

# Latex Tikz Examples, Node-based Diagrams

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## 1 Connecting Nodes with Arrows

In the following example, there are three sets of data, relevant for three research objectives:

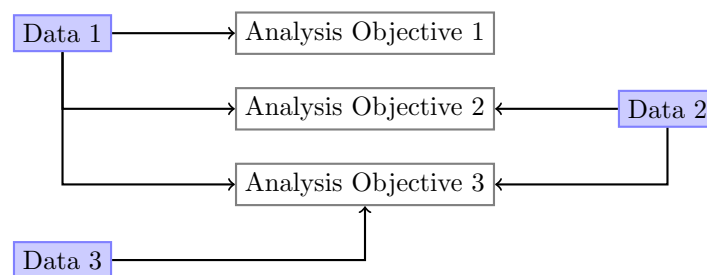
```
\begin{tikzpicture}[thick]
  \node(1) at (-1,-1) [rectangle,draw=blue!50,fill=blue!20] {Data 1};
  \node(2) at (7,-2) [rectangle,draw=blue!50,fill=blue!20] {Data 2};
  \node(3) at (-1,-4) [rectangle,draw=blue!50,fill=blue!20] {Data 3};

  \node(4) at (3,-1) [rectangle,draw=black!50] {Analysis Objective 1};
  \node(5) at (3,-2) [rectangle,draw=black!50] {Analysis Objective 2};
  \node(6) at (3,-3) [rectangle,draw=black!50] {Analysis Objective 3};

  \draw [->] (1) edge (4);
  \draw [->] (1) |- (5);
  \draw [->] (1) |- (6);

  \draw [->] (2) edge (5);
  \draw [->] (2) |- (6);

  \draw [->] (3) -| (6);
\end{tikzpicture}
```



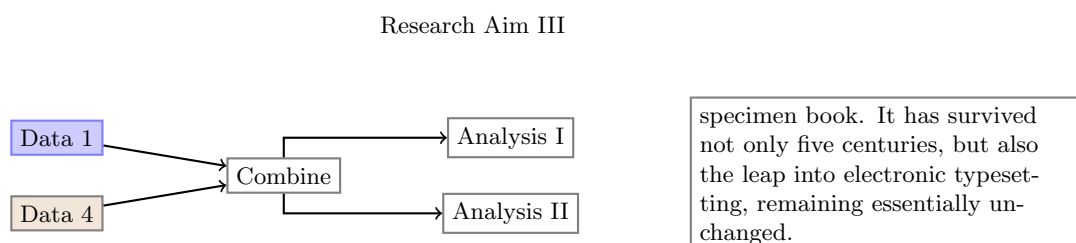
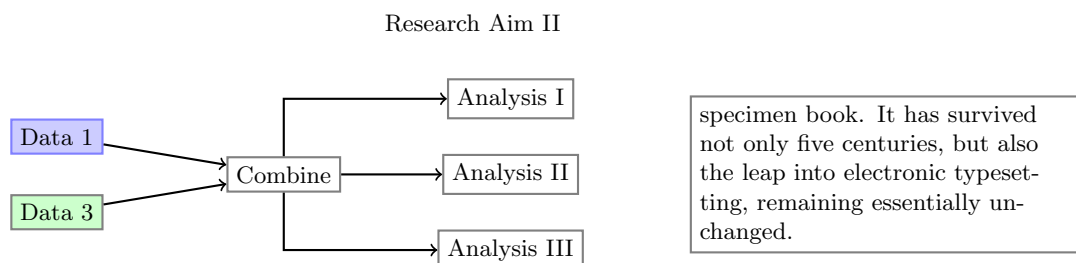
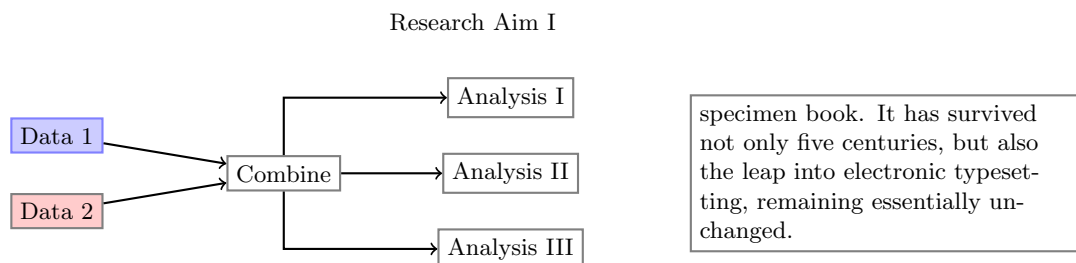
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\*<https://fanwangecon.github.io>, repository: [Tex4Econ](#)

## 2 Connecting Blocks of Nodes and with Blocks of Nodes

To present the relationship between data and research analysis, show visually how several research aim will be achieved with different data structures and analysis.

```
\begin{tikzpicture}[thick, font=\small]
  \node(100) at (2.5,10) [rectangle] {Research Aim I};
  \node(101) at (-3,8.5) [rectangle, draw=blue!50, fill=blue!20] {Data 1};
  \node(102) at (-3,7.5) [rectangle, draw=black!50, fill=red!20] {Data 2};
  \node(111) at (0,8) [rectangle, draw=black!50] {Combine};
  \draw [->] (101) edge (111);
  \draw [->] (102) edge (111);
  \node(121) at (3,9) [rectangle, draw=black!50] {Analysis I};
  \node(122) at (3,8) [rectangle, draw=black!50] {Analysis II};
  \node(123) at (3,7) [rectangle, draw=black!50] {Analysis III};
  \draw [->] (111) |- (121);
  \draw [->] (111) |- (122);
  \draw [->] (111) |- (123);
  \node(131) at (8,8) [rectangle, draw=black!50, text width=5cm] {Some Text.};
\end{tikzpicture}
```

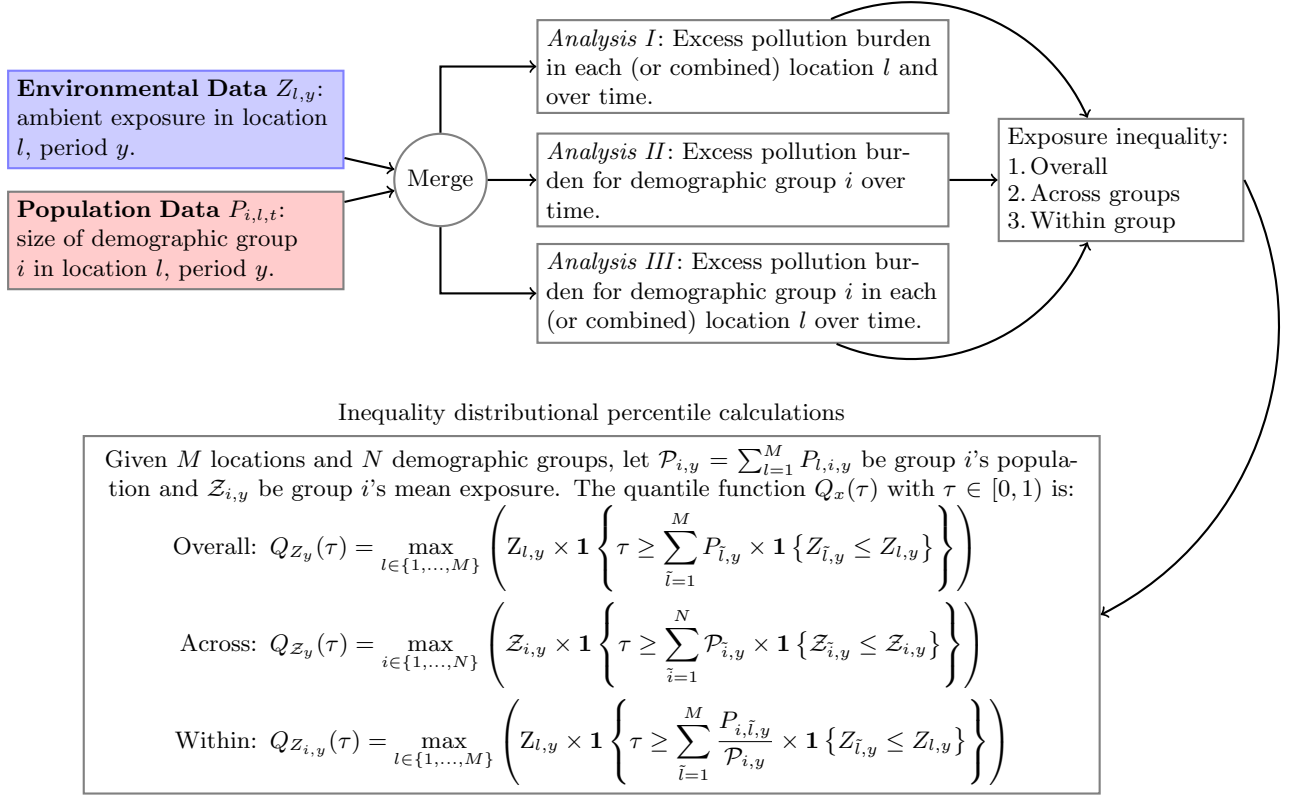


### 3 Rows of Data and Analysis Connected Nodes

#### 3.1 Research Plan Diagram Example One

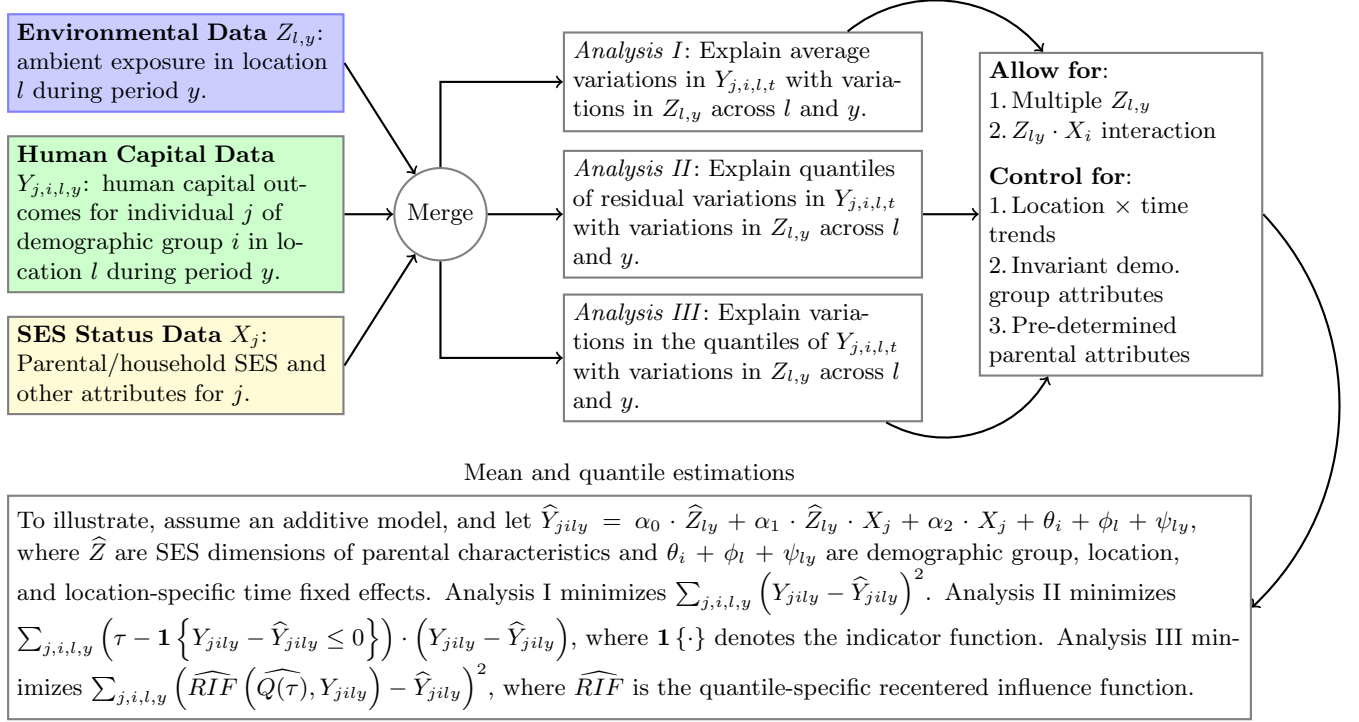
To present the relationship between data and research analysis, show visually how several research aim will be achieved with different data structures and analysis.

Figure 1: Research Aim I—Inequality in Ambient Environmental Exposures



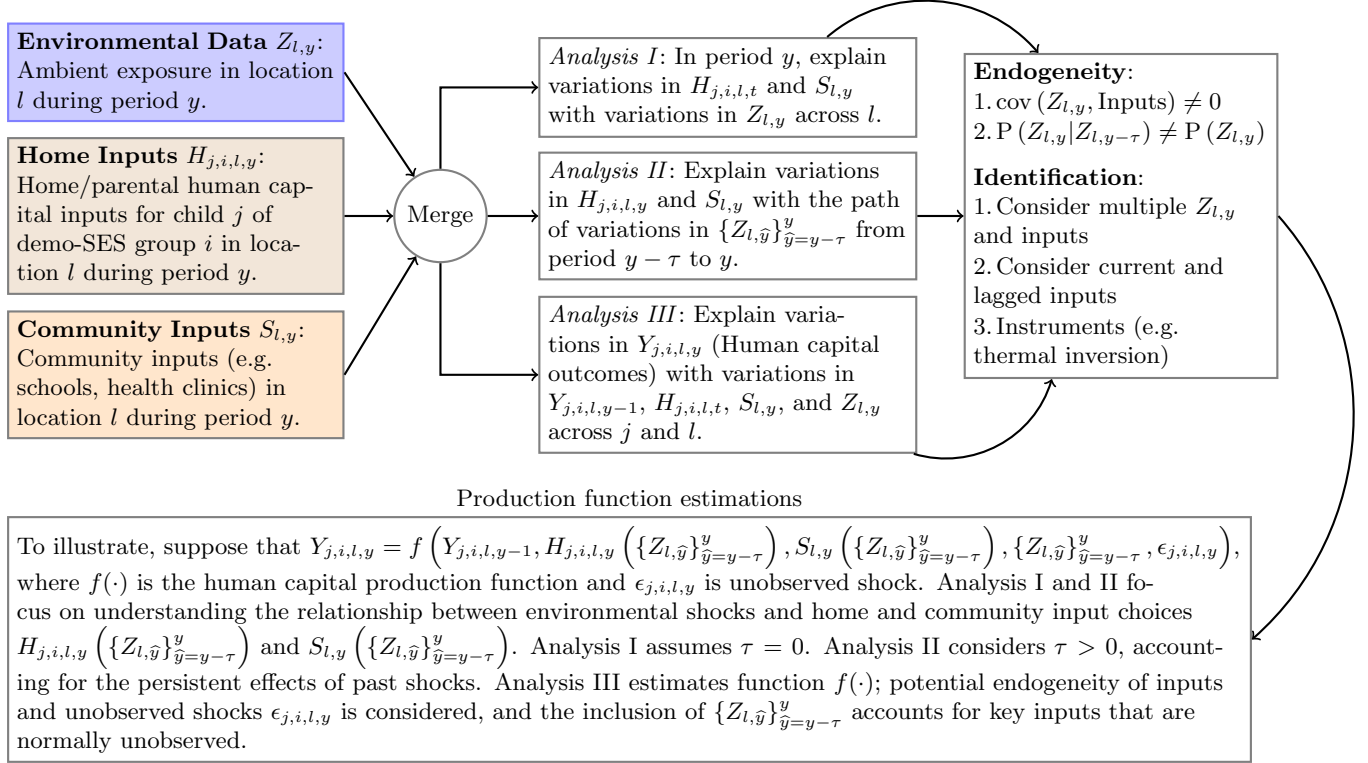
### 3.2 Research Plan Diagram Example Two

Figure 2: Research Aim II—Inequality in Ambient Environmental Exposures



### 3.3 Research Plan Diagram Example Three

Figure 3: Research Aim III—Inequality in Ambient Environmental Exposures



## 4 Multi-stage Choice Diagram

Three nodes, two in a row.

