POSTSEC DATA

Redefining The National Postsecondary Data Framework: A Discussion on Best Practices in Data Reporting

Improving data systems to improve student outcomes

April 2016

Jennifer Engle, Bill & Melinda Gates Foundation
Amanda Janice, Institute for Higher Education Policy
Mamie Voight, Institute for Higher Education Policy

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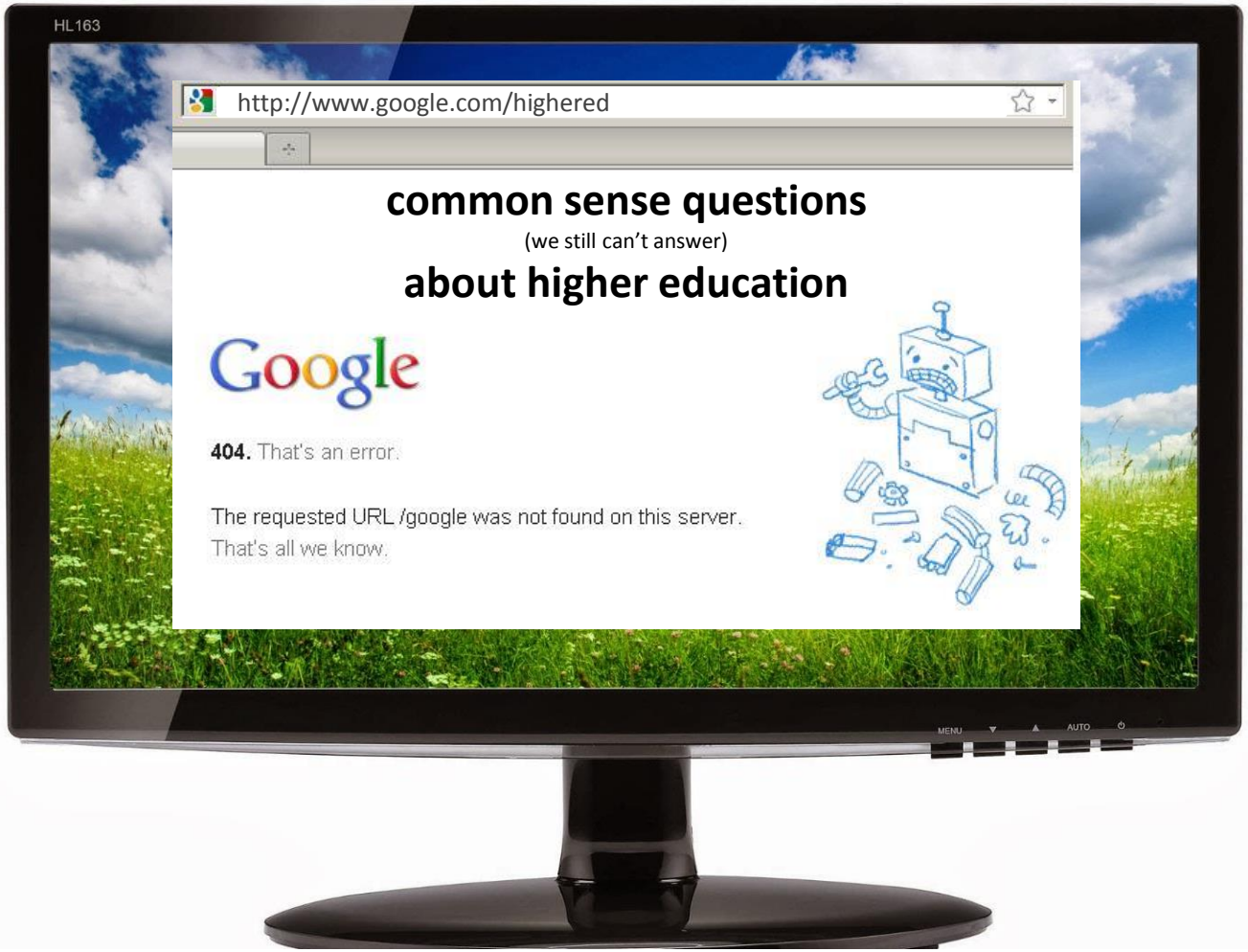

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Chat Window

Can you help me find a nearby college that serves adult students?

I guess, but can you tell me which colleges are *better* for adult students?

Yes, thank you!

I can definitely tell you which colleges enroll more adult students. Does that help?

Do you mean whether adult students graduate and how long it takes them?

Um, no. I mean, yes we have that information, but no we don't publish it. Sorry!

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Chat Window

Can you tell me if I will get a good job in my field with a degree from this college?

(…) No. I live in Michigan.

Um, no. I need to go to college near home. Why?

Do you live in AR, CA, CO, FL, NJ, TN, TX or VA?

Do you *want* to live in AR, CA, CO, FL, NJ, TN, TX or VA?

If you did, I could answer your question. I mean if you plan to go to a public college in one of those states…

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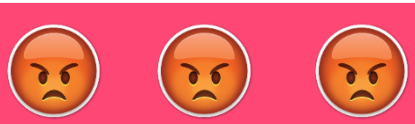
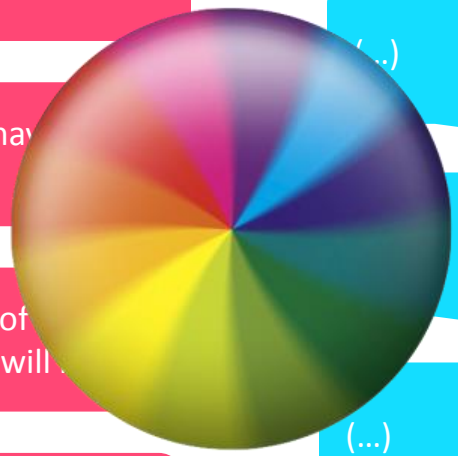
Chat Window

Can you tell me what I will learn that I can use with this degree?

Seriously, what skills will I hav don't have now?

Isn't that the whole purpose of Why won't you tell me what I will





(...)

(...)

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WHY IMPROVE POSTSECONDARY DATA?

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Trillion dollar question

In an era of escalating college costs, what do students and the public invest in postsecondary education and what do they get in return?

DOES (ACCESS x COMPLETION) / COST

=

VALUE FOR STUDENTS & SOCIETY?

Source: Bill & Melinda Gates Foundation

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Can we adequately answer questions about postsecondary outcomes and value? *No.*

Due to an incomplete and disconnected postsecondary data infrastructure, we have only partial or no answers to basic questions such as:

- How many **non-traditional students** attend college and do they successfully complete credentials? (This includes low-income, adult, and first-generation students as well as students who transfer and/or attend college part-time.)
- Do students who do not graduate **transfer** to other colleges and earn degrees, or do they **drop out** altogether?
- How much **debt** are students accumulating in college, and can they **repay** their loans?
- Are students obtaining **employment** in their field after college, and what do they **earn**?
- How much are students **learning** in college, and how are they **contributing to society**?

Source: Bill & Melinda Gates Foundation

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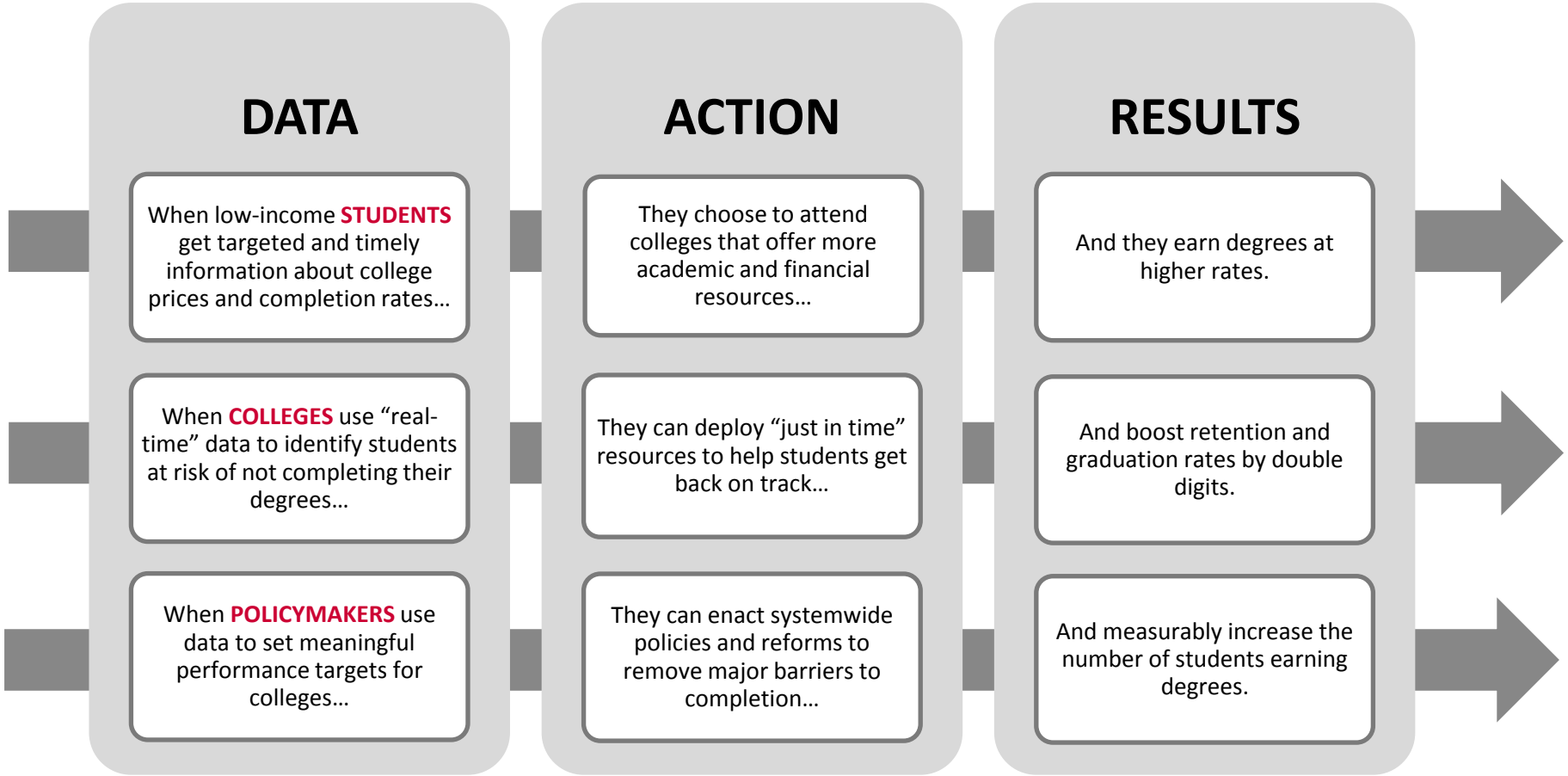
Do better data *really* lead to better outcomes? *Yes.*



Source: Bill & Melinda Gates Foundation

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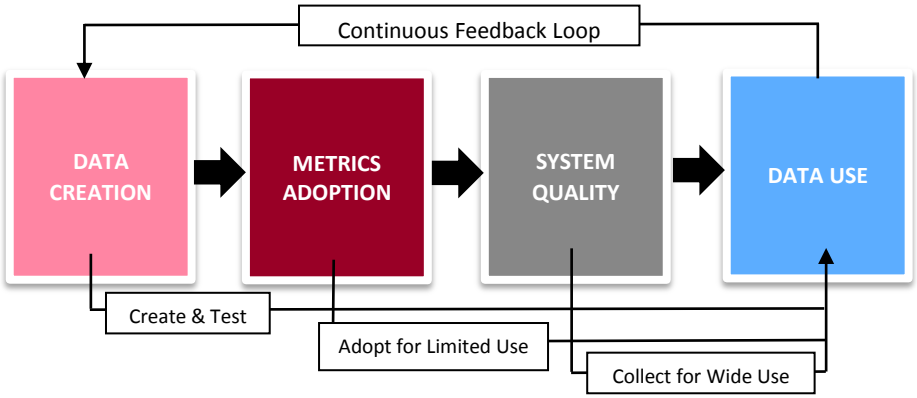
HOW TO IMPROVE POSTSECONDARY DATA?

Postsecondary data theory of change

- There is clear evidence that **better data lead to better outcomes** in higher education.
- There are **two major barriers to obtaining better data at scale**: data quality (e.g. metrics) and data infrastructure (e.g. systems).
- Our work to date includes developing a **robust metrics framework** synthesizing advances in data quality in the field.
- Wide adoption of the framework requires **major improvements in data systems**.



Source: Bill & Melinda Gates Foundation

METRICS FRAMEWORK

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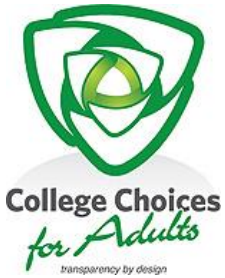
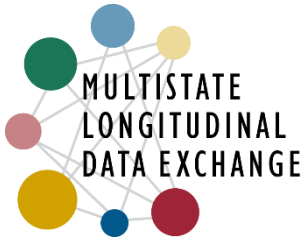
Dozens of data initiatives yielded new & improved metrics demonstrating demand & use cases





Source: Bill & Melinda Gates Foundation

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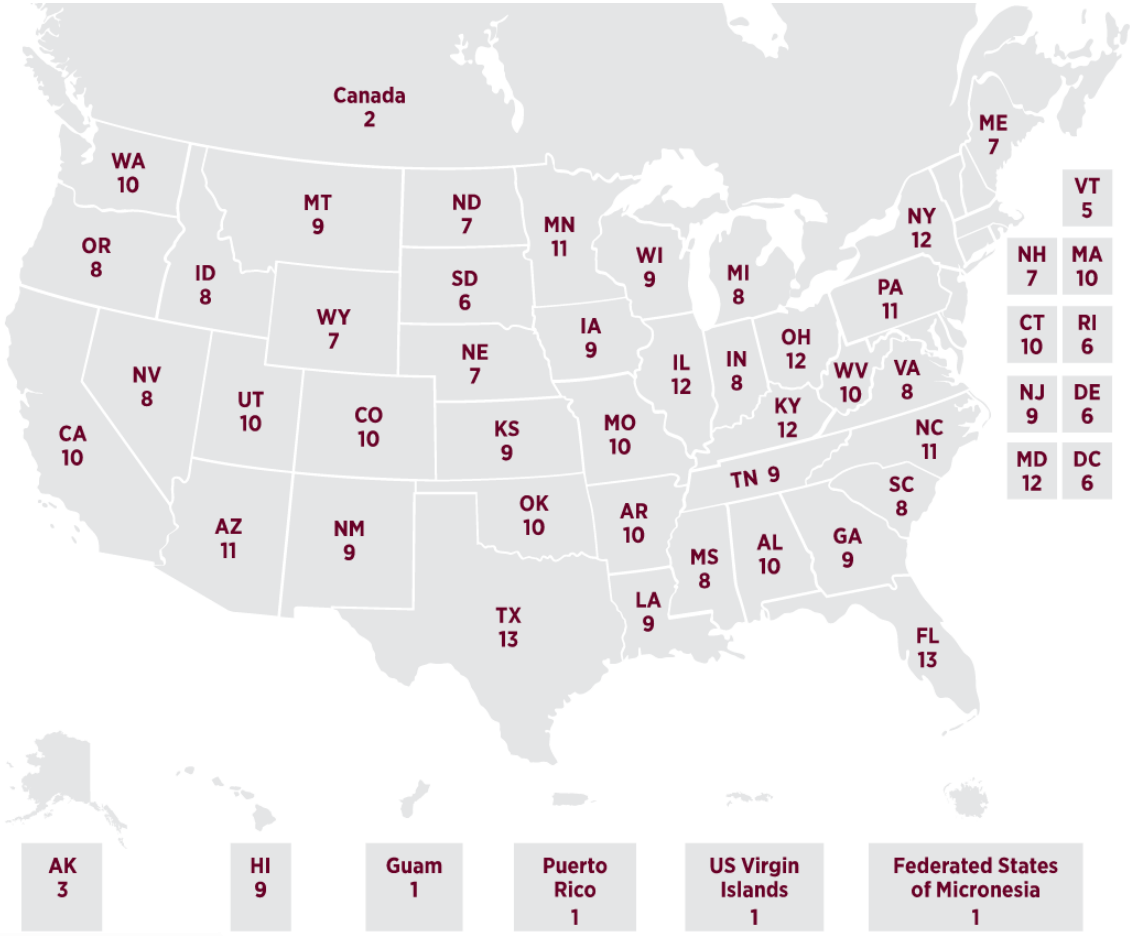
States recognize the value of postsecondary data, participating in a variety of data initiatives



 # represents the number of initiatives each state participates in.

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Source: Institute for Higher Education Policy, http://www.ihep.org/postsecdata/mapping-data-landscape/resources/states-crosswalk

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Development process for the metrics framework

The metrics for the framework were not selected, or created, in a vacuum.

- IHEP and BMGF reviewed many voluntary data collection initiatives as well as national postsecondary data collections, like IPEDS, to determine where the field was converging on access, progression, completion, cost, and post-college outcome metrics.

We took the metrics framework on the road.

- IHEP and BMGF went to conferences and met with field experts to test the recommended metrics, solicit feedback, and incorporate their expertise into the framework.
- The metrics framework is a product not of closed-door meetings, but of the field's work over the past decade. A major goal is to accurately reflect where the field has converged already and recommend continued progress.

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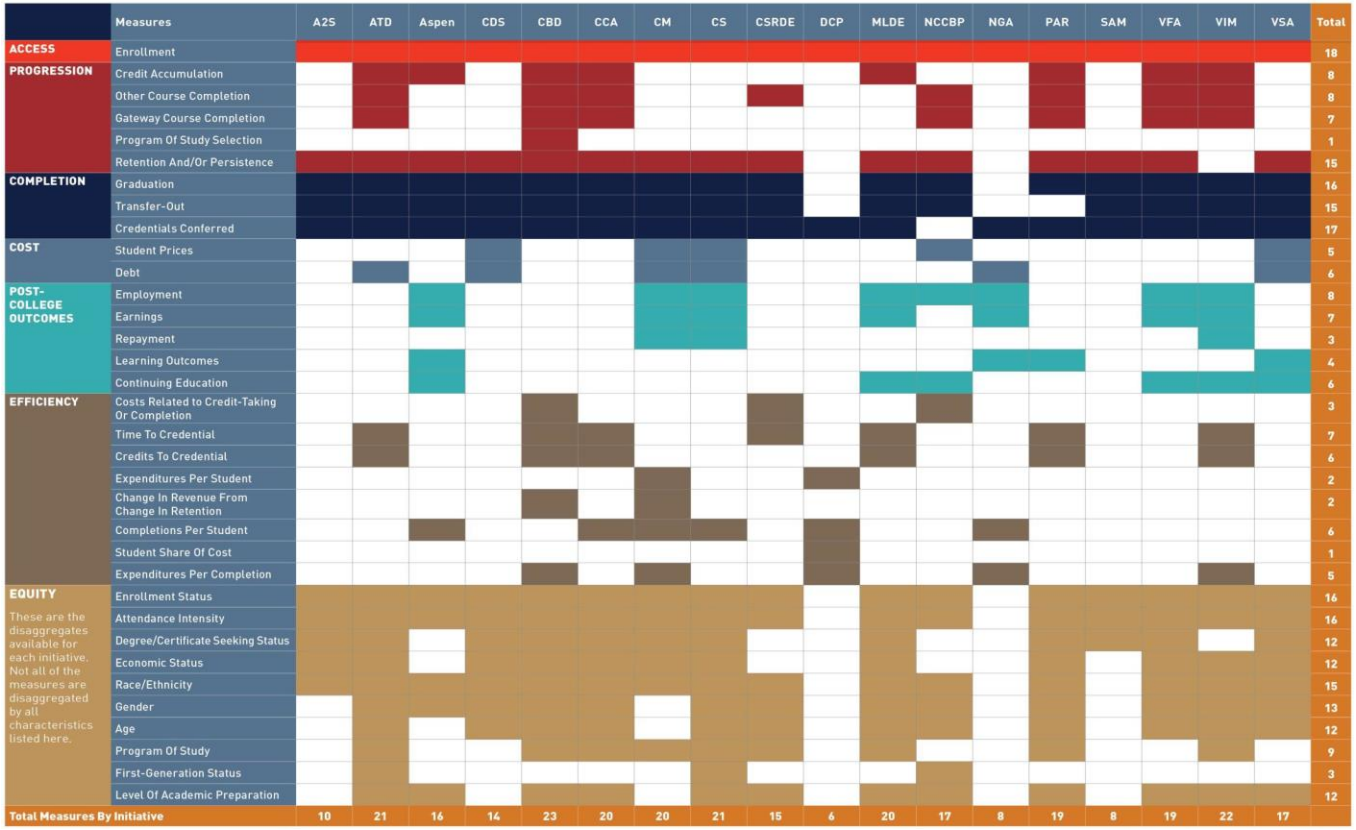
Review of data initiatives, dashboards, funding formulas revealed field convergence around key metrics

MAJOR DATA INITIATIVES & MEASURES CROSSWALK



	Measures	A2S	ATD	Aspen	CDS	CBD	CCA	CM	CS	CSRDE	DCP	MLDE	NCCBP	NGA	PAR	SAM	VFA	VIM	VSA	Total
ACCESS	Enrollment	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	18
PROGRESSION	Credit Accumulation		■	■		■	■					■			■		■	■		8
	Other Course Completion		■			■	■			■			■		■		■	■		8
	Gateway Course Completion		■			■	■						■		■		■	■		7
	Program Of Study Selection					■														1
	Retention And/Or Persistence	■	■	■	■	■	■	■	■	■		■	■		■	■	■		■	15
COMPLETION	Graduation	■	■	■	■	■	■	■	■	■		■	■		■	■	■	■	■	16
	Transfer-Out	■	■	■	■	■	■	■	■	■		■	■			■	■	■	■	15
	Credentials Conferred	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	17
COST	Student Prices				■			■	■				■						■	5
	Debt		■		■			■	■					■					■	6
POST-COLLEGE OUTCOMES	Employment			■				■	■			■	■	■			■	■		8
	Earnings			■				■	■			■		■			■	■		7
	Repayment							■	■									■		3
	Learning Outcomes			■										■	■				■	4
	Continuing Education			■								■	■				■	■	■	6
EFFICIENCY	Costs Related to Credit-Taking Or Completion					■				■			■							3
	Time To Credential		■			■	■			■		■			■			■		7
	Credits To Credential		■			■	■					■			■			■		6
	Expenditures Per Student							■			■									2
	Change In Revenue From Change In Retention					■		■												2
	Completions Per Student			■			■	■	■		■			■						6
	Student Share Of Cost										■									1
	Expenditures Per Completion					■		■			■			■				■		5
EQUITY	Enrollment Status	■	■	■	■	■	■	■	■	■		■	■		■	■	■	■	■	16
These are the disaggregates available for each initiative. Not all of the measures are disaggregated by all characteristics listed here.	Attendance Intensity	■	■	■	■	■	■	■	■	■		■	■		■	■	■	■	■	16
	Degree/Certificate Seeking Status	■	■		■	■	■		■			■			■	■	■		■	12
	Economic Status	■	■		■	■	■	■	■			■			■		■	■	■	12
	Race/Ethnicity	■	■	■	■	■	■	■	■	■		■	■		■	■	■	■	■	15
	Gender		■	■	■	■	■		■	■		■	■		■	■	■	■	■	13
	Age		■		■	■	■		■	■		■	■		■	■	■	■	■	12
	Program Of Study		■	■	■	■	■	■	■			■			■			■		9
	First-Generation Status		■					■	■				■							3
	Level Of Academic Preparation		■	■	■	■	■	■	■	■		■	■		■	■	■	■	■	12
Total Measures By Initiative		10	21	16	14	23	20	20	21	15	6	20	17	8	19	8	19	22	17	

Source: Bill & Melinda Gates Foundation

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States also vary in their collection of key postsecondary performance metrics

State Agency	AL	AK	AR	AR	CA (CCs)	CA (CSU)	CA (UC)	CO	CT	FL	GA	HI	ID	IL	…	Total
Enrollment	♦	♦		♦	♦	♦	♦	♦	♦	♦	♦	♦	♦			53
Student prices							♦					♦				14
Debt							♦				♦	♦				9
Persistence	♦	♦		♦	♦	♦	♦	♦	♦	♦	♦	♦	♦			52
Remedial course completion				♦				♦	♦		♦	♦	♦			37
Gateway course completion				♦					♦		♦	♦				18
Credit accumulation	♦		♦	♦	♦	♦	♦	♦	♦		♦	♦	♦	♦		49
Transfer-out	♦	♦	♦	♦	♦	♦	♦	♦			♦	♦				50
Graduation rate				♦			♦		♦		♦	♦	♦	♦		25
Time to degree				♦					♦			♦	♦			18
Credits to degree				♦					♦			♦	♦			21
Credentials conferred	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦			54
Employment rate											♦	♦				24
Earnings		♦			♦	♦	♦	♦	♦	♦	♦	♦	♦			38
Total	5	5	3	10	6	6	9	7	10	4	11	14	9	2		

Source: Armstrong, J. & Zaback, K. (2016).
Assessing and improving state postsecondary data systems.

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Developing & disseminating a key performance metrics framework for wide scale field adoption

	ACCESS	PROGRESSION	COMPLETION	COST	POST-COLLEGE OUTCOMES
PERFORMANCE	Enrollment	Credit Accumulation Credit Completion Ratio Gateway Course Completion Program of Study Selection Retention Rate Persistence Rate	Transfer Rate Graduation Rate Success Rate Completers	Net Price Unmet Need Cumulative Debt	Employment Rate Median Earnings Loan Repayment and Default Rates Graduate Education Rate Learning Outcomes
EFFICIENCY	Expenditures per Student	Cost for Credits Not Completed Cost for Completing Gateway Courses Change in Revenue from Change in Retention	Time/Credits to Credential Cost of Excess Credits to Credential Completions per Student	Student Share of Cost Expenditures per Completion	Earnings Threshold
EQUITY	Enrollment by (at least) Preparation, Economic Status, Age, Race/Ethnicity	Progression Performance by (at least) Preparation, Economic Status, Age, Race/Ethnicity	Completion Performance by (at least) Preparation, Economic Status, Age, Race/Ethnicity	Net Price and Unmet Need by (at least) Economic Status, Preparation, Age, Race/Ethnicity Debt by (at least) Economic Status, Age, Race/Ethnicity, Completion Status	Outcomes Performance and Efficiency by (at least) Preparation, Economic Status, Age, Race/Ethnicity, Completion Status

Key Student Characteristics

Enrollment Status	Economic Status
Attendance Intensity	Race/Ethnicity
Credential-Seeking Status	Age
Program of Study	Gender
Academic Preparation	First-Generation Status

Key Institutional Characteristics

Sector	Selectivity
Level	Diversity
Credential/Program Mix	Minority-serving Institution (MSI) Status
Size	Post-traditional Populations
Resources	Modality

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Metrics framework design principles

Counting All Students	Most initiatives began collecting data precisely because they could not track the outcomes of non-traditional students – such as part-time, underprepared, transfer, and low-income students – in existing national datasets like IPEDS. As such, the framework definitions reflect this progress in the field, and pushes the field further forward with recommendations such as using 12-month instead of fall cohorts to capture the more than 1/3 of students who start after the fall term, particularly in the community college and for-profit sectors.
Counting All Outcomes	Many initiatives track a more robust set of student outcomes, including transfer and completion at subsequent institutions. The framework reflects this progress in the field, but distinguishes between success rates (graduation or upward transfer from initial institution) and persistence rates (graduation, transfer, or still enrolled at initial or subsequent institution) to encourage colleges and universities to use student persistence rates to set stretch goals for improving their institutional success rates. Research shows that students who complete their programs are much more likely to do so at their initial institution.
Costs Count	While most initiatives include many of the access, progression, and completion metrics in the framework, fewer initiatives include cost and efficiency metrics. Although available data remain limited to construct these metrics, it was important to include them in version 1 of the framework to signal the need to consider how resources can be more efficiently allocated to improve student outcomes in this era of scarce public resources.
Considering Post-College Outcomes	While most institutions cannot yet fully access data about their students' post-college outcomes (as these are collected and reported by state and federal agencies), it was important to signal to institutions that they should use currently available data, appropriately contextualized, to understand whether students are earning credentials that improve their economic and life chances.

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Snapshot of a metric in the guidebook

COMPLETION, continued

Completers	
Definition	The number of students who complete a credential in a given year
Population	All completers in a given year by credential level attained
Disaggregates	Race/ethnicity, gender, age, academic preparation (at any time), economic status (at any time), first-generation status, program of study (at exit), and part-time (at any time) and transfer status
Submetrics for further analysis	• Crosstabulations of credentials awarded by key disaggregates (e.g., race and gender) • Distribution of credentials awarded by program of study • Distribution of credential awarded to underrepresented populations • Credentials awarded to underrepresented populations in STEM • Time and credits to credential

20 Initiatives measure Completers

Field Usage and Convergence

This completers metrics recommends counting the number of *students* who complete, as opposed to the number of *credentials* completed. This specification follows convention for the new completers measure added to IPEDS in 2011–12. While IPEDS collects counts of both completers (number of students)

Use Cases

Institutions can use counts of comp
strate productivity and their institu
workforce and society. Especially
demographic characteristics, top-p
make the case that they are cont
underrepresented college graduat
on completers could show that som
very few graduates in certain fields (
student groups (e.g., African Amer
the two (e.g., African American
results can trigger the college to
small numbers or gaps and evalua
awardin
tutional
needs. S
can emp
the types of students that succee
contributing to informed school se
cies that advance those institutions
For example, many states include
awarded or students completing—
sented student groups—in their

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Disaggregates of equity measures

Equity Measures:
Key Student Characteristics/Disaggregates

A core purpose of data collection and use is to shine a light on—and to develop strategies to close—gaps in college access and success that continue to disadvantage underrepresented students. Nontraditional and underserved student populations have largely been left out of or are invisible in federal data collections, making it difficult or impossible to measure how well these students are served by higher education and to develop strategies to better serve them. As such, this framework recommends *disaggregating* each metric by key student characteristics used by a host of voluntary data initiatives over the past decade. These equity-focused disaggregates are essential to uncovering and remedying inequities in and across our colleges and universities.

Depending on the metric type, the framework recommends determining student characteristics at different points in time: at entry, ever during enrollment, or at exit. The time of identification is shown in the snapshot charts of Chapters 3 and 4. In general, the framework follows Complete College America and Access to Success precedent by basing student *characteristics* at entry for cohort-based measures, like graduation rates, *and defining them if the student met the criteria* at any time for retrospective measures, such as completions. For disaggregates, such as major and credential received, which are most relevant at the point of college exit, the framework recommends defining them *at exit*. For cost metrics, such as net price and unmet need, that are measured annually, the framework recommends defining disaggregates *at that time*, to reflect the student's status that year. Recommendations for how to define the student disaggregates—including academic preparation, economic status, first-generation status, program of study, race/ethnicity, gender, and age—are explored below.

Academic Preparation

This framework recommends that institutions minimally identify students as "college ready" or "not college ready" in math and in English according to their own criteria until further research develops more robust measures of academic preparation that are comparable across colleges. Often-used proxies for academic preparation include standardized test scores, high school GPA, placement or enrollment in remedial education, and multiple measures frameworks that incorporate several metrics (See Table 5-1). If college-ready assessments like the Partnership for Assessment of Readiness for College and Careers (PARCC) or Smarter Balanced gain widespread use, this recommendation should be revisited to determine whether performance on these

13 Initiatives measure Academic Preparation

Explore the full report next week at www.ihep.org!

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DATA INFRASTRUCTURE

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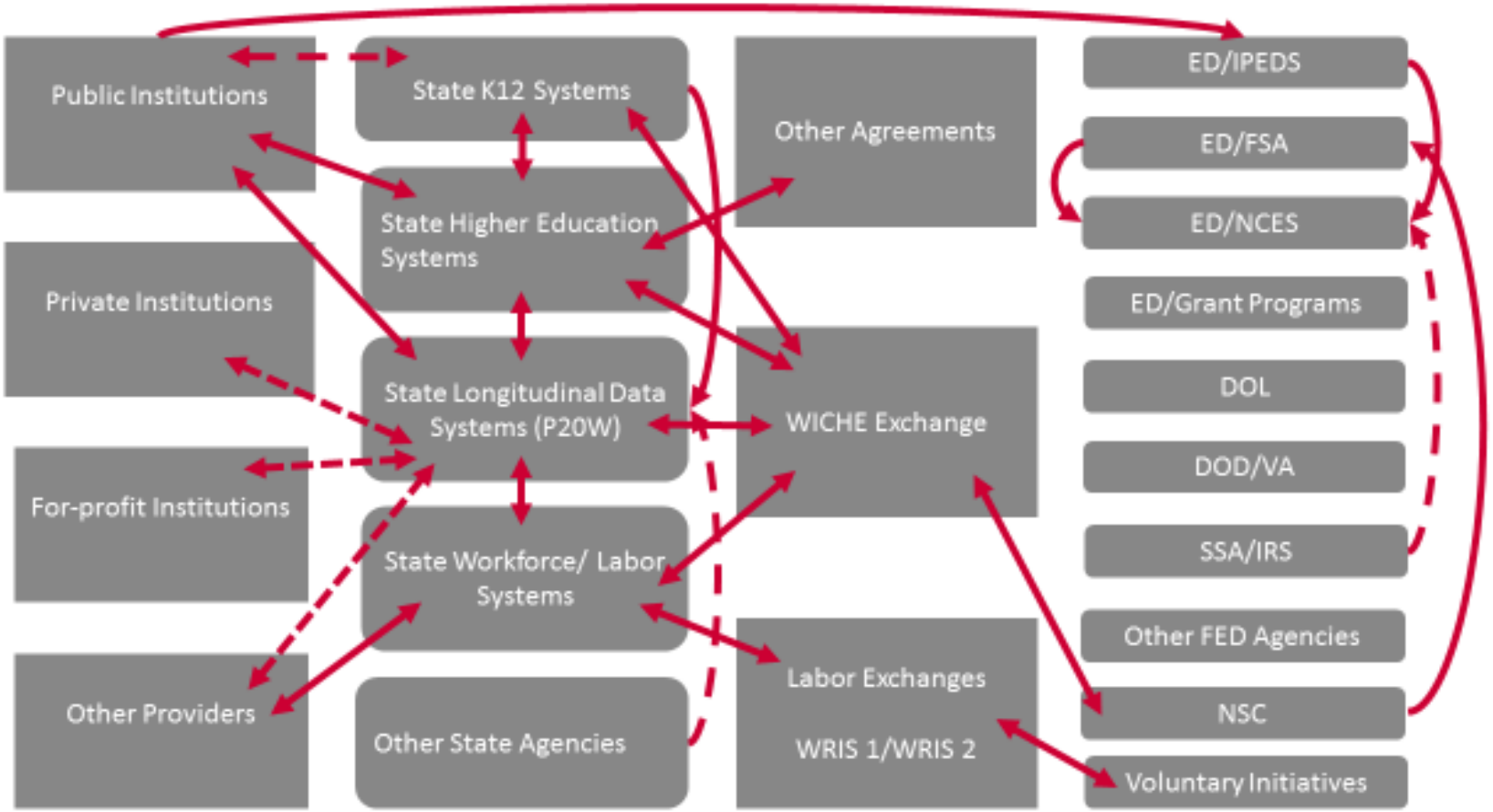
Current state: Incomplete, duplicative, disconnected systems; high burden, limited utility



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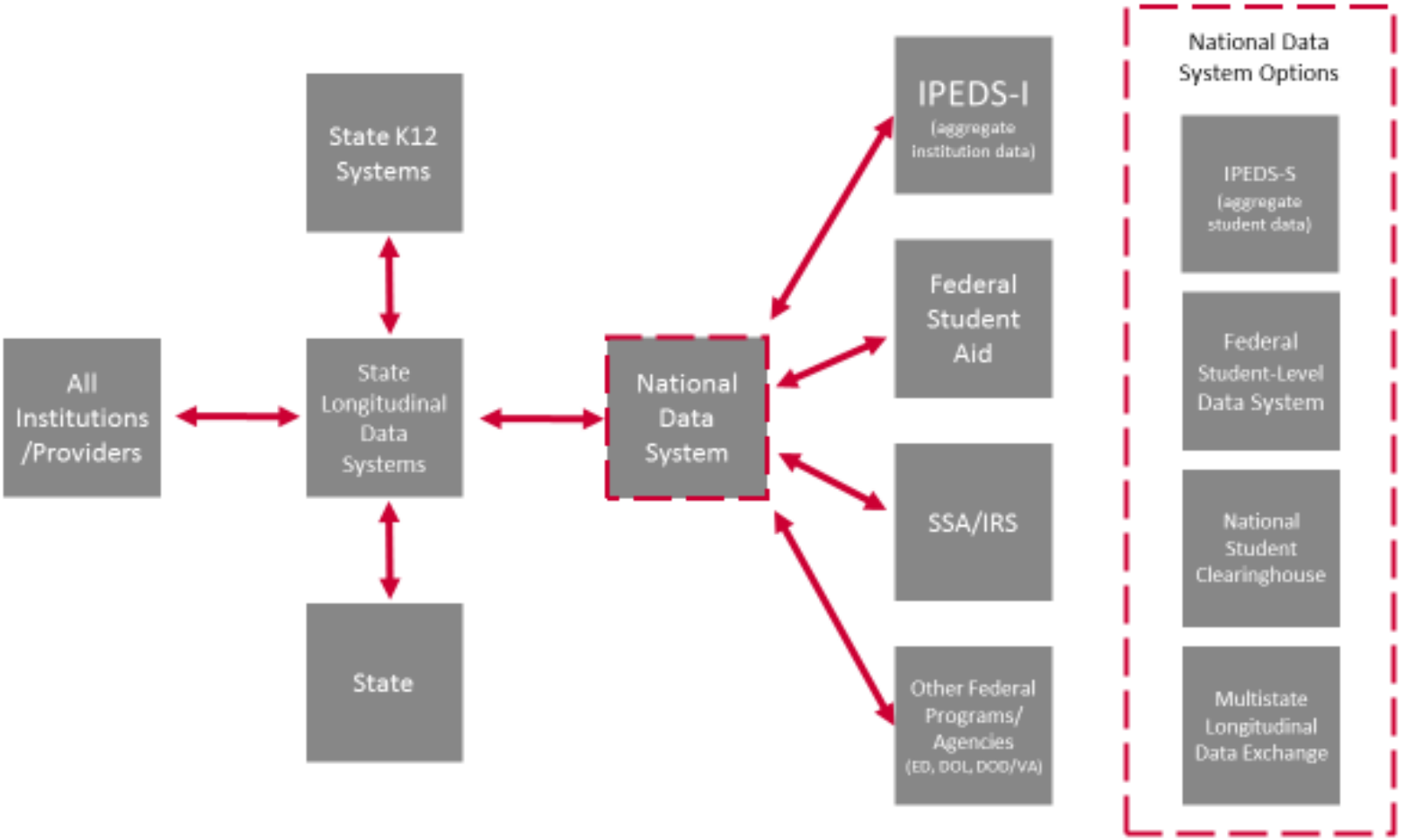
Ideal state: Identifying the critical path for a national data "system"



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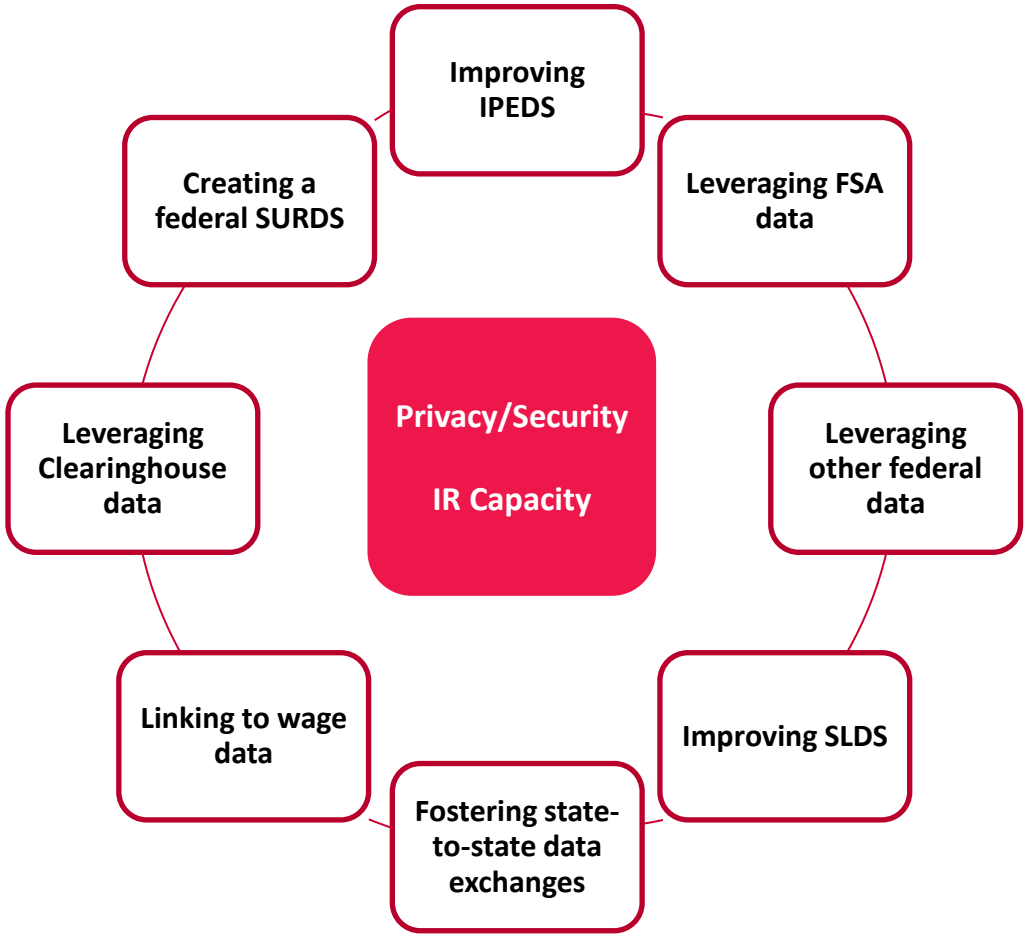
Envisioning the National Postsecondary Data Infrastructure in the 21st Century



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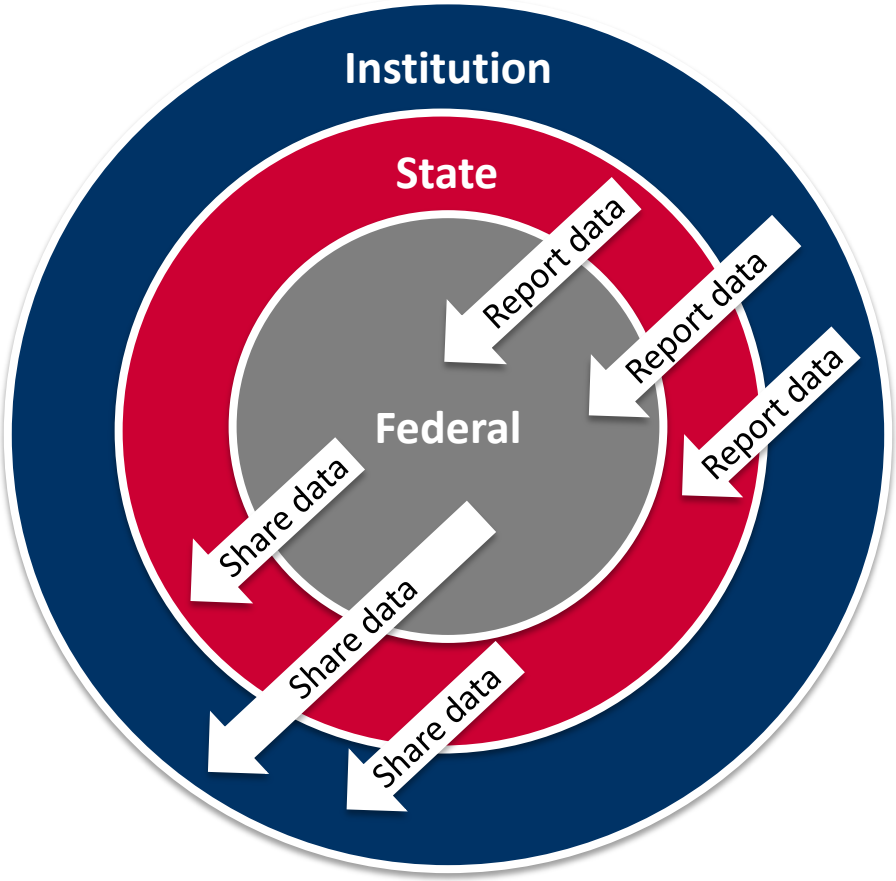
Toward a coherent national data policy



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Thank You!

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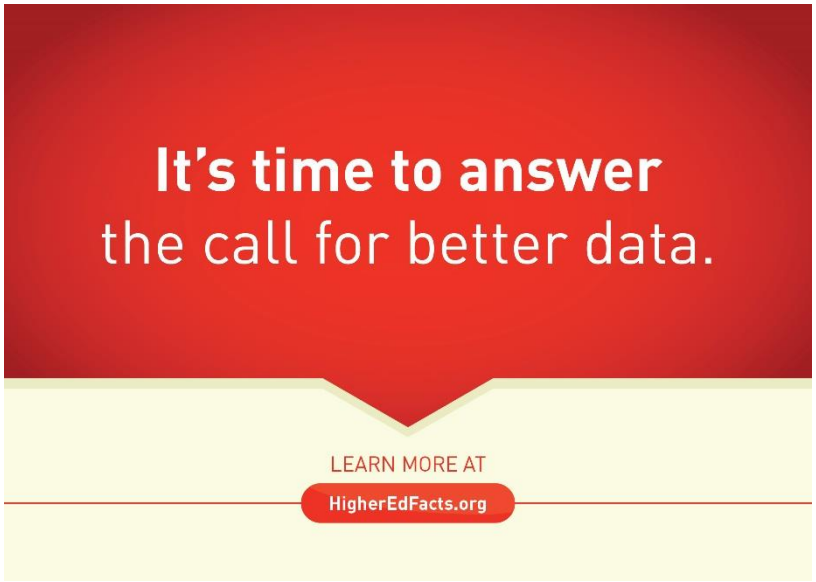

Jennifer Engle
Senior Program Officer
jennifer.engle@gatesfoundation.org

Amanda Janice
Research Analyst
ajanice@ihep.org

Mamie Voight
Vice President of Policy Research
mvoight@ihep.org

Source: Bill & Melinda Gates Foundation