Steve Curtis

Current Position	Principal Consultant
Profession	Rail Consultant
Years of Rail Experience	12

Professional Background

Steve Curtis is an experienced rail professional – who has spent over 12 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 in the franchise environment where he has contributed to numerous franchise bids and direct awards for operators, and for the DfT, working in commercial and operational teams. 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, with responsibility for growing the UK franchise offering for GHD. This has, most notably, led to providing strategic support in Arriva's successful Northern bid.

Key Skills

- Strong Analytical Skills
- Sound understanding of both the commercial and operational considerations required during timetable development
- Expert user in all Microsoft products

- 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

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 has overseen the production of the market review, and the development, population and calibration of the suite of models and supporting documentation. Also advised DfT on the specification of the Full Franchise, for inclusion in 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. Also produced business cases for train service enhancements, ensuring the additional rolling stock and associated operational costs related to service enhancements were covered by generated revenue.

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

DfT Bid Evaluator, East Coast Bid Evaluation Team (2014)
One of four people evaluating the train services delivery plans. This required review of three plans, each with over 100 pages, and supporting timetables, diagrams and technical reports in three weeks. This culminated in a consensus meeting where observations were compared to determine the final scores for each bidder.

Capacity & Crowding Modelling for Greater Anglia, Great Western and West Coast bids (2010 – 2013)
Led the capacity and crowding work on numerous franchise bids, focussing primarily building the crowding model and using it to determining the required fleet size to meet the specified crowding metrics. Different bids provided different challenges, including: testing MOIRA2 to determine if it was appropriate for use; building

fares-driven passenger redistribution into the crowding suite; specifying bespoke MOIRA models; ensuring the daily timetable and fleet requirement were sufficient to carry passenger loads during the Olympics.

MOIRA2 Calibration Lead, Chiltern Railways (2013)
While MOIRA2 is calibrated at a national levels, 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.

Capacity & Crowding Modelling, Arriva Trains Wales (2013)
Led the team that built a crowding and capacity viewer to improve the way Arriva Trains Wales visualise its count data and communicate the effectiveness of their rolling stock and timetable strategies.

National MOIRA2 Calibration, ATOC & DfT (2010)
Assisted in the national calibration of MOIRA2, the replacement for the widely used revenue forecasting tool, MOIRA. Adjusted to the new functionality before making key changes to demand profiles to reflect how passengers in different parts of London have different arrival times.

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

Data Analysis for Network Modelling Framework (NMF), Department for Transport (2009 – 2010)
Managed the support team for the NMF; a strategic tool used by DfT to assess the overall impact of rail schemes. Liaised with the DfT to discuss current and future developments, and with the rest of the support team to verify that the all model updates met client requirements. Steve also undertook the first full NMF data update, making the model fit for the purpose of assessment of HLOS2 schemes.

Capacity & Crowding and Cost Modelling for HLOS capacity schemes, DfT (2007-2009)
Seconded at DfT to assist in the first phase of analysis of the capacity schemes. 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.

CMS Passenger Model Calibration, Various TOCs (2005 – 2009)
Calibrated numerous of CMS Passengers models; a tool built to model train loadings, taking into account of movement between services due to overcrowding. The calibration process, entailed analysing green book counts against modelled loads and adjusting demand profiles/ volume data to get a good match.

Performance Modelling for East Midlands Franchise Bid (2006)
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, formerly AEA Technology Rail (2003 - 2010)

Qualifications and Professional Associations

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