

# perspectives

## RP Group | June/July 2015

Summer time--the synapse between academic calendars--affords us an opportunity to reflect on our organization's past, present and future. Specifically, we would like to recognize the dedicated efforts of Andrew LaManque over the past eight years in the service of the RP Group.

Andrew joined the RP Group Board in 2007 and completed his service on June 30, 2015. During this time, his capacity and responsibilities grew. He served as the Professional Development Chair in 2009, Vice President in 2010, President-Elect in 2011, President from 2012 to 2014 and Past President this past year. An intrepid and tenacious leader advocating for institutional research and planning across the state, Andrew's attention and interests ranged from professional development to research and evaluation efforts to the organization's strategic growth.

Andrew doubly focused efforts to improve and increase professional development opportunities for institutional research and planning departments statewide along with expanded professional development for all community college stakeholders. Working with current RP Group President, Matt Wetstein and the executive board, Andrew provided leadership to focus the RP Group's research and evaluation work on issues and opportunities currently facing California community colleges. Most recently, he led the effort to re-engage the RP Group in providing timely and needed professional development and technical assistance on institutional planning. Finally, he helped position the RP Group to operate efficiently and effectively while always focusing on financial and organizational sustainability.

In these eight years, Andrew has personified what it means to be a leader. He has a sense of purpose, and he has been deeply committed to the work of the RP Group and the CCC system. He has courageously spoken up and out about difficult or complex issues, especially in recent times of transition. At the same time, he has shown temperance and respect for everyone by listening thoughtfully and being willing to discuss various vantage points. The RP Group has always been able to count on and turn to leaders like Andrew. Thank you, Andrew, for the leadership and dedication you have provided over the past eight years!

This is also a reminder to you that we need leaders for the future. If you are interested in becoming more engaged with the RP Group as a volunteer or consultant, please contact Executive Director Mike Howe at 415-488-4611 or [mhowe@rpgroup.org](mailto:mhowe@rpgroup.org).

Sincerely,  
Mike Howe  
Executive Director  
The RP Group

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## Announcements

### Meet your 2015-2016 President-Elect

The RP Group board of directors welcomes Daylene Meuschke as the President-Elect for the 2015-2016 year, in advance of her 2016-2018 term as President. Daylene recently completed her role as the RP Group's Chair of Professional Development (Institutional Research and Planning), where she tirelessly worked with the PD Committee to deepen and expand professional development activities such as the RP Conference, the RP Summer Institute and regional research groups across the state. Daylene serves as the Dean of Institutional Research, Planning and Institutional Effectiveness at College of the Canyons.

### Meet your 2015-2016 RP Group Board Members

The RP Group board of directors welcomes one newly elected and three re-elected members, each serving a term of two years. First-timer Lisa Wang (Irvine Valley College) joins incumbent Barry Gribbons (College of the Canyons) to represent the California community colleges' southern constituency, and Erik Cooper (Sierra College) and Rick Fillman (City College of San Francisco) will continue to represent their northern colleagues. Board members work internally as a group and externally on committees to improve planning, evidence-based decision-making, institutional effectiveness and success for all students throughout the CCC system. See the full list of the 2015-2016 RP Group board of directors [here](#).

## STATEWIDE SPOTLIGHT | Beyond Financial Aid: A Resource for Colleges to Support Low-Income Students

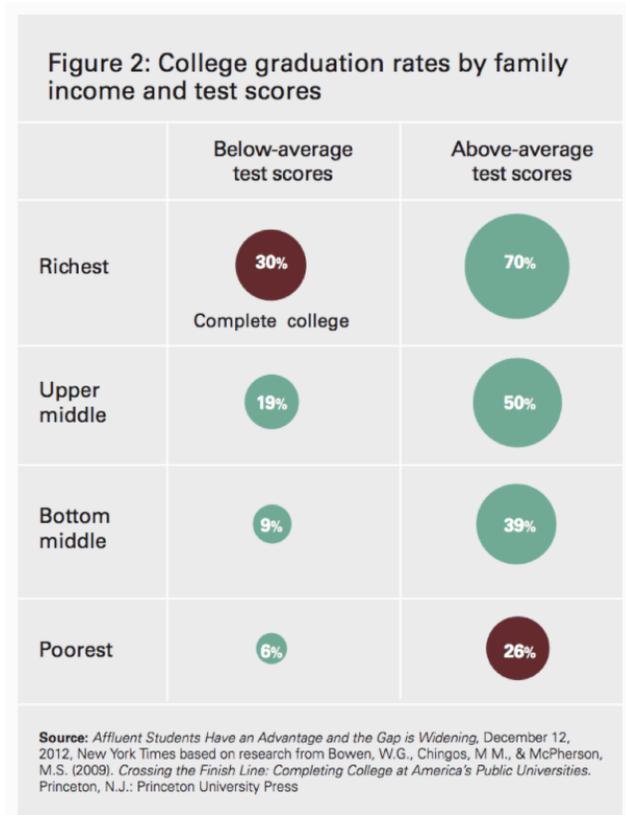


**Authors:** *Priyadarshini Chaplot*, Director of Strategy and Engagement, National Center for Inquiry and Improvement, *Rob Johnstone*, Founder and President, National Center for Inquiry and Improvement and *Thomas Major, Jr.*, Corporate Counsel and Strategy Officer, Lumina Foundation

Traditional financial aid such as grants, loans, and scholarships can offset some of the true cost of attending college. Yet even after such aid is exhausted, many students have unmet financial needs, including reliable and adequate nutrition, transportation, housing, childcare, health and mental wellness, as well as tax and legal services. Lack of access to these services can contribute to lower persistence and graduation rates for many

students. For example, as seen in Figure 2 on the right, 70% of students from the upper-income quartile who have above-average test scores complete college, compared to only 26% of students from the lowest-income quartile, within the same range of test scores. This suggests that strengthening students' financial stability can play a critical role in improving the ability of students to achieve their educational goals.

The good news: We know that when institutions structure and provide services for students in a coherent way, students persist longer and graduate at higher rates. Many of the services mentioned above are already in place. What is often missing is the coordination and collaboration among campus partners to identify student needs, then expand, provide, and bundle services in an intentional and comprehensive way that keeps students financially and academically stable. Providing these supports in a thoughtful, intentional way isn't an impossible dream; many institutions across the country are doing it and doing it well. Even more report that they could do so with a blueprint or framework to follow.



Funded by Lumina Foundation, [Beyond Financial Aid \(BFA\)](#) is a guidebook for colleges to explore these issues and identify actions that can evolve their efforts to support low-income students. Expanding the concept of "financial supports" beyond grants, scholarships, and loans, institutions can use *BFA* to supplement their work to close attainment gaps for low-income students. The centerpiece of *BFA* is a [self-assessment](#) to analyze your institution's capacities to serve low-income students, accompanied by guidance on how to interpret results and map out initial steps towards creating or strengthening capacities. In addition to the self-assessment and interpretation guide, *BFA* includes a primer that makes the case for broad and integrated financial support for low-income students and lays out six concrete strategies, distilled from best and promising practices at colleges across the country.

*Beyond Financial Aid's* six strategies to increase financial support for low-income students are to:

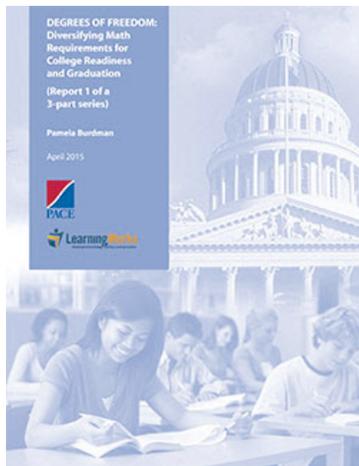
1. **Know the low-income students at your institution** by reviewing quantitative and qualitative institutional data to better understand the numbers and characteristics of low-income students, as well as the critical factors that affect their ability to succeed.
2. **Provide supports to help low-income students overcome practical barriers** by identifying on- and off-campus resources and then, creating centralized access to these services so multiple supports can be bundled, or utilized comprehensively, by students.
3. **Leverage external partnerships for service delivery** by connecting with groups

- that have shared missions and values and can help bring services to students.
4. **Empower low-income students to use available resources** by normalizing the use of financial supports and considering models where students must opt-out versus opt-in to services.
  5. **Review your internal processes from the student's perspective** to uncover unintended impacts and suggest ways to revise and streamline processes and policies.
  6. **Implement effective practices to strengthen the academic progression of all students**, knowing that these practices (e.g., structured programs of study, monitoring student progress) can make a greater difference for low-income students.

### **Resources:**

- Browse *BFA* website and materials: <http://www.luminafoundation.org/beyond-financial-aid>
- Sign up for periodic updates delivered straight to your inbox: [bit.ly/bfasignup](http://bit.ly/bfasignup)
- Listen to archived webinars and access resources: [bit.ly/bfaresources](http://bit.ly/bfaresources)
- Provide feedback on *BFA* through a brief survey: [bit.ly/bfafeedback](http://bit.ly/bfafeedback)
- Share your college story: [bit.ly/bfacollegestories](http://bit.ly/bfacollegestories)
- Inquire about assistance in adopting and implementing *BFA* by e-mailing [bfa@luminafoundation.org](mailto:bfa@luminafoundation.org)

## STATEWIDE SPOTLIGHT | Math Requirements as Gatekeepers: Calculating Degrees of Freedom



**Author:** *Pamela Burdman*, Independent Policy Analyst

As community colleges adopt various innovations aimed at improving student success, there may be no greater hurdle than mathematics. In California, about 85% of students take one or more developmental math courses. The goal of ensuring that more students meet postsecondary math requirements has led community colleges everywhere to examine ways to revamp their developmental math pedagogy and curriculum.

These efforts also prompted LearningWorks and Policy Analysis for California Education (PACE) to publish *Degrees of Freedom*, a three-part series on the role of math courses as gatekeepers in higher education, designed to highlight current policies and their implications for practitioners.

Among the most promising initiatives are those that define more than one trajectory for students to complete developmental and general education math requirements, trajectories dependent on students' program of study. However, these initiatives are controversial, because they challenge long-held norms about the centrality of algebra as the foundation for college-level mathematics. They are also challenging to implement, because they don't align directly with math curricula common in K-12 schools and typically required of transfer students by universities.

Interestingly, though, as revealed in [Degrees of Freedom: Diversifying Math Requirements for College Readiness and Graduation](#) (part one in the series), the requirements are not as static as the discussion implies. New technologies are driving novel uses of math in a range of disciplines, with non-math faculty taking a greater interest in the mathematical preparation of their students. Biology departments in the University of California (UC) system and elsewhere, for example, are demanding stronger statistical training of their majors. So are some medical schools.

As a result, courses meeting general education quantitative requirements at elite universities include titles such as Riding the Data Wave and Feeding Nine Billion. Those contrast sharply with standard fare at most public institutions, which rarely venture beyond Pre-Calculus, College Algebra, Introductory Statistics, and occasionally, Quantitative Reasoning.

Community college students seeking to transfer to universities in California have traditionally been required to take a math course that has an intermediate algebra pre-requisite. As discussed in part two, [Degrees of Freedom: Varying Routes to Math Readiness and the Challenge of Intersegmental Alignment](#), that requirement has frustrated community colleges efforts to implement alternative pathways that prepare non-STEM students for general education courses such as Introductory Statistics and Quantitative Reasoning.

Though California is home to many of the alternative pathways experiments, transfer policies in the UC and California State University (CSU) have been barriers to their implementation. Shortly before publication of part two, UC revised its policy to accept some alternative math sequences as prerequisites for transfer. However, CSU math faculty hardened their opposition to the alternatives, creating a conundrum for community college math faculty.

A related question, and the focus of part three, [Degrees of Freedom: Probing Placement Policies at California Colleges and Universities](#), is whether some students are unfairly placed into developmental math sequences in the first place. The report cites research by the RP Group, the Community College Research Center, and others and mentions experiments by [Long Beach City College and other colleges](#) suggesting that tens of thousands of California community college students annually may be placed into remedial math courses that they don't need. It also discusses how efforts such as the [Multiple Measures Assessment Project](#) (an effort led by CalPASS Plus and Education ResultsPartnership, in collaboration with the RP Group) are seeking to rectify the situation.

Taken together, the series provides a compelling narrative for community college practitioners seeking to understand the latest research as well as policy developments in general education math requirements, alternative remedial pathways, and placement policies to inform decisions at the college, district, and system level.

### **Resources:**

- [Changing Equations: How Community Colleges are Re-Thinking College Readiness in Math](#), *LearningWorks*, 2013
- [Degrees of Freedom: Diversifying Math Requirements for College Readiness and](#)

- [Graduation](#), *LearningWorks* and *PACE*, 2015
- [Degrees of Freedom: Varying Routes to Math Readiness and the Challenge of Intersegmental Alignment](#), *LearningWorks* and *PACE*, 2015
- [Degrees of Freedom: Probing Placement Policies at California Colleges and Universities](#), *LearningWorks* and *PACE*, 2015
- [Curricular Redesign and Gatekeeper Completion: A Multi-College Evaluation of the California Acceleration Project](#), *the RP Group*, 2014
- [Pathways Impact Report](#), *Carnegie Foundation for the Advancement of Teaching*, 2015
- [Laying the Foundations: Early Findings from the New Mathways Project](#), *MDRC*, 2015

## PLANNING | Developing a Business Intelligence System at Feather River College



**Author:** *Brian Murphy*, Associate Dean of Institutional Effectiveness and Research, Lassen Community College

In 2008, supported by a Title III Strengthening Institutions grant, Feather River College (FRC) implemented an Enterprise Resource System (ERP). The implementation was successful, in that FRC was able to unify its disparate accounting, human resources, and student data systems into a single system (Banner).

Unfortunately, like many organizations that have implemented ERP systems, FRC struggled with retrieving data and turning it into valuable information. This was the case for two primary reasons:

1. *The architecture of ERP systems.* ERP systems were developed to: (1) maximize the speed of data entry, (2) implement strong concurrency control, and (3) minimize storage costs. Together, these system objectives result in a "normal form" database design (including thousands of tables to store data), becoming the predominant underlying model for ERP systems. While this model has worked well for data entry, a different architecture is necessary to extract and use information.
2. *The training required to "pull" data is beyond that required to enter data.* At FRC, dozens of people have access to enter data into Banner while only six have access to pull data. Of those, only three have the knowledge to write new queries. The system architecture and a lack of expertise meant it wasn't unusual for a new data request at FRC to take anywhere from a few hours to a few days to answer. Larger projects like creating data for program review required running a series of scripts and a lot of copying, pasting, and manipulation in Excel, which could take weeks.

I prepared to tackle the inefficiencies related to updating information and to develop a better way to display data by taking two courses on database administration and data resource management at University of Nevada, Reno (Thank you, Dr. Edberg!). Microsoft SQL Server turned out to be a solid solution to the problem of automating uploads. SQL Server is a database management system that has components that let you:

- Manage and store data (SQL Server Management Studio)

- Copy, move, and clean data (SQL Server Integration Services)
- Do calculations on the data (SQL Server Analysis Services)
- Display data through the web (SQL Server Reporting Services)

After the coursework, I convinced FRC's IT department to set up an inexpensive solution of a virtual server with SQL Server 2012 and SharePoint. The system has the added benefit of being independent of other systems and can readily be changed to fit a new environment (e.g., like switching to a different ERP system).

I developed an Extract, Transform and Load (ETL) process to automatically pull data from Banner on a nightly basis and send it to a data warehouse (a database that is de-normalized for faster querying). Analysis Services would then process the data and perform calculations (e.g., how much load a particular course is worth). Finally, PowerView (within SharePoint) pulled data from Analysis Services to display information to those with portal access. Currently, the system is stable and only needs a bit of maintenance when a new term starts or new academic programs come online.

This project has helped me develop as a researcher/planner and offers many applications. SQL Server is not only used for business intelligence, but can serve as the backbone of a homegrown student learning outcome assessment system and also be used to house and access MIS referential files.

#### Resources:

- Learn how to use SQL server and write good SQL codes for your ETL process with [Murach's SQL Server 2012 for Developers \(Training & Reference\)](#)
- Learn how to create an ETL package, use Analysis Services and set up reporting services with [Delivering Business Intelligence with Microsoft SQL Server 2012](#)
- Review [Competing on Analytics: The New Science of Winning](#)
- Review [Managing and Using Information Systems, 4th Edition](#)
- Browse YouTube for videos on how to do each step of the development
- Contact me to discuss further: [bmurphy@lassencollege.edu](mailto:bmurphy@lassencollege.edu)

## ASSESSMENT | Learning and the Imitation Gene



**Author:** Robert Pacheco, Assessment Chair, The RP Group

*This article is part of an ongoing series that explores how individuals outside the higher education field approach and strategize learning and the assessment of learning in order to inform our work. Previous articles have shared the thinking of entrepreneurs such as Peter Thiel (Zero to One) and David Kelley (Creative Confidence).*

Elon Musk is the co-founder of PayPal, the CEO and founder of Tesla Motors, and the CEO and CTO of SpaceX. In a recent [interview](#) for Chinese television, Musk shares that he was taught to always question his thinking--to begin with the premise that his thinking was *wrong*. For him, learning occurs when one proves to be *not wrong*. Reflecting on his

growth, Musk asserts that he learned more from reading books and talking to constructive people than he ever did in school.

Musk recently created a very small new elementary school call Ad Astra (Latin for "to the stars") with no grades, catering instead to "education that matches [student's] aptitude and abilities." The traditional notion of grade levels, Musk argues, puts students on an assembly line, ignoring personal interests and skills, as well as intellectual and personal development. In contrast, this school's primary curriculum centers on teaching problem-solving and fostering creativity.

Teachers need to "teach to the problem" not to the tool or the test, and they need to embrace failure as part of the process of learning. The key to learning, Musk maintains, is engaging in a process of "recursive self-improvement" that produces something truly "useful to other people." This framework is essential, Musk continues, to learn things that are not obvious. "If you only do things that are certain to succeed, you are only going to do very obvious things." Learning occurs through experimentation and innovation...and failure.

Musk's thinking is avant garde and unsettles a few. He argues for more funding for interplanetary space travel and habitation, not to avoid the once every 100 million year extinction event that Earth has experienced and captured in pop Hollywood movies, but rather as a necessary extension of our development as humans.

Musk's framework was put to the test last week with the in-flight explosion of the SpaceX rocket carrying supplies and materials to the International Space Station. His first six payload deliveries to the station were very successful. We must "learn what happened...address those things...and maximize [the] probability of success for future missions," Musk concluded. A man of his word.

**Resource:**

- Watch an [interview](#) with Elon Musk