PSC 400

SYRACUSE UNIVERSITY

DATA ANALYTICS FOR POLITICAL SCIENCE

MULTIPLE REGRESSION

ASSIGNMENTS

- Problem Set 3 due on Friday
- Review Exercise 5 due today

EXAMPLE

Table 4.7. Women as Policy Makers Data.

Variable	*Description*
`GP`	identifier for the Gram Panchayat (GP)
`village`	identifier for each village
`reserved`	binary variable indicating whether the GP was reserved for women leaders or not
`female`	binary variable indicating whether the GP had a female leader or not
`irrigation`	variable measuring the number of new or repaired irrigation facilities in the village since the reserve policy started
`water`	variable measuring the number of new or repaired drinking water facilities in the village since the reservation policy started

- Water = α + β * Reserved + ε

- women.csv

EXAMPLE

- Water = α + β * Reserved + ε
  - Reserved=0 means not reserved
  - Water = α + ε
  - Reserved=1 means reserved:
  - Water = α + β + ε

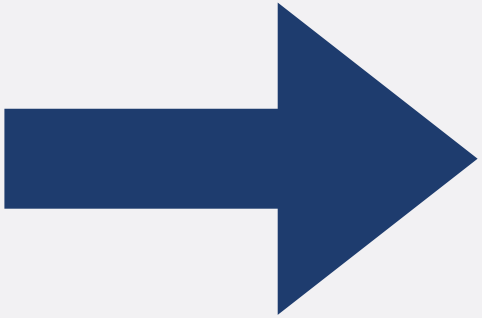
ANOTHER EXAMPLE

Name	Description
`age`	Age (in years)
`female`	`1` indicates female; `0` indicates male
`employed`	`1` indicates employed; `0` indicates unemployed
`nontech.whitcol`	`1` indicates non-tech white-collar work (e.g., law)
`tech.whitcol`	`1` indicates high-technology work
`expl.prejud`	Explicit negative stereotypes about Indians (continuous scale, 0-1)
`impl.prejud`	Implicit bias against Indian Americans (continuous scale, 0-1)
`h1bvis.supp`	Support for increasing H-1B visas (5-point scale, 0-1)
`indimm.supp`	Support for increasing Indian immigration (5-point scale, 0-1)

- immig.csv
- DV: Support for more H1B visas (h1bvis.supp)
  - From 0=decrease a great deal to 1=increase a great deal
- Main IV: Implicit bias against Indian Americans (impl.prejud)
  - From 0=low implicit prejudice to 1=high implicit prejudice

IMMIGRATION ATTITUDES

Implicit Prejudice

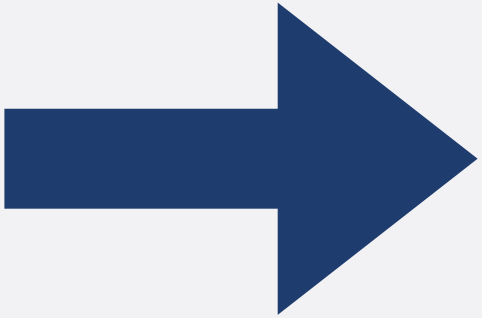


Support for Immigration

- Immig. Supp. = α + β * Impl. Prej. + ε

IMMIGRATION ATTITUDES

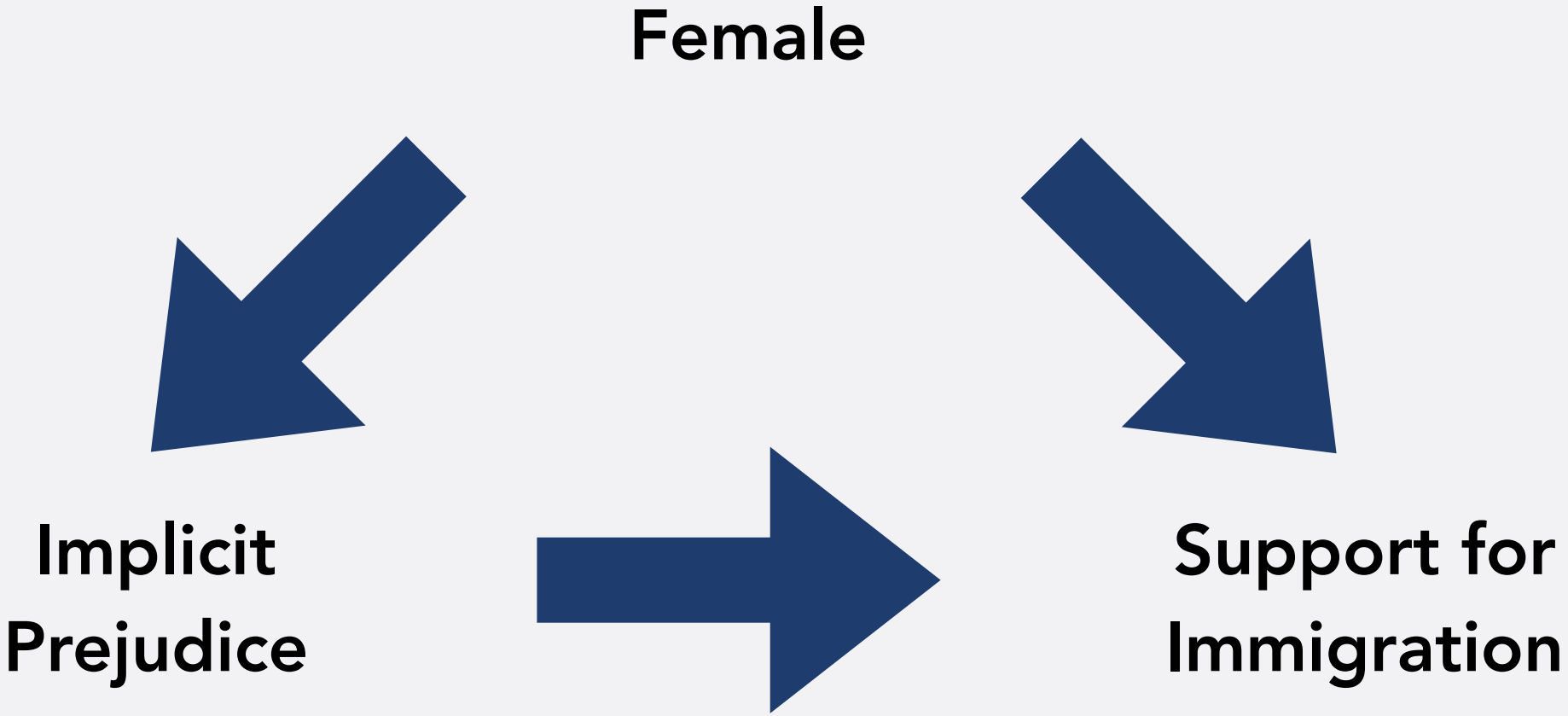
Female



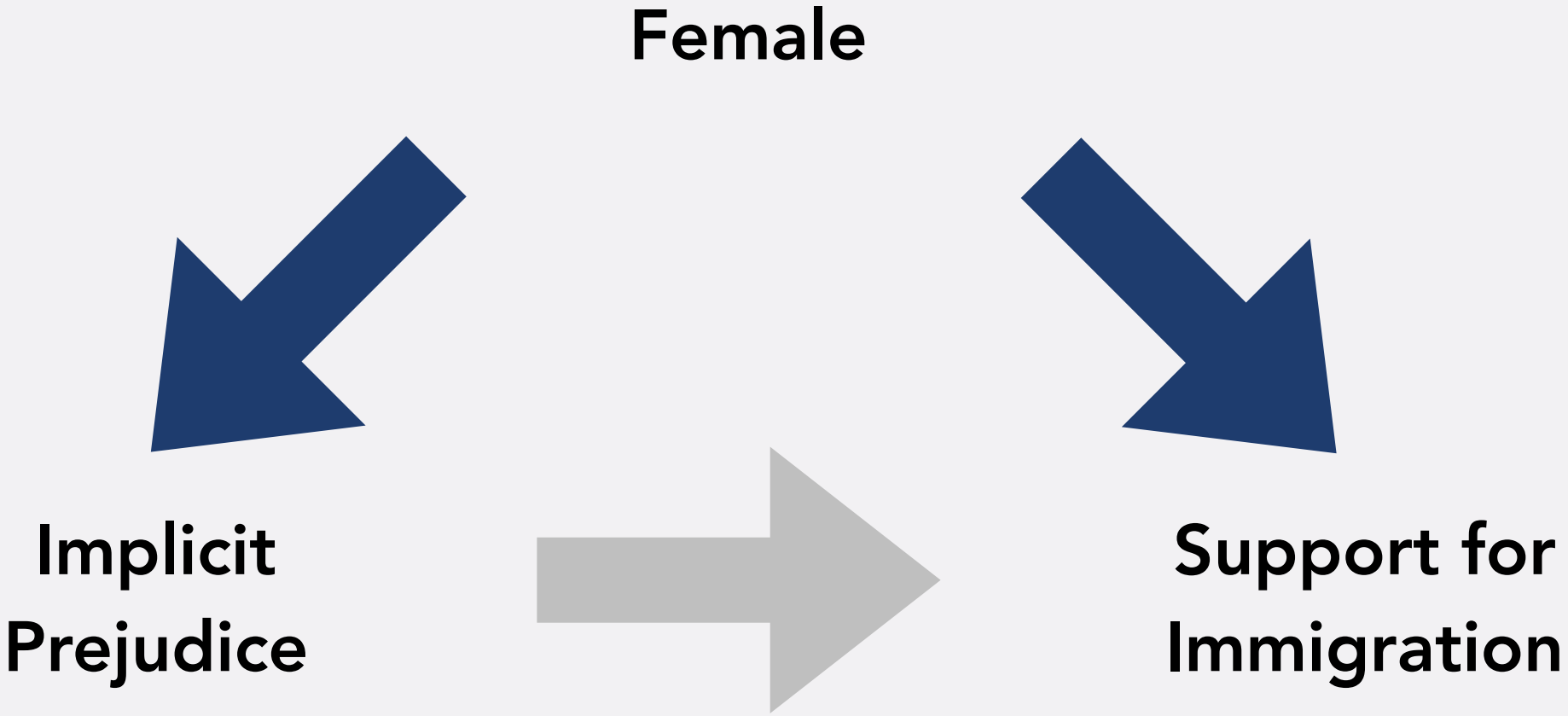
Support for Immigration

- Immig. Supp. = α + β * Female + ε

IMMIGRATION ATTITUDES



IMMIGRATION ATTITUDES



IMMIGRATION ATTITUDES

- Immig. Supp. = α + β_1 * Impl. Prej. + β_2 * Female + ε