## Attachment 7: Mapping Data Sources to Hallmarks of Success

## KEY:

- TFS= HERI- The Freshman Survey
- CSS = HERI- College Senior Survey
- FAC = HERI- Faculty Survey
- FAC-STEM = HERI- Faculty Survey STEM Module

- FAC-MENTOR = HERI- Faculty Survey Mentoring Module
- D-SAFS = DPC Student Annual Follow-up Survey
- D-FAFS = DPC Faculty Annual Follow-up Survey
- NRMN FUP = NRMN Annual Follow-up Survey

Domain	Elements	Hallmarks	Data Source / Measure
	High academic self-efficacy	STU-1	• TFS
			• CSS
			• D-SAFS
	High self-efficacy as a researcher	STU-2	• TFS
			• CSS
			D-SAFS     NRMN FUP
	High science identity	STU-3	• TFS
	Trigit science identity	310 3	• CSS
			• D-SAFS
			NRMN FUP
Student	Satisfaction with quality of mentorship	STU-4	• CSS
o tu de i i			D-SAFS
			NRMN FUP
	Perceived sense of belonging within the university	STU-5	• CSS
			• D-SAFS
	Perceived sense of belonging within the research community	STU-6	• TFS
			• CSS
			• D-SAFS
			NRMN FUP
	Intent to pursue a career in biomedical research	STU-7	• TFS
			• CSS
			D-SAFS     NRMAN FUR
	Entry into an undergraduate biomedical degree program	STU- 8	NRMN FUP      TFS
	Life y into an undergraduate biomedical degree program	310-8	• CSS
	Persistence in biomedical degree or other formal research	STU-9	• CSS
	training program		• D-SAFS
			NRMN FUP

Domain	Elements	Hallmarks	Data Source / Measure
	Frequent receipt of mentoring to enhance success in the	STU-10	• CSS
	biomedical pathway*		• D-SAFS
			NRMN FUP
	Participation in mentored or supervise biomedical research	STU - 11	• CSS
			• D-SAFS
		CT11.42	NRMN FUP
	Evidence of competitiveness for transitioning into the next	STU-12	• TFS
	phase in the biomedical career pathway		• CSS
	Double in a condensity of property and a conjugation of property and a conjugation of the	CTU 12	• D-SAFS
Student	Participation in academic or professional organizations related to biomedical disciplines	STU-13	• CSS
Stadent	to biomedical disciplines		B–SAFS     NRMN FUP
	Evidence of excelling in biomedical research and scholarship	STU-14	D-SAFS
	(submit applications & receipt of awards, poster/ paper	310-14	NRMN FUP
	presentations, peer-reviewed publications)		• INNIVIN FOR
	Strong academic and professional networks	STU-15	• CSS
			D-SAFS
			NRMN-FUP
	Completion of biomedical degree or other formal training	STU-16	• CSS
	program		• D-SAFS
			NRMN FUP
	Application and acceptance to a subsequent research training	STU-17	• CSS
	program in a biomedical discipline		• D-SAFS
			NRMN FUP
	Entrance into a subsequent research training program in a	STU-18	• CSS
	biomedical discipline		• D-SAFS
			NRMN FUP
	High self-efficacy as an instructor in a biomedical field	FAC-1	• FAC
			• FAC-STEM
_			• D-FAFS
Faculty	High self-efficacy as an instructor to a diverse group of	FAC-2	• FAC
	biomedical students		• FAC-STEM
	High self-efficacy as a mentor to biomedical research trainees	FAC-3	• FAC
			• FAC-MENTOR
			D-FAFS

Domain	Elements	Hallmarks	Data Source / Measure
			NRMN FUP
	High self-efficacy as a mentor to diverse group of biomedical	FAC-4	• FAC
	research trainees		FAC-MENTOR
			• D-FAFS
			NRMN FUP
	Frequently mentors students, post-docs, and/or more junior	FAC-5	• FAC
	faculty on biomedical related issues		FAC-MENTOR
			• D-FAFS
			NRMN FUP
	High self-efficacy as an independent biomedical researcher	FAC-6	• D-FAFS
			NRMN FUP
	High self-efficacy in the ability to secure external funding	FAC-7	• D-FAFS
	Engaged in activities to secure research or research training	FAC-8	• FAC
	funding		• D-FAFS
			NRMN FUP
	Securing research or research training funding	FAC-9	• D-FAFS
Fo sultur			• FAC
Faculty	Evidence of scholarly productivity	FAC-10	• FAC
			• D-FAFS
			NRMN FUP
	Evidence of professional recognition and service	FAC-11	• FAC
			• D-FAFS
		540.40	NRMN FUP
	Strong academic and professional networks	FAC-12	• FAC
			• D-FAFS
	Advancement to next career stage	FAC 12	• NRMN
	Advancement to next career stage	FAC-13	• FAC
	Advancement to leadership positions in hismodical research	FAC-14	• D-FAFS
	Advancement to leadership positions in biomedical research and research training	FAC-14	• FAC
	Evidence of receiving training in areas to foster inclusive	FAC-15	D-FAFS     FAC
	research training environments	I AC-13	▼ FAC
	Strong self-efficacy to act as a change agent to enhance	FAC-16	• FAC
	diversity in biomedical research and research training	17.6 10	- 17.0
	environments		

Domain	Elements	Hallmarks	Data Source / Measure
	Uses evidence-based practices in teaching and mentoring	FAC-17	• FAC • FAC-STEM
	Commitment to efforts that create, enhance, and/or maintain diversity and inclusion at all levels of the institution	INST-1	• FAC
	Evidence of creating, enhancing, and/or maintaining diverse, inclusive, and culturally appropriate research and research training environments	INST- 2	FAC     BUILD Case Study
	Demonstrated institutional commitment to creating, enhancing, and/or maintaining the diversity of biomedical faculty on campus by recruiting a diverse pool of potential applicants	INST-3	FAC
	Implementation of sustainable institutionally supported intra- institutional activities to achieve positive outcomes related to biomedical research capacity building and faculty development	INST-4	• FAC
	Enhanced inter-institutional collaborations to achieve positive outcomes related to biomedical research, research training, and faculty development	INST-5	• FAC
Institution	Implementation of sustainable institutionally supported activities to achieve positive outcomes related to biomedical research training	INST- 6	• FAC
	Enhancing or maintaining the diversity of students, e.g. those from nationally underrepresented groups to pursue degrees in biomedical fields	INST-7	<ul><li>Case Study Questions</li><li>IR Data</li><li>IPEDS</li></ul>
	Demonstrated institutional commitment to efforts that sustain the interest of trainees from all backgrounds pursuing degrees in biomedical fields that increase persistence	INST-8	• FAC
	Employs evidence-based approaches to establish and attain goals for graduation rates, time-to-degree, and the ability to transition to biomedical graduate and professional degree programs for students from all backgrounds	INST-9	IR Data     IPEDs
	Demonstrated institutional commitment to implementing and sustaining mentoring practices that promote the development of research- oriented students from all backgrounds	INST-10	Case Study

Domain	Elements	Hallmarks	Data Source / Measure
	Institutional infrastructure to track regular reporting of student demographics and outcomes with respect to	INST-11	Case Study
	biomedical fields.		