

USING LONGITUDINAL DATA TO IMPROVE STUDENT PERSISTENCE

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Research that Matters

What Will We Cover Today?

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- Reasons for using longitudinal data
- Reasons why it is not done
- Examples of what we can learn
- How can you set up a system at your institution

Why We Should Care

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- Deliver on promises
- Equity
- Revenue
- Accountability requirements

What Are Longitudinal Data?

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- Student level data that allow us to track students through their educational experience
- Start a new cohort of beginning students each fall
- Can use existing administrative data
- Define the indicators you want

Why do we Need Longitudinal Data?

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- Dropping out is seen as an important problem, but if we define the problem as dropping out of college it is too general; no one takes responsibility
- It is important to isolate the conditions associated with dropping out so that it is possible to assign ownership of the problem

Why do we Need Longitudinal Data?

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- Data reports keep the issue of student persistence visible in the institution
- Provides a way to evaluate interventions

If This is Such a Good Idea, Why Don't More Institutions Do It?

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- ❑ Money comes from the BIS index (butts in seats), so colleges use aggregate cross-sectional data to make decisions
- ❑ Institutional research offices are generally understaffed and do not participate in decision making
- ❑ Takes time and money to implement
- ❑ Results are seen as damaging

Example of Using Data

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ACHIEVING
THE DREAMSM

COMMUNITY

COLLEGES

COUNT

What is Achieving the Dream?

- A national initiative to help more community college students succeed
- Through the initiative, participating colleges commit to closing achievement gaps by assessing what is happening on their campuses and making lasting changes in their own practices and cultures

What is Achieving the Dream?

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- The work of the initiative is based on the premise of a data-driven institutional change model
- Participating colleges benchmark key student outcomes
 - ▣ Data are disaggregated by race, ethnicity, and income
 - ▣ Institutions adopt strategies to close achievement gaps, monitor progress, and share results broadly

Initial Community College Cohort

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- 37 community colleges in 7 states: Florida, New Mexico, North Carolina, Texas, Virginia, Ohio and Connecticut—more states being added soon
- At least 50% of first-time freshmen were Pell Grant recipients OR at least 33% of all students were African-American, Native-American or Hispanic
- This year, the effort expanded into Ohio and Connecticut

Achieving the Dream: Key Objectives

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To increase the percentage of students who accomplish the following:

- ❑ Complete remedial courses and move on to credit-bearing courses
- ❑ Enroll in and complete “gatekeeper” courses such as Introductory Math and English
- ❑ Complete courses with a “C” grade or higher
- ❑ Re-enroll from one semester to the next
- ❑ Earn certificates and/or degrees

The Framework for Institutional Change

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- Use data to identify the achievement gaps
- Engage the broad campus community to diagnose the arena for intervention
- Use evidence to select a strategy to close the gap
- Evaluate the impact of the selected strategy
- If successful, scale the strategy institution-wide

We call this framework a *Culture of Inquiry and Evidence*

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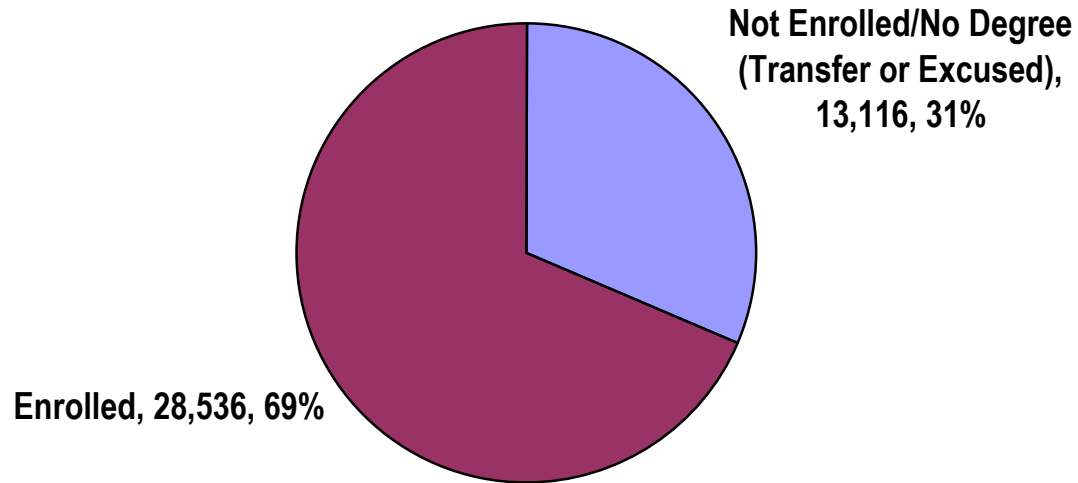
To use data effectively, colleges need to:

- Ask the right questions
- Find the right data
- Analyze the data with a critical eye

A process of critical inquiry and self-examination using data can:

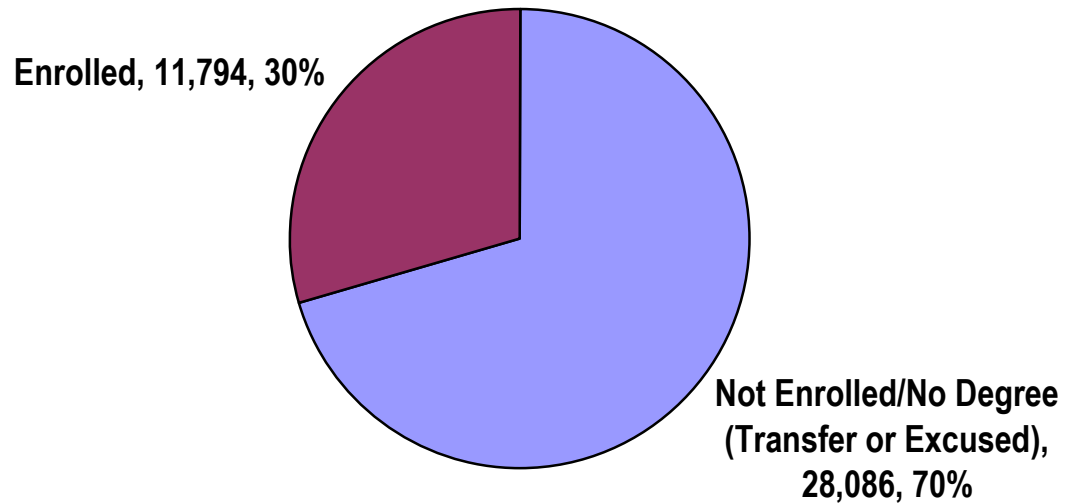
- help identify equity gaps and guide us to solutions
- challenge our assumptions and confirm our hypotheses
- benchmark our performance and monitor our improvement

Percentage distribution of AtD students by enrollment status at the end of year one: 2002 cohort*



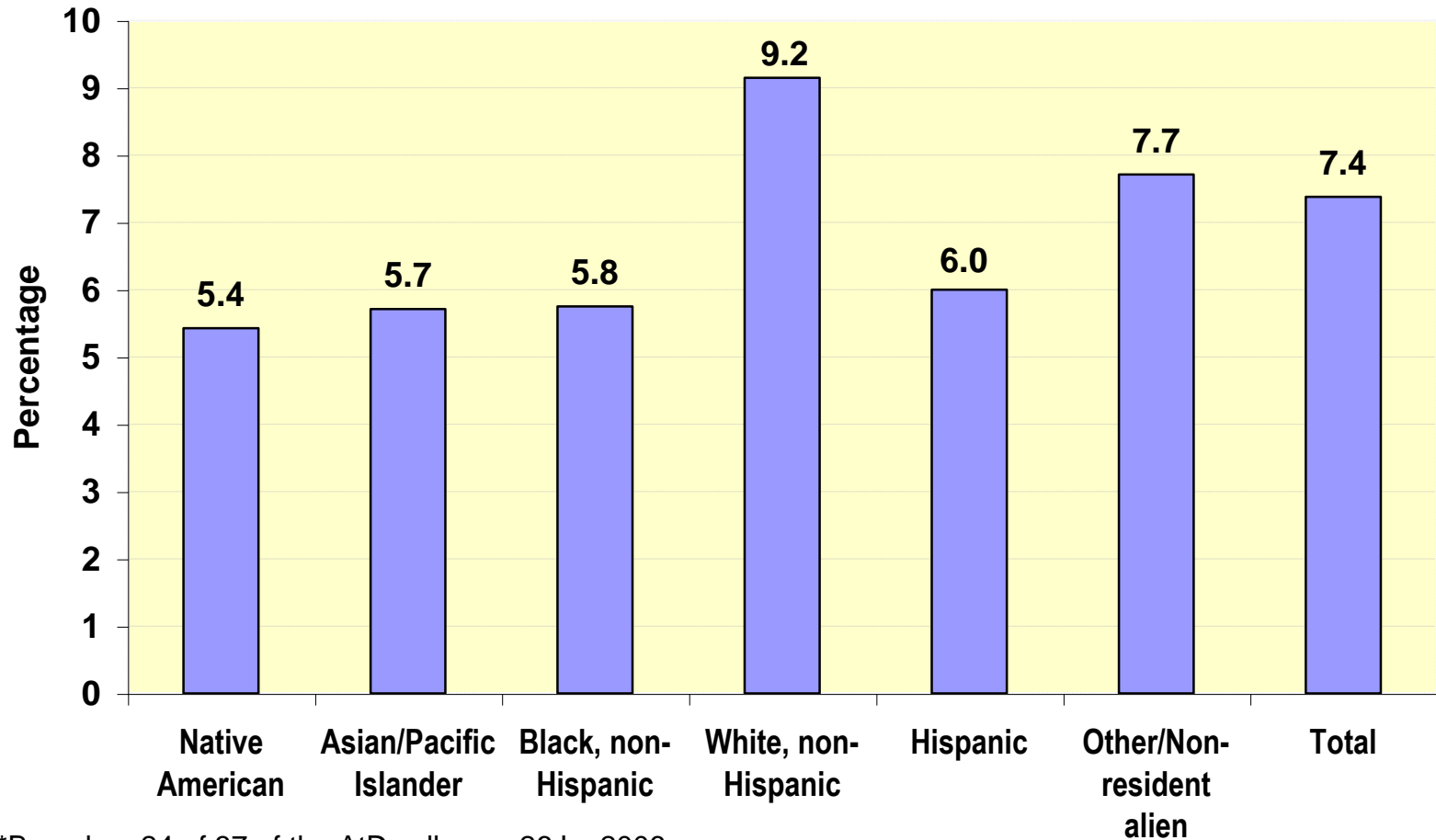
*Based on 24 of 37 of the AtD colleges; 26Jan2006 database.

Percentage distribution of AtD students by enrollment status at the end of three years: 2002 cohort*



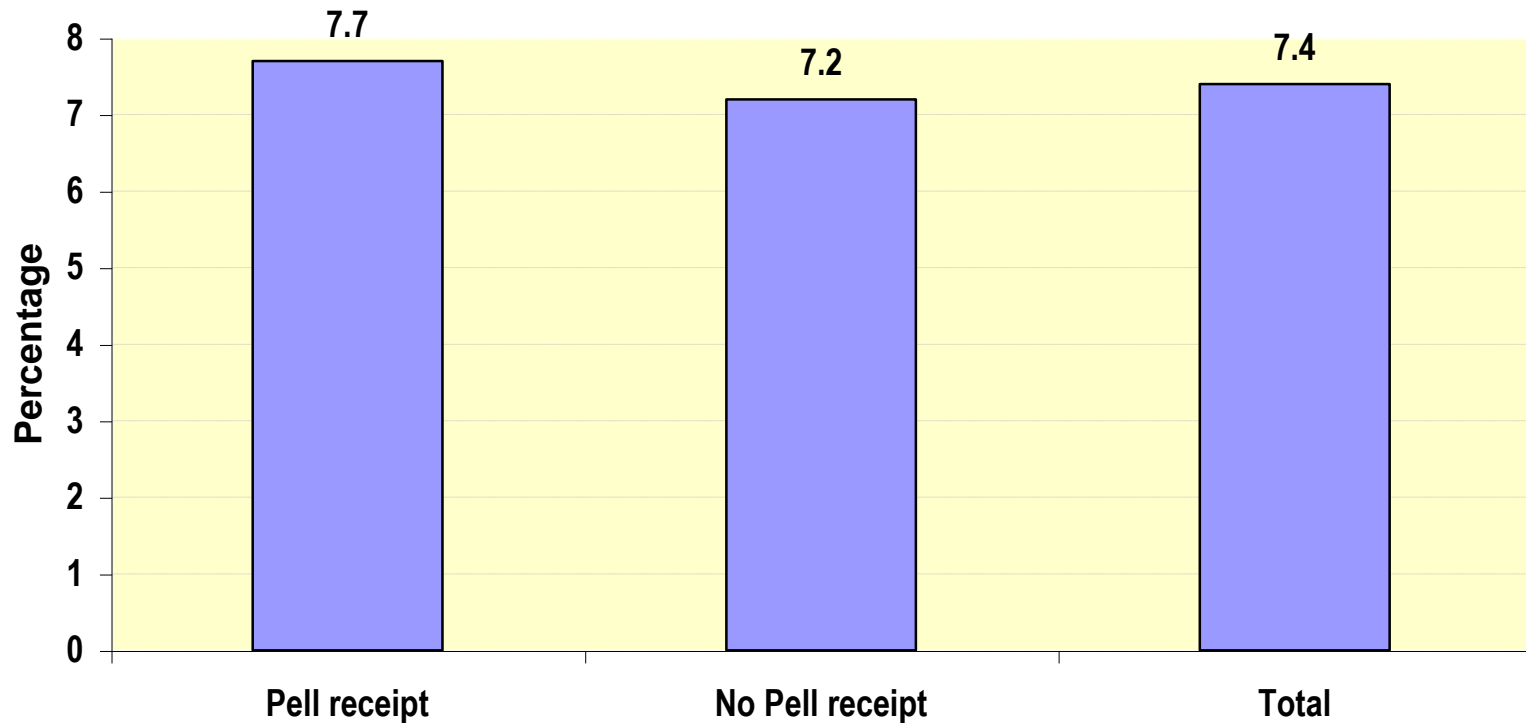
*Based on 24 of 37 of the AtD colleges; 26Jan2006 database.

Percentage of AtD students completing degrees/certificates/diplomas by the end of the third year, by race/ethnicity: 2002 cohort*



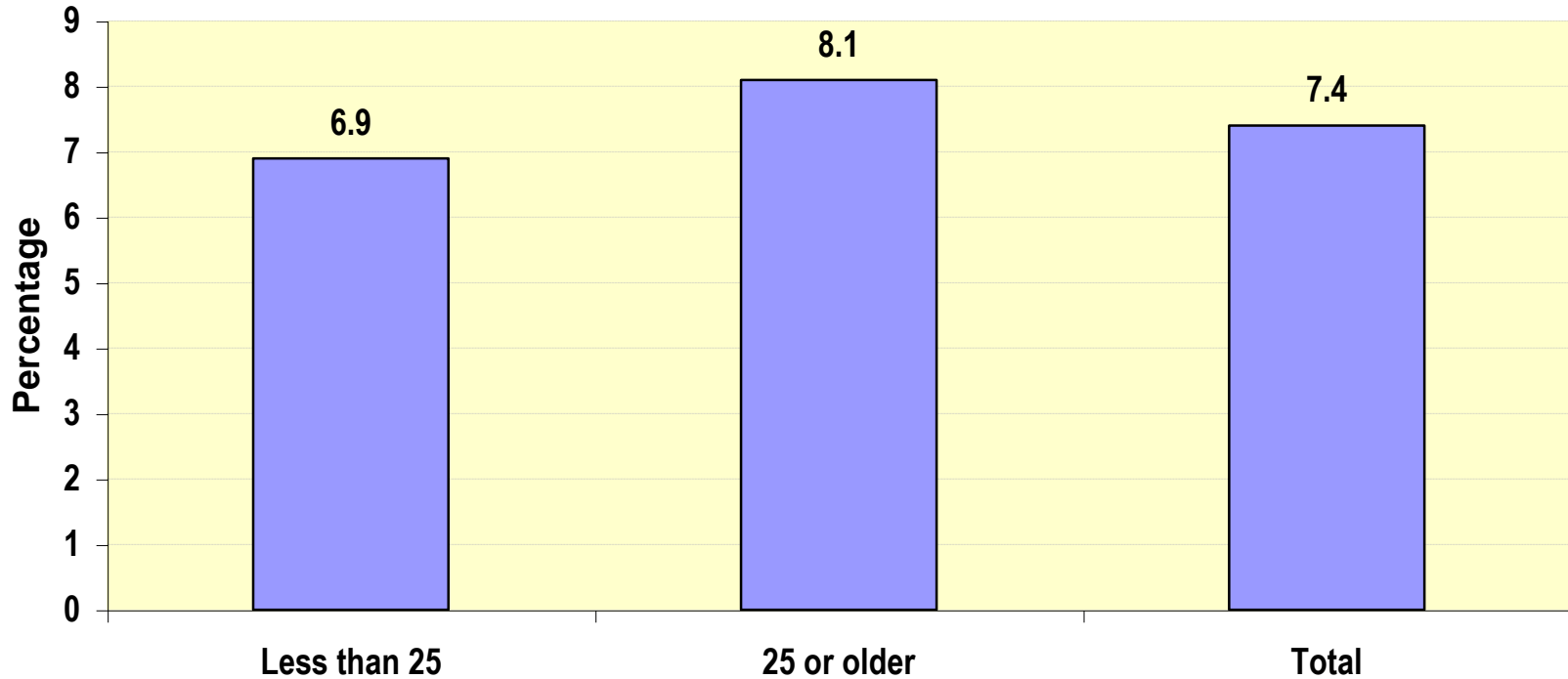
*Based on 24 of 37 of the AtD colleges; 26Jan2006 database.

Percentage of AtD students completing degrees/certificates/diplomas by the end of the third year, by Pell status: 2002 cohort*



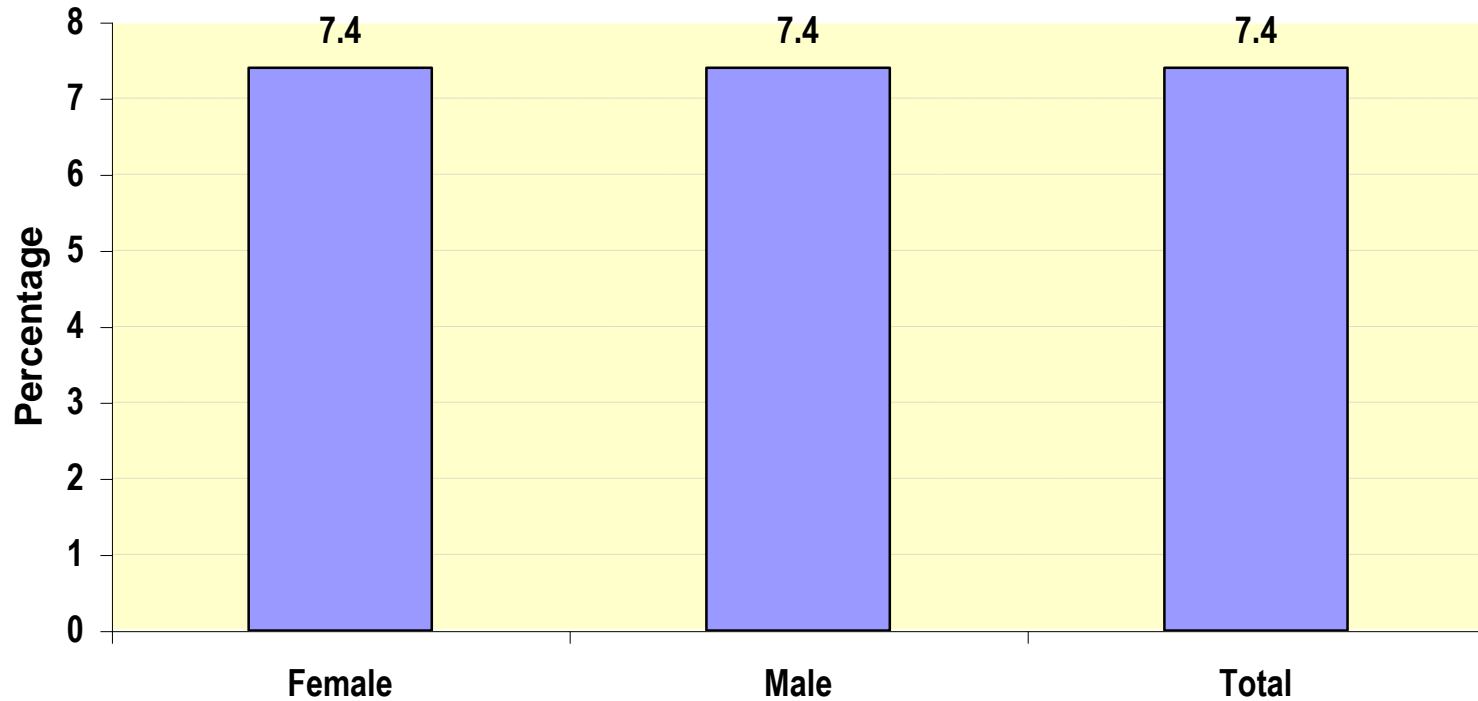
*Based on 24 of 37 of the AtD colleges; 26Jan2006 database.

Percentage of AtD students completing degrees/certificates/diplomas by the end of the third year, by age group: 2002 cohort*



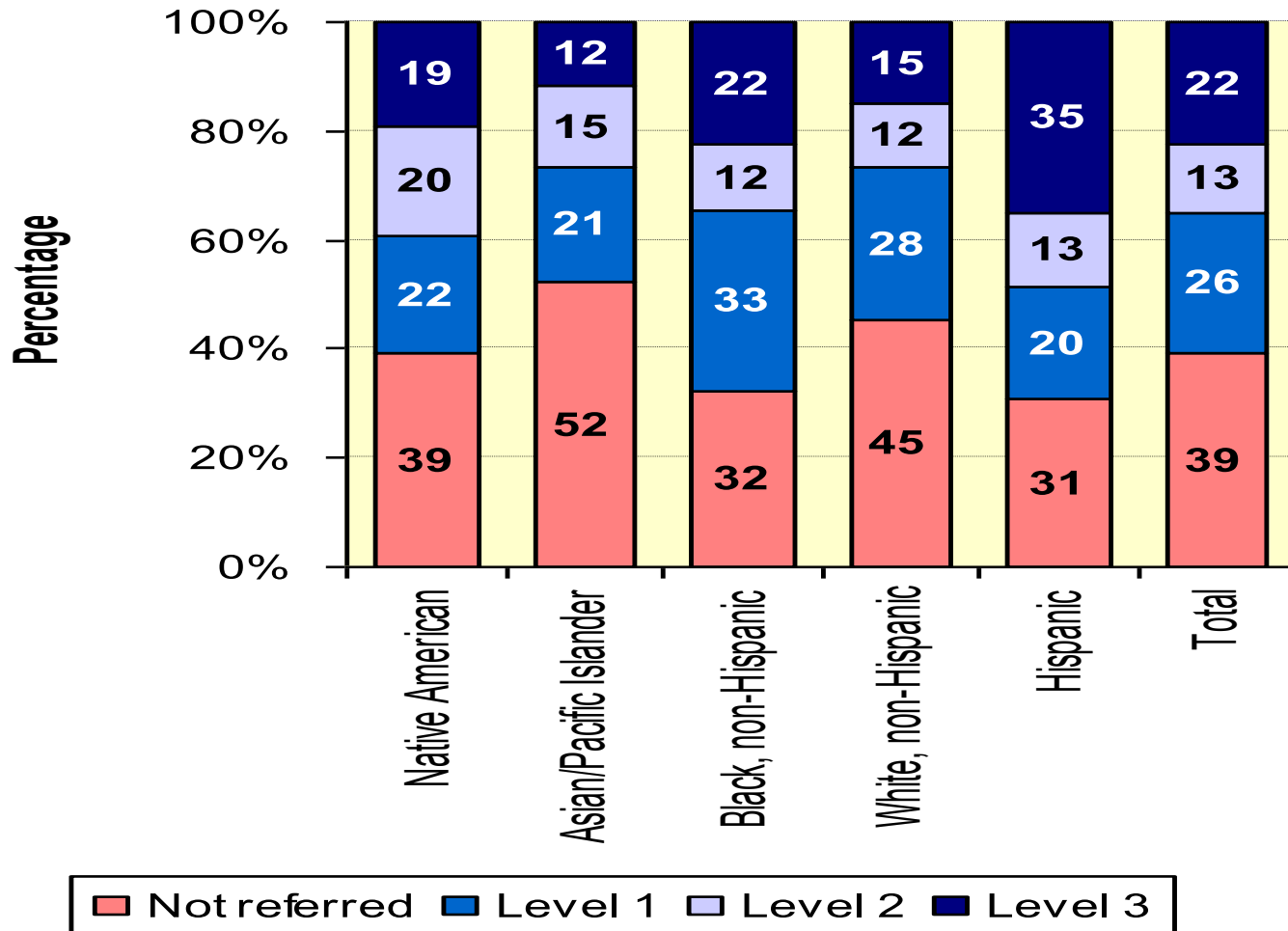
*Based on 24 of 37 of the AtD colleges; 26Jan2006 database.

Percentage of AtD students completing degrees/certificates/diplomas by the end of the third year, by gender: 2002 cohort*

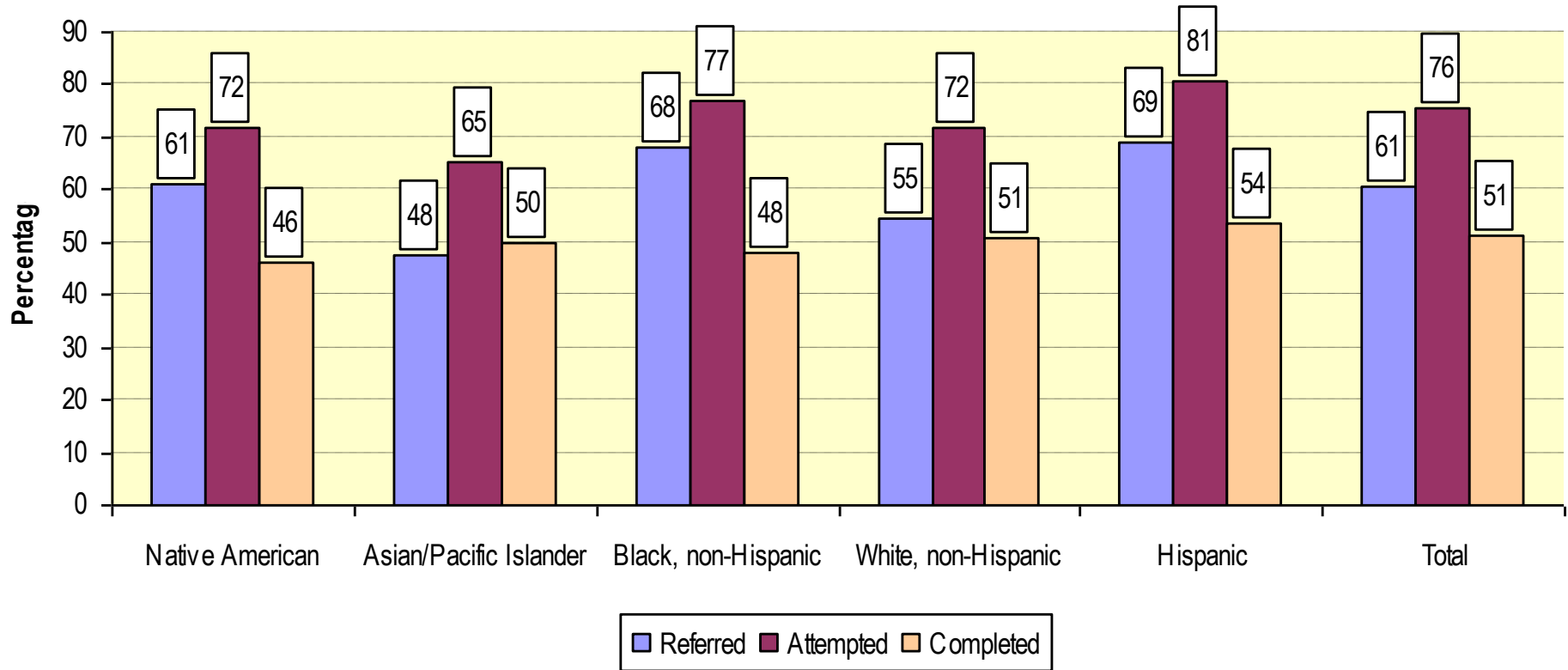


*Based on 24 of 37 of the AtD colleges; 26Jan2006 database.

Math Remediation

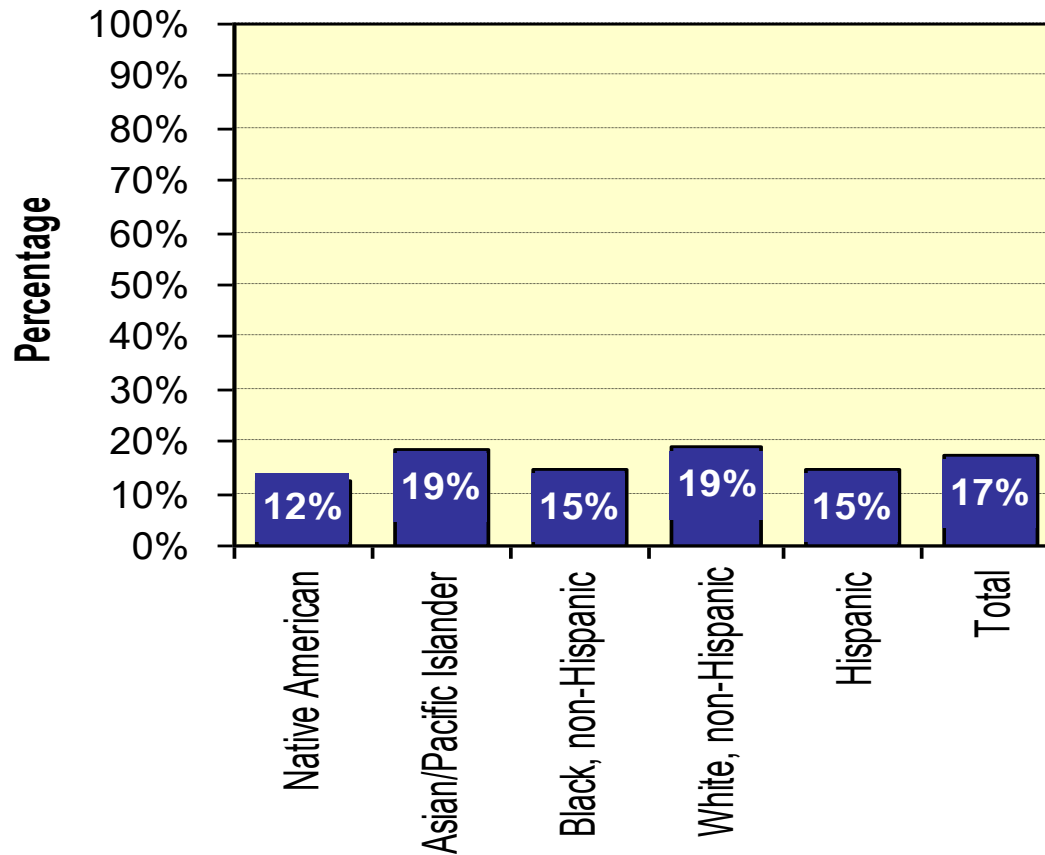


Math Remediation



Percent Completing All Remedial Math Requirements

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Other Longitudinal Data Efforts

College and Career Transitions Initiative (CCTI)

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- Longitudinal data tracking students from high school to community college
- 15 community colleges involved at the present time
- Goal to improve graduation and job placement

Berea Panel Study

(Todd Stinebrickner and Ralph Stinebrickner)

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- Collect detailed information several times a year that provides a comprehensive view of the decision-making process of college students
- Starts at pre-enrollment and follows students from entrance into post-college activity

Georgia Hope Scholarship

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- Cornwell-Mustard HOPE Scholarship Page
- Longitudinal data are used to evaluate the effects of the HOPE scholarship on student educational behavior

Ford Foundation's Bridges to Opportunity

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- Colorado, Kentucky, Louisiana, Washington
- Developing a common framework for the effective collection, analysis, and use of data on student outcomes
- Helping states develop plans for tracking the experiences and progress of community college students (including subgroups disaggregated by income, race, age, educational background, and other characteristics)
- Using the data to improve decision-making at the state and college levels

Other States Developing Longitudinal Data Systems

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- Arkansas
- Florida
- Kentucky
- Louisiana
- Ohio
- Texas
- Vermont

ACT

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- A series of tools to help identify students at risk of dropping out
- Includes tests and evaluation tools

It is
Easy to Do

You Already Have the Data

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- Colleges are data rich and information poor
- It is a matter of reorganizing data you already have
- Start with student attributes
- Add indicators of progress each semester
- You can disaggregate student groups and identify where the system is failing

The Trick is to Use the Data

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- Each college needs to define its own priorities
- Each college needs to define its own solutions
- Data provide a tool that helps you do this
- Data allow you to determine if your efforts are making any difference

Steps

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- Set up a committee to lead the effort, and include the IT and IR offices
- We will share our data collection and format as a model, but you can develop your own
- Start with baseline data (the class that started two years ago) so you can see how you are doing
- Decide which indicators are important

Steps

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- Format output that is easy to use and meaningful to decision makers
- Use the data to make the case that something needs to be done
- Engage faculty and responsible administrators in defining the specific problems to solve
- Do something, do not just study it

Take Away Questions

- How will this process fit into our college and improve student achievement?
- What data address our most pressing issues and questions related to student outcomes?
- Are we currently collecting data that do not inform the urgent issues related to student outcomes?
- How does the data process not only help inform what students are doing, but also help understand what the college is doing?

Take Away Questions

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- What is required of campus leaders in order to make the data process effective in our college?
- What are the limitations of data in our college?
- Who should be on data teams and what is their purpose?

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