



Can Saygin

Senior Vice President for Research
Dean of the Graduate College

Activity Report
May 2023 – April 2024

May 30, 2024

The University of Texas
Rio Grande Valley™

.....
Research

TABLE OF CONTENTS

page

EXECUTIVE SUMMARY: Performance Metrics	2
UTRGV 2022 STRATEGIC PLAN: Research Priorities	4
Building Capability at College Level	4
Increasing Number of Faculty Submitting Proposals	5
Pursuing Large-Scale Grant Opportunities	5
Operational Awareness: Dashboards	7
Doctoral Hooding Ceremony	10
Outreach	10
Research Support Services: Customer Satisfaction Surveys	11
External Service	12
2023-2024 WORK PLAN	13
1. Emerging Research University (ERU) Status	13
2. Doctoral Programs & Proactive Advising to Improve Degree-to-Graduation	14
3. Graduate Program Coordinators (GPC) and Degree Progression	14
4. Graduate Student Recruitment	14
5. Economic and Workforce Development	17
6. Large Gifts/Contracts from Private Donors/Foundations	17
7. Faculty Research Culture	17
8. Research Space Renovation	17
9. Organized Research Units (ORU)	17
10. Proposal Submission and Sponsored Project Management “Digital Platform”	19

EXECUTIVE SUMMARY: Performance Metrics

UTRGV's Total Research Expenditures reached \$82.44M in FY23 (source: NSF HERD); \$18M increase from FY22 (Figure 1). Restricted Research Expenditures increased from \$28.90M in FY22 to \$42.40M in FY23 (Figure 2), which is the largest increase in the history of UTRGV.

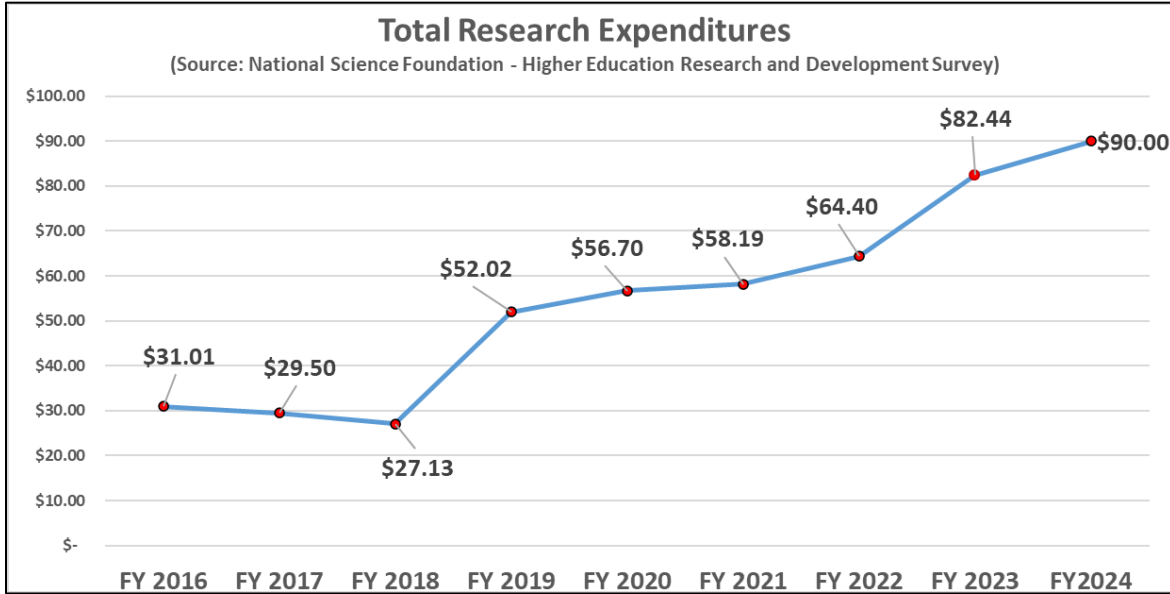


Figure 1. Total Research Expenditures (NSF HERD)

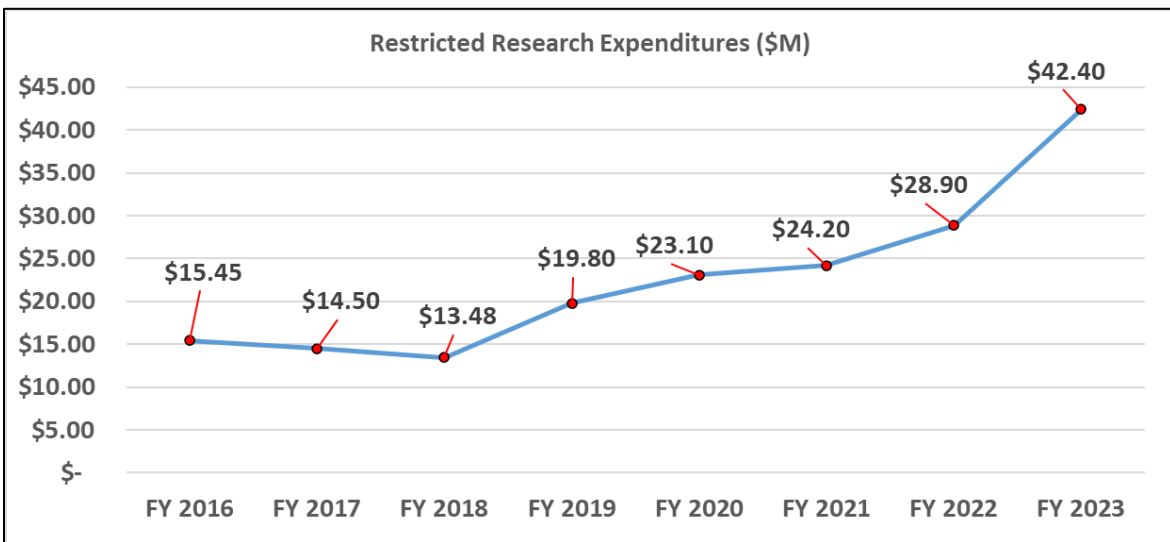


Figure 2. Restricted Research Expenditures

Total Research Expenditures in FY24 is \$55.61M in 8 months (Sept 2023–April 2024), which is \$7.86M above last year’s performance at this time, as shown in Figure 3. I project UTRGV’s NSF HERD expenditures to be close to \$90M in FY24, which will move UTRGV up in the NSF HERD rankings from 193 (FY22) to the range of 170’s.

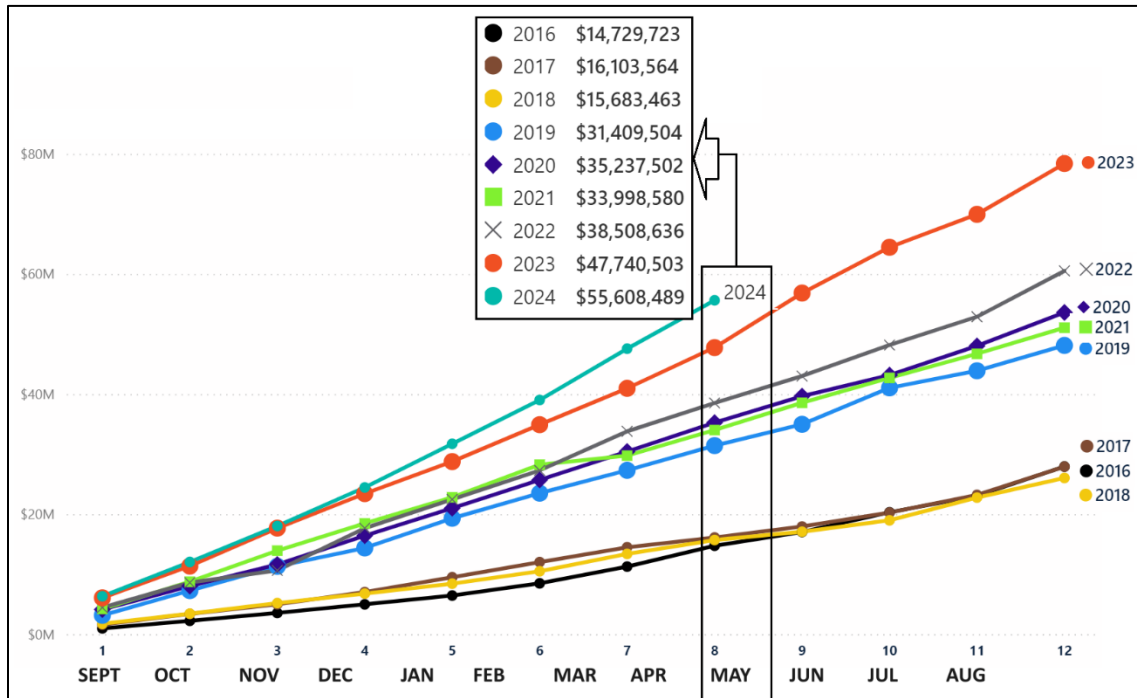


Figure 3. FY24 Total Research Expenditures – Sept 2023 through April 2024

Our second key performance indicator is **research doctoral degrees (PhDs and two EDDs) awarded**. As of end of Spring 2024, we have a total of 43 degrees awarded (Figure 4). With at least 9 more anticipated in summer, I estimate that we will have close to **50 research doctoral degrees awarded in Academic Year 2024**.

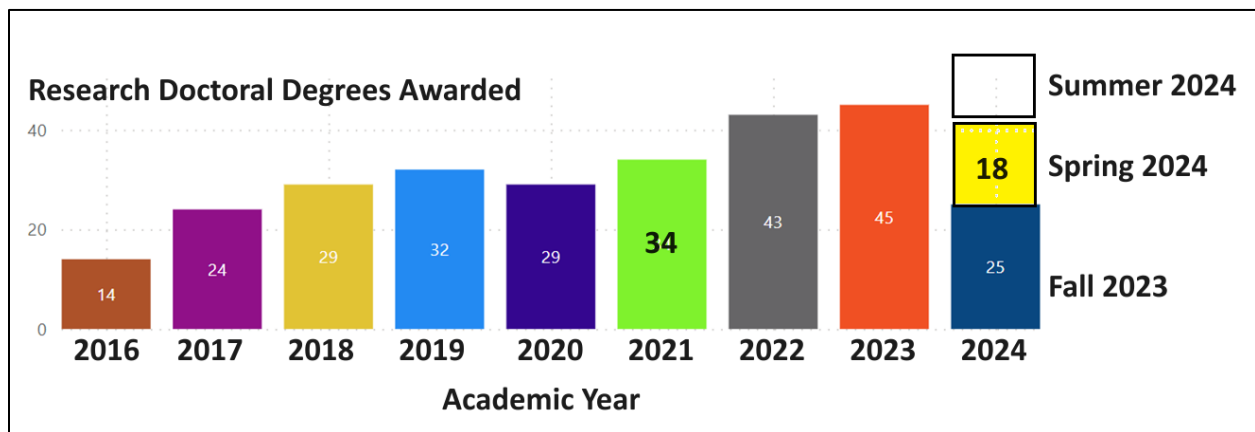


Figure 4. Research Doctoral Degrees Awarded

To establish a growing, sustainable research portfolio, it is important to monitor and control operational metrics to achieve higher-level strategic goals. In FY24, I identified [10 operational metrics](#) that define capacity, effort, and outcomes related to faculty activity in terms of proposals, awards, and expenditures. The status of these 10 operational metrics from Sept 2023 through April 2024 for FY24, along with previous FYs, are shown in Table 1.

Table 1. Operational Metrics (FY24 includes only Sept 2023 through April 2024; others full FY)

Operational Metrics	FY24	FY23	FY22	FY21	FY20	FY19
1. No. of Proposals Submitted	336	501	455	411	445	367
2. No. of Awards Received	162	240	263	201	198	195
3. Restricted Research Expenditures (\$M)	\$23.2	\$42.4	\$27.4	\$24.2	\$23.1	\$18.6
4. Total Research Expenditures (\$M)	\$55.7	\$78.8	\$60.7	\$54.3	\$53.7	\$48.3
5. No. of Faculty on Proposals	323	359	343	234	226	223
6. No. of Faculty on Awards	158	206	226	170	145	148
7. No. of Faculty with Spon. Prj. Expenditures	350	349	327	227	222	196
8. No. of Faculty with Restricted Research Expend.	222	215	194	118	111	94
9. Total Requested Amount (\$M)	\$464.6	\$460.8	\$384.9	\$388.3	\$380.2	\$256.1
10. Total Funded Amount (\$M)	\$74.8	\$98.8	\$97.1	\$254.6	\$124.2	\$50.7

The 10 operational metrics of FY24 are compared to the same period (Sept 2022 through April 2023) in FY23 in Table 2. The difference between FY23 and FY24 shows healthy growth and progress in the right direction across all [10 operational metrics](#).

Table 2. Operational Metrics: Comparison of FY24 versus FY23 (Sept – April)

Operational Metrics	FY24	FY23	Difference
1. No. of Proposals Submitted	336	300	12 % +
2. No. of Awards Received	162	117	38 % +
3. Restricted Research Expenditures (\$M)	\$23.2	\$22.00	5 % +
4. Total Research Expenditures (\$M)	\$55.7	\$48.00	16 % +
5. No. of Faculty on Proposals	323	283	14 % +
6. No. of Faculty on Awards	158	124	27 % +
7. No. of Faculty with Spon. Prj. Expenditures	350	313	12 % +
8. No. of Faculty with Restricted Research Expenditures	222	197	12 % +
9. Total Requested Amount (\$M)	\$464.6	\$268.00	73 % +
10. Total Funded Amount (\$M)	\$74.8	\$56.00	34 % +

[UTRGV 2022 STRATEGIC PLAN: Research Priorities](#)

[Building Capability at College Level](#) In FY23, I witnessed a significant number of incidents where the pre-award team received incomplete proposal packages from faculty that the research staff had to re-do and revise, which was time consuming and created bad experiences for faculty. To ensure faculty members had access to a pre-award person in their own college and assist them with initial proposal preparation, I suggested to the deans to cost share a pre-award position in each college. I developed the [50/50for3](#) program, which is a partnership model where the Division of Research and the participating academic/health College/School commits to pay half (50%) of the salary of an FTE

for 3 years. As of May 2024, we have filled in all positions, and we are receiving favorable feedback from faculty about the impact of the 50/50for3 program. This initiative provides pre-award capability at the college/school level while it ensures completeness of proposal packages coming to the Division of Research so that our staff capacity is properly used, with fewer re-work and related corrections/revisions.

Increasing Number of Faculty Submitting Proposals In FY23, only 359 faculty members (See Table 1, operational metric #5) submitted one or more proposals. As shown in Figure 5 for FY24 (Sept’23-April’24), only 363 faculty members have restricted (externally-funded) expenditures (including research and non-research sponsored projects). Of these 363, only 222 faculty members have active “research” grants. Considering over 800 faculty members with some level of research-related faculty workload, UTRGV has the capacity to submit more proposals, which can only be accomplished by enforcing faculty workload policies and related annual expectations.

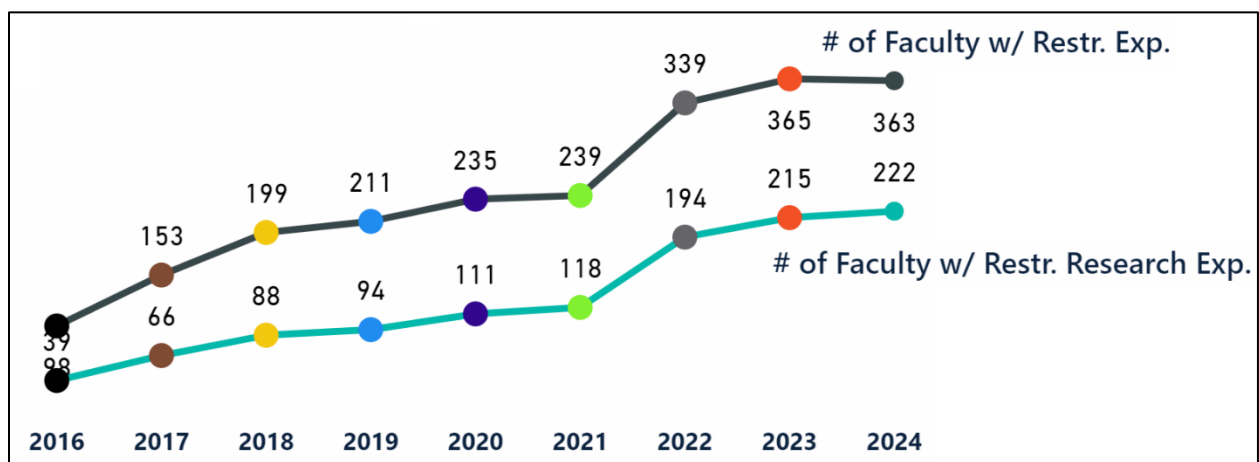


Figure 5. Number of Faculty with Active Sponsored Projects

While the grants-active faculty numbers (Figure 5) are increasing, I focused on two categories of faculty members in the past 12 months. First, I analyzed the background and expertise of those faculty members who have never submitted a proposal; I encouraged them, with support from the Division of Research, to at least work on a proposal, which became the “First Time Proposal” initiative. In FY24 so far, 54 faculty members submitted a proposal for the first time at UTRGV. Second, we mentored faculty members and provided post-award services to faculty who have received an award for the first time at UTRGV, as part of our “First Time Award” initiative. In FY24 so far, 34 faculty members received an award for the first time.

Pursuing Large-Scale Grant Opportunities In August 2023, I hired a new assistant vice president (AVP) for research enhancement to focus on faculty research development and pursue large-scale, multi-disciplinary grant opportunities. The new research enhancement function started off with one AVP and significantly supported, facilitated, and assisted in the preparation and submission of 25 proposals, as listed in Table 3, with a total budget of over \$426M.

Table 3. Proposals Assisted by the Research Enhancement Unit

	Project Title	Sponsor Name	Amount
1	GHG reduction and economic development through community organic waste recycling, composting and, economic incubations	US Environmental Protection Agency	\$199,995,260
2	The University of Texas Rio Grande Valley Diabetes Center of Excellence (UTRGV-DCE)	The Valley Baptist Legacy Foundation	\$30,000,000
3	Rio Grande Valley Cancer Health Disparity Research Center	U.S. Dept of Health & Human Services	\$25,659,162
4	FY23 TEXAS Grant GEER funding - 27563	Texas Higher Education Coordinating Board	\$22,057,735
5	Advancing the Science and Innovation in Materials and Manufacturing Technologies through Research in Convergent Manufacturing and AI-based Design	U.S. Department of Defense	\$17,500,000
6	Coastal Landscape Integrated Modeling for Tracking Infectious Disease Emergence (CLIM-TIDE)	U.S. Dept of Health & Human Services	\$17,016,633
7	UTRGV Diversity Center for Genome Research	U.S. Dept of Health & Human Services	\$10,907,503
8	Boosting Integrated Opportunities for Students in FANH through Education, Research, and Advisement (BIOSFERA)	U.S. Department of Agriculture	\$10,000,000
9	Center of Excellence in High-Power & High-Capacity Energy Storage through Convergent Manufacturing (H2ESAC)	U.S. Department of Defense	\$10,000,000
10	Experimental Cellular Approaches to Genotype x Environment Interaction	U.S. Dept of Health & Human Services	\$9,436,157
11	Early Head Start Continuation	U.S. Dept of Health & Human Services	\$7,761,708
12	Empowering Nonprofit Organizations of South Texas	U.S. Department of Energy	\$7,158,943
13	A Novel Low-Risk Device to Improve Neurological Function through Neuroplasticity for USN (Unilateral Spatial Neglect) Patients	U.S. Dept of Health & Human Services	\$6,126,930
14	South Texas Center of Excellence on Cancer Research (ST-CECR)	Cancer Prevention & Research Inst. of TX	\$6,000,000
15	Cultivating and transforming intent into action in the undergraduate to graduate engineering study pipeline	National Science Foundation	\$5,240,894
16	Cultivating a Sense of Belonging through Research, Education, and Engagement in Food and Agriculture at UTRGV (CREE @ UTRGV)	U.S. Department of Agriculture	\$5,000,000
17	Defense Manufacturing Community Support Program	U.S. Department of Defense	\$5,000,000
18	Rio-South Texas Additive Manufacturing Tech Hub	Rio-South Texas Education and Community Development Foundation	\$5,000,000
19	Target 2030: The University of Texas Rio Grande Valley (UTRGV) Research Strategic Plan to Reach R1 Status	U.S. Department of Education	\$5,000,000
20	NSF MRI: DEVELOPMENT OF THE NEXT GENERATION VARIABLE FLOW QUALITY CLIMATIC WIND TUNNEL	National Science Foundation	\$3,999,993
21	Equipment: MRI: Track 2 Development of the Next Generation Altitude Transonic Wind Tunnel	National Science Foundation	\$3,999,471
22	Industrial Assessment Center of Excellence	U.S. Department of Energy	\$3,749,992
23	I-DREAM4D National Consortium: Creating A National Network for Research and Education on Convergent Manufacturing for the Defense	U.S. Department of Defense	\$3,499,999
24	Center for Railway Systems Automation Integration through Artificial Intelligence	U.S. Department of Transportation	\$3,310,000
25	Rio Grande Valley Alzheimer's disease RCMAR	U.S. Dept of Health & Human Services	\$3,195,341

I am the PI on proposal #1, which is under review, and the PI on proposal #19 that was awarded \$5M to build a sustainable R&D support infrastructure.

Operational Awareness: Dashboards We have added the following new dashboards to our portfolio:

1. **ORU Research Productivity Dashboard:** 16 Centers/Institutes are displayed (Figure 6) with their proposal, award, and expenditures metrics to facilitate monitoring of their performance and contribution to institutional metrics.

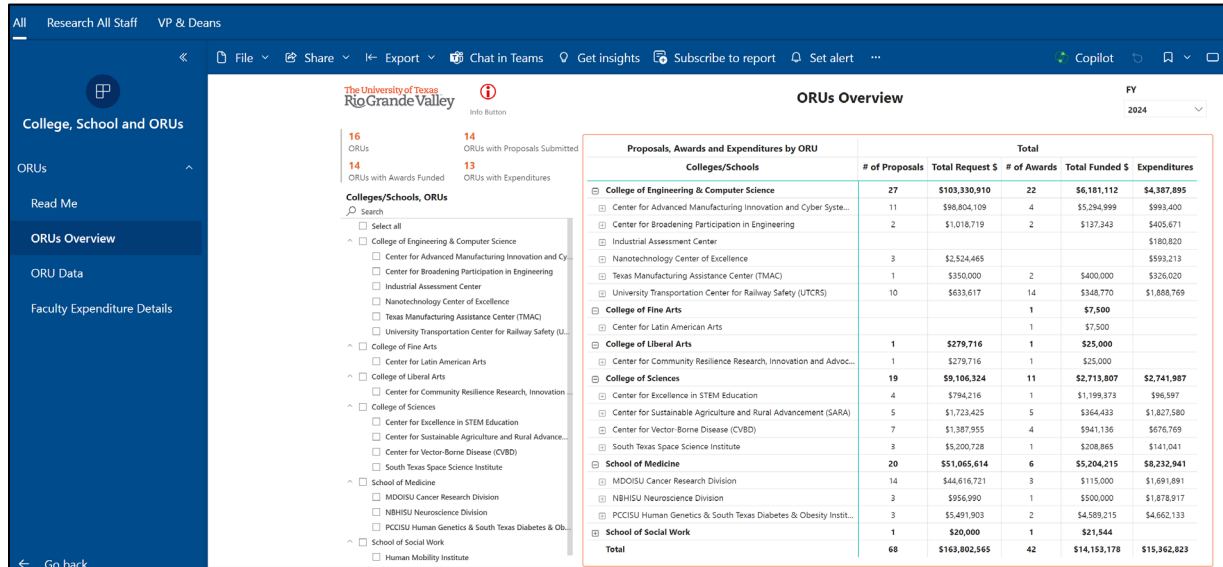


Figure 6. ORU Performance Dashboard

2. **Graduate College Dashboard:** This platform provides degree progression of doctoral students with BANNER data, which was used extensively for the EDD programs (Figure 7).

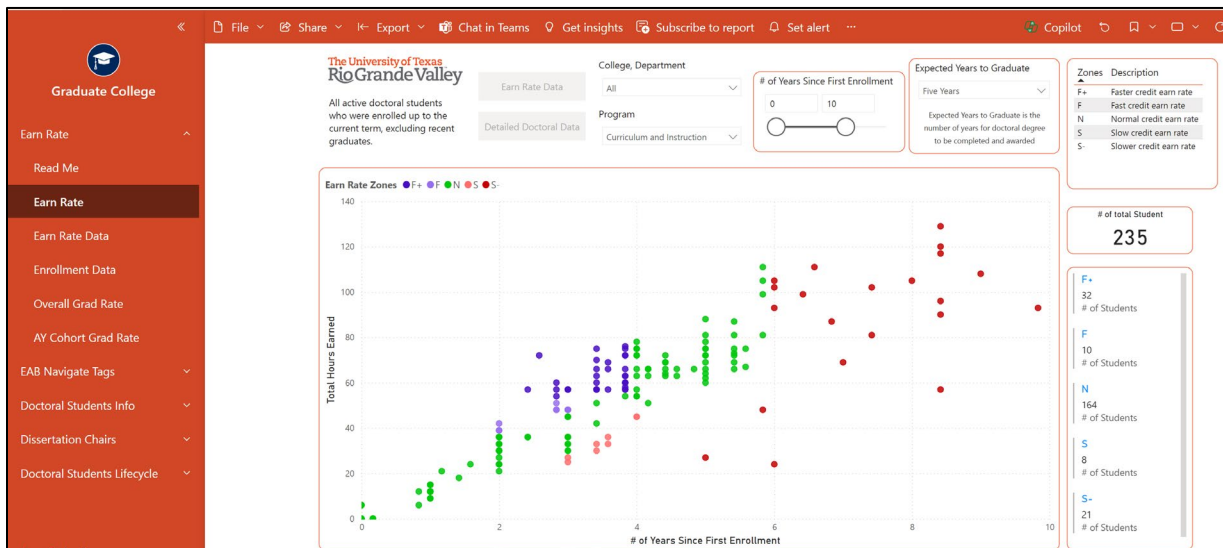


Figure 7. Doctoral Degree Progression Dashboard

3. **Metrics and Reports:** This dashboard (Figure 8) provides data and comparative performance indicators for the 10 operational metrics (Tables 1 and 2) so that we can monitor metrics in the current FY compared to the previous FY of the same period.

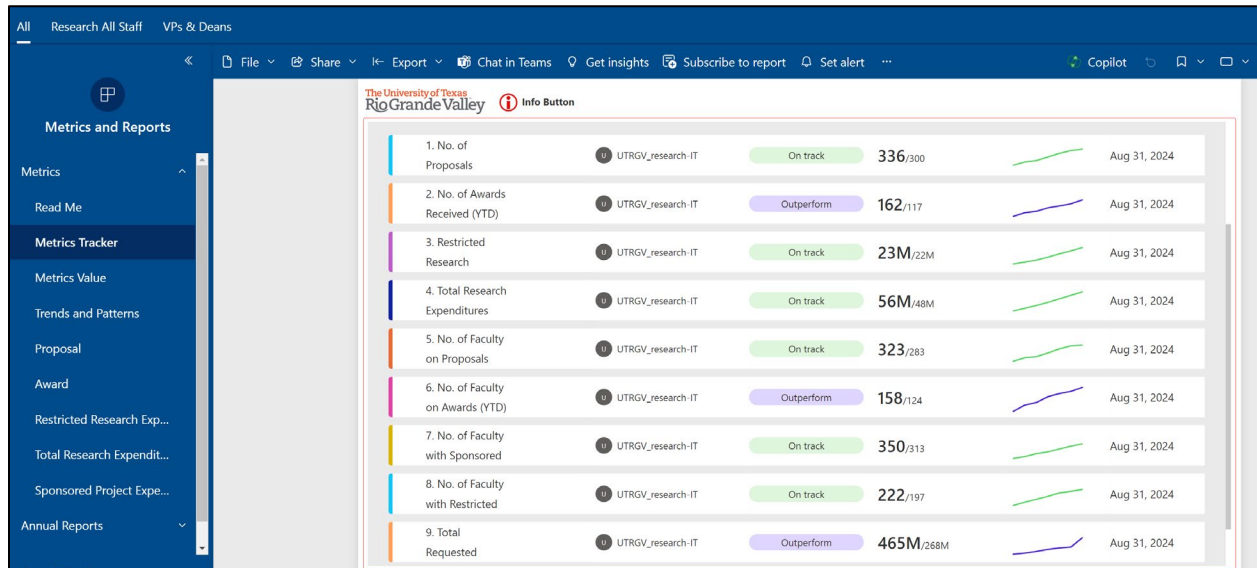


Figure 8. Metrics and Reports Dashboards

4. **Faculty Outlook:** On this platform (Figure 9), faculty workload related data are compiled into one table, including teaching workload, dissertation committees, and data from proposals, awards, and expenditures metrics.

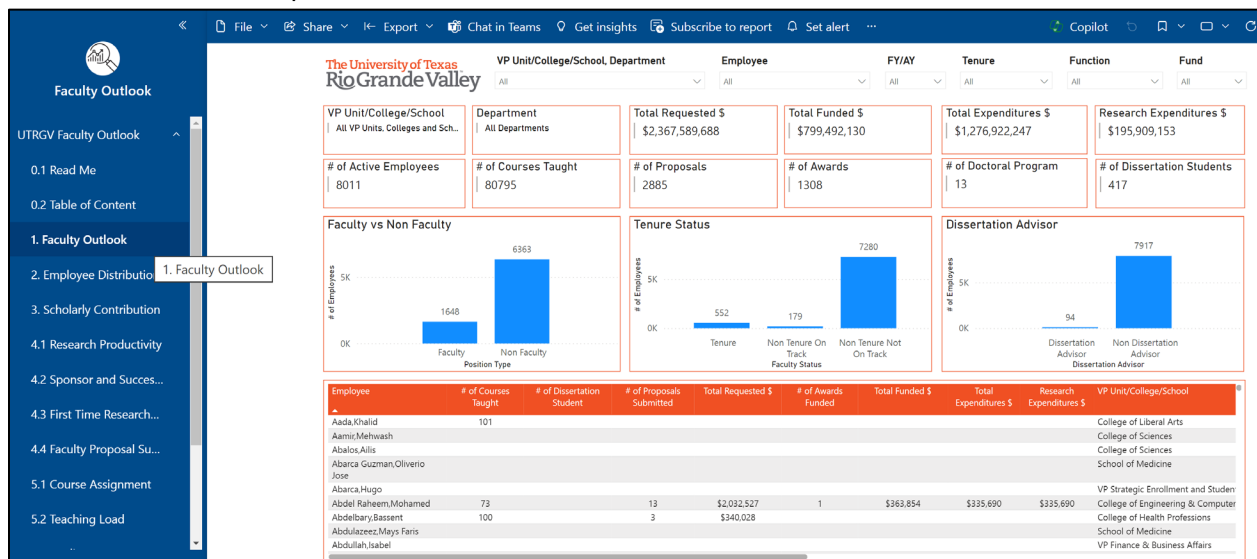


Figure 9. Faculty Outlook

- Carnegie Classifications:** This is the new Carnegie dashboard (Figure 10) that uses past data mapped based on 70 research doctoral degrees and \$50M total research expenditures criteria.

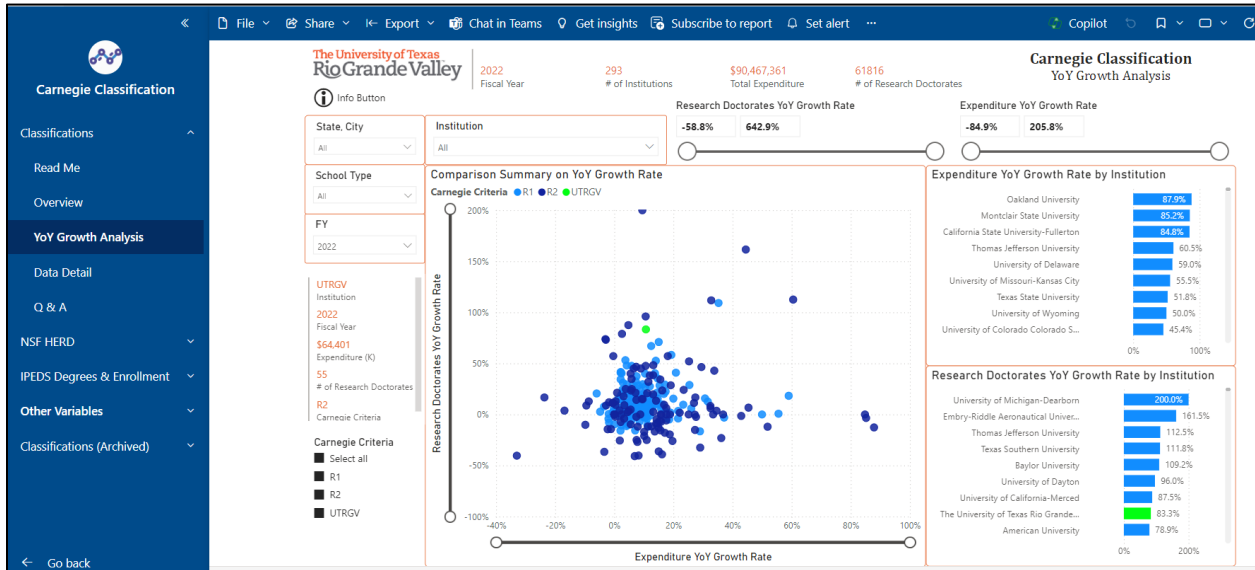


Figure 10. (New) Carnegie Dashboard

- Academic Analytics (by academicanalytics.com):** UTRGV faculty scholarly and grants related activities have been uploaded. This platform provides comparative data across the US against similar institutions, disciplines, colleges, and departments (Figure 11).

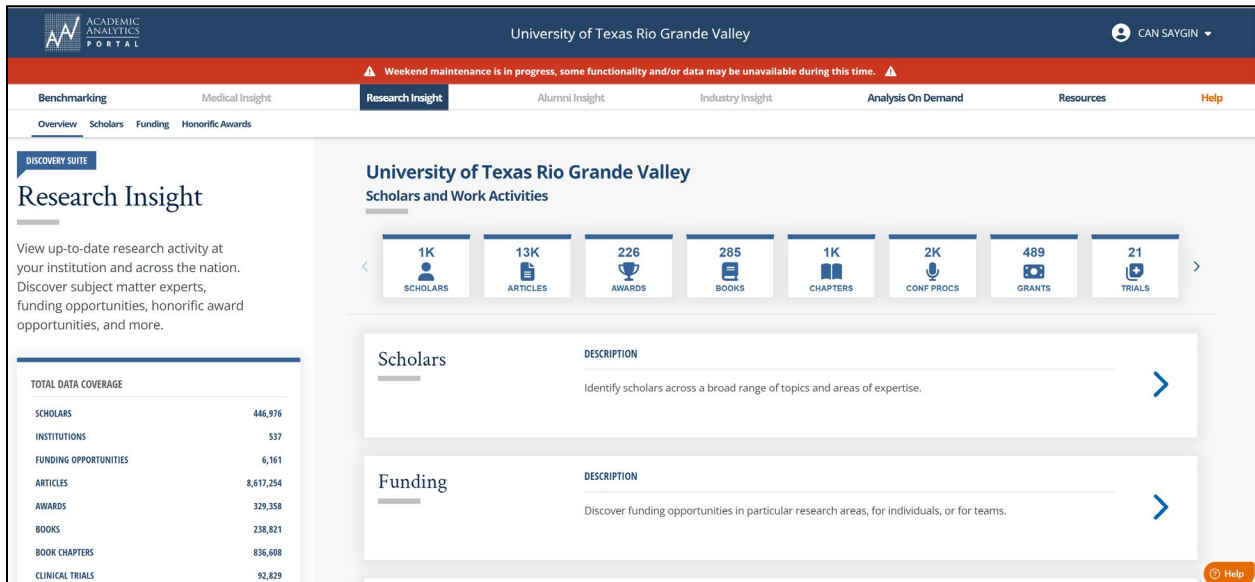


Figure 11. Academic Analytics

Doctoral Hooding Ceremony To contribute toward building [research culture and research recognition](#), I initiated “Doctoral Hooding Ceremony” as a new tradition at UTRGV. The first one was held in December 2023 and the second one was held in May 2024 (Figure 12).



Figure 12. Doctoral Hooding Ceremony at UTRGV: A new tradition

Outreach To expand our portfolio of partners, I signed an MOU (10/6/2023) with [Oak Ridge National Laboratory](#) for collaborative research, including graduate students. In May 2024, this MOU led to planning of a joint research program in energy, materials, and manufacturing, including UTRGV doctoral students (to be included in next year’s report). In addition, I met with the president of the [Universidad de las Americas Puebla](#) (UDLAP, Mexico) and his team, and signed (3/18/2024) a collaborative research agreement related to manufacturing systems and automation (Figure 13).



Figure 13. ORNL (top) and UDLAP (bottom) Events

Research Support Services: Customer Satisfaction Surveys As I have initiated new research support processes, along with staff training to deliver services effectively, I have added customer surveys to each process as part of the research operations, consisting of pre-award, post-award, grants accounting, and compliance operations. In the period from Sept 2023 through May 2024, we received 270 responses from faculty. The surveys included 6 questions:

- Q1: Staff were professional by demonstrating appropriate technical skills, ethical standards, and courteous behavior in the workplace
- Q2: Staff responded in a timely manner throughout the process
- Q3: Staff were knowledgeable
- Q4: Staff communication (both written and verbal) was very clear throughout the process
- Q5: Staff effectively answered my questions and/or resolved unexpected issues
- Q6: Overall, I had a positive experience

The survey results of the FY24 period Sept 2023-April 2024 are shown in Figure 14. The results are compared to the results of FY23 in Table 4. **On all six categories (questions), we have exceeded the results of FY23.** The lowest category in FY23 was related to timely response with only 87% satisfaction; we achieved 98% satisfaction in FY24 for timeliness.

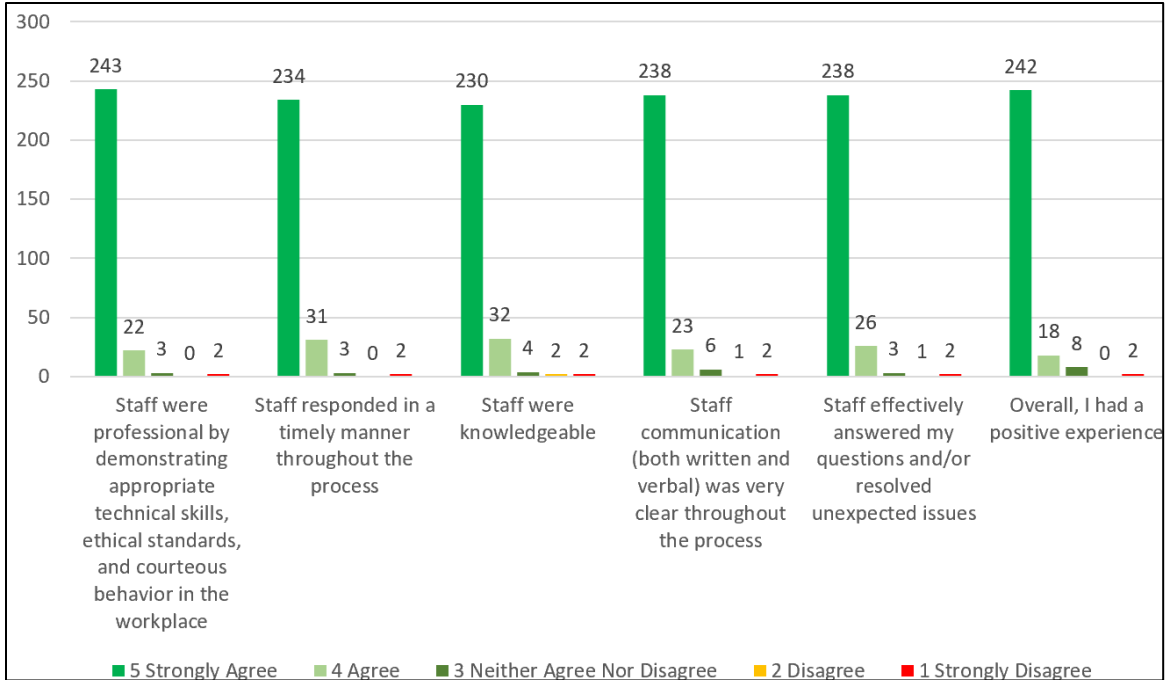


Figure 14. Customer Satisfaction Survey Results

Table 4. Customer Satisfaction Survey Results

QUESTION	“Strongly Agree” & “Agree” responses combined	
	FY23	FY24 (Sept’23-April’24)
Q1. Professional	97%	98%
Q2. Timely response	87%	98%
Q3. Knowledgeable	92%	97%
Q4. Clear communication	92%	97%
Q5. Effective response to Qs	91%	98%
Q6. Overall positive experience	93%	96%

External Service I represent UTRGV on various committees:

1. *Texas Semiconductor Innovation Consortium Representative on Strategy & Planning for Advancement & Research in Chips (SPARC) Subcommittee* (Office of the Governor), effective Aug 2023.
2. *Executive Committee of APLU's Commission on Information, Measurement & Analysis (APLU)*, effective Nov 2023 – Nov 2026.
3. *Negotiated Rulemaking Committee Member on Restricted Research Expenditures (THECB)*, effective July/Aug 2023.
4. *TX AGEP Internal Advisory Board Member* (UT System institutions on doctoral education), effective Oct 2023.
5. *Board Member of Quinta Mazatlan*, effective 2023.

2023-2024 WORK PLAN

In addition to the [UTRGV 2022 Strategic Plan Research Priorities](#), I included 10 items in my 2023-2024 work plan:

1. Emerging Research University
2. Doctoral Degree Progression
3. Graduate Program Coordinators
4. Graduate Student Recruitment
5. Economic and Workforce Development
6. Gifts/Contracts from Private Donors
7. Faculty Research Culture
8. Research Space Renovation
9. Organized Research Units (Centers/Institutes)
10. Proposal Submission and Routing Platform

1. **Emerging Research University (ERU) Status:** THECB requires an average of 45 research doctoral degrees over 3 years and an average of minimum \$20M in research expenditures over 3 years under GAI category. As of May 30th, the two ERU metrics over the last 3 years are as follows:

Metric	FY22	FY23	FY24
Research Doctoral Degrees	43	45	43*
GAI Expenditures** (\$M)	23.58	35.35	16.30

* 43 research doctoral degrees include Fall 2023 and Spring 2024. With Summer I degrees added, we will exceed 49 degrees in 2023-2024, thus we will exceed the THECB requirement.

** In Summer 2023, we contacted THECB about UTRGV's SOM-only based HRI reporting on research expenditures and the remaining amount being reported under GAI. Based on a new project-based reporting methodology, we submitted a correction to THECB for FY22 and they accepted our change from \$13.20M to \$23.58M. We followed the same methodology for FY23 and reported GAI expenditures of \$35.35 accordingly. For the Sept'23-April'24 period (8 months), we are at \$16.30M for FY24. Based on these metrics, we have already exceeded the THECB requirement.

By the end of June 2024, we will be eligible to notify THECB about our metrics so that a state audit can be planned and conducted in FY25, to conclude with UTRGV being designated as an ERU in Summer 2025.

2. **Doctoral Programs & Proactive Advising to Improve Degree-to-Graduation:** We used the Doctoral Degree Progression Dashboard (Figure 7) extensively. Since COEP16 EDD programs are the critical research doctoral programs to contribute toward the ERU goal, I met monthly with Dean Alma Rodriguez and her team in these two EDD programs from September 2023 to May 2024 to ensure that we proactively advise those doctoral students to complete their degrees in Summer 2024. Our efforts have been successful as described above in task #1.
3. **Graduate Program Coordinators (GPC) and Degree Progression:** To define a standardized set of activities for GPCs, I started with Graduate Associate Deans (GADs) in each college to identify GPCs' current role in Fall 2023. This discovery phase revealed major gaps in our policies and practices in each college and program:
 - a) **Gaps:** While the graduate catalog provides a general direction for students and advisors to follow, there are gaps in terms of degree progression milestones and timely advising related to milestones.
 - b) **Inconsistencies:** What each GPC does, even in the same program, varies based on their personal approach to advising. The difference is even bigger across different programs.
 - c) **Waivers and Grievances:** In general, students find themselves in the middle of conflicting policies or unintended outcomes after having reached a certain level of progress in their program; therefore, they either request waivers or initiate a grievance process. Analysis shows that over 90% of these issues could have been avoided if proactive advising practices were followed based on effective advising tools.
 - d) **Lack of Actionable-Information:** GPCs have developed their own way of advising students based on an extensive set of BANNER data obtained in different, inconsistent ways. The interpretation of the data is left to the GPCs; thus, creating additional inconsistencies.

I have identified that the root cause of inconsistencies in the GPC services leading to ineffective advising practices was the lack of well-defined degree progression milestones and associated actions. In Spring 2024, I initiated a pilot project to define "milestones" with 3 critical programs: EDD – Curriculum and Instruction, EDD – Educational Leadership, and PhD – Clinical Psychology. In Fall 2024, I will add PhD - Business Administration to the portfolio. The pilot project will help with enhancing Doctoral Degree Progression Dashboard (Figure 7), which currently lacks milestones; thus, it cannot provide proactive assistance/advice for GPCs and students. Once the digital tool is in place, then we will define GPCs' roles and responsibilities accordingly, along with a toolset that will enable standardized advising practices across UTRGV.

4. **Graduate Student Recruitment:** I conducted an analysis of "internal recruitment" possibilities among our undergraduate, master's, and doctoral programs. With input from the deans, program directors, and graduate associate deans, we have identified the potential connections as shown in Figure 5a and 5b. We will pursue these connections for internal recruitment in FY25.

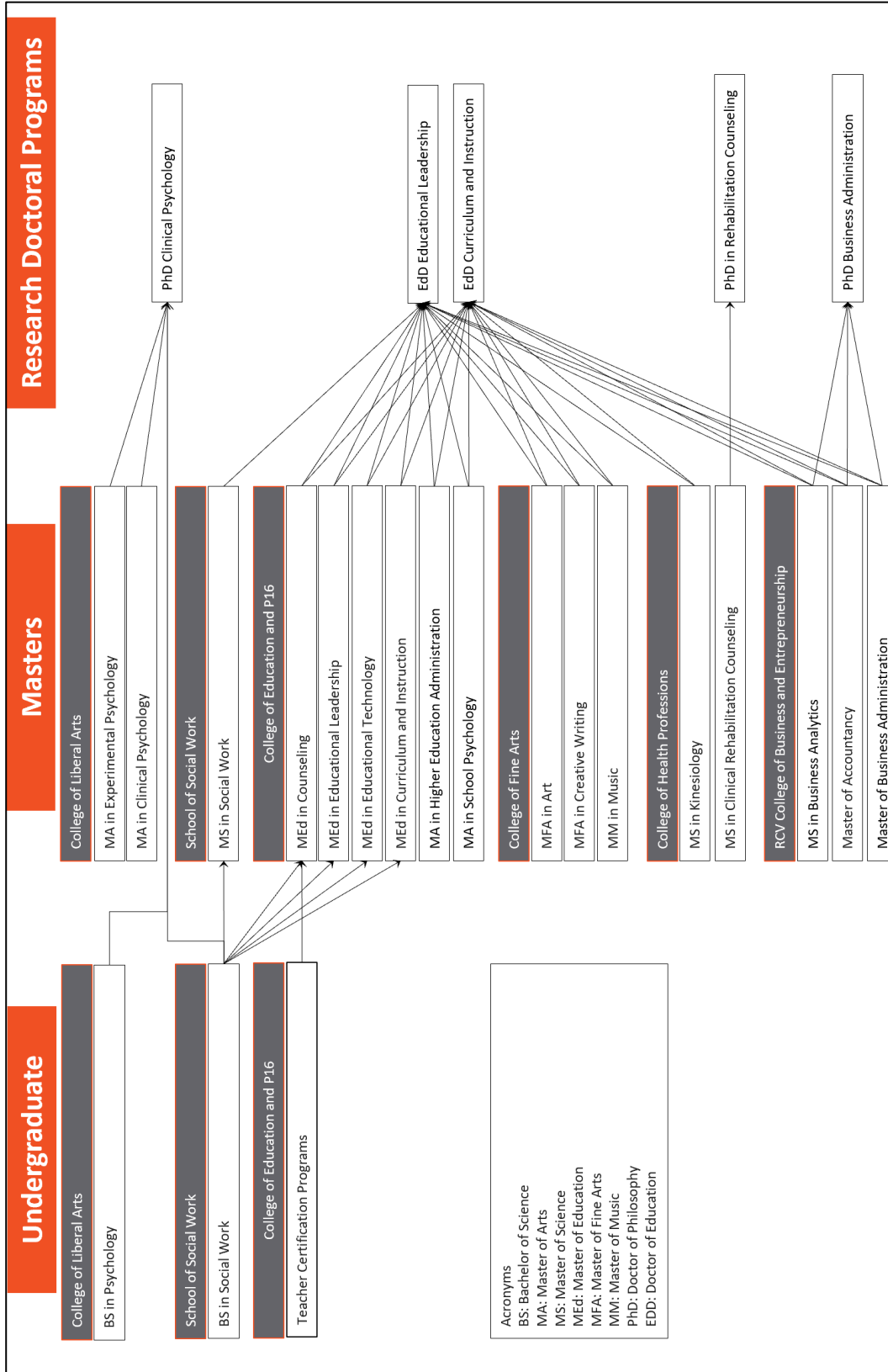


Figure 5a. Undergraduate, Master's, and Doctoral Potential Connections

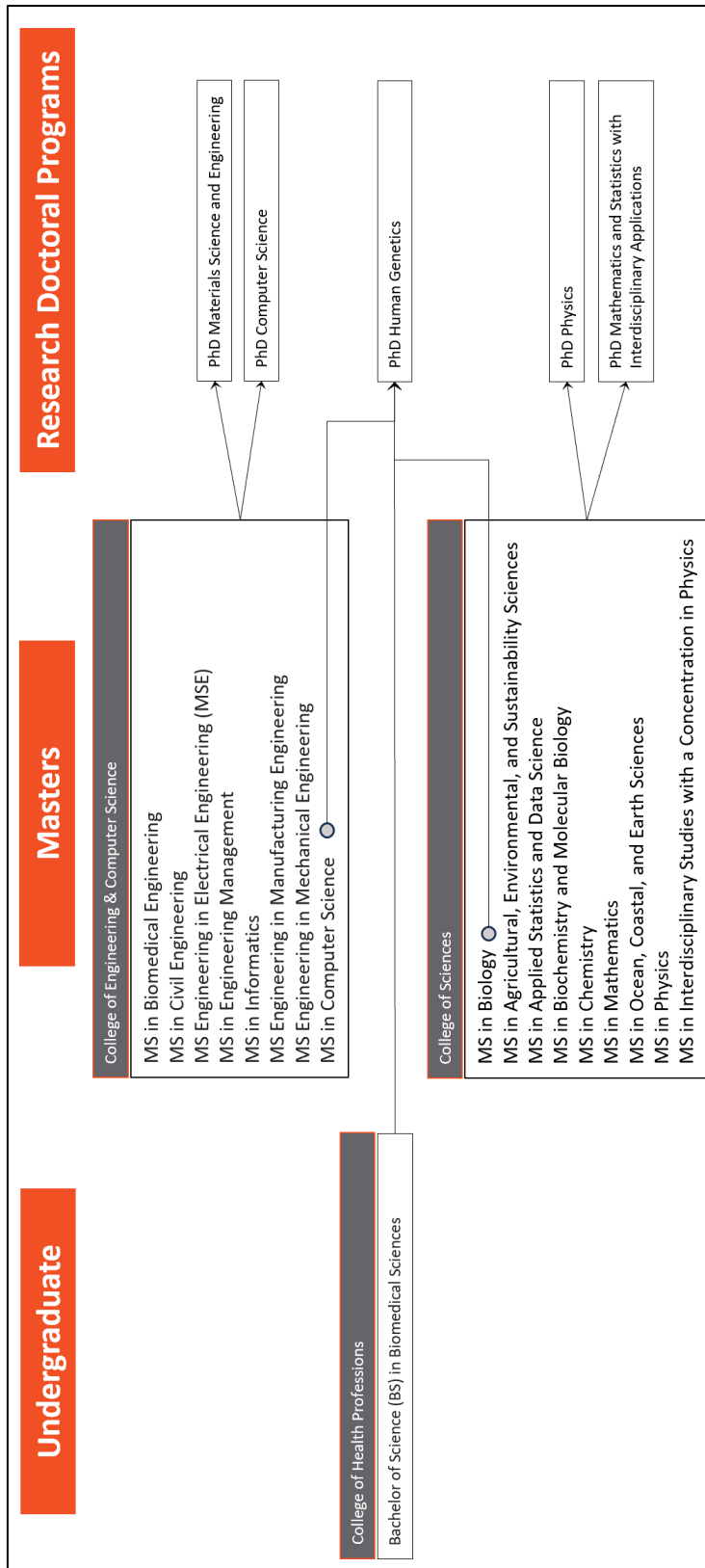


Figure 5b. Undergraduate, Master’s, and Doctoral Potential Connections (*continued*)

5. **Economic and Workforce Development:** I worked closely with Veronica Gonzales on large federal and state level grant opportunities focusing on applied R&D, economic impact, and workforce development. I have attended several regional meetings with Veronica Gonzales, including a trip to Washington DC to visit with elected officials and representatives.

I facilitated two major initiatives:

- a) Proposal for renovating the CESS Building, which was awarded by the US Economic Development Administration at **\$2.4M**.
 - b) Plus-Up Effort in collaboration with the Army Research Laboratory (ARL) for Additive Manufacturing, which was successful for Year 1 at **\$1.7M**.
6. **Large Gifts/Contracts from Private Donors/Foundations:** I worked closely with Kelly Nassour on two Valley Baptist Legacy Foundation (VBLF) projects:
 - a) Successful close-out of the VBLF project lead by Dr. Sarah Blangero and facilitating timely expenditures.
 - b) Proposal led by Dr. Everardo Cobos (\$30M) submitted to VBLF.
 7. **Faculty Research Culture:** I have implemented the **Academic Analytics platform** and populated it with UTRGV faculty data for publications and scholarly activities. I have provided regular updates to the deans, as part of my Deans Research Council (DRC) monthly meetings, related to the faculty performance in terms of proposals, awards, expenditures, and scholarly activities.

In Fall 2023, I provided each college with a customized faculty performance report to assist faculty annual evaluations at the college level. Through the newly established Asst VP Research Enhancement unit reporting to me, we developed various multi-college proposals, delivered faculty research development workshops, and sponsored various research-related events.

8. **Research Space Renovation:** With president's approval, I have secured internal funding to initiate two renovation projects:
 - a) TMAC Bldg (lead: Dr. James Li) is currently under renovation for \$3.9M and will be renamed as "Advanced Manufacturing Facility" (AMF).
 - b) CESS Bldg (lead: Ron Garza) is currently under renovation to become the Workforce-Economy-Research-Community (WERC) Complex with \$2.4M EDA funding and over \$6M institutional funding.
9. **Organized Research Units (ORU):** Out of 48 existing units that have "Center" or "Institute" in their names, I have worked with the deans to identify those with research focus and performance. Based on this analysis, there are 16 ORUs that are currently in operation, as listed in Table 6, that are considered institutional organized research units.

ORUs kick off meeting was held on 4/30/2024 (Figure 15) where we discussed mission, vision, and actions for each ORU. I shared with the directors the new ORU dashboard (Figure 6). The Division of Research will facilitate the annual evaluation of ORUs based on their proposal, award, and expenditure performance.



Figure 15. Kick of Meeting of Organized Research Units (4/30/2024)

Table 6. Current ORUs

ORUs	Center/Institute Name	College
1	Center for Community Resilience Research, Innovation, and Advocacy	CLA
2	Center for Advanced Manufacturing Innovation & Cyber Systems	COECS
3	Industrial Assessment Center	COECS
4	Nanotechnology Center of Excellence	COECS
5	University Transportation Center for Railway Safety	COECS
6	Texas Manufacturing Assistance Center	COECS
7	Center for Broadening Participation in Engineering	COECS
8	Center for Latin American Arts	COFA
9	Center for Vector Borne Disease	COS
10	Center for Sustainable Agriculture and Rural Advancement	COS
11	South Texas Space Science Institute	Research
12	The Center of Excellence in STEM Education	COS
13	Institute of Neurosciences	SOM
14	South Texas Center of Excellence in Cancer Research	SOM
15	South Texas Diabetes and Obesity Institute	SOM
16	Human Mobility Institute Center	SSW

10. Proposal Submission and Sponsored Project Management “Digital Platform”: We have developed and launched the home-grown “Automated Research and Grants Organizer” (ARGO) platform (Figure 16). ARGO allows for digital tracking of proposals and awards effectively. It provides digital guidance to staff so that they focus their attention on proposals and awards while being assisted by ARGO.

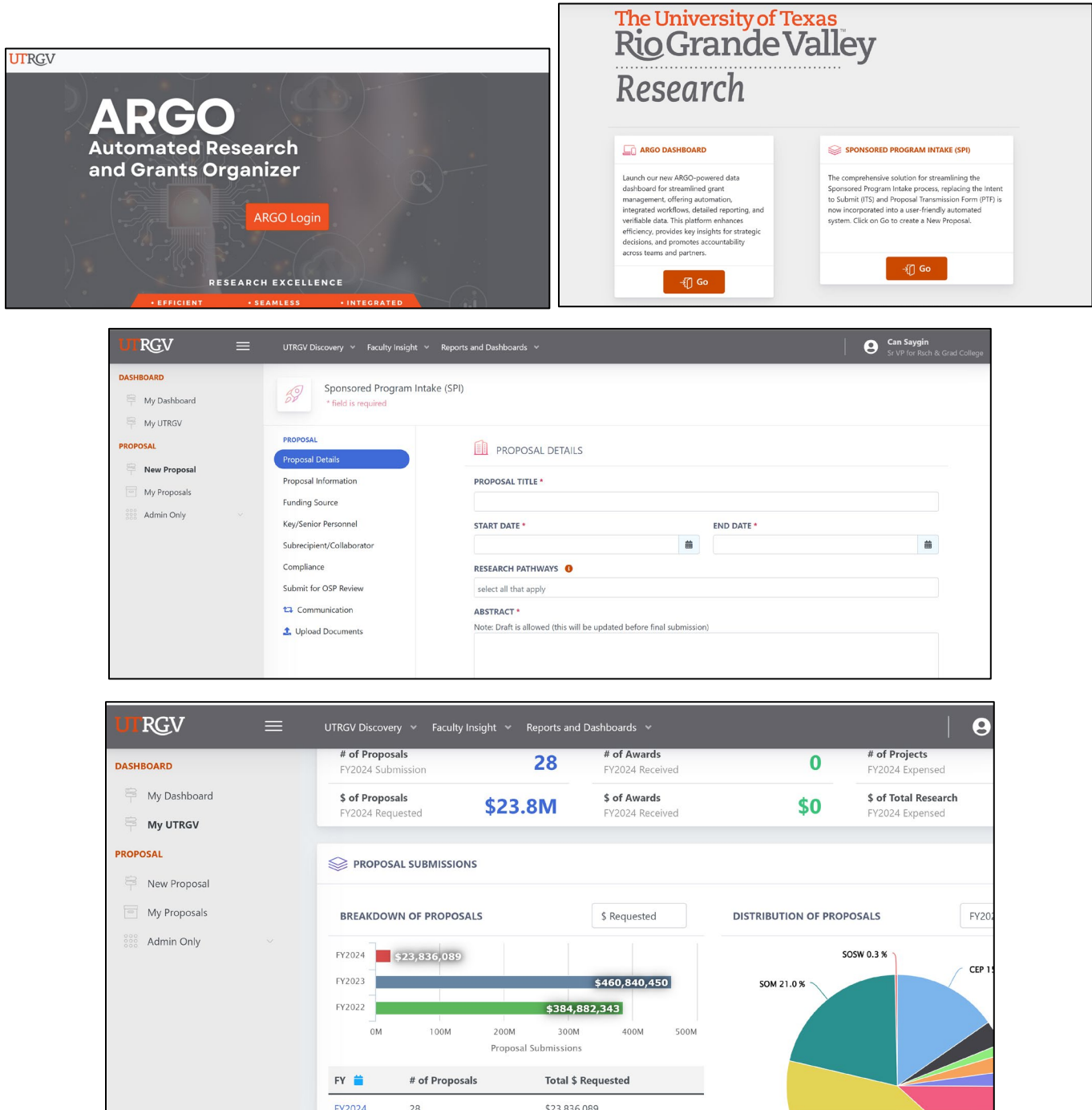


Figure 16. ARGO: Automated Research and Grants Organizer
(fully developed by the UTRGV Research IT Team)