

**SIXTEEN STATE STUDY ON MENTAL HEALTH  
PERFORMANCE MEASURES**

***EMPLOYMENT STATUS AND CHANGE IN  
EMPLOYMENT AFTER SERVICES***

**Presented at the National Conference  
on Mental Health Statistics**

**by**

**Dennis Geertsen, Ph.D.**

**Steven Davis, Ph.D.**

**Richard Ellis, Ph.D.**

**May 30, 2002**

# Employment Work Group Members

**Ray Bottger (OK)**

**Steve Davis, Ph.D. (OK)**

**Dick Ellis, Ph.D. (CO)**

**Dennis Geertsen, Ph.D. (UT- Chair)**

**Kitty Hepfer (SC)**

**Tracy Leeper (OK)**

**Ted Lutterman, Ph.D.**

**(NASMHPD Research Institute)**

**Bernadette Phelan, Ph.D. (AZ)**

# Employment Definitions

## Five categories

- **Employed**
- **Supported, transitional, or sheltered work**
- **Unemployed**
- **Not in labor force**
- **Unknown**

# Category I Definition

## Employed

- Full-time (35 hrs or more weekly)
- Part-time (less than 35 hours)
- Competitive
- Compensated according to Fair Labor Standards Act (FLSA)

## Category II Definition

### Supported, Transitional Employments and Sheltered Work

- **Commonalities**

- May be full- or part-time

- FLSA applies

- Mental health or non-mental health professional support

- **Differences**

- At the individual level, supported employment and transitional employment are competitive, sheltered work is not competitive

- Transitional employment is time-limited, supported employment is not time-limited

- Sheltered work is specifically designed to assist with treatment

- Examples of integrated sheltered work settings include consumer businesses, group contract work, mobile work crews, enclave

## **Category III Definition**

- **Unemployed**

**A person who has been laid off, fired, or is temporarily not working**

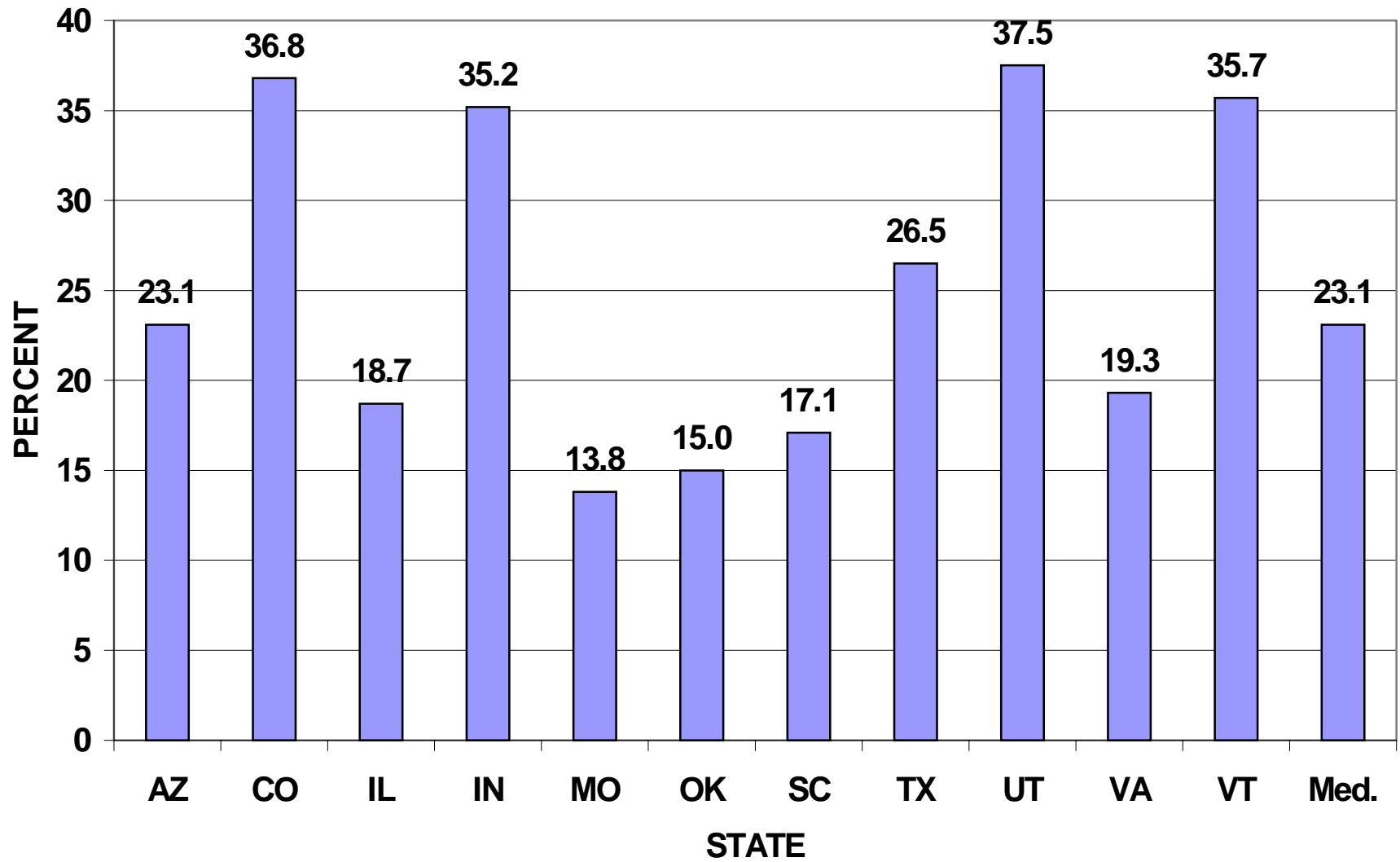
**Applies only to persons seeking gainful employment**

# Category IV Definition

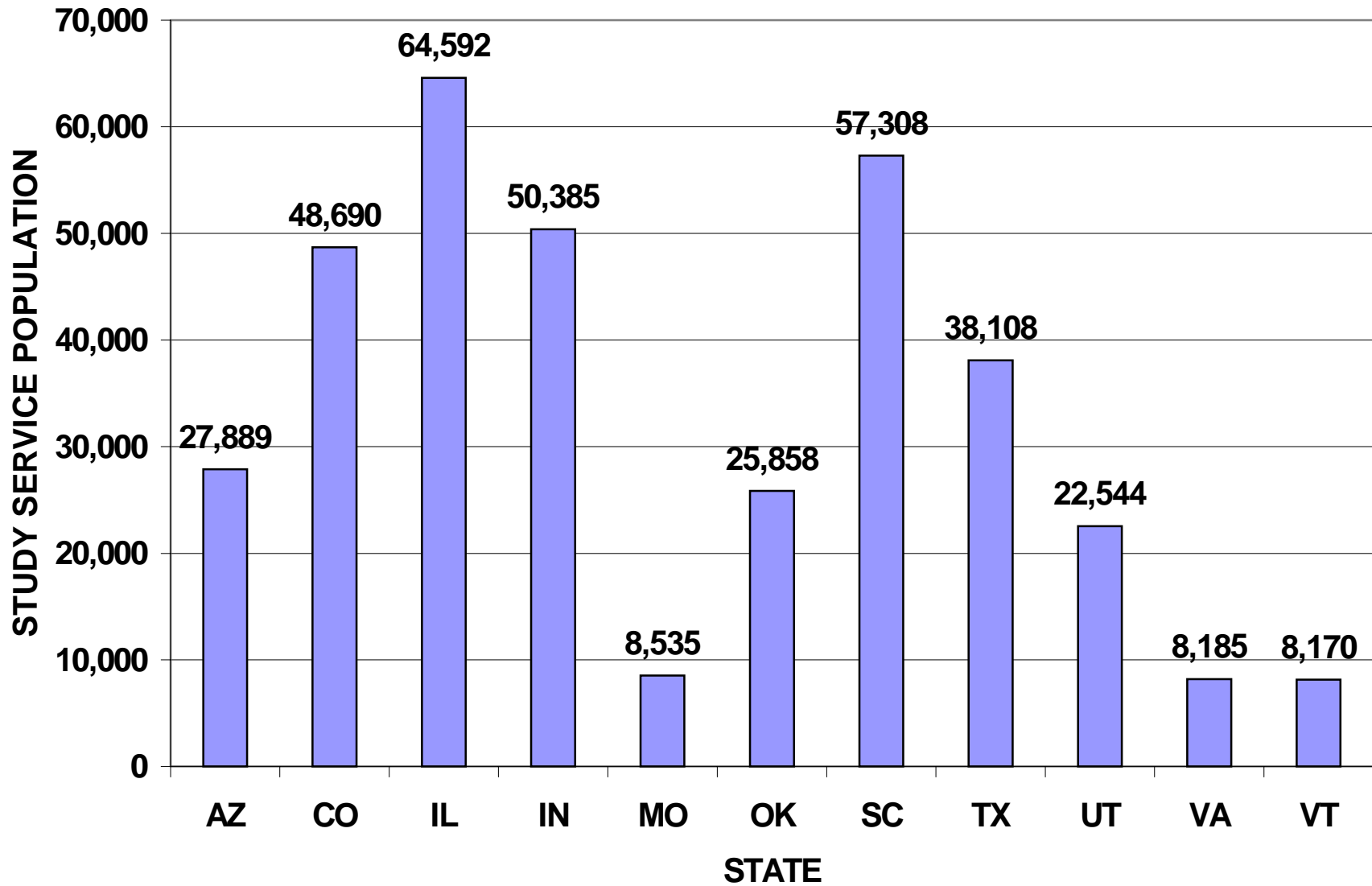
## Not in Labor Force

- **Applies only to persons who do not fit any other category**
- **Includes:**
  - **Homemakers**
  - **Students**
  - **Retired persons**
  - **Volunteers**
  - **Disabled persons**
  - **Persons not looking for work**
  - **Unpaid family workers**
  - **Other**

**Figure 1. Employment status of all clients**



**STUDY SERVICE POPULATION 18-64 YEARS OF AGE BY STATE  
(LESS UNKNOWN)**



**FIGURE 2. EMPLOYMENT STATUS BY GENDER**

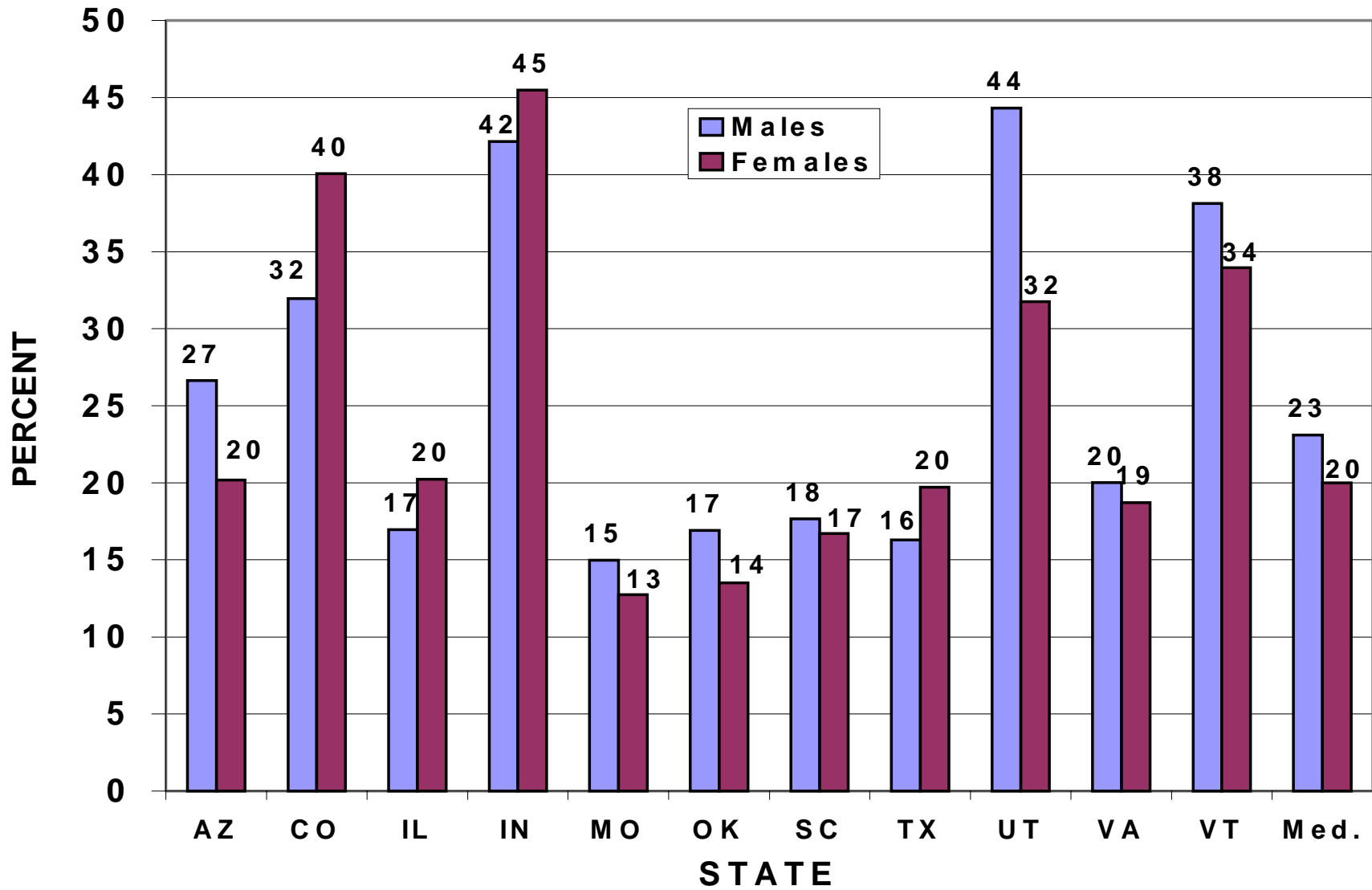
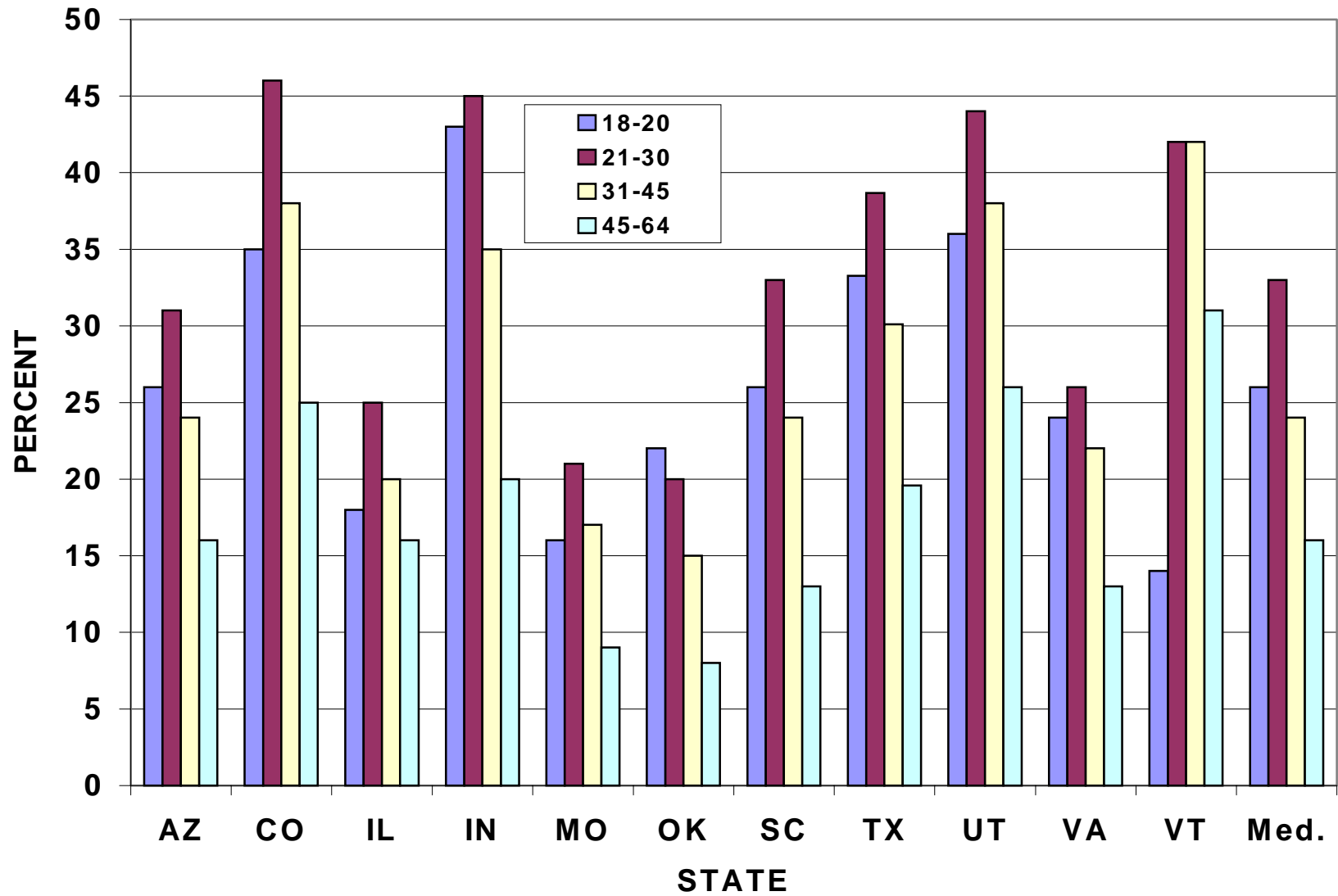
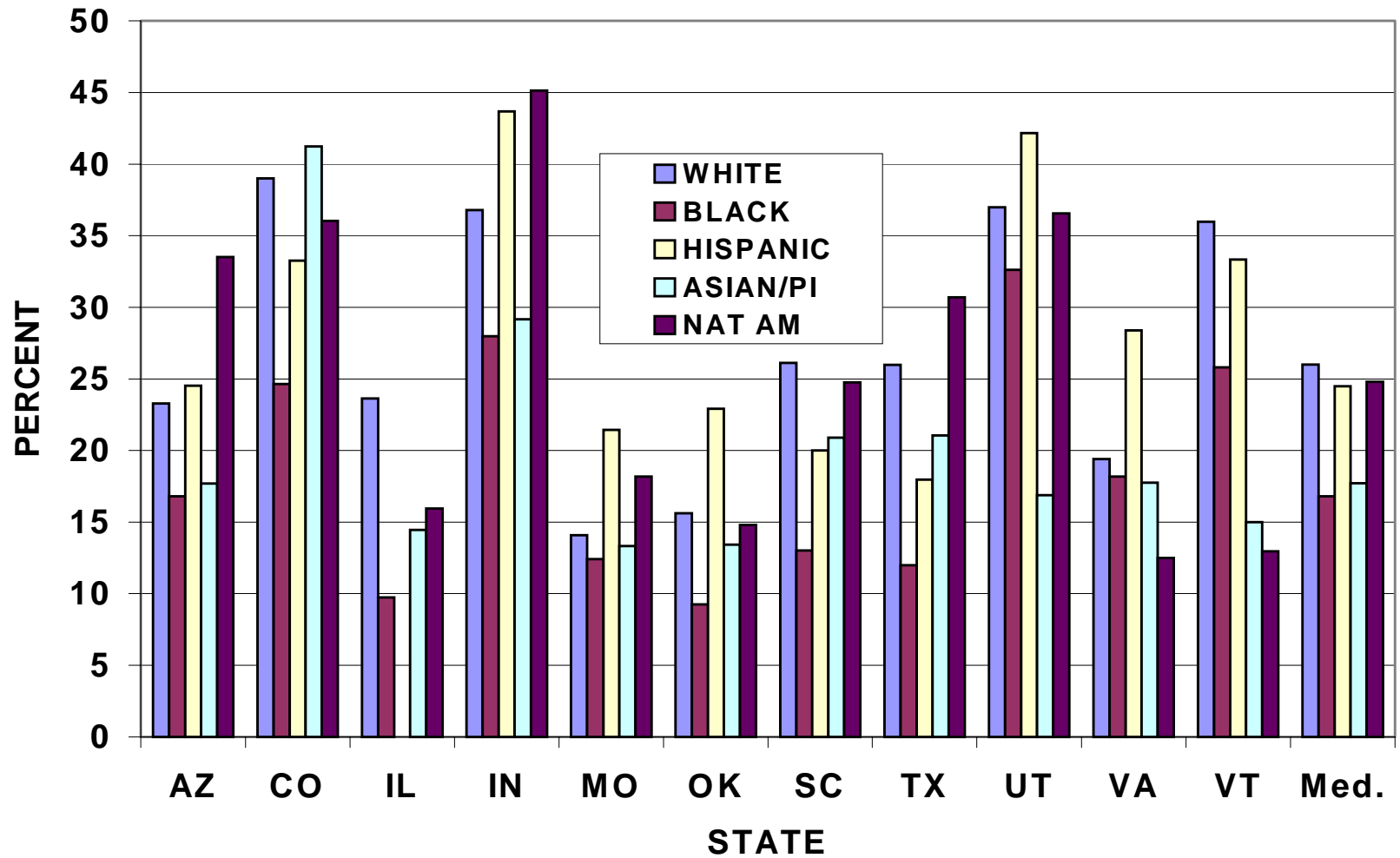


FIGURE 3. EMPLOYMENT STATUS BY AGE GROUP



**FIGURE 4. EMPLOYMENT STATUS BY RACE/ETHNICITY**



**FIGURE 5. EMPLOYMENT STATUS BY SCHIZOPHRENIA AND NON-SCHIZOPHRENIA DIAGNOSES**

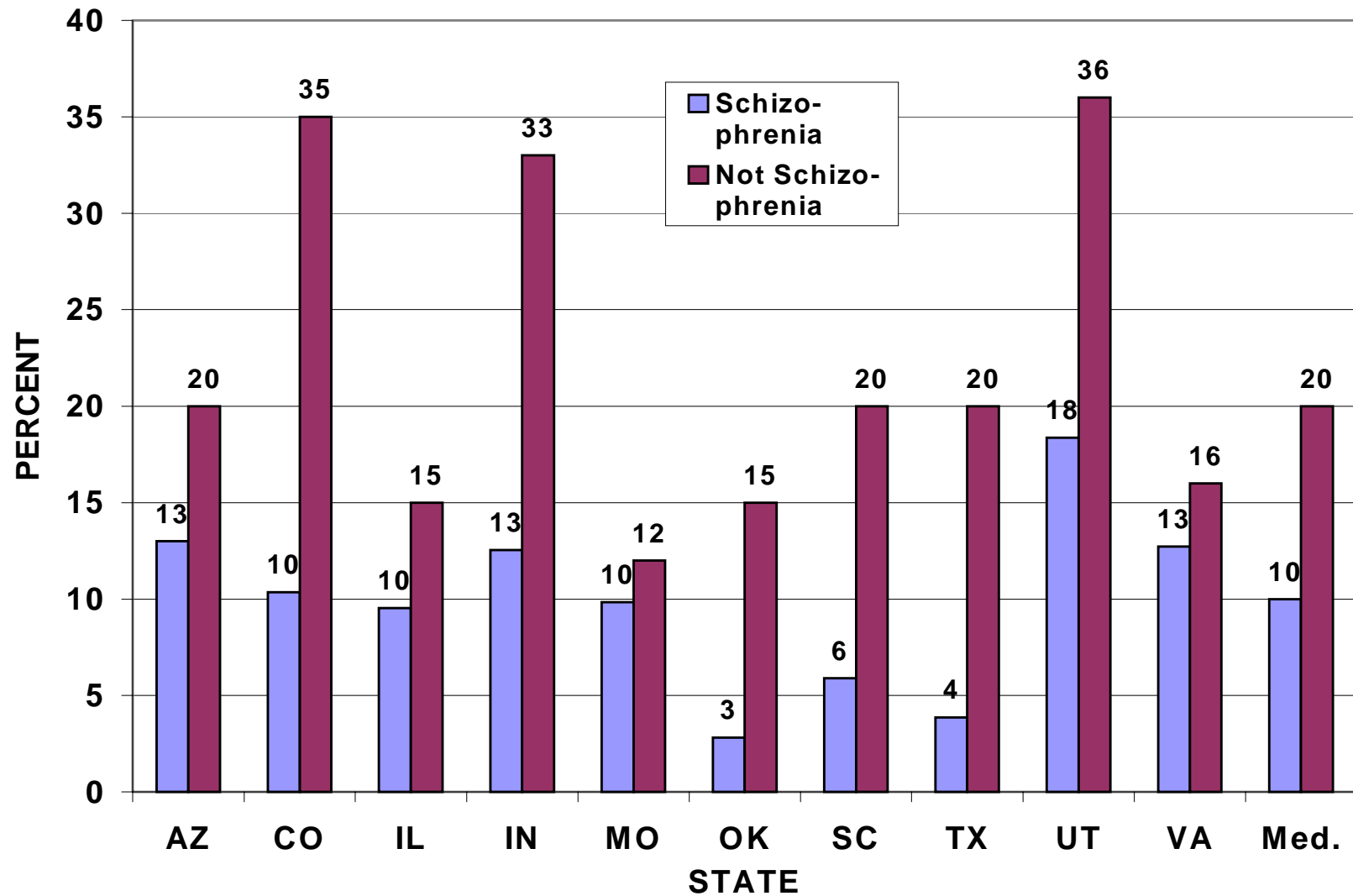
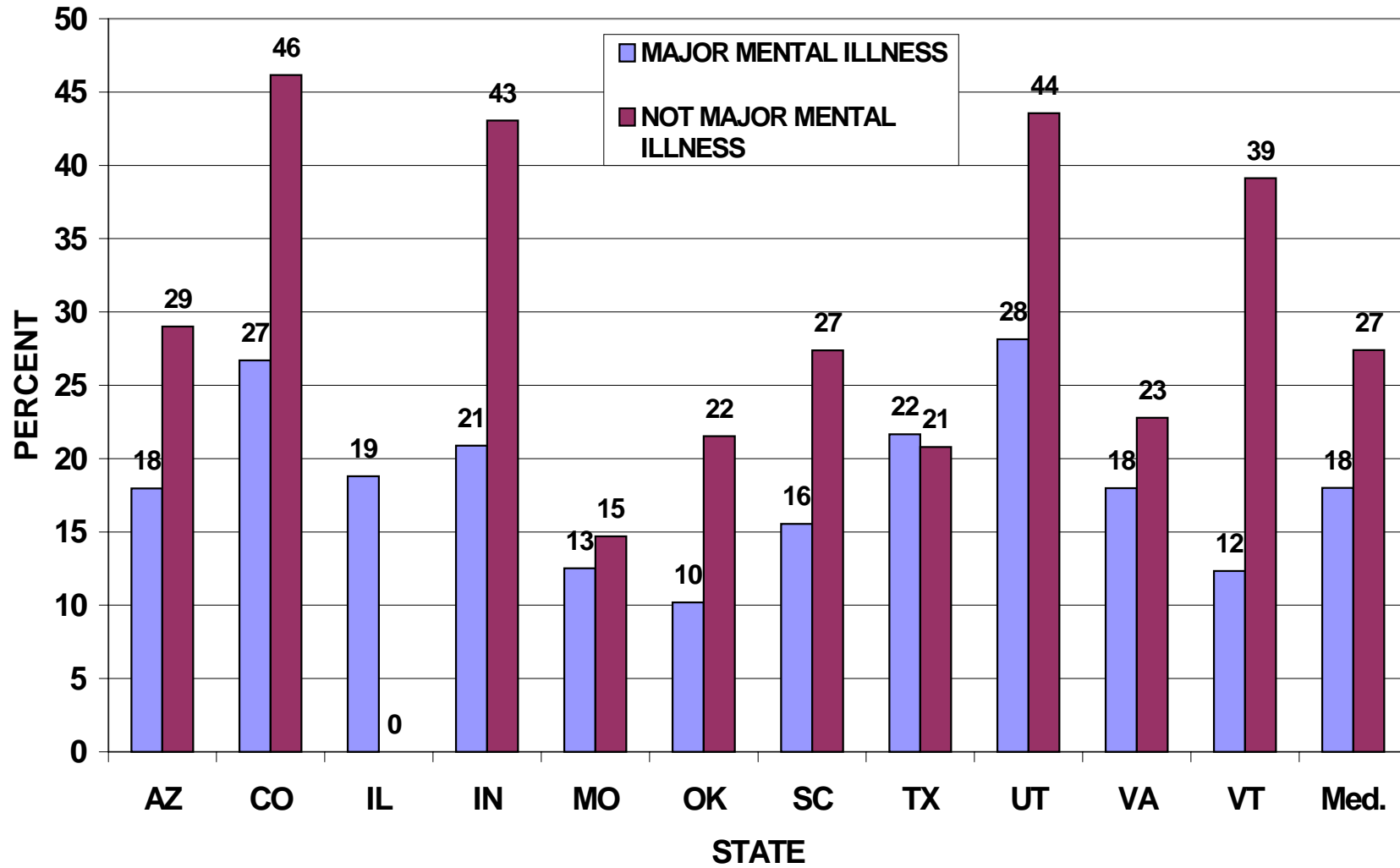


FIGURE 6. EMPLOYMENT STATUS BY MAJOR MENTAL ILLNESS



## **Employment Data Linking**

- **Typically Non-probabilistic Matching**
  - All or nothing matching – use only the SSN
  - Data are tied back to IRS and SSA, thus, SSNs are very reliable on their end
  - May not be the case with mental health databases
- **Employment Commissions match with several agencies**
  - E.g., match with DHS to track TANF clients, law enforcement agencies to track “deadbeat” parents
  - Thus, Policies and programs are in place to easily share data

## **Linking Process**

- **Typically a Very Large Database**
  - **May be necessary for them to do matching at their end, i.e., State MH agency sends them list of client SSNs**
    - **Must have strict procedures to protect client confidentiality**
  - **May charge a flat rate or by the record**
  - **May purge the data when the database gets a certain size – not at a certain time**
    - **Pre-treatment period may vary, e.g., may only go back 2 ½ quarters**

## **Limitations of Data Collection**

- **Only wage amount is recorded– not the amount of time worked**
- **Impossible to determine whether someone worked full- or part-time**
  - **Impossible to determine whether someone worked steadily or part of the quarter**
- **Some types of employment, e.g., federal and self-employment, are not included**
  - **Probably does not affect most most State MH clients**

## **Benefits**

- **Accurate and complete pre- and post-treatment employment data**
  - Uses entire population, no sampling errors
  - Relies on empirical data, eliminates memory problems
  - Longitudinal studies can be conducted without having to contact clients over time
- **Fairly standardized among all states**
  - Allows for interstate comparisons

## *Change in Employment*


- *Colorado Client Data (CCAR)*
- *Employment Variable*
  - *8 levels ranging from Full Time to*
  - *Not in Labor Force (NILF)*
- *CCAR is done at Open-Review-Close*
- *Extract:*
  - *Two most recent CCARs for*
  - *Adults not in 24hr care*

## *Change in Employment*

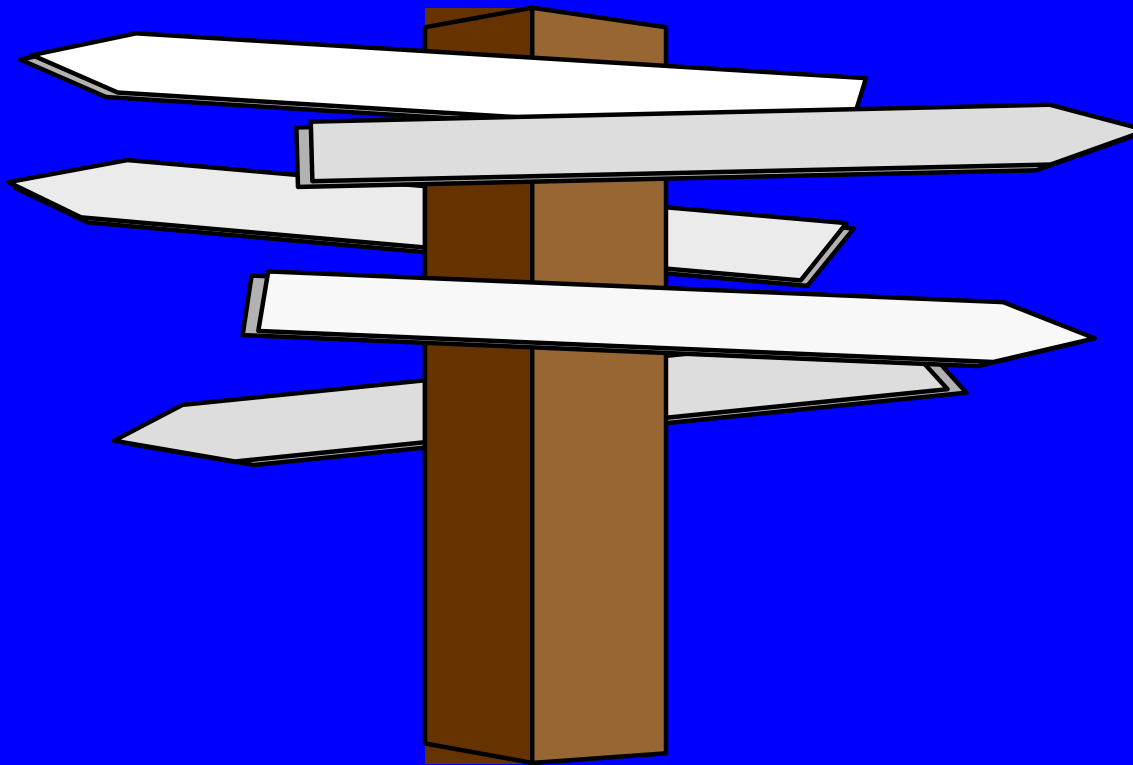
- *Indicator:*
  - *Two Proportions*
    - *Persons employed at Time 1:*
      - *Of these, who maintained employment at Time 2*
    - *Persons unemployed at Time 1*  
*PLUS*
    - *Persons Not in Labor Force at Time 1*  
*who became employed:*
      - *Of these, who gained employment at Time 2*



## *Change in Employment*

- 
- *Final Indicator*
    - *The two proportions are standardized (converted to z-scores)*
    - *Then averaged (add and divide by 2)*
  - *Agencies are ranked by their scores on the final indicator*
  - *Agencies above average are rewarded*

**Where do we go from here?**



## RECOMMENDATIONS

### For states using information system data:

- **Because of large variance between states, intrastate comparisons might be more appropriate, especially in outcome analysis**
- **Focus on persons having major mental illness**
- **Use a measurement interval of at least six-months, preferably one year**
- **Combine supported employment and transitional employment categories with employment category**
- **Combine sheltered work with not in labor force**
- **Assure that Clubhouse and other specialty employment program data make it into state information systems**
- **Compare populations controlling for major demographic characteristics**

## RECOMMENDATIONS

### For states using the linking methodology:

- **Focus on persons having major mental illness**
- **Use measurement interval of at least six-months, preferably one year or more**
- **Compare employment outcomes controlling for major demographic characteristics**
- **I view this method as the best outcome approach for the reasons stated in a previous slide**

## **Benefits**

- **Accurate and complete pre- and post-treatment employment data**
  - Uses entire population, no sampling errors
  - Relies on empirical data, eliminates memory problems
  - Longitudinal studies can be conducted without having to contact clients over time
- **Fairly standardized among all states**
  - Allows for interstate comparisons