

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|----------------------------------|-----------------------|---------------|-------------------------|-----------|---|--|
| Alliant International University | Science | 2010-11 | 40 (total Trad. & Alt.) | No | <p>First, the delivery of the fast-track Early Completion Option intern program for qualified Science professionals is often attractive to prospective candidates. Additionally, our partnerships with organizations who recruit Silicon Valley STEM (Science, Technology, Engineering and Math) professionals opened a pipeline of prospective students, and the program initiated support systems to help career-changers succeed in a new profession. Finally, the organization increased online marketing efforts for prospective students generally, which may have contributed to meeting the goals for this specific subject.</p> <p>Although our Early Completion Option programs remained attractive to people looking to earn teaching credentials, during the year 2010-11, enrollment dropped due to decreased hiring. The Early Completion Option program was designed for emergency hiring and when emergency hiring drastically decreased, enrollment in the Early Completion Option program also decreased.</p> | It will be beneficial to promote teacher preparation programs that were not formed for emergency hiring situations. |
| Azusa Pacific University | Science | 2010-11 | 20% increase | Yes | <p>Fifty percent part-time recruiters have been employed. They are able to inform prospective candidates about the job opportunities in the shortage area and have established regular contact points with undergrad cohorts i.e. week 46 Information Meeting with Human Development cohorts. They meet regularly with department leadership to discuss alternative routes and opportunities to recruit students into the programs.</p> <p>The format of information meetings has been changed to be more convenient for prospective candidates. Recruiters, advisers, credential analysts, and enrollment counselors encourage candidates to consider Foundational Science and other shortage areas as their subject area.</p> | Teaching jobs in California are currently scarce. Potential candidates are being informed that their best job opportunities will be in the shortage areas. They are also investigating and connecting students with job opportunities to teach abroad. |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|---|-----------------------|---------------|---------------------------|-----------|--|--|
| Brandman University | Science | 2010-11 | 7 | Yes | Last year we met our goal in this area and had 13 candidates enrolled in our single subject science credential program. We intend to increase enrollment in this program by continuing our outreach efforts with potential teaching candidates and increasing articulation agreements with local community colleges. | In addition to the strategies above, we will also focus on recruiting candidates who recently obtained bachelor's degrees in science from surrounding institutions, were recently employed in science-related professions or recently retired from science-related professions who may have an interest in obtaining a single subject credential in science. |
| California Baptist University | Science | 2010-11 | Increase enrollment by 5% | No | Host monthly information sessions Visit education prerequisite courses Network with professors in the math department | Devise strategies to personally interact with science students. |
| California State Polytechnic University, Pomona | Science | 2010-11 | See Description below | Yes | (See math section above) **Cal Poly Pomona leads a Robert Noyce Scholars Program **Workshops designed to prepare for the various subject matter exams in science **Providing scholarships to complete Clinical Practice | The Robert Noyce Scholarship Program for Math and Science Teachers seeks to encourage talented Science, Technology, Engineering, and Mathematics (STEM) majors and professionals who might otherwise not have considered the teaching profession, particularly those from underrepresented groups. Cal Poly Pomona provides support to the scholars throughout the period covered by the scholarships and up to four years after to assist the scholars to reach their goal of a credential and a teaching position. During 2010-2011, we accepted an additional 17 Noyce Scholars; 19 others were alumni scholars. MSTI (Math Science Teacher Initiative) funds were used to support teacher candidates through stipends to concentrate on their Clinical Practice and not have to work at the same time. Many of our students in the STEM areas support themselves through college and, therefore, find it difficult to stop working to complete Clinical Practice. The stipends ensured that they would be able to complete their credential program. 12 MST |
| California State University, Bakersfield | Science | 2010-11 | Increase enrollment | Yes | Concentrated efforts on recruitment in the undergraduate programs, such as Math and Science. The Teacher Quality Program grant conducts quarterly activities on campus and at Community Colleges. | Increase the number of program information sessions to allow more opportunity for candidates to apply. Improvement process is ongoing. |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|--|-----------------------|---------------|-------------------|-----------|--|---|
| California State University, Channel Islands | Science | 2010-11 | Increase from 0-1 | No | Dissemination of print and web based information to current undergraduate students on campus, to local community colleges, and to the County Office of Education. Provided multiple scholarship opportunities for undergraduate (prerequisite) science and science credential students. Offered content preparation classes for state subject matter exams. | Continue to seek special funding to support recruitment, retention, and financial assistance for students seeking a science credential. Locally, secondary-level non-credentialed teaching positions in science are scarce. Intern opportunities are not currently available to credential candidates in science. Overall credential numbers are low in all secondary education core disciplines. |
| California State University, Chico | Science | 2010-11 | Increase number | No | <p>“MSTI Launch” events to create new interest in math and science teaching, featuring speakers, hands-on activities, and information about available scholarships and teaching;</p> <ul style="list-style-type: none"> • Awarding of over \$200,000 to date in Teacher Recruitment Project (TRP) scholarships; • Awarding of Noyce Scholarships for outstanding math and science candidates (\$10,000 per year for two years); • Mailings and emails sent to all students considering science education and recruiters available on the campus Preview Day with promotional and TRP and other scholarship information available; • New science club, advised by a credentialed science teacher, maintains a strong presence on campus, with 25 students attending regularly scheduled events, seminars and activities; • Recruiters visited five community colleges in the north state to promote the new science opportunities. | <p>We addressed the pipeline problem by creating the two new degree and subject matter preparation programs. These programs, which have been approved by the state, will begin to demonstrate an impact in 11-12. The greatest demand for science teachers is in biology, and the biology department was not attracting enough majors. In response to this concern, the College of Natural Sciences created two new degree and subject matter preparation programs, which have now been approved by the state and will begin in 2011-12:</p> <ul style="list-style-type: none"> • New BA in Life sciences with a track for teachers and a BA in Biological Sciences created; and • New Bachelor of Arts in Natural Science designed to attract majors in Liberal Studies to add a foundational level science credential; <p>In addition, we will continue to work on the above strategies in 2011-12.</p> |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|--|-----------------------|---------------|---------------------|-----------|---|--|
| California State University, Dominguez Hills | Science | 2010-11 | Increase enrollment | No | <p>Goal: Maintain or increase 2010-11 enrollment levels in UTR, TTT cohorts</p> <p>Strategies Used:</p> <ul style="list-style-type: none"> • recruitment of science majors from CSUDH and other institutions • active engagement with Biology and Chemistry students in the Education Option • active advisement of Liberal Studies majors with a Natural Science Option leading to the Introductory Subject Matter Authorization; • recruitment from local districts, among teachers as well as high school students • information sessions • recruitment at job and graduate school fairs • website and print presence on campus and in local districts • obtaining campus and program data to inform our recruitment effort | <p>As in Math, we have focused on this goal for some time. The numbers are generally lower because science majors have many other career options, and frequently choose those instead of teaching. The same grants supporting Math recruitment and cohorts support Science recruitment, primarily the Transition to Teaching (TTT) and the Urban Teacher Residency (UTR) programs.</p> |
| California State University, East Bay | Science | 2010-11 | 35 | No | <p>With funding support by the CSU System's Math and Science Initiative, the College of Education and Allied Studies was able to enhance its partnership with the College of Science for the purpose of expanding the recruitment and outreach of prospective mathematics and science teachers. The following strategies were used: enhance recruitment materials in print and on the Internet, conduct more hands-on events, and increase partnerships with local pipeline organizations. An on-campus pipeline program for undergraduates who may consider teaching in mathematics or science was created entitled, Future Math and Science Teachers Scholars Program or FMSTSP. Participants who completed the FMSTSP program are guaranteed admissions into the university's teaching credential program provided that they have satisfied all admissions requirements. FMSTSP participants receive advising on credentialing matters, two quarterly events on math or science-related topics, field trip opportunities, and financial aid.</p> | <p>A program coordinator was designated to facilitate the recruitment efforts for both on and off-campus activities. The coordinator works closely with the departments and credentials office to ensure accurate and timely notices of events and deadlines.</p> <p>The college participation in the GE Clusters started in fall 2011. Feedback will be solicited from participants and integrated into the Unit Assessment Plan, where applicable. See Comments below.</p> |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|--|-----------------------|---------------|------------------------|-----------|--|---|
| California State University, Fresno | Science | 2009-10 | 40 by 2010; 53 by 2013 | No | Mathematics and Science Teacher Initiative (MSTI), a multi-year systemwide effort to recruit and train Math and Science teachers. | AY 2006 - 12 teachers AY 2007 - 25 teachers AY 2008 - 27 teachers AY 2009 - 32 teachers AY 2010 - 34 teachers AY 2011 - 46 teachers The Mathematics and Science Teacher Initiative provides: <ul style="list-style-type: none"> • FCSET workshops on science and math content • Middle school math and science teaching methods courses • Advising for prospective middle and high school mathematics and science teachers • Reimbursement of CSET fees for mathematics and science subtests • Reimbursement of CTC fees for mathematics and science credential applications • Free membership in science and math professional organizations • STEM news and information via COMET (California Online Mathematics Education Training) |
| California State University, Fullerton | Science | 2010-11 | See below | Yes | Goal: Our goal for 2010-11 was a 5% increase in science credentials. Strategies for science candidate recruitment and support include: <ul style="list-style-type: none"> • scholarships • distribution of brochures throughout campus • articulation with undergraduate programs that are science-rich to promote science teaching as a career option • web-based video about science teaching • website and blog for science credential program • community college outreach presentations • outreach in Intro to Teaching courses about job opportunities for teachers of mathematics and science • summer internships with local informal science centers | We have learned that it is critical to reach out to students both at community colleges as they are still deciding upon career pathways and at our own IHE in mathematics- and science-rich majors who are early in their program of study to generate interest in teaching. This is followed up with opportunities to get involved with local mathematics and science education activities and scholarship opportunities for juniors/seniors planning to enter the credential programs. We have also learned that web-based media provide a relatively inexpensive way to provide access to program information to a wide audience. Our websites, videos, and blog attract large numbers of visitors and cost little to maintain. |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|---|-----------------------|---------------|--|-----------|--|--|
| California State University, Long Beach | Science | 2010-11 | 27 Biology 4 Geoscience 4 Chemistry 1 Physics | Yes | Science Teaching and Research (STAR) Seminar Series (full information available at: http://www.cnsn.csulb.edu/depts/scied/events.shtml) <ul style="list-style-type: none"> September 20, 2010 What I've Learned - 25 years of Teaching High School Physics, Rod Ziolkowski, Whitney High School, ABC Unified School District October 25, 2010 Slimy, Soft, or Spiky? Examining family interactions and the potential for science learning at touch tanks, Dr. Jim Kisiel, Science Education Department, CSULB November 15, 2010 Homeless Education - What Every Teacher Should Know, Rhonda Haramis, Bethune Transitional Center, LBUSD December 6, 2010 Stemming the Tide: Understanding the Academic Success of Black Male College Students in Science, Technology, Engineering, and Mathematics (STEM) majors - Dr. Saba Yohannes-Reda, CSULB February 15, 2011 New Science Education Standards on the Horizon: What Does it Mean for Science Educators - Dr. Martin Storksdieck, Director of the National Academy of Sciences Board on Science Education March 16, 2010 Coach | A concerted California State University effort involving all campuses and providing supportive resources has been critical to our success. Placing a priority on recruiting STEM candidates by our college dean is crucial and leads to resource allocation, primarily in making time available for key faculty to lead and participate in the recruiting and retention of candidates for STEM credentials. Faculty commitment to the effort is also important, including faculty at our partner community colleges who steer students toward STEM teaching careers. Collegial working relationships among teacher education, Math Education, and Science Education faculty housed in the College of Natural Sciences & Mathematics are also valuable. Partnerships among the campus, community colleges, and school districts (already in place in our case) have been vital to our efforts, and have been strengthened through our collaborative efforts to increase our numbers of STEM candidates. |
| California State University, Los Angeles | Science | 2010-11 | increase applications 10% | No | We continue to allocate additional MSTI and Noyce resources to increase our applicant pool. We also work very closely with our feeder community colleges to assist in increasing our applicant pool. However, due to the extraordinary teacher lay-offs in California, we were unable to recruit more teacher education applicants in science. | Continue to solicit Intern Grants from California Department of Education with an emphasis on recruiting science teachers. |
| California State University, Monterey Bay | Science | 2009-10 | # of Science Credentials | Yes | Goal: Increase the percentage of students who have been credentialed in Science by 5%. | Goal met by increased recruitment efforts. |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|---|------------------------------|----------------------|---------------------------|------------------|---|--|
| California State University, Northridge | Science | 2010-11 | 62 | Yes | Seventy-nine (79) teachers were recommended in Science. The Math Science Technology Initiative (MSTI) a grant that supports workshops to help prepare future math and science teachers prepare to pass the California Standards Examination for Teachers exam. The College also participated in Noyce Scholars. | Beginning in 2011, the College joined CSU efforts to assist credentialed teachers who had lost their positions in preparing for an added authorization. However the great majority of these teachers are in multiple subject or single subject with a credential in a subject other than mathematics, sciences, or English. We continue with the MSTI grant and increased efforts to recruit math and science teachers. The College actively recruits with workshops, emails, flyers and incentives. For example we offer sizeable scholarships ranging from 2500 to 5000 for single subject math and/or science teacher candidates including Noyce. In addition the Michael D. Eisner College of Education Collaborates with the College of Engineering and Computer Sciences on a variety of projects that involve the recruitment and preparation of science teachers. Most recently faculty have collaborated on several projects related to robotics for inservice and preservice teachers at the middle school and high school levels. |
| California State University, Sacramento | Science | 2011-12 | NA | No | At this time, all intern programs for Multiple Subject and Single Subject have been suspended. | |
| California State University, San Bernardino | Science | 2010-12 | subject-matter authorizat | No | We are working toward a foundational science subject matter authorization at the CSUSB satellite campus in Palm Desert. Due to recent staff & faculty changes at the Palm Desert campus, a working group will need to be created to write to the new requirements. | The working group will consult with all science disciplines and complete a course analysis of all appropriate course-work. The working group will be advised to work with the CSUSB STEM program to incorporate this subject matter authorization into one of their specializations. A plan for on-going evaluation will be developed. |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|---|-----------------------|---------------|-----------------|-----------|---|--|
| California State University, Stanislaus | Science | 2011-12 | Increase by 10% | No | <p>The Math and Science Teacher Initiative provides/supports/sponsors/offers the following strategies/services:</p> <ul style="list-style-type: none"> •Advising and mentoring by MSTI Faculty and Coordinating Staff •College of Education Teacher Recruitment & Retention Office serves as support unit for Math and Science Teacher Candidates •CBEST exam preparation support i.e.; advising, test guides, workbooks/instructional materials, workshop •CSET General Science, Bio, Geo, Chem. & Phys CSET exam support; advising, test guides •Foundational Level Credential recruitment and support to undergraduates, career changers/degree holders and Multiple and Single Subject teacher candidates and credential holders •[Paid] early-field experiences in teaching opportunities through the High School Mathematics Access Program (HiMAP), ARCHES and APIP initiatives •Transition from Student to Teacher and Central California Math Project annual Conferences •Recruitment activities/presentations/information sessions/events; follow-up with p | <ul style="list-style-type: none"> •Continue to focus on the recruitment and support of math and science teacher candidates via the strategies listed above •Offer Biology CSET preparation workshops beginning Fall of 2012 |
| Chapman University | Science | 2010-11 | 3 | Yes | Not Applicable. | The market in southern California has decreased due to the economy and we will be pursuing a marketing campaign over the next few years to recoup. |
| Claremont Graduate University | Science | 2010-11 | 20 | No | We have an NSF Noyce grant and still are unable to recruit as many science teachers as we need, especially in Physics and Chemistry. | For 10/11, our number of program completers in science were the worst in quite some time with only 2 Biology candidates completing their credential. We continue to hear from surrounding districts that they have high needs in the areas of physics and chemistry. We have applied for a new NSF Noyce grant specifically targeting science candidates in these hard to staff areas through more significant fellowship and stipend opportunities. |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|------------------------------------|-----------------------|---------------|-------------------|-----------|--|---|
| Concordia University | Science | 2010-11 | 0 | Yes | <p>Candidates are apprised of the need for qualified teachers of science during the application process. There are at least four different times that candidates with majors or minors in science are encouraged to pursue this credential.</p> <ol style="list-style-type: none"> 1. Admission advisors present information on the various Science Credentials. 2. Information Sessions - The program hosts several Information Nights throughout the year. 3. Interview Process - the last step of the application process is an interview with program directors and faculty. Again, at this time applicants who are qualified are encouraged to pursue a science credential. | |
| Dominican University of California | Science | 2010-11 | 1-5 | Yes | Credential Candidates are encouraged to apply for APLE program to support their education. | |
| Fortune School of Education | Science | 2010-11 | Please see below. | | | |
| Fresno Pacific University | Science | 2011-12 | 2 | No | <p>Fresno Pacific University's home campus (Fresno, California) partnered with Fresno Unified School District (FUSD) during the 2011-12 year to provide opportunities for students who have passed the subject matter exams in science (biology, chemistry and physics) to be placed in two local high-poverty high schools for intense, year-long clinical training. This project is funded by FUSD through Quality Educational Investment Act (QEIA) Funds. Prospective science teachers receive \$2,000.00 scholarships from the district, who sees this partnership as a successful "Grow your Own" approach to recruiting highly qualified, well-trained new teachers in hard-to-staff areas such as mathematics and science.</p> | <p>While Fresno Pacific maintains an alternative certification (intern) program option, we find that the majority of students who are interested in becoming math teachers are more interested in completing our traditional single subject credential program which includes student teaching. The "Highly Qualified Student Teaching" program option, in partnership with Fresno Unified School District, has become very attractive to future math teachers who might have otherwise been attracted to the Intern path.</p> <p>Fresno Pacific is partnering with the Science/Math Initiative (SMI) at UC Merced to meet the need for recruiting new candidates into teaching mathematics. We plan to open our single subject program at our regional center in Merced, California, in September, 2013. We expect that this partnership will result in increased applications for the student teaching and intern (alternative) programs.</p> |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|-------------------------------------|-----------------------|---------------|------------------------|-----------|--|---|
| High Tech High | Science | 2010-11 | n/a | No | | At HTH, we do not function in this manner. We employ teachers based on need and if they do not have a teaching credential, then they enter our teacher credential program. |
| Holy Names University | Science | 2010-11 | 5 | No | Partnership with Teach Tomorrow in Oakland-recruitment of a diverse teaching force. Worked with national recruiting agency, Oakland Teaching Fellows Held webinar which faculty constructed describing our Credential Programs | Continue webinar and evaluate webinar with Oakland Teaching Fellow staff In beginning stages of building pathways from Undergraduate majors (Math) to Teacher Education Programs Teacher Education and Undergraduate faculty have met with K-12 high school(academies)which focus on Math in high schools Revise and improve current University website, Education pages |
| Humboldt State University | Science | 2010-11 | Community Colleges | Yes | A recruiter has been working to establish relations with community colleges to recruit more diverse students in science. | Development of recruiting materials with visits to community colleges. |
| Los Angeles Unified School District | Science | 2010-11 | Based on District Need | Yes | monthly informational meetings, university/college recruitment fairs, job fairs, online job fairs, and District online information | |
| Loyola Marymount University | Science | 2011-12 | 15 | Yes | Reaching out to undergraduate science majors through their departments; publicizing our partnership with Teach For America (TFA); hosting info sessions to identify high school science teachers in need of credentials; visiting numerous graduate school fairs; hosting information sessions here on campus; publicizing the LAMS program. | Investigate publications tailored for those employed in the sciences; continue to publicize our innovative science program and partnerships with local schools; continue outreach to local charter schools and other external partners; identify ways to identify career changers who might be interested in LAMS. |
| Mount St. Mary's College | Science | 2010-11 | 10% | No | Goal: Increase science candidates Outreach to biology, chemistry, nursing, and physics departments to encourage undergraduate students who wish to teach K-12 to apply for the credential program. | Continue outreach to science departments at MSMC to encourage teaching as an option - more nursing students are inquiring about teaching. Encourage prospective teacher candidates from outside the college to consider science as a credential option. Continued outreach to inservice teachers in private schools to complete their credentials. |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|--|-----------------------|---------------|----------------------|-----------|---|---|
| National Hispanic University | Science | 2009-10 | 3 | No | | - Recruitment of teachers from Liberal Studies BA program interested in science - Support or information needed to pass subject matter competency |
| National University | Science | 2010-11 | Increase enroll 7%.. | No | University wide enrollment goals were established to increase enrollment in all programs by 7%. Transfers to Triumph Scholarships were promoted to help increase transfer of junior college students to National University to complete a 4 year degree of their choosing. Science degrees at the undergraduate level were one of the eligible programs for this scholarship. | Increase awareness of tuition discount at Jr. Colleges and military bases through Admission Advisor outreach and recruitment activities at the local National University centers. |
| Notre Dame de Namur University | Science | 2011-12 | 1 | No | | Pipeline for undergrads to math/science credential programs. |
| Patten University | Science | 2010-11 | 6 | No | Info Nights on campus by Associate Dean Increase mailing & flyers to districts and schools. Some additional students realized. | New Marketing and Recruiting department personnel hired and new strategies implemented |
| Pepperdine University | Science | 2011-12 | 3 | No | Admissions counseling for candidates considering credentials included outreach to undergrads, encouraging math/science. | Work one-on-one with prospective students to encourage dual credentials that will include math and science plus their area. |
| Point Loma Nazarene University | Science | 2010-11 | 2 | Yes | Encouraged current single subject candidates to consider added authorization in science. Encouraged current multiple subject candidates to consider added authorization in science | Work with LEAs to identify current teachers to add authorization in science |
| San Diego City Unified School District | Science | 2012-13 | NA | Yes | Hired intern support providers (sp) that held the same credential area as the intern candidates. | Due to the fact that our program was being phased-out, we did not accept new interns into the program, we only completed with the candidates we had. This enabled us to hire support providers with matching credentials. |
| San Diego State University | Science | 2009-10 | N/A | | The alternative program is designed to help districts where there are not enough credentialed teachers to meet the district needs. There are not goals to increase the number of teachers prepared in this program. | |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|--------------------------------|-----------------------|---------------|---------------------|-----------|---|--|
| San Francisco State University | Science | 2010-11 | 10 | No | The secondary education program enrolled no science interns. Interns who are teaching science are referred directly by the school districts to SF State's program. Also, website advertises special loans, grants and scholarships (e.g., APLE, Noyce) available to credential candidates teaching science. Cuts in district funding to IHE's for interns reduces support available on campus. | Goal: Emphasize new foundational-level science subject matter credential in information sessions. Cuts in district funding to IHE's for interns reduces support available on campus, so emphasize this need in negotiating with school districts for intern dollars. |
| San Jose State University | Science | 2011-12 | NA | Yes | No goals for the intern program because interns are determined by the districts availability. | |
| Santa Clara University | Science | 2010-11 | as many as possible | Yes | Santa Clara University's teaching credential programs have an outstanding reputation in the San Jose/Silicon Valley area. Individuals with strong mathematics and science backgrounds, particularly those leaving careers in the high tech and dot-com industries to pursue careers in education, often initiate contact with our faculty or admissions staff, or find out about our programs by attending one of our Information Night sessions. Another source of teacher candidates in mathematics and science is SCU's undergraduate population. SCU students who majored in mathematics or the sciences with the intent of joining the teaching profession frequently choose to remain at SCU to pursue their credential. Over the past few years, local school districts have sharply reduced the number of teacher interns they hire each academic year. However, local districts occasionally have openings for teacher interns in single subject mathematics and science classes. Santa Clara University has experienced some small success in plac | Because of the dearth of positions—even in mathematics and the sciences—we are no longer able to maintain a teacher intern program. The program is currently in sunset mode: individuals who began their two year internship in fall 2009 and fall 2010 will be able to finish their coursework and internship experiences, but we have stopped all admissions to the program. |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|----------------------------------|-----------------------|---------------|-----------------------|-----------|---|---|
| Sonoma State University | Science | 2010-11 | Meet teacher shortage | Yes | Elementary/Multiple subject: Outreach continues at all field sites as credentialed teachers who are interested in the sciences are encouraged to gain a second credential in the field. Any candidate who has a substantial interest in the sciences is encouraged to switch to the single subject program for a credential in those areas. Secondary/Single Subject: Allocate grants and other forms of support to recruit 30 teachers this year. Focus on multiple entry points for the preparation program including high school students, junior college students, current undergraduates, post graduates and re-entry students. Capitalize on existing recruitment efforts through the MESA programs, the university recruitment office, and with other linking organizations. | Elementary/Multiple Subjects: All candidates are advised of the new credentials available in integrated/general science. Secondary/Single Subject: Prepare teachers efficiently and efficaciously depending on their backgrounds and needs; provide financial support for candidates; support and retain teachers in the community by establishing a sciences professional learning community; and establish networks in the community to provide ongoing support for teachers and students. Establish new and stronger contacts with the participants at local agencies to promote recruitment; for example, send representatives to the local high schools to speak to students in science classes about becoming teachers. Invite students to campus to learn more about education programs. |
| St. Mary's College of California | Science | 2010-11 | 0 | Yes | In California the only alternative route to certification that is available requires that the candidate be hired by a public school district prior to admission to the alternative program. The KSOE has no control over the either the vacancies or employment decisions of our local school districts. The first employment choice of the district must be a fully credentialed teacher, if available. The KSOE supports all of our qualified candidates who receive offers of employment as interns. | |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|----------------------------------|-----------------------|---------------|-------------------------|-----------|--|--|
| Touro University | Science | 2010-11 | Curriculum & Literacy | No | Single subject science candidates undertake an intensive study of the state adopted 7-12 science Content Standards and the Science Framework for California Public Schools (2004) in the curriculum and instruction courses, EDU 775: Curriculum and Instruction: Secondary Methods 1 and EDU 777: Curriculum and Instruction: Secondary Methods 2, through a series of observations in EDU 780: Orientation to Student Teaching & Seminar, and through supervised teaching in EDU 781: Student Teaching & Seminar. Candidates learn specific teaching strategies that are effective in supporting them to teach the state-adopted content standards. Candidates identify the connections across major concepts and principles within science and across disciplines throughout the curriculum and instruction classes. Candidates learn the expected sequence of instruction designed to provide students with opportunities to reinforce foundational skills and knowledge and to revisit concepts, principles, and theories previously taught throughout th | All science credential candidates need specific instruction in both life and physical science curriculum strategies along with instruction on incorporating literacy in the content area of science. |
| University of California, Irvine | Science | 2010-11 | Increase Undergrad prep | Yes | a) Continue to offer multiple introductory courses related to science teaching and learning; b) increase opportunities for early field experience in K-12 classrooms; and c) target recruiting efforts at freshmen and sophomores. | Continue successful recruitment of biology, chemistry, earth science, and physics majors, and the development and staffing of new courses, has necessitated a strong partnership between deans and faculty representing the science and education departments. The availability of special funding from the UC President's Office and from grants has been a significant factor in achieving our goal. |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|-------------------------------------|-----------------------|---------------|-----------------------|-----------|---|--|
| University of California, Riverside | Science | 2010-11 | Recruitment | Yes | <p>The Graduate School of Education works closely with the Science Mathematics Initiative (SMI) Program to make science majors aware of the need for highly qualified middle school and high school science teachers. STEM majors can participate in 60 hours of observation/field experience to explore teaching prior to admission.</p> <p>Presentations and workshops are scheduled throughout the year to provide information on a career in teaching. The Graduate School of Education also hosts Open House events where faculty, advisors, and current students are available to discuss the programs and pathways available to those wanting to pursue a career in teaching.</p> <p>Financial Aid workshops are also offered by the SMI Program so students can plan on the funding opportunities available to support candidates who pursue high need certification areas such as science.</p> <p>The Graduate School of Education will offer an education minor that begins in Fall 2012.</p> | <p>A recruitment planning committee composed of faculty and Teacher Education advisors is critical to develop a campaign that targets our undergraduate population through courses, workshops and Open House events. Local schools are key partners in providing support to our program and science candidates. Mentor teachers and school administrators are invited to events to foster professional development of teachers involved in science curriculum.</p> |
| University of California, San Diego | Science | 2010-11 | 12 program completers | No | <p>Cal Teach collaboration with Math department on recruitment for Math Education minor as well as coursework & field placements; financial support for credential/M.Ed program</p> | <p>Continue early outreach through freshman seminars and faculty mentorships; consider ways to streamline Science Education minor and to collaborate with departmental advisors.</p> |
| University of LaVerne | Science | 2010-11 | Science waiver | Yes | <p>Approval of science subject matter waiver. Approved STEM program. Actively pursue STEM students and increase number of STEM scholarships. Approved Noyce Scholars for undergraduate STEM students.</p> | <p>Actively pursue STEM students and increase number of STEM scholarships. Actively recruit Noyce Scholars.</p> |
| University of the Pacific | Science | 2010-11 | 3 | Yes | <p>We recruited students from biological sciences to pursue teaching. We informed students participating in an Organic Chemistry study group, taught by an Education faculty member, about the science credential in physical sciences and chemistry.</p> | <p>We will continue to meet with faculty in the sciences and to provide information to students in these fields to consider teaching as a career.</p> |

Annual Goals for Teacher Shortage Areas: Science - Alternative Route

| Institution | Teacher Shortage Area | Academic Year | Goal | Goal Met? | Description of strategies used to achieve goal | Description of steps to improve performance in meeting goal or lesson learned in meeting goal |
|------------------|-----------------------|---------------|-------------------------|-----------|--|--|
| Whittier College | Science | 2011-12 | recruit science faculty | Yes | Goal: Recruit and hire a tenure track faculty member in science and math education. Descriptions of strategies to achieve goal: 1. Included undergraduate science/math faculty from the liberal education program in the search process. 2. Planned collaborations between liberal education science faculty and the new science/math education faculty member. | Orient new faculty member to undergraduate research teams and the opportunities for funding for faculty/student research projects. |