

ECONOMIC GEOGRAPHY

Issue: Transportation logistics

Lesson inquiry: How do transportation businesses predict where and when people will want their services?

Career connection: Nicolas Saravia, GIS consultant

GEOGRAPHIC QUESTIONS:

- *What affects the supply of and demand for transportation in a city?*
- *What conditions on the ground are likely to cause the demand for transit to spike?*

RELATED GEOGRAPHY CAREERS:

- [Transportation, Storage, and Distribution Managers](#)
- [Logistics Analysts](#)
- [Cargo and Freight Agents](#)
- [Transportation Planners](#)
- [Transportation Engineers](#)



Photo: Person with PPE standing safely on the walkway of a subway shaft

APPLICATIONS:

- Explain the impact of variables including weather, population density, traffic patterns, and infrastructure on the demand for transportation services.
- Use open-source geospatial technology and software to automate solutions for improving transportation logistics under changing conditions.

INTERVIEW DIGEST: NICOLAS SARAVIA

*"Through the course of my career, my strategy shifted from viewing geocomputation tools as a means of their own, to a more auxiliary (albeit important) role. In many real-life business scenarios, one is able to solve spatial problems without geographical methods; however, in my case, **geocomputation tools such as GIS, spatial statistics, and web mapping have certainly enabled me to find the needle in the haystack faster than otherwise and in a way that is visually compelling and factual.**" - Nicolas Saravia*




Photo: In black & white, Nicolas Saravia smiles in front of a blank background


LESSON ACTIVITY EXAMPLE:

Use the automatic identification systems map of marine traffic to visually interpret supply chain patterns. Follow up by having students create open street map accounts and exploring the transport map layer.

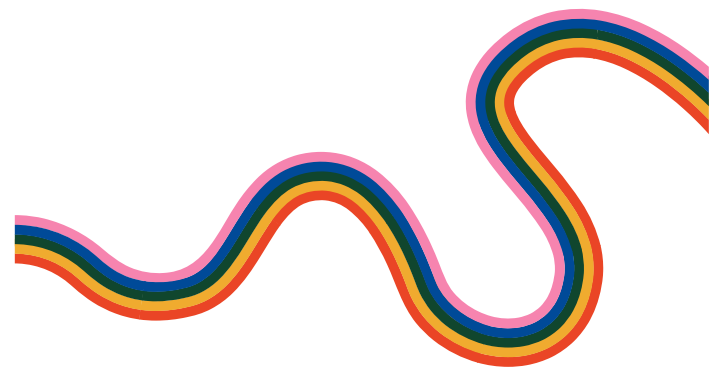
GLOSSARY:




OPEN-SOURCE SOFTWARE (E.G., QGIS)/DATA



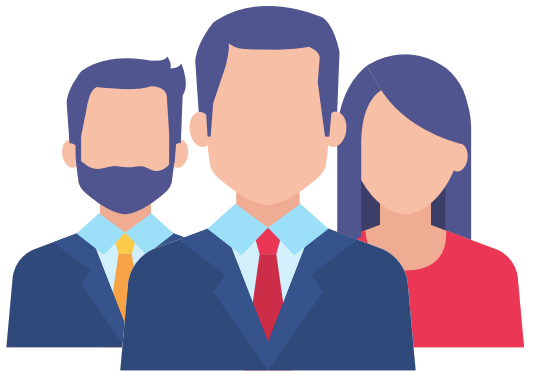
STRUCTURED QUERY LANGUAGE (SQL)



TRANSPORTATION MODEL



DATA ANALYSIS



BUSINESS INTELLIGENCE

SKILLS:

- R
- Python
- QGIS

BACKGROUND RESOURCES:

- [Economic Geography defined](#)
- [Overview of transport geography](#)
- [Article on mobile devices, traffic studies, and transportation](#)

DATA:

- [NOAA U.S. Department of Commerce Data Catalog](#)
- [OpenStreetMap/Open Infrastructure Map](#)
- [QGIS software download](#)



Photo: Plane flying overhead I-5 in San Diego with light traffic.

{ RppforCs : ENCODING GEOGRAPHY }