



Steve Curtis

Current Position

Profession

Years of Rail Experience

Partner

Rail Consultant

16



Professional Background

Steve Curtis is an experienced rail professional – who has spent 16 years working in the rail industry – with specialist skills in capacity & crowding analysis, revenue forecasting, commercial timetable development, cost modelling, operational and performance analysis. Steve employs these skills across the rail industry working in commercial and operational teams, including franchise competitions and Direct Awards, working for operators and DfT. Steve's strong analytical skills are often used to simplify complex operational problems, enabling clients to gain clarity and to help them make the correct decisions. Steve has experience of leading teams and projects, communicating clearly with individuals of all disciplines and technical capability.

Prior to joining Winder Phillips Associates in 2016, Steve was Service Group Manager for Transport Strategy and Planning at GHD, where he successfully grew its UK franchise offering.

Key Skills

- Understanding of the key drivers of rail demand
- Sound understanding of both the commercial and operational considerations required during timetable development
- Thorough understanding of rail franchising
- Strong analytical skills
- Vast experience in the modelling of rail crowding and capacity
- Expert user in MOIRA and MOIRA2
- Sound understanding of the key drivers of passenger satisfaction

Projects

Technical Advisor, Markets and Passenger Lead, DfT (2019 - current)

In this project, Steve is advising DfT on the passenger and market implications of changes to franchise structure. This includes consideration of the impact on different passenger types regarding fares, crowding, competition and performance, as well as the knock-on impact on revenue. Steve has worked effectively in a multi-consultancy team to produce comprehensive documents to aid in policy decisions.

Operational Advisor, Jerusalem (J-Net) Light Rail Bid (2019)

As part of this PPP concession, Steve led the analysis of a range of operational benchmarks, ranging from availability of ticket machines and inspectors, to the opening hours of call centres. The requirement was to specify the number of ATMs, Inspectors and Call Centre Staff to ensure the benchmarks were not breached. Steve also took the lead to establish a demand forecast for the concession term, ensuring that benchmarks relating to crowding levels were not breached. With limited data available and an ever-changing project scope, Steve had to be agile in his approach.

Review of Passenger Information During Disruption (PIDD), Office of Rail and Road (2019 - current)

This project, providing insight into the provision of PIDD across the UK rail network, required Steve to carry out some mystery shopper activity to assess existing standards. He then used the findings to design and develop a PIDD Maturity Model, which is to be implemented nationwide to allow TOCs to assess their compliance TOCs compliance with PIDD expectations.

Revenue Forecasting Peer Review, West Coast Partnership Technical Advisor Team, DfT (2019)

Steve acted as an independent reviewer to provide challenge and assurance to the Technical Advisor team that their proposed risk adjustments were robust and evidence-based. This required a detailed understanding of the risk adjustment process, and comprehensive knowledge of revenue forecasting techniques.

Timetable, Crowding and Commercial Advisor, East Midlands Franchise Bid (2016 – 2018)

In this franchise role, Steve's responsibility was for assessing the markets and daily demand profiles to determine the most commercially attractive and operationally robust service offering. Steve also carried out



capacity analysis to determine the fleet size required for the full franchise term. Finally, Steve supported the commercial team in developing a robust, deliverable and evidence-based revenue forecast. Throughout this role, Steve worked closely with the train planning team to ensure outputs from their systems (ATTUne and TRACS-RS) were error-free and consistent. Steve also gave significant input to the developers of ATTUne to help get the system ready for franchise bidding. Steve has performed similar roles on bids for Greater Anglia, West Coast, and Great Western.

MOIRA2.2 Rolling Stock Upgrade, Rail Delivery Group (2017-2018)

Steve worked with GHD in a review and advisory role on a project to develop a methodology to allocate rolling stock to the national MOIRA2.2 timetable. Steve's experience and knowledge of the national network, the intricacies of rolling stock diagrams and MOIRA2.2 resulted in an approach being devised that can allocate rolling stock to 100% of rail services within MOIRA2.2.

Northern Rail Franchise Change Support (2018-2019)

In response to delays to infrastructure work in the North of England, Steve supported Northern in assessing the revenue impact relating to timetable and rolling stock, including the impact on crowding. This was followed by support in Northern's Direct Award submission, focussing on forecasts of crowding, NRPS and Service Quality Regime. Steve used historical trends and performance trajectories to forecast NRPS scores. For Service Quality, Steve was restricted by a new Service Quality system and limited dataset, but was able to forecast SQ scores for the duration of the Direct Award.

Chiltern Railways timetable review (2016 – 2018)

Working within a client team with the remit to carry out a wholesale review and improvement of the current Chiltern timetable, Steve oversaw large parts of the project, liaising directly with the Managing Director. He was responsible for the initial market review, including railheading analysis to understand the potential impact of the Crossrail timetable. This led onto timetable optioneering, specifically the assessment of numerous timetable changes with the aim of increasing revenue and capacity, while reducing crowding, operating cost and improving performance. In the latter stages of the project, as the number of options reduced, the level of detail increased, including detailed MOIRA2.2 modelling of peak crowding. Steve supported Chiltern through successful consultation with DfT.

DfT Technical Advisor, West Midlands Direct Award and Full Franchise (2014 – 2016)

As technical advisor for both projects, Steve was responsible for the content of the crowding and revenue forecasting models. Working as part of a multi-consultancy team, Steve oversaw the production of the market review, and the development, population and calibration of the suite of models and supporting documentation. Steve also advised the DfT on the specification of the Full Franchise, which fed into the ITT.

Train Services Delivery Plan for Northern and Scotrail bids (2014 – 2015)

For both franchise bids, Steve was responsible for the content of the train services delivery plan, producing a commercially viable timetable and feeding in relevant inputs into the revenue forecasting model. This required extensive knowledge of both the Northern and Scotrail networks including capacity pinch points and areas of growth potential. Steve also produced business cases for train service enhancements, ensuring that the additional rolling stock and associated operational costs related to service enhancements were covered by generated revenue. Following the submission of the winning Northern bid, Steve supported Arriva in responding to CMA analysis of flows where Arriva had interests through other rail and bus operations. Finally, as part of mobilisation, Steve supported the mobilisation team in determining the platform extensions that required prioritisation to be able to deliver the planned capacity increases.

National Rail Passenger Satisfaction (NRPS) Analysis, Transport Focus (2015)

Steve led the team investigating the relationship between passenger satisfaction and punctuality, using NRPS and Bugle data at a train level to determine the lateness – and subsequent satisfaction – experienced by each respondent. This led to some interesting findings that regular passengers can claim to be dissatisfied with punctuality even if their train is on time.

DfT Bid Evaluator, East Coast Bid Evaluation Team (2014)

Steve was one of four people evaluating the train services delivery plans. This required review of three delivery plans, each with over 100 pages, and supporting timetables, diagrams and technical reports in just three weeks. This culminated in a consensus meeting where observations were compared to determine the final scores for each bidder.

MOIRA2 Calibration Lead, Chiltern Railways (2013)



While MOIRA2 is calibrated at a national level, the datasets within are too disaggregate for individual TOCs to use reliably. Steve worked with Chiltern to update MOIRA2, enabling its full functionality to be used, specifically the various fare and train service options between London and Birmingham.

Timetable Modelling for West Coast Open Access application, Grand Central (2010)

Steve assessed the impact of various stopping patterns between the North West and London. Analysis focussed on the number of passengers who would railhead to a new station following the introduction of alternative direct services.

Capacity & Crowding and Cost Modelling for HLOS capacity schemes, DfT (2007-2009)

Steve was seconded at DfT to assist in the first phase of analysis of the capacity schemes. Steve audited and developed the DfT's in-house crowding model, including adjusting some industry standard assumptions on crowding costs to improve the accuracy of the model. This model was then used to assess the benefit cost ratio of each of the proposed HLOS schemes. Steve was then part of DfT's negotiation team for the first of the HLOS schemes to be signed by both parties in what proved to be a difficult time in creating business cases for capacity increases. Steve developed and maintained the cost comparator model, which was used to interrogate National Express costs before both parties coming to an agreement.

Performance Modelling for East Midlands Franchise Bid (2006)

Steve carried out the performance plan for the bid, ensuring that all operational proposals were assessed for performance impact. Carried out detailed analysis of East Midlands' historic performance using large volumes of TRUST data and used this to report to the bid team.

Train Planning for Great Northern/Thameslink Franchise Bid (2005)

As part of the operational modelling team, Steve created and validated timetable options and rolling stock diagrams using the CMS Suite for this successful bid.

Software Development & Testing, Network Rail (2003 – 2005)

Steve has experience in software development, having carried out development and testing on MERIT, a simulation tool used by Network Rail and throughout the rail industry.

Previous Positions Held

- Service Group Manager – Transport Strategy and Planning; GHD, formerly CDL (2010 - 2016)
- Senior Consultant; DeltaRail (now Resonate), formerly AEA Technology Rail (2003 - 2010)

Qualifications and Professional Associations

- MSc Operational Research; Lancaster University
- BSc (Hons) Mathematics with Engineering; University of Nottingham