluation question examined whether the P3 Program provided State and local governing bodies with information on P3 opportunities and challenges that informed their decisions to seek P3 legislation. The second question was designed to uncover how P3 Program resources informed the development of specific legislation and policies. Challenges in identifying, contacting, and recruiting those involved with P3 legislation or policy development made it difficult to answer either of these questions. Even those whom the evaluation team were able to interview did not provide a direct link between the P3 Program and legislation in their States.

The review of P3 Program usage data uncovered only a handful of cases where legislative or executive staff from States recently passing P3-legislation had used P3 resources. The evaluation team interviewed one of these P3 Program resource users who was co-director of a newly created P3 office. The contact was heavily involved in drafting a recent P3 legislation update. Although he had identified usage of P3 Program materials, including fact sheets and primers, he noted that these materials had not played a role in informing the legislation. Another interviewee, a legislative analyst who managed the development of enabling legislation for his State, lamented that he found the P3 Toolkit only after the legislation was complete, as a result of the evaluation team interview.

> *The P3 Toolkit will be an incredible resource to share with the [transportation department], who will perform future edits to the State's P3 legislation.[2]*

Formal and informal barriers between State transportation departments and P3 offices and those in elected positions make direct information sharing between the groups difficult. Although State and local agencies are among the most frequent users of P3 Program resources, this usage does not often extend to those involved in legislation and policy development. Protocol and politics often limit informal interactions between the government entities, leading to limited direct sharing of P3-related information resources with the legislators and policymakers themselves.

> *The DOT educates the legislature when there is the opportunity. But we cannot call up a legislator and ask to talk about them, as there are rules/protocols. The DOT must go through the Commissioner and the Governor's office to communicate.[3]*

Indirect Impact of the P3 Program

Despite the lack of evidence of direct use of the P3 Program, there is evidence that information from the P3 Program has some influence on P3 legislation and policy. P3 information pulled from sources such as the P3 Program is brought to legislators and policymakers by State transportation departments and P3 Offices during formal presentations and interactions. The manager of a State P3 team, who encourages his staff to attend webinars and use P3 Program materials to keep current, describes the roles his agency has in legislation:

> *Our agency gets a seat at the table when P3 issues come up in legislation. Our legislative liaison makes sure new legislation doesn't suppress our activities.[4]*

The legislative liaison for the transportation department in the same State shares a similar message:

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[2]State legislative analyst, phone interview conducted by Lora Chajka-Cadin (evaluation team) and Chris Calley (evaluation team), September 2016.

[3]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team) April 2016.

[4]State P3 employee, phone interview conducted by Lora Chajka-Cadin (evaluation team) May 2016.

> *I take what I have learned from [Operations Manager and DOT] and setup meetings between the [P3 leaders] and the legislators. And in the future I would like to bridge the gap better between engineers and legislators.[5]*

Other State transportation departments active with the P3 Program provide other examples of how they have brought their knowledge of P3s to the legislative and executive branches.

> *I can't see legislators or Governors going to BATIC or the P3 Program, but we [DOT] are covering the concepts. They [legislative and executive branches] run us through the ringer and send hard questions to respond to. There is lots of P3 knowledge down there and always a whole new batch to educate.[6]*

Information from the P3 Program also reaches legislators and policymakers through other P3 education resources. Interviewees involved in developing State legislation mentioned the National Conference of State Legislatures (NCSL) website.[46] This website has several resources for States, including P3 enabling statutes, a Transportation Funding and Finance Legislation Database, and a P3 Toolkit for Legislators.[45,47,48] The Toolkit for Legislators and other P3-related content pages on the NCSL site references material that is currently part of the P3 Toolkit, including P3 definitions, case studies, and model legislation.

4.2 P3 Program Influence on P3 Consideration and Use Decisions

Hypothesis: The FHWA P3 Program has led to more informed decisions on consideration and use (approval) of P3s for appropriate transportation projects.

To consider this hypothesis, the evaluation team focused on the following evaluation questions:

- Has the P3 Program influenced consideration of P3s for major transportation projects?
- Has the P3 Program influenced decisions on the use (approval) of P3 projects?

To investigate these questions, the evaluation team sought information that showed a link between use of P3 Program resources by practitioners at the State and local level and the consideration and approval decisions for P3 projects.

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[5]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team) and Chris Calley (evaluation team), August 2016.
[6]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

Summary Findings

Evaluation Question 1: Has the P3 Program influenced consideration of P3s for major transportation projects?

> Finding: There is not enough evidence to conclude that the P3 Program influences P3-consideration decisions.

Neither the program usage data nor the interviews provided solid evidence that P3 Program usage impacts P3-project-consideration decisions. States using the P3 Program were shown to be slightly less likely to announce consideration of a P3 project than those who did not. The interview responses lacked specific information on what sources of information (P3 Program or others) contributed to the decisions. It was not possible to determine whether P3 Program users made more rigorous screening decisions or whether information from the program was just not contributing to the decisions.

The lack of data stems from the difficulty the evaluation team had identifying decisionmakers who screened projects for P3 consideration. The interviews indicated that the screening process differs from State to State and sometimes from project to project. To better understand the relationship between P3 Program resources and P3 project consideration, additional research is recommended. As the P3 Program matures and its user base increases, time could be spent identifying the different groups who make project screening/consideration decisions. The decisionmakers could then be interviewed to better understand if and how the P3 Program influences consideration.

Evaluation Question 2: Have the resources provided by the P3 Program informed legislation or policies supporting the use of transportation P3s at the State or local level?

> Finding: There is some evidence supporting the idea that use of P3 Program materials positively influences P3 project approval decisions.

There is more evidence to support the idea that P3 Program resources help States make informed P3 approval decisions. Recent data show that only about 30 percent of P3 projects announced in the PWF major projects database for the years 2013–2015 were approved. Some of the projects were cancelled or put on hold, while others ultimately moved forward using other types of procurement. P3 Program use was associated with the vast majority of States who recently approved transportation P3 projects. Interviews with State and local agencies indicated that knowledge gained from the P3 Program was often used to support the case in favor of P3s. Examples describe teams leveraging P3 Program documents, trainings, and personnel to ease fears about P3s and gain support needed for approval. The combination of P3 Program usage data and anecdotal evidence allow the reasonable conclusion that use of the P3 Program provides knowledge that can be directed to support P3 approval when appropriate. As the P3 Program matures and additional usage data are available, the connection between the P3 Program materials and P3 approval decisions can be more thoroughly researched.

Detailed Findings

Recent P3 Projects Announced (Considered) and Approved (Used)

The proliferation of P3 projects during the last 3 years is evident from P3 project data. At the end of 2015, 35 States had enabling legislation that allowed for the use of P3s for major transportation projects.[7] From 2013 to 2015, 22 States considered 57 P3 projects. This is up significantly from the 10 States and 42 projects considered in the previous 3-year period (2010–2012). These increases signal that P3s are becoming more commonplace for major transportation projects. The bar chart in figure 10 summarizes this information.
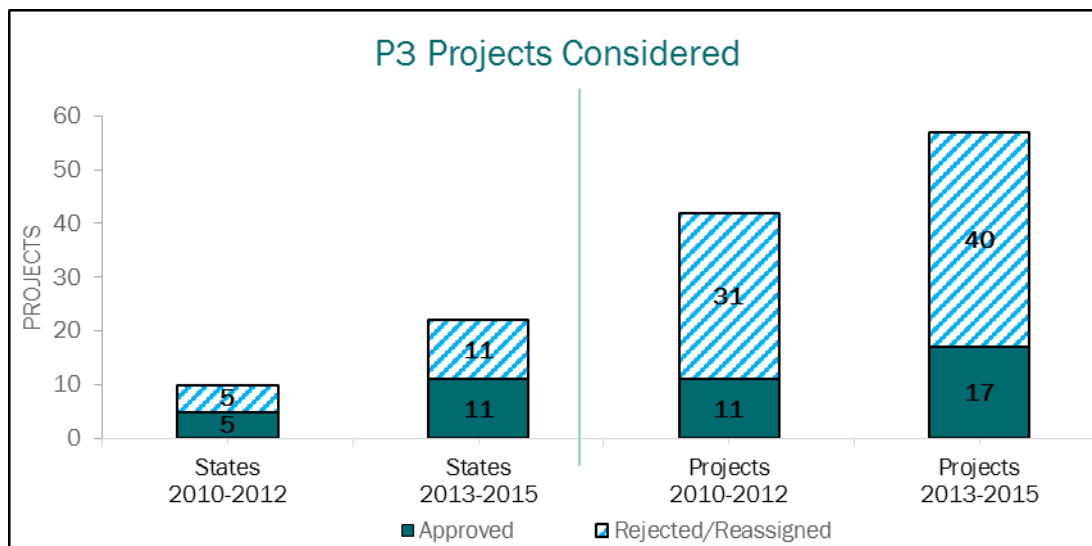
Source: FHWA

Figure 10. Chart. P3 Projects pre- and post-P3-Program launch.[8]

P3 Program Resources Influence on P3 Consideration and Approval

P3 Program Use by Decision Stage

P3 Program use was broken out by P3 project decision stages and determined using data from the PFW major projects database. The results show a non-linear relationship between P3 Program use and the project decision stages. Eighty-three percent of States who are able to use P3s have accessed P3 Program resources. Fewer (64 percent) who moved on to announce P3 project consideration had used the program. Almost all (93 percent) who approved P3 projects were P3 Program users. This information indicates that the relationship between P3 Program use and P3 project decisions may be complex. P3 Program use does not necessarily increase likelihood to consider and use P3s. The data were examined by phase to get further information. Figure 11 summarizes at what stage the P3 Program was used.

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[7]A total of 33 States passed official P3-enabling legislation, while Michigan and New York authorized P3 projects without State-level enabling legislation.

[8]P3 Projects considered included those that included design and build components along with at least one long-term program aspect, including finance, operations, or maintenance.

P3 Program Use at Decision Stage
(Base: States considering and approving P3s)

PERCENT OF ALL 50 STATES AND THE DISTRICT OF COLOMBIA

States with enabing legislation (2013-2015) (n = 35): 83%

State considering projects (2013-2015) (n = 22): 64%

States approving projects (2013-2015) (n = 11): 93%
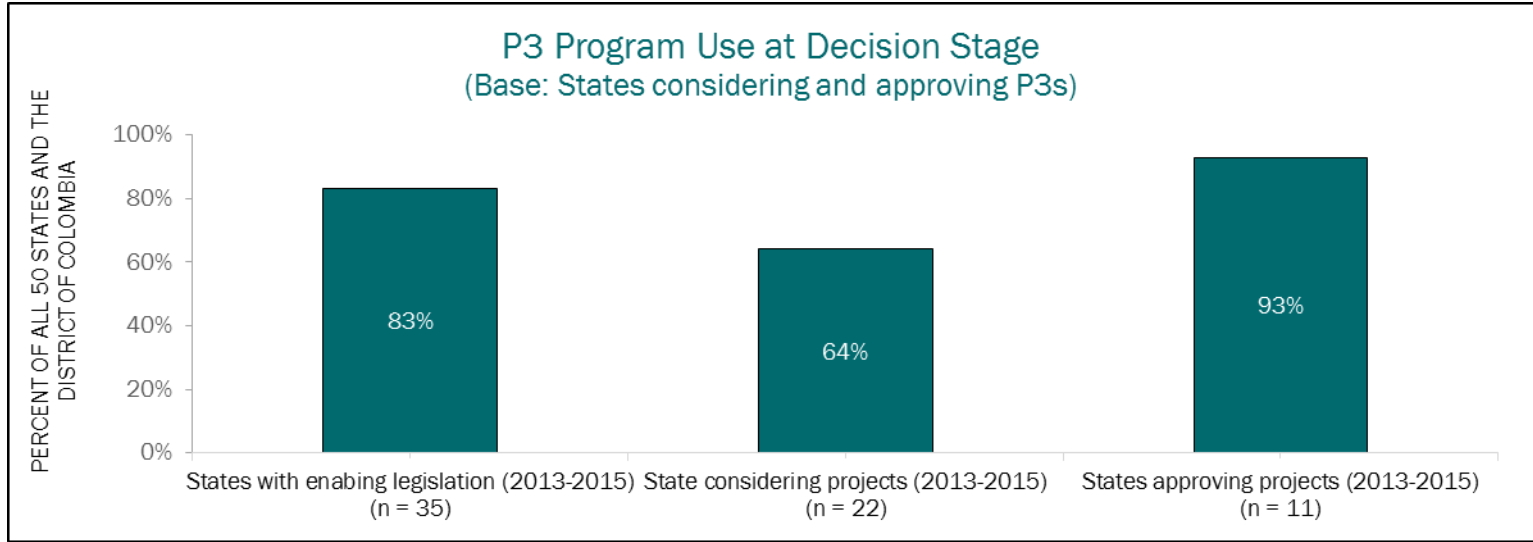
n = number of States.

Source: FHWA

Figure 11. Chart. P3 Program use by decision stage.[1]

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[1]Survey information can be found in appendix B.

P3 Consideration

Figure 12 breaks the 35 P3-eligible States into two groups: known users of the P3 Program and non-users. Comparing the percentage in each group who announced a project in the PWF major projects database during the 3-year period 2013–2015 provides some idea of whether P3 Program usage influences consideration. The results show that 67 percent of States with no P3 Program use considered a P3 project. A similar proportion, 62 percent of P3 Program users, also considered projects. This result does not indicate that P3 Program use leads to more P3 project consideration.
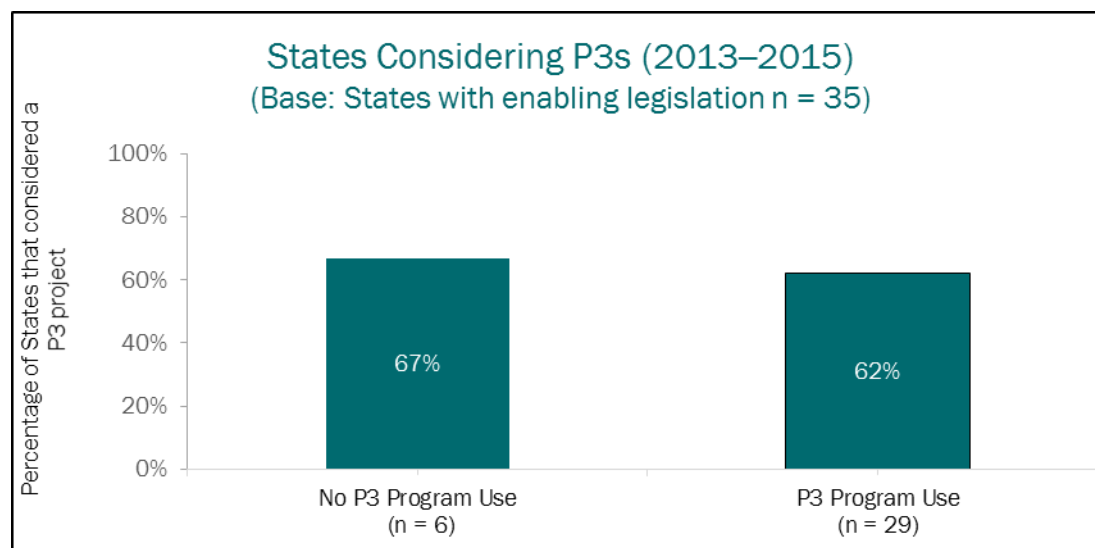
Source: FHWA

Figure 12. Chart. P3 consideration by P3 usage groups.

There could be several different reasons explaining the results shown, including the following:

- P3 Program use may not have a strong influence on P3 project consideration.
- Non-users may be getting P3 information from other sources.
- P3 Program use might suppress the consideration of P3s because of increased selectivity based on education and the use of P3 screening resources.

Interviews with State and local transportation departments and P3 offices did not provide much information that clarifies the relationship between the P3 Program and project consideration. The interviewees often became involved in the P3 projects after they were proposed, so the evaluation team was unable to probe what information was used to help teams make consideration decisions.

The interviews did reveal that States have very different processes for initiating potential P3 projects. In some States, the transportation departments and P3 offices recommend projects. In others, P3 recommendations came from P3 advisory committees or elected officials, and sometimes P3 requests came from the localities themselves:

> *Here [P3 projects] bubble up "organically." While other States have P3 pipelines, ours come to light when high-priority projects need funding. There is a sophisticated project ranking and selection system. Metropolitan planning organizations (MPOs) evaluate what they want, creating a gigantic list of projects.[1]*

> *Projects do not necessarily go through P3 review. One example, high-occupancy toll (HOT) lanes, were a priority of the Governor—so they were pushed through as a P3 without review.[2]*

> *[State] has very structured P3 Guidance. Within the DOT, P3 Project Managers, those in legal and financial positions, and sometimes outside consultants discuss the potential to use a P3 for a project.[3]*

> *Projects are initiated by the DOT. If DOT is short on funds or we [at P3 Office] think a project could be ripe for a P3 we let them know.[4]*

Detangling the role the P3 Program plays in the consideration decisions would require identifying and speaking to a unique set of decisionmakers in each State relatively soon after project decisions were made. Such research was out of scope for this evaluation. As a result, claims suggesting the P3 Program influences P3 project consideration decisions cannot be supported at this time.

P3 Approval

Information from the PWF major projects database was also used to look at P3 Program influence on project approval decisions. Of the 22 States considering P3s since the P3 Program was launched, 4 were categorized as non-users while 18 were known users of P3 Program resources. Of the non-users, only 1 of 4 (25 percent) approved a P3 project during this time. This is compared to 9 of the 18 (50 percent) P3 Program users. Figure 13 depicts this information.

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[1]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

[2]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

[3]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

[4]State agency employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), April 2016.
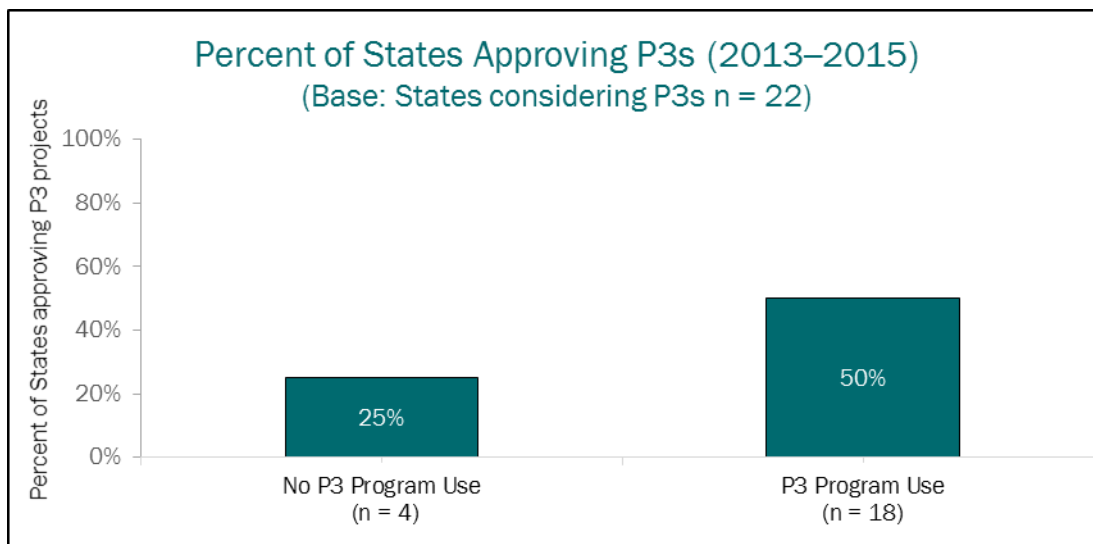
Source: FHWA

Figure 13. Chart. P3 approval by P3 Program usage.[5]

Despite the small size of groups, this breakdown indicates that P3 Program use may have an impact on the approval decisions of P3 projects. Knowledge gained from P3 Program use, by itself or in conjunction with other information, may help teams make a stronger case for approval of their P3 projects.

The interviews with P3 Program users did not yield much information on which specific P3 Program resources impacted P3 approval decisions, but they did provide examples showing P3 Program users bringing their knowledge of P3s to decisionmakers to make the case for P3 approval.

> *All P3s have historically needed Governor's approval. Legislation passed that gives the legislature 14 days' notice on P3 agreements. So, we [DOT] do briefings downtown [to legislature] and to the Governor well before that 14 days to support them.[6]*

> *There was a meeting where senior DOT and transit leaders, who have to approve P3 projects, were involved. Some had preconceived notions about what a P3 can and cannot deliver. They wanted information on how to do a project that is beneficial to both the State and private sector... A two-day training was held [by FHWA] to get all on the same playing field regarding P3s. It covered what P3s are, what they can and cannot deliver.[7]*

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[5]Additional survey information can be found in appendix B.
[6]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.
[7]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

4.3 P3 Program Influence on Practitioner Decision Making Capabilities

P3s bring together the public and private sectors to implement major transportation projects. The process takes multiple years to complete and includes multiple phases, each with data collection and decisionmaking. Once P3 legislation and policy are in place to enable State and local agencies to consider P3 projects, the process moves on to the phases that include P3 screening, evaluation, procurement, and then finally implementation. The P3 Program offers information resources that can assist practitioners as they make decisions in each of these phases.

> Hypothesis: The FHWA P3 Program improves the decisionmaking capabilities of transportation practitioners in the areas of P3 development, procurement, and oversight.

This hypothesis covers decisions made across the entire P3 implementation process. These decisions are typically made by those in State or local agencies but are supported by FHWA Division Office staff and P3 advisors/consultants. Three evaluation questions were developed to adequately address the role the P3 Program resources play in providing information and building knowledge within each of these distinct user groups:

1. Has the P3 Program provided State transportation departments and local agencies with information used to make decisions at each phase of the P3 implementation process?
2. Has the P3 Program served as an information resource for consultants who advise State and local agencies at each phase of the P3 implementation process?
3. Has the P3 program provided information that helps FHWA division staff support P3 projects and manage Federal requirements?

Each of these evaluation questions has the potential to cover most of the publications, tools, and trainings available through the P3 Program. Where information is available, the evaluation covers how the materials and trainings provide knowledge that influences decisionmaking at different phases of the P3 implementation process. In many of the interviews conducted by the evaluation team, P3 Program usage was relatively recent and/or P3 projects had not progressed past the planning and evaluation phases. In these cases, usage of the program and knowledge building is summarized more generally.

Summary Findings

Evaluation Question 1: Has the P3 Program provided State transportation departments and local agencies with information used to make decisions at each phase of the P3 implementation process?

> Finding: The P3 Program is primarily used by State and local agencies who are newer to P3s to obtain knowledge and make decisions. Those who work directly with the P3 Program staff report a better experience with the information and materials.

Interviews with those at State and local agencies identified some strengths and weaknesses of the P3 Program. The sweet spot for the P3 Program seems to be States with less P3 experience who have a direct relationship with the P3 Program. Interviews and the P3 Activity Database identified

several of these States where the P3 Program had recently provided support in the form of trainings, peer exchanges, or other activities. Practitioners in these States took advantage of the educational activities and also directly accessed P3 Toolkit resources, using them to make P3 decisions during the P3 planning, evaluation, and procurement phases. Practitioners in less experienced States, who do not have a direct relationship with the P3 Program, indicated they struggled to find the right resources through the P3 Program to help them make P3 decisions. Lastly, the P3 Program was seen as least useful by very experienced P3 States, most of whom had their own P3 education programs in place before the P3 Program launched and who use their own P3 materials.

Evaluation Question 2: Has the P3 Program served as an information resource for consultants who advise State and local agencies at each phase of the P3 implementation process?

> Finding: P3 advisors are among the most frequent users of the P3 Program resources. Advisors/consultants newer to P3s were most likely to take advantage of publications, tools, and webinars. More research is needed to assess usage among this user group.

A limited set of interviews was available to determine how P3 advisors use and value the P3 Program. Although the P3 activity database and P3 Toolkit website downloads indicate that P3 advisors (legal, finance, and engineering) are a major user group, it was difficult to recruit these practitioners for interviews. The few interviews conducted led to findings similar to those from State and local agency interviews. Experienced practitioners at established firms see value in the P3 Program through its use as an introductory resource but rarely use or recommend more complex applications such as the P3-VALUE Tool. Some newer employees at P3 advisory firms, however, did report attending webinars and using documents from the website. The interviews paint a picture of limited P3 Program use among advisors, but usage data and P3 Toolkit website downloads show that, as a whole, advisors are an important user group. Additional research is recommended to understand more about this large user group, their use of the P3 Program, and their information needs.

Evaluation Question 3: Has the P3 Program provided information that helps FHWA Division Office staff support P3 projects and manage Federal requirements?

> Finding: FHWA Division Office staff are looking to the P3 Program for information as P3s are becoming more accepted in their States. Most look to webinars and introductory materials, but there is emerging use of oversight documents, agreements, and model contract guides that help FHWA serve P3 teams.

P3 Program resources are becoming more important for FHWA Division Office staff as more and more States are considering and pursuing P3s. An online survey conducted for the evaluation identified that 34 percent of respondents in roles that may support P3 teams have accessed the P3 Toolkit website or attended webinars. Those in project development/major projects and finance roles tend to be the most frequent users. They look to the P3 Program for materials as they help teams at each stage of the P3 implementation process. FHWA staff help provide information and answer questions about P3s before planning begins. During planning and evaluation, they assist in developing financial and project management plans and help teams develop inputs for evaluation analyses. During procurement, they advise on request for proposals (RFP) development and vendor

selection processes. Finally, during oversight they help teams manage Federal reporting requirements. P3 Program documents and webinars provide information that FHWA staff share with State and local agencies. Oversight documents, model contract guides, and project agreements provide specific information and examples used for developing project documents, while fact sheets and primers provide general P3 information for other requests.

Detailed Findings

Evaluation Question 1: Has the P3 Program provided State transportation departments and local agencies with information used to make decisions at each phase of the P3 implementation process?
Interviews with representatives of 10 active P3 States combined with information from the P3 Program usage databases helped inform the evaluation question focused on the value of P3 Program resources to P3 project decisionmaking. Because of differences noted in initial interviews, the States were divided into those who are more experienced with P3s, having completed multiple P3 projects, and those who are newer to the P3 implementation process.

Experienced P3 States

Transportation leaders from three of the most experienced P3 States said their agencies rarely use P3 Program resources. Even though these States were active contributors to the development of the P3 Program, leaders describe limited use of the resulting materials by their agencies. These agencies have years of experience with P3s and generally rely on their own experiences, materials, and trainings to educate employees for decisionmaking.

> *The woman who previously led the P3 team provided a lot of input to the IPD P3 Program development. [State] doesn't depend as much on the P3 Program as other States.[8]*

The same P3 Team leader did note that his State participates in peer exchanges, during which they contribute but also learn.

> *Peer exchanges are used to help someone who needs information on P3s, but it brings together experienced people. We are learning as much as we are sharing.[9]*

P3 Program usage data and interviews did confirm that there is some usage of the P3 Program materials among more junior team members in these experienced States. The P3 Program may not be the primary source of information for these States, but there is still value in some of the more foundational materials to junior team members.

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[8]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.
[9]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

Less Experienced P3 States

Interviews with newer P3 States identified several practitioners who are highly engaged with the P3 Program. Practitioners from two States described customized P3 training events developed for their agencies, while one described regular contact with P3 Program staff. All described use of the P3 Toolkit website materials and spoke of webinar attendance by members of their teams.

A State office focused on innovative finance solutions for transportation projects described P3 Program use at multiple phases of the P3 implementation process. Fact sheets and guidance documents helped newer employees as well as senior managers get an overview of P3s, while a peer exchange provided "valuable examples of how other States handled risk allocation, outreach and procurement" that informed the P3 evaluation and procurement phases.

A program leader with a longstanding relationship with FHWA described how Value for Money (VFM) tools helped her move a P3 project forward during the P3 planning and evaluation phases.

> *FHWA developed training specific to the [Value for Money] VFM aspect of P3 projects. The morning session was based on VFM and the afternoon focused on project financing and a case study. One or two months later, the team looked at the P3 Toolkit and using a series of yes/no questions, built the VFM inputs.[10]*

Another practitioner in the same State, who had not yet managed a P3 project, described using the P3 Toolkit website to learn about P3s more broadly and to investigate examples of types of P3s (e.g., design–build–finance and design–build–finance–operate–maintain) for potential projects.

A project manager from a midwestern State that had done a P3 in the past, but is currently limited because of legislation changes, described a close relationship with the P3 Program. He described staying informed by using the P3 Program to "try to change the paradigm about P3 use in the State." He describes having direct contact with the P3 Program staff, using documents pulled from the website, and attending webinars to support his case for P3s.

Other States newer to P3s described occasional use of P3 Program resources with less success. These practitioners did not have a direct connection to P3 Program staff. Some knew very little about the P3 Program itself despite attending a webinar. Others had only limited use of the website. A financial manager from a midwestern State doing her first P3 project described trying to use the VFM materials from the P3 Toolkit website. She gave up because her project used availability payments rather than tolls, which the material did not cover. Another user from the northeast looking for P3 financing information described coming across the P3 Toolkit website only after looking for P3 information on Google®. She, along with a few other respondents, described being "overwhelmed" by the P3 website and noted it was hard to find what she needed.

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[10]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

Evaluation Question 2: Has the P3 Program served as an information resource for consultants who advise State and local agencies at each phase of the P3 implementation process?

In total, seven P3 advisors/consultants from legal, finance, and general/engineering firms were interviewed. This section includes examples of how these advisors/consultants use P3 materials. Usage data show that many P3 advisors access the P3 Program webinars and website resources. It is likely that there are many variations to how P3 Program materials are used among P3 advisors, in addition to those described here.

A few experienced P3 advisors described using the P3 Program similarly to how it is used by experienced P3 States. These advisors contributed to the development of P3 Program materials, but their firms had only limited use of the final program materials. One legal consultant noted that P3 Program materials were more applicable to firms that hadn't done P3s rather than those with years of experience. Another legal consultant said that most of the P3 team members in her organization pre-dated the P3 Program. She did mention letting clients and new employees know about webinars and primers, noting that they are valuable in providing a P3 foundation. In addition, an experienced financial consultant described both contribution to and use of P3 Program materials. He reviewed VFM materials but also finds value in using P3 project profiles.

Less experienced advisors describe occasional use of various P3 Program resources. An engineering consultant described attending a webinar to get an introduction to P3s but noted he did not have enough time to do all the work required. A junior legal consultant who attended some of the webinars saw value in learning about the business side of a P3. Another engineering consultant noted that he had tried to use the P3 Toolkit website but found it overwhelming and difficult to navigate. The interviews paint a picture of limited P3 Program use among advisors, but usage data and P3 Toolkit website downloads show that, as a whole, advisors are an important user group. Additional research is recommended to understand more about this large user group, their use of the P3 Program, and their information needs.

> ### Detailed Findings 3: Has the P3 Program provided information that helps FHWA Division Office staff support P3 projects and manage Federal requirements?

The evaluation team fielded an online survey with FHWA Division Office staff in positions that would engage with P3 teams at the State or local level (e.g., project delivery/major projects, finance, planning, and technical services). In total, 259 employees responded, representing all 50 States as well as Puerto Rico and the District of Columbia. The evaluation team also conducted interviews with FHWA staff in eight States who recently passed P3 legislation or implemented P3 projects. The survey shows most States (44 of 52) had considered, pursued, or implemented transportation P3s. Thirty-four percent of respondents (88 of 259) indicated using the P3 Toolkit website or attending a webinar. The responses of these 88 P3 Program users provide insight into the information needs of FHWA staff and identify the P3 Program materials that help them meet their information needs.

P3 Program users primarily came from two specialties within FHWA Division Offices, project delivery (39 percent) and finance (33 percent). These positions will be the focus of this section. Responses from planning (17 percent) and technical services/other (11 percent) can be found in appendix B. The project and finance roles are covered separately, as they tend to describe different project activities and use of different P3 Program resources.

Table 7 shows the top support activities engaged in by those in project delivery/major project roles. Table 8 shows P3 Program resources accessed to inform the activities. Top activities include answering general questions about P3s and addressing Federal reporting requirements in contracts. Project staff also help develop RFPs and project management plans. The information resources used most often include webinars, fact sheets, primers, oversight documents, project agreements, and model contract guides.

The following comments show how support activities vary depending on the experience of the State or region:

> *We helped the [State DOT] get something on the radar about P3s. This provided them with awareness and some knowledge enabling them to ask [FHWA] questions about [unsolicited] P3s that have come up over the years. And it helped them identify the risks inherent in P3s.[11]*

> *Support activities include making sure the procurement is in compliance, the RFP and technical requirements, and often working with the TIFIA office.[12]*

Table 7. Project delivery/major projects top activities.[13]

Top Activities	Percentage Used
Answer general questions about P3s	68
Ensure Federal requirements in P3 contracts are met	62
Provide construction oversight	57
Develop and/or review RFP	54
Help and develop project management plan	54

Table 8. Project delivery/major projects top P3 resource use.[14]

Top P3 Resource Use	Percentage Used
Webinars	65
Fact sheets	59
Primers	38
Oversight documents	32
Project agreements	26
Model Contract Development Guides	26

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[11]FHWA employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.
[12]FHWA employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.
[13]Additional survey information can be found in appendix B.
[14]Additional survey information can be found in appendix B.

Table 9 shows the top support activities engaged in by those in finance related positions. Top activities involve developing financial plans and answering general P3 questions. Table 10 shows materials used to support these activities include webinars, fact sheets, and primers, along with past trainings. Oversight documents are also referenced. Those interviewed in finance positions described the following:

> *Groundwork is what is needed when taking to a DOT who is new to this. Need to tell them what P3 is all about.[15]*

> *As meetings come up on P3s, I use fact sheets and primers to refresh documents. The documents provide links to the IPD P3 website to help answer questions as they came up. I basically pull together information, do research and contact people to get information.[16]*

> *I helped develop the financial plan—how to pay for project. [State] program is so small that they had to come up with something other than bonds to pay for project.[17]*

Table 9. Top activities supported by finance positions.[18]

Top Activities Supported by Finance Positions	Percentage Used
Help develop and/or review financial plan	84
Answer general questions about P3s	68
Help develop and/or review the cost estimate review	42
Research and provide material on complex P3 questions	32
Help develop the project management plan	32

Table 10. Top P3 resources by those in finance positions.

Top P3 Resources Used	Percentage Used
Webinars	79
Fact sheets	59
Primers	34
Previous training documents	31
Oversight documents	28

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[15]FHWA Employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.
[16]FHWA Employee, Phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.
[17]FHWA Employee, Phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.
[18]Additional survey information can be found in appendix B.

4.4 Complete Source of P3 Information

Hypothesis: The FHWA P3 Program provides the most complete set of information resources to assist transportation practitioners in all phases of the P3 implementation process.

To understand whether the P3 Program provides a complete set of P3 resources that meets the information needs of transportation professionals as they undertake the P3 implementation process, the evaluation team considered program usage (see sections 3.1 and 3.2) as well as the following three evaluation questions:

1. How satisfied are users of the P3 Program with the information resources?
2. What other resources are used to fill information needs?
3. What changes could the P3 Program make to better serve transportation practitioners?

Summary Findings

Evaluation Question 1: How satisfied are users of the P3 Program with the information resources?

Findings: Satisfaction levels with P3 Program resources were mixed:
- Practitioners newer to P3s tend to be more satisfied with program resources, particularly if they have a direct relationship with the program.
- Very experienced practitioners see value in introductory materials but are critical of more advanced resources.
- FHWA staff give P3 Program materials moderate to high satisfaction levels.

Legislators and Policymakers: With few examples of direct P3 Program use by State legislators and policymakers, satisfaction could not be addressed.

State and Local Agencies: Practitioner satisfaction with P3 Program resources varies depending on experience level and involvement with the program. Those newer to P3s who are highly involved with the P3 Program were very satisfied. Others who had yet to form a personal relationship with the P3 Program tended to be more critical. Practitioners from experienced P3 States saw some value in introductory materials but were critical of more advanced tools.

FHWA Division Office Staff: According to the online survey, satisfaction levels were moderate to high among those in finance and project roles at FHWA Division Offices. Interviews with this audience confirmed that most appreciated the program's offerings, although many had suggestions for improvement.

P3 Advisors: Satisfaction with the P3 Program varied depending on use. P3 advisors see value in introductory materials but rarely look to the P3 Program for more complicated topics, depending instead on their in-house experience and materials.

Evaluation Question 2: What other resources are used to fill information needs?

> Findings: All groups describe resources used in addition to (or instead of) the P3 Program, indicating that other programs are needed to supplement what the P3 Program provides. P3 advisory firms, other States' materials, and peer sharing activities were top resource mentions.

Legislators and Policymakers: Interviewees directly involved with recent P3 legislation say they primarily look to other States' legislation for guidance and examples as they build their own. Experienced legal advisors were also described as critical to building P3 legislation. Another resource mentioned was the NCSL.[46]

State and Local Agencies: Consultants from advisory firms continue to play a major role in helping State and local agencies plan for and implement P3s. States have also created their own peer exchanges and sharing groups that bring real-life P3 examples and issues to the table. A small number of P3 team leaders and practitioners noted that they attend various P3 conferences and trainings, consult AASHTO, and use other sources.

FHWA Division Office Staff: FHWA Division Office staff note that they use information from other Division Offices. They also learned from experienced State and local P3 teams and from P3 advisors.

P3 Advisors: While leaders in experienced firms say consultants mostly learn in-house, others mention gathering information from organizations such as AASHTO and the Design-Build Institute of America.

Evaluation Question 3: What changes could the P3 Program make to better serve transportation practitioners?

> Findings: P3 Program users seek more direct support, more "real world" cases and examples, and project-specific documents that can help inform each State's unique P3 needs. Some experienced P3 practitioners believe that the P3 Program should focus on serving only those less experienced with P3s.

Legislators and Policymakers: A legal counselor in a P3 Office noted that State legislators and policymakers need to see the highest levels of government advocating for P3s. He added that advocacy should be coupled with education and outreach. Another interviewee mentioned that access to existing legislation and tools to help States review legislation would be helpful.

State and Local Agencies: The most common challenge noted was that each P3 is different and that it is hard to find specific information to fill a State's unique needs. Suggestions that the P3 Program could implement include organizing more small-group sharing events, creating forums for anonymous sharing of P3 lessons learned and "real-life" stories, and documenting best practices.

FHWA Division Office Staff: FHWA Division Office staff recognized that there were improvements that could help the P3 Program serve as a more complete P3 resource. Suggestions include developing materials on how to effectively communicate with all P3 stakeholders, providing more real-world examples of P3 projects, and/or providing a collection of lessons learned to guide FHWA staff and P3 teams.

P3 Advisors: To this group, the P3 Program is a source of introductory P3 information, but it is not seen as a complete resource for experienced practitioners. There is room for the P3 Program to fill information gaps by providing databases of actual evaluation inputs, more detailed cases, and project document libraries.

Detailed Findings

Satisfaction

Legislators and Policymakers
There is a path for information to travel from the P3 Program to State legislative and executive staffs, but that the path is indirect. The interviews the evaluation team conducted with those in roles related to developing legislation and policy indicate that few access the P3 Program directly for such purposes. Because of this, it was not possible within the scope of this study to determine which specific P3 Program offerings were used most often or to measure satisfaction with P3 Program materials.

State and Local Agencies
State and local practitioners' satisfaction levels with the P3 Program tend to be mixed. Those newer to P3s who were highly involved with the P3 Program are very satisfied. Several others from States that have yet to form a relationship with the P3 Program tend to be more critical of the program. States with advanced P3 Programs stated that they didn't need the P3 Program to improve upon their own resources. Some felt the materials were good for those just beginning to learn about P3s, but others thought the materials were not focused enough and did not serve either beginners or advanced P3 teams well.

FHWA Division Office Staff
Satisfaction levels with P3 Program resources are moderate to high among those in project and finance roles. Those in finance roles were relatively evenly split between moderate and high satisfaction levels. Although more than half of those in project-related roles had high satisfaction, there was a small segment of this group that indicated low satisfaction (13 percent).

More Satisfied

> *The Value for Money was a very good (webinar) session. I had done some reading on P3s over the years, but didn't realize how complex P3s were until I reviewed the 1,200 page contracts.[19]*

> *Overall, I have been satisfied with the materials, but as they say "If you've seen one P3 you've see one P3," they are all unique.[20]*

> *Very beneficial to see examples from other States and other projects.[21]*

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[19]FHWA employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.
[20]FHWA employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.
[21]FHWA employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

Figure 14 shows satisfaction level with P3 resources from FHWA Division office staff.
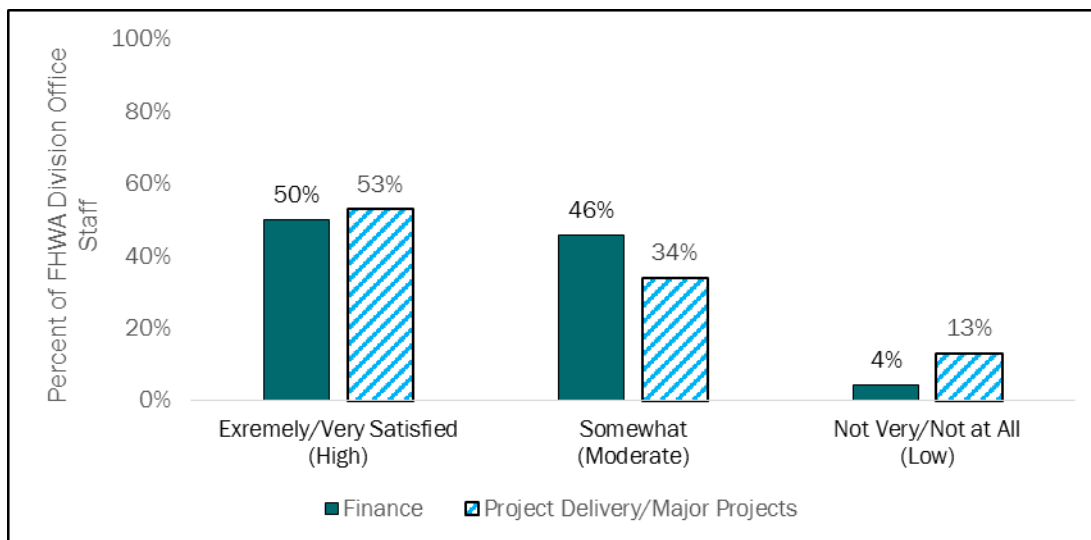
Source: FHWA

Figure 14. Chart. Satisfaction with P3 Program resources.[22]

Less Satisfied

> *[During webinars] instructor should spend more time on the [Microsoft®] Excel workbook. That part got lost in the webinar. Technical details made it difficult to follow and I lost focus and got confused. There is so much information.*[23]

> *I need more time to be able to practice using the tools and explore them to understand the applicability. I have not had the time to develop my understanding of them.*[24]

P3 Advisors

Overall, P3 advisors who used the P3 Program materials were satisfied with the foundation they provided on P3s, but use did not extend much further than that. There was some dissatisfaction with trying to find specific topics or documents on the website. The website was noted to be "overwhelming" by newer consultants. Others hoped for more project-specific content on the website, including specific concession agreements or cases with more project detail.

As noted previously, P3 advisors are among the most frequent downloaders of P3 Program documents. It is unclear how they have been using the P3-VALUE tools or related documents. Future data collection efforts could ask these respondents if they would be willing to take part in an interview or complete a survey designed to better understand their P3 Program use.

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[22]Additional survey information can be found in appendix B.
[23]FHWA employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.
[24]FHWA employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

Other Resources Used

Legislators and Policymakers

Interviewees directly involved with recent P3 legislation stated that they primarily looked to other States' legislation for guidance and examples as they built their own. Another source mentioned by multiple interviewees was the website of the NCSL.[46] The Eno Center for Transportation training was also noted as a valuable source of real-world P3 examples and connections to private industry partners that helped teams as they developed P3 legislation.

State and Local Agencies

Interviewees from State and local agencies say that States support each other in the development of P3 legislation and P3 projects. Practitioners describe experienced P3 States as being extremely helpful in providing legislation, contracts, and other documents that serve as templates for P3 projects. States have created their own peer exchanges and sharing groups that bring real-life P3 examples and issues to the table.

Advisors from legal, financial, and engineering firms also continue to play a major role in helping State and local agencies plan for and implement P3s. Practitioners from State transportation departments noted that they learned about P3s directly from advisors, used materials developed by the firms, and were able to access their documented cases as well as the direct experiences of team members.

A small number of P3 team leaders and practitioners noted that they attended various P3 conferences and trainings, consulted AASHTO, or used other sources. However, there were few sources besides the P3 Program that were common among them.

FHWA Division Office Staff

In addition to P3 Program resources, FHWA Division Office staff note that they use information from other States. They also learned from experienced State and local P3 teams and from P3 advisors. One Division Office staff member noted that peer-to-peer exchanges between State Division Offices have been crucial to staying up to date on best practices.

P3 Advisors

Several P3 advisors interviewed noted that they generally learned about P3s through their own firms. One consultant from an engineering-focused firm noted that they trained new employees on the job:

> *First [employee] would be with the client all the time, and his support guy would sit behind him and be with him to provide some education on the process. Once he is comfortable, they reverse roles and his support person takes the lead on the next project. Over time, they have developed this staff of people at [Firm]. They have people all over the place, it's homegrown schooling.*[25]

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[25]P3 consultant, phone interview conducted by Lora Chajka-Cadin (evaluation team) and Chris Calley (evaluation team), September 2016.

For new employees looking to obtain general P3 information, P3 advisors mentioned use of AASHTO and the Design-Build Institute of America. A legal consultant said that Westlaw[26] has developed a "large and expensive database that they utilize."

Suggested Changes to P3 Program

Legislators and Policymakers

The State representatives interviewed had several suggestions for how Federal-level agencies could improve the P3 legislation and policy development process. One legal counselor in a P3 office noted that a major barrier to passing P3 legislation is the lack of widespread acceptance of this type of contractual agreement in transportation. He noted that State legislators and policymakers need to see the highest levels of government advocating P3s. He later added that advocacy should be coupled with education and outreach to allow State and local governments to fully understand the P3 concept. He mentioned that knowledge gaps and lack of information lead to problems in crafting and implementing P3 legislation.

Another active legislative liaison noted that "getting the right legislators, the right information at the right time is critical. Those with backgrounds in finance would be prime targets for more complex documents, while others could just handle the basics." He saw an opportunity to engage both State transportation departments and legislators as new legislation was on the horizon.

Others in active P3 states noted that experienced legal consultants and statutes from other States were critical elements in developing their own P3 legislation. One legislative analyst described assembling legislative "puzzle pieces" from multiple statutes to meet the needs of his State. Access to legislation and tools to help States review current legislation would be helpful to legislators as they tried to develop legislation and policy to meet their State's needs.

State and Local Agencies

State and local agencies identified several challenges to successful P3 use and suggested ways the P3 Program could help overcome them. One of the most common challenges noted was that each P3 is different and that it is hard to find specific information to fit a State's unique needs. Suggestions the P3 Program could implement included organizing more small-group sharing events, developing forums for anonymous sharing of P3 lessons learned and "real-life" stories, and documenting best practices.

> *Small group peer sharing to help when these complex problems come up—to get into the nitty gritty. White papers also could be helpful—but hard when there are 50 different States and all have laws and all have different frameworks—so nothing is cookie cutter. .And really specific information—the intricacies of the projects is what you are not finding on the web. Pick up the contracts we have already done—what do we need to tweak? And talk to contractors—what have they learned from other States?*[27]

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[26]State P3 employee, phone interview conducted by Chris Calley (evaluation team), September 2016.
[27]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team) and Chris Calley (evaluation team), September 2016.

Others had suggestions for improving the website experience, including keeping documents up to date and organizing the website in a more intuitive way.

> *The website just has a lot of stuff. The toolkit is linked separately and the FAQ [frequently asked questions] sheets are listed as separate options, so it's kind of scattered. It could be streamlined. There is a lot, which is great, but make it easier to identify what I am looking for.[28]*

A few experienced practitioners noted that the P3 Program and the P3 Toolkit website can be hard to navigate, as it attempts to serve both those new to P3s and practitioners that are more advanced. They notice too many documents and tools falling somewhere in the middle, with documents that are too advanced for beginners but too basic for advanced users. While they admire the effort of trying to create a one-stop P3 resource, they suggest that the program focus on one experience level.

> *FHWA wants us to identify not just the major risks but* all *the risk, which is difficult to identify and different for each project. It makes the toolkit too complex for someone starting out to learn. Too academic. It is just too much in the weeds to deal with that many specifics.[29]*

> *What the P3 team has tried to do is a Herculean undertaking, but they need to step back and analyze what they have. Should either deliver on the education side (beginner) or the application side (practitioner).[30]*

FHWA Division Office Staff
When asked whether there were any suggestions for the P3 Program that could help FHWA staff serve their teams, a variety of challenges as well as suggestions were noted. Many raised the issue of trying to provide materials that applied to the unique situations of the projects in their State. The most common suggestion to remedy this was to provide more real-world examples and documents that pull-out examples and lessons learned from successful, and not so successful, P3 projects.

> *It's hard because it is a complicated process and unique for each State—so hard to take a blanket approach—hard to cover everything when you don't know the specifics.[31]*

> *The current materials are helpful, but we could use more information on successfully completing P3s and lessons learned along the way.[32]*

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[28]State transportation department employee, phone interview conducted by Chris Calley (evaluation team), September 2016.

[29]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), April 2016.

[30]State transportation department employee, Phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

[31]FHWA employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), April 2016.

[32]FHWA employee, phone interview conducted by Lora Chajka-Cadin, April 2016.

> *States would be more receptive to lessons learned. For example, in [State 1] describing what happened there and what went into the decision not to go forward with the P3. Or learnings from [State 2] on how to better protect taxpayers. Why P3s succeed or why they do not.[33]*

Several FHWA staff also described problems that came up during projects as the State and regional teams tried to balance the demands of all stakeholders. Staff members were looking for materials that help teams communicate with P3 stakeholders, including State legislators, developers, and the public, allowing them to better handle the political challenges that often accompany P3s.

> *What would be helpful is more training on items such as: how to best communicate with the State and the developers; how to provide information on public involvement; and how to deal with the political aspects of P3s.[34]*

P3 Advisors

The P3 Program may be currently serving the role as a source of introductory P3 information, but it is not seen as a "complete resource" for this user group. There is, however, room for the P3 Program to fill information gaps in the form of specific project inputs, more detailed cases, and project documents to increase its value to a P3 advisor.

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[33]FHWA employee, phone interview conducted by Lora Chajka-Cadin, May 2016.
[34]FHWA employee, phone interview conducted by Lora Chajka-Cadin, April 2016.

5. Recommendations

The Center for Innovative Finance Support's P3 Program is a relatively new effort aimed at serving practitioners involved in developing, procuring, implementing, and monitoring transportation P3 projects. The program is already recognized as a valuable resource for those involved in P3s, but the evaluation process has identified several actions that could improve the reach and usefulness of the program.

5.1 Evaluation Recommendations

Recommendation: The P3 Program should recognize the distinct groups that access program resources and identify their information needs. Content development should be focused on a few key target groups.

There are multiple audiences that currently access P3 Program resources. User groups include FHWA staff, State and local transportation agencies, P3 advisors, interest groups, and academics. Potential users include those involved in developing P3-related legislation and policy. Use of P3 Program resources differs among the user groups and sometimes even within the groups (i.e., by function or experience level).

The P3 Program should identify the information needs of each user group. Discussions at TRB or other outreach events, interviews, and surveys (such as the one used in this evaluation) can be used for this purpose. Once the needs are identified, the P3 Program can assess how well its content meets the needs of each group. The program may decide to focus content development and outreach efforts on meeting the needs of a few key targets. This ensures priority groups are served most effectively while still allowing the program to provide some value to other user groups.

Once target groups have been selected and content developed (if not already available), the P3 Program should develop communications tailored to each group, informing them of relevant P3 Program offerings. An up-to-date email contact list with information on practitioner organization, job title, and (possibly) experience level would be useful for this purpose. Such information could be gathered through formal surveys, program outreach events, webinar registrations, or website download contact forms.[1]

Recommendation: Marketing efforts should focus on target groups who are currently underutilizing P3 Program resources.

The P3 Program should monitor the resources accessed by its users. If target groups are not attending outreach events, accessing webinars, or downloading documents, actions should be taken to improve program awareness. One group the evaluation team identified as currently underutilizing

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[1]Any collection of data from program users should be done in accordance with the Paperwork Reduction Act and may require additional authorization to collect information other than contact fields.[53]

the P3 Program includes those involved in developing P3 legislation and policy at the State and local levels.

The evaluation team had difficulty finding interviewees within State legislative and executive branches. There were only a few P3 Program users with legislative titles identified in the P3 activity database, and cold calling States who recently passed P3 legislation did not yield additional users. One program user interviewed, a legislative counselor in a recently formed P3 Office, noted that the P3 Program materials he used did not directly contribute to the recent legislation he developed. Others involved in recent legislation were not even aware of the P3 Program's existence.

A legislative analyst from a State that recently enabled P3s was surprised he had not stumbled upon the P3 Toolkit website during his legislative research.

> *They really just need simple outreach. It's just a lack of marketing on their part.[2]*

While lawmakers and policymakers are an example of an underserved user group, discussions with the P3 Program team indicate that this group would not be considered a primary target, since FHWA's main stakeholder group consists of the State transportation departments and their consultants. The P3 Program currently supports these users indirectly by providing material to the NCSL through the BATIC Institute. Although this group will not be the focus of content development, it can still benefit from program offerings. The P3 Toolkit website could be organized to lead lawmakers and policymakers to appropriate materials. Offerings such as fact sheets and primers will be useful to this audience. The program could also provide links on the P3 Toolkit website to existing State legislation as well as to the BATIC Institute, NCSL, and other groups that serve State and local legislators.

> **Recommendation: The P3 Program should segment its P3 offerings, aligning documents and tools with the needs of practitioners at different experience levels.**

Some of the more experienced P3 practitioners that the evaluation team spoke to during the evaluation felt that the P3 Program was currently trying, without success, to be all things to all P3 practitioners. Interviewees noted that some practitioners have been using P3s for more than a decade, while others have only recently considered P3s for major transportation projects because of budgetary constraints. Those with existing P3 knowledge and expertise seek different tools than those just starting to explore this project delivery method.

> *[FHWA] needs to decide who their audience is—the beginner or the experienced practitioner. The P3 Program has materials that try to be both and it does not work when [beginners] get too into the weeds. And experienced practitioners, like us, do not need it.[3]*

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[2]State legislative analyst, phone interview conducted by Chris Calley (evaluation team), September 2016.
[3]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

> *The P3 Program may be better off considering delivering for those new to P3s. These are the folks who hire consultants to do everything. Provide them information to guide them in working with consultants, the basics.[4]*

> *Because there are "beginner" and "advanced" practitioners in every user group, the P3 Program could better serve all user groups by developing, organizing, and labeling content for specific experience levels. Beginners could follow a path to fact sheets, primers, and introductory webinars/presentations, while more advanced practitioners would be shown offerings such as guidebooks, analytical tools, model contracts, etc. Webinars and trainings could also be developed as a continuum with content for those just exploring their first P3 to those seeking information on advanced topics.[5]*

> **Recommendation: The P3 Toolkit website should be organized in a way that allows distinct user groups to easily identify and access the content needed.**

Recognizing that there are different user groups with different information needs and different experience levels accessing the P3 Program, the content of the P3 Toolkit website should be organized so that users can easily identify materials that meet their needs. Interviewees from different user groups complained that the current P3 Toolkit website was both difficult to find and difficult to navigate. One user noted that the website does not seem to have its own identity, as it sits within the FHWA website and often sends users outside the P3 Toolkit website's boundaries to access documents. Other users said it was even difficult to locate information within the website. Two different users admitted that they exited the website and went to Google® search to find specific content within the P3 Toolkit website.

> *[Website] is hard to navigate and it's hard to find the Toolbox and what you're looking for. The website is so big. I just give up and write a term in search.[6]*

Other users cited lack of upkeep on the website as a problem. One described confusion when finding multiple versions of the same document on the website (i.e., original and updated versions). Another noted that some of the content seemed out of date and that FAQs were scattered on multiple pages instead of in one central source. Although most of these users found the content on the website to be useful, they felt that it could be streamlined and better organized.

In addition to keeping content up to date and avoiding duplication, the P3 Toolkit website should look to its user groups for guidance on how to organize the website to best meet their information needs. Ideas include organizing content by P3 implementation phase or by user job function. Within these divisions, documents and tools could also be organized by experience level, with documents and/or tools labeled as "introductory" or "advanced."

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[4]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

[5]P3 consultant, phone interview conducted by Lora Chajka-Cadin (evaluation team) and Chris Calley (evaluation team), September 2016.

[6]P3 consultant, phone interview conducted by Lora Chajka-Cadin (evaluation team) and Chris Calley (evaluation team), September 2016.

> **Recommendation: Provide resources that include more "real-world" P3 experiences.**

One of the most difficult obstacles for the P3 Program to overcome is the perception that P3s are so unique that a general information resource has only limited utility. Several practitioners noted that, "if you have seen one P3… you have seen one P3." There is a common perception that no resource can completely prepare a team for their own unique P3.

> *It's hard because it is a complicated process and unique for each State, [it's] so hard to take a blanket approach. It's hard to cover everything when you don't know the specifics.[7]*

This explains why State and local P3 teams depend on P3 advisory firms, other States, and other information sources in addition to the P3 Program as they make their way through the P3 implementation process. Practitioners do see value in the P3 Program to get foundational information on P3s and P3 evaluation, but they stress that improvements to the program involve information sharing and details from other transportation P3 projects. Ideas for updates the P3 Program could make include:

- **More Opportunities for Peer Exchange**—A peer-exchange component lets experienced practitioners share lessons learned with State and local agencies getting started with P3s. It also enables groups to solve potential problems together. Even experienced P3 teams find value in these sessions.

> *[Looks for more…] small group peer sharing to help when these problems come up—to get into the nitty gritty.[8]*

  While most peer exchanges described were in person, it was noted that even forums that allowed practitioners to post their P3 questions, issues, or experiences anonymously could lead to helpful discussions and information sharing.

- **Access to P3 Legislation**—Several interviewees noted that they built their own P3 legislation using other States' statutes. They noted that other States had been very forthcoming in sharing legislation and other materials. While no State provides an exact template for what is necessary to form new legislation, having other States' legislation conveniently at hand is an excellent reference tool for legislators. The extent to which the P3 Program can make actual legislation available in one place or summarize legislation would help P3 practitioners.

- **Access to P3 Project Data and Information: Lessons Learned, Project Inputs, Precedent Documents**—Many P3 practitioners desire resources that provide as much detail as possible from "real-world" P3 projects. P3 Program tools are seen as theoretical, while practitioners seek real-life examples and data that have been tested. If the P3 Program could collect, organize, and summarize real-world information, practitioners would be grateful.

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[7]FHWA employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.
[8]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), April 2016.

> *Maybe a set of Lessons Learned would be more valuable than trying to fit every piece into a model that will never be right for every situation.[9]*

> *What would be helpful is anonymized sharing. Eighteen P3 projects have been finished in the last 10 years. Take out the personal information—but keep in the assumptions so others can learn.[10]*

> *Precedent document library: concessions agreements, loan agreements, RFPs, to the extent they are public records.[11]*

> *Provide some examples of issues that have been dealt with on toll concessions. Or develop best practices out there for putting a P3 project together.[12]*

5.2 P3 Program Update

The program evaluation period coincided with new institutional mandates from Federal policymakers that continued to evolve as USDOT refined its approach to supporting the P3 delivery method.

In July 2014, the Secretary of Transportation established BATIC within the USDOT as a "single point of contact" for project sponsors seeking to navigate the often complex process of project development, including identifying and securing financing. Until it evolved into the Build America Bureau, BATIC also provided technical assistance for project sponsors, including assistance in P3s. USDOT BATIC was aided with outreach and training functions provided by the BATIC Institute, an AASHTO Center for Excellence. The BATIC Institute currently assists the Build America Bureau. Its efforts are discussed in more detail in the final paragraph of this section.

In response to mandates under the Fixing America's Surface Transportation Act (FAST Act), the USDOT BATIC evolved in July 2016 to become the Build America Bureau, consolidating USDOT discretionary credit and grant programs together with outreach and project development staff.[49] The FAST Act also requires the Bureau to develop best practices and tools for P3s. Therefore, FHWA's Center for Innovative Finance Support works under the auspices of the Bureau in delivering its P3 Program. Typically, all new documents produced under FHWA's P3 Program are branded as Bureau products and are available via links from the Bureau's website.

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[9]State P3 employee, phone interview conducted by Lora Chajka-Cadin (evaluation team) and Chris Calley (evaluation team), August 2016.

[10]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

[11]P3 consultant, phone interview conducted by Chris Calley (evaluation team), September 2016.

[12]State transportation department employee, phone interview conducted by Lora Chajka-Cadin (evaluation team), May 2016.

Currently, FHWA's Center for Innovative Finance Support and the Bureau are working together to revamp their respective websites so that all P3 resources can be readily found and accessed by the public. This update will address many of the recommendations put forth in this document. FHWA and the Bureau also released the *Successful Practices for P3s* report in March 2016 and are currently developing several documents that address the call for lessons learned and "real-world" project examples and data.[30] Some examples include the following:

- The recently published *Report on Highway P3 Concessions Implemented in the United States*.[50]
- A plan to follow up the *Successful Practices for P3s* report with an ongoing series of one-page documents on lessons learned through peer exchanges and unpublished case studies.[30]
- A concept paper (in progress) presenting the structure for a comprehensive information source detailing major projects (P3 and non-P3) and P3 legislation.

BATIC Institute

FHWA's links to the Build America Bureau extend to the BATIC Institute mentioned previously. The BATIC Institute is the result of an effort mandated in the Moving Ahead for Progress in the 21st Century Act, which authorized USDOT to establish, through a cooperative agreement, a Center for Excellence in Project Finance.[51] AASHTO was selected to establish this center, which eventually took the name of the BATIC Institute: An AASHTO Center for Excellence. The BATIC Institute promotes public sector capacity building in the analysis, understanding, and use of project finance techniques. The Institute offers training, sharing of best practices, and technical assistance to State legislators, State transportation departments, and their local partner agencies. These efforts complement the P3 services of FHWA and the Bureau, which work closely with the BATIC Institute to accomplish mutual objectives. For example, the NCSL is a partner in the BATIC Institute and assists in providing P3 capacity building needs of State legislators and their staff. In this way, the P3 Program already supports lawmakers and policymakers as they research the P3 process.

6. Conclusions

The goal of the P3 Program is to improve the state of the practice regarding the consideration and use of P3s by improving the transportation community's understanding of this project delivery method. Through its development of educational publications, evaluation tools, and technical resources, the P3 Program seeks to build expertise and improve decisionmaking through the four phases of P3 implementation: legislation and policy, planning and evaluation, procurement, and monitoring and oversight.

The evaluation findings show that the P3 Program has been very successful in making information available to transportation practitioners interested in P3s, providing a strong foundation for the contemplation of this project delivery method. The program has reached hundreds, if not thousands, of transportation practitioners since its introduction in 2013. The most active user groups include State and local transportation agencies, FHWA Division Office staff, and P3 advisors from financial, legal, and engineering firms. The evaluation shows that program materials have influenced decisions made by user groups in the planning and evaluation phases.

Despite the program's impressive reach and its noted utility in providing foundational information, it is not seen as a complete P3 resource. P3 Program users look to other information sources to complement what the program provides. Practitioners note that there is room for improvement in meeting the unique needs of practitioners in specific phases of P3 implementation, particularly when designing State legislation and policy and during project-specific planning and evaluation activities. In addition, more information is needed to make conclusions about the P3 Program's impact on project procurement and during project monitoring and oversight. Few projects have reached these implementation phases since the inception of the P3 Program, limiting evaluation.

Legislation and Policy

Although passing P3 enabling legislation is the first step in the P3 implementation process, it has not been the focus of the P3 Program. In the past 3 years, legislative activity has more than doubled as States look to this project delivery method to overcome budget constraints. While many documents and trainings available in the P3 Program would be valuable to legislative and executive staffs, findings indicate that few are aware of or using P3 Program resources. Those involved in legislation and policy rely on other resources including P3 legal advisors, other States' legislation, and sources such as the NCSL. Future planning efforts should consider if the P3 Program wants to expand efforts to serve this user group, improving awareness and better organizing content relevant to legislation and policy.

Planning and Evaluation

The P3 Program serves multiple user groups during the planning and evaluation stages of the P3 implementation process. FHWA Division Office staff, State and local agencies, and P3 advisors are all active during this period. While most practitioners agree that P3 Program resources are helpful for providing an overview of P3s and the P3 implementation process, the impact of these resources on activities and decisions made during the planning and evaluation phase tends to vary by user group.

FHWA

Users from FHWA saw the P3 Program as a useful general resource in the following ways:

- Emerging use of planning and evaluation documents.
- The documents have some current use, but more plan to use P3 Program materials in the future to educate State and local teams, prepare documents, and help teams develop inputs to evaluation analyses.
- Moderate to high satisfaction with P3 materials.

State and Local Agencies

Users from State and local agencies saw the P3 Program as useful when they had direct federal assistance to accompany it in the following ways:

- Experienced P3 States pre-date the P3 Program and generally use their own resources to educate team members on P3s and to make P3 decisions; there is some use by junior team members.
- Less experienced P3 agencies with direct relationships with P3 Program staff are typically very satisfied. They use webinars and P3-VALUE Tools to educate teams and/or for evaluation activities.
- Less experienced P3 States without a direct relationship to the P3 Program are less satisfied; this group has more difficulty finding and using off-the-shelf materials.

P3 Advisors

There is a mixed picture of P3 usage by P3 advisors, but more research is needed for the following reasons.

- Experienced firms generally depend on in-house experience and materials; junior level employees and less experienced firms use P3 Program webinars and materials.
- Most frequent downloads of P3-VALUE documents come from P3 advisors; more research is needed to fully understand P3 advisor use of the program.

Evaluation findings across user groups suggest there is only moderate use of P3 Program resources today for planning and evaluation activities and decisions. The opportunity for P3 Program use will grow as P3s become more prevalent within transportation. With continued support, the P3 Program will become more important to practitioners, as it guides P3 teams through the P3 planning and evaluation phases. Users should be made aware of this P3 information resource, but they also need guidance to maximize its value.

Procurement

Aside from FHWA Division Office staff, there was little mention of the use of P3 Program materials for procurement. FHWA staff in project roles did note that they accessed documents from the P3 Toolkit website, including model contract guides and P3 project profiles to help teams during the procurement process. As the P3 Program adds additional documents pertaining to procurement and more State and local agencies implement P3s, there will be more opportunities to evaluate the impact of the P3 Program on decisions in this area.

Monitoring and Oversight

Similar to procurement, there were only a few P3 Program resources related to project monitoring and oversight. FHWA Division Office staff mentioned downloading Federal oversight documents, but few State or local agencies using P3 Program resources had reached this stage of the implementation process. As a result, the current evaluation cannot comment on the impact of the P3 Program on monitoring or oversight practices or decisions. Future evaluations should revisit this area after more documents are added and/or more agencies reach the final phase of the P3 implementation process.

P3 Approval Decisions

The evaluation data support the idea that there is a connection between the use of P3 Program materials and approval decisions on P3 Projects at the State or local level. The available data was not specific enough, however, to allow the evaluation team to identify specific information resources that support approval decisions. Future research efforts should try to understand what resources are most helpful to State and local transportation departments as they make the case for use of P3s.

Recommendations to Improve Program Impact

All user groups had suggestions for how the P3 Program could provide more value during the P3 implementation process. Experienced practitioners suggest that the program focus more on developing publication and tools geared toward beginners. They note that some materials try to stretch too far to serve both beginners and advanced practitioners, serving neither well. The P3 Program team agrees that there should be a distinction between resources for "beginner" and "advanced" users but believes there is the need to serve both groups as P3s become more common in transportation.

Practitioners across all groups saw the opportunity for the P3 Program to serve the transportation community as a comprehensive source of real-world P3 examples (e.g., P3 legislation, P3 agreements, P3 cases, evaluation inputs) The unique needs of each P3 project make it difficult for off-the-shelf materials to adequately serve teams, but combined with real-world examples and peer sharing opportunities, the program could have considerable value to all P3 practitioners.

Appendix A. In-Depth Interviews

This appendix presents the respondents interviewed for the evaluation from the following user groups: P3 Program leaders, State transportation department practitioners, FHWA Division Office staff, legislative and policy practitioners, and P3 advisors. Table 11 through table 15 show the five interview groups with which the evaluation team spoke.

Table 11. P3 Program leader interviews.

Date	Organization	Title	Interviewee Category
4/4/2016	Maryland transportation department	P3 Project Manager	State P3 employee
4/11/2016	Colorado High-Performance Transportation Enterprise	Operations Manager	State P3 employee
4/13/2016	Virginia Office of Public-Private Partnerships	Acting Deputy Director	State P3 employee
4/13/2016	Virginia Office of Public-Private Partnerships	Program Manager	State P3 employee
4/13/2016	Virginia Office of Public-Private Partnerships	Program Manager	State P3 employee
4/13/2016	Virginia Office of Public-Private Partnerships	Deputy Project Manager	State P3 employee
4/25/2016	Florida transportation department	P3 Team Leader	State P3 employee
5/19/2016	District transportation department	Director	State P3 employee

Table 12. State transportation department practitioners' interviews.

Date	Organization	Title	Interviewee Category
5/5/2015	Florida Department of Transportation	Major Projects Financial Plan Coordinator	State transportation department employee
5/19/2015	Maryland Transportation Authority	Chief Financial Officer	State transportation department employee
5/9/2016	Minnesota Department of Transportation	Special Projects Manager	State transportation department employee
6/6/2016	North Carolina Department of Transportation	Design-Build Planning Department	State transportation department employee
8/15/2016	New York City Department of Transportation	Program Manager for Strategic Policy	State transportation department employee
8/19/2016	Texas Department of Transportation	Project Finance and Strategic Contracts	State transportation department employee
8/22/2016	Michigan Department of Transportation	Financial Manager	State transportation department employee
8/30/2016	Indiana Department of Transportation	Chief of Staff	State transportation department employee

Table 13. FHWA Division Office staff interviews.

Date	Organization	Title	Interviewee Category
5/2/2016	North Carolina Division Office	Major Projects Engineer	FHWA employee
4/27/2016	Ohio Division Office	Major Projects	FHWA employee
4/27/2016	Alabama Division Office	Financial Manager	FHWA employee
5/4/2016	Virginia Office	Major Projects	FHWA employee
4/13/2016	Louisiana Office	Division Administrator	FHWA employee
4/25/2016	Pennsylvania Division Office	Transportation Financial Specialist	FHWA employee
5/25/2016	Texas Division Office	Major Projects	FHWA employee
5/25/2016	Texas Division Office	Urban Programs Engineer	FHWA employee
5/25/2016	Texas Division Office	Pavements and Materials Engineer	FHWA employee
5/25/2016	Texas Division Office	Urban Program Engineer	FHWA employee
5/25/2016	Ohio Division Office	Financial Manager	FHWA employee

Table 14. Legislative and policy interviews.

Date	Organization	Title	Interviewee Category
5/11/2016	Colorado Department of Transportation	Legislative Liaison	State legislative analyst
7/12/2016	Office of Public-Private Partnerships (DC)	Deputy Director and Counsel	State legislative analyst
7/15/2016	State of Kentucky	Legislative Analyst	State legislative analyst

Table 15. P3 private organization advisor interviews.

Date	Title	Interviewee Category
6/20/2016	Procurement Advisor	P3 consultant
6/27/2016	Director P3s	P3 consultant
7/27/2016	Design-Build Consultant	P3 consultant
7/28/2016	Financial Advisor	P3 consultant
8/22/2016	Associate	P3 consultant
8/26/2016	National Director for Procurement Services	P3 consultant
9/6/2016	Project Delivery Consultant	P3 consultant

Appendix B. Online Survey—FHWA Division Office Staff

This appendix presents tabulated results from the online survey conducted with FHWA Division Office staff. Table 16 through table 25 show FHWA responses to survey questions.

Table 16. Question 1: Which of the following best describes your specialty at the FHWA Division Office?

P3 Program Users	Grand Total	Project Deliver/Major Projects	Finance/Financial Management	Planning/Environment	Technical Services	Other (Please Specify)
Total users	259	102	55	58	25	19
Percent of users	100	39	21	22	10	7

Table 17. Question 2: Has your State considered, explored, or carried out a transportation-related, P3?

P3 Program Users	Grand Total	Project Delivery/Major Projects	Finance/Financial Management	Planning/Environment	Technical Services/Other
Base: total users	259	102	55	58	44
Users who said "yes"	57%	61%	55%	62%	45%
Users who said "no/don't know"	43%	39%	45%	38%	55%

Table 18. Question 3: In your current role at the FHWA Division Office, have you supported State or local teams as they considered, explored, or carried out a transportation-related P3 project?

P3 Program Users	Grand Total	Project Delivery/Major Projects	Finance/Financial Management	Planning/Environment	Technical Services/Other
Base: total users	259	102	55	58	44
Users who said "yes"	34%	36%	35%	40%	18%
Users who said "no/don't know"	66%	64%	65%	60%	82%

Table 19. Question 4: How have you supported P3s in your current role?

Type of Support Provided	Total Supporting a P3 Project (% Providing Support Type)	Project Deliver/Major Projects (% Providing Support Type)	Finance/Financial Management (% Providing Support Type)	Planning/ Environment (% Providing Support Type)	Technical Services/Other (% Providing Support Type)
Reduced base: supported P3s	87	37	19	23	8
Answer general questions about P3s	53	68	58	30	38
Help develop and/or review financial plan	53	46	84	26	0
Help ensure Federal requirements are contained in contract documents and met throughout development of the project	45	62	21	35	50
Help team in completing National Environmental Policy Act closure[52]	44	49	5	78	13
Bring in technical experts (e.g., finance, major projects) to support P3 team	38	49	32	35	13
Help develop and/or review project management plan	36	54	32	13	25
Help develop and/or review cost-estimate review	34	49	42	9	25
Research and provide material on complex P3 questions	31	43	32	22	0
Help develop and/or review P3 project RFP	34	54	11	4	25

Type of Support Provided	Total Supporting a P3 Project (% Providing Support Type)	Project Deliver/Major Projects (% Providing Support Type)	Finance/Financial Management (% Providing Support Type)	Planning/ Environment (% Providing Support Type)	Technical Services/Other (% Providing Support Type)
Provide construction oversight of projects	28	57	5	4	13
Help develop and/or review project inputs	23	30	26	9	25
Oversee general contract administration of P3s	23	43	11	4	13
Help develop and/or review P3 design specifications	22	43	5	0	25
Help develop and/or review P3 risk estimates	22	38	5	9	25
Help team determine if project is compatible with a P3 (P3 screening)	21	30	11	17	13
Help team review P3 proposals prior to award	17	32	5	4	13
Provide monitoring or surveillance on P3 projects during implementation	16	32	5	4	13
Help teams conduct or review P3 evaluation analyses	13	14	26	4	0
Provide team with document templates for P3 project	7	11	11	0	0

Table 20. Question 5: Have you attended IPD P3-VALUE webinar sessions to learn about P3s?

P3 Program Users	Grand Total	Project Delivery/Major Projects	Finance/ Financial Management	Planning/ Environment	Technical Services/Other
Base: total users	259	102	55	58	44
Users who said "yes"	23%	22%	42%	16%	14%
Users who said "no/don't know"	77%	78%	58%	84%	86%

Table 21. Question 6: Have you visited the IPD P3 Toolkit website to access information on P3s?

P3 Program Users	Grand Total	Project Delivery/Major Projects	Finance/ Financial Management	Planning/ Environment	Technical Services/Other
Base: total users	259	102	55	58	44
Users who said "yes"	23%	24%	36%	17%	14%
Users who said "no/don't know"	77%	76%	64%	83%	86%

Table 22. Question 7: Did you access the P3 Program via its website or by webinar? (Summary)

P3 Program Users	Grand Total	Project Delivery/Major Projects	Finance/ Financial Management	Planning/ Environment	Technical Services/Other
Base: total users	259	102	55	58	44
Users who said "yes"	34%	33%	53%	26%	23%
Users who said "no/don't know"	66%	67%	47%	74%	77%

Table 23. Question 8: P3 Program resources accessed.

Type of Resource Accessed	Total P3 Program Users (% Accessing)	Project Deliver/Major Projects (% Accessing)	Finance/Financial Management (% Accessing)	Planning/ Environment (% Accessing)	Technical Services/Other (% Accessing)
Reduced base: used P3 Program resources	88	34	29	15	10
Attended webinar	68	65	79	60	60
Fact sheets[1]	55	59	59	47	40
Primers[2]	32	38	34	27	10
Oversight documents[3]	25	32	28	7	20
Guidebooks[4]	25	24	28	33	10
Case studies[5]	24	24	10	47	30
Agreements[6]	22	26	24	7	20
Past P3 training materials[7]	20	21	31	7	10
Contract development guides[8]	15	26	7	7	10
Past P3-VALUE webinar materials[9]	11	9	21	7	0
P3-SCREEN tool[10]	8	9	3	20	0
P3-VALUE Analytical Tools[11]	7	6	10	7	0
Don't know/not sure	5	6	3	0	10
Just looked today	1	0	0	7	0

[1]Short documents that present a high-level overview of key topics and resources covered in the P3 Toolkit.

[2]Introductory documents that present P3s as a financing alternative for major capital projects and describe development and evaluation activities.

[3]Documents that present an overview of Federal-aid stewardship and oversight practices for P3s.

[4]In-depth documents that present advanced information on P3s to practitioners as they undertake the P3 evaluation process.

[5]Project profiles from various types of completed or in-progress P3 projects.

[6]P3 project agreements and sample contract documents.

[7]Presentations from previously held P3 training sessions.

[8]Documents to assist practitioners during the P3 procurement process.

[9]Presentations and audio from previously held P3 webinars.

[10]An Microsoft® Excel-based checklist to assist practitioners in assessing the appropriateness of delivering a planned transportation project as a P3.

[11]Microsoft® Excel-based tools used to better understand the concepts, inputs, assumptions, and outputs from evaluation of risk, financial feasibility, benefit–cost, and VFM analyses.

Table 24. Question 9: What type of information were you seeking on the P3 website?

Type of Information	Total P3 Program Users (% Accessing)	Project Deliver/Major Projects (% Accessing)	Finance/Financial Management (% Accessing)	Planning/ Environment (% Accessing)	Technical Services/Other (% Accessing)
Reduced base: used P3 Program	88	34	29	15	10
Overview of P3s	77	76	76	73	90
Pros and cons of using P3s	59	68	59	40	60
Examples—P3 projects/cases	43	44	45	47	30
Oversight of the P3 process	41	50	41	20	40
Criteria for selecting the P3 approach	38	50	31	33	20
Risk assessment for P3s	36	47	28	33	30
P3 lessons learned	32	44	31	13	20
Financial viability assessment of P3s	27	32	38	13	0
Project delivery benefit–cost analysis for P3s	24	26	24	33	0
Examples of P3 agreements	22	24	28	7	20
VFM analysis for P3s	18	29	14	13	0
State of the practice	1	3	0	0	0
Don't know	8	9	10	7	0

Table 25. Question 10: How satisfied were you with the information you found on the P3 Toolkit?

P3 Program Users	Grand Total	Project Delivery/Major Projects	Finance/ Financial Management	Planning/ Environment	Technical Services/Others
Reduced base: used P3 Program	88	34	29	15	10
Users who were extremely/very satisfied	55%	53%	53%	71%	50%
Users whom were somewhat satisfied	38%	34%	46%	29%	50%
Users who were not very/not at all satisfied	13%	4%	0%	0%	6%

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