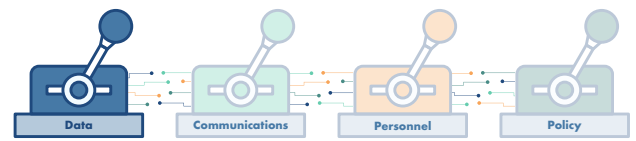# Data Analysis and Use
FSS Self-Assessment

Note: To effectively use these tools, your institution should first ensure that those involved in the process have a clear and collective definition of STEM and a list of institutional STEM programs.

| Scale: | Y = Yes | I = In Process | D = Discussing | N = No | U = Unsure |

In addition to the questions listed in the self-assessment instrument, it is noted that state longitudinal data systems (SLDS) can impact an institution's data foundations, governance and use. Institutional representatives of an SLDS can advocate for the state to use its data resources to inform and ensure student success and appropriately disaggregate data to inform considerations of equity.

Question	Y	I	D	N	U
A. Data Foundations and Data Governance					
A1. Does the institution have the capacity (personnel and technology) to conduct data analysis and use those analyses to inform decisions? *Comments:*					
A2. Are data and analytic tools available institution-wide to enable institutional research aligned with student success principles in STEM fields? *Comments:*					
A3. Do decision-makers at all levels know what steps to take to access data to inform their decisions regardless of their role at the institution? *Comments:*					
A4. Does the institution follow data equity principles? For example, see We All Count Data Equity Framework, which includes examining choices about what data are collected, how they are collected, what they are used for, and what implicit biases are baked into every step.[1] *Comments:*					
A5. Does the institution have an established and evolving data governance strategy? For example, see EDUCAUSE data governance resources.[2] *Comments:*					

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Scale:	Y = Yes	I = In Process	D = Discussing	N = No	U = Unsure

Question	Y	I	D	N	U
B. Data and Analytics Capacity					
B1. Does the institution identify and address the data literacy needs of employees who produce and/or use data and information in their work assignments? *Comments:*					
B2. Is there coordination in determining the data and analytics needs of the institution among the Institutional Research/Institutional Effectiveness, Information Technology, and Business and Finance functions (and related units)? *Comments:*					
B3. Is there coordination related to analyzing data to assess institutional equity among those responsible for analytics and those responsible for Hispanic[3] student success in STEM programs at the institution? *Comments:*					
B4. Does the institution use data to explore multiple aspects of information — including hindsight (longitudinal data), insight (current data) and foresight (analytics) — to analyze the success of Hispanic students in STEM programs? *Comments:*					
C. Strategic Institutional Data and Information Use					
C1. Have key performance indicators (KPIs) for the institution and its academic programs been defined clearly using an equity lens, and communicated to stakeholders? *Comments:*					

Question	Y	I	D	N	U
C2. Are data that assess KPIs regularly reported to the institutional community? *Comments:*					
C3. Are these KPI data appropriately disaggregated to assess the success of Hispanic students in STEM programs? *Comments:*					
C4. Are data required by externally funded projects (e.g., Title V grants) integrated into decision making at your institution? *Comments:*					
D. Student-Focused Data and Information Use					
D1. Does the institution have a data use champion in a cabinet-level position? *Comments:*					
D2. Is there an institution-wide expectation to use data for decision-making? *Comments:*					
D3. Does the unit(s) responsible for data and analytics serve an expanded definition of decision-makers including senior leadership, students, faculty and staff? *Comments:*					
D4. Is student voice (via qualitative data collection) considered in decisions that impact Hispanic students in STEM programs? *Comments:*					

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Question	Y	I	D	N	U
D5. Is feedback from Hispanic students who began a STEM program pathway but switched to a non-STEM pathway considered in decisions that impact future students? *Comments:*					
D6. Is feedback from Hispanic students who have left the institution without completing their STEM program of study considered in decisions that impact students? *Comments:*					
D7. Is information provided directly to Hispanic students in STEM programs to help them make decisions related to their success, including on career preparation and outcomes? *Comments:*					
D8. Does the institution have a system for tracking the performance and progress of Hispanic students through a STEM-focused academic program? *Comments:*					
D9. Does the institution use data to evaluate success initiatives focused on Hispanic students in STEM programs to determine whether to continue, improve and/or scale these initiatives? *Comments:*					

Sources referenced: Association for Institutional Research (AIR), EDUCAUSE, National Association of College and University Business Officers (NACUBO), We All Count.

Endnotes

1 https://weallcount.com/the-data-process/
2 https://library.educause.edu/topics/administrative-and-business-services/data-governance
3 The National Science Foundation's grant specifies the use of the term "Hispanic". In this instance, FSS uses "Hispanic" to include individuals of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race.

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