GOIN' THROUGH CHANGES:

A STUDY OF INSTITUTIONAL ADJUSTMENTS TO CENTRAL NEED ANALYSIS

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Ever since the College Scholarship Service (CSS) began to provide central processing of need analysis documents in 1959, a statement like the following has appeared in the manual describing that central need analysis processing:

> "Complexities in individual family financial circumstances and difference in attitudes toward education will require that an aid administrator consider adjustments if appropriate for a specific family . . . A system of need analysis must always be a guide for judgment, not a substitute. A financial aid administrator has a professional responsibility to make equitable judgments about each individual family . . ."

In less elegant language, this admonition suggested that financial aid administrators should make changes in need analysis — and the indications are, and have been, that they do. But there had never been a large-scale systematic study of the number, kind, and impact of the changes which are made. Various reports from individual aid administrators indicated that many changes were made but documentation was non-existent.

This report, prepared by CSS itself, presents information on the actual changes made to need analysis reports by nine institutions. The data presented here reflect the actual experiences of those nine with the Parents' Confidential Statements (PCS) which they received between September, 1974, and May 1975, — more than 16,500 individual documents from aid applicants and their families.

As a field-test of a new service [the Institutional Verification and Adjustment Service which is now an operational part of the CSS services for the Financial Aid Form (FAF)], CSS asked seven campuses of the California State University and Colleges and two campuses of the University of California* to record all of the changes that they made in reviewing PCS forms

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on a special turn-around document. The changed data was then re-calculated by CSS using the same procedures as normally followed in central need analysis processing. This made it possible not only to record the number and kind of changes that the instututions made but to evaluate the impact of those changes on measures of family financial strength and contribution.

The field-test institutions were sent Supplementary Information Statements (SIS) for all PCS forms which had been directed to them by students and parents applying for aid for the 1975-76 academic year prior to May 15, 1975 — a total of 16,666 individual forms. Of this group 58.6 percent had not completed the application process and were considered by the institutions to be "inactive", with no review of their financial statements having been conducted. The remaining 6,899 (41.4 percent of the total) were actual applicants under consideration for aid awards whose PCS forms had been reviewed by the aid administrators. The statistics which follow describe the changes and adjustments made to those 6,899 forms as the aid administrators exercised their "professional responsibility to make equitable judgments. . .".

How Many Actually Were Changed — and Why?

Of the original sample of 16,666 cases, one in eight (12.6 percent) was not returned to CSS for processing. Of the remaining processed cases, 9,767 were not active aid applicants, 2,068 were active aid applicants where no change had been made in the central need analysis, and 2,717 were active cases where one or more changes had been made by the institutional aid administrator. *Among the active cases returned for processing,* 43.2 *percent had not been changed during the institutional review process and* 56.8 *percent had been changed.*

The institutions participating in this field test uniformly require that aid applicants and their parents submit copies of the IRS Form as a part of the aid application process. Data from the IRS Form was the most frequently cited reason for change. Among the active cases with changes, IRS data was cited as the *sole* reason for change in 45.6 percent of the cases and as one of the reasons for change in 78.0 percent of the cases. Institutional judgment or policy was cited as the sole reason in 7 percent of the cases and as one of the reasons for change in 38.3 percent. New data from the student or parent (other than that provided on the IRS Form) was cited as the sole reason in 3.1 percent of the cases.

It was interesting to note that changes to correct data entry errors were reported in only 10 *cases* (0.4 *percent*). *Stated differently, the key-punch data entry used by CSS entered correct data in* 99.6 *percent of the cases.*

No reason for change was indicated in 7.8 percent of the active cases. Other reasons and combinations of other reasons accounted for 6.6 percent of the changes.

The following table summarizes the actions that institutions took on the active aid applicants and the reasons they reported for the changes they made.

In summary, then, of the original 16,666 PCS forms sent to the participating institutions, 12.7 percent were not returned for processing, 58.6 percent were not active aid candidates, and 28.7 percent were active candidates re-

Table 1
Summary of Actions on Active Cases
(N = 4,785)

No Change	43.2%
Changed	56.8%
Of Changed Cases	
New parent or student data	3.1%
I.R.S. data	45.6
Institutional policy judgment	6.9
Data entry error	.4
Other reason	2.1
Combinations of reasons	34.1
No reason given	7.8

quiring the review of the aid administrator. Of those which were reviewed, 56.8 percent were changed. Data which was obtained from income tax forms was the most frequently cited reason for change, influencing decisions in nearly eight out of ten of those cases in which changes were made, or 44.3 percent of all of the active cases.

There were significant differences among the field-test campuses in the percent of active cases which were changed. While the average for all campuses was 56.8 percent change of active cases, the high was 87.5 percent and the low 12.1 percent. Interviews with the aid administrators at these two campuses identified the reasons for the great disparity in percent change. At the campus where 87.5 percent of the active cases were changed, the policy was to make a change if there was even $1 difference in income reported on the IRS form as compared with the PCS. At the campus where only 12.1 percent of the cases were changed, differences of up to $2,000 were considered "acceptable" and adjustments were made only where discrepencies of more than that amount were found.

What Kinds of Changes Did They Make?

The system being tested at these institutions permitted changes to be made to the original data provided by the parents on the PCS (such as the amount of dividends and interest received as income) or to items calculated by CSS as part of the need analysis processing (such as medical and dental allowances which vary on the basis of income). The statistics which follow describe the actual changes made by the institutions to the 2,717 active cases where one or more item was altered. It should be remembered that these cases represented less than six out of ten of the actual active cases being considered for aid by these institutions.

As might be expected from the reasons given for changes described in the preceding section, income items were the most frequently changed. In only 17.7 percent of the cases was there no change in one or another of the reported sources of income. Father's income was the most frequently changed, with 51.9 percent of all active change cases having an adjustment made to father's income. Dividends and interest was the next most frequently changed

item (26.6 percent of all active cases with changes) followed by mother's income (23.2 percent). Other taxable income was changed in 11.7 percent of the cases, Social Security benefits in 7.3 percent, business and farm income in 5.1 percent of the cases, and other kinds of income (including Veterans benefits, welfare, and "other income") were changed in 11.2 percent of the cases.

Two measures of the impact of change were calculated in the analysis. The first which will be labeled "gross change," is the average dollar value of change without regard to whether the change was an increase or a decrease. The second, which will be labeled "net change," represents the average change with the direction of change included. For example, if one case had income increased by $2,000 and another had income decreased by $1,000, the gross change would be $1,500 ($2,000 + $1,000 divided by 2) while the net change would be $500 ($2,000 — $1,000 divided by 2). The gross change represents the total dollar impact of the changes while the net change represents the savings (or loss) which would have been realized because of the changes. The following table summarizes the changes made to income items by the field test participants:

Table 2
Changes to Income Items

Item	% Changed	Gross Change	Net Change
Father's Wages	51.9%	$2,818	$655
Mother's Wages	23.2	1,674	491
Dividends & Interest	26.6	431	182
Business/farm Income	5.1	2,793	629
Other Taxable Income	11.7	1,776	368
Social Security Benefits	7.3	927	-195
Veteran's Benefits	1.1	2,148	1,168
Welfare Benefits	3.3	819	224
Other Income	6.8	1,582	656

When all of these changes were combined, 82.3 percent of the active cases with changes had at least one income item altered on the basis of the financial aid administrators' review. In 17.3 percent of the cases the change resulted in a decrease in the net income (the sum of all the income items) and in 65.0 percent there was an increase in net income. In 27.2 percent of the cases the change was less than plus or minus $250 (approximately the amount which would represent a $50 change in parental contribution at the lowest taxing rate). The gross change to net income averaged $2,159. The net change averaged $1,161.

Concomitant with these changes in income, the institutions made changes in allowances against income. Federal income tax was changed in 71.1 percent of the cases, state income tax in 42.8 percent, medical and dental allowances in 35.9 percent, FICA tax in 19.4 percent, emergency expense allowance in 12.8 percent, working spouse allowance in 5.1 percent, and the allowance against income for indebtedness in 0.6 percent of the cases.

Because of the interaction of these changes in allowances with changes in income, only in 9.4 percent of the cases was there no change in the fam-

ily's "effective income" (in CSS terms the net income minus the allowances mentioned above). The percent of cases in which effective income was increased remained about the same as that for increases in net income, 66.2 percent, but the cases in which effective income decreased rose to 24.4 percent. Seated differently, in 1.2 percent of the cases the changes in allowance items acted to raise income even further, while in 16.5 percent they acted to reduce income or to offset increase representing institutional changes.

There is further indication of the offset action of the adjustments to allowances in conjunction with the changes in income items. The gross change to net income of $2,159 resulted in only a $1,893 gross change in effective income (a 13 percent smaller change) due to the offset of the allowance changes. Comparably, the net change to net income was $1,161; the net change to effective income was only $692 (a 40 percent smaller change).

Changes to asset input items were much less frequent, as might be expected from the reason for changes described earlier. The IRS Form 1040 contains little information which directly relates to the family asset holdings. Some inferences can be made about assets such as residence equity (from mortgage interest or property tax) if Schedules A and B are collected (which generally is not the case) or about investments and savings accounts (from interest and dividend reporting), but aid administrators are generally less willing to act on such inferential data. In nearly all of the asset adjustments, the changes represent increases.

Liquid Assets in the form of cash, savings, and investments such as stocks and bonds was the most frequently adjusted by the field test institutions. *Cash and Savings* was changed in 21.9 percent of the active cases with changes; *Other Investments* was changed 6.0 percent of the time. Residence equity was changed in 3.2 percent of the active cases with changes, other real estate equity 0.6 percent, and business/farm equity 0.9 percent of the time. The table on the following page summarizes the changes to these asset input items.

Debt Outstanding was changed by the institutions in 11.2 percent of the active cases with changes. Nearly all of these changes were decreases in the amount of debt recognized (only 3.6 percent of the changes were increases in the allowable debt; 96.4 percent were decreases). The direction of these changes are reflected in the gross and net amounts: while the gross change was a positive $1,766 the net change was a negative $1,388. While the actual number of cases in which these changes took place was small (only 305 cases had changes in the allowable debt), there is a rather clear indication that aid officers frequently disallow indebtedness. Further, it is likely that these changes reflect institutional judgment or policy. Debt repayments are not reflected on the Form 1040 except in the Schedules A and B which generally are not collected by the institutions.

The impact of these changes to asset items is somewhat difficult to evaluate because of a problem with the original data collection from the institutions. A capacity was provided to adjust the "income supplement" calculation directly, ie., to make a change to the calculated item with or without making a corresponding change to an input asset item. Two of the

Table 3
Changes to Asset Items

Item	% Changed	Gross Change	Net Change
Residence Equity	3.2%	$1,808	$1,744
Other Real Estate	.7	1,657	1,637
Cash, Savings, Etc.	21.9	6,156	3,516
Other Investments	6.0	9,456	3,548
Business/Farm Equity	.6	4,652	-965
Debt Outstanding	11.2	1,766	-1,388

institutions which participated have a policy of not accepting a negative income supplement, and in consequence made those adjustments directly. In the original data collected from the institutions, 27.3 percent of the cases with changes had a change in the income supplement, with 94.8 percent of the changes being increases caused by disallowance of the negative supplement.

Consequently, while recalculation of the data shows that 40.0 percent of the income supplements were changed, there is an unknown amount of duplication in changes made by the institutions and changes which were the result of changes to input items. This inability to specify exactly which changes were made and which were results does not influence the ability to determine the ultimate impact; it simply makes it impossible to describe accurately the impact of changes to asset input items on the income supplement. For the record, the mean gross change to income supplement was $269; the mean net change was $221 with 40.0 percent cases with changes having them in income supplement.

In two cases the institutions reduced the age of the father used in calculating the retirement allowance. In no case was the age of the mother changed. In 24 cases (0.9 percent) the number of children in the family was changed, with 37.6 percent of the changes being *increases in the number* and 62.4 percent decreases. In 31 cases (1.1 percent) there were changes in the number of other dependents (41.2 percent of those changes being increases and 58.9 percent decreases). In 38 cases (1.4 percent of the total cases with changes) the number of children in college changed with nearly all (92.1 percent) being decreases.

The net result of all of these changes to income, allowances, assets, income supplement, parental age, number of children, etc., was that 95.2 percent of the cases had some change in the "adjusted effective income," the measure of family financial strength which derives from all the earlier items and from which the parental contribution is determined. Since all of the cases reported in this section had one or more changes made, this is another way of saying that in only 4.8 percent of the cases did the other changes have no impact on the resultant measure of financial strength. In 83.8 percent of the cases with changes the total impact of institutional changes was greater than plus or minus $250 – the approximate level of change which would produce an increase or decrease in parental contribution of more than $50. The mean gross change to adjusted effective income was $2,071; the mean net change was $843. In 21.3 percent of the cases the changes were decreases,

in 4.8 percent there was no change, and in 73.9 percent the changes represented increases in the adjusted effective income.

With the exception of the expectation from summer savings (which was changed in 23.4 percent of the cases as a reflection largely of institutional policies), the institutions made relatively few changes in student contribution input or calculated items. Student total assets were changed in 37 cases (1.4 percent) and student asset contributions were changed in 73 cases (2.7 percent). Social Security Benefits were changed in 179 cases (6.6 percent), Veterans Benefits in 19 cases (0.7 percent), and other payments to students changed in 23 cases (0.8 percent). In general, the mean amounts of these changes were small and the changes divided between increases and decreases.

So What Did It All Mean In The End?

While technically the process of determining the ability of a student and family to contribute toward the costs of education involves both the determination of family financial strength (and adjusted effective income is one primary measure of family financial strength in the need analysis process) *and* assessing an expected contribution against that measure of financial strength, it is the second step that really is the objective of the financial aid administrator on the campus. All of the previous numbers relate to the impact of changes made by the administrator on the measure of family financial strength. This section discusses the real impact of those changes on student aid awards — what did they mean in terms of actual changes in the parental and total family contribution that would be expected from these families by these institutions in the actual determination of aid awards.

First, it must be remembered that in 43.2 percent of the active cases — students who had completed the application process and were under active consideration for an award — *the need analysis produced by the CSS central processing system was accepted without change.* And the institutions participating in this field trial require that the IRS Form 1040 be submitted as a part of the application process. So it would appear that more than 43 out of every 100 active applications processed by these institutions did not require any adjustment beyond that which had been provided by the regular CSS central processing.

Of the remaining 56.8 percent of the cases, changes made by the institutional aid administrator resulted in no change in the calculated parental contribution in 8.1 percent of the cases. In other words, while the aid administrator made changes to the input and calculated items, those changes had zero dollar impact in just over 8 out of 100 of the cases. The percentage of unchanged cases among the total active applicant group increases to just over 51 out of every 100 (51.3 percent to be precise). In an additional 19.1 percent of the cases, the resultant change to parental contribution was less than $100 plus or minus. So in just over 70 out of every 100 cases (70.4 percent) of the active cases, the standard central processing system produced calculated parental contributions that were within $100 plus or minus of what the aid administrator would have determined *after* careful review

and comparison of the PCS and FNAR with other data and the IRS Form 1040.

Among the active cases with changes, 19.0 percent resulted in decreases in the expected parental contribution, 8.1 percent in no change, and 72.9 percent in an increase in the parental contribution. The mean gross change in parental contribution was significant. For those active cases with changes the gross change was $481, while the net change was $274. In terms of all the active applicants the average net change would be $155, that is, an increase in expected parental contribution of $743,528 for the total active applicant group of 4,785 students.

When total family contribution (parental and student contribution) is considered, the results are somewhat different in terms of their application to the individual student but not dissimilar in terms of the total group. There were fewer cases where the total family contribution was unchanged (5.0 percent among the active group with changes compared with 8.1 percent among the same group for parental contribution) and a smaller percentage where the changes were less than $100 plus or minus (17.1 percent compared with 19.1 percent). The total group (including those where no change was made) with total family contributions within $100 plus or minus what had been centrally calculated was 65.3 percent of the total active applicant group.

The gross change in total family contribution averaged slightly more than that for parental contribution, $538 compared with $481, while the net change averaged just slightly less, $271 compared with $274. In terms of all active applicants, however, the net change would represent $154 for each student and an increase in expected total family contribution of $737,469 for the entire active group.

Table 4
Changes in Expected Contribution
(N = 4,785)

	Parental Contribution	Total Family Contribution
Active cases where no changes were made by aid administrators	43.2%	43.2%
Cases where changes made by aid administrators did not alter contribution	8.1%	8.1%
Cases where changes made by aid administrators altered contribution ± $100	19.1%	17.1%
Cases where changes made by aid administrators altered contribution more than $100	29.6%	31.6
Gross change, all actice applicants	$481	$528
Net change, all active applicants	$274	$271

It is significant when the institutional financial aid administrator exercises professional responsibility and makes adjustments to the need analysis provided centrally. Had the students in this study group been the actual aid recipients at a single institution (which would not be unlikely at a major public institution), the review conducted by the aid administrators would have resulted in the award of about three-quarters of a million dollars *less* in aid. The exercise of "professional responsibility to make equitable judgments" would have resulted in substantial increases in equity among aid candidates.
