BUILDING A CULTURE OF EVIDENCE IN COMMUNITY COLLEGES:

Lessons from Exemplary Institutions

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EXECUTIVE SUMMARY

Across the education sector, calls for accountability and results—and for greater transparency in the reporting of student outcomes—have been increasing. While this pressure began two decades ago in K-12 education, community colleges are now also paying closer attention to how they can and should use data on student outcomes to drive better results. Historically, colleges have generated data primarily for compliance purposes—to meet state or federal reporting requirements. But this has begun to change: some dynamic, entrepreneurial community colleges are taking a hard look at how they can create and sustain an internal culture of evidence-based practice. These colleges are engaging staff throughout the institution in looking at data to identify areas of weakness, progress, and potential improvement.

Building a Culture of Evidence in Community Colleges looks at four colleges that are national leaders in using institutional research strategically and for improvement: City College of San Francisco; Community College of Baltimore County; Indian River Community College; and LaGuardia Community College. All four of these leading colleges have received or been finalists for the MetLife Foundation Community College Excellence Award.

The pioneering efforts of these schools in the use of student data for identifying problems and potential solutions provide a rich source of expertise on what it takes to build an institution-wide culture of evidence-based decision making. They also illustrate how community colleges can make routine the use of data to identify strengths and weaknesses, pinpoint areas for improvement, and assess the impact on students of new programs and innovations. The experiences of these institutions also suggest changes in state and community college system policies that can enable significantly more institutions to follow their lead.

The ways in which these four institutions organize and use institutional research suggests concrete, specific strategies that college leaders and their research teams can use to weave data use deep into the fabric of an institution.

These lessons cluster into four categories:

Set the tone and insist on a culture that elevates evidence and inquiry: Leaders can drive their systems and messages toward the use of data across the college.

Put data in the hands of the users: Institutional research offices can stimulate demand for data by making sure that the data are both reliable and accessible.

Some dynamic, entrepreneurial community colleges are taking a hard look at how they can create and sustain an internal culture of evidence-based practice.

Conduct specific analyses that answer important questions about how particular student groups are progressing: Colleges can start on the path of creating a culture of evidence by conducting longitudinal analyses to identify difficulties for specific populations at specific points along the pipeline to graduation.

Tie data analysis and use tightly to planning and budgeting processes: Instituting strategic planning processes that explicitly tie student outcome data to budget allocations makes clear to stakeholders throughout the college that data matters to institutional priorities and resource allocations.

The strategies pursued by the community colleges profiled in this report provide important and very practical lessons for other colleges that want to embrace evidence-based decision making. Their approaches to building capacity and trust; integrating data use into planning, budgeting, and teaching and learning; and changing institutional culture have powerful lessons for other colleges around the country.

In the end, though, the kind of transformation that these colleges have undergone and are continuing to pursue widely and in a sustained way will not spread without state and system policies that provide additional resources, support more sophisticated data analyses and capacity, and create incentives for institutional leaders to drive change. The two must go hand in hand: institutional excellence and supportive policies. When they do, the success of these MetLife Foundation Award winners and finalists will be more easily replicable by other community colleges across the nation.

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INTRODUCTION

Across the education sector, calls for accountability and results—and for greater transparency in the reporting of student outcomes—have been increasing. While this pressure began two decades ago in K-12 education, community colleges are now also paying closer attention to how they can and should use data on student outcomes to identify opportunities and strengthen strategies for improving the delivery and support of learning. Historically, colleges have generated data primarily for compliance purposes—to meet state or federal reporting requirements. This has begun to change. Some dynamic, entrepreneurial community colleges are taking a hard look at how they can create and sustain an internal culture of evidence-based practice, and they are engaging staff throughout the institution in looking at data to identify areas of weakness, progress, and potential improvement.

This shift to a culture of evidence and inquiry is not easy—and it is not yet common. (See the sidebar, "Findings on Institutional Research Capacity.") Without such critical conditions as resources for staff and studies, systems for assuring quality data collection and maintenance, or institutional leadership that makes research and the culture of evidence a high priority, community colleges can struggle to use data on student outcomes to assess areas of weakness and strategies for improvement.

Community colleges are paying closer attention to how they can and should use data on student outcomes to identify opportunities and strengthen strategies for improving the delivery and support of learning.

Without these conditions, colleges fall back on planning, budgeting, and professional development by anecdote or politics rather than data. They neither make the necessary technical improvements in how data is collected, stored, and reported, nor the required organizational changes in how faculty and staff engage with each other and with information about student outcomes.

This report looks at four colleges that are exceptions when it comes to using institutional research strategically and for improvement:

- City College of San Francisco;
- Community College of Baltimore County;
- Indian River Community College; and
- LaGuardia Community College.

All four of these leading colleges have received or been finalists for the MetLife Foundation Community College Excellence Award.

The pioneering efforts of these schools in the use of student data for identifying problems and potential solutions provide a rich source of expertise on what it takes to build an institution-wide culture of evidence-based decision making. They also illustrate how community colleges can make routine the use of data to identify strengths and weaknesses, pinpoint areas for improvement, and assess the impact on students of new programs and innovations. The experiences of these institutions also suggest changes in state and community college system policies that can enable significantly more institutions to follow their lead.

Our focus is primarily on offices of institutional research. These key units within community colleges, typically understaffed and underutilized, are critical to efforts to strengthen institutional use of data for improvement, not just for compliance (Morest et al. 2006). The experience of these four institutions and how they organize and use institutional research suggests concrete, specific strategies that college leaders and their research teams can use to weave data use deep into the fabric of an institution.

At the same time, this is not solely a study of IR offices. The success of community colleges also depends upon strong, steady, committed institutional leadership that supports these offices and places IR at the center of strategy and planning, especially in relation to budget decisions. At the heart of the story of each college in this report is a commitment to changing institutional culture as well as practice—to changing expectations about how faculty, administrators, and leaders relate to, use, and promote data about students and their success. This cultural shift requires the stimulation of demand for data across the institution, so that faculty and staff want to get more, and more useful, information about how their students are progressing. At the same time, changing institutional culture must also be accompanied by real changes in the organization of data collection, analysis, and use.

New Research on Institutional Research Capacity

How well prepared are today's community colleges to move toward the greater use of data and research to improve student success? Less well than is needed for developing and routinizing the "culture of evidence," according to recent research by the Community College Research Center at Teachers College, Columbia University. To assess the capacity of institutional research (IR) offices in community colleges and the obstacles to more effective data use, CCRC fielded a national survey of 189 college administrators responsible for institutional research at their schools and augmented it with case studies of 28 community colleges in 15 states. The study aimed to learn how much IR capacity community colleges have in terms of IR staff size and facility with research methods, how IR is utilized by different actors within colleges, and what barriers may exist that impede the development of IR analysis that would benefit college decision making.

The researchers identified three common challenges in the areas of resources, data, and leadership: institutional research offices are typically small and underfunded; difficulty "cleaning" student data entered by different departments and at different times and not designed primarily for research use makes it difficult to conduct research that can inform improvements to program and institutional performance; and leadership commitment to and investment in the capacity for rigorous research is typically limited.

The study noted that a small number of colleges have demonstrated the capacity and the commitment to use data to manage and improve programs and services. Such colleges typically combine institutional research, planning, institutional effectiveness, and assessment into one department, led by an individual with experience and advanced training who is a full member of the college's leadership team. They tend to employ sufficient staff to conduct research above what is required for the purposes of compliance and accreditation. The critical challenge facing community colleges and college systems is to develop strategies to move the resource, data, and leadership "best practices" of these institutions into many more institutions.

See Morest, Vanessa Smith, & Davis Jenkins. 2007. Institutional Research and the Culture of Evidence at Community Colleges *Report #1 in the Culture of Evidence Series of Achieving the Dream. New York, NY: Community College Research Center. To download this report, go to: http://ccrc.tc.columbia.edu/Publication.asp?UID=515.*

HOW COLLEGES CAN BUILD DEMAND FOR STRONGER CAPACITY TO COLLECT, ANALYZE, AND USE DATA FOR IMPROVEMENT

The experience of these four schools provides important lessons for others about how to increase demand for, and the centrality of, institutional research in the life of a community college. These lessons cluster into four categories:

Set the tone and insist on a culture that elevates evidence and inquiry: Leaders can drive their systems and messages toward the use of data across the college.

Put data in the hands of the users: Institutional research offices can stimulate demand for data by making sure that the data are both reliable and accessible.

Conduct specific analyses that answer important questions about how particular student groups are progressing: Colleges can start on the path of creating a culture of evidence by conducting longitudinal analyses to identify difficulties for specific populations at specific points along the pipeline to graduation.

Tie data analysis and use tightly to planning and budgeting processes: Instituting strategic planning processes that explicitly tie student outcome data to budget allocations makes clear to stakeholders throughout the college that data matters to institutional priorities and resource allocations.

While all four colleges studied here are large institutions with higher capacity in their IR than in the typical community college, there are lessons for smaller institutions as well (see sidebar, "Advice for Small Colleges," page 8).

Accountability Pressures Are Changing the Context for Institutional Research

Historically, the collection and analysis of data in community colleges have been driven by compliance with state reporting requirements, which frequently determine state funding allocations. Today, accountability pressures emerging at the state, national, and accreditation agency levels are changing the context within which colleges report and use data on their students. In addition, improved data collection and analysis tools and technologies are making it possible to do far more sophisticated data work more quickly and cost effectively. As a result, colleges are increasingly expected—and increasingly able—to use data more systematically and creatively to answer questions about student performance and how it might be improved.

Making this shift is slow, given the complex environment within which colleges operate. Community colleges serve the most diverse population in higher education, with students ranging from new immigrants seeking English skills and short-term certificates to incumbent workers seeking career advancement, high school graduates seeking a first step toward a college degree, and high school dropouts seeking reentry into the education pipeline. Given this diversity of students and their goals, there is some debate over which outcomes and metrics should be used to judge community college effectiveness (see, for example, Bailey, Jenkins, & Leinbach 2007).

However, there are signs of change. While the primary federally required community college quality measure tracks graduation rates of first-time, full-time degree-seeking students, many states want to know more. They are asking institutions for the information that can answer important questions about quality and performance. How well are developmental education students transitioning into credit-bearing courses and degree programs? How do part-time students fare, and what factors increase their success? What progress are various populations making through "gatekeeper" courses? What is the effect of different high school curricula on later success in non-remedial courses? What are the labor market outcomes for students who complete different degree programs? As states experiment with new and more varied measures in their own accountability systems, and as accreditation agencies demand more attention to outcomes and learning, the importance of IR office capacity and quality is growing. This trend is likely to continue and accelerate.

Set the Tone and Insist on a Culture that Elevates Evidence and Inquiry.

The four colleges studied tell us much about what steps leaders can take: they can determine where institutional research sits in their institution; they can signal the importance of data and provide a clear picture of what a culture of inquiry and evidence looks like at different levels of the institution; and they can create systems of incentives to reward the honest appraisal of data, even if it is "bad news."

Where to situate institutional research. Each of these institutions has a strategic rationale regarding where it situates its Office of Institutional Research. IR offices need to be accessible to the president, especially for strategic planning. At the same time, according to many IR staff interviewed, deans, department chairs, and faculty need to view the IR office as a neutral player. The four colleges here have taken a variety of approaches to meeting these criteria.

In one variant, a vice president with responsibility for both strategic planning and institutional research reports directly to the president, ensuring that data is used strategically to guide the institution. At City College of San Francisco, for example, an IR staff of three researchers responds to data requests from the faculty, while the vice chancellor for institutional advancement ensures that those requests align with the college's overall strategic goals. This vice president also directs the involvement of the IR staff in the college's strategic planning process.

In other colleges, the IR director is housed in administration and finance or closely tied to the Office of Information Technology; both approaches signal neutrality and ensure that the data and technology systems are aligned. Indian River Community College put its IR department in administration and finance, but the Office of Institutional Effectiveness oversees strategic planning and makes sure that all departments are effectively using the IR department. At LaGuardia, institutional research is housed in the division of information technology, but the office is physically next door to that of the president.

Signaling the importance of data. The presidents of the four MetLife Foundation Award finalists emphasize that they consciously use key moments of opportunity to convey a full commitment to open, honest appraisals of data on institutional performance. At LaGuardia and Indian River, this means embracing negative data as an opportunity to change. In the first six months of Gail Mellow's tenure as president, for example, LaGuardia Community College conducted a student survey in preparation for accreditation, and the feedback on the quality of student services was largely negative. According to Dr. Mellow, the impulse of key staff at the time was "How can we hide this?" Instead, she helped faculty and staff embrace the news and use it to fundamentally redesign enrollment management, resulting in shorter wait times and more efficient delivery of services. As the Vice President for Enrollment Management put it, "Our anecdotal impressions of the volume of students served misled us into thinking we were meeting demand. We had to rethink our services and significantly streamline the enrollment process." The resulting "high-tech/high-touch" model of enrollment paid off: in fall 2005-06, the college hit 103 percent of its enrollment target three days before the semester started.

Following a climate survey that showed what Dr. Edwin R. Massey of Indian River Community College describes as a "culture of complacency," he convened a series of town hall meetings. He answered every question—no matter how challenging or seemingly trivial—and personally conveyed a commitment to "face the brutal facts," as IRCC's guiding principles put it. As Dr. Massey looks back on it, these meetings marked a significant turning point in the institution's transition to a culture of inquiry.

Chancellor Philip R. Day, Jr., of City College of San Francisco launched his administration with the publication of baseline data on all aspects of the college's performance—a more open sharing of data than had previously been seen in the college. The college followed that publication by conducting an extensive series of listening sessions with internal and external stakeholders, including high school principals and college

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faculty, to "put a face on the data." Both data sets informed the priorities contained in the college's strategic plan.

The presidents of these colleges strategically use data in their messaging to internal audiences as a way to signal and build support for a culture of evidence. Several intentionally use data every time they speak to college audiences—both negative data ("this is not good enough") and positive ("here's what the data can tell us about what's working for our students"). One messaging strategy is for the president to model the use of inquiry-based discussion in grappling with the data. LaGuardia held a cabinet session to enable small group discussions about key data findings, allowing cabinet members to draw their own conclusions about what the data did and did not imply about college effectiveness.

Presidents interviewed by Jobs for the Future stressed the importance of building in incentives and rewards for faculty and administrators to use data. LaGuardia and San Francisco both require all budget requests to be justified by student data. In addition, when designing a project, LaGuardia builds in time for research into best practices across the country, and it includes this in grant proposals. For example, a recent grant proposal on the use of electronic portfolios included a "research year" for faculty to review literature and visit other colleges to learn about the use of e-portfolios and determine how best to implement them back home.

Put Data in the Hands of the Users.

The four colleges have taken specific steps to make data as accessible as possible to faculty. The strategy is to stimulate demand for more, and more fine-grained and useful, data: accessible data leads faculty to understand its utility, and they begin to seek more. As one IR staffer at City College of San Francisco has put it, "You dig the channel; you let the data flow." Strategies include investing in technology,

creating mechanisms for faculty to use data to assess their own practice, taking steps to ensure that the data is transparent and consistent, and hiring and training IR staff to be brokers and facilitators of data.

Investing in technology. Finding the resources to beef up technological systems and human resources capacity is a major challenge, especially for smaller colleges. One possibility is to use large, one-time grants to upgrade a college's technology infrastructure so that it is more flexible and usable at the college, department, and faculty levels. Indian River took a gradual approach: it developed its initial, streamlined data system over a decade ago, and has modified it dramatically ever since by responding to user requests. For example, the Indian River institutional research office has added "tabs" to the computer desktop screens of faculty and staff in response to multiple requests for a specific type of data. Baltimore County and LaGuardia have built on-line communities of practice that allow faculty to share what they learn about pedagogy and practice. Baltimore has developed a portal attached to the college Web site for posting executive summaries of action research that documents student learning.

Strategies for making data accessible include investing in technology, creating mechanisms for faculty to use data to assess their own practice, taking steps to ensure that the data is transparent and consistent, and hiring and training IR staff to be brokers and facilitators of data.

At City College of San Francisco, the institutional research office created the Web-based Decision Support System, geared toward providing deans, department chairs, and other primary users with a sense of the kind of information and analyses they might be able to do—or to ask for the IR office to undertake. While the DSS is still "pretty basic," according to IR staffers, its designers use it to help change institutional culture: they have made it accessible to all faculty and administrators, not just to the department heads and deans most likely to use it, in an effort to break down the barriers between data gurus and data users.

Conveying the value and reliability of data. Trust is critical. The IR staff at these institutions consistently strive to garner the trust of faculty, deans, and department chairs. First and foremost, they concentrate on making themselves useful; their orientation is toward customer service. San Francisco and LaGuardia IR staff have adopted a strategy of offering more data than they are asked for; in both colleges, IR staff will sit with the person requesting the data and help determine if additional data, or a different query, would meet their needs better. At San Francisco, when a dean in the English as a Second Language department wanted to know how ESL students do after transitioning into credit-bearing courses, he expected to receive aggregated data, in hard copy, from the IR

office. Instead, he received an extensive, interactive database that allows him to see how former ESL students do in any credit-bearing class, along with a tutorial from IR staff on how to use the database to answer any questions he might have about student performance.

To ensure that the college serves all audiences, Baltimore County has organized its IR department by stakeholder groups, including faculty, college leaders, and state and federal stakeholders. While some staff focus on state and federal reporting, others work primarily with faculty on defining learning goals and analyzing data as part of action research. At the same time, the college has a relational database that allows staff to look at student outcomes across departments and to compare the success of particular populations—such as African-American males—in various courses. Baltimore County's mantra "do it once and use it many times" reflects a commitment to drilling each table and report down from the college level to the program and department levels. All data requests lead to both a research report—with an easy-to-read executive summary—and the development of other reports or files that enable each type of user to use similar reports for their own needs.

At City College of San Francisco, where the demographics of the student body—race, ethnicity, age, gender—are constantly evolving, IR staff are valued for helping faculty understand the changing mix and characteristics of students in the classroom and the implications for classroom practice. For example, the IR office produced a report indicating that the college's student body is increasingly computer-savvy, resulting in an increase in courses with an on-line component.

San Francisco illustrates a second strategy for promoting data use: to increase the transparency of the data. CCSF revitalized its fledgling institutional research department with a widely circulated document that gave definitions and protocols for using data; this reassured faculty and department chairs who had not only lacked access to data but had perceived that it would be used against them. IR staff also present data in multiple ways so that a variety

of stakeholders can understand and use them. The template for CCSF's reports invites use and includes a description of how to use the data report. Data are presented in three levels of specificity and detail: a one-page summary; a supporting fact sheet; and full data tables. This template allows users to access the data at multiple levels, depending on their degree of comfort, need, and interest.

Another strategy to build trust in the reliability of data is to vet it with key audiences. This can help defuse anxiety about and distrust of the data and secure stakeholders as allies in addressing what might be interpreted as bad news. San Francisco has developed a process the IR staff call "walk-arounds": in small group meetings, they share emerging data with relevant staff and faculty, then conduct additional queries or aggregate the data differently in response to questions or suggestions.

CCSF Chancellor Day emphasizes the value of "sunshining" data with multiple audiences—to maximize dissemination and value, and also to minimize the potential for political pushback. For example, when data indicated that students of color were faring worse than their white peers in basic skills math courses, Dr. Day brought the data to the college's Diversity Committee, which he chairs, for its review and input into potential intervention strategies. Now the college is experimenting with different formats for that course and tracking outcomes to determine the most effective approach.

Organizing opportunities for faculty to use data. These colleges have created varied mechanisms to facilitate and promote faculty use of student performance data. Indian River provides multiple opportunities for staff to review data and discuss implications for practice. Work groups on specific topics convene regularly and explore data related to their key questions. For example, a work group on student performance that was comparing college with state data had hypothesized that there would be an achievement gap between whites and blacks on campus; however, a close look at the data revealed no gap.

CCSF has conducted focus groups with faculty to review data on the progress of students in remedial courses. Faculty review data on student performance in classes with specific interventions and consider the implications for their teaching practice. For CCSF researchers, their role is to support those who want to use data effectively. According to one staffer, "We don't want to be data providers to 'consumers' but rather to 'investigators.'"

Some colleges have made strides in promoting action research, which engages faculty in analyzing their own practice for its impact on student outcomes. Through action research, faculty become data "producers" and, in turn, can become more accomplished and routine users of data. Community College of Baltimore County has developed a Learning Outcomes Assessment process that requires faculty across the institution—especially those teaching "high impact" courses with high enrollment—to engage in action research. Faculty receive a stipend for participating. These assessments begin with a group of faculty—all of whom teach a specific course—developing a measurable statement of what students are expected to know and be able to do upon completion of the course. Faculty collaborate to identify a method to collect data that measures the identified outcomes, collect data across at least three semesters, and analyze the data and plan improvements in curriculum or pedagogy. Following one or two semesters of implementation of the new approach, faculty conduct a reassessment. The IR department supports the Learning Outcomes Assessment process by guiding faculty in research design and the selection of an assessment methodology, which may include portfolios, standardized tests, external graders, and surveys. They also provide support for data analysis. The college has expanded Learning Outcomes Assessments to the program level, using them regularly in program review.

Staff at Baltimore County credit the Learning Outcomes Assessment process with driving a powerful culture of inquiry throughout the institution. For example, in years past, there was little discussion among faculty of the findings of the Community College Survey on

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Student Engagement for the college, which is one of many institutions that use the survey as an external assessment of classroom and student support practices. This year, though, many faculty members are highly engaged in considering the implications of the college's scores as benchmarked against national averages.

Like Baltimore County, LaGuardia Community College has created an innovative way to engage faculty in data-based inquiry into their own practice as a first step in promoting data use across the institution. LaGuardia promotes action research through its Center for Teaching and Learning, which provides opportunities for faculty to explore issues of pedagogy to improve student learning. For example, through Writing in the Disciplines, a professional development seminar, faculty prepare a writing-intensive curriculum and then build a portfolio that reflects their work throughout the year. Portfolios include writing assignments, sample student work, and excerpts from a teaching journal on the effectiveness of their instruction and changes they plan to make. LaGuardia is seeking to engage faculty across the college in the Writing in the Disciplines initiative, including part-time and adjunct faculty: more than 200 faculty have participated to date.

Hiring and training IR staff to be "brokers" of data. Making data transparent and usable requires a set of skills not usually found among "data geeks," as more than one IR staffperson put it. More often than not, IR staff at these institutions emphasized the critical role they play in supporting and training faculty, interacting with them, and motivating them to take risks and change their patterns around data use. They talk of "brokering" the data, "facilitating" data use, "teaching" faculty and administrative staff how to use the data, and "encouraging" them to consider how they might use the data. At Indian River, several interviewees spoke of the value of having their IR director serve on their committees, since he is valued as a strategic thinker as well as a technical expert. At CCSF, as noted, the institutional research staff make it a habit to walk deans and department chairs through data generated in response to specific queries, teaching them how to manipulate the tables, pull-down menus, and other analytical tools. These institutions hire IR staff for their communication and negotiation skills, not just their research training and capabilities.

Advice for Small Colleges

The four institutions highlighted here are all fairly large, with well-funded and well-staffed institutional research offices and functions. Yet the leaders of these institutions and offices have advice for smaller colleges beginning to travel down the road of building a culture of data use. Several college presidents who had previously led smaller institutions offer suggestions based on their own experience. In addition to suggesting that colleges begin by identifying key subgroups to follow and key transition points to monitor across credit and non-credit bearing courses, presidents made a number of suggestions related to staffing and capacity.

Colleges with minimal IR capacity might want to explore any of three options to improve their data collection and use:

• Free up faculty time, or give faculty stipends, to look at specific data related to subpopulations. Several presidents note that sociology faculty, in particular, often have backgrounds in the statistical programming required for reliable and defensible data use.

• Reshape job descriptions in the office of information technology, so that staff are not only collecting data but also conducting preliminary analyses around key indicators or a specific cohort.

• Form a consortium with other colleges in the region, and share the costs of an institutional researcher who can look at common data across collaborating colleges.

In all cases, presidents say, the work of individuals must be leveraged for broader institutional impact. Leverage strategies include communication and resource allocation. For example, a college leader can play a key role by highlighting findings and ensuring that faculty and staff across an institution understand the power and implications of the data analyses being conducted. Some colleges use a scorecard—red for poor outcomes, yellow for troublesome outcomes, and green for good outcomes—to give faculty and staff a quick picture of student performance in key areas. In terms of resource allocation, presidents can invest scarce institutional resources: the recommendation about using grant funding for a one-time technical boost to build a data system that encompasses data on progress in both credit and non-credit courses was mentioned as especially important for small colleges.

Conduct Specific Analyses that Answer Important Questions About How Particular Student Groups Are Progressing.

These four colleges began to change their cultures of data use by looking at cohorts of students who start courses at the same time, and following them longitudinally to ascertain their progress. Longitudinal cohort analysis allows colleges to identify danger spots—such as the transition from developmental into credit-bearing courses—and to identify gaps in achievement as students progress from wherever they start in the institution. All four colleges identified key transition points and focused their data analyses on those moments of elevated risk: transitions from developmental into credit-bearing courses; transitions from non-credit courses, such as ESL, into credit-bearing courses; gateway courses (first-year credit courses in a major); and capstone courses (final courses in a major). Each of these transition points can be a serious obstacle on the way to degree completion, especially for students from groups that traditionally underperform in higher education.

While cohort analysis is increasingly the way that community colleges organize and report student outcome data, identifying which subpopulations to track is not a simple matter. These four colleges all started with narrow or particular analyses that were critical for their institutions; the initial findings are informing subsequent decisions about the broader set of student data they should be tracking.

Baltimore County, for example, embarked on an Achievement Gap initiative several years ago and trained its data eye on outcomes for African Americans because of widespread concerns about their progress. That initiative has resulted in interventions that are paying off in improved outcomes: the achievement gap between African-American and white students has narrowed on pass rates, retention, completion, and graduation, even as overall success rates have increased. At the same time, the initiative has spurred the use of data across the institution, beyond the initial subgroup analyses. Today, under the leadership of President Sandra

Kurtinitis, the institution is assessing how to expand its analyses further. CCBC is considering which interventions, such as learning communities, it can expand in order to serve what administrators recognize is an increasingly heterogeneous underserved population.

LaGuardia has put special effort into analyzing the trajectories of students entering from non-credit ESL courses, because a large proportion of its population on the credit-bearing side is immigrant. Their findings have proven surprising: it turns out that simultaneous enrollment in ESL and credit-bearing courses (by linking these courses in learning communities) results in better outcomes for ESL students, compared to enrolling students in consecutive non-credit and then credit-bearing courses. Starting with this population was especially critical for LaGuardia, where it is yielding higher enrollment numbers and better outcomes.

While cohort analysis is increasingly the way that community colleges organize and report student outcome data, identifying which subpopulations to track is not a simple matter.

City College of San Francisco rebuilt its institutional research office and capacity in the 1990s. An early project involved an analysis of students who were on academic probation, which revealed a high proportion of Pacific Islanders among those on academic probation. The research office identified the trend and brought it to the Chancellor's Cabinet for discussion at a moment when Asian-American faculty and students were open to hearing the "bad news." The college held grassroots meetings with faculty, students, and others, with a focus on soliciting solutions. Ideas for targeted supports were brought to the board of trustees. The college created an Asian Pacific Success Program and offered more Learning Success courses. Over time, the proportion of Asian Pacific Islanders on probation has decreased significantly.

Tie Data to Strategic Planning and Budgeting.

In the end, the real indicator of priorities is how institutional leaders incorporate various strategies into planning and budgeting processes, so that those priorities are reflected in and shape resource allocation. Colleges that are serious about building and sustaining a culture of evidence and inquiry use analyses of student outcome data to shape planning and budget priorities.

Baltimore County houses its strategic planning efforts in the IR department, indicating the high value the college puts on data in that process. IR staff organize forums to ask stakeholders to "vision" their priorities for the college and to consider the results of external scans of demographic changes, revenue projections, and labor force and economic trends. These scans inform the college's mission, vision, and values statements that guide strategic planning and, ultimately, resource allocation.

Indian River Community College has gone one step further: it has developed a Strategic Planning On-Line tool that puts data on institutional effectiveness in the hands of all users so that the college's strategic planning is more visible and "alive" in the institution. Users develop their objectives based on the college's overall goals, identify assessment measures, make budget requests aligned with college priorities, and track progress—all on line. Their budget requests then "roll up" to influence institutional priorities. The college is currently using a U.S. Department of Education Fund for the Improvement of Postsecondary Education grant to pilot this on-line tool and process in an additional ten schools across the country.

When Phillip Day became chancellor of City College of San Francisco in 1998, he launched an extensive strategic planning process that culminated in a comprehensive document reflecting an analysis of college data and input from faculty, students, and community residents. The 2003 plan has guided the college's priorities and influenced annual budgeting in recent years. To ground the plan and its priorities in data, the Office of Research, Planning and Grants produces an annual *College Performance Indicators Report* tracking 29 indicators of CCSF performance within the priorities delineated in the strategic plan. The report tracks annual changes and also long-term trends on indicators such as degree production, success rates in credit courses, and transfers. The chancellor hopes to increase the disaggregation of data by population subgroups in future years. For now, the indicators help college leaders and faculty focus on both day-to-day operational objectives and long-term developmental objectives, the priorities that are critical to "moving forward," according to Chancellor Day. How the college is doing on its key indicators influences the chancellor's annual priorities that, in turn, guide budget decisions for the year, particularly in regard to developmental objectives.

HOW MORE COLLEGES CAN BE ENCOURAGED TO STRENGTHEN INSTITUTIONAL RESEARCH CAPACITY AND EFFECTIVENESS

The MetLife Foundation Community College Excellence Award rewards colleges that can demonstrate institution-wide innovation strategies that help more low-income, minority, and first-generation college students succeed. At the heart of the efforts of the award recipients and finalists is a commitment to using data effectively and creatively to support institutional change strategies and their implementation.

The four colleges highlighted in this brief have used a variety of strategies to increase demand for better data and more useful analyses and to generate data for improvement in ways that can move the college forward. These colleges have found creative ways to build demand for data so that requests come from across the institution—from top leadership and from faculty and staff. They have created systems and infrastructures that continually drive the data into the hands of the users. In so doing, they have considered the "brass tacks" of culture change: What technological support do people need? What level of educating—and even hand holding—do faculty and staff need in order to consider the implications of the data? What messaging, and what accountability measures, can the college president use to promote the use of data to drive better outcomes? And how can a college weave the analysis of student outcomes in the name of improvement into the very fabric of the institution, its priorities, and its investment for the future?

A common theme in our research is that the next challenge for these lead institutions is for faculty and staff to make the transition from data users to data producers. "There is a lot of information in this college that we don't leverage—like how to succeed with specific populations," said one college president. "The next frontier is to figure out how to access what our people know so we can keep improving outcomes for our students."

These lead institutions see clearly where they still need to strengthen and deepen their efforts. But they are exceptional, not typical. What will it take to help more community colleges institutionalize the kind of commitment to using data for improvement that characterizes these MetLife Foundation Award winners and finalists?

Ultimately, good intentions are not enough. Even strong leadership is likely to fall short in the absence of external support and pressure, particularly at the state level. If more community colleges are to follow the lead of the four colleges profiled here, they will need specific, often technical, support for institutional use of data, combined with a political mobilization effort that will help states and state systems place a higher priority on data-informed decision making and the diffusion of a culture of evidence and inquiry.

The next challenge for these lead institutions is for faculty and staff to make the transition from data users to data producers.

Strengthening institutional research and the routine use of data for improvement—so that the capacity and sophistication of research offices in these four colleges is the norm rather than the exception—will require both institutional and policy change.

At the technical level, states and state community college systems can take a number of actions to help their colleges collect and use data more easily and strategically, including:

- Create and support performance measurement systems that define system goals clearly, identify precise indicators of progress toward those goals, and focus institutional effort on boosting the success rate of students who traditionally have not fared well.

- Support the development of a fine-grained, state-level data system that enables states and institutions to probe the factors most highly associated with student success and to adjust benchmarks and goals in light of these findings.

- Create a "virtual data warehouse" that enables data from different education and workforce systems to be linked for longitudinal analysis.

- Provide institutions with user-friendly access to longitudinal data, data programming and research support, and training for institutional research staff.

- Conduct state-level analyses and research projects focused on policies and practices that might improve student outcomes, using longitudinal student-level data that the state collects and manages.

For most states to implement these kinds of changes will take political will—and that most likely means mobilizing key constituencies. At least three key interests have important leverage that can be brought to bear:

- *Accreditation agencies* have the ability to ratchet up expectations regarding the use of evidence to guide institutional improvement plans and to measure institutional performance. For colleges undergoing re-accreditation, some accreditors, such as the Southern Association of Colleges and Schools and the North Central Association of Colleges and Schools, have made significant progress in this direction in the past decade. Given the national discussion about accreditation sparked by the Secretary's Commission on the Future of Higher Education, this is a good time for accreditors to be proactive, providing an external stimulus to institutional efforts to strengthen institutional research.

- *Regional and national foundations* can help promote and support cross-state learning and policy benchmarking. Funders such as the MetLife Foundation, Lumina Foundation for Education, and the Ford Foundation have demonstrated significant leadership on strategies to build broad public and policymaker awareness and motivation to strengthen data systems and strategic use of data. They have funded reports, convenings, multi-state learning and benchmarking efforts, and public engagement campaigns that can help mobilize support for increased investment in institutional research.

- *State community college systems, associations, or advocates* can take steps to build support at the institutional and state levels for greater attention to evidence and data in improvement strategies. A statewide organization of research and institutional planners, as has developed in California, can be an important professional development vehicle for faculty and staff, and it can help build a powerful advocacy voice from within community colleges. Support for involvement in multi-state learning and benchmarking networks can also be a powerful way to strengthen

arguments and support for state innovation around data and performance systems and support for a culture of evidence.

Strengthening institutional research and the routine use of data for improvement—so that the capacity and sophistication of research offices in these four colleges is the norm rather than the exception—will require both institutional and policy change. The strategies pursued by these four MetLife Foundation Community College Excellence Award winners and finalists provide important and very practical lessons for other colleges that want to embrace evidence-based decision making. The approaches of these institutions to building capacity and trust, to integrating data use into planning, budgeting, and teaching and learning, and to changing institutional culture have powerful lessons for other colleges around the country. In the end, though, the kind of transformation that these colleges have undergone and are continuing to pursue widely and in a sustained way will not spread without policies that provide additional resources, support more sophisticated data analyses and capacity, and give incentives to institutional leaders to drive change across their school. The two must go hand in hand: institutional excellence and supportive policies. When they do, the success of these MetLife Foundation Award winners and finalists will be more easily replicable by other community colleges across the nation.

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MetLife Foundation Community College Excellence Awards

The MetLife Foundation Community College Excellence Award honors institutions that are effective in helping students from underrepresented populations to succeed in postsecondary education. Every two years, the award, administered by Jobs for the Future, goes to two colleges that make significant institutional commitments to helping first-time college-goers, new immigrants, working adults, welfare recipients, high school dropouts, and other populations with limited college experience and success prepare for further education or for a family-supporting career.
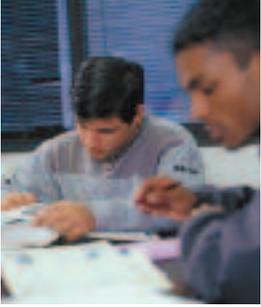
Award winners demonstrate effective strategies and promising outcomes in:

• High-quality and flexible instructional programs;

• Academic, social, and financial supports;

• Strategies to create smooth transitions from secondary education; and/or

• Seamless transitions into and through credit-bearing courses (e.g., from developmental or ESL courses).

2006 Award Winners: Indian River Community College in Fort Pierce, Florida, and LaGuardia Community College, in Long Island City, New York

2004 Award Winners: City College of San Francisco and Community College of Denver

2002 Award Winners: West Hills Community College in California's San Joaquin Valley and Sinclair Community College in Dayton, Ohio

Acknowledgements

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JOBS FOR THE FUTURE seeks to accelerate the educational and economic advancement of youth and adults struggling in today's economy. JFF partners with leaders in education, business, government, and communities around the nation to: strengthen opportunities for youth to succeed in postsecondary learning and high-skill careers; increase opportunities for low-income individuals to move into family-supporting careers; and meet the growing economic demand for knowledgeable and skilled workers.