

Completion and Attrition in STEM Master's Programs

The **CGS** Study and the Wright State University Response

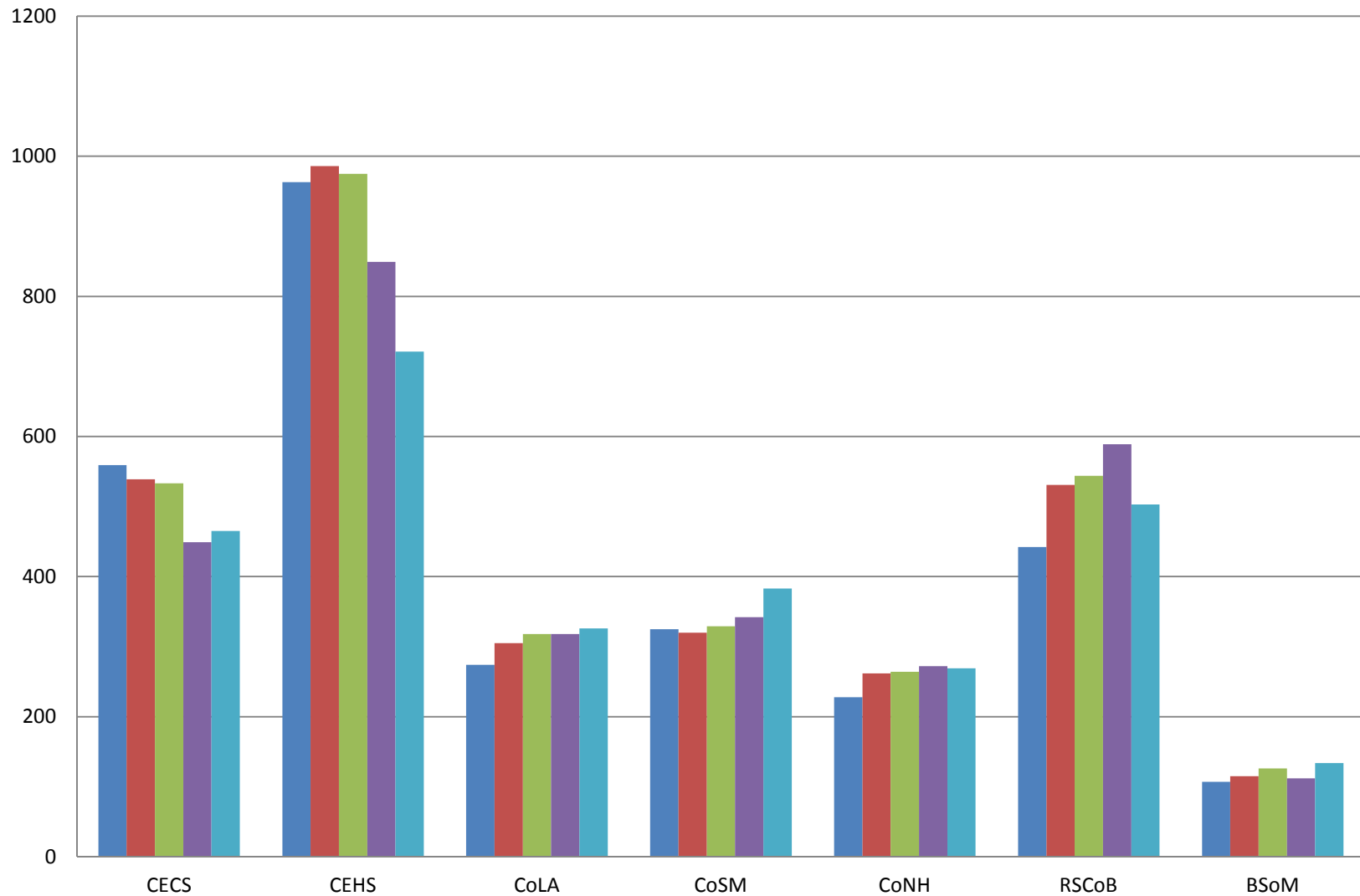
Andrew Hsu
Graduate School
Wright State University
December 6, 2012

Wright State University

- Public Research University
- 10 Colleges:
 - Business, Education, Engineering, Liberal Arts, Nursing, Medicine, Prof Psychology, Sciences, Graduate School, Lake Campus
- Total Enrollment: 19,820
- Graduate and Professional: 4,200
- 65 Graduate Programs
- Research and Sponsored Programs: \$100M

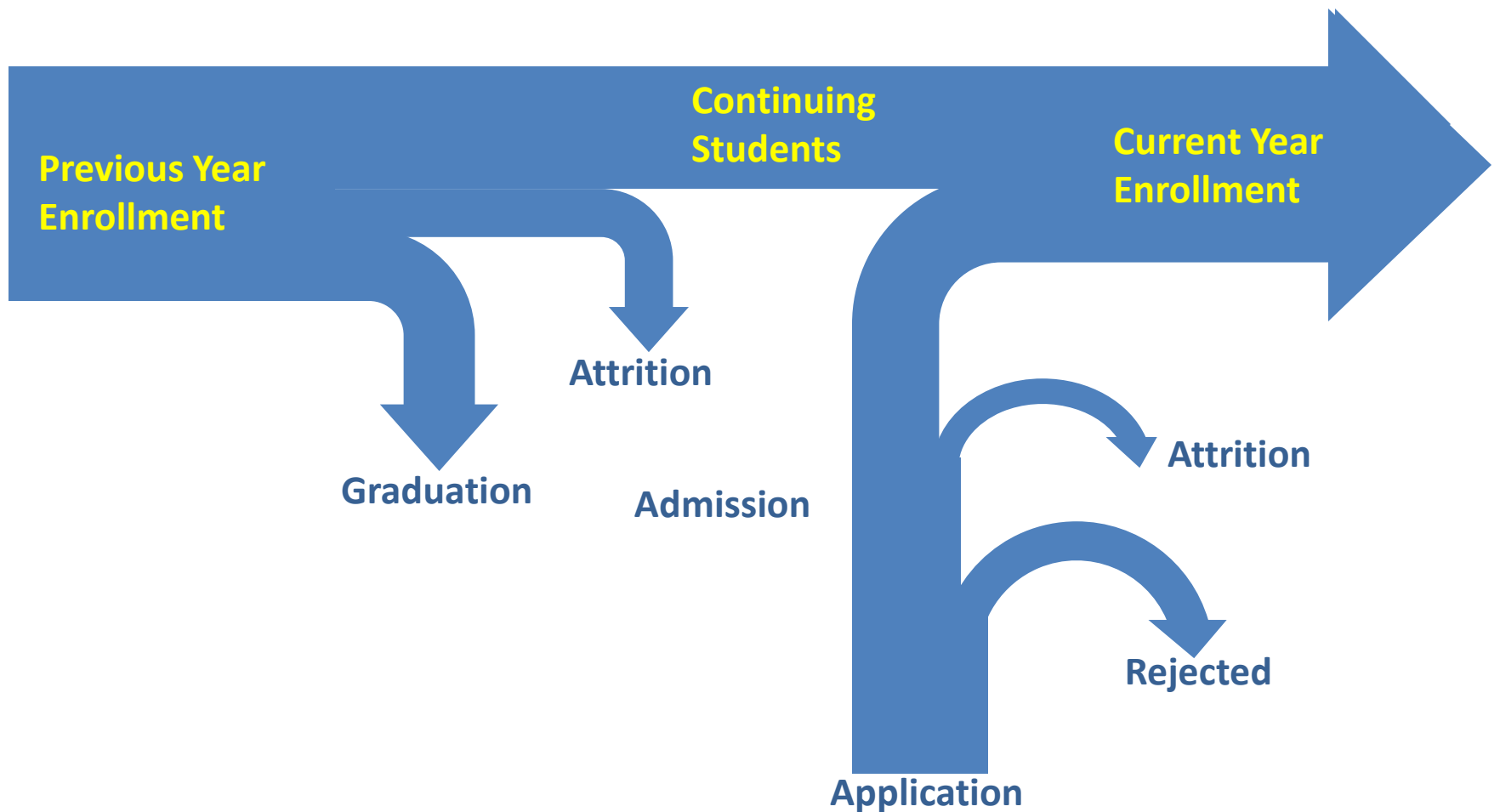
Day 1 Enrollment by College

Day 1 Enrollment: F2008-2012



Graduate School Missions Enrollment Management

$$\text{Enrollment} = (\text{Pre-Yr-Enrollment} - \text{Graduation}) * \text{Retention\%} + \text{Admission} * \text{Yield\%}$$



Wright State Participation in the CGS STEM+MPA Attrition Study

- CGS study fits well with the WSU Graduate School goals
- WSU collected a dataset of all graduate students across all programs from Fall 2006 to Winter 2011
- CGS Surveys of incoming and graduating graduate students in MS programs in STEM + MBA

CGS STEM+MBA Attrition Study

Survey Data

Surveys of Graduating Students – Fall 2011, Winter 2012, Spring 2012 (163 students responded)

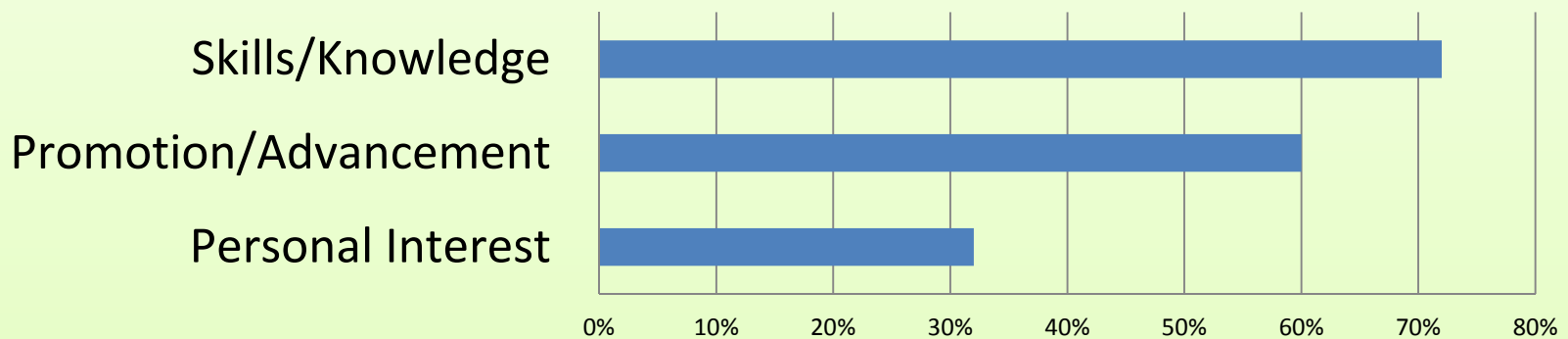
General Conclusions

- **Work** and **Money** are important issues for our students
- Students are very sensitive to issues surrounding the **quality of faculty, advising,** and **convenience/accessibility** of the program
- Graduate students have a **wide variety of circumstances** that make generalizations difficult

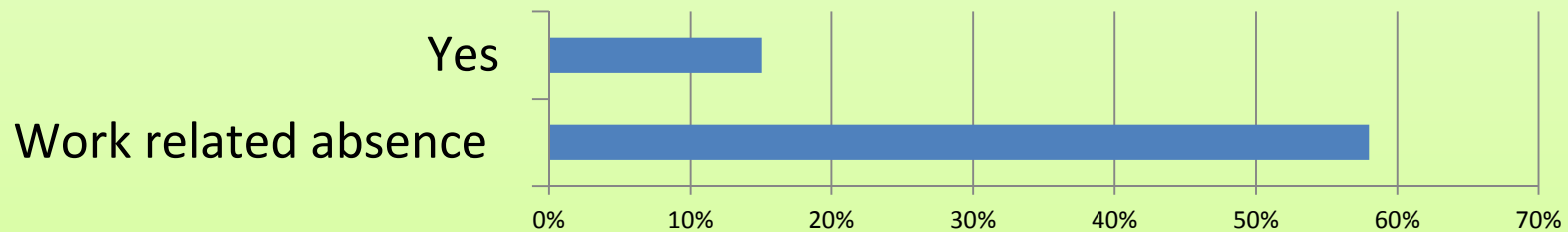
CGS STEM+MBA Attrition Study

Survey Data

- Three top reasons to enroll in their graduate program:



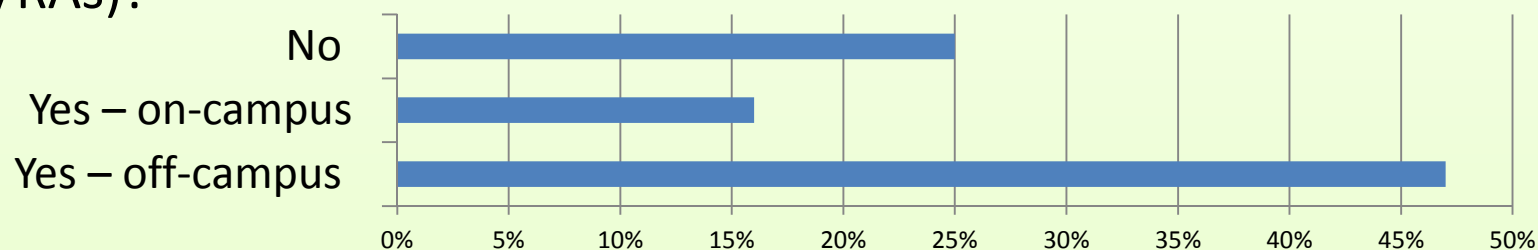
- Have you taken a leave of absence since starting your program?



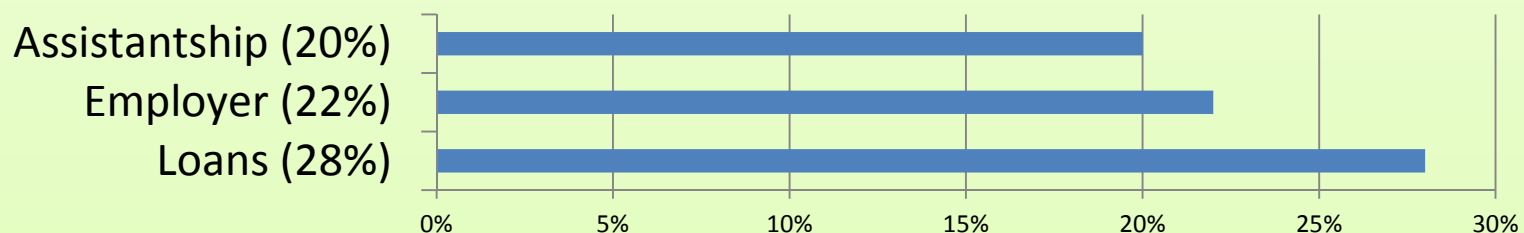
CGS STEM+MBA Attrition Study

Survey Data - Financial

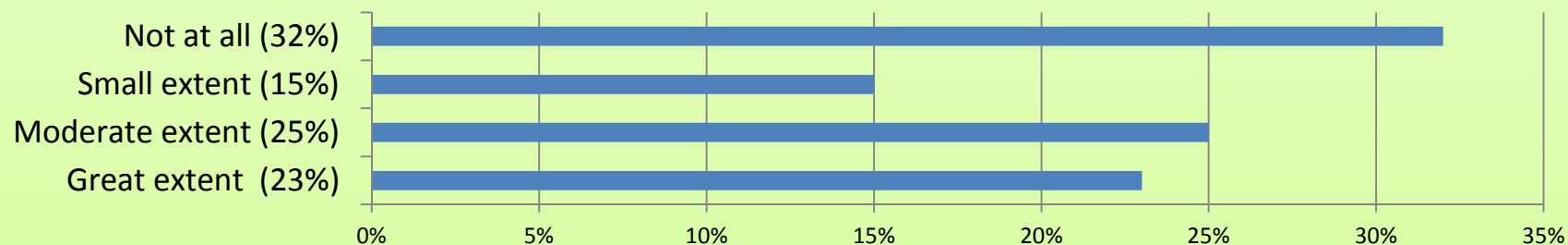
- Do you work for pay at or outside the university (excluding TAs/RAs)?



- Largest sources of financial support for graduate school:



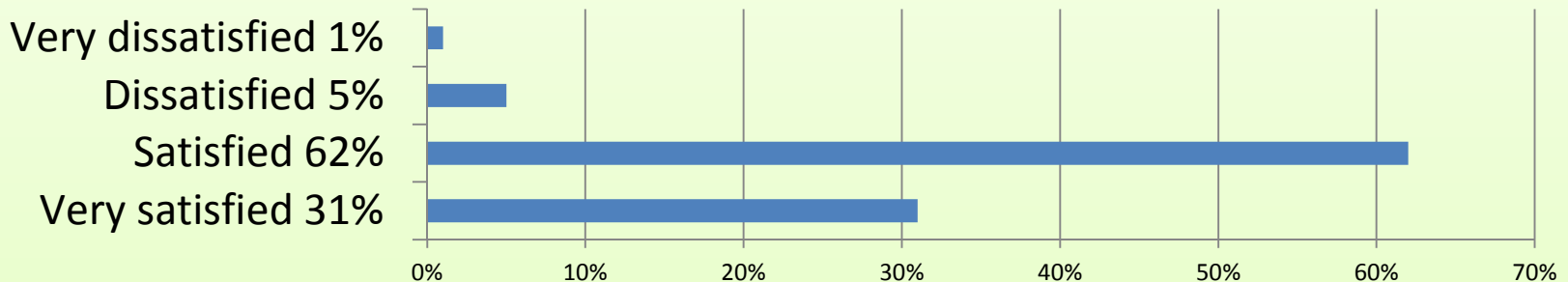
- To what extent was financing your graduate education a challenge?



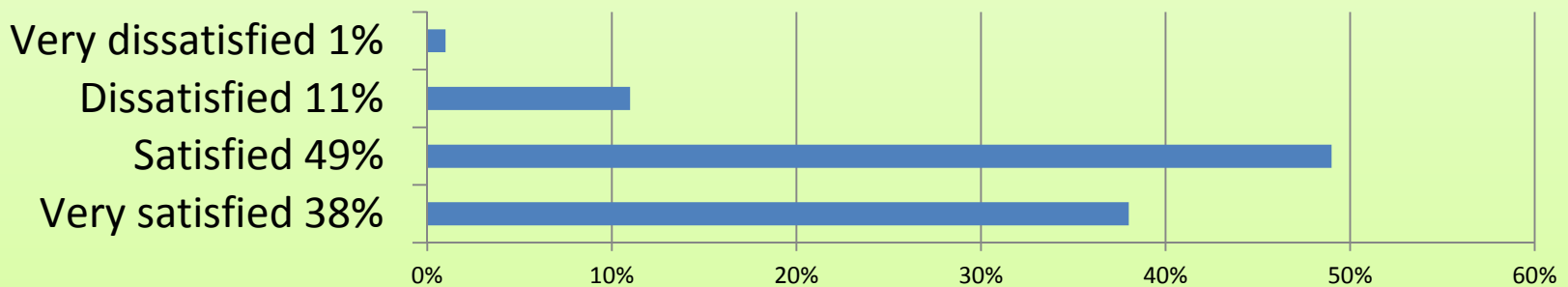
CGS STEM+MBA Attrition Study

Survey Data

- How satisfied were you overall with the quality of teaching?



- How satisfied were you with the quality of advising?

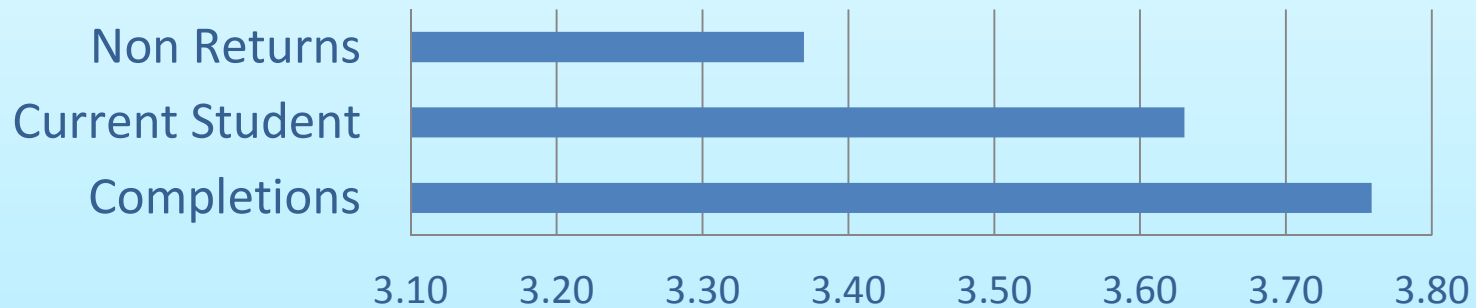


Wright State University Study

Correlations with Outcome

Fall 2006 to Winter 2011

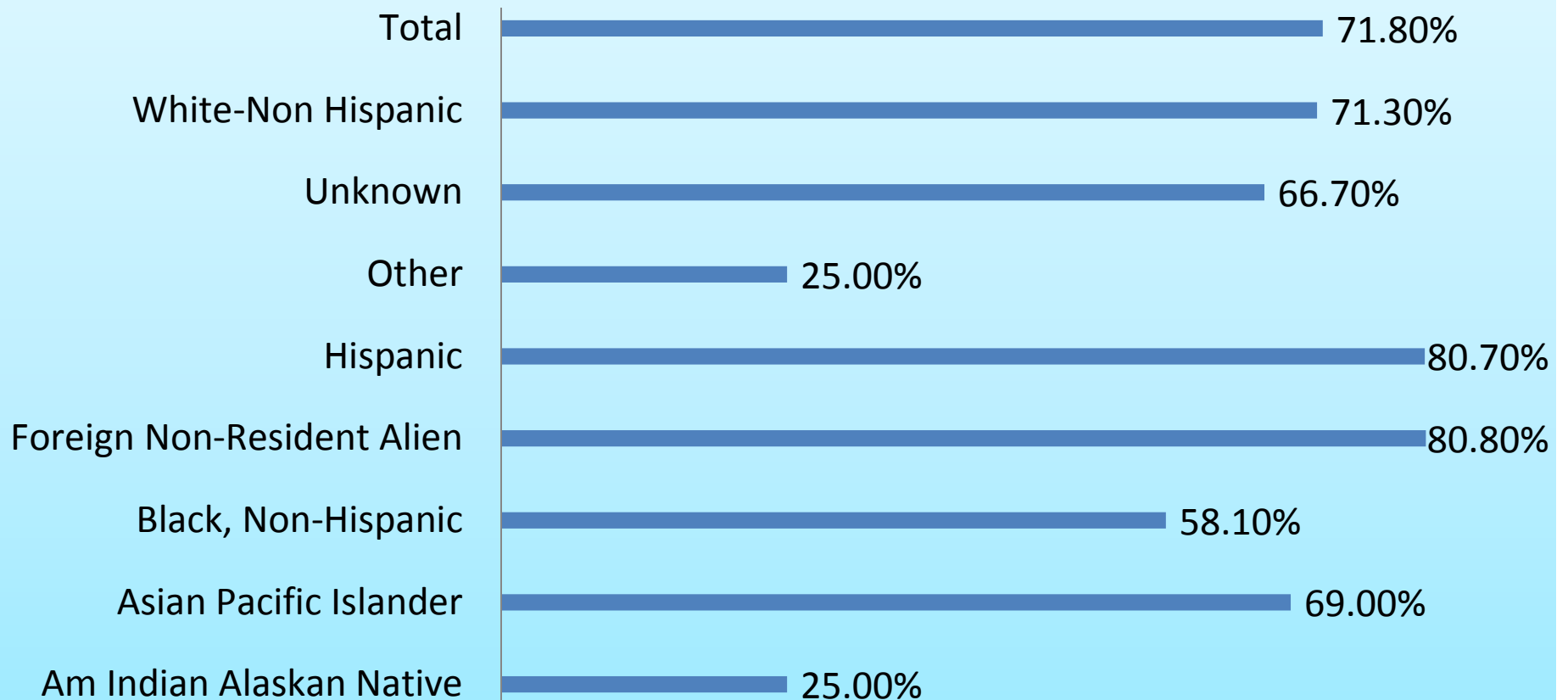
- Correlations with GPA



Wright State University Study Correlations with Outcome

Fall 2006 to Winter 2011

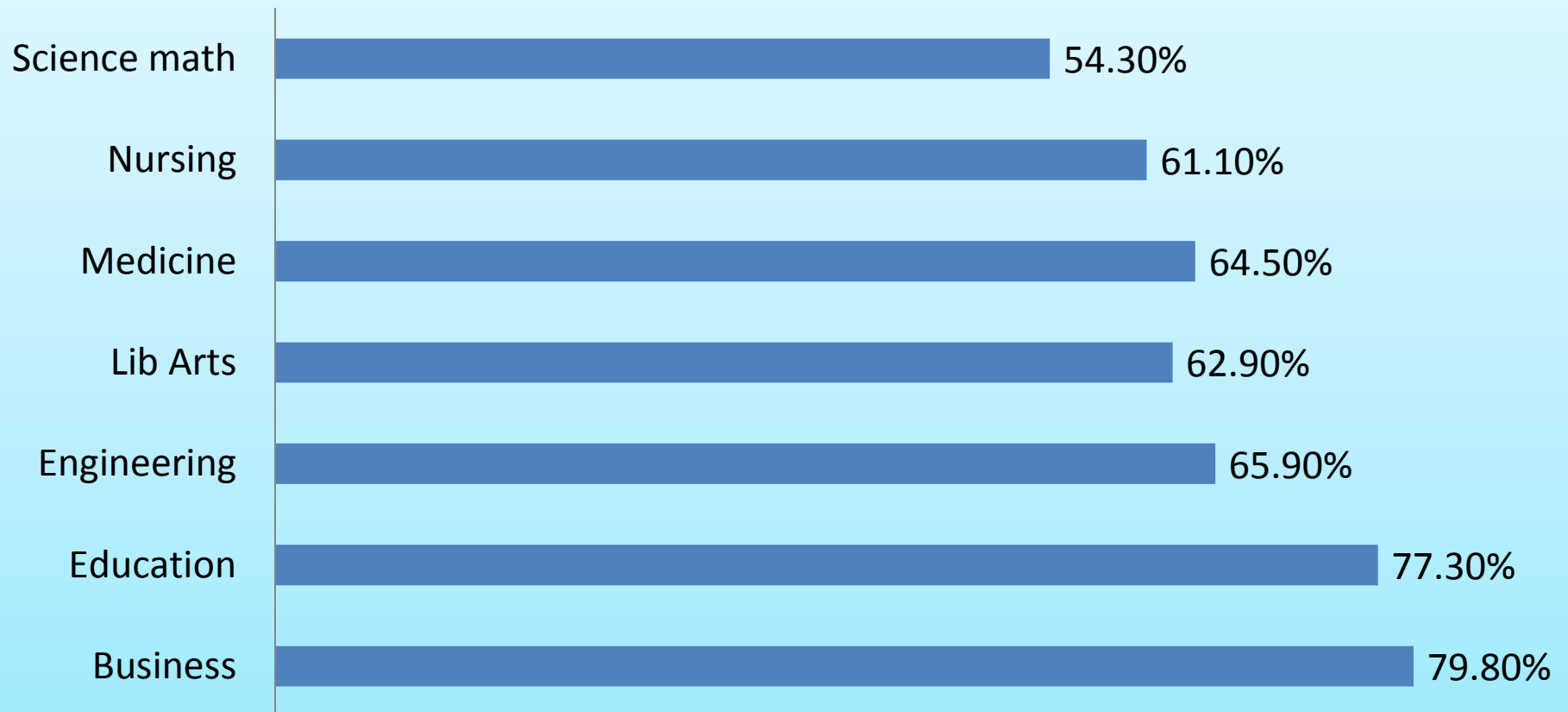
- Correlations between completion and ethnicity



Wright State University Study Correlations with Outcome

Fall 2006 to Winter 2011

- Correlations between completion and disciplines



THE WRIGHT STATE UNIVERSITY RESPONSE

-OVERALL ENROLLMENT MANAGEMENT STRATEGIES

- **Improve Recruitment**
 - Traditional print, radio and open house
 - Online search engine marketing
 - Social network marketing
 - On campus marketing
- **Improve Yield**
 - Direct contact by program directors
 - Graduate School and Enrollment Management joint efforts: e-mail, phone calls

THE WRIGHT STATE UNIVERSITY RESPONSE

- SPECIFIC TO ATTRITION

- **Improve retention**
 - **Target colleges/programs with high attrition rates**
 - **Improve advising – Program Director Training**
 - **Program Director’s Manual**
 - **Regular Program Directors’ Meetings discussing best practices**
 - **Regular Program Reviews**
 - **Retention software implemented for early detection and intrusive advising**
 - **Retention Scholarships**
 - **Minority Fellowships**

Program Director Suggestions

- On ENROLLMENT MANAGEMENT, suggestions for interventions to help retain students:
- Longer graduate assistantships
- Financial Aid
- Common graduate student study space
- Stronger competence in Writing Center (undergrad focus and undergrad employees)
- International students need access to on-going language support
- International students need to understand intellectual property rights (plagiarism issues)
- Graduate School sponsored workshop on how to write a thesis/dissertation (include plagiarism)
- Offer Thesis Boot Camp
- BIE program offers academic integrity course that first year grad students are required to take
- Students often don't realize that the Graduate School is a source for help
- Offer resources (or at least links to resources) on Graduate School website
- More assistance for GRAs – fee remission doesn't include courses outside the student's major (like English courses for engineering students)
- Better mechanism to track student/advisor meetings - in Pilot?
- Counseling program has a librarian associated with their program to assist students; can others?

CONCLUSIONS

- **The CGS study focused campus attention on retention and attrition**
- **Discussions on campus resulted in actions**
- **Further study for deeper understanding of the attrition problem is needed**

Thanks

Wright State University
Graduate School