Student Equity:
From Dialog and Access to Action

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Equity and Diversity Action Committee 2009-10

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The Academic Senate for California Community Colleges

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Executive Summary

This paper updates the Academic Senate for California Community Colleges' publication Student Equity: Guidelines for Developing a Plan of 2002 (an earlier version was published in 1993). It is a response to two resolutions of the Academic Senate for California Community Colleges, Resolutions 3.01 F05 and 3.02 S07, which directed the Senate to provide help for local colleges in using program-level student equity data in their ongoing review of course and program planning and accreditation. Continuous efforts must be made to improve equity in outcomes for traditionally underrepresented ethnic groups, students needing basic skills, English language learners, and students within various age, gender, and socio-economic groups. In fact, when effective strategies to achieve equity are employed, and when equity plans are integrated into regular college and district processes, all components of college life benefit.

Colleges continue to discuss student equity, and dialog is part of the process of achieving equity, but more needs to be done. With mandates and accountability measures, discussions about student equity must turn to action. Each section of this paper provides a list of actionable steps for faculty and colleagues to use to develop a more pragmatic approach to monitoring and improving student success. Specific intervention strategies for targeted groups are not included in this paper; however other Academic Senate resources are available through the Senate website at *www.asccc.org*.

This paper provides practical approaches toward defining and understanding equity; it also places strong emphasis on the meaningful interpretation of student data. A list of guiding principles in data analysis has been developed by the Academic Senate Executive Committee, and this list is included in Appendix B of this document. Integrating student equity data into the program review process is a challenge; however, local senates are encouraged to create program review processes that are increasingly student focused and intrinsically link equity to goals for student success. This document provides specific suggestions for linking program review to equity information. An assessment tool for use by faculty, departments, senates, or colleges is also provided.

Appendices include,

- A list of links to resources for locating external data and research.
- Principles and sample questions for sound data collection and analysis.
- A discussion of the 2010 federal and state guidelines for ethnicity data collection.

Abstract

This paper provides specific suggestions to help local faculty make more purposeful use of program-level student equity data on their campuses and suggests best practices for the use of these data as local colleges develop their equity and diversity plans. It will help California community colleges in establishing and maintaining an active link between equity plans and the ongoing review of course and program planning and accreditation. Student equity, which is parity in the achievement and success of all student populations, continues to be a concern for California community colleges, and this paper is meant to be a resource in meeting ethical, professional, and legal responsibilities to facilitate success for all students. The paper provides recommended actions for local senates, links to resources for locating external data and research, principles for effective use of data, and a discussion of the new federal and state guidelines for ethnicity data collection.

Introduction

Student diversity within California community colleges is rich and energizing and should be among the key forces driving the philosophy and goals of its faculty and leaders. Some colleges have made significant progress toward improving their campus climate and increasing the perception of inclusiveness for faculty and students, while other colleges have diversity and equity plans that gather dust on a shelf. The diverse student population desiring access to and success at community colleges continues to grow; faculty ranks show modest progress toward representing the diversity of cultures, ideas, and identities of the students; and accountability for equity and parity of results among individuals from various cultures, groups, and identities reminds educators of the work yet to be accomplished. Across the state and the nation, discussions of equity and diversity lead to more questions about the nature of people's differences and sound the call to learn, understand, and embrace the cultural perspectives and ideologies of others.

Community colleges are exceptionally diverse and have a mandated mission to provide access to every student who can benefit from the experience. However, access alone is insufficient. Equity goals and initiatives must address outcomes as well as access. Colleges must examine whether students are succeeding at equitable rates and whether all ethnic cohorts are tracked to measure equitable outcomes on standard measures such as basic skills course completion, transfer readiness, and degree and certificate completion. California must maintain its push to make access to college equitable and then turn its energy toward achieving equitable outcomes across all demographic lines. The task at hand is turning the student equity plan into a living document that integrates student equity goals across all dimensions of the college and that encompasses and includes all college constituencies, especially the academic senate.

In 1992, the Board of Governors established Title 5 regulations directing districts to develop a student equity plan (§51026 and§54220) and submit it to the Chancellor's Office. These plans must include campus-based research in the areas of access, retention, degree and certificate completion, English as a Second Language (ESL) and basic skills completion, and transfer, examining performance equity among various groups, especially those that are underrepresented. In addition, the plans must address goals to remedy a demonstrated adverse impact from local policies and practices on any group, strategies for attaining these goals, sources of funds to support implementation, and evaluation of the plan itself. With the Board of Governors' direction that student equity plans be reviewed every three years, the intent was to create a dynamic and flexible map that responded to data and evidence gathered routinely about student performance.

Nearly twenty years after the call for equity plans, student equity remains an issue in the state. The time has come for more direct action. The dialog and conversations of the 1990s and early 2000s have yet to be converted into the results that California needs and expects. The Academic Senate's first two papers on student equity, Student Equity: Guidelines for Developing a Plan (1993) and its update with the same title in 2002, continue to be valid and useful, but many faculty also desire more direct or practical guidance for implementation of strategies to enhance equity. Thus, the Academic Senate has developed this current paper, which calls for specific actions to bring the student equity plans into the forefront for colleges and districts striving for student success. This paper is a companion document to assist with the process of data analysis which provides the rationale for planning and decision making, and accountability reporting. It is designed to provide guidance on integrating student equity into existing college processes where student success is evaluated. Each section of the paper includes a list of actions for academic senate and college consideration, and these sections of the paper may be reproduced individually to tackle identified needs at a college.

Two resolutions direct the content of this current paper on student equity.

> Resolution 3.01 F05
>
> Whereas, Equity and diversity planning is central to the California Community College mission and is of the highest priority at the System Office; and
>
> Whereas, Effective equity planning entails the collection of demographic data, as well as a review of how local colleges are addressing the needs of a diverse population of students;
>
> Resolved, That the Academic Senate for California Community Colleges revise its paper Student Equity: Guidelines for Developing a Plan to include linkages between equity planning and accreditation; and
>
> Resolved, That the Academic Senate for California Community Colleges provide help to local faculty and senates to establish and maintain a linkage between equity plans and the ongoing review of course and program planning and accreditation.

And,

> Resolution 3.02 S07
>
> Whereas, Many colleges focus their equity and diversity efforts at the institutional level;
>
> Whereas, Current institutional research and information technologies provide faculty and staff access to detailed data at the program and course level for use in improving retention and success rates and addressing equity and diversity barriers; and
>
> Whereas, Many faculty may find it difficult to use the data effectively in their equity and diversity decisions at the course, program, and curricular levels if they do not know how to interpret the data properly;
>
> Resolved, That the Academic Senate for California Community Colleges research ways to help local faculty make more purposeful use of program-level student equity data on their campuses and draft a paper and/or conduct a breakout that presents the results of this research and suggests best practices for the use of this data when local colleges develop their equity and diversity plans.

Both resolutions seek guidance in using data to make informed decisions as well as identification of links between existing college processes, mandated requirements, and student equity. This paper includes a section on understanding data that provides examples of types of data to investigate, strategies for analysis, and questions to ask that may prompt further investigations or intervention development. The Academic Senate recommends program review as the most effective vehicle for successful integration of the goals of student equity and regular college processes, and an outline of ways to incorporate student equity into program review is provided.

The 2002 paper stated the Senate's approved position on student equity: "The Academic Senate has always argued that student equity should be used to evaluate all aspects of the institution from the classroom to the board room." That paper went on further to affirm the importance of student success across all ethnicities and cultures as essential to economic and social health for the State of California. This position is even more valid today as the state faces economic strife leading to reduced services for all Californians, especially services provided by individuals with degrees and training acquired in California's public institutions of higher education.

Accounting for Our Work

More and more colleges and districts, as well as agencies that monitor community colleges, expect results for improving student success across all student cohorts, whether those cohorts represent ethnic, age, or gender groups. Diversity and student equity are specifically mentioned in Title 5 and in other requirements from the Chancellor's Office, and diversity and outcomes are in the accreditation standards. The Legislature and Legislative Analyst's Office (LAO) track progress on AB 1417 (2004), detailed in the Accountability Reporting for the Community Colleges (ARCC), which shows progress of the colleges on student performance. Colleges will see ARCC data disaggregated by ethnicity in the near future.

The data collected and reported in ARCC follows closely the Chancellor's Office mandated characteristics required of student equity plans call to monitor student equity. In ARCC, colleges track student progress in basic skills, degree and certificate attainment and transfer readiness, and vocational education preparation, which are nearly the same required reporting categories for student equity plans (CCCCO, 2010). Colleges are learning more about ARCC each year as the data become more clear and correct. The process of recoding all basic skills courses in 2009-10 to better track student progress will provide colleges, and specifically faculty, evidence of successful intervention strategies and improved teaching methodologies. With increased access to improved data sets, academic senates and faculty can make better decisions for students and identify gaps that need attention.

Title 5 requires each college to submit a student equity plan for review and approval to the Chancellor's Office. Staffing issues have hampered the Chancellor's Office from successfully completing its oversight of this task, but whether or not the oversight is provided, student equity plans exist in regulation and the responsibility for implementation lies with each college. The academic senate has a role in planning processes per Title 5 §53200, and thus it has a role in not only creating a process to develop the plan but also in actualizing the equity plan.

Multiple sections of the accreditation standards (ACCJC 2002) require that colleges address diversity, equity, and results. Standard I.A requires colleges to examine their missions in light of the students served, and Standard II, Student Learning Programs and Services, states that colleges must examine their academic programs for attention to diversity. Standard II.A.1.a requires that the college "identifies and seeks to meet the varied educational needs of its students through programs consistent with their educational preparation and the diversity, demographics, and economy of its communities." The standards contain additional references to enhancing and respecting diversity, and they indicate that a college's general educational requirements for learning outcomes must include respect for cultural diversity. Since a college must write self-study and mid-term reports, it must have evidence of meeting the standards for equity as well. In the sad case that equity has not been addressed by the college, the accreditation visiting team will likely point out to the college its deficiency in this area.

Academic senates with a commitment to student equity will find opportunities to show evidence of their work on behalf of students to the Chancellor's Office, Accrediting Commission, and other agencies within the state. Faculty, as professionals, can challenge their peers and programs to better

serve underrepresented students, while other groups will provide outside pressure if faculty need further motivation to address the needs of all students. Classroom teachers, counselors, and librarians have no greater accountability than to their students, and regardless of reports or mandates, faculty need to examine the success of each student encounter or class in a thoughtful, fair, and professional manner. This paper provides some ideas on how to accomplish this regular reflection.

Actions

- Prepare the accreditation self-study by incorporating sections of the student equity plan, using evidence of student equity progress from external and internal measures and through documenting how student equity has been integrated into college effectiveness measures.
- Update the college's student equity plan every three years as required in Title 5 whether prodded by the Chancellor's Office or not.

Defining Equity

Almost any dictionary will define equity as justice according to natural law or right or as freedom from bias or favoritism. Equity involves actions and principles where fairness and justice are expected, in courtrooms, classrooms, locker rooms, offices, and other settings. In 1992, the Board of Governors of the California Community Colleges adopted a Student Equity Policy to ensure that groups historically underrepresented in higher education have an equitable opportunity for first access and then success. Equity is often measured and determined by both qualitative and quantitative data.

For many people, equity is less about numbers and more about fairness, respect, awareness, and closing the achievement gap. Discussions of equity are often passionate and fierce. Senates that pay close attention to the needs of all students take that passion and empathy and turn it into positive results for every student. But emotion needs to be balanced by objectivity and good decision making which is easier when data and evidence are used to guide conversations and to develop solutions.

While one may easily understand when items are equal, it is often more difficult to agree that items are equitable. Statistical measurements as well as affective meanings of equity can contribute to the understanding and application of the concept for faculty. Academic senates should discuss all definitions and implications of equity to produce plans and intervention strategies that are respectful, inclusive, far reaching, and academically sound. All faculty can participate in examining what equity means in a classroom, for a program, and for the college. The more completely that equity is understood and defined, the more successful the results for analysis of student equity, planning, and assessment of efforts and intervention will be.

This paper is centered on the numerical understanding of achieving equity because that understanding is relatively easy to access and provides a starting point from which colleges can begin discussions to respond to student needs. Below is a chart that provides an example of the types of data and analysis that form the basis for understanding the concept of equity. Please note that all examples in this paper are created by the authors for the purpose of explanation and are fictitious. The data are not from any college or district in the state.

Example of Equitable Outcomes

Example of Inequitable Outcomes

Equitable does not mean equal, but it does require that the results are close enough to the percentages of the original cohort group to be acceptable. In the chart above, the results in the top case may be deemed equitable even though the column on the right (the outcomes) does not exactly match the column on the left (access). The case on the bottom would be deemed not equitable, but may still represent an improvement over time if the college has been tracking student performance for several semesters or years. In reviewing percentages, remember to also include the actual number of students in the cohort since small cohorts can cause the percentages to show more variation than actually exists. The key fact is that the numerical outputs for cohorts of students in courses, programs, and other goals be relatively the same as the numerical inputs to the courses, programs, etc. Institutional research staff can assist with statistical or other measures to determine whether or not the results are statistically equitable, but colleges will ultimately determine acceptable outcomes by using statistical measures as well as locally determined criteria.

Student demographic information may be disaggregated in several ways to learn about student equity. In the 1992 Board of Governors Student Equity Policy, the term "historically underrepresented group" refers to ethnic minorities, women, and persons with disabilities. These are the specific groups that were initially monitored, but today, it is incumbent on colleges to watch all student cohort groups for success, both on campus and within the college's service area. In one college, Vietnamese student success should be tracked while Iraqi student success should be tracked in another college. Disabled Students Programs and Services (DSPS) may have separate data on students with a variety of disabilities, and because of the confidential nature of this information, colleges must use caution when reviewing such data. Many colleges are interested in the success of lesbian, gay, bisexual, and transgender or transsexual (LGBT) students. Since data are not usually collected or available on these students, colleges will want to find other appropriate mechanisms to measure equity progress for these cohorts. Socio-economic status cuts across all ethnic, age, and gender lines and impacts underrepresented groups, making it a good measure to investigate. A recent state-wide trend to watch, based on information from the Chancellor's Office Data Mart, is the growing gap between the numbers of men and women attending college.

A key phrase for understanding student equity data is "adverse or disproportional impact." Typically, this phrase reminds educators to examine data for differences in outcomes and consider if the cohort with fewer successes than other cohorts is experiencing barriers that specifically impact that group. For example, one might ask if a barrier or obstacle exists that impacts Hispanic students differently than other cohorts. If such a single barrier exists, the college should look for ways to identify and define it so that it can be addressed. One such variable that might cause an adverse impact is language proficiency, but a college policy or practice could likewise cause one group to be disadvantaged over others. To find adverse or disproportional impact requires real detective work, but creates opportunities to improve success in dramatic ways.

Actions

- Agree upon a statistical definition of equity that will be used by the district or college researchers or whoever is providing student equity data.
- Develop an expanded definition of equity based on the college mission, community needs, or other criteria relevant to students.
- Disseminate the definitions of student equity to all campus constituents.
- Agree upon categories of cohorts of students that are important to track, starting with the historically underrepresented groups required in Title 5.
- Disaggregate data by relevant groups or cohorts for all data sets.
- Examine data and evidence deeply and critically when there appears to be a disproportional impact.

Using Student Equity Data

Colleges use data about students and their performance to guide activities that have been developed to address student success. Title 5 §54220 states that the following data should be included in the student equity plan: access, retention, degree and certificate completion, ESL and basic skills completion, and transfer. These indicators of student success are generally recognized as a starting point for colleges that truly want to understand why students may or may not be progressing as expected and how faculty, and other colleagues, can develop appropriate intervention strategies.

Title 5 further states that the data listed above is to be disaggregated by identified groups of underrepresented students. Since the purpose of the plan is to develop responses and activities in the event that a disproportionate number of students are failing, it is critical that faculty insist that the data be broken down by ethnicity, socio-economic status, gender, age, and any other category where valid data exists. The research office at the district or college can assist with the collection and disaggregation of the data into cohorts of students to be reviewed. The Data Mart at the Chancellor's Office also has data available from the colleges and districts; the web address for the Data Mart is listed in Appendix A of this paper, as are other useful outside sources of data. A college may wish to start first with local data gathered from students and then proceed to include data from the service area or other sources.

The five specific areas listed in Title 5 should not limit the type of data accessed nor the depth of analysis. The requirements for the student equity plans make no distinction between credit and noncredit students, and three of the five targeted goals apply to both areas of instruction. Local senates should include both credit and noncredit students in the analysis of student equity progress. Understanding noncredit instruction and programs are important: 1) because diversity among students is often greater here, 2) because these students historically have the lowest success rates, and 3) because there are problems in collecting noncredit student data which must be managed on a college by college basis. In many instances of basic skills progression, students moving from noncredit basic skills instruction to credit are excellent cohorts to monitor. In order to make good decisions for students, colleges will need much more data than simply the number of students who transferred or earned degrees. Examples of other types of data to consider are included throughout the paper.

Once the data are provided, the task of sorting them and making sense of them remains a challenge. Researchers can provide insight and assistance, but the best questions will be drawn from faculty, students, administrators, and staff reviewing the data. What follows are some examples of how data can be questioned and reviewed for more understanding and better planning opportunities. These data are important to track over time, and the college will have to determine the time frame from which data will be used and reviewed. In the charts on the next few pages, sample data that reflect a typical college and its students are provided for analysis and instructional purposes. Once again, the data are fictitious.

Student Ethnicities at the College

Ethnicity	Overall Student Population
African American	7.2%
American Indian/Eskimo	0.1%
Asian	12.0%
Filipino	3.5%
Hispanic	30.0%
Pacific Islander	0.7%
White	35.0%
Other	2.0%
Unknown	9.0%

Student demographic data should be used as the base line figures to inform the college's data studies about student performance. If a program is analyzed, then base line data for the program would show the size of each cohort within the program. The base line data establish important facts about the college and its service area that create a frame of reference to begin conversations and analysis. These data only give a picture of who the students are. For analysis of student equity, these base line data are insufficient, but they provide a start.

One way to approach student equity data is to compare all outcome data to the base line student demographics of the college. While this approach is simple and direct, it might not provide enough insight into the issues. Overall college cohorts might be different than cohorts with specific goals, and helping students to first identify a goal helps to frame equity conversations. Using data from the overall college cohorts and cohorts that are more specifically defined because of goals and behaviors will give more detail about how students are progressing in attaining their goals. An example of this type of multi-layered approach is to first look at the percentage of Hispanic students enrolled at the college, then look at the percentage of Hispanic students enrolled in Beginning Algebra, and finally examine the percentage of Hispanic students that pass Beginning Algebra. More specifically, if 40% of the overall student population is Hispanic, but 70% of the students enrolled in Beginning Algebra are Hispanic, and only 20% of those students pass, then the college has layers of evidence to analyze in order to create intervention strategies.

Of the areas monitored in student equity plans, basic skills success and progress seem the most prudent place to begin. If evidence shows students have inequitable success at that level, then degree completion and transfer will probably also show inequitable results. Many colleges are examining basic skills data for several reasons, which include the initiative on basic skills, the ARCC mandate, and options for using writing, reading, and mathematics prerequisites for college or transfer level courses. The example below highlights some of the features of basic skills student equity data.

Student Ethnicities of Beginning Algebra Students (data averaged over three years)

Ethnicity	Beg. Algebra Population
African American	12.2%
American Indian/Eskimo	0.1%
Asian	5.0%
Filipino	5.5%
Hispanic	35.0%
Pacific Islander	0.7%
White	30.0%
Other	2.0%
Unknown	9.0%

One can assume that all students enrolling in the course desire to pass it. With that as the premise, faculty can monitor success in the course to see whether or not the outcomes are equitable for each cohort. If the success rates and cohort percentages are fairly close, then the college can be satisfied with its outcomes strictly in terms of equity. Overall, the college may strive to increase the numbers of all students passing the course or achieving the goal. The next example shows inequitable results.

Student Ethnicities of Beginning Algebra Students (data averaged over three years)

Ethnicity	Beg. Algebra Population	Successful Students
African American	12.2%	5.0%
American Indian/Eskimo	0.1%	0.2%
Asian	5.0%	7.8%
Filipino	5.5%	4.0%
Hispanic	35.0%	24.0%
Pacific Islander	0.7%	0.7%
White	30.0%	45.0%
Other	2.0%	2.0%
Unknown	9.0%	9.0%

Once the number of successful students is known, faculty can begin to question what seems to be working well and what needs improvement. From the data above, faculty may want initially to investigate two cohorts: African American and Hispanic students. These two cohorts show the most inequitable results over the three year time frame. Identifying where there are differences is the first step, and then deciding which differences need attention is second. To further the analysis, math faculty, together with others such as counselors, may request additional data, such as placement test results, language proficiency, access to counselors, number of students participating in Extended Opportunity Programs (EOPS), and number of students accessing learning resources. Faculty may consider further disaggregating the data by socio economic status, age, and gender to learn about other issues affecting student success.

In this example, math faculty, as part of program review and regular student learning outcome assessment, can further explore reasons and evidence for the disparity. Students may be unsuccessful in basic skills courses for many reasons, and faculty must be thorough in evaluating the success rates for any cohort of students. Textbooks, tutoring, teachers, classroom climate, and technology all impact the success or lack of success of students, along with other aspects of matriculation. Something as simple as the schedule of the courses may impact whether or not students in all cohorts are successful. For some cohorts, it may be useful to design focus groups or surveys to gain greater insight into student attitudes, preparedness, and other undetected obstacles to success.

Through the Basic Skills Initiative (BSI), a collection of successful programs and interventions are now accessible online as a resource. This paper will not address ways to remedy identified gaps because other Senate resources provide this information. Please reference Practices that Promote Equity in Basic Skills in California Community Colleges (ASCCC, 2010) and the Basic Skills web site *www.cccbsi.org*. Strategies that improve success for a single cohort of students often improve success for all students.

Colleges have more experience analyzing and evaluating basic skills data because of the increased opportunities to do so in the last few years, but transfer and degree completion data need the same comprehensive review as the courses leading to graduation or transfer readiness. Student transfer is more difficult to track because while students become transfer ready at community colleges, actual transfer occurs beyond the boundary of the college. Some college transfer centers have data about successful transfer for students at the college or in specific programs. However, assessing student readiness for transfer proves to be a satisfactory measure for general inquiries about transfer success. It is especially important to examine student behaviors of enrolling in and passing transfer level courses. Since the English course required for earning an associate degree is now the same as transfer level, using this English class as a valid marker will be more problematic. In mathematics, there is still a difference between the course level required for an associate degree and the level required for transfer, making mathematics course work a better marker of transfer readiness.

To the right is a comparison of data that might be used to examine transfer.

Ethnicities of Students Who Intend to Transfer (based on self-identification) and Show Transfer Readiness by Passing a Transfer Level Mathematics Course (data averaged for three years)

Ethnicity	Student Population That Intends to Transfer (not reliable)	Population That Completed Transfer Level Math (more reliable)
African American	15.0%	3.9%
American Indian/Eskimo	0.2%	0.5%
Asian	18.0%	12.1%
Filipino	3.5%	3.1%
Hispanic	22.5%	12.7%
Pacific Islander	1.5%	**
White	31.0%	49.6%
Other	2.0%	5.8%
Unknown	6.0%	7.2%

** Pacific Islander transfer students were included with Asian transfer students.

Using student-reported goals of earning degrees or intent to transfer produces varying levels of useful information. Many students have laudable goals but lack the necessary skills or resources to successfully achieve the goal, change their goal without reporting it, or drop out of school due to life or economic reasons. Using actual student behaviors as measures can provide better data and a clearer picture of which students are on track and which ones need interventions.

The next two charts further demonstrate inequity in transfer data and the behaviors associated with it. The following chart compares the percentage of ethnic cohorts enrolled in transfer level mathematics with the same success rates used above.

Ethnicities of Students Who Enrolled in a Transfer Level Mathematics Course and Show Transfer Readiness by Passing a Transfer Level Mathematics Course (data averaged for three years)

Ethnicity	Population that Enrolled in a Transfer Level Math Course	Population That Passed Transfer Level Math Course
African American	12.0%	3.9%
American Indian/Eskimo	0.4%	0.5%
Asian	10.4%	12.1%
Filipino	2.5%	3.1%
Hispanic	18.0%	12.7%
Pacific Islander	2.0%	**
White	38.6%	49.6%
Other	8.0%	5.8%
Unknown	9.3%	7.2%

** Pacific Islander transfer students were included with Asian transfer students.

With several cohort groups in the example, differences exist between the enrollment rate and the success rate. In some cases, the rate of success for a cohort exceeds the rate of student enrollment, and in other cases, the rate is less. In other words, compare the success of the student cohorts and review the size of the successful cohorts. The college may choose to address all of the differences that are identified, only one group, or some combination. If the college decides that it wants to investigate the differences further, it should consider first what data might be useful. What factors may lead to the differences that should be acknowledged? In the next chart, the rate of students who received counseling during the given time frame has been included as one set of data that might be important in understanding transfer behavior.

Ethnicities of Students Who Accessed Counseling and Show Transfer Readiness by Completing a Transfer Level Mathematics Course (data averaged for three years)

Ethnicity	Part of the Given Population That Accessed Counseling	Population That Passed Transfer Level Math
African American	16%	3.9%
American Indian/Eskimo	16%	0.5%
Asian	17%	12.1%
Filipino	18%	3.1%
Hispanic	17%	12.7%
Pacific Islander	20%	**
White	16%	49.6%
Other	17%	5.8%
Unknown	16%	7.2%

** Pacific Islander transfer students were included with Asian transfer students.

The first column of data in the table shows that all groups accessed counseling at nearly the same rate, meaning that 16-20% of each ethnic cohort met with a counselor over the three year time frame.[1] With the numbers showing that students access counseling at nearly the same rate, what does this tell us about the connection between counseling and transfer readiness? Which populations might benefit the greatest from further outreach? Occasionally the data seem to create more questions than they answer, but intervention strategies may be more successful because faculty and others will be able to produce a long list of questions requiring further analysis.

Counselors can discuss what the data mean and provide the college with ideas and strategies to improve transfer readiness in all cohorts. They might consider whether other factors contribute to successful preparation for transfer and suggest research on specific additional data that might be useful or necessary. They might also offer suggestions based on the data to faculty teaching transfer level courses in order to address student needs. In some cases counselors might offer useful input to specific departments based on analysis of the data. In various ways, counseling faculty's unique perspective can be helpful in discussions of transfer-related research.

[1] While the data are intentionally fictitious, the state rate for student access to a counselor closely resembles these numbers and deserves attention in a separate conversation.

Finding data on successful transfer is not always easy, but when such data are available, colleges should use it. Regional agreements between universities and community colleges for data sharing may help. The California Partnership for Achieving Student Success (CalPASS) has student data on transfer available online (see Appendix A). Another point to consider when collecting data about student transfer is that a college may decide to separate transfer numbers by California State University (CSU), University of California (UC), or non-public independent university, if such information is available. Reports from the Chancellor's Office show that there is a marked increase in the number of students of color transferring to private independent colleges (Perry, 2008, *Using Data Tools to Help Us Mine Our Treasures*), so the local data on actual transfers within a region could be interesting and important to investigate.

At the General Assembly for the Student Senate for California Community Colleges, students in attendance at the conference were shown data similar to that used in the examples. They responded to the data by creating interventions that included visits with families in the college district to provide more outreach to families and students and by developing more transfer fairs and resources. The students suggested that the colleges need to do a better job with outreach and communication regarding the transfer process and financial aid for students who transfer to universities. Because students have important perspectives, their inclusion in the discussion and analysis of the data as well as possible intervention strategies should be welcomed and encouraged.

While student equity is primarily focused on disaggregated data by ethnicity, a study of students based only on culture, race, and ethnicity might miss key facts associated with students from underrepresented groups involving factors such as socio-economic status. A student's ability to support himself or herself is one of the single most important factors to consider when examining student equity. According to the National Center for Education Statistics, nearly 40% of community college students work more than 20 hours per week). Note that the next table uses number of students instead of percentages.

Ethnicities of Students Who Show Transfer Readiness by Passing a Transfer Level Mathematics Course and Worked More Than 20 Hours Per Week

Ethnicity	Number of Students That Completed Transfer Level Mathematics	Number in the Cohort Group That Work More Than 20 Hours Per Week
African American	690	300
American Indian/Eskimo	5	2
Asian	918	680
Filipino	310	124
Hispanic	1370	524
Pacific Islander	**	**
White	4860	3173
Other	580	200
Unknown	720	352

** Pacific Islander students were included with Asian students.

In almost every case in the table, students who worked more than 20 hours per week were a minority of those who passed. These figures indicate the importance of considering the economic needs of students. In studying this issue, a college might ask what other information about working students would be helpful and what is happening in the community around the college. Data could be further disaggregated by full- and part-time students to provide additional detail for consideration. The college might also question how transfer level courses are scheduled for student access—day, evening, online, summer, etc. Such analysis and discussion can lead to additional questions aimed at addressing the identified inequities, such as whether financial aid advising might be linked with transfer courses or programs or faculty teaching transfer courses.

To further support faculty with data analysis, a list of guiding principles has been developed and recommended by the Academic Senate Executive Committee. The principles may be found in Appendix B of this paper. Knowing which data are available, which data to request, and how to analyze data constructively are challenges, and the Senate has additional resources under development to help faculty and colleagues with these tasks.

Just when colleges and districts are becoming comfortable with data use and collection, the federal government has directed all institutions to modify the collection of ethnicity data. This mandate will cause some difficulties for tracking data over time because the categories by which ethnicities are defined will change. Faculty will need expert advice from college or district researchers about how to transition the data from the old format to the new. See Appendix C for more information about the new categories.

Actions

- Disseminate the "General Data Quality Principles and Sample Questions to Ask" to all colleagues involved in data requests and analysis (see Appendix B).
- Train colleagues to apply the locally created definitions of student equity to the mandated areas for tracking student equity: access, retention, degree and certificate completion, ESL and basic skills completion, and transfer, for credit and noncredit students.
- Compile and share lists of questions that are generated by data analysis which require further study.
- Compile and share lists of interventions designed to improve student success for all cohorts. Indicate whether or not the interventions were successful.
- Update data collection methods to comply with new federal requirements.
- Develop intervention strategies, including but not limited to Academic Senate recommended resources (papers, web links, professional development activities at institutes, presenter lists, etc. available at *www.asccc.org*).

Program Review and Student Equity

Some colleges and universities across the nation are developing self-assessments and peer reviews that document their progress on diversity and equity issues. Program review is the most effective and useful existing process in which to include an assessment of equity measures and promote change. Faculty should be at the forefront when assessing equity issues in courses and programs. Hence, faculty driven program review provides an optimum setting for colleges to assess equity issues. Integrating the student equity plan into program review processes brings more attention to the issues of student success on a regular basis, and program review is typically the process that establishes plans or actions for the college or departments.

Program review affords faculty the opportunity to examine data about student performance in discipline-designed courses, certificates, and degrees. The establishment of program level student learning outcomes creates further opportunities to consider student achievement and the parity of results for students. Program level data should be disaggregated by ethnicity, age, gender, hours worked per week, and other means of sorting that can assist program faculty in making decisions about majors and areas of emphasis, course sequencing, certificate options, and other aspects of educational offerings. As colleges move to assessing student learning outcomes for courses and programs, faculty will have more data available to help them develop teaching strategies and learning methodologies that are inclusive and in which increasing numbers of students can find success. Each of the five areas listed in Title 5 for monitoring student equity (access, retention, degree and certificate completion, ESL and basic skills, and transfer) should be included in program review whenever doing so is appropriate.

Although the required student equity plan looks at data and tracks the progress of all student groups in only five areas, the pursuit of equity demands that all departments, services, and functions at the college ensure that students in all cohorts achieve comparable results. To make progress toward equity, four additional areas should be included in the program review process by which programs, and ultimately the college, are assessed:

1) Curricular and co-curricular inclusion—The extent to which principles of multiculturalism are incorporated into the curriculum of a program.

2) Climate and mission—The events, messaging, websites, and other means by which a program conveys its openness and inclusivity of all students.

3) Human resources—The ability of the program to recruit and retain a diverse workforce, including faculty, staff, tutors, lab techs, etc.

4) Efforts toward equity—Other initiatives, grants, and programmatic elements that further the goals of equity and diversity within the program and its stated outcomes.

These four areas broaden the original goal of Title 5 to measure student progress and success; they bring the entire college experience into play for examining student equity. For richer program level assessment of equity, faculty will likely spend more time reflecting on the activities and outcomes of a program, but by using the four points listed they will have specific items to examine. Sometimes when measuring student equity, faculty struggle with tangible ways to improve or remedy situations, so listing courses, events, training, and grants in which the program has invested can make the first steps toward improving programmatic student equity outcomes.

Once again, the data and evidence should give indications of successful work accomplished by the program and of gaps that need to be closed and where more work needs to be done. These conversations can be further enriched by asking some key questions:

- Has the program assessed the degree to which faculty incorporate diverse perspectives into their work? Are recommendations provided to faculty on syllabi development? Have faculty agreed upon how recommendations will be provided to colleagues?
- Is there a center or support unit at the college to assist faculty in infusing diversity into their lessons, activities, and work with students?
- Are faculty recognized for contributing to the attainment of equity and diversity goals of the program or college?
- How are student voices integrated in the planning processes for the program?
- Does the program document barriers and challenges to success as well as the intervention activities employed to improve success?
- Do the faculty, staff, tutors, etc. within the program participate in diversity training?

Academic senates will be able to expand on these suggested questions to create program review processes that are increasingly student focused and intrinsically link equity to goals for student success. For more information on program review, see the Spring 2009 Academic Senate paper *Program Review: Setting a Standard*. A rigorous program review process that integrates planning and budgeting as well as student equity can help colleges demonstrate that they have met accreditation standards. Program review is the mechanism that is used to accomplish the cycle of assessment and evaluation outlined in the accreditation process which also satisfies the Title 5 requirements for student equity. Including equity and diversity measures in program review is the most direct way to accomplish the goal of integrating more of mandates and requirements into a single process. The standards that most address student equity are Standard I: Institutional Mission and Effectiveness and Standard II: Student Learning Programs and Services. The standards include references to equity, including "respect for cultural diversity" as an element of general education programs, recruiting efforts for diverse students, and use of "delivery modes and teaching methodologies that reflect the diverse needs and learning styles of its students," to name a few. If colleges are meeting the requirements of the State of California and the Board of Governors' directions for student equity and diversity, in all likelihood, the colleges will also meet the standards of ACCJC. The student equity plan for the college takes on greater importance because it also serves as the means to meet more than one set of requirements.

Actions

- Include in program review processes for academic, student services, and administrative services (where appropriate) measures of addressing student equity.
- Imbed goals and interventions for achieving student equity into program review and college and district planning processes.
- Integrate required metrics and reports about student equity: accreditation, Title 5, program review, and college or district strategic plans and goals.
- Report student equity goals, interventions, and progress regularly to the academic senate and governing board.

Assessment Tool for Student Equity

The student equity plan is intended to be a living document that is continuously and consistently referenced and applied throughout each academic term. It should help inform decisions of planning, programs, budget, courses, and program review. New ideas and changes to operations should be generated by continuous use of and reflection upon this document.

Often when institutions are faced with completing an assessment such as program review or accreditation, it is approached from a backwards perspective. The requirements, mandates, or standards are first reviewed, and then existing tasks, programs, or documents are forced to fit into a certain area. The student equity plan should, on the other hand, be a proactive document that guides all college happenings from a forward perspective: fit the mandates and requirements into the model of student equity. In other words, achieving student equity should drive the college planning and decision-making processes and compliance measures when a college is focused on student success.

Included here is an example of a tool for assessment of student equity actions that may be used by individuals, committees, departments, the senate, or the college. Senates are encouraged to recommend this chart or a similar one to individual faculty and departments for use on a regular basis to assess progress. As student populations and needs change, so will student equity plans, and therefore this chart is meant to be an assessment of progress rather than one of proficiency.

Individual Tasks and Progress

I give each of my students equitable treatment regardless of their ethnicity, socio-economic status, etc.

☐ No Progress ☐ Some Progress ☐ This is part of my regular practice.

I encourage all students to participate by engaging in dialog and asking questions in class.

☐ No Progress ☐ Some Progress ☐ This is part of my regular practice.

I refrain from language bias in my interactions with students.

☐ No Progress ☐ Some Progress ☐ This is part of my regular practice.

In grading students, I use the same standard/rubric for each student.

☐ No Progress ☐ Some Progress ☐ This is part of my regular practice.

I review data of student performance for my courses and disaggregate it for equity. (Who is successful? What are the demographics of those who are and are not successful?)

☐ No Progress ☐ Some Progress ☐ This is part of my regular practice.

I use the data to inform what I am doing and make changes to areas in need of improvement.

☐ No Progress ☐ Some Progress ☐ This is part of my regular practice.

Divisional or Departmental Tasks

The department collects and disaggregates data for equity.

☐ No Progress ☐ Some Progress ☐ This is a regular practice for my department.

The department uses the data collected to inform decisions, create programs, and increase access and success rates.

☐ No Progress ☐ Some Progress ☐ This is a regular practice for my department.

The department provides training regarding diversity, equity, and cultural competence to faculty, staff, and tutors.

☐ No Progress ☐ Some Progress ☐ This is a regular practice for my department.

Marketing materials, program advertisements, and all forms of student communication use inclusive language and have images that are representative of diverse populations.

☐ No Progress ☐ Some Progress ☐ This is a regular practice for my department.

College or District Tasks

Catalog, Schedule of Classes, marketing materials, and all forms of student communication use inclusive language and have images that are representative of diverse populations.

☐ No Progress ☐ Some Progress ☐ This is a regular practice of my college/district.

College/district makes data collected on student populations regularly available to its employees.

☐ No Progress ☐ Some Progress ☐ This is a regular practice of my college/district.

College/district uses data to inform programmatic and budgetary decisions.

☐ No Progress ☐ Some Progress ☐ This is a regular practice of my college/district.

In economic downturns, the college/district continues to fund programs that assist students from marginalized student groups.

☐ No Progress ☐ Some Progress ☐ This is a regular practice of my college/district.

Colleges will identify areas for improvement after employing an assessment tool like this one. Professional development can be effective for moving a college forward toward a goal of growing a more culturally competent faculty and staff through conversations and training. Cultural competence is a skill set that makes one effective in working in diverse environments and effective in teaching diverse students, and faculty and staff that make progress toward cultural competence should positively affect the success of students from underrepresented groups. A person who is culturally competent also understands the dynamics of power and privilege (oppression, discrimination, subconscious bias, dynamics of race, ethnicity, etc.), is knowledgeable of various cultures, understands the history, perspective and experience of oppressed groups, and can use this knowledge to effect critical thinking skills in students and at the same time can reduce bias and prejudice.

Actions

- Use regular assessments of student equity progress at the individual, program, and college level as a tool for reflection and goal setting.
- Develop assessment tools to be used to gather feedback from students about diversity efforts, campus climate, and equity issues.
- Integrate cultural competence training into professional development activities for faculty, staff, administrators, and student leaders.

Budget for Student Equity

Is a separate budget item for student equity necessary? The answer is both "yes" and "no." It is "yes" because professional development, research, and changing a campus climate all have costs. But the answer is "no" because if student equity is successfully integrated throughout planning and budgeting processes, then achieving equity can be factored into institutional behavior, priorities, and measures. The Senate's 1993 original paper on student equity has a substantial section on budget that continues to be useful today.

Local senates can recommend that student equity be a key component of regular college budgeting since the student equity plan should inform other key college planning and budgeting processes. As student equity is integrated into program review, the tie to budgeting will become more critical yet more obvious. During difficult budget times, colleges often decrease funding to programs and services that address special populations of students, but student equity analysis in program review might help these programs make a case for increased rather than decreased funding.

The reductions during the 2000's to matriculation budgets and other student services areas affect students negatively, and the Academic Senate has championed equitable funding for these crucial counseling and support services for students. The loss of access to counselors or valuable programs like EOPS and disabled student programs services (DSPS) may strike underrepresented students with greater force. The Seymour-Campbell Matriculation Act of 1986 was passed to ensure equal education opportunity for all Californians. On August 26, 2009, a memorandum from the California Community College Chancellor's Office cited some changes to matriculation due to recent budget problems. At the same time that budgets dedicated to support services were reduced, regulations permitting colleges to suspend all matriculation services with the exception of orientation, assessment, and counseling until 2013 were introduced. These types of changes to the matriculation plan will have a major impact on the delivery and quality of student services, in particular to underrepresented students.

Actions

- Plan activities, training, data analysis, and interventions to achieve student equity and be sure that planning drives the way the budget is developed.
- Educate colleagues about the effects of redirecting funds away from services and resources that support underrepresented students.

Summary

With approximately 65% of California community college students being persons of color or first generation college students, equity within academic outcomes continues to be a concern for California community colleges. Simply looking at data required by the Chancellor's Office in five areas (access, retention, degree and certificate completion, ESL and basic skills completion, and transfer) is insufficient to fully understand outcomes for cohorts of students and meet ethical, professional, and mandated obligations for achieving student equity. Program review processes address achievement of student outcomes, and the Academic Senate recommends that program review be used to monitor student equity achievement as part of student success evaluation. When effective strategies to achieve equity are employed, and when equity plans are integrated into regular college and district processes, all components of college life benefit. The time for action is now.

Recommendations for Local Senates:

- Locate the college's student equity plan and consider providing an electronic link to it on the senate's web site.
- Host a discussion group to read the plan and discuss its meaning. Is it substantive? Is it a usable document? Is it accurate? Bring any suggestions for improvement to the senate for discussion.
- Review the college equity plan by division and program and discern its applicability on each level.
- Invite the college or district researcher to a senate meeting to explain the use of data and especially the use of student demographic data.
- Have an authentic dialog about the equity plan and the meaning of equity. Be sure to include students in all discussions about equity, reviewing data, and developing strategies and goals for the college.
- Provide professional development activities for faculty on the concept of equity, the value and meaning of diversity, and activities that may improve student equity, including but not limited to pedagogy, cultural competence, and reflective teaching.
- Ensure that the application of the college equity plan is integrated into the program review process.
- Ensure that student equity is part of the college's budget and planning process.
- Decide what data are needed to take a close and authentic look at student equity at the college and in individual programs and areas.
- Find out what data the college can easily produce. Take steps to ensure that other necessary data are made available.
- Advocate for providing faculty with disaggregated data.
- Review and revise as necessary the college's student equity plan. Make sure that all groups participate to ensure full support of the plan.
- Advocate for and support professional development activities for classified and administrative staff, including but not limited to cultural diversity, service skills, and diverse communication styles.
- Set a college goal that equity is essential.
- Use the assessment tool included in this paper or a similar, locally designed tool.
- Use tools to assess cultural competence and bias.

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Additional web links for sources on cultural competence:

http://idiinventory.com/

http://www.tolerance.org/activity/test-yourself-hidden-bias

http://www.tolerance.org/activity/homophobia-quiz

Appendix A

RESOURCES FOR LOCATING EXTERNAL DATA AND RESEARCH

Occasionally, senates and faculty have no input into creating institutional research agendas and need access to additional sources of data. Where can you get additional data to explore questions or look at limited evidence that has been provided? These excellent sources provide data at various levels and offer reliable information as it is officially reported by your college to external accountability reporting.

California Community College Chancellor's Office (CCCCO) Data Mart
http://www.cccco.edu/SystemOffice/Divisions/TechResearchInfo/MIS/DataMartandReports/tabid/282/Default.aspx

This interactive research site allows you to ask questions about student success, retention, awards, and student diversity by programs, colleges, or statewide. This is a powerful tool with information about your college and district.

CCCCO Accountability Report for California Community Colleges (ARCC) and ARCC Basic Skills Supplemental Report
http://www.cccco.edu/ChancellorsOffice/Divisions/TechResearchInfo/ResearchandPlanning/ARCC/tabid/292/Default.aspx

The Accountability Report are mandated reports to the Legislature which include important data about student success, retention, awards and progress statewide and by college. The basic skills supplemental ARCC contains the only real actionable data.

CalPASS
http://www.cal-pass.org/

(This requires a login that is very easy to apply for using the online request at the site. You will receive your personal login within about 48 hours and this is perhaps the most powerful database available for each individual college.)

"The only system that collects data about student success and transition from every segment of education, K-16. Informed by data, powered by inspiration and developed through collaboration—Cal-PASS partners identify problems, develop local solutions, and bring them to scale across regions and throughout California to achieve *Success at Every Level*."

CCCCO Fiscal Data resources
http://www.cccco.edu/ChancellorsOffice/Divisions/FinanceFacilities/FiscalServices/CCFS311PDFFiles/tabid/334/Default.aspx

The CCFS-311 of a community college district is the vehicle for summarizing and communicating the results of budgetary decisions and transactions of all governmental, proprietary, and fiduciary funds for each annual fiscal period.

Fiscal Trend Analysis of the Unrestricted General Fund and Other Fiscal Data
http://www.cccco.edu/ChancellorsOffice/Divisions/FinanceFacilities/FiscalServices/FiscalAccountability/DistrictFiscalTrendAnalysis04050809/tabid/1564/Default.aspx

This analysis shows five-year trends for 50% law compliance, unrestricted reserves, number of FTES and percent of budget paid to payroll. These longitudinal data provide useful information about college trends and the impact of ongoing budget and planning decisions.

ACHIEVE
http://www.achieve.org/AboutAchieve

"Created in 1996 by the nation's governors and corporate leaders, Achieve is an independent, bipartisan, non-profit education reform organization based in Washington, D.C. that helps states raise academic standards and graduation requirements, improve assessments and strengthen accountability." Data relevant to individual states are particularly helpful and can be found in the state profile data link *http://www.achieve.org/StateProfiles*

(CPEC) California Postsecondary Education Commission
http://www.cpec.ca.gov/

"The Commission integrates policy, fiscal, planning, data, and programmatic analyses about issues concerning education beyond high school to the legislative and the executive branches of California government and to the general public."

NCES—National Center for Education Statistics
http://nces.ed.gov/

"The National Center for Education Statistics (NCES) is the primary federal entity for collecting and analyzing data related to education."

NCHEMS—National Center for Higher Education Management Systems
http://www.nchems.org/

The National Center for Higher Education Management Systems (NCHEMS) is a private nonprofit (501)(c)(3) organization whose mission is to improve strategic decision making in higher education for states and institutions in the United States and abroad. *The NCHEMS Information Center for State Higher Education Policymaking and Analysis (The Information Center)* provides state policymakers and analysts timely and accurate data and information that are useful in making sound higher education policy decisions. The Information Center is a comprehensive "one-stop-shop" for state-level higher education data and information, and a leader in coordinating the collection of missing data and information that are crucial for higher education policy analysis.

Appendix B

General Data Quality Principles and Sample Questions to Ask

Begin with an overall question—What are the implications of this data on any decisions or policies? In order to describe the use of the guidelines to develop questions we will relate them to our hypothetical scenario at the Student Success Center.

Principle 1—Use longitudinal data when possible.[1]– Data collected at one moment in time will frequently change, particularly in community colleges where the student population is so diverse. While data for a given population, class or program are helpful, these represent only a snapshot of the current conditions and variables which may or may not change significantly over time. Therefore, looking at data over time provides a better picture of the dynamics and many variables that influence whatever issue faculty may be examining. You might ask, "What number of students would we target as a meaningful number of students to use this facility? Were the number of students using the facility last semester's more or less than previous semesters? What factors may have influenced this last semester's student usage number? How do faculty measure success after students use this facility? Does use of the facility increase the students' success rate or GPA over time? How has this changed over time?"

Principle 2—Use data in context. - Data without a rich and accurate context are meaningless at best and misleading in the worst case. Here, an example of data that a college should not use are student GPAs comparing the success center with the cumulative institution-wide student GPA (as provided in the scenario above)because the contexts are very different. Students directed to the center may be a particular population very different from the college as a whole, an inappropriate context in this situation. Rather faculty may want to examine student GPAs prior to using the facility and then examine this same set of students' GPAs after using the facility. You may ask whether the very purpose of the facility is to attract students with low GPAs. You might ask, "Who are the students that access this facility? Are GPAs a good metric representing the function of the center or should it focus on student success in a single course? " If this GPA comparison does not address your key questions, don't hesitate to throw data out. Instead, you might begin with broader questions: "What type of success do faculty expect from students using the Student Success Center? What is the institutional context for the center?"

Principle 3—Look for both direct and indirect data.[2] Direct data actually measure the specific information faculty want. For example, measuring whether students who attended a particular activity actually learned the skills intended using a specific assessment measures direct data. Indirect data are those metrics that measure people's perception of the activity. You might ask, "Did students who accessed the facility report that the experience was helpful?" Direct data, often more accurate as to the actual activity, often do not

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[1] Longitudinal data—A dataset is longitudinal when the same information is followed at various points in time with a goal of measuring change to inform improvement.

[2] Direct and indirect data—Direct data provide evidence of student knowledge, skills, or attitudes for the specific domain in question and actually measure student learning, not perceptions of learning or secondary evidence of learning, such as a degree or certificate. For instance, a math test directly measures a student's proficiency in math. In contrast, an employer's report about student abilities in math or a report on the number of math degrees awarded would be indirect data. Indirect data are sometimes called secondary data because they indirectly measure student performance. For instance, certificate or degree completion data provide indirect evidence of student learning but do not directly indicate what a student actually learned.

provide guidance about how to make positive changes. Indirect data often provide insights into strategies to improve current practices. Good practice uses both direct and indirect data.

Principle 4—Do not oversimplify cause and effect of data. In science, determining something does not cause a specific effect is often more important than concluding a specific cause did result in an effect. The reason for this is that until research has adequately tested all variables, one does not know that any specific cause was really the trigger, especially the only factor, causing a particular effect. Useful data never oversimplifies or over-values a single cause / effect relationship. Looking at our hypothetical scenario, one would not conclude that using the center caused a lower rate of transfer, degree, or certificate awards. One would also be hard pressed to say that the 5% of students that were successful for these outcomes were successful because of the center. There are many variables involved in any effect, particularly in education, and any one effect may have multiple potential causes.

Principle 5—Use appropriate levels of data for appropriate levels of decisions. Make decisions based on the appropriate level of data. Do not use high-level institutional data (such as degree and certificate numbers) to make changes to homework assignments, number of sections, or the continuation for this success center. This high level data may indicate some further questions, but if the decision at hand involves altering sections, use data on sections. If faculty are addressing curriculum alignment, they should use data on specific curriculum. Using data about degree and certificate awards of those who accessed the student success center may be useful to some extent, but it would be at too high a level to inform hours of operation or numbers of computer terminals within the center. Useful data have a close causal relationship to the appropriate level and authority of your target so the appropriate decisions can be implemented. In this scenario to inform hours of operation or number of computer terminals additional data is necessary. Indirect data such as student, staff and faculty perceptions about the hours of operation and direct data showing actual computer terminal use at various times throughout the day would be more appropriate to making these decisions.

Principle 6—Perception is the reality within which people operate. When people perceive something in a particular way, one must deal with that perception. If a person is wed to a particular interpretation, data will not influence that perception unless used very carefully. Perceptions are most easily gathered through surveys or focus groups. Determine what the perception is and address that perception. For instance, in the case of the student success center, asking students, faculty and administrators why students do or do not use the center provides information. The responses may or may not be factually accurate, but acknowledging what people perceive and asking how to improve the situation is important.

Principle 7—Use of data should be transparent. Stakeholders should understand how to access data relevant to them. This is in contrast to using data as a powerful tool to marginalize or intimidate people, restricting access and limiting questions about the data and implications. Questioning data and prioritizing answers that data raise should be a collegial and transparent activity. Additional sources of data and subsequent questions to inform practice should be encouraged and valued. In addition to providing the Student Success Center data, faculty and staff should be asked what additional data should be examined.

Principle 8—Consider carefully when to aggregate or disaggregate data.[3]—Data are often aggregated (combined) to protect individual identities and confidentiality. Aggregated data examine student populations or course sections in contrast to revealing individual student results or faculty performance. For the Student Success Center, data clearly identified with a particular tutor or faculty member should not be contrasted with another individual's data. Data are often disaggregated to determine more discrete information and address components of the issue more effectively. In the Student Success Center scenario one might disaggregate data by students with basic skills needs, students with a specific ethnicity or first generation college students.

Principle 9—Focus on data that is actionable.[4] - It is always important to remember that data collection does not equate to action or improvement. Even the most valid and reliable data are not a substitute for action and will not by themselves motivate action. Some data provide information that leads to improved practice. Other data does not. Beware of data that are used to grade or rank issues, unless they are based on real values for the institution and the college, and do not provide information for improvement. US News and World Report ranks colleges and universities based on issues such as endowments, selectivity, and assessment by peer institution, alumni activity, etc. How would an institution improve these ranking criteria and do they actually represent criteria reflecting quality education? No Child Left Behind (NCLB) reveals another anomaly and danger in ranking. Once you have achieved the 90th percentile, a laudable achievement, a stable ranking at this 90th percentile is considered lack of improvement, yet the effort to go from the 90th to the 91st percentile is far greater than from the 40th to the 50th percentile. Instead faculty should select data that can be acted upon and used to change practice directly related to quality education. For the Student Success Center, don't just ask how many students used the center; ask how students found the center and what additional features would make it more useful, more inviting for students to use. Concentrate on data that leads to action and can inform change, intervention, or improvement.

Principle 10—Consider implications and the "What if? - Data need to be collected, examined, interpreted, and then appropriate decisions made to apply the data to make improvements. Once you examine the data ask, "If we do nothing with this data, what will happen? Where do the data project we are going? If these data are useful, what were the major factors that influenced them? If we act upon these data, how will we monitor the effect?"

Many educational researchers have described educational data as uneven, variable, lumpy, not precise, difficult to capture and describe, multifaceted, and a real challenge. But none of these difficulties make it something faculty should ignore. Ignoring data leaves us with only intuition, gut feeling, non-substantial arguments, and ineffective advocacy. Faculty owe students and our institutions more than that. Our task is to make the invisible nature of learning and education visible to others. Faculty can accomplish this task by learning how to analyze and interpret numerical data, surveys, artifacts, and other pieces of evidence and using this information to inform our practice.

"Education is not the piling on of learning, information, data, facts, skills, or abilities - that's training or instruction-but is rather making visible what is hidden as a seed." Sir Thomas More

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[3] Aggregated and disaggregated data—When data are combined together in a group this is aggregated data, e.g., all the sections of English 1A versus individual sections. When data are separated by certain variables, e.g. ,ethnicity, the data is disaggregated. There are benefits and problems with both.

[4] Actionable data—are data that provides enough information to make changes. For instance, a school's ranking on SAT testing is not actionable. Disaggregating the school's data by average performance in math or English compared to a national average may provide information that can be addressed.

Appendix C

Federal Guidelines for Collecting Ethnicity Data

In accordance with the guidelines posted in October of 2007 by the U.S. Department of Education, colleges and districts must implement a new survey to collect and report student and employee racial and ethnic data. The deadline for implementing the new ethnic and racial data tools is the 2010/2011 academic year.

Two questions will be used when collecting ethnicity/race.

Question #1:

Whether the respondent is:

"Hispanic or Latino or Spanish Origin" OR
"Not Hispanic or Latino or Spanish Origin"
(The term "Hispanic or Latino or Spanish Origin" is defined as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race).

Question #2:

Whether the respondent is from one or more races from the following list:

American Indian or Alaska Native
Asian
Black or African American
Native Hawaiian or Other Pacific Islander
White

In addition, California Government Code Sec. 8310.5 mandates:

"…Any state agency, board, or commission which…collects demographic data…shall use separate collection categories and tabulations for each major Asian and Pacific Islander group, including, but not limited to, Chinese, Japanese, Filipino, Korean, Vietnamese, Asian Indian, Hawaiian, Guamanian, Samoan, Laotian, and Cambodian."

What are the implications of the new guidelines for assessing equity in our schools? Unfortunately, the new guidelines will have the effect of blurring the distinctions of ethnic identity among students and employees. For example, if someone answers "yes" to the first question, "Are you Hispanic?", that person will be counted as "Hispanic" no matter what other races he or she marks in question #2. About 1/2 of people who describe themselves as Native Americans also describe themselves as Hispanic, so if a Native American/Hispanic person declares "yes" to the first question, the new guidelines will ignore the diversity of this person, at least at the federal level. The effect for individuals who describe themselves as African American as well as Hispanic will be similar. People who identify themselves as "not Hispanic," but part of more than one "race" or ethnic group will be counted simply as "two or more races."

The new data and reporting guidelines will leave out many distinct cultural and ethnic groups who deserve a place in our accounting of the diversity in our institutions, such as students and employees from the Middle East and non-resident aliens who are refugees. A glance at the new federal Integrated Postsecondary Education Data System (IPEDS) reporting categories reveals the inadequacies of the requested categories:

The current IPEDS reporting categories are

1) Non-resident Alien
2) Race and Ethnicity Unknown
3) Black, Non-Hispanic
4) American Indian/Alaskan Native
5) Asian/Pacific Islander
6) Hispanic
7) White, Non-Hispanic

The new categories:

1) Non-resident Alien
2) Race and Ethnicity unknown
3) Hispanics of any race

For non-Hispanics only:

4) American Indian or Alaska Native
5) Asian
6) Black or African American
7) Native Hawaiian or Other Pacific Islander
8) White
9) Two or more races

Clearly, the new reporting categories are not much better than the old ones; they still do not begin to provide any substantial analysis of the rich diversity of our student and employee population. The California reporting categories, while more extensive, also suffer from the same lack of flexibility and accuracy in reporting the true diversity of school communities.

These changes will have serious impacts on community colleges. For example, it will be necessary to

- Revise student and human resource systems and business operations
- Revise all forms (both paper and electronic)
- Resurvey all current students and employees
- Assess institutional/state/others reporting changes

In order to make a smooth transition to the new guidelines, colleges will want to solicit campus leadership support to

- Identify a project leader and build cross-functional teams
- Implement technical revisions
- Do re-surveying and bridging between the current survey information and the new data gathering and reporting processes
- Build into budget requests such items as surveying and technology costs
- Approach needs to fit with institutional culture
- Identify and implement technical revisions such as vendor update coordination or software upgrade, web interface update, and data storage and retention

Development of more complete data gathering and reporting instruments for local and state use is necessary. Faculty and colleagues must go beyond the one-size-fits-all model and create surveys that are more open ended—surveys that allow for more complete information about employees and students. Colleges need student information that will improve the ability to understand students and provide the curriculum and support that they so desperately need. In addition, data regarding equity must go beyond race-based ideas about national origin and skin color. One example of a student survey that could be useful in evaluating access for the diverse underrepresented groups at our schools is the University of California Undergraduate Experience Survey (UCUES) *http://www.universityofcalifornia.edu/studentsurvey/about/faq.html*. First administered in 2002, this survey is also useful in designing curriculum and pedagogy as it asks for specifics about the educational experience of students.