# WHEN DATA ARE NOT ENOUGH

*Why community colleges need a stronger path from evidence to action*

From the Office of Institutional Progress and Effectiveness
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Community colleges have become very good at producing data. They have dashboards, scorecards, equity analyses, enrollment funnels, early alerts, program reviews, student-success metrics, labor-market reports, survey results, and increasingly sophisticated predictive tools. In many colleges, the language of "data-informed decision-making" has become so familiar that it now passes almost without examination. The assumption is clear enough. If better data are made available to the right people, and if those data are timely, specific, and actionable, then the institution will make better decisions, improve outcomes, and operate more efficiently.

There is truth in that assumption. Colleges need better evidence. Leaders, faculty, advisors, deans, department chairs, program directors, and student-support teams need to see patterns that would otherwise remain hidden. A college cannot improve what it refuses to examine, and it cannot redesign systems it does not understand. Data can reveal where students are losing momentum, where course success is uneven, where pathways are too complicated, where enrollment is leaking, where program outcomes vary, and where institutional practices may be producing results no one intended.

The problem is that many colleges have quietly turned this useful idea into an incomplete theory of change. They act as though better information naturally leads to better action. The assumed chain is familiar. Better data will create better awareness. Better awareness will create better decisions. Better decisions will create better practice. Better practice will improve outcomes.

That chain is orderly, plausible, and comforting. It gives institutional research offices, planning teams, accrediting bodies, executive leaders, and funders something concrete to build. It also allows colleges to demonstrate seriousness. A new dashboard, a new KPI framework, a new student-success report, or a new predictive model can look like institutional progress because it makes problems more visible.

Yet visibility is not the same as change.

Better data may lead first to better awareness of the data. That is valuable, but it is only the beginning. Awareness of data is not the same as understanding the conditions that produced the data, and understanding those conditions is still not the same as changing them. The movement from evidence to action depends on organizational capacities that many colleges have not deliberately built.

This weakness persists even when the data are quite good. It is important to say this clearly because the predictable defense of the current theory is that the problem lies with poor data, stale reports, confusing dashboards, or metrics that are too far removed from daily practice. Those problems are real, but they do not exhaust the issue. Even when data are timely, specific, disaggregated, and actionable, they do not automatically produce institutional action.

A dean may know exactly which courses have the highest withdrawal rates and still lack the authority, trust, staffing, scheduling flexibility, or faculty agreement needed to change the conditions producing those withdrawals. An advisor may know which students are accumulating credits outside their program pathway and still work within an advising model that is overloaded, transactional, and constrained by unclear handoffs. A vice president may know where students are being lost between application and enrollment, while the actual causes sit across financial aid, communications, admissions, placement, orientation, technology, and student uncertainty. A faculty member may see the evidence of early struggle and still operate within inherited course designs, grading rhythms, departmental norms, workload pressures, and expectations of autonomy that make redesign difficult.

In these cases, the barrier is not informational. The college may already see the pattern. The deeper problem is that the institution has not built the culture, routines, authority, and operational flexibility required to alter the pattern.

This does not mean that data are unimportant. It means they are often necessary and rarely sufficient.

## The limits of the data-access theory of change

The prevailing theory might be called a data-access theory of change. Its central premise is that the institution will improve if people have access to better evidence. The practical expression of this theory is familiar across higher education. Build the dashboard. Publish the metric. Disaggregate the outcomes. Train users. Put the data in the hands of managers and deans. Invite units to review their results. Ask departments to respond. Expect improvement to follow.

The theory appeals to colleges because it aligns with existing institutional habits. It preserves professional autonomy while appearing to strengthen accountability. It allows the college to treat improvement as a matter of attention and analysis rather than as a more difficult matter of redesign. It gives everyone a role without necessarily changing anyone's authority.

The theory also flatters the culture of higher education. Colleges are knowledge institutions. They believe in evidence, reflection, expertise, and reasoned deliberation. It seems natural to assume that when intelligent people are presented with good information, they will adjust their behavior accordingly.

But organizations do not work that way. Colleges are not collections of independent rational actors calmly updating their practices in response to new evidence. They are cultural and operational systems with histories, boundaries, loyalties, incentives, formalities, and protective habits. Their behavior is shaped by professional identity, governance structures, workload, resource constraints, compliance obligations, inherited processes, labor agreements, fear of blame, leadership turnover, and the deep etiquette of collegial life.

This is why colleges can become data rich and still remain operationally inert. They can hold data retreats and avoid hard decisions. They can identify equity gaps and respond with generalized concern. They can document program weakness and leave the program portfolio mostly unchanged. They can create early-alert systems that notify people who lack the power to change the conditions causing the alert. They can track student momentum while maintaining policies, schedules, and advising structures that slow momentum down.

The result is a kind of institutional ritual. Data are reviewed, concern is expressed, recommendations are made, and further analysis is requested. The institution demonstrates awareness while protecting the arrangements that produced the results.

## Data as signal rather than reality

There is another caution, though it should not be overstated. Data are powerful because they simplify reality into patterns that can be counted, compared, and tracked. That abstraction is precisely what makes data useful. It is also what makes data incomplete.

Institutional data are especially good at capturing transactions. A student enrolled. A student withdrew. A student attempted credits. A student completed a gateway course. A student earned a grade. A student received aid. A student met with an advisor. These events matter. They are essential signals.

But they do not fully describe the student experience or the institutional conditions behind it. A withdrawal record may show when a student left a course. It may not show the sequence of confusion, delayed feedback, work pressure, self-doubt, family obligation, unclear expectations, or weak connection that made withdrawal feel unavoidable. A course-success metric may identify a troubling pattern. It may not show whether assignments are sequenced well, whether students understand the hidden expectations of college work, whether feedback arrives early enough to matter, or whether the course gives a struggling student a real path back.

For that reason, data should begin institutional inquiry rather than substitute for it. The question is not simply what the data show. The more important question is what conditions are producing the pattern and who has the authority, knowledge, trust, and resources to change those conditions.

This is where the usual theory of change is too thin. It assumes that evidence becomes action through visibility. A stronger theory recognizes that evidence becomes action through disciplined sense-making and operational design.

## The institutional self-protection problem

Colleges often self-protect against disruption even when no one is consciously trying to block improvement. This is part of what makes change so difficult. The resistance is usually not a simple refusal to care about students or outcomes. It is more often embedded in the normal ways the institution preserves stability.

Professional identity can make evidence feel like criticism. Faculty may hear questions about course outcomes as threats to academic judgment. Advisors may hear process redesign as a judgment on their commitment. Deans may hear program-performance data as a challenge to the legitimacy of their academic areas. Staff may hear efficiency language as a warning that their work is misunderstood or vulnerable. Leaders may avoid pressing too hard because they know trust is fragile.

Institutional formalities also slow the movement from evidence to action. Committees can turn urgency into procedure. Consultation can become delay. Pilot projects can become substitutes for difficult decisions. Shared governance can be invoked either as a legitimate structure for deliberation or as a way to defer change indefinitely. The culture of politeness

can make it easier to discuss problems in the abstract than to name the practices and policies contributing to them.

Community colleges face additional complexity because student outcomes are almost always produced across functions. A student's progress depends on the interaction of advising, scheduling, financial aid, academic policy, course design, program maps, registration systems, transportation, childcare, work hours, confidence, and belonging. No single office owns the whole experience. As a result, evidence often points to a problem whose causes are distributed across the college.

That distribution creates a familiar pattern. Everyone can see part of the problem, yet no one has sufficient authority to fix the whole of it. The data create shared concern without shared agency.

## What an evidence-to-action architecture requires

The next step is not to abandon the data project. It is to complete it.

Colleges need better evidence, but they also need an evidence-to-action architecture that allows evidence to change institutional behavior. That architecture is made of culture and operations together. Culture determines whether evidence can be discussed honestly. Operations determine whether evidence can be acted upon.

The first requirement is interpretive discipline. Colleges need regular routines in which the right people examine the right evidence with a focus on meaning, mechanism, and action. These routines should bring together people close enough to the work to understand what the data may be missing. Faculty, advisors, financial aid staff, schedulers, program managers, institutional researchers, student support teams, and students themselves often hold pieces of the explanation. Their knowledge should not replace data, but without it the institution may misunderstand what the data mean.

The second requirement is clear ownership. Every important metric should be connected to the people and groups who can influence the conditions that produce it. If the college is tracking credit momentum, gateway completion, onboarding loss, excess credits, course withdrawals, or program completion, it should be clear who is responsible for interpreting the evidence, who can change the relevant policies or practices, and who must return with an account of what happened. Without ownership, metrics become institutional weather reports. They describe conditions without changing anyone's work.

The third requirement is decision rights. Evidence does not act on its own. Someone must have authority to change deadlines, revise workflows, adjust schedules, redesign communication, alter advising models, revisit course sequences, shift resources, or escalate barriers. Many colleges ask managers and deans to respond to data without giving them real authority over the levers that matter. This produces frustration and learned caution. People become aware of problems they cannot solve.

The fourth requirement is cultural trust. Evidence will not disturb settled practice productively if people believe it will be used to embarrass, punish, or simplify their work. A college that wants honest evidence use must cultivate a culture in which uncomfortable findings can be examined without humiliation. This does not mean avoiding accountability. It means creating

conditions where accountability is connected to learning, redesign, and follow-through rather than blame.

The fifth requirement is operational flexibility. If data show that students are losing momentum because course schedules do not fit working lives, gateway courses create unnecessary delay, advising handoffs are unclear, financial aid messages are confusing, or course feedback arrives too late, the college needs mechanisms for changing those conditions. Otherwise, the phrase "actionable data" becomes misleading. The evidence may be actionable in concept while the institution remains structurally unable to act.

The sixth requirement is cadence. Many colleges are good at launching conversations and weaker at returning to them. Evidence-to-action work requires a disciplined rhythm. What did we see? What do we think it means? What will we change? Who owns the change? What happened after implementation? What did we learn? What barrier remained? What needs to be escalated? Without cadence, the institution repeatedly discovers the same problems.

## A different future for institutional effectiveness

The next generation of institutional effectiveness should be less satisfied with data access as the measure of progress. More dashboards may help. Better dashboards may help even more. But the deeper work is building institutional capability.

That capability includes the ability to interpret evidence carefully, connect it to decisions, redesign operations, build trust across professional groups, test changes, learn from implementation, and sustain attention long enough for practice to shift. It also requires humility. Even the best data do not fully describe reality. Even the clearest evidence does not automatically identify the right intervention. Even the most committed people may be constrained by systems they did not design.

The common theory of change is not baseless. It is incomplete. Better data can create visibility, and visibility matters. But community colleges do not improve because information exists. They improve when evidence enters a culture and operating system capable of turning insight into changed conditions for students.

The central question, then, is not whether a college has enough data. Many do. The better question is whether the college has designed the conditions under which evidence can matter.

That is the unfinished work. Community colleges need to move from data-informed awareness to evidence-informed action. They need structures that allow data to provoke inquiry, inquiry to guide decisions, decisions to alter operations, and operations to be tested against results. Without that architecture, even actionable data can become another ritual of institutional seriousness. With it, evidence can become what colleges have long hoped it would be, a disciplined path toward learning, adaptation, and better outcomes for students.