1. A computer system, comprising:

one or more processors; and

memory resources storing instructions that, when executed by the one or more processors, cause the system to:

determine a current location of a plurality of drivers;

receive , from a first computing device, a request for a transport service for a first rider, the request including a first pickup location and a first destination location;

determine, based on the first pickup location, the first destination location, and the current location of each of the plurality of drivers, a set of candidate drivers, each candidate driver being currently assigned to provide a transport service for a respective rider; and

perform, at the computing system, a selection process to select a driver from the set of candidate drivers, wherein the one or more processors perform the selection process by:

for each candidate driver in the set of candidate drivers, determining a set of possible travel sequences in which that candidate driver can provide both the transport service for the respective rider and the transport service for the first rider by traveling to at least the first pickup location, the first destination location, and a destination location of the respective rider, wherein each possible travel sequence in the set is different from other possible travel sequences in the set;

computing a score for each possible travel sequence in the sets of possible travel sequences of the set of candidate drivers;

selecting a possible travel sequence, from the sets of possible travel sequences, based on the computed scores; and

identifying the candidate driver to provide the transport service for the first rider based on the selected possible travel sequence.

2. The computer system of claim 1, wherein for each candidate driver in the set of candidate drivers, the one or more processors determine the set of possible travel sequences based on a state of that candidate driver.

3. The computer system of claim 2, wherein the state corresponds to a first state in which an individual candidate driver has not picked up the respective rider or a second state in which the individual candidate driver has picked up the respective rider.

4. The computer system of claim 1, wherein the score for each possible travel sequence is based on a distance measurement.

5. The computer system of claim 4, wherein for each candidate driver in the set of candidate drivers, the one or more processors determine the set of possible travel sequences by:

determining a plurality of possible travel sequences, wherein a number of possible travel sequences in the plurality is greater than or equal to a number of possible travel sequences in the set;

for each possible travel sequence in the plurality of possible travel sequences, computing a first distance score for the first rider and a second distance score for the respective rider currently assigned to that candidate driver, wherein the first distance score is based, at least in part, on a shared distance in which the first rider and the respective rider would travel together and an individual distance in which the first rider would travel without the respective rider, and wherein the second distance score is based, at least in part, on the shared distance and an individual distance in which the respective rider would travel without the first rider; and

identifying the set of possible travel sequences, from the plurality of possible travel sequences, that each have the first distance score and the second distance score that satisfy a first condition.

6. The computer system of claim 5, wherein the one or more processors compute the score for each possible travel sequence in the sets of possible travel sequences by:

for each possible travel sequence in the sets of possible travel sequences, computing (i) an original distance that that candidate driver would travel to provide the transport service for the respective rider currently assigned to that candidate driver, and (ii) a projected distance that that candidate driver would travel for that possible travel sequence in the set; and

for each possible travel sequence in the sets of possible travel sequences, computing the score based on the original distance and the projected distance.

7. The computer system of claim 6, wherein for each possible travel sequence in the sets of possible travel sequences, the one or more processors compute the score based on the original distance and the projected distance by subtracting the original distance from the projected distance; and

wherein the one or more processors select the possible travel sequence from the sets of possible travel sequences by determining which possible travel sequence from the sets has the lowest score.

8. The computer system of claim 6, wherein the original distance and the project distance are either (i) Cartesian or Haversine distances, or (ii) routed distances based on determined routes of travel.

9. The computer system of claim 1, wherein the score for each possible travel sequence is based on a combination of a distance measurement and a time measurement.

10. The computer system of claim 9, wherein for each candidate driver in the set of candidate drivers, the one or more processors determine the set of possible travel sequences by:

determining a plurality of possible travel sequences, wherein a number of possible travel sequences in the plurality is greater than or equal to a number of possible travel sequences in the set;

for each possible travel sequence in the plurality of possible travel sequences, (i) computing a savings score based, at least in part, on a first predicted score of the first rider in which the first rider is transported individually, a second predicted score for the respective rider in which the respective rider is transported individually, and a third predicted score in which the first rider and the respective rider would travel together for at least a duration of time, and (ii) determining a savings ratio based on the savings score; and

identifying the set of possible travel sequences, from the plurality of possible travel sequences, that each have the savings ratio that satisfy a first condition.

11. The computer system of claim 10, wherein the one or more processors compute the score for each possible travel sequence in the sets of possible travel sequences by identifying the savings score for each possible travel sequence in the sets of possible travel sequences.

12. The computer system of claim 11, wherein the one or more processors select the possible travel sequence, from the sets of possible travel sequences, by determining which possible travel sequence from the sets has the highest savings score.

13. The computer system of claim 11, wherein the one or more processors select the possible travel sequence, from the sets of possible travel sequences, includes determining which possible travel sequence from the sets has the highest savings ratio.

14. The computer system of claim 10, wherein for each possible travel sequence in the plurality of possible travel sequences for each candidate driver, the savings score is also based on whether a toll to use a particular roadway, tunnel, or bridge would be assessed for that possible travel sequence.

15. A non-transitory computer-readable medium storing instructions that, when executed by one or more processors of a computing system, cause the computing system to:

determine a current location of a plurality of drivers;

receive, from a first computing device, a request for a transport service for a first rider, the request including a first pickup location and a first destination location;

determine, based on the first pickup location, the first destination location, and the current location of each of the plurality of drivers, a set of candidate drivers, each candidate driver being currently assigned to provide a transport service for a respective rider; and

perform, at the computing system, a selection process to select a driver from the set of candidate drivers, wherein performing the selection process includes:

for each candidate driver in the set of candidate drivers, determine a set of possible travel sequences in which that candidate driver can provide both the transport service for the respective rider and the transport service for the first rider by traveling to at least the first pickup location, the first destination location, and a destination location of the respective rider, wherein each possible travel sequence in the set is different from other possible travel sequences in the set;

compute a score for each possible travel sequence in the sets of possible travel sequences of the set of candidate drivers;

select a possible travel sequence, from the sets of possible travel sequences, based on the computed scores; and

identify the candidate driver to provide the transport service for the first rider based on the selected possible travel sequence.

16. The non-transitory computer-readable medium of claim 15, wherein the instructions cause the computing system to, for each candidate driver in the set of candidate drivers, determine the set of possible travel sequences by:

determining a plurality of possible travel sequences, wherein a number of possible travel sequences in the plurality is greater than or equal to a number of possible travel sequences in the set;

for each possible travel sequence in the plurality of possible travel sequences, computing a first distance score for the first rider and a second distance score for the respective rider currently assigned to that candidate driver, wherein the first distance score is based, at least in part, on a shared distance in which the first rider and the respective rider would travel together and an individual distance in which the first rider would travel without the respective rider, and wherein the second distance score is based, at least in part, on the shared distance and an individual distance in which the respective rider would travel without the first rider; and

identifying the set of possible travel sequences, from the plurality of possible travel sequences, that each have the first distance score and the second distance score that satisfy a first condition.

17. The non-transitory computer-readable medium of claim 16, wherein the instructions cause the computing system to compute the score for each possible travel sequence in the sets of possible travel sequences by:

(i) for each possible travel sequence in the sets of possible travel sequences, computing (a) an original distance that that candidate driver would travel to provide the transport service for the respective rider currently assigned to that candidate driver, and (b) a projected distance that that candidate driver would travel for that possible travel sequence in the set; and

(ii) for each possible travel sequence in the sets of possible travel sequences, computing the score by subtracting the original distance from the projected distance; and

wherein the instructions cause the computing system to select the possible travel sequence from the sets of possible travel sequences by determining which possible travel sequence from the sets has the lowest score.

18. The non-transitory computer-readable medium of claim 15, wherein the instructions cause the computing system to, for each candidate driver in the set of candidate drivers, determine the set of possible travel sequences by:

determining a plurality of possible travel sequences, wherein a number of possible travel sequences in the plurality is greater than or equal to a number of possible travel sequences in the set;

for each possible travel sequence in the plurality of possible travel sequences, (i) computing a savings score based, at least in part, on a first predicted score of the first rider in which the first rider is transported individually, a second predicted score for the respective rider in which the respective rider is transported individually, and a third predicted score in which the first rider and the respective rider would travel together for at least a duration of time, and (ii) determining a savings ratio based on the savings score; and

identifying the set of possible travel sequences, from the plurality of possible travel sequences, that each have the savings ratio that satisfy a first condition.

19. The non-transitory computer-readable medium of claim 16, wherein the instructions cause the computing system to compute the score for each possible travel sequence in the sets of possible travel sequences by identifying the savings score for each possible travel sequence in the sets of possible travel sequences; and

wherein the instructions cause the computing system to select the possible travel sequence, from the sets of possible travel sequences, by determining which possible travel sequence from the sets has the highest savings score or ratio.

20. The non-transitory computer readable medium of claim 15, wherein the instructions cause the computing system to determine, for each candidate driver in the plurality of candidate drivers, the set of possible travel sequences based on a state of that candidate driver.