

Statement of Qualifications Package B - Redacted

Response to Economic Ridership and Revenue Forecasting RFQ

To serve: State of Washington, Department of Transportation

Prepared by: KPMG LLP

Any contract award will be predicated on mutually agreeable terms and conditions and a mutually agreeable statement of work between KPMG and WSDOT.

Letter of Transmittal

Dear Madam / Sir:

KPMG LLP (“KPMG”), together with its subcontractor Cheng Solutions, LLC (“Cheng Solutions”, “CS”, together the “KPMG Team” or “Team”), is pleased to submit this proposal in response the RFQ issued by State of Washington, Department of Transportation (WSDOT) to conduct Econometric ridership and revenue forecasting for the Washington State Ferries (WSF), the (“Project”).

Our proposed team of professionals have been assisting clients in the area of passenger ferry development in North America for over twenty years. The Team will bring to WSDOT:

Market leading experience in ferry service planning and implementation – Our Team has led major planning efforts that have resulted in service development in New York, Seattle (Kitsap Transit), Boston, and Puerto Rico. Our experience is primarily focused on modeling ridership, demand, and revenue for proposed or existing ferry services, but also includes stated preference survey design and implementation; ferry revenue modeling; fare policy; and public-private partnership (P3) development.

Our proposed Project Manager is **Lucile Kellis**. Lucile is an applied mathematician and behavioral specialist who has deep experience modeling transit networks, notably with ferries. She has led major ferry planning and forecasting assignments, including the Staten Island Ferry where she developed forecasting models to assess the viability of a West Side service in Manhattan; Seattle and Bremerton, where she developed a mode choice model used to develop forecasts of ridership and revenue **for the currently operational service**; Boston Harbor, where she developed and implemented a major stated preference survey whose results were a wide-ranging mode choice model for transit in the region, with a focus on forecasting ferry demand; Tampa Bay, where she developed a full-scale forecasting model for a proposed ferry service to a major government facility. Lucile is a noted specialist in analysis and prediction of transit usage, and she has applied her skills in behavioral analysis techniques (e.g., survey design, discrete choice modeling, econometrics). She has also demonstrated broad project management skills, overseeing teams of modelers, economists and planners delivering quantitative solutions to a wide array of public and commercial clients.

The Team's lead **Pierre Vilain**, Ph.D. has been lead advisor on numerous ferry projects over the last 20 years in the United States and Canada, developing econometric ferry forecasting models for the Staten Island Ferry, New York City Ferry, Casco Bay (ME), Puerto Rico Island Service, and Translink (Vancouver) passenger ferry service. Pierre has applied modern econometric techniques and data science to passenger ferries successfully in all these projects, which have supported the development of major ferry service in New York, Seattle and Puerto Rico. Pierre will act as Engagement Managing Director and will help with the project delivery and staffing availability. He will apply his 20 years of passenger ferry demand and revenue analysis to the current Project, taking an integral part in helping design, implement, and apply forecasting models. He will play an important reviewer role as well of all model developments and forecasts.

The Team will include **Alice Cheng** and **Michael Fusillo** of CS, highly experienced, noted specialists in the field of transportation policy and planning. CS has a long history of involvement in passenger ferry development in New York Harbor, including playing a prominent advisory role to New York City in the expansion of the NYC Ferry (in collaboration with Pierre Vilain and Lucile Kellis). CS have also been associated in particular with assessment of airport service by ferry. Besides her years of passenger ferry planning, forecasting and policy development, Alice Cheng is also highly experienced in the application of Federal rules and environmental compliance requirements to maritime transport.

Ready to use tools for economic as well as public and private investment analysis – We will be able to leverage market tested tools and approaches developed as part of our work on the planning, funding and/or delivery of over \$100B of infrastructure projects over the last decade, including ridership models, cost/benefit models, financial models, VfM models, market sounding material, public private/ partnership governance models, and procurement approaches.

What sets this Team apart? We have completed successful strategic plans and ridership forecasts that were the basis for actual implementation of ferry services that today serve over 45,000 daily passengers in New York, Seattle, and Puerto Rico. Team members have also developed econometric forecasting models for existing ferry services in many major maritime transit markets, including the Staten Island Ferry, NYC Ferry, Casco Bay, Puerto Rico Island Service and Translink ferries. We have developed econometric forecasting models for all these clients, and bring modern econometrics, data science and behavioral economics to our analysis, model development, and forecasts.

KPMG notes the following:

- We will accept the COVID-19 requirements for vaccination
- Any contract award will be predicated on successful negotiation of mutually agreeable terms and conditions and a mutually agreeable statement of work between KPMG and WSDOT.

In short, we propose a Team of noted and experienced passenger ferry specialists, associated with major ferry developments in several markets. We truly understand the importance of this Project and we are excited with the opportunity to work with you to improve mobility in the region. We look forward to your response,

Please do not hesitate to reach out to me with any questions.

Sincerely,



Pierre Vilain, Ph.D.
Managing Director
646 675 3380
pvilain@kpmg.com

Scoring Criteria 6: Contractor Certification – Workers’ Rights (Prime and Sub-Consultants)

Contractor Certification - Workers'.

- **Please fill out the form titled “Contractor Certification - Workers' Rights” linked on the advertisement webpage. The form can be found under the heading “Submit Required Forms.”**

**CONTRACTOR CERTIFICATION
EXECUTIVE ORDER 18-03 – WORKERS’ RIGHTS
WASHINGTON STATE GOODS & SERVICES CONTRACTS**

Pursuant to the Washington State Governor’s Executive Order 18-03 (dated June 12, 2018), the Washington State Department of Transportation is seeking to contract with qualified entities and business owners who certify that their employees are not, as a condition of employment, subject to mandatory individual arbitration clauses and class or collective action waivers.

Solicitation Title: Washington State Ferries (WSF) –
Econometric Ridership and Revenue
Forecasting

I hereby certify, on behalf of the firm identified below, as follows (check one):

NO MANDATORY INDIVIDUAL ARBITRATION CLAUSES AND CLASS OR COLLECTIVE ACTION WAIVERS FOR EMPLOYEES. This firm does NOT require its employees, as a condition of employment, to sign or agree to mandatory individual arbitration clauses or class or collective action waivers.

OR

MANDATORY INDIVIDUAL ARBITRATION CLAUSES AND CLASS OR COLLECTIVE ACTION WAIVERS FOR EMPLOYEES. This firm requires its employees, as a condition of employment, to sign or agree to mandatory individual arbitration clauses or class or collective action waivers. *

I hereby certify, under penalty of perjury under the laws of the State of Washington, that the certifications herein are true and correct and that I am authorized to make these certifications on behalf of the firm listed herein.

FIRM NAME: KPMG LLP
Name of Contractor/Bidder – Print full legal entity name of firm

By:  PIERRE VILAIN
Signature of authorized person Print Name of person making certifications for firm

Title: MANAGING DIRECTOR Place: NEW YORK, NY
Title of person signing certificate Print city and state where signed

Date: JUNE 14, 2023

*The inclusion of arbitration clauses in employment agreement is limited to a subset of employees.

CONTRACTOR CERTIFICATION
EXECUTIVE ORDER 18-03 – WORKERS’ RIGHTS
WASHINGTON STATE GOODS & SERVICES CONTRACTS

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Solicitation Title: Econometric Ridership and Revenue Forecasting

I hereby certify, on behalf of the firm identified below, as follows (check one):

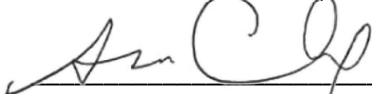
NO MANDATORY INDIVIDUAL ARBITRATION CLAUSES AND CLASS OR COLLECTIVE ACTION WAIVERS FOR EMPLOYEES. This firm does NOT require its employees, as a condition of employment, to sign or agree to mandatory individual arbitration clauses or class or collective action waivers.

OR

MANDATORY INDIVIDUAL ARBITRATION CLAUSES AND CLASS OR COLLECTIVE ACTION WAIVERS FOR EMPLOYEES. This firm requires its employees, as a condition of employment, to sign or agree to mandatory individual arbitration clauses or class or collective action waivers.

I hereby certify, under penalty of perjury under the laws of the State of Washington, that the certifications herein are true and correct and that I am authorized to make these certifications on behalf of the firm listed herein.

FIRM NAME: Cheng Solutions LLC
Name of Contractor/Bidder – Print full legal entity name of firm

By: 
Signature of authorized person

Alice Cheng
Print Name of person making certifications for firm

Title: Principal and Owner
Title of person signing certificate

Place: Brooklyn NY 11215
Print city and state where signed

Date: June 12, 2023

Scoring Criteria 7: Wage Theft Prevention Contractor Certification – Professional Services (Prime and Sub-Consultants)

Wage Theft Prevention Contractor Certification - Professional Services.

- **Please fill out the form titled “Wage Theft Prevention Contractor Certification” linked on the advertisement webpage. The form can be found under the heading “Submit Required Forms.”**

**CONTRACTOR CERTIFICATION
WAGE LAW COMPLIANCE – RESPONSIBILITY CRITERIA
WASHINGTON STATE GOODS & SERVICES CONTRACTS**

Prior to awarding a contract, agencies are required to determine that a bidder is a 'responsible bidder.' See RCW 39.26.160(2) & (4). Pursuant to legislative enactment in 2017, the responsible bidder criteria include a contractor certification that the contractor has not willfully violated Washington's wage laws. See Chap. 258, 2017 Laws (enacting SSB 5301).

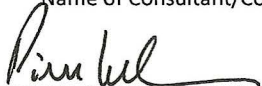
Solicitation or Agreement Title: WSF Econometric Ridership and Revenue Forecasting
Solicitation Posting Date or Agreement Start Date: May 31, 2023

I hereby certify, under penalty of perjury under the laws of the State of Washington, that the below certification is true and correct and that I am authorized to make the following certification on behalf of the firm listed herein.

CERTIFICATION:

This firm has NOT been determined by a final and binding citation and notice of assessment issued by the Washington Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of RCW chapters 49.46, 49.48, or 49.52 within three (3) years prior to the date of the above-stated date.

FIRM NAME: KPMG LLP
Name of Consultant/Contractor – Print full legal entity name of firm

By:  PIERRE VILAIN
Signature of authorized person Print Name of person making certifications for firm

Title: MANAGING DIRECTOR Place: NEW YORK, NY
Title of person signing certificate Print city and state where signed

Date: June 14, 2023

Submittal Instructions:

- If submitting a proposal in response to a solicitation, a signed Certification Document for the Prime and all Subs must also be included in your proposal Packet B (see advertisement for additional requirements).
- If requesting to add a Sub to an existing agreement, submit the signed Certification Document to: ConsultantRates@wsdot.wa.gov.

**CONTRACTOR CERTIFICATION
WAGE LAW COMPLIANCE – RESPONSIBILITY CRITERIA
WASHINGTON STATE GOODS & SERVICES CONTRACTS**

Prior to awarding a contract, agencies are required to determine that a bidder is a 'responsible bidder.' See RCW 39.26.160(2) & (4). Pursuant to legislative enactment in 2017, the responsible bidder criteria include a contractor certification that the contractor has not willfully violated Washington's wage laws. See Chap. 258, 2017 Laws (enacting SSB 5301).

Econometric Ridership and Revenue Forecasting

Solicitation or Agreement Title: _____

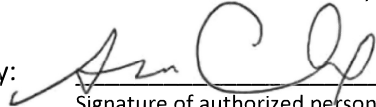
Solicitation Posting Date or Agreement Start Date: 5/31/2023

I hereby certify, under penalty of perjury under the laws of the State of Washington, that the below certification is true and correct and that I am authorized to make the following certification on behalf of the firm listed herein.

CERTIFICATION:

This firm has NOT been determined by a final and binding citation and notice of assessment issued by the Washington Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of RCW chapters 49.46, 49.48, or 49.52 within three (3) years prior to the date of the above-stated date.

FIRM NAME: Cheng Solutions LLC
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By: 
Signature of authorized person

Alice Cheng
Print Name of person making certifications for firm

Title: Principal and Owner
Title of person signing certificate

Place: Brooklyn NY 11215
Print city and state where signed

Date: June 12, 2023

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Scoring Criteria 8: References/Past Performances (Prime Consultant Only)

A. Include the following items:

Provide a minimum of three (3) with a maximum of five (5) performance evaluations for either WSDOT projects, Non-WSDOT projects, or a combination of both that are either currently active projects or that has a project completion date within the last three (3) years. These must be included in your Packet B.

Performance Evaluations on WSDOT projects:

If you wish to have a Performance Evaluation completed on a WSDOT project, please contact the

Note: If the proposal doesn't include sub-consultants, please respond for prime consultant only.

WSDOT project manager and have them complete WSDOT's internal Filemaker Pro form 272-019 "Performance Evaluations – Consultant Services."

Performance Evaluations for Non-WSDOT projects:

If your firm does not have performance evaluations with WSDOT, it is necessary to have an evaluation of past performance completed by a client. You are required to use the WSDOT provided form and have it completed by your client. We will not accept your client version of a performance evaluation form. The WSDOT version of the evaluation form may be obtained by clicking on the link "Performance Evaluation Completed by Reference" which can be found on the main web page for this advertisement.

Redacted

Scoring Criteria 9: Cost Factors (Prime Consultant & Sub-Consultants)

Proposed Billing Rates Form -

- **Complete the form titled “Proposed Billing Rates” linked on the advertisement webpage. The form can be found under the heading “Submit Required Forms.” Submit a separate form for each firm.**
- **List all proposed personnel for the project with corresponding labor classifications and rates. Rates should be “all inclusive” or “fully burdened” hourly rates.**
- **Clearly identify the proposed Project Manager.**

The Proposed Billing Rates are required for the purpose of submittal review. If awarded an agreement, the consultant’s Proposed Billing Rates, as submitted, shall be reviewed, accepted, and incorporated as an exhibit to the agreement. The Proposed Billing Rates shall be effective throughout the life of the agreement in accordance with the agreement payment provisions.

Consultant Information Forms

Consultant Information Form

Firm Name:		FYE Date:	Number of Employees:
Address:			
City:	State:	Zip Code:	County:
Phone:	Fax:	Company Web Site:	
Remit to Address:			
City:	State:	Zip Code:	County:
Phone:		Fax:	
Statewide Vendor Number (SWV) for Remit to Address:		Federal Tax ID Number or Social Security Number:	
Unified Business Identifier Number (UBI):		Date Universal Numbering System (DUNS) Number:	
Year Firm Established:	UDBE/SBE/MSVWBE Certification Number::	NAICS Code & Code Name:	
Proposed Project Manager:		Email:	
Financial Contact:		Email:	

Firm Type:

- Sole Proprietor
 Partnership
 C – Corp.
 Limited Partnership
 Subchapter S Corp.
 Limited Liability Company

Annual Gross Receipt:

- \$0 to \$1 Million
 \$1 Million to \$5 Million
 \$5 Million to \$10 Million
 \$10 Million to \$15 Million
 Over \$15 Million

Note:

Firm Name: Please *do not* use: dba's – doing business as; combination names when two firms are working together, unless the combination name is the formation of a legally registered new company such as a joint venture; derivatives of your legal name; acronyms; etc. The firm name shown must be your firm's legal name.

Federal Tax ID Number: Your Federal Tax ID number must be that number registered to your legal firm name. If you do not have a Federal Tax ID number, please use your social security number.

Unified Business Identifier (UBI) Number: Your firm will be **REQUIRED** to acquire a UBI Number prior to execution of an agreement and/or being approved as a Sub-consultant to an existing agreement. This is a Washington State Business license and can be acquired by contacting the Washington State Department of Revenue web site at www.dor.wa.gov.

Statewide Vendor (SWV) Number: The Statewide Vendor (SWV) Number is **REQUIRED** for vendors to receive payments. If your firm doesn't already have an SWV number, your firm will be required to acquire a SWV number prior to execution of an agreement. Please contact WSDOT TRAINS Help Desk at 360-705-7514 for assistance.

FYE Date: Your firm's fiscal year end date.

UDBE/SBE/MSVWBE Certification: If your firm is certified as a UDBE/SBE/MSVWBE enter your firm's certification number. Federal Certifications: Underutilized Disadvantaged Business Enterprise (UDBE), Small Business Enterprise (SBE). State Certifications: Minority, Small, Veteran, Women Business Enterprise. For additional information go to the Washington State Office of Minority & Women's Business Enterprises web site at www.omwbe.wa.gov.

It is critical that your firm name is your legal firm name and that it is the same name assigned to your Federal Tax ID number and is the same name utilized for your SWV number.

Consultant Information Form

Firm Name: Cheng Solutions		FYE Date: 11/7/2007	Number of Employees: 4
Address: 25 Prospect Park West			
City: Brooklyn	State: NY	Zip Code: 11215	County: Kings
Phone: 347-277-4424	Fax: 347-230-8801	Company Web Site: www.chengsolutions.com	
Remit to Address: 25 Prospect Park West			
City: Brooklyn	State: NY	Zip Code: 11215	County: Kings
Phone: 347-277-4424	Fax: 347-230-8801		
Statewide Vendor Number (SWV) for Remit to Address:		Federal Tax ID Number or Social Security Number: 36-4623065	
Unified Business Identifier Number (UBI):		Date Universal Numbering System (DUNS) Number: 013725066	
Year Firm Established: 2007	UDBE/SBE/MSVWBE Certification Number:: WBNEC	NAICS Code & Code Name: 541690	
Proposed Project Manager: Alice Cheng		Email: acheng@chengsolutions.com	
Financial Contact: Alice Cheng		Email: acheng@chengsolutions.com	

Firm Type:

- Sole Proprietor
 Partnership
 C – Corp.
 Limited Partnership
 Subchapter S Corp.
 Limited Liability Company

Annual Gross Receipt:

- \$0 to \$1 Million
 \$1 Million to \$5 Million
 \$5 Million to \$10 Million
 \$10 Million to \$15 Million
 Over \$15 Million

Note:

Firm Name: Please *do not* use: dba's – doing business as; combination names when two firms are working together, unless the combination name is the formation of a legally registered new company such as a joint venture; derivatives of your legal name; acronyms; etc. The firm name shown must be your firm's legal name.

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FYE Date: Your firm's fiscal year end date.

UDBE/SBE/MSVWBE Certification: If your firm is certified as a UDBE/SBE/MSVWBE enter your firm's certification number. Federal Certifications: Underutilized Disadvantaged Business Enterprise (UDBE), Small Business Enterprise (SBE). State Certifications: Minority, Small, Veteran, Women Business Enterprise. For additional information go to the Washington State Office of Minority & Women's Business Enterprises web site at www.omwbe.wa.gov.

It is critical that your firm name is your legal firm name and that it is the same name assigned to your Federal Tax ID number and is the same name utilized for your SWV number.

Appendix

Resume



Pierre Vilain

Managing Director

KPMG LLP
 560 Lexington Ave.
 New York, NY 10022
 Tel 212-954-2926
 Cell 646-675-3380
pvilain@kpmg.com

Representative Clients

1. Staten Island Ferry
2. Massachusetts Bay Transportation Authority
3. NYC Ferry
4. Kitsap Transit
5. New York Waterway
6. New York Metropolitan Transportation Authority
7. Metro-North Railroad
8. Port Authority of New York and New Jersey
9. Long Island Rail Road
10. Translink (Vancouver)
11. Miami-Dade Transit

Education, Licenses & Certifications

1. PhD in Regional Science, University of Pennsylvania, 06/2000
1. MA in Economics, New York University, 06/1986
2. BA in Political Science and Economics, Tufts University, 06/1982

Programming Skills

STATA, Eviews, SAS

Background

Dr. Vilain is an economist who applies microeconomics, urban and transportation economics and econometrics to a wide array of advisory services. Pierre is a noted specialist on transit policy and demand modeling, including as a support to passenger ferry development, fare policy analysis, project and program evaluation, and transit revenue analysis. He has extensive experience developing forecasting models, transaction and revenue projections (including for bond offerings), fare impact studies, and has led major transit development initiatives that have been implemented in New York, Boston, Puerto Rico and Seattle. His advisory practice includes working with his clients on fare policy, real estate value capture, investment feasibility, service level impacts and developing planning for COVID-19 recovery. He has experience in issues relating to mobility and congestion and was appointed to an advisory board reviewing the FHWA vehicle-miles travelled forecasts in 2020. Pierre applies decision support and cost-benefit analysis, with applications including evaluation of economic development programs and policies, and the valuation of environmental costs and benefits. He teaches a graduate-level course in cost-benefit analysis at Columbia University as an Adjunct Professor.

Professional and Industry Experience

1. **New York City Ferry:** Since 2013, worked with New York City on the planning, route selection, and ridership and revenue estimates for the ferry network. Planning efforts were the basis for a four-fold increase in the size and usage for the system, which now serves all boroughs of the City. Developed fare strategy for the system and conducted extensive financial analysis of different service options. Extensive analysis of economic impacts tied to the service, including analysis of real estate premia tied to the service within ½ mile buffers of piers.
2. **Hillsborough County, FL:** Led the ridership, revenue and fare strategy for the proposed Tampa Bay passenger ferry service linking South Hillsborough County (from one of three sites) and MacDill Air Force Base. Pierre led the development of the stated preference survey and mode choice model for the service. Modeling led to the selection of the preferred location for the ferry service.
3. **Kitsap Transit:** Pierre led the development of ridership, revenue and financial requirements for the passenger-only service ferry service between several locations in Kitsap County, WA. Pierre worked with the client team to define the proposed service, including service levels, fares and route configuration. As part of the work and extensive economic analysis of the proposed service was completed, including the impacts on safety, travel time, vehicle emissions and real estate values. Work also included the development of a financing plan, including an application for

Professional Associations

1. International Project Finance Association (Board Member)
2. Society for Benefit-Cost Analysis
3. Transportation Research Board
4. Regional Science Association

4. **discretionary funding under the TIGER grant program.**
4. **Boston Harbor Now/MASSDOT:** Pierre led a multi-disciplinary team to develop a comprehensive strategic planning exercise for passenger ferry service in the Boston Harbor. The work entailed a large in-person stated preference survey and the development of several ridership models for the various types of proposed services. The work led to a road map for ferry service expansion in the Harbor, including the design of a dense network of high-frequency commuter service within the inner Harbor. Implementation of the service expansion is hoped to resume following the end of the COVID-19 pandemic.
5. **National Park Service:** Pierre worked with the National Park Service to develop a modernized passenger ferry service to its various island parks in the Boston Harbor. Services included developing a market sounding to assess the potential interest for private operators, development a procurement strategy, and the development of request for proposal documents.
6. **Puerto Rico P3 Authority:** Pierre led the economic analysis for the now-implemented privatized ferry service serving the islands of Culebra and Vieques as well as the San Juan ferry service. The services included the development of a ridership and revenue model for the various services, as well as an operating cost model. Extensive fare and service analysis was carried out to develop a revamped service that would reduce an unsustainable subsidy burden posed by the various services. An analysis of the social impact of the proposed changes was also completed to facilitate that the fare changes would not affect lower-income groups disproportionately.
7. **Port Authority of New York and New Jersey:** Pierre led a multi-disciplinary team that developed a comprehensive strategic plan for New York Harbor's waterborne transportation system. The team Pierre led developed a comprehensive analysis of promising routes in the Harbor (which included the future East River Ferry), the potential for funding routes requiring subsidies, and a road map for waterborne transport governance. The resulting multi-agency and nonprofit committee operates today and includes representatives from New York and New Jersey agencies and stakeholders.
8. **Miami-Dade Citizens' Independent Transport Trust (CITT):** Pierre led a comprehensive analysis of Miami-Dade's transit fare structure and developed recommended fare policies to address declining revenues and ridership. The study recommended distance-based pricing as well as differentiated peak/off-peak fares.
9. **Miami-Dade Citizens' Independent Transport Trust (CITT):** Comprehensive analysis, modeling and forecasting of Miami-Dade's transit fare structure. Project Director for an extensive econometric and statistical exercise to guide recommended fare policies to address declining revenues and ridership. The study recommended distance-based pricing as well as differentiated peak/off-peak fares, and assessed the impacts of regional growth, TNCs/ride-sharing, service level changes and various external shocks to the system using econometric and data science techniques.
10. **Metro-North Railroad:** Ridership and revenue model

development and forecasts, January 2014 to June 2016. Project Director in an assignment conceptualizing and developing forecasting tools and forecasts for one of the largest commuter rail operators in the United States. ship, revenue.



Lucile Kellis

Director

KPMG LLP
60 South Street
Boston, MA 02111

Tel 617-475-4740
Cell 617-913-3017
lkellis@kpmg.com

Function and specialization

Lucile is a member of the Economic & Valuation Services practice specializing in commuting market analysis, behavioral research, and benefit cost analysis.

Representative clients

- CDPQ Infra
- Aeroport de Montreal
- Toronto Metrolinx
- New York City EDC, NYC DOT
- NJ TRANSIT
- US DOT Federal Highways Administration FHWA
- US DOT Federal Railroad Administration FRA
- US DOT OIG
- New York Metropolitan Transportation Authority
- Metro-North Railroad
- Port Authority of New York and New Jersey
- Massachusetts Bay Transportation Authority
- California High Speed Rail Authority
- Amtrak

Education, licenses & certifications

- MS, Massachusetts Institute of Technology
- Meng, Ecole Special des Travaux Publics
- BS, Ecole Sainte Genevieve

Professional associations

- Women in Transportation Society (WTS International), Executive Leader
- Society for Benefit Cost Analysis (SBCA), Member
- Transportation Research Board (TRB) Friend of the Economic and Finance Committee, Member of the Passenger Rail Committee

Languages

- English
- French

Engagement Manager

Background

Lucile is a Director in KPMG's Economic & Valuation Services practice with over 15 years of experience directing ferry market analysis studies and urban transit demand forecasting projects for transit agencies and operators including leading ferry public and private sector clients in the United States. Lucile current and past clients include some of the leading ferry agencies and ferry operators in the US, including working with the NYC EDC on the NYC Ferry system, with NYC DOT on its Staten Island Ferry (SIF) system, with Kitsap Transit in Seattle for new ferry services, with Tampa Bay Ferry in Florida, and MassDOT Harbor Now ferry system in Massachusetts.

Professional and industry experience

Lucile is a noted specialist in mobility demand analysis, commuting behavioral research and economic forecasting. A key to forecasting demand for office space has been a better understanding of the return to office behaviors after COVID. Lucile has directed the post-COVID return to travel analysis for several transit agencies. Her focus has been on harnessing location-based services (LBS) cellphone data and behavioral surveys to understand post-COVID behavior including return to the office trends for transit agencies and for more generic demand modeling purposes (demand for transit and toll road is driven by return to work and frequent commuters). She recently directed the market analysis and demand forecasts for the Newark Penn Station Master Plan rehabilitation project for NJ TARNISIT including forecasting post-COVID long term commuters behaviors. Lucile has also directed the demand and revenue forecasts for Amtrak nationwide, and most recently for its proposed New Haven to Providence line. Lucile directed the market analysis for a proposed Aérotrain between Aéroport de Montréal and downtown, and a commuter market analysis for the new Pont Champlain, also in Montreal. She has provided her experience to major planning projects trying to size commuting demand in North America, including supporting Amtrak developing the NextGen demand forecast in the Northeast Corridor (NEC) and directing the first nationwide auto travel demand Origin-Destination matrix based on LBS cellphone data. Lucile has led several market analyses including behavioral surveys on commuting patterns for the Bay Area Transit Authority (BART) and for the PANYNJ. Prior to joining KPMG, Lucile was an Associate Director at Steer, Davies & Gleave, Inc. and had previously worked as a Senior Consultant at Charles River Associates. Lucile worked as a research assistant at Massachusetts Institute of Technology (MIT) with the East Japan Railway Company operating the Shinkansen HSR trains. She also interned in the Office of Economics and Strategic Analysis with the U.S. DoT.

Project Management

- Lucile has directed multiple high-profile planning projects in North America evaluating the demand, revenue, and benefits of systems for Benefit-Cost Analysis purposes. She directed the post-COVID return to travel analysis for Amtrak. Her focus has been on harnessing location-based services (LBS) cellphone data and behavioral surveys to understand post-COVID commuting behavior including return to the office trends for transit agencies and for demand modeling purposes.

Market Analysis and Demand Forecasting

- Lucile is an specialist in travel demand modeling. Lucile directed the demand forecasts for the planned Aérotrain for Aéroport de Montréal (ADM) and for CDPQ Infra Réseau express métropolitain (REM). She has worked with numerous

State Department of Transportation (DOTs) and with the US DOT on travel demand modeling and commuting forecasting tasks using LBS data and residents surveys including the Amtrak Next-Gen high-speed rail Business Plan for the North-East corridor and the CA HSR demand forecast.

Behavioral Research and Economic Valuation

- A cornerstone of behavioral analysis for return-to-work trends is quantitative behavioral research. Lucile areas of experience in behavioral research include econometrics and discrete choice modeling for mobility behavioral analysis. She has designed multiple studies to investigate the drivers of commuting demand and has designed novel willingness to pay estimation techniques for Benefit-Cost Analysis of transit projects. For the PANYNJ, Lucile directed a market analysis project including surveys of residents and commuters to assess the impact of congestion pricing on access to Manhattan.

Ferry Projects

- **NYC Private Operator Ferry Demand Market Analysis:** Lucile is currently supporting a private ferry operator in its bid to operate additional ferry services in the NY and NJ area. As part of the engagement, Lucile has developed several customized ferry demand models and market analysis to help inform fare strategy and route operations across different markets.
- **New York City NYC Ferry:** Between 2013 and 2016, Lucile has worked with New York City EDC on the planning, route selection, and ridership and revenue estimates for the NYC Ferry network. Lucile supported the demand model development to help inform ferry operation and fare strategy.
- **Kitsap Passenger Only Ferry Business Plan & Long-Range Strategy:** Lucile was part of a team of consultants, led by KPFF Consulting Engineers, tasked to develop the Kitsap Transit Passenger-Only Ferry Business Plan and Long-Range Strategy. Lucile managed the analysis of expected ridership and revenues, having developed a forecasting model based on existing ferry ridership and journey to work data.
- **NYC DOT Staten Island Ferry (SIF) to Midtown:** Lucile directed the demand forecast for the Staten Island Ferry proposed service to Midtown for NYC DOT. Lucile was part of a team led by KPFF Consulting Engineers tasked to develop a feasibility study to determine if it is economically feasible to fully expand service and provide additional Staten Island Ferry (SIF) operation service hours. Lucile managed the mode choice modeling activities, including estimating a new mode choice model.
- **Boston Harbor Now Ferry study for MassDOT:** Multi-disciplinary strategic planning exercise to develop a comprehensive expansion to the passenger ferry service in the Boston Harbor. Lucile led a large in-person stated preference survey and the development of several ridership and revenue models for the various types of proposed services. The work led to a road map for ferry service expansion in the Harbor, including the design of a dense network of high-frequency commuter service within the Harbor.
- **Tampa Cross-Bay Ferry Feasibility study:** Lucile worked on the proposed Cross-Bay Ferry route linking southern Hillsborough to MacDill Air Force Base. Lucile led the market analysis and demand forecasting model. As part of the work, Lucile designed and administered a ferry stated preference online survey and estimated demand for ferry service at various proposed locations across the bay.

- **Bay Area Rapid Transit Agency (BART), Link21 Transbay Market Analysis:** Lucile served as the survey director for the behavioral survey of BART customers being conducted for the Link21 project. The behavioral survey results are being used to assess travel behaviors in the region and inform unmet demand for BART.

Commuting and Return to the Office Analysis Projects

- **KPMG Consumer Pulse Survey:** Lucile is part of the KPMG team that develop the KPMG Consumer Pulse Survey. The Spring 2023 survey included insights on return to work and mobility behaviors.
<https://advisory.kpmg.us/articles/2023/kpmg-consumer-pulse-survey-march-2023.html>
- **Congestion Pricing and Commuting Patterns Post-COVID Market Research of Trans-Hudson Passenger and Goods Movement, New York and New Jersey:** For the Port Authority of NY and NJ, Lucile directed a market analysis project to assess the impact of congestion pricing on commuter access to Manhattan and supported the development of commuter demand forecasts. The task included conducting a series of (virtual) focus groups, and the design of an online survey of NYC residents (both auto commuters and transit users). The survey included pre-, mid- and post- covid questions pertaining to teleworking, working from home and return to the office questions to inform sizing of the demand on transit and road facilities owned by the client.
- **COVID-19 Recovery Mobility Trend Analysis:** Lucile provided COVID-19 recovery support through the analysis of mobility trends to a leading rail mobility provider. Directed the research and analyzed key mobility indicators across different modes, helping enable a cross-mode comparison of rail, auto, air, and transit travel. This was done for the United States as a whole, and for the Northeast Corridor more specifically.
- **Business Case for a New Bridge Replacing the Champlain Bridge:** Part of the PWC's team who developed for Transport Canada the business case for the new St Lawrence River crossing replacing the Champlain Bridge in Montreal. Lucile oversaw the demand modeling effort and designed two stated preference surveys of Montreal residents, one for commuters and auto users and one for trucking companies to explore the trade-offs made between the tolled and untolled route options in the region and commuters' behaviors in Montreal. Lucile performed the econometric analyses to estimate the route choice model assessing the impacts tolling will cause on travel and commuting patterns.
- **Montreal Airport Aérotrain Investment Grade Ridership & Revenue Study:** Part of the Steer team that developed investment grade demand forecasts for the planned Aérotrain for Aéroport de Montreal (ADM), Canada. We developed investment grade ridership and revenue forecasts for the proposed Aérotrain rail shuttle service between Montreal Trudeau airport and downtown Montreal. Lucile led the demand model development and designed new OD and SP surveys, collected new behavioral data, estimated a new mode choice model and prepared the ridership forecasts under several scenarios. These forecasts were incorporated into the investment case prepared by the airport.
- **CDPQ Infra Réseau express métropolitain (REM):** Part of the Steer team that developed investment grade demand forecasts for the REM in Montréal (ADM), Canada for CDPQ Infra. We developed investment grade demand and revenue forecasts looking at commuting patterns in the greater Montreal region. The REM is Québec's largest public transit infrastructure project since the Montréal

metro was inaugurated in 1966. It is one of the largest automated networks in the world after those of Singapore, Kuala Lumpur, Dubai and Vancouver.

- **Metrolinx Toronto Benefit Cost Analysis framework:** Part of the Steer team, Lucile led a research project for Metrolinx seeking to closing the gap between travel demand modelling and Benefit Cost Analysis in North America.
- **Prominent private developer in Manhattan Grant Application Support (confidential):** Part of the KPMG team, Lucile supported the commuter analysis to and from the proposed development. The forecast included assumptions about return to work and commuting choices and the forecasts were submitted to the Federal government as part of a grant application.
- **Newark Penn Master Plan NJ TRANSIT:** For New Jersey Transit (NJ TRANSIT), Lucile directed the market analysis and post-COVID commuters demand forecasts for the Newark Penn Station Master Plan rehabilitation project.
- **Amtrak Northeast Corridor (NEC) Travel Demand Forecasting.** Lucile has directed several Amtrak NEC Market Analysis projects for Amtrak. Most recently, Lucile oversaw the Post-COVID analysis of commuter patterns using LBS data and surveys seeking to better understand unmet rail demand and potentials for added rail service along the NEC.
- **NY/NJ Commuting post-COVID Demand Market Analysis for a Private Operator (Confidential):** Lucile is currently supporting a confidential private transit operator in its bid to operate commuting transit services between NY and NJ. Our team has developed a market analysis to help inform commuting demand, fare strategy and route operations. The analysis included return-to-the-office forecasts.
- **PATH Extension to the Northeast Corridor Rail Link Station at Newark Airport, New Jersey** Lucile was the project manager for the PATH to EWR rail extension project for the Port Authority of New York and New Jersey, providing demand forecast for a proposed rail link between EWR airport and the PATH transit network. The work included conducting a large scale Stated and Revealed Preference survey of departing air passengers at LaGuardia, JFK, and Newark airports. Lucile also directed the model development of forecasts for commuters who would use the PATH service extension to go to work. The forecasts prepared have multiple uses, including justification of the investment, helping in the definition of the proposed service and underpinning the environmental impact assessment.
- **Amtrak nationwide auto trip table from LBS cellphone data:** Lucile designed and directed the development of the first nationwide auto trip table for Amtrak using location-based services (LBS) cellphone data. The project allowed a better understanding of commute and non-commute trip patterns to assess unmet demand for existing and proposed rail services across the United States.
- **California High Speed Rail Authority Rail Ridership Modeling:** Lucile was part of the team that designed and developed the travel demand model for ridership forecasting for the CA HSR project.
- **Amtrak Business Plan, NEC Next-Gen.** Lucile was part of the team who developed Amtrak NEC Next-Gen Business Plan. Lucile was leading the demand and revenue forecast model development for the project.
- **US DOT FRA CONNECT Rail Demand Forecasting.** Lucile was part of the team who developed the FRA CONNECT model. The FRA CONNECT model is a sketch planning tool that estimates the overall performance including potential rail

demand of user-defined rail corridors and networks. Lucile was leading the direct demand model and the mode choice model estimation for the project.

Publications and speaking engagements

- *Valuation of the Societal Benefits of Livable Street Improvements*. Mark Seaman, New York City DOT; Elena Chiari, Steer; Lucile Kellis, KPMG; Pierre Vilain, KPMG. Society for Benefit-Cost Analysis (SBCA) annual conference, **SBCA, 2023**. This paper describes a novel valuation methodology and provides monetized valuations of pedestrian plazas and streetscape amenities such as landscaped medians, trees, and city benches for use in Benefit-Cost Analysis (BCA).
- *Wider Economic Benefits of Intercity High-Speed Rail: Evidence from the Northeast Corridor*. Jung Bae, KPMG; Lucile Kellis, KPMG; Kerda Varaku, KPMG; Pierre Vilain, KPMG. Society for Benefit-Cost Analysis (SBCA) annual conference, **SBCA, 2023**. This paper describes a practical valuation methodology that can be used to assess the agglomeration benefits of investments in infrastructure, and we provide a case study with monetized valuations of agglomeration benefits for use in intercity rail benefit-cost analysis.
- *Transforming Big Data to Answer Transportation Planning Questions for Statewide and National Applications: Intercity Travel Using Location Based Services (LBS) Cellphone Data*. Lucile Kellis. Transportation Research Board (TRB) Annual Meeting, **TRB, 2022**. This presentation focuses on using cellphone based LBS data to inform mobility patterns at the state and nationwide levels.
- *Mobility Impacts of TNCs: A Benefit Cost Model for TNCs Policies*. Iain Conway, Manuel Castillo, and Lucile Kellis. Society for Benefit-Cost Analysis (SBCA) annual conference, **SBCA, 2022**. This presentation at the annual SBCA meeting in Washington, DC, presents a benefit-cost policy model to show outcomes of policies affecting TNCs, such as direct taxes on ride hail use and general congestion charges. The model evaluates different types of TNC policies in different cities.
- *Calculations of Change in Consumer Surplus from Discrete Choice Models*. Lucile Kellis and Mark Seaman. Society for Benefit-Cost Analysis (SBCA) annual conference, **SBCA, 2019**. This presentation at the annual SBCA meeting in Washington, DC, illustrates how the logsum obtained from a discrete choice model derived from the random utility theory is a good measure of consumer surplus for BCA purposes.
- *The impacts of Automated Vehicles on intercity travel*. Lucile Kellis and Rick Donnelly. Transportation Research Board (TRB) Annual Meeting, **TRB, 2019**. This paper focuses on the possible effects of driverless cars and automated vehicles on intercity travel demand as we know it and how they may disrupt demand for high-speed rail (HSR).
- *Bridging a Gap between Urban and Intercity Modeling: Logsum Averaging*. Lucile Kellis and Rick Donnelly. **TRB Planning Conference 2017**. This presentation presents a novel way to integrate urban and intercity travel demand models and illustrates the use of a logit averaging technique to transmit information between models. [presentation]
- *High Speed Intercity Passenger Rail Best Practices: Overview*, prepared for the Office of Inspector General, US Department of Transportation, **April 2011** (joint author) <https://www.oig.dot.gov/sites/default/files/files/OIG-HSR-Best-Practice-Overview-Report.pdf>

- *State Regulation of Home Mortgage Settlements: Some Empirical Information about Costs*. CRA International. Michael Kemp and Lucile Guillaud [Kellis], Published by The REACH Consortium, **May 2009**. This paper shows the impact of state regulation on closing costs using a large HUD-100 survey of home buyers.

Other activities

- Member, Women in Transportation Society (WTS) New England Chapter
- Member, Society for Benefit Cost Analysis (SBCA)
- Committee Member, National Academy of Science (NAS) Transportation Research Board (TRB) Committee on Passenger Rail (AR010)
- Friend of the TRB Committee on Economics and Finance (AJE50)

**ALICE CHENG, P.P.,
Principal Planner**



Years with the Firm: 13

Years Total: 24

Professional Registrations:

NJ Professional Planner

Education

Master of City Planning,
Graduate School of
Architecture, University of
Pennsylvania

Master of Science in Energy
and Environmental
Management, Graduate
School of Arts and Sciences,
University of Pennsylvania

Bachelor of Arts in
Economics. Bryn Mawr
College

Alice Cheng, the principal of Cheng Solutions, is an urban planner and economist by training. Before founding the firm, Alice led rail freight transportation policy, planning and development for ten years as a Vice President at the New York City Economic Development Corporation. Alice's experience is rail freight economics and mode shift diversion among rail, truck and short sea.

RELEVANT EXPERIENCE

- *Ridership Analysis for Hornblower.* Evaluated potential new routes in New Jersey, Long Island as well as the expansion of the NYC citywide ferry system. This work entails assessing competing modes of transportation and travel times for both commutation and leisure travelers, as well as access to ferry location.
- *NJTPA Waterborne Resources Inventory.* Cheng Solutions was outreach task leader for interviews with economic development officials, local planners, property owners and developers for the identification of future short-sea freight and passenger ferry sites for assessment.
- *Trans-Hudson Commuting Capacity Study.* Evaluated the potential of Hudson River ferry demand to lessen infrastructure demands on a new Port Authority Bus Terminal as well as its effectiveness as interim measure during the construction of a new PABT.
- *Hunts Point Short Sea Shipping.* For the NYCEDC, interviewed logistics provider to examine interest in use of a new marine facility proposed in the Bronx to shift loads from truck to ocean barge.
- *Short Sea Shipping Business Feasibility Due Diligence for Hugo Neu.* For Hugo Neu, conducted analysis of commodities, technology, and shipping lanes amenable for freight mode shift to short sea.
 - Citywide Ferry Study 2013. For the NYCEDC, as part of a team, evaluated opportunities for the expansion of existing ferry routes.

Responsible for ferry operator interviews to examine private-sector recommendations and concerns with expanded routes. Task leader for examining the feasibility of reactivating ferry service to LaGuardia Airport. Client: NYCEDC

MICHAEL G. FUSILLO, PhD

Principal Economist



Years with the Firm: 10

Years Total: 25

Professional Affiliations

International Association of
Maritime Economists

American Economic
Association

International Maritime
Statistics Forum

Trade Data Users Group

Education

Ph.D. Economics, 2001, City
University Graduate School
& University Center, Fields:
Applied Econometrics,
Industrial Organization

A.C., Applied Economic
Analysis 1992, New York
University.

M.A., Economics, 1990
Boston University

Dr. Michael Fusillo is a Principal Economist with Cheng Solutions with over twenty-five years of experience specializing in transportation research, strategic planning, and demand forecasting. Before joining Cheng Solutions, Dr. Fusillo was an economist with The Louis Berger Group. His experience spans work at Halcrow, PIERS, Paul F. Richardson Associates and Reebie Associates. In addition to consulting for Cheng Solutions, he is currently a part-time adjunct professor of economics at Tufts University.

RELEVANT EXPERIENCE

- *Trans-Hudson Commuting Capacity Study.* Modelled new ferry routes to estimate how a potentially expanded Hudson River ferry system could mitigate demand for bus commutation to a new Port Authority Bus Terminal as well as its effectiveness as interim measure during the construction of a new PABT. Client: PANYNJ
- *Halletts Point Ferry Terminal Analysis.* Modelled passenger ridership for a ferry stop at Astoria, Queens. Halletts Point is part of the expansion of the East River ferry system. Client: NYCEDC
- *LaGuardia Airport Connection of Citywide Ferry Study 2013.* For the economic development corporation, conducted feasibility analysis of a reactivated commuter ferry service to LaGuardia Airport. Developed ridership forecast model using PANYNJ ridership surveys, operational service analysis and required landside connections. Forecasted ridership to LGA from Brooklyn neighborhoods such as Brooklyn Heights, DUMBO and Williamsburg. Client: WSP for NYCEDC.
- Harbor District Ferry Service. Project Manager. Estimated demand, cost and supply side configuration for the proposed New York City Harbor District Ferry Service, a hop-on/hop-off system to help enable increased tourist visitation to eight New York Harbor sites. Configured an efficient routing for the ferry service using cost elements collected from regional ferry service providers. Made recommendations as to the type of service, the fare and the likely subsidy required for operations. Client: NYCEDC
- *Thames Water Stated Preference Peer Review* – Reviewed

methodology, econometric estimation and results of a stated preference survey designed to illicit customer willingness to pay for various improvements to the water system around London. *Client: National Economic Resource Associates*

