**Sets**

* **Suppliers:** Supplier 1, Supplier 2
* **Plants**: Plant 1, Plant 2, . . ., Plant 4
* **Retailers**: Norman, Ft. Colins, Austin, San Jose
* **Arcs**: (source to destination)

Supplier 1 -> Plant 1

Supplier 1 -> Plant 2

Supplier 1 -> Plant 3

Supplier 1 -> Plant 4

Supplier 2 -> Plant 1

Supplier 2 -> Plant 2

Supplier 2 -> Plant 3

Supplier 2 -> Plant 4

Plant 1 -> Norman

Plant 1 -> Ft. Colins

Plant 1 -> Austin

Plant 1 -> San Jose

Plant 2 -> Norman

Plant 2 -> Ft. Colins

Plant 2 -> Austin

Plant 2 -> San Jose

Plant 3 -> Norman

Plant 3 -> Ft. Colins

Plant 3 -> Austin

Plant 3 -> San Jose

Plant 4 -> Norman

Plant 4 -> Ft. Colins

Plant 4 -> Austin

Plant 4 -> San Jose

**Parameters (data given)**

* minSupply: WII must purchase at least 14,000 lbs. of widgets from its suppliers
* supplierPricesi: Price of a single pound of raw materials from a supplier i in Suppliers
* transCosti, j: Transportation cost (converted to dollars per pound) from source i to destination j in the set of all Arcs
* costPerPoundp : the cost per pound of a widget at plant p in Plants

**Decision Variables**

* Determine the flow of widgets from source to destination in the set of Arcs

**Constraints**

* Flow from Suppliers to Plants must meet the minimum supply but also not surpass the max
* Flow from Plant to Retailer must meet the minimum demand but also not surpass the max

**Objective**

* Minimize the total cost of widget produced and shipped from source to destination in all Arcs