What is Institutional Research?

Santa Monica College
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Office of Institutional Research

Workshop Overview

✓ Intro to Institutional Research (IR)

✓ IR at SMC

✓ Types of Data

✓ Types of IR Services

✓ Making the Best of IR Services **(Help us help you)**

✓ Culture of Inquiry

✓ IR Tools and Resources

Introduction to Institutional Research

- **Definition:** IR is a set of activities that support institutional planning, policy development, and decision making
  - Evaluation
  - Strategic planning and planning
  - Budget analysis
  - Enrollment management
  - Research studies

- Evolution of IR:
  - Early 1990's to late 2000's – focus on reporting numbers and percentages
    - Relied on standard data reports, similarly to TIMS
  - Since early 2000 – focus on assessment and evaluation

IR at SMC: Mission

MISSION:

The Office of Institutional Research at SMC strives to support the college's mission and commitment to student learning and success by providing quality, accessible, reliable and relevant information to facilitate decision-making and planning processes, enhance institutional effectiveness, and promote a **culture of evidence-based inquiry.**

IR at SMC: Core Functions

Program and Department Support
- Program review
- SLO assessment
- Planning & assessment
- Reporting requirements

College-Wide Support
- Institutional Effectiveness
- Initiatives – planning & assessment
- Committees – planning & assessment
- Grant – proposal & evaluation

Mandates
- Validate placement exams and course prerequisites
- Respond to federal & state reporting requirements

Office
- Maintain standard set of data reports
- Participate in campus dialogue
- Expand research capacity – educate
- Review requests to conduct research with SMC human subjects

IR at SMC

- **Research Advisory Board**
  - Advise IR office in prioritizing research and setting a research agenda
- Office Staff
  - Director: Hannah Alford
  - Research Analysts: Ani Aharonian, Daniel Berumen

Types of Data

Administrative (Regularly Collected)	Original (Need to Collect)	
Semester or older	Quantitative	Qualitative
Student-level: •Demographic & background •Course enrollment •Course grade, certificates & degrees •Placement results •Participation in counseling & tutoring** •ILO •Financial aid received Course-level: •Course details by section (basic skills status, distance learning status, day/evening, etc.) Aggregate: •Transfers to four-year	Examples: Survey/ questionnaire Student performance	Examples: Survey/ questionnaire Focus group Interviews Text analysis

Types of Data: Administrative Data

- ## Limited access
  - ### Live data in ISIS
  - ### Student contact information
  - ### Data collected but not regularly reported (i.e., parent's highest education, major)
- ## No access
  - ### Reports not produced by SMC IR
  - ### Census
  - ### What happens to students once they leave
  - ### Data about other schools

IR Services

- Data dump (for own analyses)
- Conduct research
  - Assist in formulation of research questions
  - Develop tools to collect data
  - Administer (collect) data
  - Analyze and organize data
  - Provide narrative (interpreting analysis findings)
  - Present findings
- Provide training, facilitate discussion of data
- Reporting requirements

Help Us Help You: Making Best Use of IR
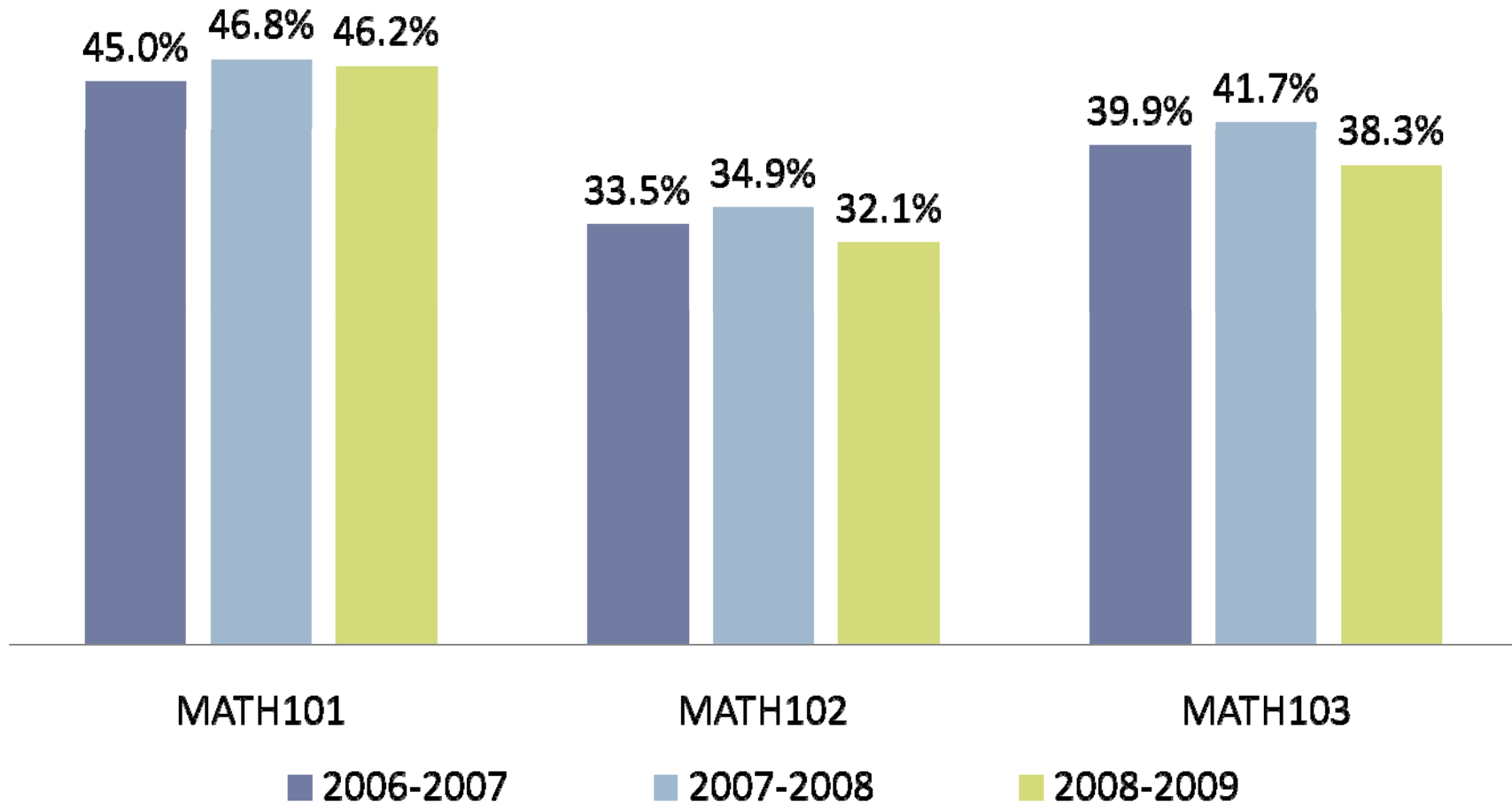
- Dialog
  - Fosters culture of inquiry
  - Generates research questions and plans of action
- Planning ahead
  - Involve IR early
  - Allow enough time for requests
- Begin with a research question
- Think action
  - Plan how data will be used

Inquiry Process

- Inquiry process
- State of research in community colleges
- Research questions
- Research plan –
  - collecting data to inform plan/goals
  - collecting data to evaluate plan/goals

Successful Course Completion Rates

Mock Data

	MATH101	MATH102	MATH103
2006-2007	45.0%	33.5%	39.9%
2007-2008	46.8%	34.9%	41.7%
2008-2009	46.2%	32.1%	38.3%

Inquiry Process

Most of my students are employed… they are juggling school and work which is a barrier

Lot of students have childcare issues which affects their ability to come to class

Students aren't utilizing the math lab services
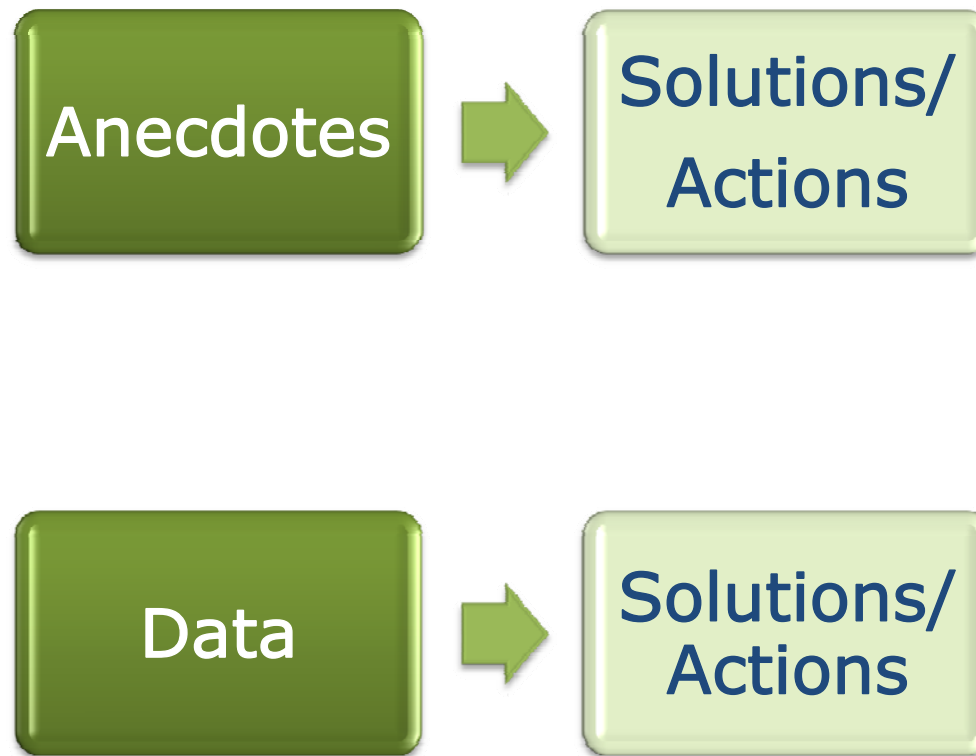
Inquiry Process

Brainstorm

- Other reasons you believe students are achieving low success rates in math?

- Solutions/strategies/actions based on the anecdotes or hunches

Findings from a Math Study (Not SMC)

SURVEY	ADMINISTRATIVE DATA	FOCUS GROUPS/INTERVIEWS
▪Only 1/3 of students enrolled in math courses were working at least part time ▪Fewer than 10% of math students were caring for children/other family members ▪Half of students have utilized math lab services ▪Two-thirds of students reported studying fewer than 2 hours a week for their math course	Students who utilized math lab services did not have higher courses success rates than students who did not	•Students are dissatisfied with math lab services •Tutors are ineffective – 'cannot teach to my level'

Inquiry Process

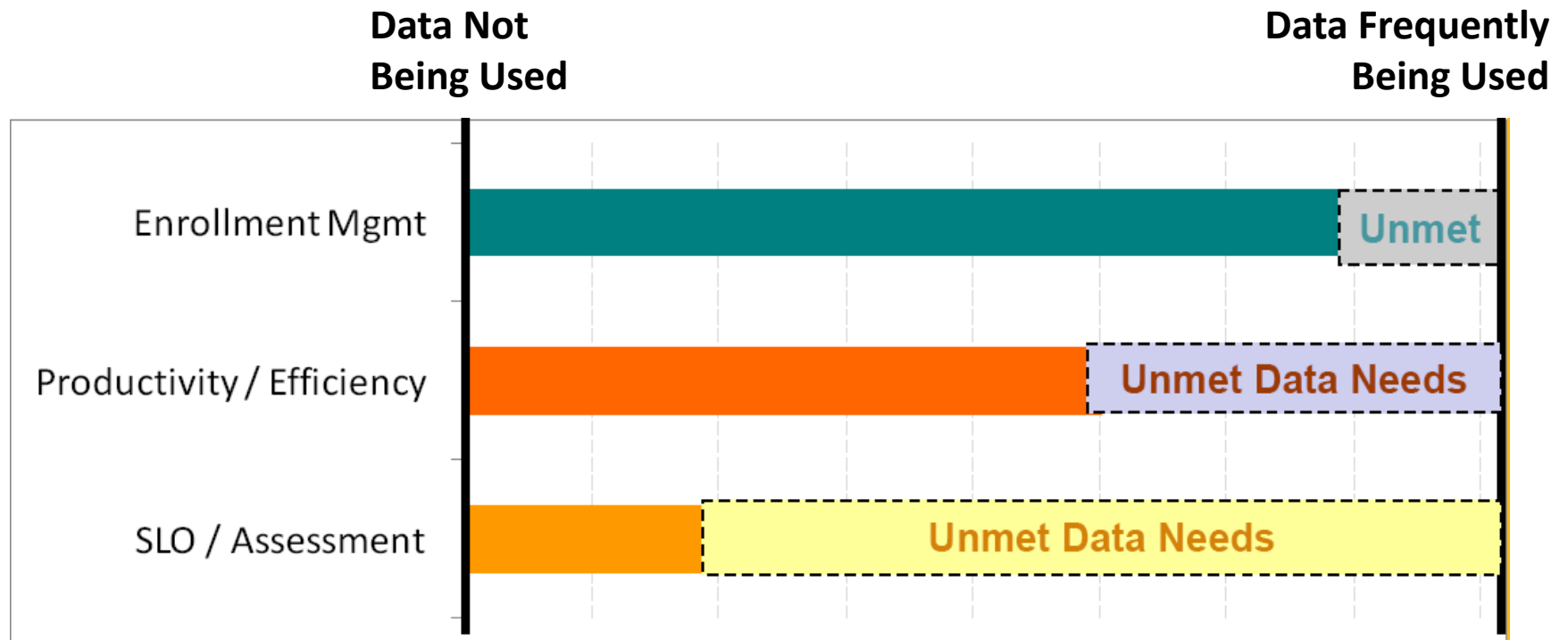# Typical Data Use Process

Inquiry Process
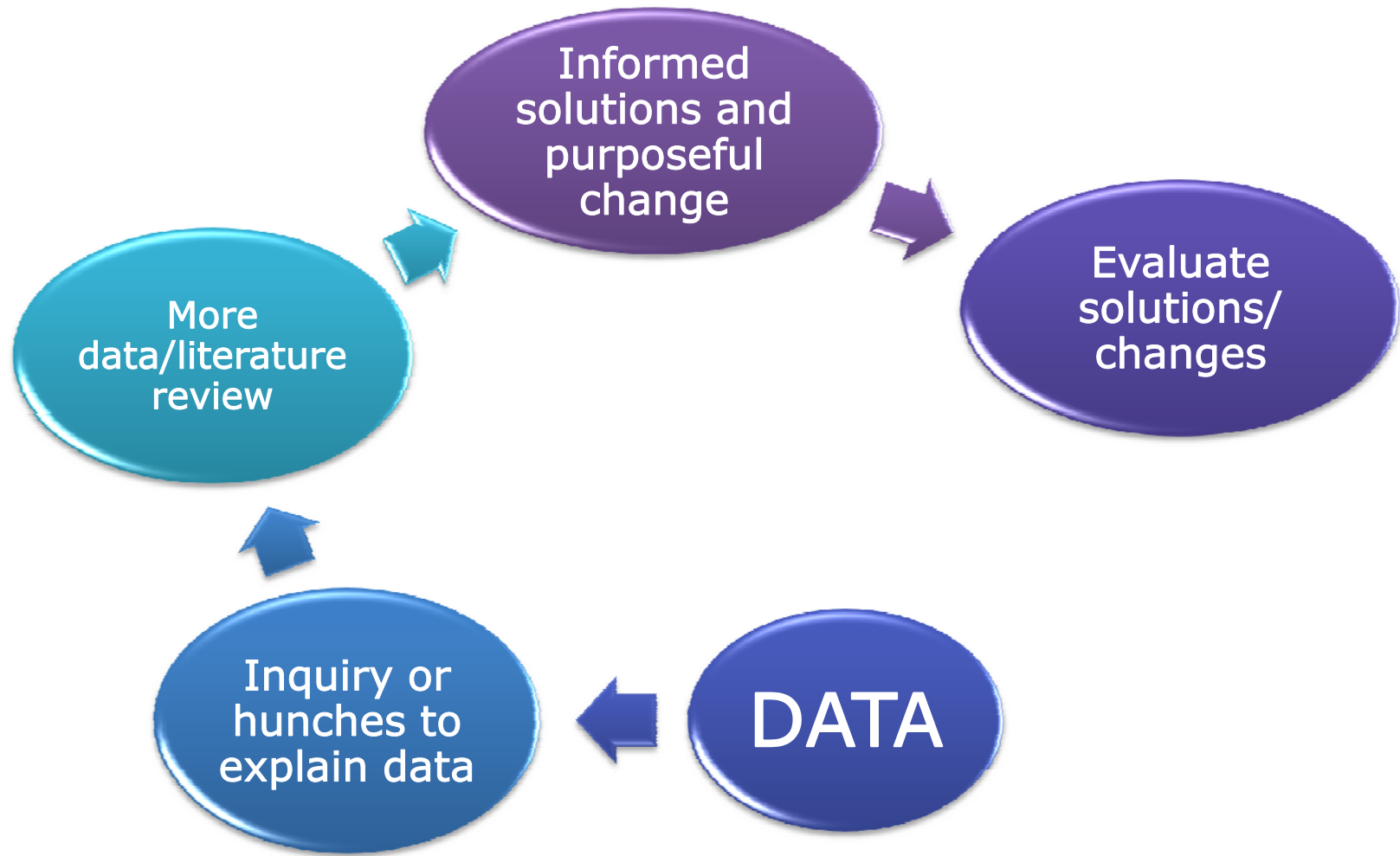
State of Research in Community Colleges

- Research and Planning Group of California (RP Group) conducted a survey of data use in community colleges
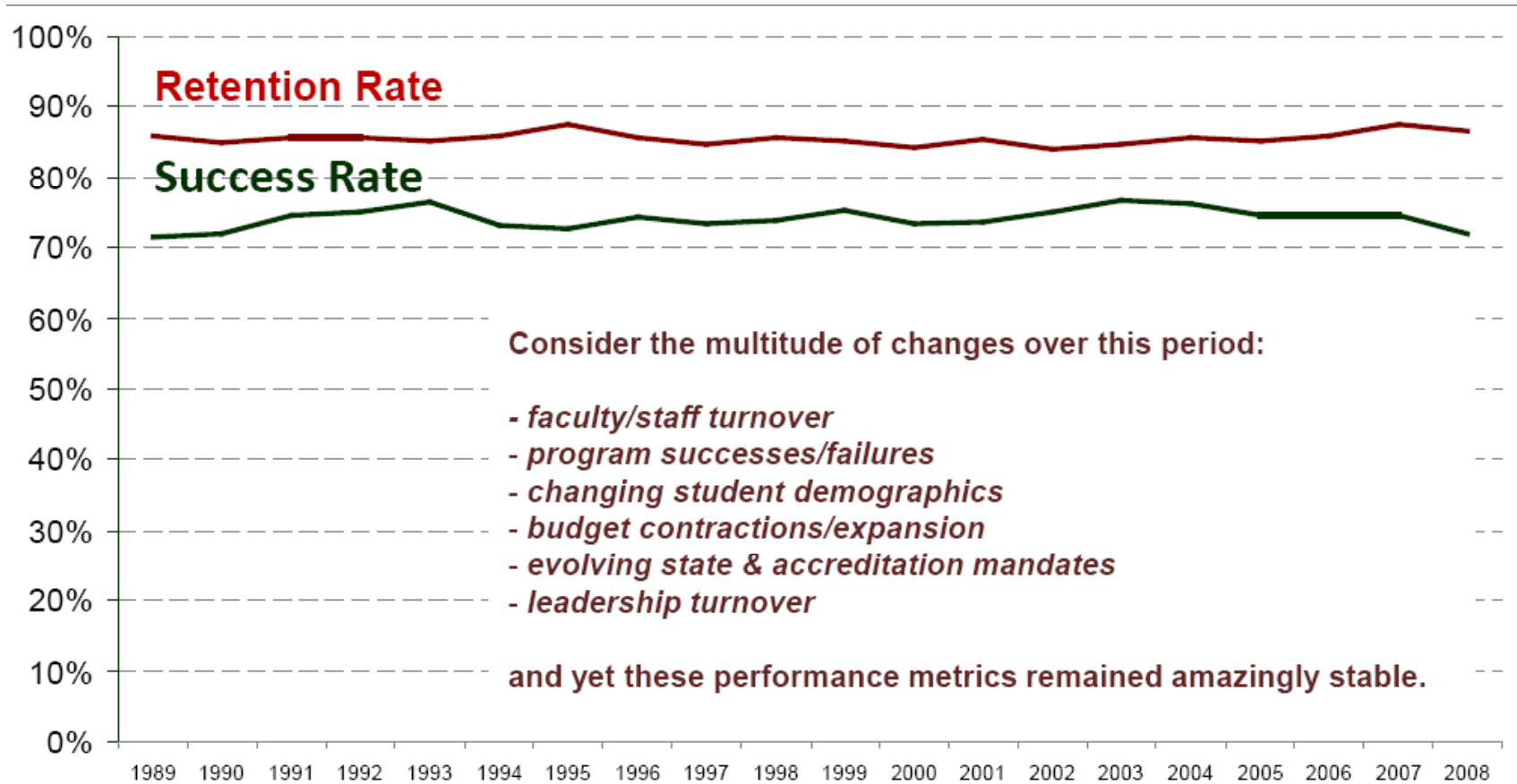
Findings:

  - Study found that colleges are *data rich but information poor*
  - Colleges may be focusing on the *wrong data*

Study found that colleges are *data rich but information poor*

	Data Not Being Used		Data Frequently Being Used

Enrollment Mgmt — **Unmet**

Productivity / Efficiency — **Unmet Data Needs**

SLO / Assessment — **Unmet Data Needs**

Source: RP Group 2009, BRIC Project

Inquiry Process

Colleges may be focusing on the *wrong data*

Consider the multitude of changes over this period:

- faculty/staff turnover
- program successes/failures
- changing student demographics
- budget contractions/expansion
- evolving state & accreditation mandates
- leadership turnover

and yet these performance metrics remained amazingly stable.

Source: RP Group 2009, BRIC Project

Inquiry Process

State of Research in Community Colleges

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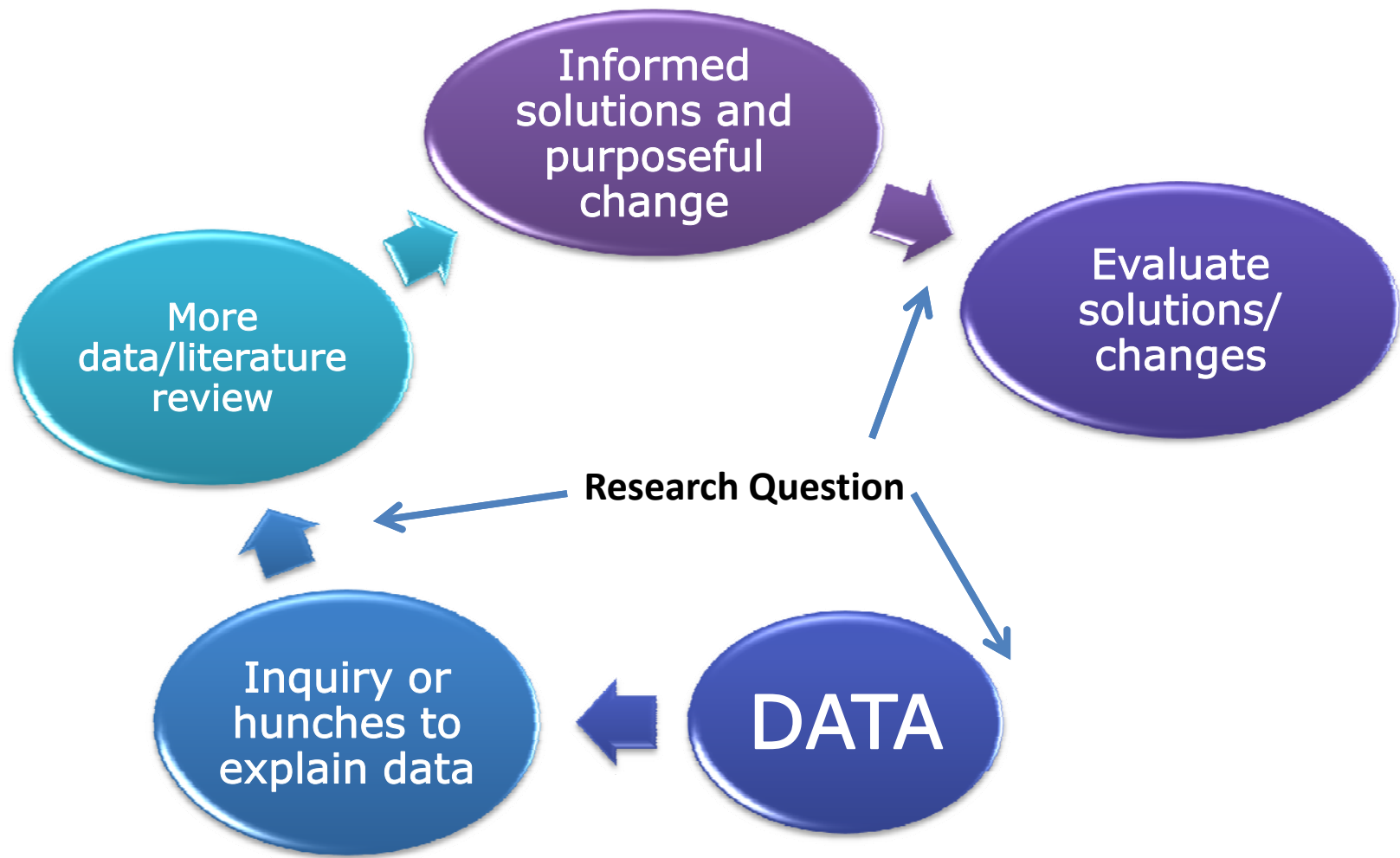
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Solution?

ASK THE RIGHT RESEARCH QUESTIONS

Inquiry Process

Steps: Gathering Data

Purpose → Research Question → Methods

Research Purpose

Purpose	Description	Example
Basic or Applied	Generation of new knowledge	What is the relationship between student-faculty interaction and academic self-concept?
Summative Evaluation	Determine effectiveness of products, processes, programs, and organizations	Does participation in the EOPS program increase term-to-term persistence?
Formative Evaluation	Ongoing improvement of products, processes, programs, and organizations	What are the strengths and weaknesses of the AAPIA program?
Action (Problem Solving)	Solve and important local problem of practice for the benefit of study's stakeholders	Why do gaps in transfer rates between ethnic/race groups exist at SMC?

Inquiry Process

Research Questions

- ## Important/relevant
  - Salient and credible to stakeholders

- ## Clear and well-focused (specific)
  - Answer should be informative and lead to strategies for improvement, etc.
  - Answer should be focused on things we can control

- ## Answerable
  - Through collection of quantitative or qualitative data/evidence

Types of Research Questions

- Descriptive: *What is happening?*

- Causal: *Is there a systematic effect?*

- Process or mechanical: *Why or how is it happening?*

Methods

Research question dictates the method of data collection: qualitative, quantitative, or mixed

- Quantitative → numeric
- Qualitative → narrative

Research Design

- A series of step to follow that is designed to answer a research question

  - **Method:** Qualitative, quantitative, mixed

  - **Unit of analyses:** Individual, group, program components, whole program, organizations, etc.

  - **Measurement tool:** surveys, focus group, interview, administrative data, etc.

  - **Logistics:** when will the data be collected? For how long? Who will collect the data?

Inquiry Process

In Summary···

- Inquiry process ensures that data will be 'action-able'

- Asking the right research questions will generate data that informs the development of appropriate solutions and goals

- Asking the right research questions will help us determine whether the solution or goal is 'working' – effectiveness

- The research question dictates the method of data collection

Resources

- Office of IR
  - Website Documents
  - Newsletter Blog
  - Staff development resources
- Other Resources
  - Chancellor's Office
  - Cal-Pass SMART tool
  - CPEC
  - Survey Gizmo (contact IR)

Chancellor's Office

Cal-Pass SMART tool

What are our success rates by TOP code by fall terms?

Measures and Dimensions :
- Measures
  - Course Enrollment Count
  - Distinct Student Count - CP
  - FTES-CP
  - Retention Rate
  - Success Rate
  - Course Enrollment Count Column
  - Course Enrollment Count Row Pe
- Accounting Method
- Age at Term
- Basic Skills Status
- College
- Course Hierarchy
- Credit Status
- Day Evening Class
- Department
- Disability
- Ethnicity
- Gender
- Grade
- Level Below Transfer
- SAM Code
- Time Period
- TOP Code
- Transfer Status

Filter/Slicer :
College : All

Chart | Grid

Series :
Measures
Time Period

Success Rate by Time Period by TOP Code

Success Rate

	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008
Architecture and Related Technologies	67.20%						
Biological Sciences	62.08%	68.55%	66.99%	63.54%	66.08%	65.22%	64.84%
Business and Management	64.72%	70.83%	63.57%	63.65%	60.64%	60.73%	61.23%
Commercial Services	82.39%	78.16%	79.49%	72.64%	81.18%	68.77%	68.40%
Education	74.94%	77.86%	71.26%	74.56%	74.12%	73.63%	72.34%
Engineering and Industrial Technologies	70.05%	56.25%	76.19%	41.03%	44.44%	37.04%	44.83%
Family and Consumer Sciences	73.95%	76.11%	71.32%	72.81%	69.82%	68.52%	68.99%
Fine and Applied Arts	71.11%	72.75%	68.59%	67.59%	68.41%	67.66%	69.68%
Foreign Language	65.72%	63.48%	64.48%	63.17%	67.03%	66.24%	65.12%
Health	74.70%	83.39%	81.28%	82.78%	80.02%	79.66%	82.85%
Humanities (Letters)	68.85%	69.30%	68.45%	65.25%	64.52%	65.65%	65.98%
Information Technology	60.65%	66.70%	62.08%	60.24%	61.18%	63.11%	65.08%
Interdisciplinary Studies	70.28%	71.10%	69.12%	70.26%	68.12%	66.30%	69.77%
Law			0.00%				0.00%
Library Science	71.26%	60.19%	46.90%	50.63%	62.28%	55.04%	51.28%
Mathematics	49.25%	47.53%	48.92%	49.51%	48.92%	49.62%	47.69%
Media and Communications	74.18%	76.05%	69.35%	70.02%	69.03%	71.82%	73.72%
Physical Sciences	68.02%	68.41%	65.01%	65.91%	66.85%	66.43%	64.73%
Psychology	67.00%	67.01%	60.82%	59.49%	61.58%	61.61%	63.18%
Public and Protective Services	68.59%		86.67%	56.00%			
Social Sciences	64.86%	65.74%	64.81%	64.05%	64.24%	63.20%	64.33%

Categories :
TOP Code

CPEC

CA.GOV Postsecondary Education Commission

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Custom Reports | Trend Analysis | Transfer Pathways | Freshmen Pathways | High School | School Codes X-Walk | Reproduce Report |

Custom Data Reports

Fully customize data reports -- select which columns or fields to include and specify the filters so that you get only the data you need. The data reports are generated data available. View a table showing this information.

NOTE:
Most data available from this system is for the **Fall term** of the academic year selected unless otherwise noted.

First-Time Users: Instructions are available on how to use this system.

How to do it: Watch a short video (5:51) to see how easy it is.

Select a Data Report

Higher Education Enrollment
General Enrollment Numbers
First-Time Students
College-Going Counts
Majors / Instructional Program Enrollment
Full-Time Equivalent Enrollment

Transfers to Higher Education
Fall-Term Transfers to Private and Public Institutions
Full-Year Transfers to Public Institutions

Degrees Awarded / Completions
General Degree / Completion Numbers
Degrees / Completions in Majors / Instructional Program

Grade School and High School
Enrollment by Grade Level
Public High School Data
Private High School Graduates

Questions?

Thank you!!!