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ABSTRACT

California's public and legislative demands over transfer performance as exemplified by the Partnerships for Excellence (PFE) Transfer model reflect a growing national trend. According to the Education Commission of the States, there has been a shift in the national mood from concern about fiscal accountability in education to one of educational accountability as evidenced by student outcomes. Approximately 300,000 of the nation's 2.2 million students who begin postsecondary studies each year in a two-year college transfer to a four-year institution within four years of original matriculation. Around 40% of bachelor's degree recipients have some community college credits on their transcripts. The implementation of performance-based funding has raised the stakes for transfer issues in the California community college. This paper argues that the PFE Transfer model has built-in contradictions that may serve to undermine the very reforms it seeks to strengthen. These contradictions appear in the access-versus-quality debate, in the reporting of unfavorable data without vital contextual information, and in the public response to this information. The author concludes that the community colleges will best serve their educational mission by doing less assessment for the purposes of ranking, screening, and comparison, and more assessment designed to inform college policy and guide educational practice. Contains 17 references. (Author/NB)

RP Group for California Community Colleges
Partnership for Excellence (PFE) Evaluation Project

A Special Review of the PFE Transfer Model

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February 2001

Our workgroup has reviewed the Partnerships for Excellence (PFE) Transfer Models proposed by the State Chancellor's Office of the California Community Colleges (SCOCCC). There are two models; one measures the movement of students from California community colleges to in-state, senior institutions, and the other is intended to calculate the rate of students prepared or eligible to transfer based on credit accumulation and completion of lower division distribution requirements typically expected of transfer students. The transfer models are in response to mandates from the Board of Governors and the state legislature to promote accountability in the state's community colleges. The purpose of developing these mandated indicators of transfer and transfer-preparedness is to comply with legislative mandates for accountability and identifying individual community colleges that demonstrate higher than expected transfer outcomes, and colleges that demonstrate lower than expected transfer outcomes. The identification of these presumably high- and low-achieving colleges, is supposed to trigger additional actions on the part of state and local college officials to reward the high achieving colleges, and to encourage improvement in the "low-performing" colleges or those placed in the bottom quartile based on the observed residual between their expected versus actual rate of transfer.

Background

Public and legislative demands over transfer performance as exemplified by PFE Transfer model reflect a growing national trend. According to the Education Commission of the States, there has been a shift in the national mood from concern about fiscal accountability in education to one of educational accountability as evidenced by student outcomes. A report recently published by the National Center for Public Policy and Higher Education (2000) indicates that over one-half of the states have higher education accountability or performance-based funding programs in place. Thus, models for developing and reporting on the transfer effectiveness of community colleges reflect a growing national trend that has taken place already in primary and secondary education. Thus, we must recognize that the data derived from the proposed transfer and transfer-preparedness model will be used by a variety of constituencies and stakeholders including legislators, governing boards, higher education scholars, policymakers, faculty, students, and journalists to judge the quality of transfer education in specific community colleges in California.

As mandated by state policy, promoted in college and district mission statements, and buttressed by historical practice, California's community colleges have primary responsibility for providing the first two years of baccalaureate education. Although transfer takes place among all types of institutions, a major avenue is from two-year colleges to four-year colleges and universities. The community colleges were organized originally as junior colleges whose main intent was to feed students from secondary schools into senior institutions. Even as those colleges expanded their functions and became known as community colleges, they sustained their original mission. According to national data, approximately 300,000 of the 2.2 million students who begin post-secondary studies each year in a two-year college transfer to a baccalaureate granting institution within four years of original matriculation. Seen from the direction of bachelor's degree recipients, around 40% of that group have some community college credits on their transcript (Adelman, 1992). The number and proportion of students beginning in two-year colleges and transferring to universities varies greatly among states and among colleges in the same state. Some of the reasons for the wide interstate disparity include the history and structure of higher education within a state. Where the two-year colleges were organized as branch campuses of the state university, the transfer rates are high; where they began as technical institutes emphasizing programs to prepare students for the workplace, the transfer rates are low. Transfer rates among colleges in the same state show wide variation because of local conditions, including community demographics and college proximity to a university campus.

Legislative Policy Interest in the Transfer Indicator

According to a recent report (Little Hoover Commission, 2000). There are two major sources of this increased interest in the quality and outcomes of community college education with respect to transfer, completion, and economic development.

1. The decreasing dollars in the public coffers and the proliferation of strings attached to those dollars, and,
2. The changing student population for whom traditional educational methods, practices, structures, and delivery systems are no longer adequate.

Although transfer in the California community colleges has been debated, studied, measured, calculated, and reported for several years now (Amsler, 1991; Cohen, 1990; Cohen & Sanchez, 1997; Armstrong, 1993; Armstrong & Barnes, 1995; Armstrong & Takahata, 1993; Rasor & Barr, 1995; Spicer, 1996; McIntyre, 1987; Slark & Bateman, 1983), the implementation of performance-based funding has raised the stakes considerably. Despite this vast corpus of research, the debate still continues over how to best to measure and report the community college contribution to student progress toward the baccalaureate in California higher education. With respect to the proposed transfer model, it appears that the conceptualization, organization, rationale, and development of operational measures would benefit from examination of past research in this area. A review of the model does not suggest that the development of the model was informed by past research that would help place this model in context with other models, inform the indicators and predictor variables, and specify other possible "adjustment variables" that might improve the accuracy and usefulness of the model. We believe this would greatly help in adding needed refinements to the model to improve its perceived accuracy, fairness, and as a tool to inform college practices.

Transfer effectiveness indicators have now become a "high-stakes" measure. For example, a primary issue with respect to legislative concern over accountability and performance outcomes is public relations. Community colleges find themselves in competition for increasingly scarce public dollars and positive legislative attention. It is believed that engaging in accountability and performance-based measures will result in more attention to the success (or lack thereof) of various college programs and provide an indication of where resources are needed or how resources—staff, time, and money—are re-deployed.

Limitations of the Proposed PFE Transfer Model

From a review of the literature on community college accountability and state governed performance-based funding mechanisms, a framework for assessing the value of an indicator system can be derived. This framework contains four general criteria for assessing the value of an indicator system that seeks both to inform and improve college outcomes such as transfer. These are listed below:

1. Accountability can be a powerful tool for institutional change,
2. Accountability can be useful for reassessing and redesigning curriculum, and educational programs and services,
3. Assessment forces institutions to come to agreement on the types of students they are serving, and,
4. Accountability helps to maintain public confidence in higher education.

Given this framework for determining the value of an indicator system for higher education and community colleges, the question, in my view, focuses on whether the proposed transfer model will accomplish any of the four criteria outlined above. Although the number of variables available to the SCOCCC has the potential to provide useful, change-instructive data for colleges to use in improving the conditions for transfer and persistence, the model as currently proposed does not appear to provide sufficient information to assist in addressing any of the four criteria for a useful indicator system.

Transfer Indicator as a Tool for Institutional Change. The most important feature of a transfer indicator is the use of this statistic. Group members expressed concern over how the results were to be interpreted and used at the state level. To be most effective, and to best serve the needs of students and policymakers seeking improved transfer outcomes, the transfer rate and readiness indicator should be used as feedback to college leaders to enhance their understanding of those educational practices that are most likely to add value, or enhance talent development in students. Specifically, to the extent possible, the feedback from the proposed transfer model should be designed to illuminate the **connections** between different educational policies and practices and student transfer outcomes. It is not clear how this model will illuminate those connections. Indicators might suggest if things are going wrong, however, tell us little about how to make things better.

The model as currently proposed offers little with respect to the redesigning and transforming curriculum and educational programs and services to improve transfer outcomes. The focus on an outcomes only approach with scant attention to the context that produces change in the dependent variable of transfer rate or readiness may not produce the kind of information that college leaders can use to redesign curriculum or services to improve transfer if necessary.

Agreement on the Types of Students Served The PFE Transfer model of accountability appears to assume that there is agreement and commonality as to the goals and missions of the state's 108 community colleges and the students they serve. A cursory look at the colleges and the community of learners they serve demonstrate that variation is the norm rather than the exception. The California community colleges are highly idiosyncratic and not monolithic institutions. For example, some policymakers believe that the colleges should emphasize the collegiate, lower division function with a liberal arts emphasis. Others argue that we need to better prepare workers to be adaptable in our rapidly changing workplace and to emphasize the career function. Still others are concerned about low levels of literacy, numeracy, and English language ability and emphasize the developmental function of the colleges. Some policymakers and advocacy groups cite the growth in, and isolation of, our older adults and disabled populations and press for community service programs in health, independent living, social interaction and other community courses. However, the PFE accountability system appears to assume that mission consensus has been achieved by administrative fiat. This externally derived consensus may have little effect on how individual communities view or use their local community colleges. Thus, the community context, including demographics, and socio-economic indicators of a service area are valuable for considering and adjusting for the collegiate context. The proposed PFE Transfer model should seek to emphasize these differences and how this variation contributes to observed differences in the transfer rate or readiness among students.

Maintain Public Confidence in the Community College Transfer Function. By legislating indicators, and, as some have suggested, outcomes, the PFE Transfer model contains built-in contradictions which, in practice, may serve to undermine the very reforms it seeks to strengthen. This issue strikes at the core of the current debate over the community college mission, that of access vs. quality. Many persons equate open admissions with the absence of any academic performance criteria in the admissions process. However given the increasing diversity of incoming student educational skill levels coupled with funding restraints on the one hand and legislative demands for accountability on the other, community colleges may be compelled to make fundamental choices about their future and who they are to serve. Another contradiction in the model is centered on the issue of reporting unfavorable data. State level policymakers are interested in a system to inform the allocation of resources to districts with positive indicators, while local decisionmakers are interested in obtaining local data for program review and improvement. The reporting of unfavorable data in the absence of vital contextual information may actually have negative effects on improving the college efforts at transfer. Another possible contradiction may be found in the public response to this information. A stated goal of the Accountability system is to obtain funding from the public and the legislature by demonstrating the effectiveness of the colleges. As suggested by Oakes (1986, p. 30), this strategy may backfire. The public may view positive reports of college effectiveness as an indication that all is well with the system, and not approve additional funding beyond current levels. That is, good news may breed complacency. Or, if reports are issued that are critical of the college's effectiveness, the effect may be to punish the unaccountable colleges for mal-feasance and vote to cut or limit funding. Public support may actually decline.

As stated earlier, more and more pubic entities are competing for increasingly scarce public dollars. This is occurring in practically every state and in virtually all public segments. This problem is exacerbated in states such as California where term limits on serving in the legislature have been imposed by voters. Thus, knowledge of the community college mission, priorities, system, the communities they serve, and the relation of the public two-year colleges to other segments of primary, secondary, post-secondary, and higher education must be learned anew among successive cohorts of new legislators coming to Sacramento every few years. With the diminished corporate memory with respect to the multiple roles served by the state's community colleges, newly elected officials increasingly want to know if pubic dollars are being invested wisely and want to be provided with supporting information and evidence to justify educational expenditures. In this environment, the proposed transfer model may assume great importance in informing legislative judgments about college quality. It is also highly plausible that judgments and college rankings with respect to achievement on a performance indicator will also affect resource allocation for individual community colleges.

In this increasingly skeptical and competitive legislative environment, any attempt to model outcomes must strive to both educate and provide an indicator of effectiveness that is accessible, understandable, and easily communicated. Perhaps most important, the model must strive not to produce outcome indicators only, but focus on the environmental or contextual variables that have a positive impact on transfer effectiveness. The model as currently proposed was found by reviewers to be unclear, particularly with respect to the conceptualization of the model, and the operational definitions of the variables.

Methodological Concerns

Group members also expressed concern over the methodological considerations of the proposed PFE Transfer rate and readiness model. The model communicates some confusion as to the unit of analysis. Although a college rate of transfer is derived, these indicators are derived from student level variables. Assuming that all variables are available for each student after listwise deletion, how does this affect the composition of the final sample? In addition, although the model makes strenuous efforts to ensure random selection of cases (students) for analysis, in the final iteration of the model, the focus of the analysis shifts from students to colleges and districts. Thus, the effects of randomization appear to have been lost. The model as proposed appears to have a built in bias toward colleges with larger enrollments. As stated by one reviewer, in the final analysis, the model does not so much "level the playing field" as much as it seems to construct the playing field along the lines of a community college with a large enrollment.

Also, it is difficult to judge if the model accurately portrays the actual distribution of student characteristics. The distribution of the continuous variables were not available for review by the panel. It is also not clear how missing data will be handled by the model, whether this will be done by mean substitution, or derived from known data about the students already collected to impute the missing value.

Given the large sample size, the question of the defensibility of the inferences made by the model merit further examination. With such a large sample, the probability that statistical significance will be found, and the variable will be allowed to remain in the model as a predictor is high despite relatively low correlation coefficients. Thus, there is a potential problem with statistical versus practical significance. This problem is also generally linked to the problem of constructing a model using a statistical package rather than formulating a model based on a more careful mining of the literature on transfer and testing it. The model appears to use variables that are available to the MIS system, and does not seek to include variables on student behaviors, activities, course taking patterns and other data that have been shown to have a link to student transfer. The use of student intent as a predictor for example, versus a confirmation of whether the student actually behaves in a transfer-directed way (e.g., passes freshman composition or transfer level mathematics) suggest that the model might be constructed on the basis of what is available rather than what has been shown to work. The lack of student behavioral information suggests that the model may function statistically, but is a mis-specified or under-specified model. This is particularly true if college leaders are to use the transfer data as feedback for improving transfer outcomes at their college.

Recommendations for Improvement in the Development of the Transfer Model

The foregoing critique is not intended to suggest that the development of a explanatory model should not proceed. Rather it appears from the work already accomplished, that there has bee considerable thought and time invested in the development of the expected versus actual transfer model. I believe that I speak for the members of my review team in noting that without thoughtful intervention by researchers and practitioners in higher education, that the meaning of indicators and the setting of standards for excellence will fall to politicians, journalists, and external analysts rather than educators. This problem was also observed by RAND with respect to the growing use of performance indicators in the primary and secondary school systems (Oakes, 1986). Without presenting indicator data in a context that yields greater meaning, higher education institutions run the risk that policymakers and the public will misinterpret the data. Often, poorly thought-out policy is the result.

The statement of the problem could benefit from some discussion of how we ought to ***connect*** the relations found between certain input and process indicators and desired outcomes as shown by indicators. That is, if a relation is found between student characteristics and transfer rate or readiness, what are we to infer? The author could have discussed here how this study could be used to identify input and process factors that lead to observed differences in institutional transfer rates and proportion of students who are transfer prepared.

Determining if the measures used are adequate to address the research questions posed is hampered by the lack of clearly stated hypotheses derived from theory. For the proposed model, the author develops a method to categorize adjustment and other variables using a scheme which groups certain data as input, adjustment, and outcome. The use of these terms in categorizing these indicators is somewhat confusing since in the analysis they are not blocked or grouped according to any clearly explained rationale. In addition, because these data are thought to be indicators of quality, they all appear to be just as easily categorized as input variables for determining institutional transfer rates in one regression equation, and later grouped according to input and adjustment variables for explaining variance or the connections between college transfer rates and readiness. In this way the proposed model might be strengthened in terms of connecting the input-process-outcome variables to better understand the relation among these three sets of indicators.

Some are concerned about the use of transfer effectiveness information. This is particularly true with respect to the derivation and application of a single transfer indicator that may be used to allocate or reduce resources to particular colleges. Although PFE, as originally developed, sought to focus on systemwide indices of quality assurance and eschew inter-institutional comparison, such institutional comparisons are becoming the norm.

The model as currently proposed appears punitive with respect to reporting transfer outcomes. We recommend a re-emphasis of the proposed model from focusing on the deleterious effects of being counted as a "low-performing" transfer college, to a model that provides contextual information for college improvement. Such a re-emphasis would go much further in promoting the ostensible goal of accountability which is to improve college and student performance.

Ideally, then, a system of indicators measures distinct components of the system of interest, and also provides information about how the individual components work together to produce the overall effect. Indicators may be useful standard bearers for an institution when they are composed of contextual and process variables that suggest the *environment* for positive change that mediates policy inputs, student characteristics, institutional climate and socio-historical characteristics in building composite indicators of educational vitality in the community colleges. By focusing on the inputs, context, processes, and environments of the various community colleges, legislators and educators can seek to improve educational practice by suggesting how outcomes are affected by different educational policies, practices, environments, and contextual variables. In this way, indicators can begin to inform policymaking about what combinations of inputs, contexts, environments, produce observed outcomes. We can begin to use such a system to track and collect data on how we can act to improve learning outcomes for students.

We may want to consider grouping institutions for comparison purposes. This is done in several state Accountability systems. For example, in California, elementary and secondary schools are grouped according to characteristics of the students attending. Grouping variables include parent education and occupation, percent of limited English proficient students, mobility rates (students entering and leaving a school during the school year), and the percent receiving Aid to Families with Dependent Children (AFDC) (Kaagan & Coley, 1988). Thus, in the K-12 system, California has attempted to group different schools according to certain socio-economic and educational characteristics. This is in itself a recognition of the importance of context variables.

A major problem of inter-college indicators is that they are generally designed to assess the environment of the total college rather than the environment actually encountered by individual students within the college. An important, but often overlooked distinction particularly when dealing with institutions of tremendous variation in enrollment and size, is the importance of the "sub-environments" of the college. Thus, environmental proxies such as those proposed by the PFE model that purport to capture and describe the total institutional environment may not be useful because they will confound these subenvironmental differences. Therefore the model may need to gather additional data as to the particular environment encountered by the student, whether this is a college major, participation in a remedial program, members of a peer group, or the quality of effort demonstrated by the student. This may be available to the researchers conducting the study, or questionnaire data can be used and integrated with other contextual data to identify environmental factors that have some practical effect on the transfer outcome. Now the model shows a disturbing paucity of student experiential data that may have a highly significant relation to persistence and transfer.

As suggested earlier, the model appears to have been created with scant reference to prior research in the area of student transfer. Rather than relying on a single measure to describe the transfer effectiveness of an institution, perhaps the authors can also present alternative measures of the transfer rate using nationally accepted and reported models. Several come to mind such as the transfer rate determined by Adelman, Cohen, Grubb, McIntyre, and NCHEMS. This would also help to educate the non-research audience as to the variability of the transfer rate depending on who is included in the denominator.

There is also some concern over the adequacy of transfer data. Although the data from public, in-state universities appear generally reliable, it is less certain that data from the private and independent colleges and universities will be complete. Also it should be stressed that the model will also miss many students who transfer to out of state institutions. In addition, the model imposes an artificial time constraint on the transfer of students that does not reflect the actual course taking patterns and completion rates of students (Adelman, 1992). Thus, the actual number of students transferring will almost always be understated. Although we recognize this as unavoidable, it must be stressed to the various audiences for these data that the problem of under-reporting exists with respect to actually counting the transfers.

Summary and Implications

As it is currently proposed, the PFE transfer model makes some fundamental assumptions about the community colleges and their post-secondary education and training role. The PFE model has two underlying assumptions that resemble Levin's (1974) description of the "political accountability model." This model is characterized by the following:

1. There is little or no unanimity about program goals, and,
2. The performance information will be used differently by different groups depending on their preferences and their stake in the struggle for control of program resources and influence (pp. 368-369).

Community colleges occupy a unique position in the education spectrum. They are institutions with broad comprehensive missions and multiple foci. They are to serve as open-access, low cost institutions with little or no requirements for matriculation that provide the first two-years of education leading to the baccalaureate, career education designed to make students employable, as well as an array of community service and general education functions. As "democracy's colleges," they are to serve as a bridge to the universities from the high schools for all who choose to enroll.

Herein lies the difficulty with the application of broad indicators such as those proposed by the PFE Transfer rate and readiness model. While indicators, like the dials on an instrument panel, tell us something about the institution, they do so in a way that reveals little about the what the indicator reflects, the context, and the environment. Thus, their meaning is often unclear. Differences among institutions and the community of learners they serve, mean that, although two colleges may achieve the very same results on certain indicator, their actual *accomplishments* might vary considerably (Oakes, 1986). As stated by Kaagan & Coley:

> The usefulness of an indicator rests on its ability to show what happens over time, what it can say about the performance of a school or district compared to other schools or districts, or how the condition it measures compares with societal needs or expectations (Kaagan & Coley, 1989; p. 7).

Comparing readings across time or locations doesn't tell us whether conditions are bad or good, it only tells us whether things are better or worse. If we have only indicators of how well the colleges are meeting important goals such as transfer, we would lack other information—teacher quality, instructional processes, resources and materials—needed to judge the overall condition.

Ideally, then, a transfer rate model measures distinct components of the collegiate context and also provides information about how the individual components work together to produce the overall effect on transfer. Indicators may be useful standard bearers for an institution when they are composed of contextual and process variables that suggest the *environment* for positive change that mediates policy inputs, student characteristics, institutional climate and socio-historical characteristics in building composite indicators of educational vitality in the community colleges. By focusing on the inputs, context, processes, and environments of the various community colleges, legislators and educators can seek to improve educational practice by suggesting how outcomes are affected by different educational policies, practices, environments, and contextual variables. In this way, indicators can begin to inform policymaking about what combinations of inputs, contexts, environments, produce observed outcomes.

We can begin to use such a system to track and collect data on how we can act to improve learning outcomes for students.

In short, the community colleges will best serve their educational mission by doing less assessment for the purposes of ranking, screening, and comparison, and more assessment designed to inform college policy and guide educational practice. Rather than viewing a transfer indicator as a comparison of college status, or relative rankings, we need to view it more as a method for determining what we do and what we actually accomplish.

We are still at the early stages of the implementation of the PFE indicator system. Much remains to be accomplished and modified given the recently completed field test of the model. There is an opportunity here to refocus the system on a value-added approach. Modifications to existing plans, such as database composition and greater use and modeling of environmental and student level data would be needed. Indicators can be added, and systems for providing useful and change-instructive feedback to the colleges developed.

In summary, the impetus for change exists, the mandates for improvements are legislated, the essential ingredients are there. What is needed now is the will to change our philosophy of accountability and performance assessment. Given the educational and training needs of our citizenry, and the relative paucity of information in education about *what works*, we should do no less.

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