VISION
A region with successful students, productive citizens, and thriving cities

MISSION
Create a world-class system of education that ensures every student will succeed in 21st century careers

GOALS
Every child will:
• Be PREPARED for school
• SUCCEED academically and be ready for meaningful work and/or college
• ENROLL in postsecondary education
• GRADUATE from postsecondary education
• ENTER a productive career
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LETTER TO OUR COMMUNITY

The Gateways Partnership — a groundbreaking coalition of almost 40 business, education, nonprofit, civic, and philanthropic organizations from Alameda, Contra Costa, and Santa Clara counties — was convened last year by California State University, East Bay, a high-access university committed to regional stewardship, workforce development and healthy communities. The partnership’s goal is to address critical deficiencies in the region’s school-to-career pipeline. Its vision is a region of successful students, productive citizens, and thriving cities.

As part of a national network of partnerships seeking systemic and lasting ways to improve school preparation, academic success, and entry into productive careers, Gateways, during its first year of organizing and planning, has been supported by Living Cities in collaboration with the Coalition of Urban Serving Universities and Strive Partnership. The partnership’s work recognizes that the economic health and social vitality of our region’s communities, together with the global competitiveness of regional employers, rely heavily on a skilled and technically competent professional workforce. At the same time, however, the partnership recognizes that our students perform poorly on national measures in math and science — important indicators of their future prospects for success in higher education, as workforce members, and as productive citizens. For this reason, the partnership’s focus is on finding and promoting new ways to increase the science, technology, engineering, and mathematics (STEM) literacy skills necessary for 21st century careers.
This initial report of the Gateways Partnership identifies benchmarks and key gaps in student achievement and academic performance. These indicators also point to troubling gaps in achievement and opportunity among racial and ethnic minorities in the counties and school districts involved in this partnership. Narrowing and closing these gaps represents both a major challenge as well as perhaps the greatest opportunity to stimulate and accelerate economic expansion, social cohesion, and healthy communities throughout the region. Now in its second year, the partnership is poised to begin “moving the needle” on its ambitious goals. With the continuing support of its sponsors, the commitment of its partners, and the engagement of its regional community, Gateways is poised to become a national model for the reinvention of STEM teaching and learning throughout the “P-20 pipeline” — the continuum of education from preschool through post-graduate work.

On behalf of the Gateways Partnership, we invite you through this report to join us in examining both the serious work as well as the possibilities for lasting change that lie ahead. We welcome your interest and participation — and your partnership — in our quest to ensure that students of all backgrounds have the opportunity and are prepared to attain a rigorous and relevant education, enter the workforce, and compete successfully in today’s knowledge-based workforce. In doing so, we can together ensure, sustain, and enhance our region’s position in the new global economy.

Mohammad H. Qayoumi
President
California State University, East Bay
Chair, Gateways Executive Committee

Matt Lonner
Manager
Global Partnerships Programs, Chevron
Chair, Gateways Steering Committee

Emily Lowe Brizendine
Executive Director
Concord Campus, Cal State East Bay
Director, Gateways Partnership
OVERVIEW: A CRADLE TO CAREER EDUCATION AND WORKFORCE PARTNERSHIP

Gateways is a research-based regional alliance and education-workforce partnership working to identify and expand promising programs and new ideas with the aim of closing the educational performance gap and addressing the shortage of skilled graduates and workers that threatens regional economic growth and competitiveness. The partnership includes regional educational, business, nonprofit, civic, and philanthropic organizations committed to evidence-based decision making, collaboration, and the alignment and leveraging of existing resources, programs, and new ideas to address the regional student-achievement gap and strengthen regional workforce development.

Part of a national network of school-to-career alliances, Gateways is distinguished by its emphasis on the creation of civic infrastructures to improve, sustain, and scale what works best to increase STEM literacy skills for students from preschool through higher education and into the regional workforce. California State University, East Bay — with its emphasis on STEM-centric education and position as one of the state’s leading producers of credentialed math and science teachers — is the partnership’s anchor institution.

In its first year, Gateways identified goals and community-level indicators that formed the basis for the partnership’s Student Roadmap for Success. These reflect the partnership’s commitment to close gaps in achievement and ensure student progress along the educational pipeline. Leveraging the shared commitment and diverse expertise of its members, Gateways is creating task forces to consider and evaluate ways to assess, improve, promote, and align new and existing programs, methods, and practices required for a robust, sustainable STEM education and workforce pipeline. Based on their findings and recommendations, the partnership will then develop community and civic networks to implement and scale up proposed solutions.

**Overarching Purpose**
Increasing science, technology, engineering, and mathematics (STEM) literacy skills necessary for successful 21st century careers.

**Philosophy**
- Learning together
- Engaging community
- Advancing ideas
- Developing solutions

**Key Elements**
- Guided by cradle to career Student Success Roadmap
- Engagement of cross-sector stakeholders
- Data-driven decision making
- Advocate best practices and continuous improvement
- Shared accountability

**Priority Strategies**
- Math professional development: coaching and math learning communities
- STEM education: experiential learning and out-of-school time
- School readiness: parent education, early child stimulation, emotional and social development, and articulating preschool and kindergarten
WHAT IS STEM?

STEM is an acronym for science, technology, engineering, and mathematics. STEM-centered education includes coursework in these fields as well as interdisciplinary curricula that encourage the development of quantitative reasoning, critical thinking, and technical tools across all majors and disciplines. Because these core skills form the basis for well-rounded graduates, a productive workforce, and engaged citizenship, STEM fluency has been called a 21st century survival skill.
Economic Impact and Opportunity

If California were a separate nation, its economy would rank eighth in the world, largely the result of a visionary educational system that produced an exceptionally skilled workforce. And the Bay Area region achieved its position as home to employment leaders in computing, networking, Web services, healthcare, biotechnology, and energy with a workforce among the nation’s best-educated and most technically skilled.

Today, with its knowledge-based economy, the region’s economic and social health is heavily dependent upon a pipeline of college-educated, technologically proficient employees. Yet there is a mounting shortage of college graduates with competence in science, technology, engineering, and mathematics — the critical STEM disciplines. Without a robust pipeline of college-bound students prepared to study STEM and graduates ready to fill vital technical positions, the region will lose ground in competitiveness and employment as employers are forced to outsource, hire from outside the area, or move away altogether. At risk are the prosperity, social cohesion, and access to opportunity that have characterized our region for the past half-century.

But our economy also suffers from high dropout rates. The California Department of Education estimates, for example, that if just 1,000 more students completed high school in Alameda, Contra Costa, and Santa Clara counties, they would:

- Earn $20 million in additional income each year
- Purchase an additional $66 million of housing by the midpoint of their careers
- Support 100 new jobs in the region
- Increase the gross regional product by $24 million, and
- Add $2.9 million to state and local government coffers

In calculating the benefits of improved academic performance, the U.S. Bureau of Labor Statistics estimates that if all lower-performing children narrowed their achievement gap, the 2008 U.S. gross domestic product would have risen by $400 – 670 billion.

In order to reinvigorate our economy and restore workforce competitiveness and economic opportunity, our region needs to reverse the dropout rate, improve academic performance, and create a larger, more efficient pipeline of technically qualified college graduates. With its broad coalition and focus on a region that encompasses nearly one of every 10 California students in grades K-12, the Gateways Partnership is uniquely positioned to play a pivotal role in achieving these objectives.

The Public Policy Institute of California (PPIC) has now projected a shortage of one million college graduates by 2025 to fill jobs requiring at least a bachelor’s degree in this state alone. The PPIC pointed to the state’s inability to move through college enough of its fastest-growing minorities as a key cause — highlighting the criticality of access and diversity in higher education.
“Mathematics and science are essential components of a liberal education, the backbone of logic and analytic thinking from early childhood through the most advanced levels of learning across the academic disciplines. Science, technology, engineering, and mathematics enable us to understand the natural world, the built environment, systems of society, and interactions among them that will determine the future of our nation and planet.”

The Opportunity Equation
Report of the Carnegie Corporation of New York, Institute for Advanced Study, Commission on Mathematics and Science Education
Regional Gaps in Achievement

One critical influence of a child’s ultimate academic success is the socioeconomic environment. While our region has deep resources and world-class leadership in technology and innovation, its diverse socioeconomic base creates striking disparities in children’s readiness to start school. In a 2003 study by the Public Policy Institute of California on determinants of school performance, authors Julian Betts, Andrew Zau, and Lorien Rice conclude “These gaps – related to income and socioeconomic status more generally – emerge by the time young children reach school age.”

School readiness feeds into academic success and workforce preparation. To indicate school readiness in our region, the Gateways Partnership compared the proportion of students receiving free or reduced-fee school meals and learning English as a second language. Large disparities exist between school districts, as shown to the right.
A Research-Based Initiative

The Gateways Partnership has focused on gathering data for evidence-based decision making for several reasons.

First, the data constitute a call for action, underscoring the need to advance the partnership’s goals and close the achievement gap, systematically and comprehensively. For instance, data show that California students fared so poorly on national measures in math and science in 2009 that California fourth-graders ranked 46th in math. If student achievement were raised to the level of better-performing nations such as Finland, the nation’s GDP would have risen by $1.3 – 2.3 trillion, according to a 2009 report by McKinsey & Company.

Second, the data enable objectivity in measuring progress toward goals. Thus, data-driven decisions support the Partnership’s commitment to shared accountability in reaching measurable outcomes that support children’s educational access and success. To increase partners’ confidence and commitment, Gateways will evaluate and determine which programs have the greatest impact.

This report provides a snapshot of student performance based on 2008-09 data published by the California Department of Education, which will be supplemented as more information becomes available. Based on existing data, the Partnership developed criteria for the most meaningful indicators.

Some students perform at or above state norms, while others do not even reach key academic indicators. A large gap in opportunity and achievement persists for poor and minority students all along the way. “If we were the airline industry,” one Gateways partner asked, “would we be satisfied if only 60 or 70% of flights reached their destination?” The figures are an urgent call for collective action to ensure the success of every child.

Data found in this report will:
- Measure concepts set forth in each goal
- Be easily understood by local stakeholders
- Be reasonably similar across counties and school districts
- Be produced by a trusted source
- Be available consistently over time
- Be useful in day-to-day work to improve student outcomes
- Identify disparities between population subgroups

To prioritize among multiple indicators, the Gateways Partnership chose indicators that were:
- Equivalent across school districts, with an ability to be compared
- Changeable to a significant degree by local action
- Affordable to gather and report
- Focused on outcomes at the student level
- Able to be disaggregated to help define strategies and continuous improvement

“The persistence of these educational achievement gaps imposes on the United States the economic equivalent of a permanent national recession.”

McKinsey & Company
The Economic Impact of the Achievement Gap in America’s Schools

The chart below lists the indicators by goal.

<table>
<thead>
<tr>
<th>Be Prepared for School</th>
<th>Indicator 1: Percentage advanced or proficient on English Language, Grade 3</th>
<th>Indicator 2: Percentage advanced or proficient on Math, Grade 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Succeed Academically</td>
<td>Indicator 1: Percentage advanced or proficient on Algebra I by end of 8th grade</td>
<td>Indicator 2: Graduation rate</td>
</tr>
<tr>
<td></td>
<td>Indicator 3: Percentage meeting A-G requirements in high school</td>
<td></td>
</tr>
<tr>
<td>Be Enrolled in School</td>
<td>Indicator 1: Percentage taking the SAT, 12th grade</td>
<td>Indicator 2: Percentage taking the ACT, 12th grade</td>
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<td></td>
<td>Indicator 3: Persistence/retention rate from grade 13 to 14</td>
<td></td>
</tr>
<tr>
<td>Graduate from Post Secondary Education</td>
<td>Indicator 1: Percent of freshmen in Fall 2003 that graduated within six years</td>
<td>Indicator 2: Percent of students that transferred in Fall 2006 with at least 60 units and graduated within three years.</td>
</tr>
<tr>
<td>Enter a Productive Career</td>
<td>Indicator 1: Graduate with STEM Coursework, CSUEB</td>
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</table>
Gateways is modeled on the STRIVE program of Cincinnati and Northern Kentucky, for which University of Cincinnati researchers analyzed hundreds of evidence-based studies to develop a roadmap of key experiences and milestones that are necessary along a child’s journey from cradle to career. Recognizing that school and career preparation begin early in life, the Gateways Partnership has identified key stages that have the greatest impact on success, across a continuum from birth, through college, and into the workplace.

The roadmap focuses on five critical transition points that determine whether or not a child is successful in school and in life. In addition, the roadmap establishes benchmarks that children must meet in order to navigate each transition point. The map also includes indicators of progress in academic performance and family support that are necessary to reach those benchmarks.

From an initial concept, this framework has grown into a national movement with demonstration sites centered at California State University, East Bay and three other hubs across the country, which operate in conjunction with affiliated networks and research sites.

The section that follows presents roadmap goals and regional data indicators identified by the Gateways Partnership.
Encouraging California’s youths to increase educational attainment is particularly important if they are to enjoy high living standards in the evolving economy. A failure to do so is likely to increase their difficulties and potentially increase the burden on public services if they cannot support themselves or their families. The implication ... is that investment in human capital can go beyond meeting current labor market needs; it can also build the foundation for stronger economic growth.”

Public Policy Institute of California
GOALS AND INDICATORS

Goal 1: Be prepared for school

The quality of children’s early experiences plays a fundamental role in contributing to their subsequent academic success. Through early stimulation, the brain and behavior develop in tandem to produce motor, cognitive, and perceptual skills that contribute to a child’s ability to learn.

Research shows that many children in poverty begin school with poor self-control and a minimal attention span. If those traits are left uncorrected, these children experience disproportionate levels of academic failure involving poor reading and math skills.

Data regarding children’s needs, parent knowledge, and teacher credentialing are not yet collected systematically in the state or the region. In the absence of systematic state and regional data, lagging indicators were adopted that measure student performance in English and math in third grade.

Indicator 1: Proficiency in English

Proficiency in English is critical to the acquisition of vocabulary and reading. Without proficiency in English, children underachieve in reading and lag in the growth of language by fifth grade.

The Gateways indicators reveal that children start school with vastly different levels of readiness. Only about half of the third-grade students in the initial baseline data collection area were proficient in English as measured by the English Language Arts California Standards test.

There were modest disparities among the three counties. Santa Clara County showed the highest percentage (56%) of students testing proficient in English, followed by Contra Costa County (51%), and Alameda County (49%).

The Gateways indicators show wide differences in English proficiency among third-graders by district and ethnicity.
“In today’s more global, competitive, and high-tech-oriented economy, higher education is increasingly the ticket needed to obtain the best jobs.”

Public Policy Institute of California
Indicator 2: Proficiency in Mathematics

The ability to count, measure, and learn about proportions is essential for mastering mathematical ideas and procedures. Preschoolers who have gained familiarity with math concepts are better able to learn mathematics in first and second grade, although that knowledge is not distributed evenly among different socioeconomic groups. Behavior problems, withdrawal, social problems, and attention problems all contribute to deficiencies in mathematical skills. Young children who can plan ahead, shift attention, and control emotions are better able to acquire mathematical skills.

By third grade, 70% of students in the Gateways region show proficiency in mathematics, compared to 61% statewide, as measured by the Mathematics California Standards Test. However, this means that fully 30% of our students are not proficient in mathematics. In addition, student performance in mathematics drops even further by eighth grade, both within the state and the Gateways area. This decline suggests a cumulative effect of inadequate early exposure to mathematical thinking, beginning in the preschool years.

Substantial differences existed between the counties in levels of proficiency, with close to three-fourths (73%) of the students proficient in Santa Clara County, 68% in Contra Costa County, and 67% in Alameda County.
Goal 2: Succeed academically and be ready for meaningful work or college

Students need academic, social, and emotional support to be ready to succeed. Schools, adults, and communities need to recognize what is required for success in today’s world, so they can help students thrive.

Students who pursue higher education in areas of critical need — many of which are in science, technology, engineering, and math-related occupations and industries — find ready employment and high earnings once they enter the labor market. Among those with only a high school degree, employers report a lack of basic but critical skills such as reading, writing, and math, and note that college graduates have stronger work ethics, sharper critical thinking, and greater problem-solving skills.

While there are many resources available in the area, regional indicators suggest that gaps in achievement persist that need to be closed. Schools in lower socioeconomic neighborhoods still face challenges helping all students prepare for being able to enter a technical training program, a community college, or a four-year institution of higher education.

“California’s economy will require large increases in educational levels of its workforce. In that sense, perhaps the most serious challenge posed by California’s economic future—aside from the scaling up of all infrastructure required by a growing population—is the need for a more educated workforce.”

Public Policy Institute of California
**Indicator 1: Proficiency in Algebra I, Grade 8**

Success in algebra is considered a key indicator for all future academic or employment success, especially for students considering careers in technical fields. Information from the California Department of Education suggests disparities in math performance in third grade led to even greater gaps in eighth grade achievement.

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**Proficiency in Algebra 1 by District • Grade 8 • 2008 – 2009**

- Highest Performing District: 57%
- Lowest Performing District: 15%

**Proficiency in Algebra 1 by Ethnicity and Gender • Grade 8 • 2008 – 2009**

- Male Students: 57%
- Female Students: 69%
- Hispanic Students: 49%
- Black Students: 45%
- Asian Students: 49%
- White Students: 24%

Differences in math proficiency among eighth-graders appear to correlate with socioeconomic differences between counties and school districts.

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“When I compare our high schools to what I see when I’m traveling abroad, I’m terrified for our workforce of tomorrow.”

Bill Gates
Founder, Microsoft Corp.
Indicator 2: High School Graduation Rate

Less than half of high school graduates complete coursework that adequately prepares them for college, including admission to the University of California or California State University (see Indicator 3).

According to the California Department of Education, in the tri-county area approximately 18% or 8,200 students dropped out during the four years leading up to graduation in 2007-2008.

Indicator 3: Complete College-Qualifying Coursework

Only 41% of high school students in Contra Costa, Alameda, and Santa Clara counties complete academic courses required for entrance to the University of California or California State University. Although it is higher than the statewide average of 34%, the rate of students finishing California’s “A–G” requirements does not bode well for a pipeline of graduates who meet regional needs for more technically competent workers.

In comparing districts in this region, the rate of completion of college-ready coursework varied by district from a low of 2% to a high of 53%.
Goal 3: Enroll in postsecondary education

Education beyond high school is essential to engaged, informed, and productive citizenship. Technical career pathways especially require two- and four-year degrees to prepare students for the challenges of competing in a global economy.

Research shows the necessity of continuing education past high school in order for workers to gain the skills needed for employment and high wages, and for the U.S. to compete globally. Yet, indicators selected by the Gateways Partnership suggest that students in its region might not be prepared to meet this challenge.

The indicators selected for this goal combine being prepared for postsecondary education with the ability to persist beyond the first year in higher education. The indicators used are understated, since they take into account only the percentage of 12th-graders taking the SAT or ACT college admissions test, which many students take in 11th grade.

Indicators 1 and 2: Percentage of Students Taking the SAT or ACT, Grade 12

The SAT and/or ACT is required by most colleges and universities as part of the application process. Preparing to take and score well on these exams are key components to college preparation.

Participation in college admissions tests varied widely.
Indicator 3: Persistence and Retention Rate from Grade 13 to 14

Application and admission to a university are only the first steps in attaining a postsecondary education. Students must also remain enrolled following their first year, persist in their coursework, and maintain good academic standing in order to graduate.

Until more comprehensive data are available, the partnership is using information from California State University, East Bay as an initial indicator of persistence in staying in college.

Since Cal State East Bay students generally come from the local community and remain here after college, using this local data for now may be particularly relevant from a regional perspective.

About 83% of all 2003 college freshmen at Cal State East Bay stayed into a second year.

Retention rates were around 85% for college students from Alameda and Contra Costa counties, and 68% for students from Santa Clara County. A slightly greater percentage of female (83%) than male (79%) became college sophomores.

Seven out of 10 new jobs are in STEM fields, and of the 25 highest-paying jobs, 16 are STEM related.

Projections from National Science Foundation and U.S. Bureau of Labor
Goal 4: Graduate from postsecondary education

Graduation from postsecondary education programs is an important indicator of acquiring the skills needed for securing productive employment in the 21st century global economy.

The region has a high concentration of residents with higher education degrees, in part due to the technical industries that make up its economic engine. In order to qualify and compete for these jobs, residents need to pursue higher education, especially in an increasingly globalized labor market.
**Indicator 1: Percent of College Freshmen in Fall 2003 Who Graduated within Six Years**

Graduation within six years is considered an important indicator of a student’s level of support and persistence. The current baseline, using data from Cal State East Bay, shows about half the first-time, Gateways-region freshmen graduate within six years of enrollment.

District data reveal sharp contrasts in the rate of first-time college freshmen who graduate within six years. The highest district rate is 65%, compared to about 25% of students from the lowest performing district.

**Indicator 2: Percent of College Students Who Transferred in Fall 2006 with at Least 60 Units and Graduated within Three Years**

Generally, slightly more than half the college transfer students in our region who had 60 or more units (approximately one-third of units required for graduation) graduated within three years.

Disparities appear again with districts varying in the rate of transfer-student graduation from a high of 65% to a low of 25%.
Goal 5: Enter a productive career

There are rich opportunities for productive careers in the region. Technical career fields and related occupations are a major source of high-paying employment in the region, as well as an economic engine. In the Gateways area, 12% of adults aged 25 or older are employed in technical fields, double the statewide average of 6%. Due to this employment profile, the region has higher per capita earnings than the state and nation, and generally lower rates of unemployment.

Despite the region’s high earnings, large employment-growth projections, and wide variety in technical positions, current indicators suggest that relatively few university graduates in this area leave the university with a major related to science, technology, engineering, or mathematics.

Partners view Goal 5 as an endpoint for Gateways children. All districts within the region should subscribe to the National Student Clearinghouse (www.studentclearinghouse.org) to track high-school graduates into college — 92% of the nation’s postsecondary students are already represented there. In the meantime, to indicate progress toward Goal 5, the partners selected the percentage of students who graduate with a STEM-related degree from the College of Science at Cal State East Bay. It is worth noting that this indicator does not include all Cal State East Bay major fields that have been designed to incorporate elements of STEM disciplines.
“Enterprises are taking their businesses where the talent is.”

President Mohammad H. Qayoumi
California State University, East Bay
Indicator 1: Graduate with STEM Coursework, Cal State East Bay

Few students graduate with a STEM degree. Only about 24% of Cal State East Bay bachelor’s degree graduates had a STEM major, about the same percentage as students living in Alameda, Santa Clara, and Contra Costa counties (25%, 23%, and 22%). Only about 10% of Cal State East Bay master’s degree graduates had a STEM degree, with the percentage varying dramatically by county of residence. About 31% from Santa Clara County, 9% from Alameda County, and 8% from Contra Costa County had a STEM degree.

Furthermore, community-level indicators confirm there is a large achievement and opportunity gap among racial and ethnic minorities within the Gateways region.

In individual districts, graduation rates with degrees from the College of Science mirror earlier indicators, such as algebra proficiency.
CONCLUSION: REGION AT A CROSSROADS

Today, our region finds itself at the crossroads of change, challenge, and opportunity.

Knowledge-intensive enterprises and technology-driven organizations are the dominant employers — the sources of the best paying jobs and most promising opportunities. Together with a well-educated population and highly skilled workforce, they undergird the economy and health of our region’s communities. But declining academic performance and a growing achievement gap among our region’s children, students, and graduates have combined to threaten the quality and efficacy of the school-to-career continuum that our region’s economy depends upon.

Yet our region remains rich in technology, educational, entrepreneurial, and other resources. And it benefits immensely from the creativity and collaboration of visionary leaders and alliances exemplified by the Gateways partnership.

Gateways brings together leaders and representatives from across sectors to work methodically, cooperatively, and inventively to better align education with business needs. Their objective is to increase the STEM-based technical competencies necessary for 21st century career success throughout the entire cradle-to-career education and workforce continuum. And their shared vision is a region characterized by successful students, productive citizens, and thriving cities.

In its first year, the Gateways Partnership identified three priority strategies designed to support every student’s likelihood of success in 21st century careers. To create the foundation for a world-class system of education, these strategies call for better-prepared kindergartners, better instruction, and more engaged and successful students:

- **School Readiness**: Enhancing parent education, early childhood stimulation, emotional and social development; and better articulation between preschool and kindergarten
- **STEM Education**: Advancing opportunities for experiential learning of science, technology, engineering, and mathematics and out-of-school time
- **Math Professional Development**: Coaching teachers and furthering Math Learning Communities for students

In its second year, the Partnership will establish and implement community networks for each strategy. These networks will guide, influence, and promote innovation among educational service providers. And while they work to identify, align, and scale exemplary programs and best practices, Gateways’ evidence-driven decision making will also support strategic interventions, integration, and continuous improvement.

Gateways goals are to increase support for educational innovation and excellence, enable schools to close the achievement gap, and improve academic outcomes for students of all backgrounds. Ultimately, Gateways aims to reverse the growing shortage of technically skilled college graduates that is threatening regional economic and workforce competitiveness. Its commitment to local human capital development promises to enable regional business and industry to compete in a global marketplace and strengthen our region’s position at the forefront of innovation, productivity, and employment.

“... all our students will major in solutions for tomorrow.”

President Mohammad H. Qayoumi
California State University, East Bay
PARTNERSHIP MEMBER ORGANIZATIONS, COMMITTEES, AND STAFF

The following partner organizations are acknowledged and thanked for their invaluable support and insight.

CORPORATE AND BUSINESS
- AT&T
- Bank of America
- Bay Area Council
- Bayer Healthcare
- Chevron
- Cisco
- Contra Costa Council
- Contra Costa Economic Partnership
- East Bay Economic Development Alliance
- IBM Global University Programs
- Intel
- Lam Research Corporation
- Silicon Valley Leadership Group
- Tri Valley Business Council

COLLEGE/UNIVERSITY
- California State University, East Bay
- Chabot/Las Positas Community College District
- Contra Costa Community College District
- Peralta Community College District

COMMUNITY
- CA Alliance of African American Educators
- Girls Incorporated of Alameda County
- Super Stars Literacy
- YMCA of the East Bay

EARLY CHILDHOOD
- First Five Commission – Alameda County
- First Five Commission – Contra Costa County

K-12
- Alameda County Office of Education
- Alameda Unified School District
- Antioch Unified School District
- Contra Costa County Office of Education
- Fremont Unified School District
- Hayward Unified School District
- Mount Diablo Unified School District
- Oakland Unified School District
- Pleasanton Unified School District

- Pittsburg Unified School District
- San Lorenzo Unified School District
- Santa Clara County Office of Education
- West Contra Costa Unified School District

PHILANTHROPIC FOUNDATIONS
- East Bay Community Foundation
- San Francisco Foundation

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NOTES AND REFERENCES

Data contained in this report were drawn from two sources: the California Department of Education (CDE) Data Quest (star.cde.ca.gov/star2009/SearchPanel.asp), and the Institutional Research Division at Cal State East Bay (CSUEB) (www.csueastbay.edu/ira/). CDE data are publicly available but CSUEB data are proprietary and available only by special request by authorized personnel. Data from neither source are ideal. The following table presents details of how samples in each data set were constructed, and more critically, the differences between them. The table describes which information from each data source was used to develop the indicator and (in italics) how CSUEB information differs from the construction in CDE.

<table>
<thead>
<tr>
<th></th>
<th>CDE INFORMATION</th>
<th>CSUEB INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universe</td>
<td>Statewide (California)</td>
<td>CSUEB students</td>
</tr>
<tr>
<td>Three County Total</td>
<td>Summed weighted average of all public school students in Alameda, Contra Costa, Santa Clara</td>
<td>Summed weighted average of all CSUEB students from public high schools in Alameda, Contra Costa, Santa Clara</td>
</tr>
<tr>
<td>County</td>
<td>All public school students in Alameda, Contra Costa, Santa Clara</td>
<td>CSUEB students from public high schools in Alameda, Contra Costa, Santa Clara</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Public school students in three counties who are Asian, Black, Hispanic, White, Other</td>
<td>CSUEB students from three counties who are Asian, Black, Hispanic, White, Other/multiethnic</td>
</tr>
<tr>
<td>Gender</td>
<td>Male and female public school students in three counties</td>
<td>Male and female CSUEB students from three counties</td>
</tr>
</tbody>
</table>

OTHER SOURCES OF INFORMATION AND DATA

An In-depth Study of First Five Centers and their Visitors-First Five Contra Costa County
www.appliedsurveyresearch.org/www/products/An_Indepth_Study_of_First5_Centers_and_Their_Visitors.pdf

California Report Card 2011: Setting the Agenda for Children

Children Now
www.childrennow.org/index.php/meet/about/

Closing the Gap: Meeting California’s Need for College Graduates
www.ppic.org/main/publication.asp?i=835

East Bay Green Economy: Developing a Professional Workforce in the Tri-Valley
workforceincubator.org/Portals/0/Green_Economy_Workforce_Development.pdf

The East Bay STEM Continuum
www20.csueastbay.edu/us/communications/files/pdfs/2010_STEM_Case_HP.pdf

Level Playing Field Report
www.lphi.org/docs/DissectingTheData_001.pdf

The Opportunity Equation: Transforming Mathematics and Science Education for Citizenship and the Global Economy
carnegie.org/publications/search-publications/pub/185/

Putting the East Bay to Work
ebcf.org/docs/2009/Urban_Workforce_Study.pdf

Further Reading


\[
\int_{\mathbb{R}^n} T(x) \cdot \left( \frac{\partial}{\partial \theta} \ln L(x, \theta) \right) \cdot f(x, \theta) dx = \int_{\mathbb{R}^n} T(x) \cdot \left( \frac{\partial f(x, \theta)}{\partial \theta} \right) f(x, \theta) dx.
\]

\[
\frac{\partial}{\partial \theta} MT(\xi) = \frac{\partial}{\partial \theta} \int_{\mathbb{R}^n} T(x) f(x, \theta) dx = \int_{\mathbb{R}^n} \frac{\partial}{\partial \theta} T(x) f(x, \theta) dx.
\]