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# **Clearing the Air: Entry versus Exit Populations**

**Wednesday, June 14, 2006**

**3:00 - 3:30 pm**

**Data Quality Institute, Phoenix, AZ**

**Julie Eddy, Ph.D., Manager of CTE Data & Research  
Colorado Community College System**

**Scott J. Parke, Ph.D., Senior Director for Policy Studies  
Illinois Community College Board**

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# Clearing the Air: Entry versus Exit Populations

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- Representatives from Illinois and Colorado will review the tradeoffs of tracking students based on an entry cohort versus exit population using state data to illustrate their approaches.
- This will be followed with a group discussion to move toward finalizing the population discussion.
- Validity references used throughout this slide show have been adapted from work undertaken by Phil Garcia, California State University Chancellor's Office, working with the California Inter-segmental Coordinating Council Task Force on Transfer, 1992. The group studied the validity of entering and exiting cohorts for transfer rate calculations.

# Cohort Selection

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- Match the approach to the underlying **Bottom Line** questions being asked.
- Construct Validity – The rate should accurately measure the theoretical concept it is supposed to be measuring.
- Ask the question the way a policy maker or a layperson would typically ask it . . . .
- Helps build public confidence in and support for a publically supported program.
- Consistency in approach across program levels also helps build credibility.

# Address the Underlying Question Being Asked

- **Bottom Line** – Do graduates find jobs? Do graduates continue their education?
- Do graduates keep working/attachment to labor force?
- Methodology – Follow a graduating cohort.
- Post program outcomes can be tracked including –
  - ▶ Placement in employment.
  - ▶ Employment retention.
  - ▶ Wages.
  - ▶ Wage gains.
  - ▶ Transfer/continuing postsecondary education...
- **Why focus on graduates?**
  - ▶ Graduates have completed the entire scope and sequence of a program as it was designed by the faculty with input from their Business Advisory Committees and approved through college/state processes.

# Address the Underlying Question Being Asked

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- **Bottom Line** – Do students graduate? If not, can you document that they are otherwise making progress?
- Methodology – Track an entering cohort of new Career and Technical Education students who meet a credit hour threshold within a specified time frame.
- Track forward progress to determine what outcomes emerge from this group that began from a common starting point.
- Time Equivalence Validity – Ideally the numerator and denominator should both have the same year of origin.
- Group Equivalence Validity – The rates numerator and denominator should be based on the same student population.

# Entering Cohort – Program Improvement for Current and Future Students

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- Early cohort identification allows interventions to be designed, implemented, and evaluated.
- Outcomes can be impacted and tracked –
  - Time to formal award (degree/certificate).
  - Enrollment patterns.
    - Retention.
    - Continuous Enrollment.
    - Full and part-time course taking behavior.
  - Follows educational traditions. Conceptually aligned with secondary/HS graduation.
  - Avoids complications that can arise when individuals labeled as “leavers” return.

# 2P1 Entry Cohort Examining Outcomes

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- Entering 1st Time Freshmen – Career and Technical majors who are new to higher education.
- Tracked 3 years, 4 years & 5 years.
- Credit Hour Thresholds examined – college level.
- Earned 12 hours in 1st entry year only.
- Earned 12 hours over initial two years after entry.
- 1/3 of hours earned in 1st entry year only.
- 1/3 of hours earned over initial two years.
- 1/3 of hours based on cumulative hours..
- Looked at Graduation & Transfer and Graduation, Transfer & Retention in last year tracked.
- Collaboration with John Baj, Northern Illinois University Regional Development Institute.

## 2P1 – Tracking 3 Years

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- **Earned 12 hours in 1st entry year only.**
  - 40.1% Graduation & Transfer
  - 53.0% Graduation, Transfer & Retained
- **Earned 12 hours over initial two years after entry.**
  - 36.3% Graduation & Transfer
  - 53.7% Graduation, Transfer & Retained
- **1/3 of hours earned in 1st entry year only.**
  - 58.1% Graduation & Transfer
  - 66.6% Graduation, Transfer & Retained
- **1/3 of hours earned over initial two years.**
  - 51.0% Graduation & Transfer
  - 65.8% Graduation, Transfer & Retained
- **1/3 of hours based on cumulative hours.**
  - 44.7% Graduation & Transfer
  - 55.1% Graduation, Transfer & Retained

## 2P1 – Tracking 4 Years

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- **Earned 12 hours in 1st entry year only.**
  - 44.8% Graduation & Transfer
  - 51.6% Graduation, Transfer & Retained
- **Earned 12 hours over initial two years after entry.**
  - 41.9% Graduation & Transfer
  - 51.1% Graduation, Transfer & Retained
- **1/3 of hours earned in 1st entry year only.**
  - 61.6% Graduation & Transfer
  - 65.8% Graduation, Transfer & Retained
- **1/3 of hours earned over initial two years.**
  - 56.4% Graduation & Transfer**
  - 63.8% Graduation, Transfer & Retained**
- **1/3 of hours based on cumulative hours.**
  - 48.4% Graduation & Transfer
  - 54.3% Graduation, Transfer & Retained

## 2P1 – Tracking 5 Years

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- **Earned 12 hours in 1st entry year only.**
  - 47.0% Graduation & Transfer
  - 51.4% Graduation, Transfer & Retained
- **Earned 12 hours over initial two years after entry.**
  - 44.8% Graduation & Transfer
  - 50.3% Graduation, Transfer & Retained
- **1/3 of hours earned in 1st entry year only.**
  - 62.9% Graduation & Transfer
  - 65.9% Graduation, Transfer & Retained
- **1/3 of hours earned over initial two years.**
  - 58.9% Graduation & Transfer
  - 63.1% Graduation, Transfer & Retained
- **1/3 of hours based on cumulative hours.**
  - 50.2% Graduation & Transfer
  - 54.2% Graduation, Transfer & Retained

## 2P1 Entering Cohort Findings

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- Across 3, 4 and 5 years of tracking –
- 1/3 threshold yields consistently higher results than the 12 credit threshold.
- 1/3 of hours earned over initial two years is a more comprehensive/inclusive approach.
- 1/3 of hours earned over initial two years is nearly as comprehensive as using the cumulative hours.
- Including Retained in the Last Fiscal Year during the observation period can only improve results and recognizes students who are still engaged in the educational process as a positive.

# 2P1 Exiting Cohort

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- Exiting Cohort of Career and Technical majors.
- Includes graduates and individuals who exited in the observation year and did not return for two full semesters – Spring & Fall or Fall & Spring (IL WIA Approach). Transfers tracked forward.
- Group tracked backwards through data system to determine if exiters met credit thresholds.
- Credit Hour Thresholds examined – college level.
- Earned 12 hours in exit year.
- Earned 12 hours looking back over two years.
- 1/3 of hours earned in exit year only.
- 1/3 of hours earned looking back over two years.
- 1/3 of hours based on cumulative hours.

## 2P1 Exiting Cohort

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- Earned 12 hours in exit year – 1st year back.  
30.4% Graduated or Transferred.
- Earned 12 hours looking back over two years.  
38.4% Graduated or Transferred.
- 1/3 of hours earned in exit year only.  
52.7% Graduated or Transferred.
- 1/3 of hours earned looking back over two years.  
59.5% Graduated or Transferred.
- 1/3 of hours based on cumulative hours.  
41.0% Graduated or Transferred.

## 2P1 Exiting Cohort Findings

- 1/3 threshold yields consistently higher results than the 12 credit threshold.
- 1/3 of hours earned looking back over two years is close to the coverage of the 12 credit threshold.
- 1/3 of hours earned looking back over two years yielded the highest rate for exiting cohorts.  
59.5% Exiting Graduated or Transferred.
- Highest exiting rate comparable to highest entering rate for Graduation and Transfer –  
62.9% entering cohort 1/3 over initial two years (5 yrs).
- Lower than entering cohort Graduation, Transfer, Retained maximum rate –  
66.6% entering cohort 1/3 in entry year only (3 yrs).

# Recommendations Based on Examining the Data and Validity

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- 4 Year Tracking based on an Entering Cohort of first time freshmen of Career and Technical Education majors.
- Use 1/3 of hours earned over initial two years.
- This threshold best balances coverage and timeliness. Rates are as follows for IL –
  - 56.4% Graduation & Transfer
  - 63.8% Graduation, Transfer & Retained
- +7.4% Including retained in last fiscal year of observation period. This approach recognizes additional student progress and continued engagement in the educational process.
- Additional efforts to limit the denominator possible.

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