

Correction to Table 7 of Parragh et al. (2010)

The red values have been corrected. Due to a problem in the program output, some of the individual values for passenger waiting time, excess ride time and early arrival time were not correctly retrieved. Changes to these values also have an impact on $f'(s)$.

Table 1: VNS (25×10^4 iterations, average values over 5 runs) compared to GA

| | total cost $f'(s)$ | (%) | travel dist. $c(s)$ | total dur. $g(s)$ | pass. wait. $l(s)$ | excess ride $r(s)$ | early arrival $e(s)$ | avg. ride time | veh. wait. time | CPU ^a |
|------|--------------------------|--------|---------------------------|-------------------------|--------------------------|--------------------------|----------------------------|----------------------|-----------------------|------------------|
| R1a | 3152.22 | -32.87 | 273.70 | 863.65 | 0.00 | 21.77 | 1.40 | 7.22 | 109.95 | 2.70 |
| R2a | 14622.40 | -24.73 | 431.15 | 1774.19 | 0.00 | 107.72 | 189.08 | 7.84 | 383.04 | 5.16 |
| R3a | 15985.90 | -75.52 | 777.92 | 2425.92 | 0.42 | 327.59 | 88.24 | 12.53 | 208.00 | 6.38 |
| R5a | 25478.78 | -88.06 | 1023.77 | 3712.18 | 0.18 | 246.75 | 106.97 | 8.05 | 288.42 | 13.93 |
| R9a | 13912.96 | -95.83 | 1045.34 | 3232.18 | 2.06 | 568.23 | 5.66 | 12.43 | 26.84 | 33.53 |
| R10a | 25791.02 | -96.52 | 1389.73 | 4499.45 | 3.20 | 612.89 | 57.86 | 11.35 | 229.72 | 40.27 |
| R1b | 2875.37 | -39.62 | 238.51 | 737.27 | 0.00 | 76.67 | 0.00 | 9.51 | 18.76 | 3.78 |
| R2b | 5003.11 | -63.16 | 431.18 | 1403.74 | 0.00 | 25.30 | 1.54 | 6.12 | 12.56 | 8.29 |
| R5b | 12373.00 | -87.39 | 951.74 | 3417.62 | 0.29 | 201.32 | 6.14 | 7.67 | 65.88 | 23.19 |
| R6b | 16486.78 | -91.10 | 1241.22 | 4182.99 | 0.00 | 271.45 | 10.83 | 8.53 | 61.77 | 26.39 |
| R7b | 4592.52 | -49.91 | 359.19 | 1123.56 | 0.00 | 100.27 | 8.18 | 9.74 | 44.37 | 4.49 |
| R9b | 13433.32 | -91.99 | 977.59 | 3211.71 | 0.02 | 344.85 | 12.65 | 10.36 | 74.12 | 30.32 |
| R10b | 16478.16 | -96.53 | 1310.00 | 4218.37 | 1.56 | 512.78 | 1.67 | 10.66 | 28.38 | 51.81 |
| Avg. | 13091.19 | -71.79 | 803.93 | 2677.14 | 0.60 | 262.89 | 37.71 | 9.39 | 119.37 | 19.25 |

avg. = average, dist. = distance, dur. = duration, pass. = passenger, veh. = vehicle, wait. = waiting

^a run times in minutes on a Pentium D computer with 3.2 GHz

References

Parragh, S. N., Doerner, K. F., and Hartl, R. F. (2010). Variable neighborhood search for the dial-a-ride problem. *Comput Oper Res*, 37:1129–1138.