

Arizona State University

Strategic Enterprise Plan

2017 Update & Operational and Financial Review

Arizona Board of Regents
February 3, 2017



ASU Charter

ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it **includes** and how they **succeed**; advancing research and discovery of **public value**; and assuming **fundamental responsibility** for the **economic, social, cultural, and overall health** of the communities it serves.

Responsibility and the Public Trust

The charter is a promise to the citizens of Arizona.

ASU has a responsibility to fulfill the requirements of the Arizona Constitution to provide public education.

The responsibility is not one that is conditional upon the actions of the legislature; it is ASU's responsibility to find the means to fulfill its charter while seeking appropriate and fair public investment in the costs of education for Arizona resident students.

Design Aspirations

Leverage Our Place

ASU embraces its cultural, socioeconomic and physical setting.

Transform Society

ASU catalyzes social change by being connected to social needs.

Value Entrepreneurship

ASU uses its knowledge and encourages innovation.

Conduct Use-Inspired Research

ASU research has purpose and impact.

Enable Student Success

ASU is committed to the success of each unique student.

Fuse Intellectual Disciplines

ASU creates knowledge by transcending academic disciplines.

Be Socially Embedded

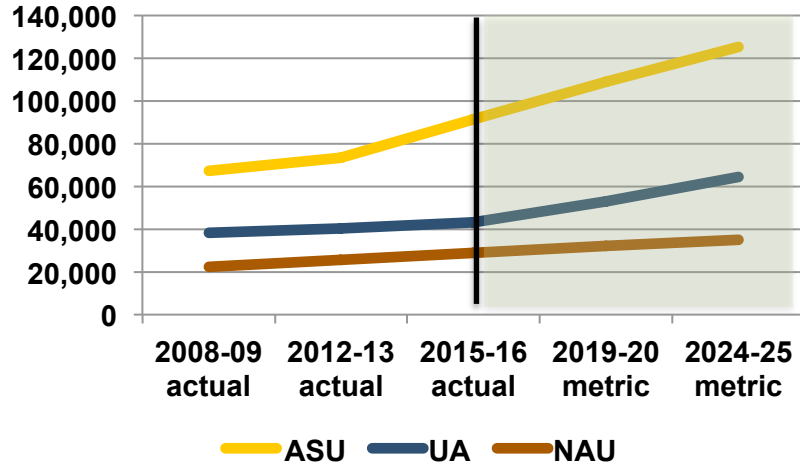
ASU connects with communities through mutually beneficial partnerships.

Engage Globally

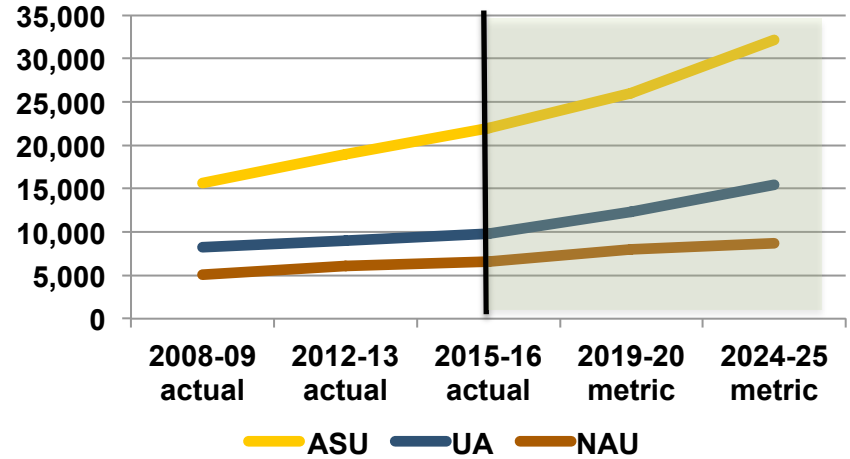
ASU engages with people and issues locally, nationally and internationally

Scale of ASU's Assignment and Ambition

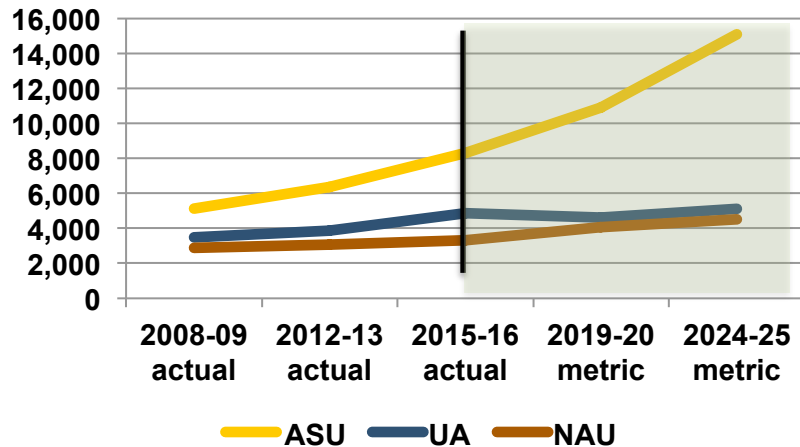
Share of Total Enrollment



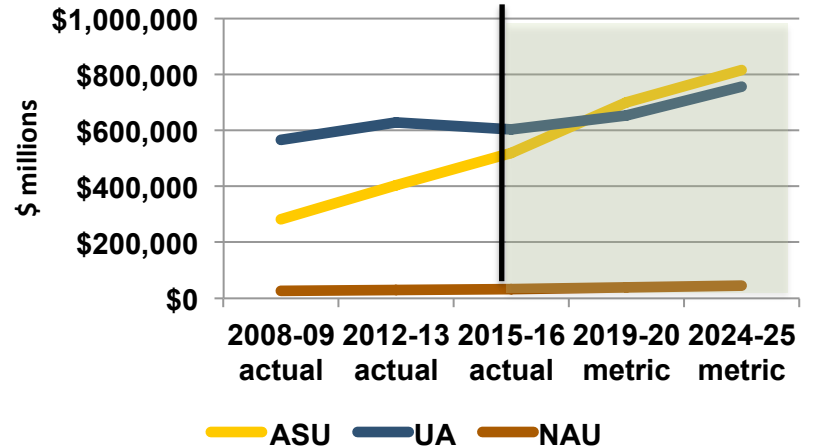
Share of Total Degrees



Share of High Demand Degrees



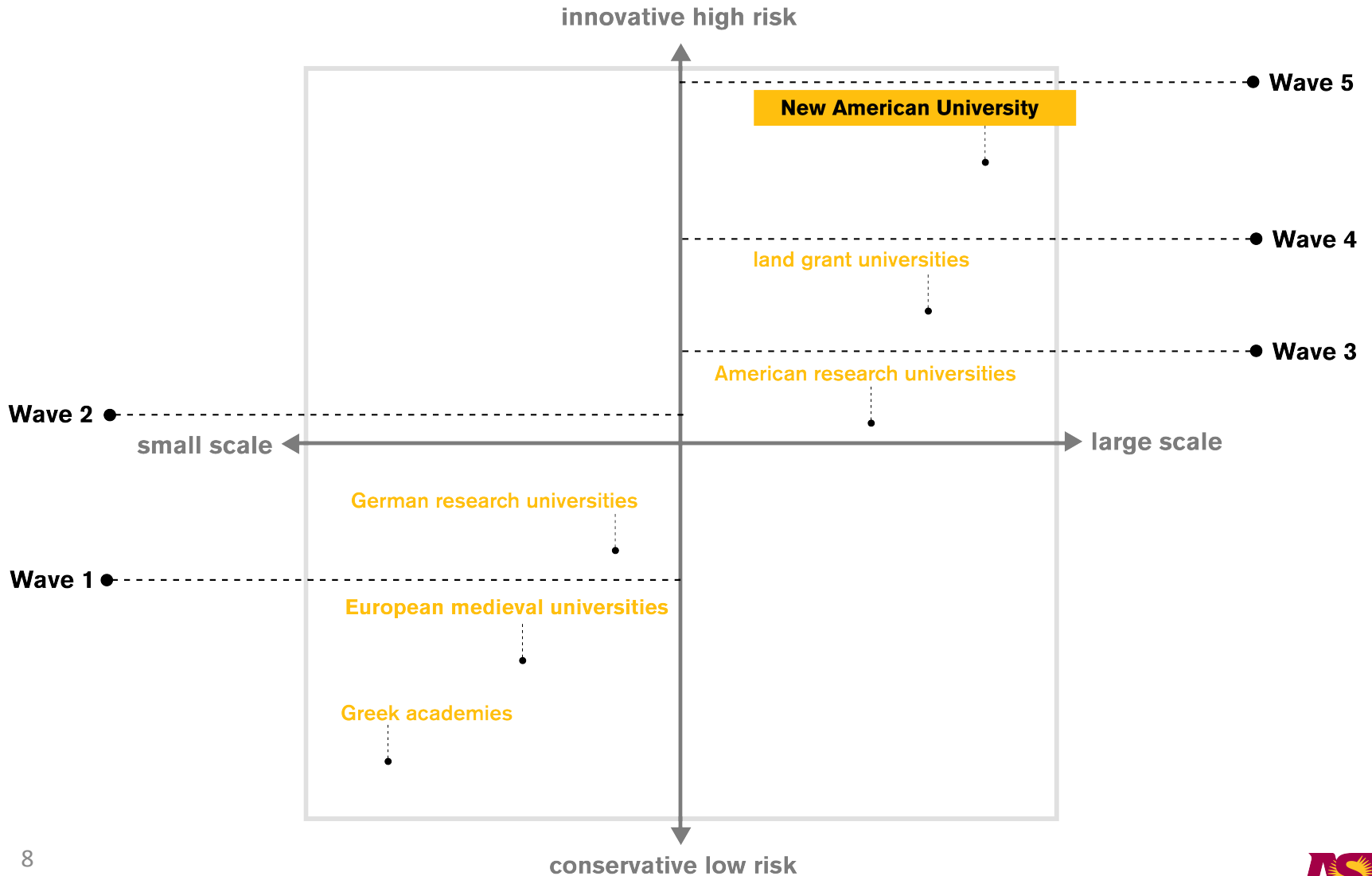
Share of Research Expenditures



Five Forces are Reshaping Higher Education

1. Economic and social disruption is continuing to accelerate, which is placing many institutions at risk.
2. The globalization of education is accelerating.
3. New business and delivery models are gaining traction.
4. Greater transparency about student outcomes is becoming the norm.
5. Student and family demands are rising for a greater return on investment in higher education.

Higher Education Evolution



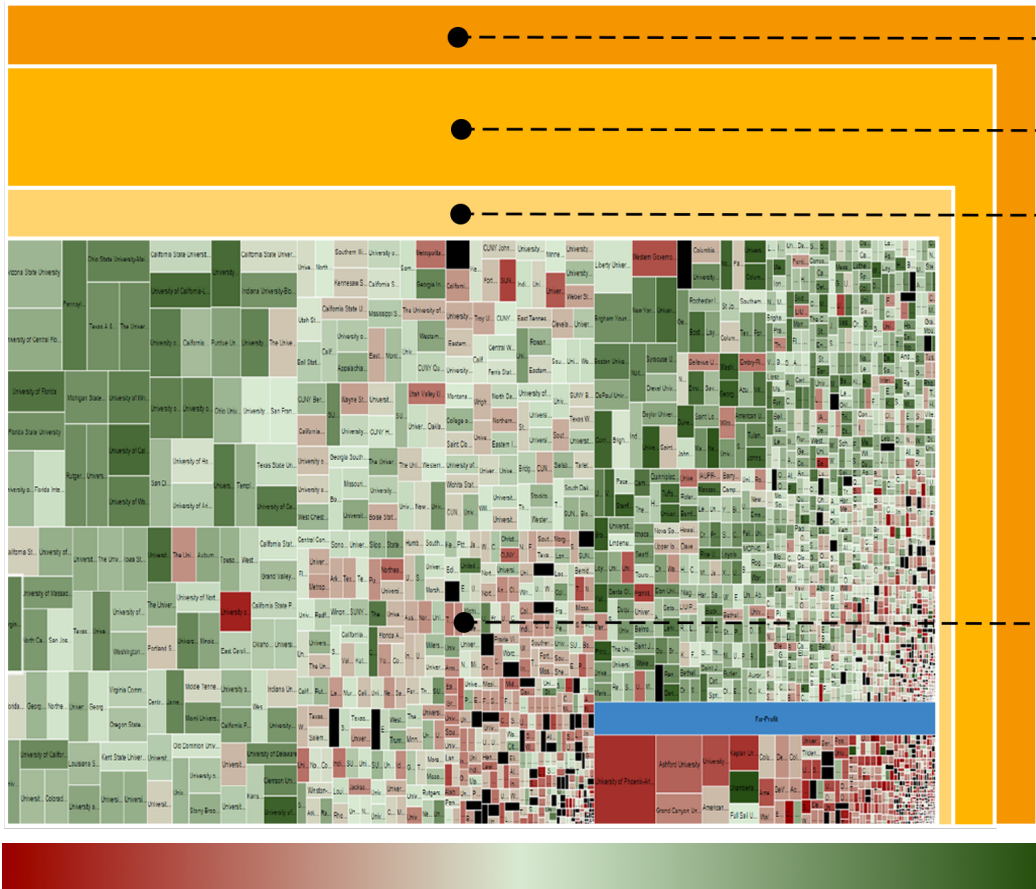
The Imperative of Innovation

2030 Production Needed to Achieve 45% BA Attainment

2030 Production Needed to Achieve 40% BA Attainment

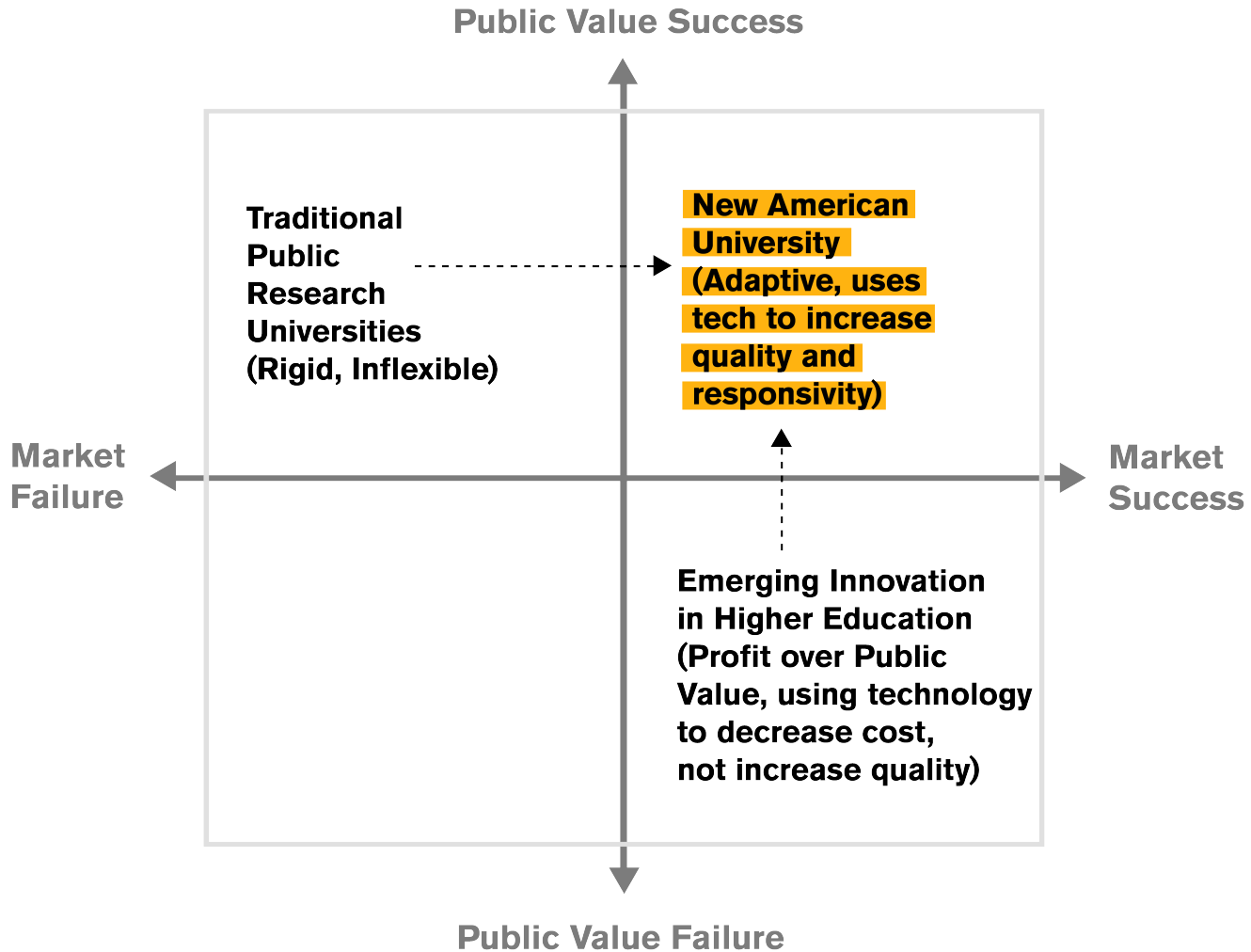
National Degree Production Needed to Accommodate Population Growth

Current National Degree Production



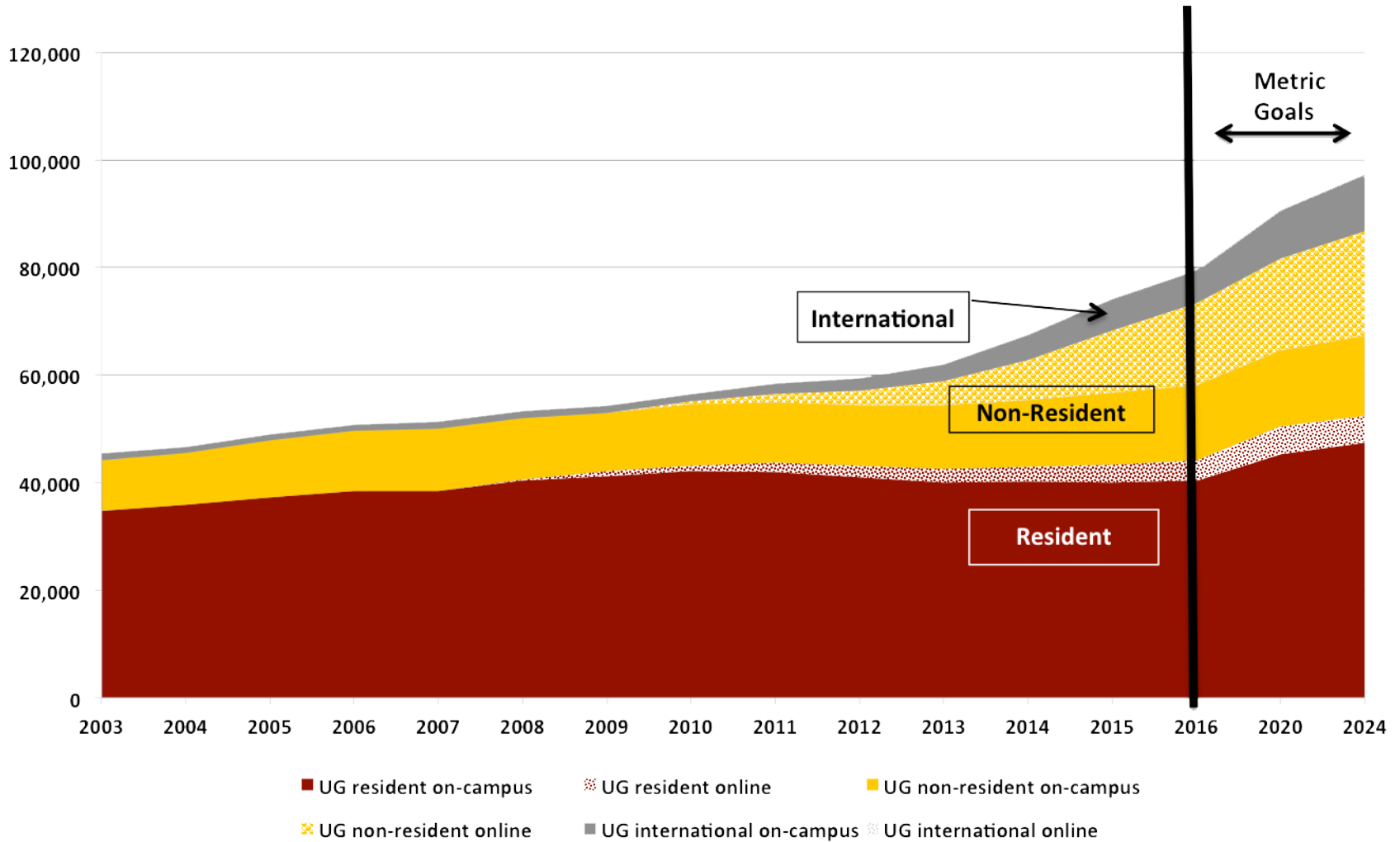
0% Six Year Graduation Rate 100%

Public Value vs. Market

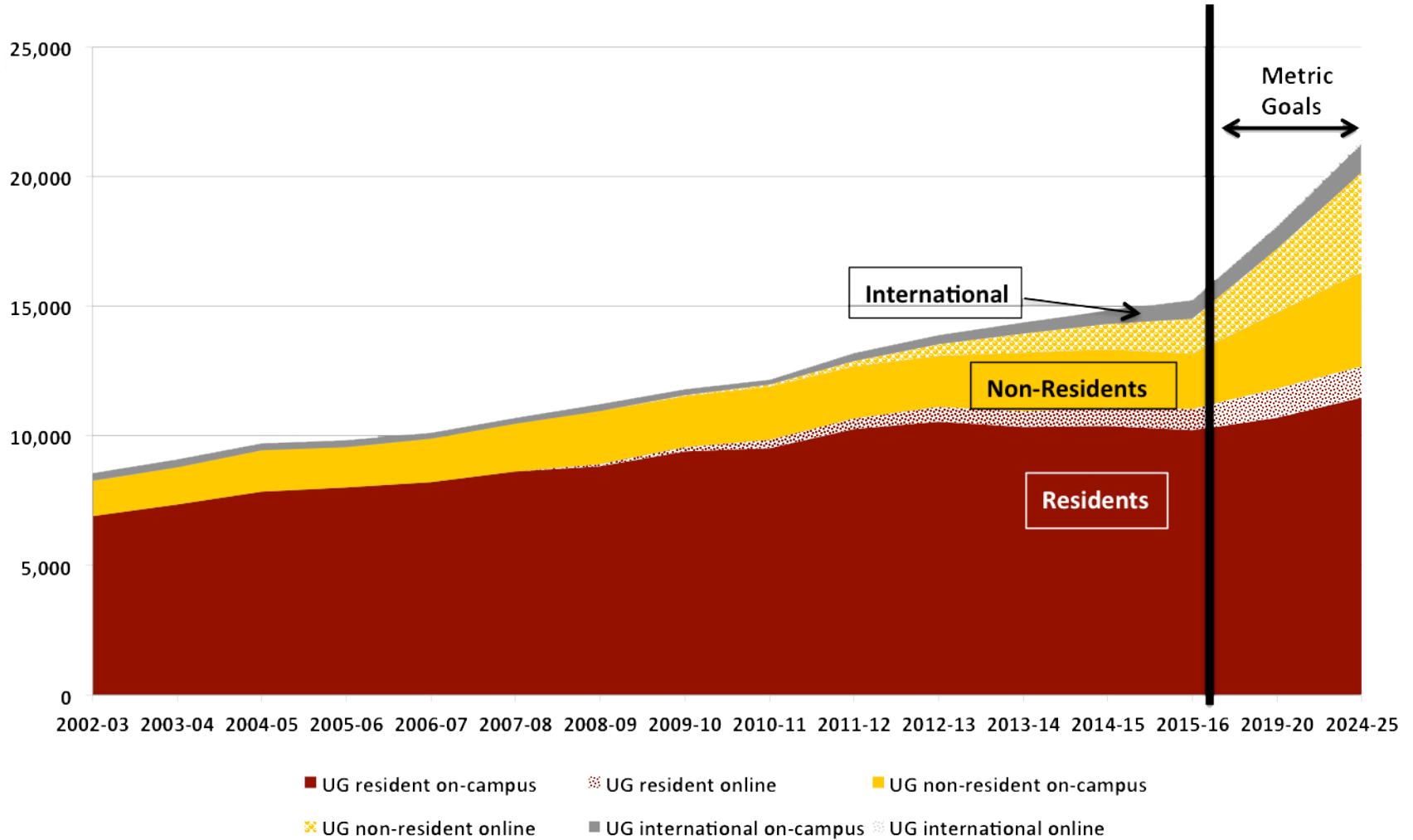


Performance to Date

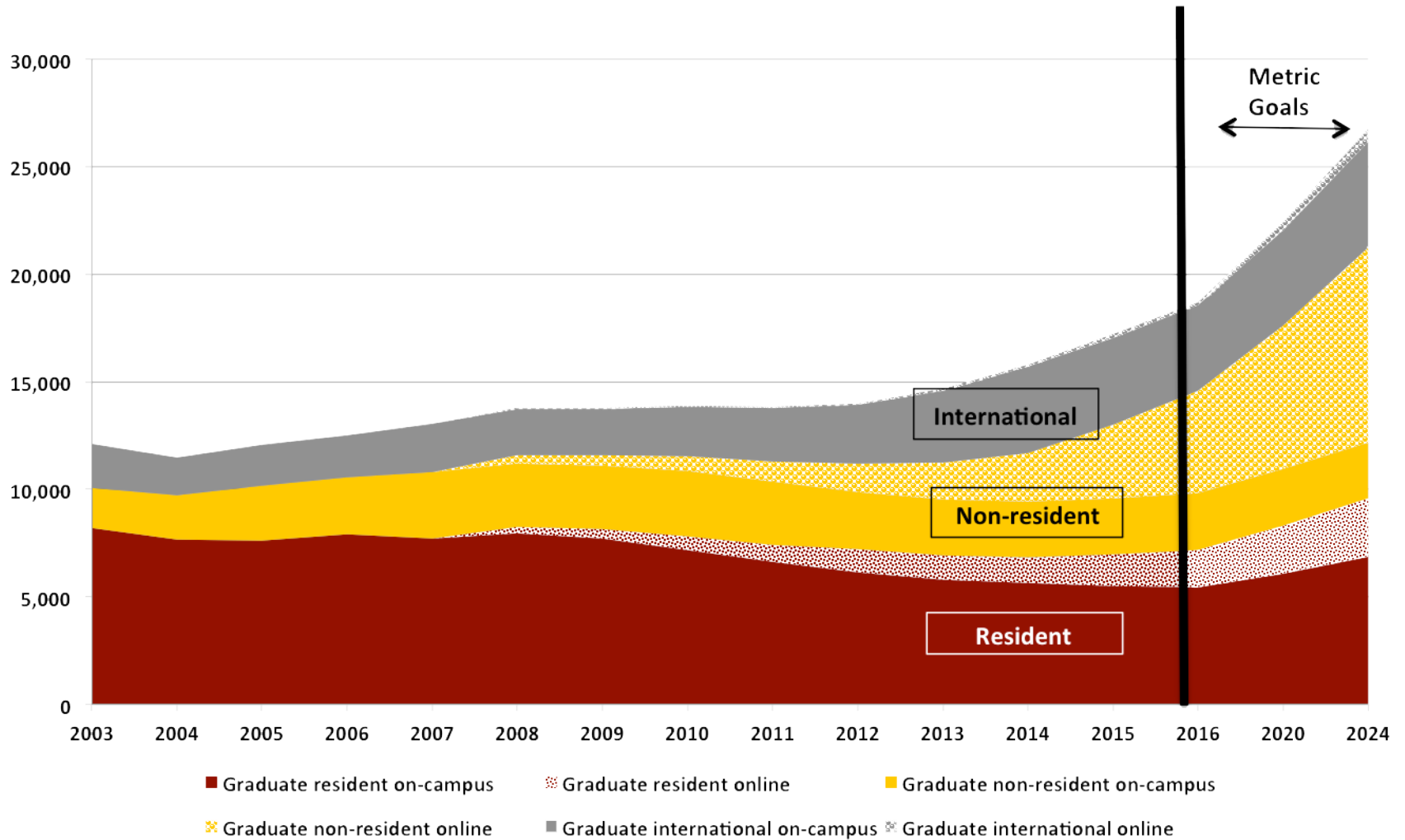
Undergraduate Enrollment Actual and Metric Goals



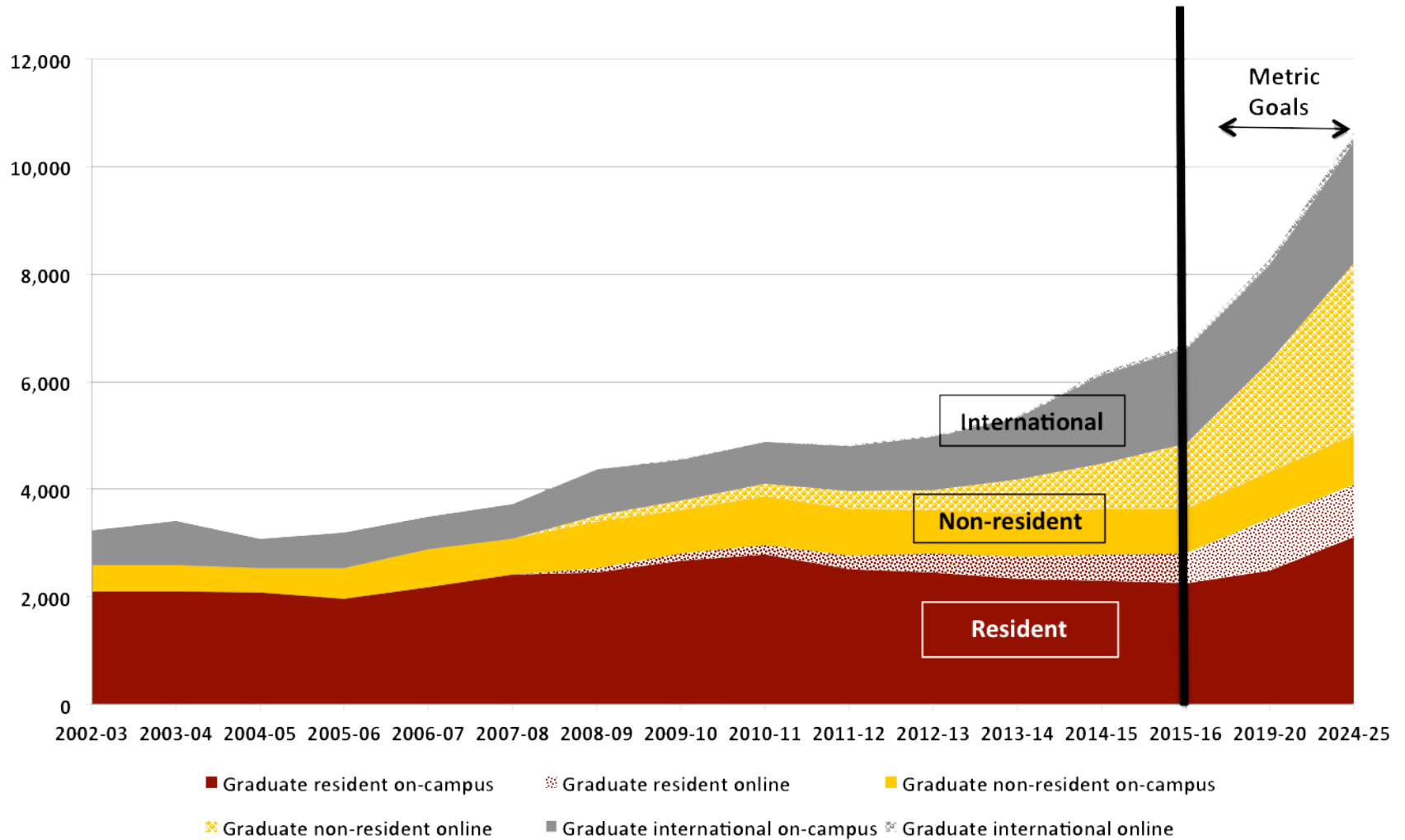
Bachelor Degrees Actual and Metric Goals



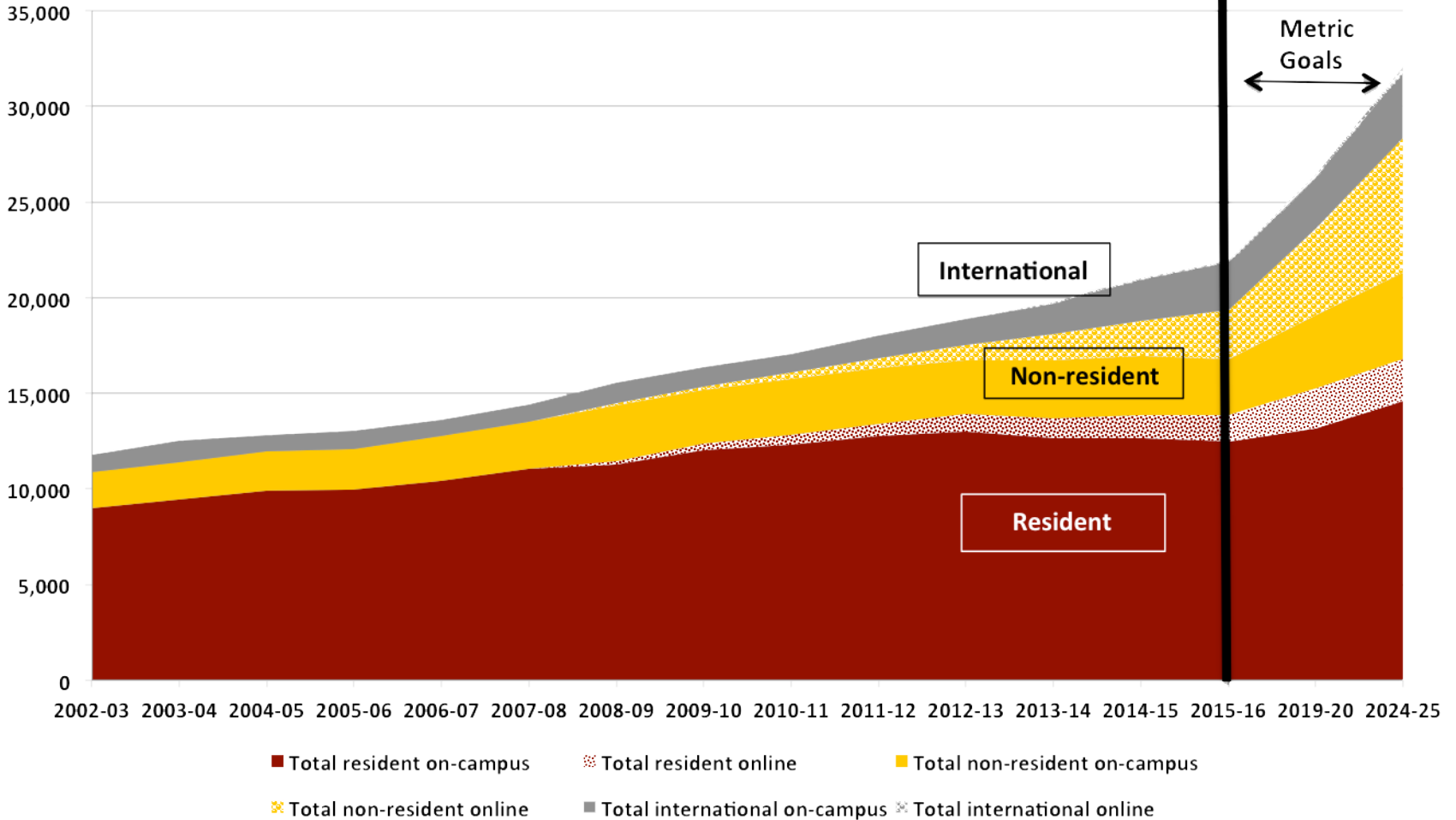
Total Graduate Enrollment Actual and Metric Goals



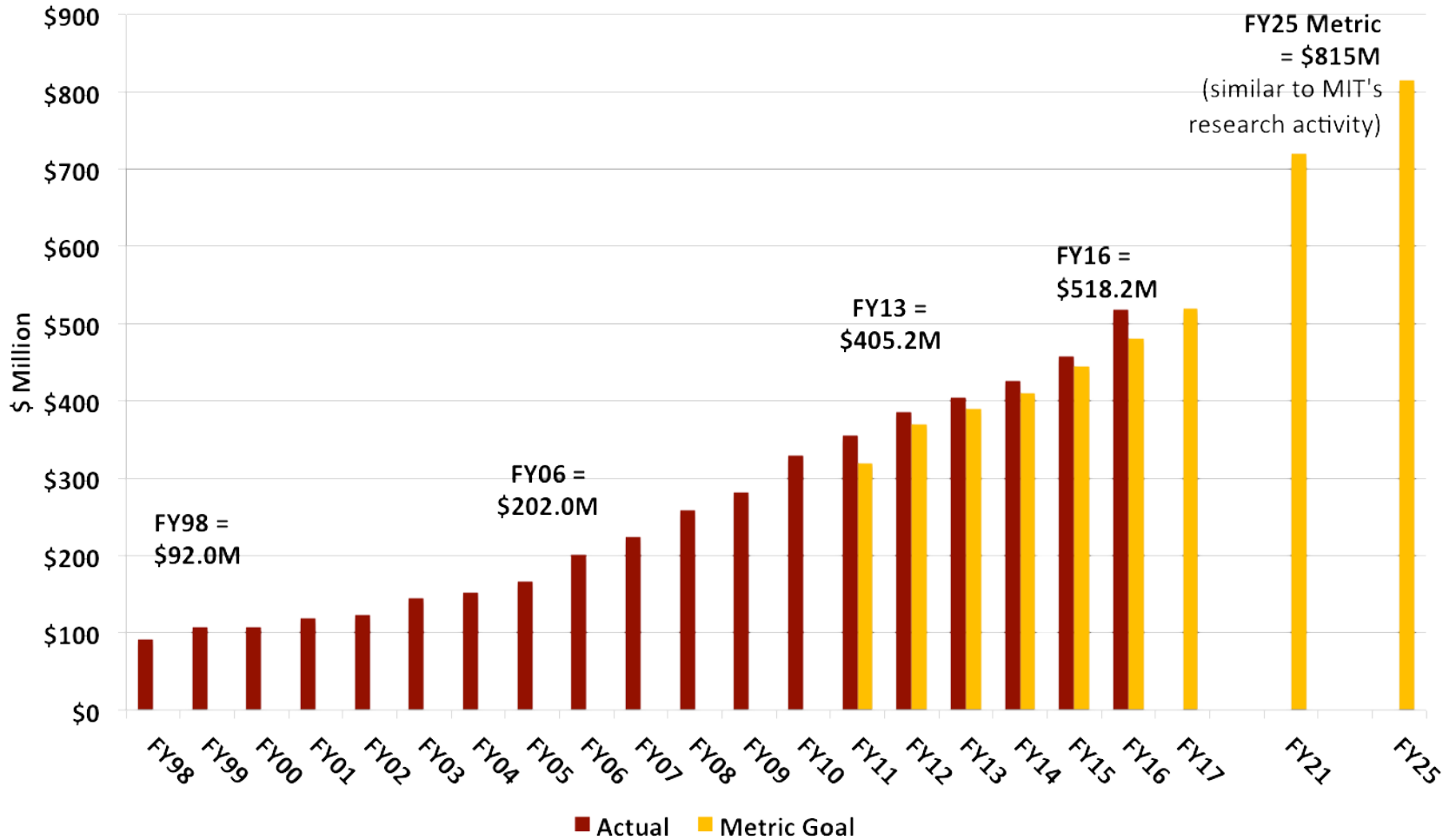
Total Graduate Degrees Actual and Metric Goals



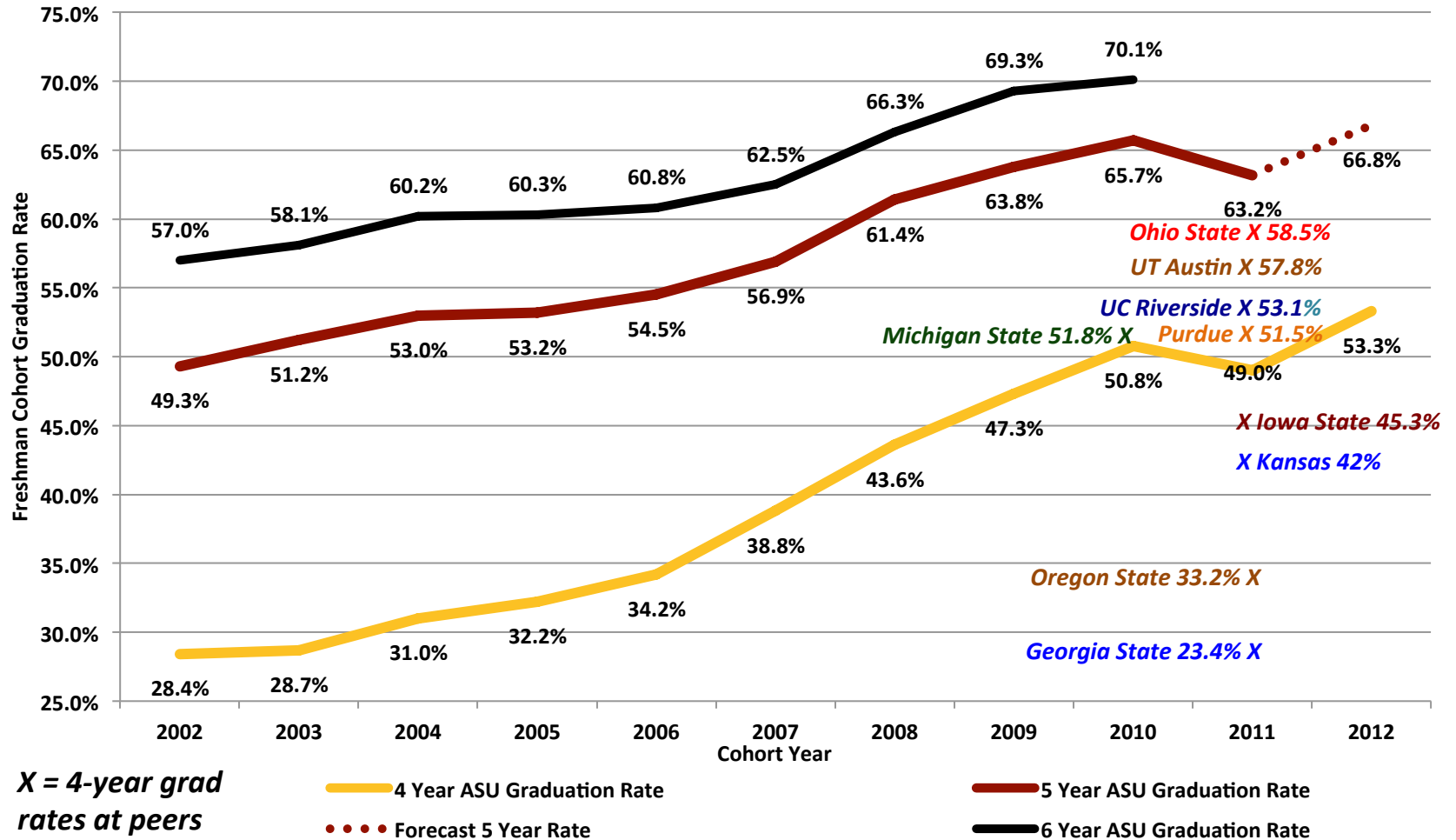
Total Undergraduate and Graduate Degrees Actual and Metric Goals



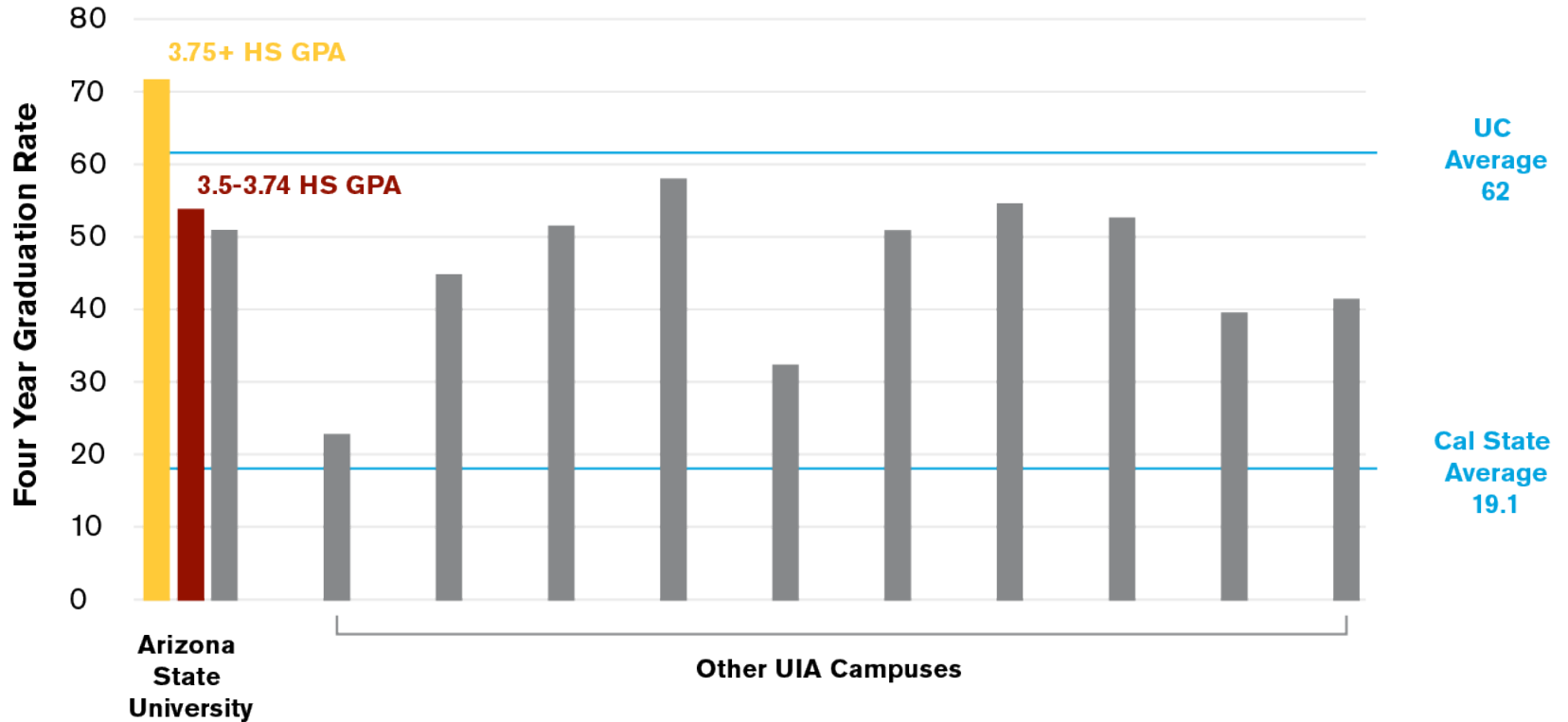
Research Expenditures Have Doubled Every Six to Eight Years



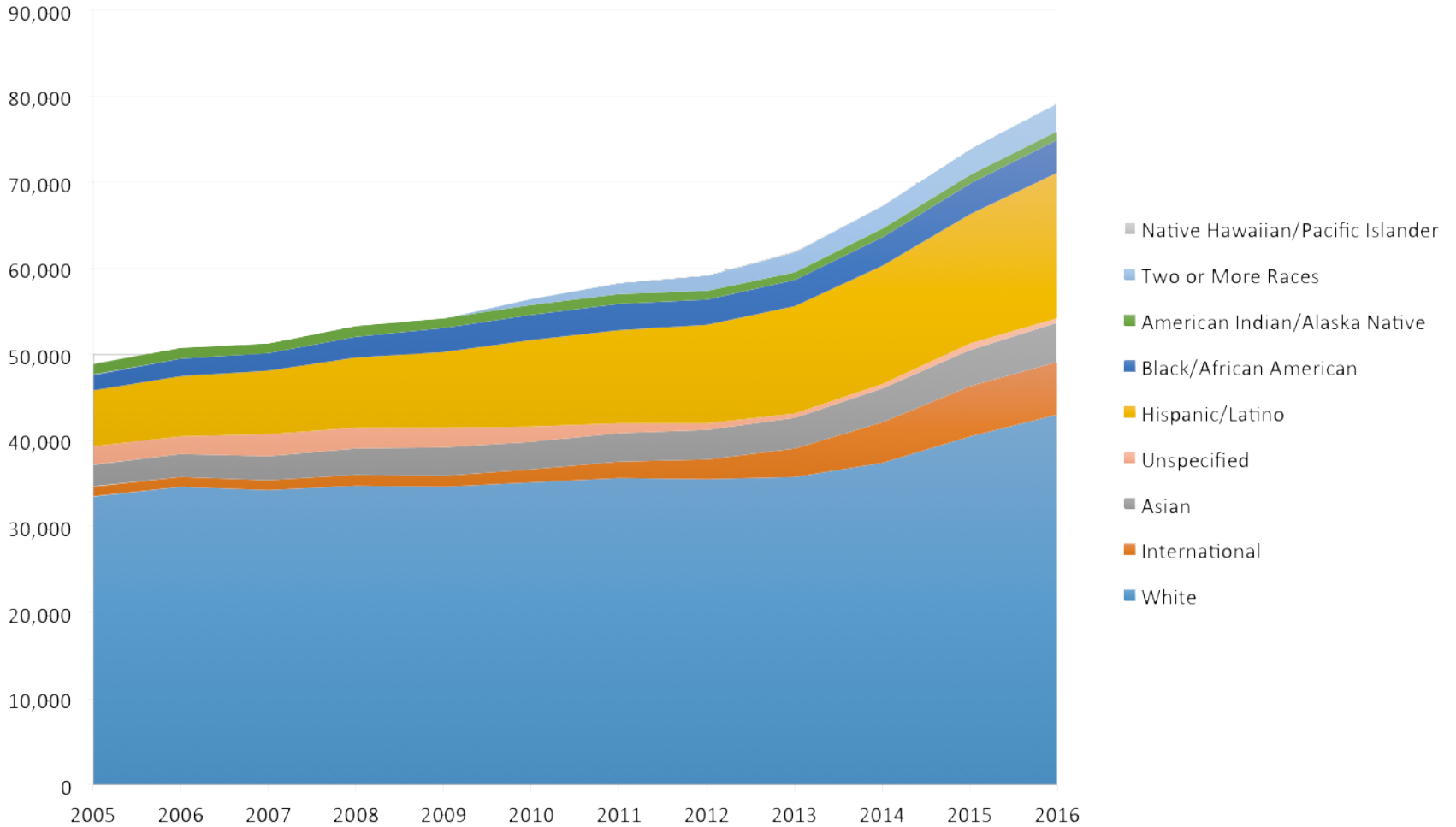
Arizona Resident Graduation Rates



Four Year Graduation Rates at UIA Campuses, 2015



Undergraduate Ethnicity On-Campus and Online



2015 National Science Foundation (NSF) Higher Education Research and Development (HERD) Rankings

Total Research Expenditures: **48 of 876** ahead of



Total Research Expenditures among Institutions without a Medical School :

10 of 724 ahead of **Caltech** PRINCETON UNIVERSITY Carnegie Mellon University

Non-Medical School Expenditures: **27 of 876** ahead of



Social Sciences: **5 of 486** ahead of



Political Science: **5 of 332** ahead of Yale COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK Duke UNIVERSITY

Sociology: **5 of 371** ahead of



Cornell University

Stanford
University



Humanities: **12 of 379** ahead of



Berkeley
UNIVERSITY OF CALIFORNIA



Cornell University

Business and Management: **17 of 350** ahead of

UCLA



Duke
UNIVERSITY



Non-Science and Engineering: **12 of 539** ahead of

Stanford
University



Earth Sciences: **3 of 354** ahead of

Stanford
University

Berkeley
UNIVERSITY OF CALIFORNIA



Electrical Engineering: **8 of 285** ahead of



Stanford
University

Carnegie
Mellon
University

Bioengineering: **13 of 185** ahead of



Engineering Expenditures: **20 of 388** ahead of



HHS (including NIH) Funded Expenditures among Institutions without a Medical School:

10 of 409 ahead of



NASA Funded Expenditures: **11 of 433** ahead of



NSF Funded Expenditures: **25 of 586** ahead of



DOE Funded Expenditures: **24 of 366** ahead of



DOD Funded Expenditures: **32 of 454** ahead of

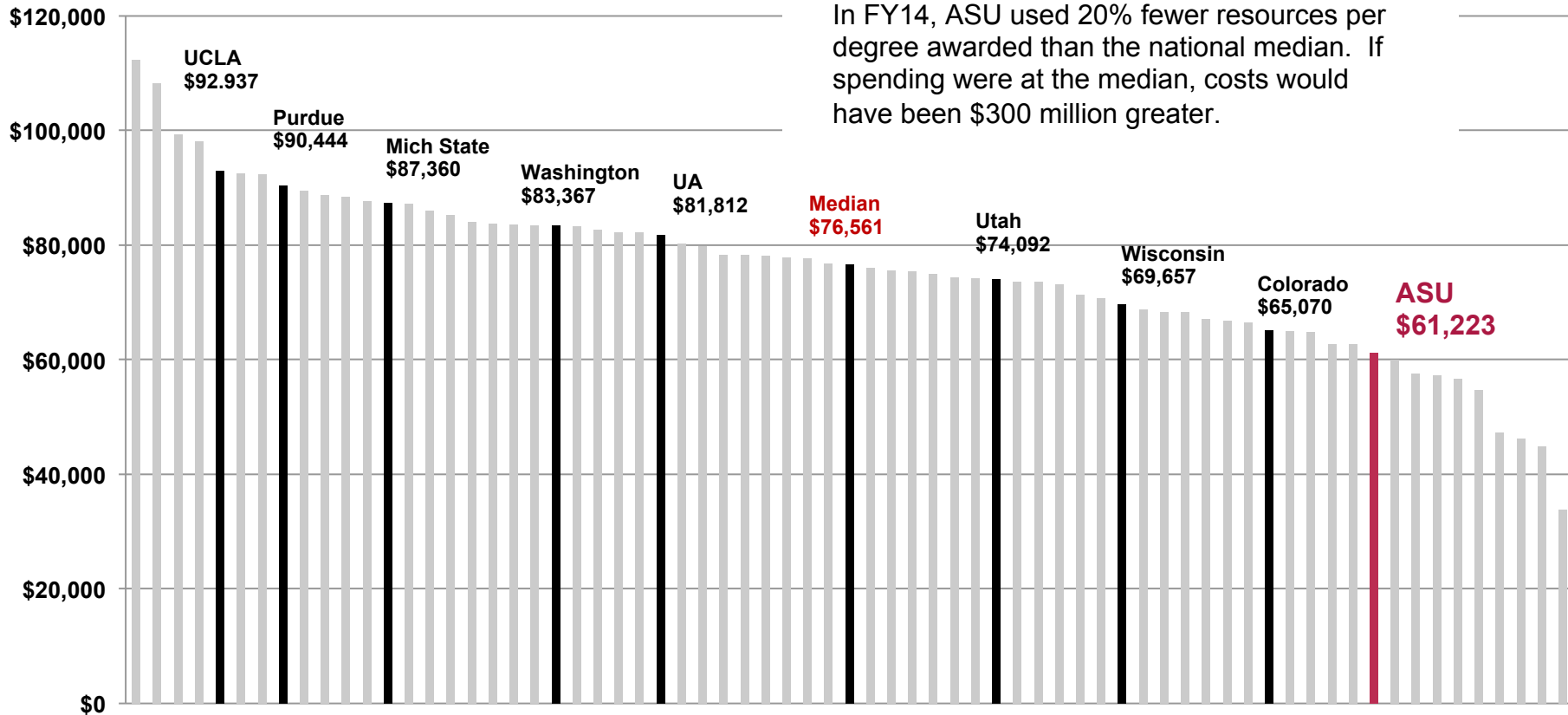


Cornell University



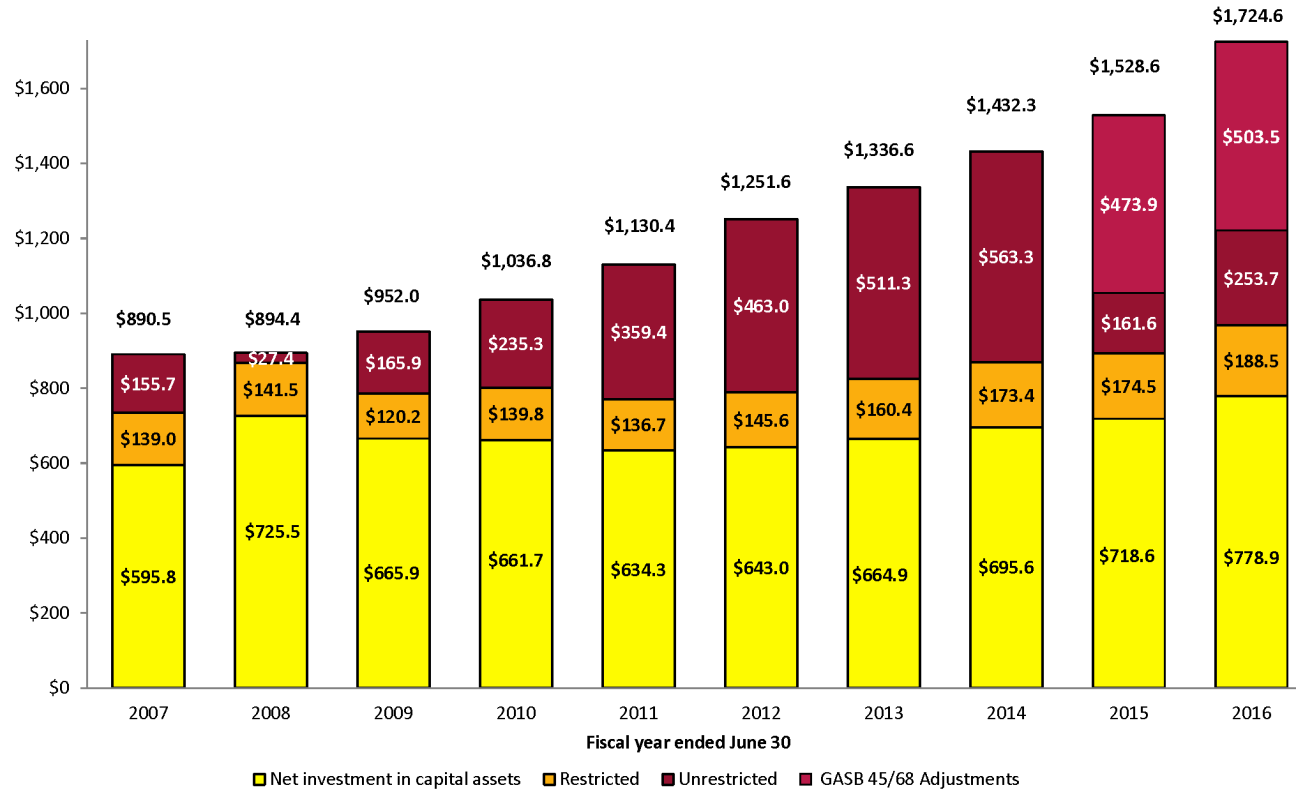
Produced by ASU Office of Knowledge Enterprise Development. Feb 2017
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Tuition, Fees, and State Appropriations per Degree Awarded Very High Research Universities IPEDS FY2014

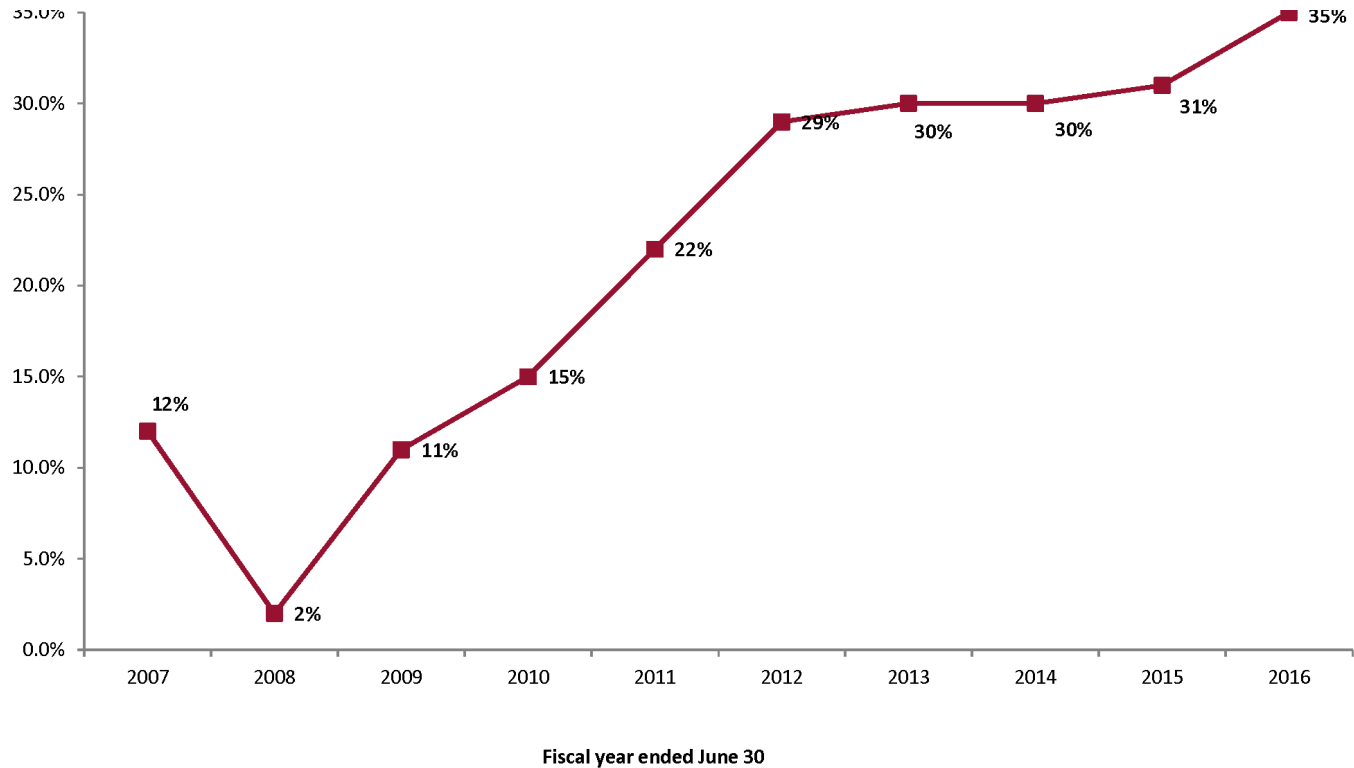


ASU Net Position

(in millions)



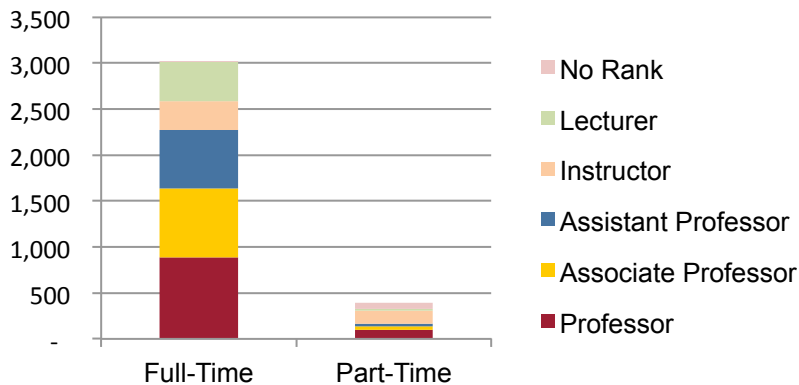
Unrestricted Net Position to Operations



What Kinds of Investments are Needed?

Student Success and Research Growth Drive from Faculty Productivity

**Filled Faculty Positions
Fall 2015**

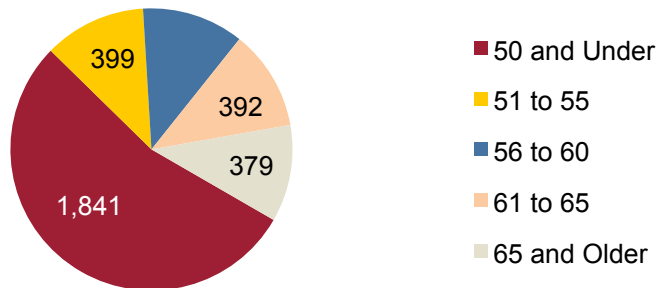


ASU has a reasonable mix of tenure/tenure track faculty and a healthy age profile.

ASU Enterprise Plan supports adding 800-1,000 new faculty members.

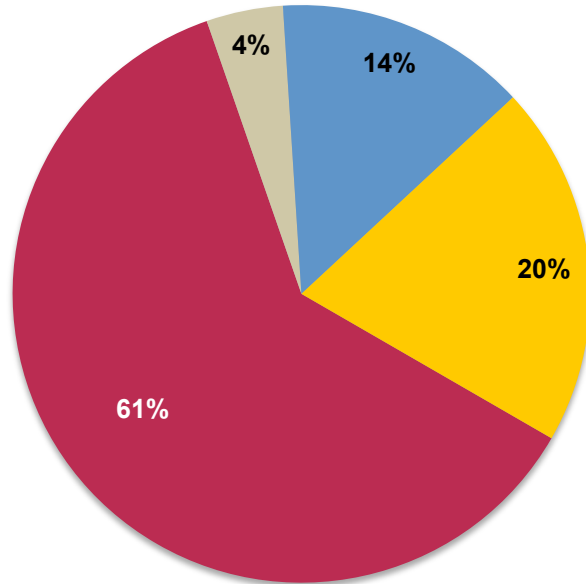
Age demographics suggest an additional 400+ vacant positions.

**Faculty Age Demographics
Fall 2015**



Hiring will be focused on raising the proportion of tenure/tenure track to support research growth and maintain a strong balance in the teaching mix as enrollment grows.

2025 Research Expenditure Planning: \$815M Metric



- FY2016 research expenditures
- Productivity gains and replacement hiring
- Enterprise Plan faculty expansion
- Large projects and funded centers

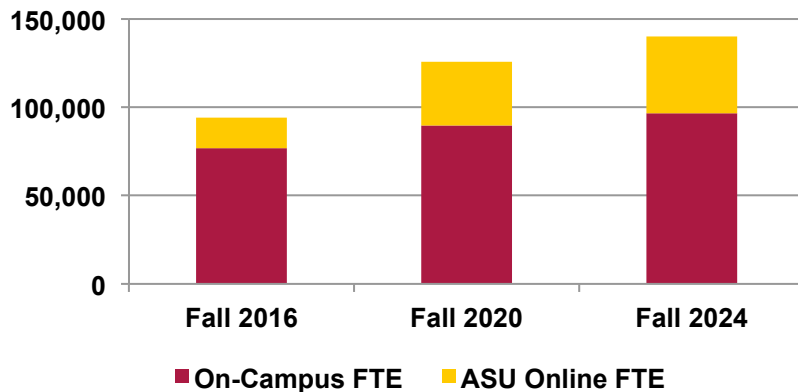
1,000 additional faculty members can contribute 35% to 40% of the required research growth from their individual awards.

Productivity gains among existing and faculty hired to fill vacancies can contribute 10% of the growth.

Large scale projects and funded centers, which are supported by regular faculty and research faculty, must provide the balance.

Research Needs Will Drive the Need for New Facilities

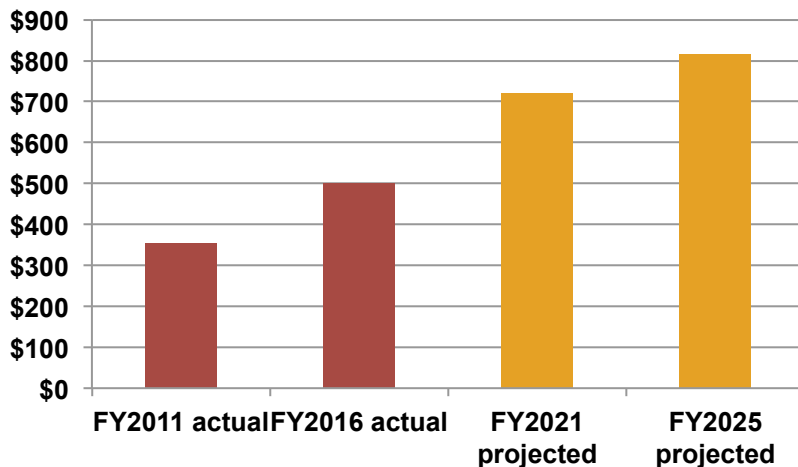
On-Campus and ASU Online FTE Growth



While there are large increases in enrollment projected, a substantial proportion will be in ASU Online programs, so the need for teaching space growth will be muted.

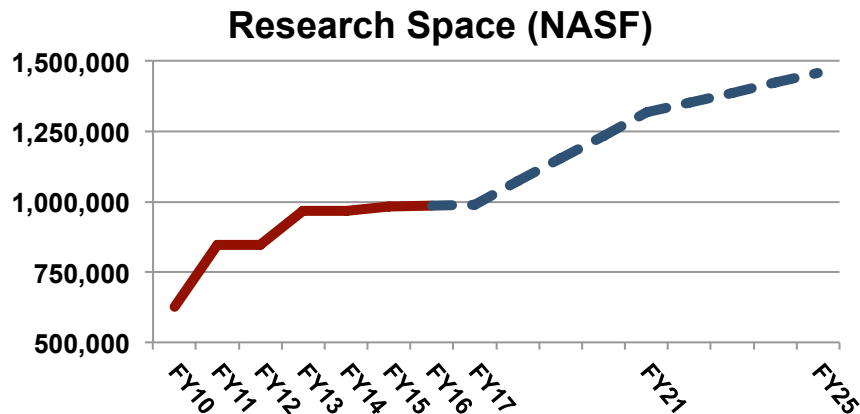
New research activities are projected to grow at 2.5 times the growth of on-campus enrollment.

Research Expenditure Growth



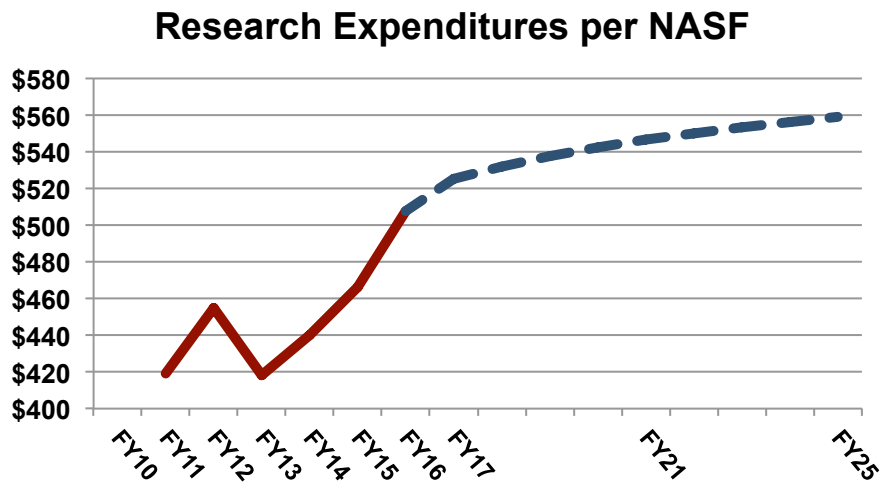
Research cannot be expanded without new space, and new research fields often require new types of facilities, so space needs will lean towards research space.

Research Needs Will Drive the Need for New Facilities



ASU productivity per SF has progressed (from \$419 in 2011 to \$466 per NASF in 2015) and exceeds that of all of its ABOR peers without medical schools.

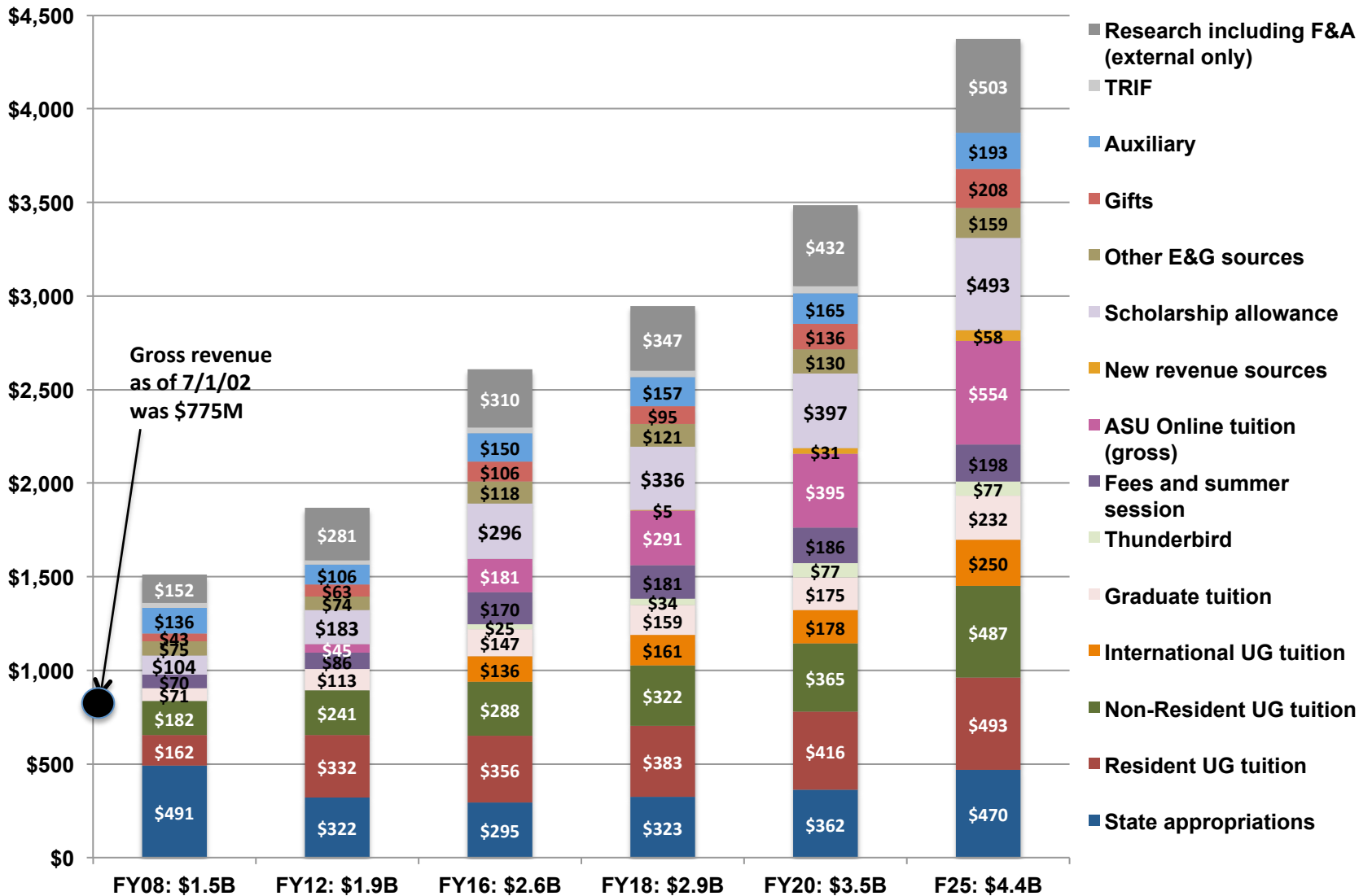
The ASU Enterprise Plan projects an increase in research space of 475,000 NASF (48%) by 2025.



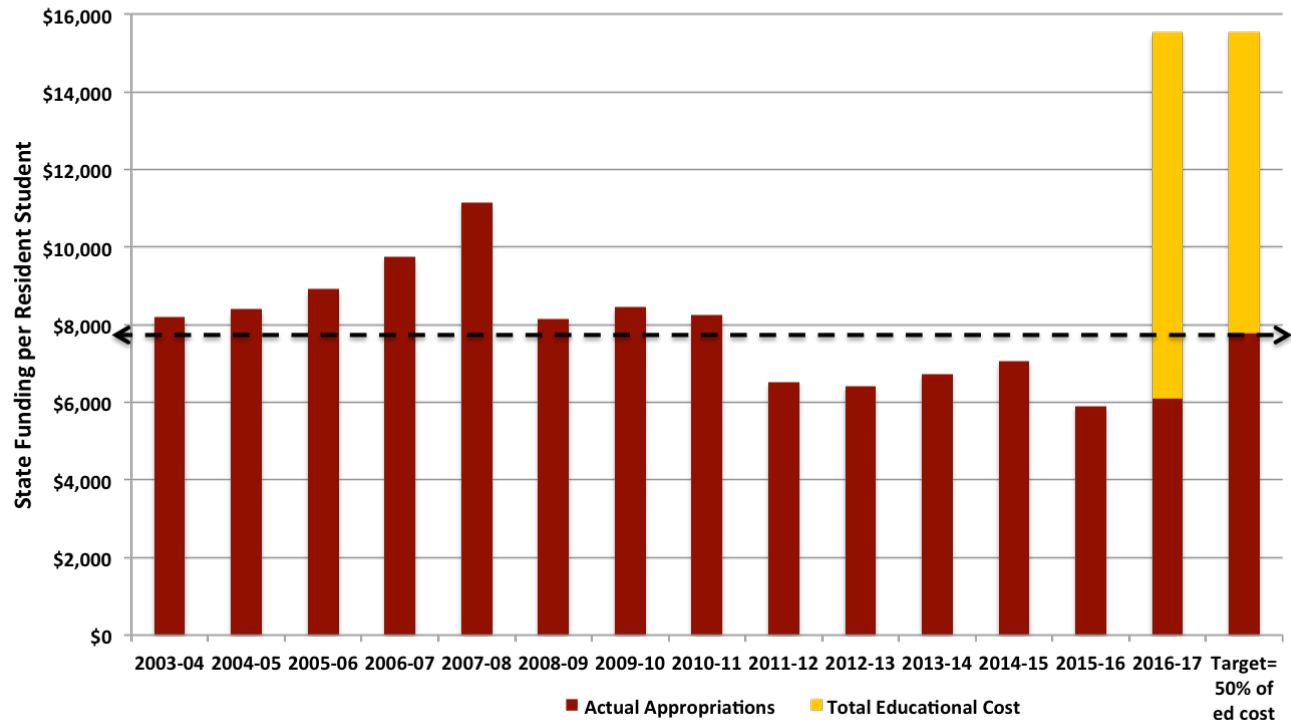
At the projected research volume, the expenditures per SF will need to rise from around \$500 per NASF to \$560 in 2025.

Where Will the Resources Come From?

ASU University Gross Revenue Sources: All Funds (\$ millions)



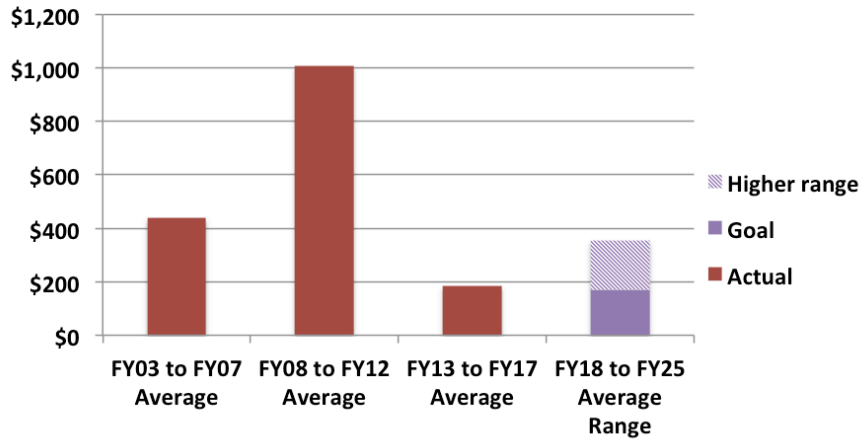
State Funding for Resident Students ASU, NAU and UA Total



In FY2017, the shortfall between the State investment and the goal of its providing 50% of the cost of education amounts to over \$200 million annually at ASU.

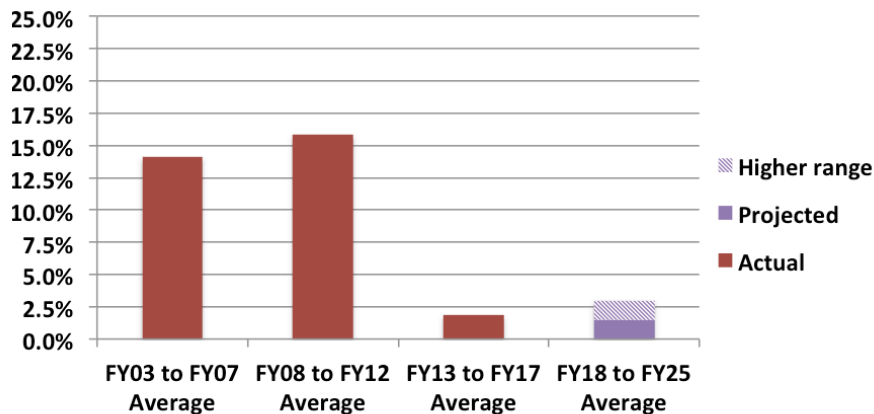
While the goal remains reaching the 50% support target, the ASU Enterprise Plan assumes a more modest level of State investment which would maintain the current proportion of support for resident students as enrollment grows.

Average Annual Resident UG Tuition and Fee Increases
Actual FY03 to FY17
Planning Range FY18 to FY25



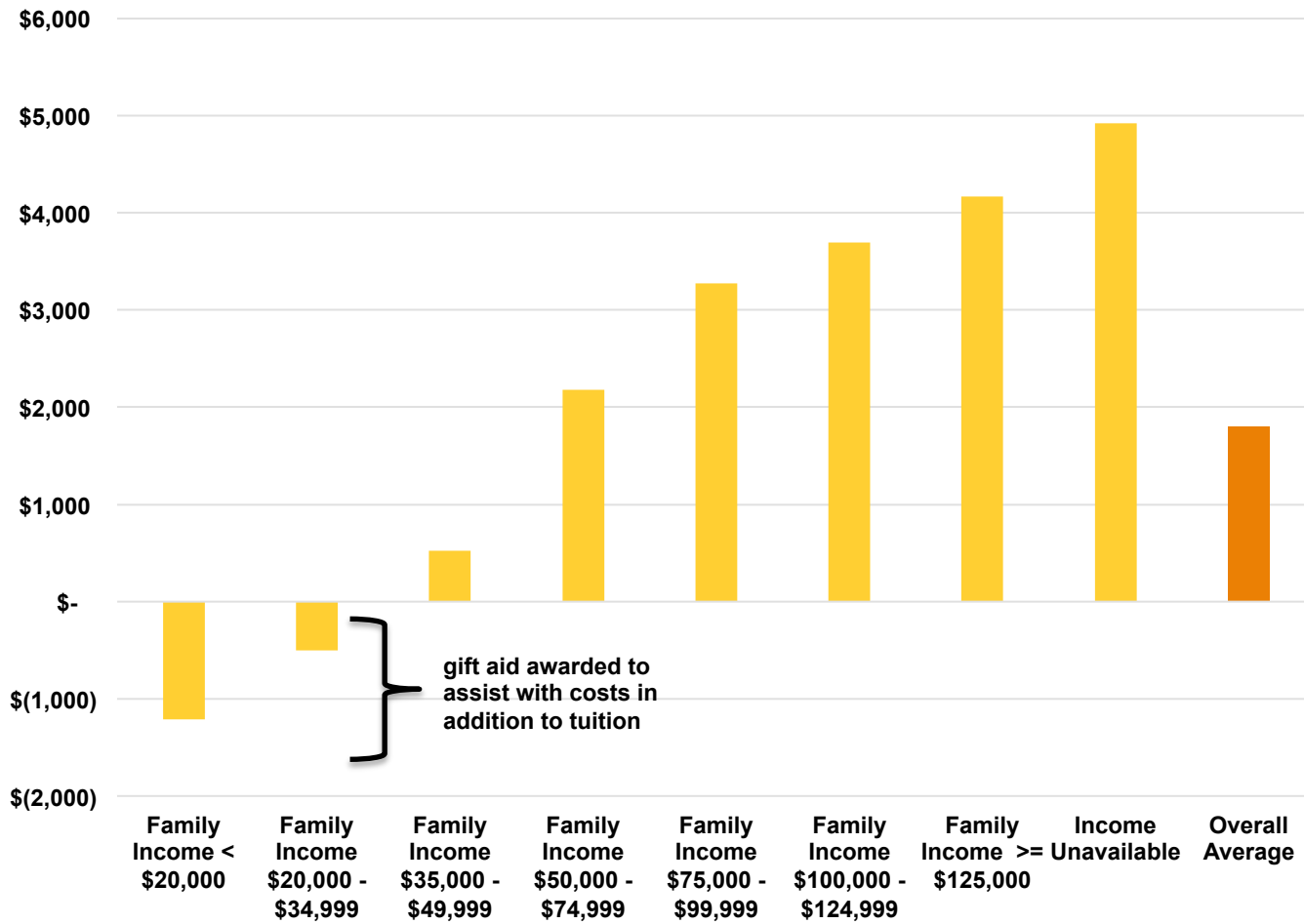
The disinvestment that took place beginning in 2009 required a period of large tuition increases for residents in order to maintain the quality of education.

Average Annual Resident UG Tuition and Fee Rate Increases
Actual FY03 to FY17
Planning Range FY18 to FY25



The ASU Enterprise Plan projects continuing the modest increase policy that ASU has followed since FY13 with increases in the range of zero to 3% annually.

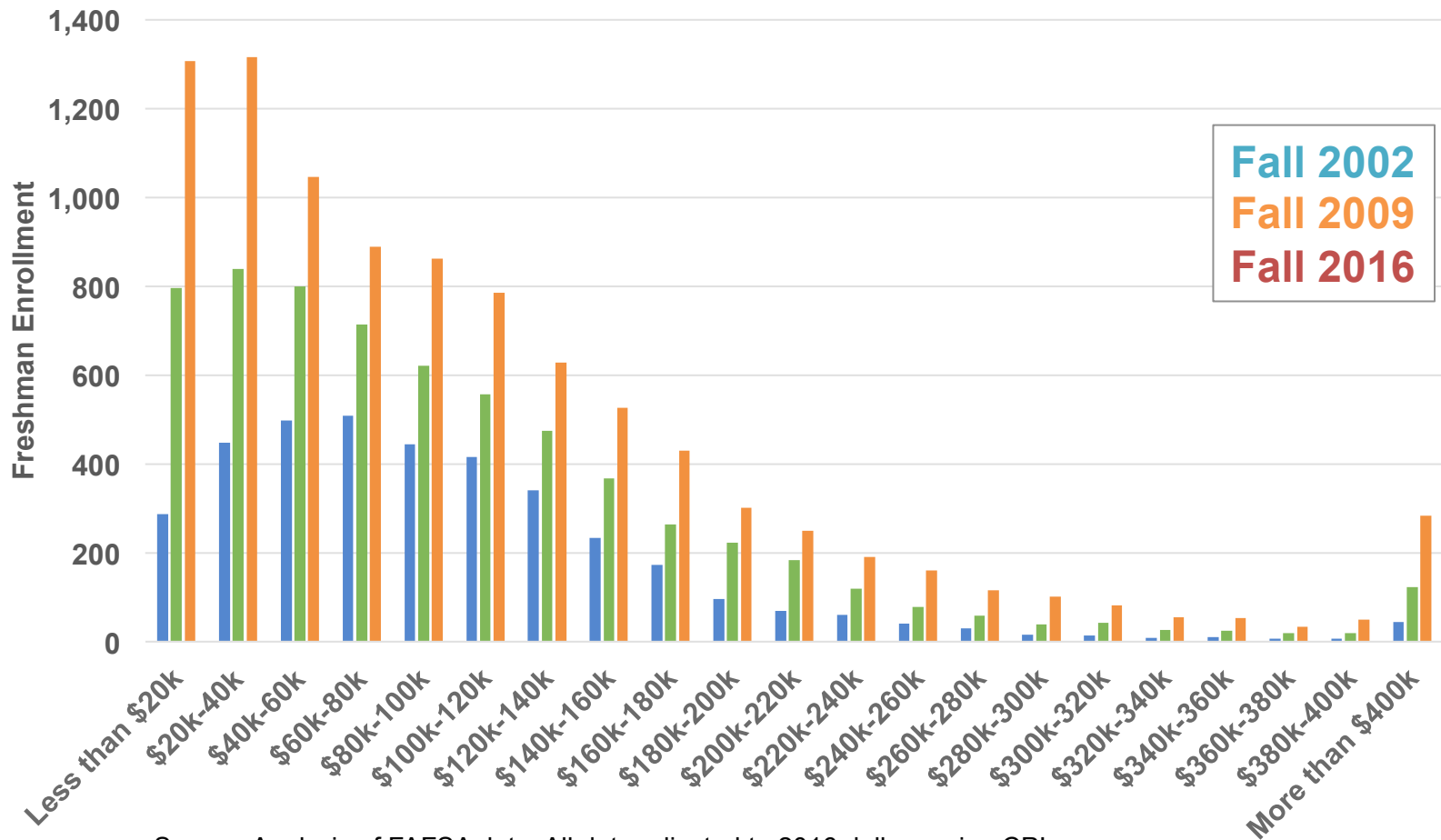
ASU Full-Time Resident Undergraduate Students 2016 Net Tuition Paid (after gift aid and tuition benefits)



ASU's commitment to financial aid continues to be crucial to affordability.

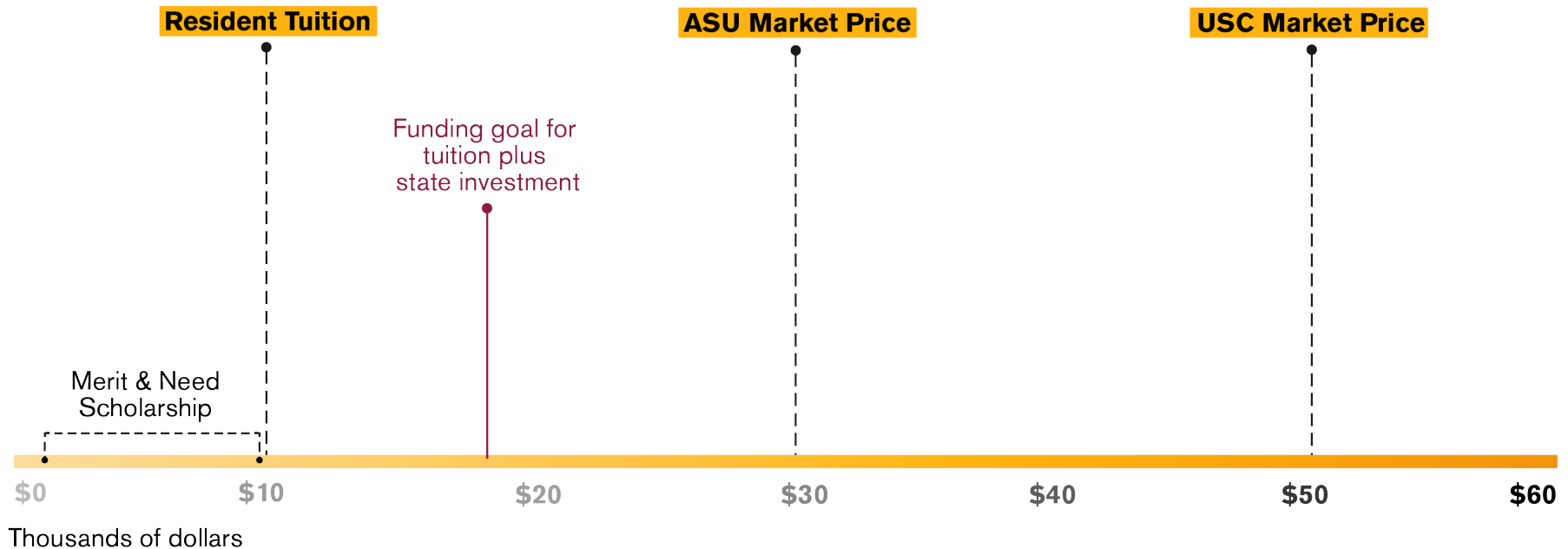
Slow shifts to further emphasize need in resident aid policies can support growth in access as K-12 and community college pipelines improve.

ASU First-Time Full-Time Freshmen Enrollment by Adjusted Family Income



Source: Analysis of FAFSA data. All data adjusted to 2016 dollars using CPI.
 Fall 2016 data preliminary as of 1/20/17. Analysis limited to dependent students.

Market Price Model



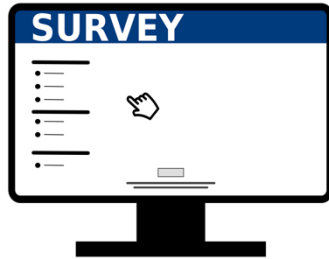
The market (measured by non-resident and international student demand) values an ASU education at \$30,000 per year.

Residents receive excellent value at \$10,000 less substantial financial aid.

Building the brand quality and recognition will allow further revenue opportunities in the non-resident markets.

ASU Marketing Hub

Insights are needed to impact and improve perceptions



brand tracker

The Hub has been measuring brand perceptions since June of 2014 across a wide range of constituents totalling over 12,000 to date.

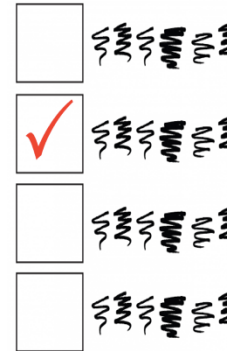
For some, we are now able to examine long-term effects of marketing and communications efforts designed to impact perceptions of the brand.



structural equation models

With the tracker data, we are able to perform complex analyses that help us understand the causal factors and their relative importance in influencing perceptions and behaviors.

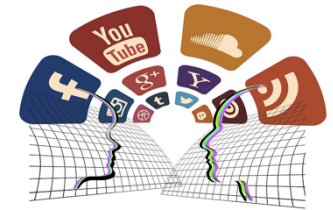
A structural equation model (SEM) exists for all key constituents to help guide marketing strategies and plans.



message testing

The SEM helps us decide where to focus to achieve desired outcomes while message testing helps us determine the optimum communication, by constituent, to deploy.

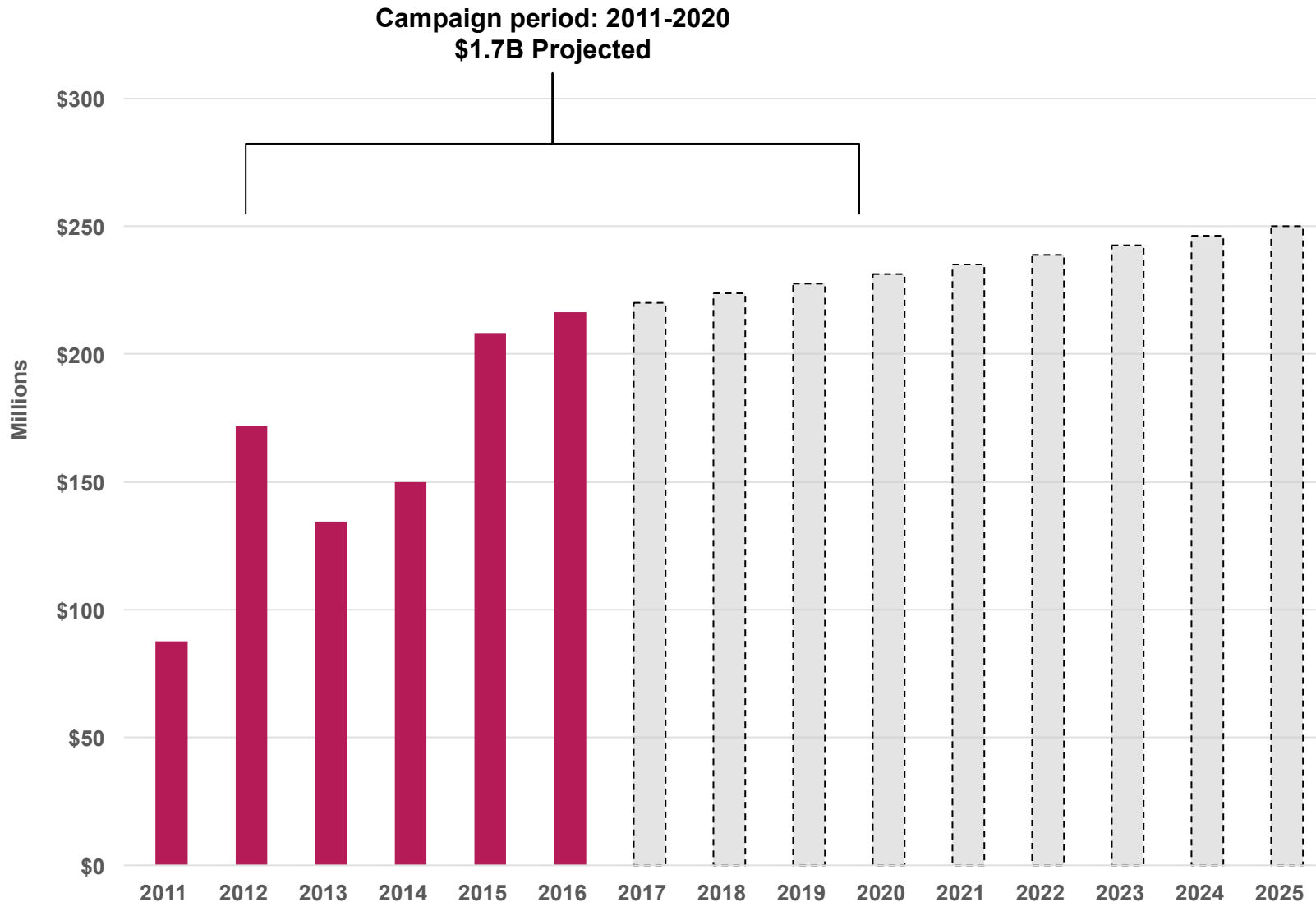
To date we have tested over 600 messages to determine their potential impact on brand perceptions.



marketing effects analysis

The Hub conducts post-program analyses on all marketing efforts to measure the effects.

ASUF New Gifts and Commitments



Enterprise and Innovation

Innovation Outcomes

- **Improved value**
ASU is Top Ten in the quality of graduates for employment.
- **Greater efficiency**
CPI-adjusted resources used per degree are 11% below FY08 levels.
- **Enhanced productivity**
Research support and development improvements contributed to a four-fold increase in research activity.
- **Satisfaction of market and national/public needs**
ASU Online provides degree pathways for a wider range of students.
- **Greater competitiveness**
Inter-disciplinary emphasis attracts top faculty.
- **Beneficial partnerships**
Mayo Clinic-ASU Alliance advances education and research capability.
- **Better outcomes**
Four-year graduation rates are close to double those of 2002.
- **Improved quality of life**
Moderate tuition/high financial aid policy changes quadrupled access for low-income families.

Educational innovation has driven the progress in student success and academic excellence

eAdvisor

Interdisciplinary schools and colleges

ASU Online

Starbucks College Achievement Plan

ePortfolio and other learning outcome tools

Adaptive and active course redesign

Mayo Clinic partnership

University Innovation Alliance

Operating and financial innovation has driven the resource strategies

Moderate tuition/high financial aid

OKED research development and support teams

Municipal partnerships

Santa Monica office

Residence hall partnerships

Marketing hub

The ASU Enterprise Plans strategies and tactics require ongoing innovation

Educational programs

Research and education alliances

Enterprise resource acquisition

Proliferating the ASU model

ASU Teaching and Learning Realms

Realm 01

Full Immersion
On-campus
Technology Enhanced

Realm 02

Digital Immersion
Online
Technology Enhanced

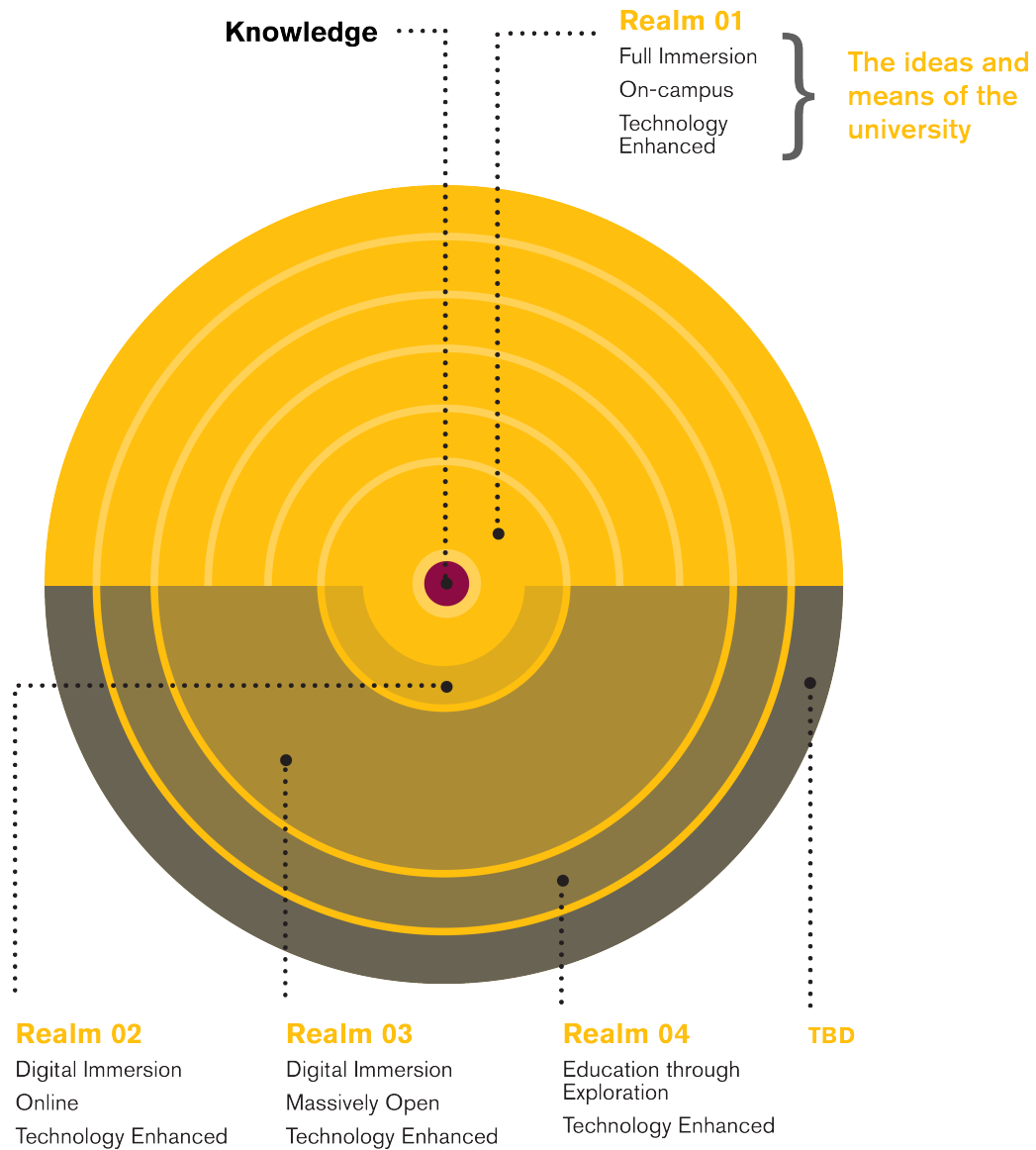
Realm 03

Digital Immersion
Massive Scale
Technology Enhanced

Realm 04

Education through
Exploration
Technology Enhanced

ASU Teaching and Learning Realms



Emerging Innovation Strategies: Educational Programs

Global Freshman Academy

Adaptive courses offered through a broad platform

ASU Preparatory Digital Academy

University to Business programs

Multiple executive education formats

Targeted programs in professional degree and non-degree education

Realm 4: Education through exploration

Emerging Innovation Strategies: Alliances

Mayo Clinic and ASU Alliance for Health Care

PLuS Alliance (with New South Wales and King's College London)

Partnerships to advance shared large-scale and long-term interests with major philanthropies

Emerging Innovation Strategies: Resource Acquisition and Operating Improvements

Most educational and alliance efforts have both programmatic and resource acquisition elements

A more comprehensive look at potential resources via ASUF Enterprise Partners

New forms of marketing and brand enhancement to support multiple goals

Next generation platform including mindset elements– for ASU and the broader market

Salesforce uses for service improvement and reaching new sources of support

Special Innovation Reports

Special Innovation Reports

Learning outcomes and teaching quality

Mark Searle, Executive VP and University Provost and Professor

Multiple pathways to ASU to be supported by Global Freshman Academy

Phil Regier, CEO and Dean, EdPlus and Associate Professor

ASU Digital Academy as a means of supporting K-12 success

Beatriz Rendon, VP Educational Outreach and CEO ASU Preparatory Academy

Leah Lommel, Assistant VP and COO, EdPlus

How to be successful with large scale multi-partner research programs: 16Psyche

Lindy Elkins-Tanton, School Director and Professor, School of Earth and Space Exploration

Sethuraman Panchanathan, Executive VP OKED and Chief Research & Innovation Officer

Managing deferred maintenance in a sub-optimal system

Morgan Olsen, Executive VP, Treasurer and CFO

Adaptive learning

Adrian Sannier, Senior Technology Fellow, EdPlus and Professor of Practice

The Challenges

Challenges

ASU's business plan has anticipated many of the challenges outlined here and has articulated strategies for dealing with them.

Worthy of discussion since there is a role for the Regents in addressing many of the challenges

National and International Challenges

Outdated perception of ASU

Growing competition for students and changes by competitors in use of financial aid

General demographic challenges

State and Local Challenges

High school performance

Community college relationship

Resident graduate enrollment

No predictable investment model regarding the value of education

Limited reaction to Arizona's lagging pace of economic recovery

Management Complexity

Balancing #1 and #2

#1: Sailing the ship -- Assuring regular improvements in day-to-day operations

#2: Speeding up the ship (without sinking it) -- Integrating innovation at scale

- Design of innovations and how to pilot
- Analysis
- Implementation

Balancing momentum and financial risk

Discussion

