



50,000 DIVERSE ENGINEERS
GRADUATING ANNUALLY BY 2025

A CALL FOR OUR 50K COALITION PROGRAM DATA

A vital part of the 50K Coalition's collective impact effort is the focus on Mutually Reinforcing activities. In a Collective Impact effort, mutually reinforcing activities are considered the "powerhouse" of the initiative. These mutually reinforcing activities may include programs, courses, seminars, webinars, workshops, promotional campaigns, policy initiatives, institutional capacity-building efforts, etc.

The goal of mutually reinforcing activities is to align what is already happening in the 50K Coalition's member network and to make informed decisions about how to re-route or leverage existing resources to fill gaps within our 50K Coalition member network and scale what's already working. In other words, the 50K Coalition encourages its members to work together by asking them to explore the specific set of program activities they excel, documenting these activities, and sharing these best practices across the 50K Coalition network.

We are asking each organization within our 50K network to submit data/information for any program/initiative (current or proposed) that supports the collective impact goal of graduating 50,000 female, Hispanic, Black, and Native American engineers annually by 2025. The information requested includes a description of your program/initiative, the 50K common agenda item and shared measurement metrics aligned to your program, expected program outcomes/goals, the activities that support your program, and resources (human and financial) needed to implement your program, and program start and finish date.

THE 50K COALITION'S COMMON AGENDA & SHARED MEASUREMENT METRICS

The development of a common agenda, shared measurement metrics, and individual coalition partner programs/initiatives allow the 50K Coalition to implement a "Collective Impact" strategic plan that comprises unique coalition partner strategies, accountability factors, and metrics. In April 2016, we worked together to identify a common agenda and each coalition partner's program alignment to this common agenda. The following is a brief overview of our common agenda (a critical condition of collective impact success) and shared measurement metrics developed by our founding 50K Coalition members toward the goal of producing 50,000 diverse engineering graduates annually by 2025.

COMMON AGENDA

Undergraduate Student Support and Retention

This agenda item considers two subareas intended to increase our coalition member college and universities' ability to recruit, enroll, retain, and graduate more women and underrepresented students:

– Recruitment and Admission

These activities comprise culturally relevant, data-driven targeted recruitment of women and underrepresented students from traditional (high schools) and non-traditional sources, including community colleges and undeclared students. It includes efforts to increase engineering enrollment by reviewing and broadening admissions criteria to consider non-cognitive factors.



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THE 50K COALITION'S COMMON AGENDA, *Cont'd*

– *Retention and Support Services*

This subcategory involves intentional support of women and underrepresented engineering students with a particular, though non-exclusive, focus on the first-to-second year and transfer students. Activities may include mentoring, early-alert services, summer bridge, and first-year programs. Data-driven efforts to track, identify and mitigate factors contributing to achievement gaps also fall into this cluster. The overall focus here is on supporting students with less emphasis on “weeding out.”

Community College Linkages

These activities build intentional linkages between community colleges and colleges of engineering as a critical component of the engineering graduate pipeline. Specific initiatives may include early advising, increasing articulation agreements to ensure course alignment, scholarships, and other financial support for transitioning students, increasing engineering student chapters at two-year institutions, and “two-by-two” programs between two- and four-year colleges.

The 50K Coalition tracks the following metrics as indicators of our progress towards the Big National Goal to produce 50,000 diverse engineers annually by 2025.

Shared Measurement Metrics	Description
Freshman Retention Rates	The percentage of freshmen engineering majors who return their sophomore year disaggregated by gender, race, and ethnicity.
Community College Transfers	The annual number of two-year college students who transfer to four-year engineering colleges.
Degrees Awarded	The number of Bachelor's degrees awarded annually in engineering to US citizens and permanent residents disaggregated by gender, race, and ethnicity.



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GENERAL INSTRUCTIONS FOR SUBMITTING YOUR ENGINEERING COLLEGE PROGRAMMATIC DATA

Please download this document to your computer and enter your information in the appropriate blank spaces on the following two pages. **Make sure to save your work. Please Click Here to be taken to a 50K web page with instructions on how to upload your completed template no later than January 27, 2023.** If you have any questions regarding this template, please get in touch with Clif Morgan at cmorgan@50Kcoalition.org or Gabriel Najera at gnajera@50kcoalition.org

TO USE THIS TEMPLATE

1. Read the descriptions of 50K Coalition's Common Agenda and Shared Measurement Metrics on pages 1-2 of this document.
2. Identify the program or initiative (see helpful hints below) in support of the 50K's Common Agenda and Share Measurement Metrics you would like to submit to the 50K Coalition.
3. Collect and enter data in the template on the following:
 - Description of the program or initiative.
 - Program or initiative goals or outcomes.
 - Resources needed to implement your program/initiative.
 - Program or initiative start and end date.
4. Enter program or initiative data in the accompanying template, using a separate template for each program or initiative.

SURVEY MONKEY OPTION

If you prefer, you may submit your program/initiative data using Survey Monkey by clicking on the following link: <https://www.surveymonkey.com/r/5XRW7SY>

HELPFUL HINTS

- Not sure what program or initiative to submit? Any program or initiative your professional society, nonprofit, corporation, community college, or university is implementing to improve equity, diversity, and inclusion in engineering should be assumed to support and align with the 50K's Common Agenda and Shared Measurement Metrics.
- What is a program or initiative? While it may seem like simple semantical nitpicking, a common language is essential when working collaboratively. For our purposes, an Initiative is a collection of related Programs and Projects that promote a specific goal of the nonprofit/professional society/department/university. An Initiative is an entire scope of what needs to be accomplished. A Program, on the other hand, is a group of related tasks and projects managed, coordinated, and focused on "outcomes," "benefits," and achievements. Outcomes are things that can be graphed and analyzed for trends.



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TO LEARN MORE

To learn more about the context and rationale of the 50K Coalition's program data collection process, please refer to the following informational videos:

- [Collective Impact Overview](#)
- [Results-Based Accountability Overview](#)
- [Turn The Curve Thinking Overview](#)
- [Clear Impact Overview](#)
- [50K Programmatic Data Collection Process](#)

WE ARE HERE TO HELP!

If you have any questions regarding this template, please get in touch with Clif Morgan at cmorgan@50kcoalition.org or Gabriel Najera at gnajera@50kcoalition.org



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The Following 50K members have submitted programmatic data to the 50K. Please refer to pages 6-12 of this document for the names of the programs and their alignment to the 50K's common agenda and shared measurement metrics.

- American Association of Engineering Societies (AAES)
- American Indian Science and Engineering Society (AISES)
- American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME)
- American Nuclear Society (ANS)
- American Society for Engineering Education (ASEE)
- American Society of Civil Engineers (ASCE)
- American Society of Mechanical Engineers (ASME)
- Chevron
- Community Colleges of Chicago: Wright College
- Cornell University
- Engineers Without Borders USA (EWB)
- Florida International University (FIU)
- MAES Latinos in Science and Engineering (MAES)
- National Academy of Engineering (NAE)
- National Action Council for Minorities in Engineering (NACME)
- National Society of Black Engineers (NSBE)
- National Society of Professional Engineers (NSPE)
- Society of Hispanic Professional Engineers (SHPE)
- Texas A&M University
- University of Central Florida
- University of Maryland
- University of Michigan
- Women in Engineering Pro-Active Network (WEPAN)



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50K Coalition Member Program/Initiative Data Collection Template

Name of Your Organization:	Title of Your Program/Initiative:	
Contact Information of Point Person to Follow Up with Regarding this Program/Initiative:	Team members contributing to this program/initiative:	
Name:	Name:	Title:
Title:	Name:	Title:
Email Address:	Name:	Title:
Phone #:	Name:	Title:

Program/Initiative Description (Please provide a brief description of the program/initiative you are implementing or would like to implement. <u>Please use a separate fillable PDF for each program/initiative</u>)	50K Common Agenda Item (Check off the Common Agenda Item that this program/initiative most closely aligns with or supports. You may check more than one if applicable)	Shared Measurement Metrics (Please check off the shared measurement metrics this program/initiative most closely aligns with or supports. You may check more than one if applicable)
	Undergraduate Student Support and Retention <input type="checkbox"/>	Degrees Awarded <input type="checkbox"/>
	Community College Linkages <input type="checkbox"/>	Student Retention Rates <input type="checkbox"/>
		Transfer Rates (Community College) <input type="checkbox"/>



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50K Coalition Member Program/Initiative Data Collection Template, *cont'd*

Program/Initiative Outcomes/Goals (Description of the anticipated outcomes for your program)	Program/Initiative Activities (List the planned activities needed to implement your program/initiative successfully)	
Resources Required (List all the financial and other resources needed to implement your program/initiative)	Start Date: (Estimated start date for the program/ initiative. Enter ongoing if this is a standing program offering)	End Date: (Estimated end date for the program/initiative. Enter ongoing if this is a standing program offering)



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**50K Coalition Member Programs Aligned with
USSR & CCL Common Agenda and Share Measurement Metrics**

50K Coalition Member	Name of Program	Common Agenda Alignment	Shared Measurement Metric Alignment
American Indian Science and Engineering Society (AISES)	1. Two-year to Four-Year Transfer Program	Community Colleges Linkages	Community College Transfer Rates
	2. Scholarships and Internships	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	3. Mentorship Program	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	4. Leadership and Professional Development at AISES National Conference and Leadership Summit	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	5. Community Building through AISES College Chapters	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	6. Engineering Deans Pledge on Diversity	Curriculum and Pedagogy Faculty Development Recruitment and Admission Retention and Support Services	Degrees Awarded Freshman Retention Rates Community College Transfer Rates
American Society of Mechanical Engineers (ASME)	7. Diversity Action Grant	Retention and Support Services	Degrees Awarded Freshman Retention Rates



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American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME)	8. TMS Diversity Summit	Retention and Support Services	Degrees Awarded Freshman Retention Rates
American Nuclear Society (ANS)	9. Education Training and Workforce Development Division	Retention and Support Services	Degrees Awarded Freshman Retention Rates
American Society of Civil Engineers (ASCE)	10. ASCE Section, Branch & Institute Diversity Awards	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	11. Strategic Partnerships & Alliances	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	12. Career Mentoring Program	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	13. Conversations with Civil Engineers— Career Mentoring Program	Retention and Support Services	Degrees Awarded Freshman Retention Rates
Chevron	14. Diversity & Inclusion Programs	Retention and Support Services	Degrees Awarded Freshman Retention Rates
Cornell University	15. Engineering success (CUES)	Retention and Support Services	Degrees Awarded Freshman Retention Rates



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Florida International University (FIU)	16. Scholarships	Retention and Support Services	Degrees Awarded
	17. Engineering On Wheels (EOW) Students Society	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	18. Faculty Mentorship	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	19. Industry Provided Internships	Retention and Support Services	Degrees Awarded Freshman Retention Rates
MAES Latinos in Science and Engineering (MAES)	20. Leadership Academy (MLA)	Retention and Support Services	Degrees Awarded Freshman Retention Rates
National Action Council for Minorities in Engineering (NACME)	21. 2020 by 2020	Retention and Support Services	Degrees Awarded Freshman Retention Rates
Society of Hispanic Professional Engineers (SHPE)	22. SHPE Mentors	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	23. SHPE Chapter Program	Community College Linkage Recruitment and Admission	Community College Transfer Rates
	24. Scholarships	Retention and Support Services	Degrees Awarded



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Society of Women Engineers (SWE)	25. Scholarships	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	26. Collegiate Leadership Institute	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	27. SWEFL program	Retention and Support Services	Degrees Awarded Freshman Retention Rates
Texas A&M University	28. The College of Engineering Access and Inclusion Program	Recruitment and Admission	Community College Transfer Rates
		Retention and Support Services	Degrees Awarded Freshman Retention Rates
Texas A&M University	29. College of Engineering Women in Engineering Program	Recruitment and Admission Retention and Support Services	Community College Transfer Rates Degrees Awarded Freshman Retention Rates
University of Central Florida	30. IGNITE	Retention and Support Services	Degrees Awarded Freshman Retention Rates



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University of Maryland	31. The Summer Bridge Program for Scientists and Engineers	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	32. First-Year Summer Experience	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	33. Keystone Academy of Distinguished Teachers Program	Faculty Development	Degrees Awarded Freshman Retention Rates
	34. LSAMP Undergraduate Research Program	Retention and Support Services	Degrees Awarded Freshman Retention Rates
	35. Flexus: The Dr. Marilyn Berman Pollans Women in Engineering Community	Retention and Support Services	Degrees Awarded Freshman Retention Rates
University of Michigan	36. The LSAMP program	Community College Linkages	Community College Transfer Rates
Wright College	37. Engineering Summer Bridge Program	Community College Linkages	Community College Transfer Rates
	38. Holistic and Program Approach for Transfer Model (HPAT)	Community College Linkages	Community College Transfer Rates
Women in Engineering Pro-Active Network (WEPAN)	39. Engineering Inclusive Teaching Faculty Professional Development Program	Retention and Support Services	Degrees Awarded Freshman Retention Rates