A business strategy for the transition of USA from R2 to R1

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Presentation to Faculty Senate



Carnegie Ranking System of 4,000 Universities

Research 1: Very High Spending and Doctorate Production

On average in a single year, these institutions spend at least \$50 million on research & development and produce at least 70 research doctorates.

Research 2: High Spending and Doctorate Production

On average in a single year, these institutions spend at least \$5 million on research & development and produce at least 20 research doctorates.

Research Colleges and Universities

On average in a single year, these institutions spend at least \$2.5 million on research & development. Institutions that are in the R1 or R2 categories are not included.

146

137

187



2021 – Doctoral University Higher Research Activity (R2)

2018 – Doctoral University Higher Research Activity (R2)

2015 – Doctoral University Higher Research Activity (R2)

2010 - Master's Colleges and Universities (larger programs)

2005 – Master's Colleges and Universities (larger programs)









USA Path

- Compared to most other Universities USA path to R2 has been relatively rapid (top 7%).
 - Avg. age of R2 Universities: 125 yrs.
 - Avg. age of R1 Universities: 153 yrs.
- USA path to R1 is already set (top 3%). The idea that there is some decision point is a false dichotomy.
- The real question is when.

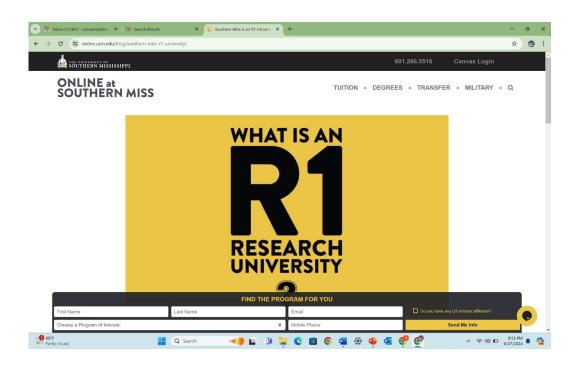


Notes on Ranking System

- 2025. 70 Research doctorates and \$50 Million research expenditures
 - Qualifying research doctorates include Ph.D.'s, Ed.D., D.M.A., D.B.A., D.Sc., D.A., or D.M, and others, as designated by the awarding institution.
 - Research expenditures can be extramural or internal but only research funds (student aid not included)
- 2025. Will use one year high or average.
- 2028, 2031, 2034...will likely use three year average



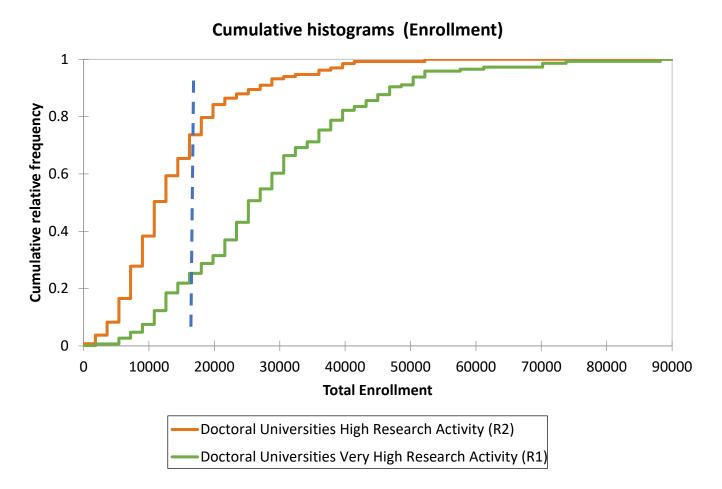
What does R1 mean.



- Prestige to perspective students, employers, faculty grant agencies....
- Recruitment of outstanding graduate and undergraduate students
- Recruitment and retention of outstanding faculty
- Increased resources and competitive salaries
- Elite company



Elite company: R1's with similar enrollment



- Dartmouth
- Stanford
- Tulane
- Brown
- Rice
- UAH
- USM
- Vanderbilt
- Emory
- University of Denver
- Boston University



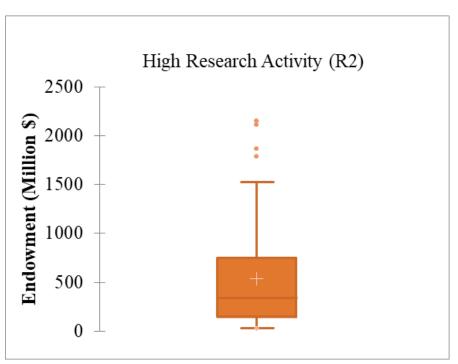
Newest R1's (2022)

- Baylor University. ...
- •Kent State University. ...
- North Dakota State University. ...
- •Old Dominion University. ...
- •University of Denver. ...
- •University of Louisiana at Lafayette. ...
- University of Memphis. ...
- University of Texas at San Antonio.



Note scale change One additional 0

Endowments Help!



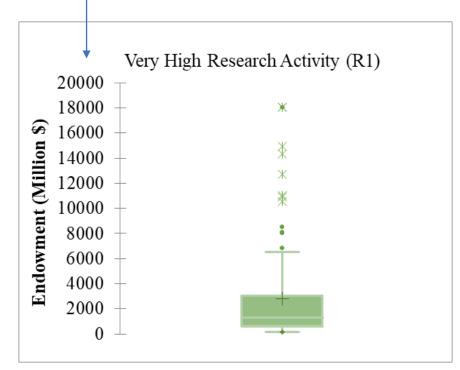


Figure 7. Endowment levels at R2 (top) and R1 (bottom) institutions. For reference, the combined endowments of USA are approximately \$646 million. The + sign indicates the average and the solid line within the box indicates the median. Note, for scale Yale, Harvard, Stanford, Princeton and MIT are not included as their endowments approach \$25-50 billion and would impact the readability of scale of the R1 graph.

Med Schools help! – A lot!

22% vs 56%



R2's with medical Schools





Benefits to faculty, staff and students



- Higher faculty salaries at R1's
- Higher faculty retention
- Increased student research opportunities
- Increased grant application success
- Improved research facilities



Where do we stand now: Research doctorates

Research Doctorates by Academic Year

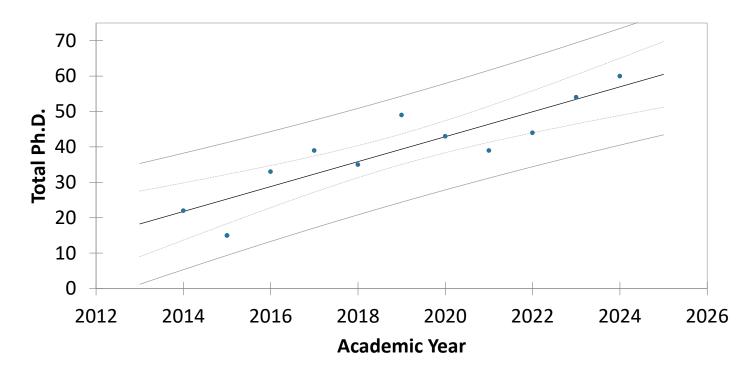


Figure 3. Ten-year trend in number of research Ph.D. graduates at USA showing an increasing trend with an annual average increase of 11% per year. The correlation with time is highly significant (p < 0.001; r = 0.89)

Where do we stand now: Research doctorates

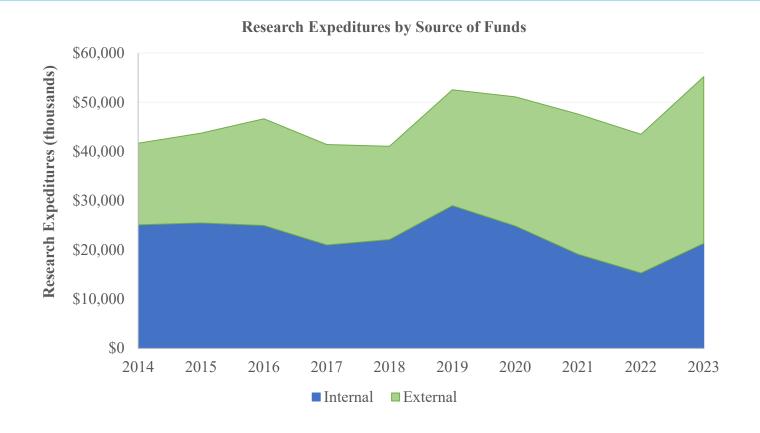


Figure 5. Ten-year trend in research expenditures by source (extramural and internal sources) at USA showing an increasing trend in extramural grant expenditures.



Plan Goal



- Improving the quality and quantity of USA scholarly activities and graduate education are already strategic goals of the University.
- Changes to the University's research classification (R2 to R1) will simply be an externally recognized metric of USA quest to address these goals.
- Ensuring that this transition serves to increase opportunities for our undergraduate students and provide greater resources to all faculty should be a coupled institutional priority.

Plan Development

- 22 member committee worked for over 18 months (1/3 representation by faculty senator).
- Institutional research
- Review of accomplishments and challenges
- Projections
- Review of R1 transition plans and literature
- Identification of future opportunities
- Administration review and university community outreach*





About Initiatives Strategic Plan Leadership

SDState Home > Office of the President > Strategic Plan >

R1 Our Way

R1 Our Way

During summer 2023, the South Dakota Board of Regents adopted SDSU's Pathway to Premier 2030 strategic plan. It includes numerous measurable goals, but one bold vision stands out.

Elevate SDSU as a research university and pursue a pathway to achieve designation as an R1 Research University by Carnegie Classification of Institutions of Higher Education.

One hundred campus leaders who developed the strategic plan further said R1 must enhance the university



Common Elements of R1 transition plans

Administrative

Robust strategic planning

Governing board engagement

Vertically integrated administrative commitment (Dept. Chairs to President)

Greater allocation of administrative resources for research

Resource Acquisition

Increase state and federal relationships

Increased government appropriations

Comprehensive development/fund raising campaign

Research Ecosystem Shift

Cultural change in research support (customer service driven model)

Creating centers of excellence

Creating peer support groups to increase competitiveness of grant applications

Institutional Policy Changes

Greater inclusion of research productivity in tenure, promotion and annual faculty reviews.

Recruitment of more academically prepared students

Plan Highlights

I. University-wide Cultural and Policy Related Change (4)

II. Increase Competitiveness in Retaining and Recruiting Outstanding Faculty (3)

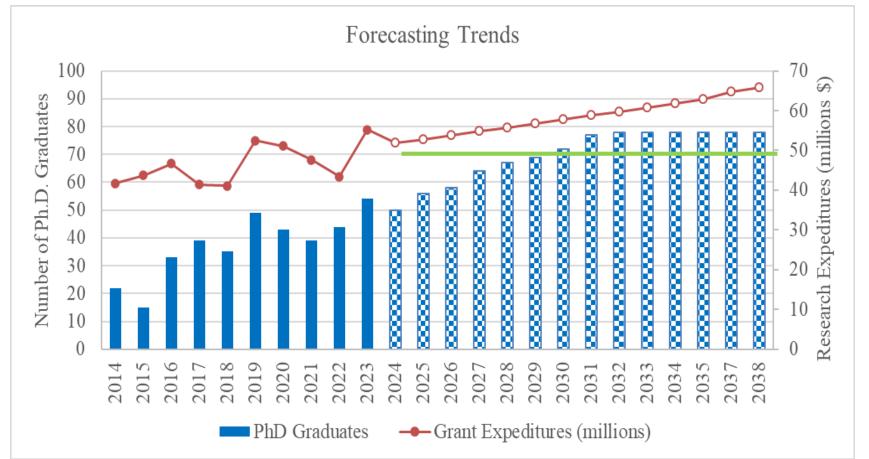
III. INCREASE RESEARCH PH.D. PRODUCTION AT USA (7)

IV. INCREASE RESEARCH AWARDS AND EXPENDITURES AT USA (10)



When?

• With committed investments – 2034 ranking.





What can we do to speed transition?

Ranking	Years included in	Forecaste	Current R1	R1 Ph.D.	Modeled	Current R1	R1 Target	Carnegie
Year	assessment	d Ph.D.	Ph.D. Target	Target	Research	Research	Met	Rank
		Graduates		Met	Expenditure	Expenditure		
						Metric		
2025	2024*	54	70	No	55	50	Yes	R2
2028	2025-2027	59	70	No	54	50	Yes	R2
2031	2028-2030	69	70	No	57	50	Yes	R2
2034	2031-2033	78	70	Yes	60	50	Yes	R1
2038	2034-2037	78	70	Yes	63	50	Yes	R1

Table 9. Prediction of USA Carnegie ranking over the next five ranking cycles assuming the Carnegie benchmarks for Ph.D. research graduates and research expenditures stays static. The model also assumes USA research expenditures will continue to increase at 2.2% a year and Ph.D. graduates will continue to increase as forecasted by the graduate coordinators. USA will achieve R1 status in 2034 in this scenario.



Take home messages



- USA has made incredible progress in research and doctorate education – a point that needs to be stressed.
- USA will be an R1 program there is really no decision point.
- Increases in research doctorates is the most pressing issue.



R1 by 2028 Strategy

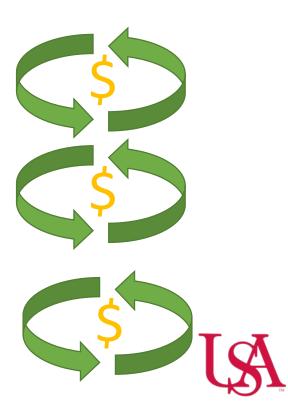
- R1 by 2028 Strategy 1: Ensure projections in latest draft of R1 transition report are met! This is a key assumption and one that must be monitored.
- R1 by 2028 Strategy 2: Graduating our ABD students as well as accelerating students currently in the program through a dissertation completion grant program.
- R1 by 2028 Strategy 3: Deans need to be more aggressive in their current near term doctorate recruitment.
- R1 by 2028 Strategy 4: USA must improve their ability to track internal research expenditures.





Proposed additional resources

Item	Budget Location
Doctoral Dissertation Completion	Graduate School
Doctoral level Graduate Assistantships*	Graduate School
Additional Faculty Start up	Graduate School
Salary & New positions	Provost Office
Grant (pre and post-award support)	Research Office and Grants Adminiostration





UT-San Antonio and Baylor become the latest Texas universities to achieve Carnegie Tier One research status



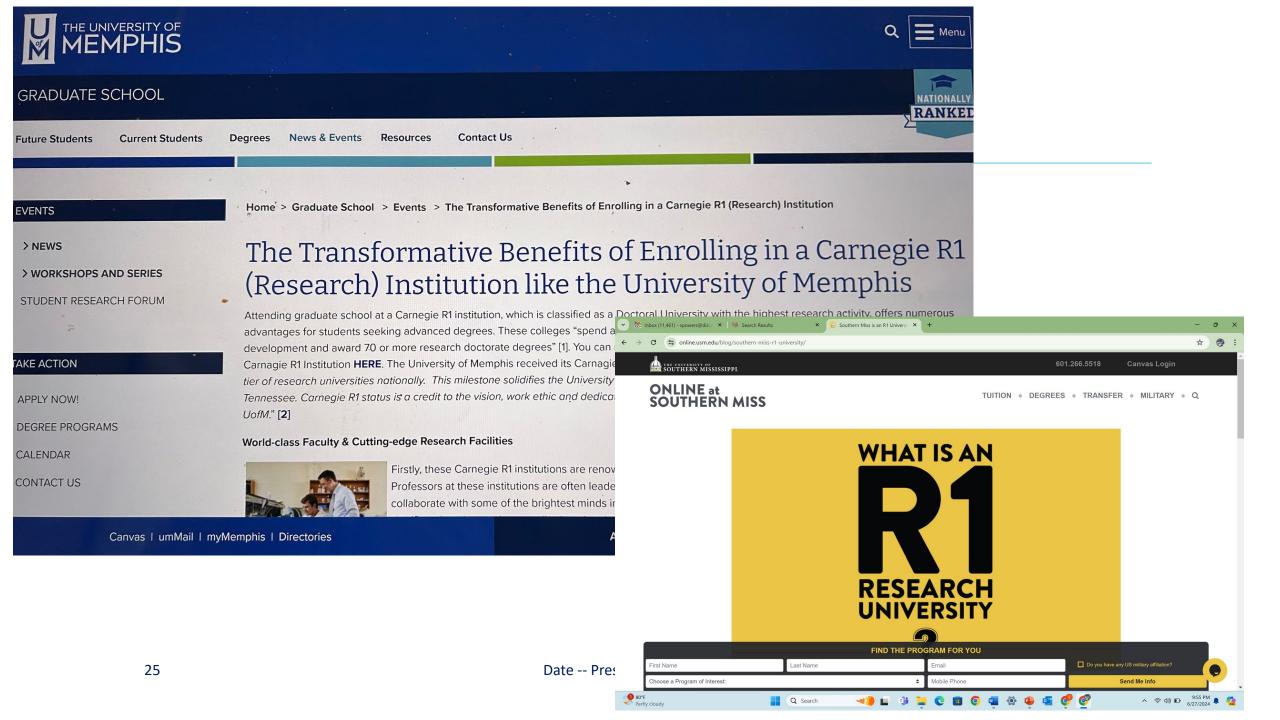
What prestigious R1 classification means for Utah State University

By Logan Stefanich, KSL.com | Posted - Dec. 25, 2021 at 2:05 p.m.



Utah State University has joined the highest level of research institu classification. (Utah State University)

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