The effects of economics courses on student opinions toward controversial economic issues cannot be measured by two widely used instruments, "Test of Economic Understanding" and "Test of Understanding in College Economics," both developed by the Joint Council on Economic Education. In response to this need, a workshop of college economists at Carnegie-Mellon University developed an experimental "Survey of Opinion on Economic Issues (SOEI)". (Copies are available from the author, Room 637 East Building, New York University, 23rd Green Street, New York, New York 10003.) This paper reports results of a study which compared pre- and posttest responses of two groups of education students, one class made up of students preparing to teach social studies, the other secondary business courses. Each group was enrolled in separate economics courses, with different instructors, who also took the SOEI. In addition to differences between the two groups, also reported are differences within the groups before and after their courses. A further comparison is made between the groups and a heterogeneous sample of students from a midwestern college. Most of the paper is devoted to speculation about the interpretation of responses. Since the SOEI is experimental, the author is seeking reports by other educators who have used the test. (DJB)
Great strides have been made in recent years in developing tests to measure student knowledge and understanding of basic economic facts and principles. The Test of Economic Understanding, developed in 1963 by the Joint Council on Economic Education and published by Science Research Associates, has been widely used throughout the nation in both secondary school and college-level classes. More recently (1968), the Joint Council has developed a Test of Understanding in College Economics. This higher-level instrument, published by the Psychological Corporation, is being used to evaluate economics courses, methods, and materials in many colleges and universities. All teachers of economics and related subjects make some effort to ascertain the effectiveness of their courses, if not through such nationally normed tests as these, at least through evaluation instruments of their own construction. Very few efforts have been made, however, to determine the possible effect of a course on student opinions toward controversial economic issues.

During the summer of 1969, a group of college economists attending a workshop on economic education research at Carnegie-Mellon University developed an experimental Survey of Opinions on Economic Issues.¹ The Survey

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¹ Economists and educators interested in using the Survey may obtain copies from Dr. George Dawson, Room 637 East Bldg., New York University, 239 Green Street, New York, N.Y., 10003. Since the Survey is considered to be in an experimental stage, those using it are requested to report the results to Dr. Dawson.
is made up of 35 statements relating to economic issues. Persons taking the test are to check Strongly Agree, Agree, Undecided, Disagree, or Strongly Disagree in a space before each statement. The Survey is being administered to college and adult groups throughout the nation. During the 1969 Fall Semester, it was administered at the beginning and at the end of two courses at New York University's School of Education. One course was a standard three-credit course in principles of economics, with the emphasis upon macroeconomics. The class was made up of 34 undergraduate students who are planning to become social studies teachers in the secondary schools. The second course was a four-credit course offered by the Department of Business Education entitled "General Business Education." This survey course included such economic topics as inflation, profits, the consumer, unions, and taxation. The class was composed of 17 students planning to become business teachers in the secondary schools. Both instructors took the pre-test and the post-test.

Basically, we hoped that the Survey would provide answers to two questions -- 1) "Do business education majors differ from social studies majors in their economic opinions?" and 2) "What changes in opinion (if any) occurred during the courses?" The answers, of course, would apply only to the two groups tested. The small size of the population tested, and the possibility that these students were not typical of business education majors and social studies majors throughout the nation, make it impossible to generalize from our findings. First we shall give some details on the results, and then attempt to suggest possible implications.
There were some clear-cut differences between the two classes, although many individual variations within each group were noted. The greatest differences appeared in relation to items dealing with the free enterprise system. On the pre-test a majority of both classes agreed that "Economic progress in the United States is explained largely by the free enterprise system." The percentage agreeing was 76 for the business students and only 56 for the social majors, however. (At this point we are making no distinction between Strongly Agree and Agree -- the results are added together and categorized as Agreement.) On the post-test 88 percent of the business students and 72 percent of the social studies majors agreed with that statement. The movement of the social studies group toward greater agreement cannot be explained by any conscious or deliberate effort on the part of their economics instructor. He had checked undecided on both the pre-test and the post-test.

At the beginning, a majority of social studies students disagreed with the statement "High profits are essential for the survival of the American economic system." The business class was about evenly divided on that issue. At the end of the term, more business students were in agreement, while the social studies people tended to become uncertain about it. Thus, both before and after the courses, the business majors were more favorably inclined toward high profits than were the social studies majors. On both the pre-test and post-test, a much higher percentage of business students agreed that "The purpose of any business is (and ought to be) the making of profits." A majority of both groups agreed on both tests, but the percentage of agreement in the business class rose from 71 to 77, while the percentage in the economics class dropped from 59 to 53. Disagreement in the business course dropped
from 30 percent to 18 percent, but rose from 27 percent to 44 percent in the economics class. Most business majors did not agree that "the amount of profit made by business ought to be regulated by government to protect the public from the overpricing of goods and services." The course resulted in little change in this attitude for these students, but a dramatic change occurred in the economics class. At the beginning, 47 percent agreed and 41 percent disagreed; at the end 62 percent were in agreement while only 19 percent disagreed. (The remainder were undecided.)

Since the economics instructor was himself neutral on the question of profit regulation and made no effort to sway opinion one way or the other, one might ask what did account for this significant shift? Possibly, those who changed their views were influenced by an articulate and popular student who took an orthodox Marxist position on everything. This student rarely missed an opportunity to condemn the capitalist system, categorize businessmen as exploiters of the poor, and promote Marxist economics.

Social studies majors were much more inclined to approve of social ownership of major industries -- 50 percent as compared with only 18 percent of the business students. Business students who had been undecided at the beginning tended to oppose social ownership at the end. A few social studies people moved from approval to indecision, but the two groups were about as far apart on the issue at the end as they were at the beginning.

A greater percentage of social studies students agreed that "the profit motive has been responsible for most of the evils in our economic system." These students held to that position, while the business education majors moved from 53 percent agreement at the beginning to only 36 percent at the end. On the pre-test, 67 percent of the social studies majors disagreed with
the statement "The best means of setting prices is to let buyers and sellers seek their own interests in a market free from government interference and control." Only 29 percent of the business students disagreed, but the majority were undecided. On the post-test, the social studies group made no significant change, but 70 percent of the business students disagreed. There is no apparent explanation for this strange and uncharacteristic shift on the part of the business education people. It was the belief of the business instructor that some government interference in market activities is desirable, but no conscious effort was made to sway student opinion in this direction. In spite of this one enigmatic exception, it is clear that the business education students were much more favorably disposed toward free enterprise, profits, and private ownership.

There was also a noticeable difference between the two classes in their opinions toward government's role in the economy. A much greater percentage of business students agreed that "Social Security should be voluntary, for the government has no right to tax people for this kind of insurance if they do not want it." Forty-seven percent of the business people agreed at the beginning, as compared with only 27 percent of the social studies majors. There was less difference between the two groups on the post-test, as some of the business education majors moved toward a position of uncertainty. Business students were also more inclined to agree that "People should plan for their old age and other possible situations of financial need rather than having the government do it for them." (This failed to get majority approval in either class, however.)

Both groups were strongly in favor of having the government use its taxing, spending, and debt policies to maintain a stable economy, but the
social studies students registered a higher percentage of agreement. No significant change appeared on the post-test. The economics instructor strongly favored the use of fiscal action, but he simply reinforced existing student opinion, for 91 percent were already convinced at the start. At the beginning of the semester, the social studies students were slightly more inclined to accept the notion that "The President ought to be given the power to raise or lower taxes within a certain range in order to keep both inflation and recession under control." The business majors moved toward this position on the post-test (although it still failed to obtain majority approval), while the social studies people evidenced more uncertainty. The movement of the business students may be explained by the fact that the business instructor did make a conscious effort to sway opinion on this subject and encouraged much class discussion.

At the start, the social studies group showed a much greater inclination to approve of government involvement in labor disputes (38 percent agreeing, as compared with only six percent of the business students). Both classes moved toward greater agreement at the end. The business majors recorded the greatest percentage increase, possibly because the topic had been the subject of a student oral report and because the lengthy General Electric strike had been followed closely by the class.

Should the government bear the burden of all educational costs for students from first grade through college? At the beginning of the courses the two groups were very close on this issue -- 53 percent of the business

2. There is a problem of interpretation here. Did the Social Studies students oppose the idea in principle, or did they oppose because of a possible bias against the incumbent President?
students and 56 percent of the social studies majors agreed. At the end, the business group showed little change, while the social studies group moved strongly toward greater agreement (75 percent). It is interesting to note that the economics instructor changed also. He had disagreed on the pre-test, but agreed on the post-test. (It might be noted that this instructor was involved in the University's budget problems and had to cope with difficulties stemming from a drop in government financial aid during the term.) The economics teacher did not reveal his change in view to the class, but did at one point state the opinion that all educational costs should be tax deductible. The subject was not discussed in the business course.

Another item was worded: "The expense of a college education ought to be a private matter and the student and/or his family should meet this cost." A majority of both groups disagreed, but the social studies majors had the higher percentage of disagreement. The business majors moved close to the social studies position on the post-test, although the topic had not been discussed in class. Neither group would approve of turning the TVA and similar government-owned enterprises over to private industry.

In summary, while the social studies majors showed more willingness to accept government's role in the economy than did the business students, the differences were not as great as on the items dealing with free enterprise which were discussed above.

In their reactions to statements about workers, unions, and unemployment policy, the social studies majors took a more "liberal" approach. The business education students were more inclined to say that unions today are too strong, and they showed a greater tendency to approve of additional laws to deny labor unions the right to strike. (A majority of both groups opposed the latter, how-
ever.) Social Studies students were more inclined to approve of government full-employment policies even if those policies led to inflation, and less inclined to see the unemployed as being "too lazy to work." (A majority of both groups disagreed with the statement that the unemployed are persons who are too lazy to work, however.) A much greater percentage of social studies majors approved of the idea that "It would be a good thing for America if some method could be devised to make the distribution of income more nearly equal." This was true on both the pre-test and post-test.

On questions involving the federal budget, debt, and taxation, the social studies group leaned more heavily toward the so-called Keynesian view. On both the pre-test and the post-test, the business students expressed greater disapproval of an unbalanced budget and increases in the debt. A higher percentage of social studies majors approved of tax increases as a means of controlling inflation, both on the pre-test and the post-test. Furthermore, the social studies class was more inclined to agree that "The federal income tax is fairer than taxes on cigarettes, sales taxes, and most other taxes." Both groups made a profound shift on this question, however. At the beginning, 24 percent of the social studies students and 12 percent of the business majors agreed with that statement; while at the end the percentages were 76 and 71 respectively. Both instructors had made a deliberate attempt to change students' views on this item, although the topic was not discussed extensively in the business class. A much greater percentage of social studies students opined that the tax system is unfair to the poor (82 percent agreeing, as compared with 53 percent of the business majors). The business class moved toward greater agreement at the end, and neither group saw the tax system as being unfair to the wealthy.
On two items involving the consumer, the two groups were in almost perfect accord. Nearly 80 percent of both classes disagreed with the statement: "Generally, the American public buys what it wants, without regard to the amount or intensity of advertising." Almost everyone disagreed that "Since consumers can refuse to buy a product that is of poor quality or harmful, there is no need to have laws to protect the consumer."

It would be imprudent to pin a label on either of these groups. We cannot say that the business education majors were "conservative" and that the social studies students were "liberal." It does seem very clear, however, that the former evidenced a greater tendency toward those views generally categorized as "conservative," while the latter tended to take the so-called "liberal" position -- at least to a greater extent than the former. Again, in relation to one another, the business group was more conservative (or perhaps we should say less liberal), while the social studies group was more liberal (or perhaps we should say less conservative). It would be most interesting to learn whether or not this apparent difference pertains nationally, and it is hoped that similar studies will be made elsewhere.

How would the views of these groups compare with a national sample of undergraduate college students? At this time we cannot say, for too little data have been collected. We can, however, compare them with a group of 877 undergraduates from a university in the Mid-west. (This is a heterogeneous group.) Although there are some sharp differences on individual Survey items, we find that the business education majors are much closer to the Mid-west group. In fact, the mean percentages of agreement and disagreement are almost identical for these two groups, while the social studies majors
deviate considerably from the Mid-western students. The Survey was also administered to a group of 24 employees of a large New York City bank. These individuals are in positions of responsibility, although they are not too much older (average age of 24) than the college students. Here again, the business education majors are much closer in their view to the bank employees than are the social studies majors. It does seem possible, then, to use this Survey to identify differences in views between various educational or occupational groups.

The Survey appears to have other uses as well. We have already seen that it can be used to detect shifts in opinion. Care must be taken, however, in asserting the causes of these shifts. Both instructors consciously attempted to influence student opinion on some items. The economics instructor did this on 11 of the 35 items. Class opinions on 10 of these 11 items shifted in the direction he had desired, but went in the opposite direction on the other. Sometimes the shifts were slight; sometimes very great. For example, the instructor favored tax increases to control inflation. On the pre-test, 29 percent of the class agreed with this, while 47 percent disagreed. On the post-test, 34 percent expressed agreement, 31 percent continued to disagree, while others were undecided. His success was less than desired. He strongly felt that the federal income tax is fairer than sales taxes and the like. Only 24 percent of his class agreed at the beginning, but 76 percent agreed at the end. This was undoubtedly more satisfying to the economics instructor, but can he claim full credit for the shift? Not necessarily. Perhaps the major influence was the text book, class discussion, or an external factor. The business instructor deliberately tried to sway student
opinion on inflation, unions and strikes, taxation, and the profit motive. In three of these areas student opinion on the post-test showed a definite shift in the direction of the instructor's beliefs. Student opinion in the fourth area did not shift noticeably. Interestingly, student opinion tended to shift more with regard to topics which were the subject of oral student reports than they did with regard to topics discussed only by the instructor.

The economics instructor changed his own position on five of the items. There were similar shifts on the part of the class in four of these; in the other the class went in the opposite direction. Did the instructor influence the class? Did the class influence the instructor? Were both influenced by some outside factor? In going from Disagree to Agree on the opinion that government should bear the burden of all educational costs, the instructor and the class moved strongly together in the same direction. Both might have been influenced by well-publicized financial problems facing the University. The instructor went from Disagree to Undecided on the item: "High profits are essential for the survival of the American economic system." This was not discussed in class, but a few students also shifted to the Undecided category. The teacher went from Disagree to Undecided on the issue of government settling labor disputes. The topic was not discussed in class, but a few students also became undecided. Many more shifted to a position of agreement, however. There is no apparent explanation for this. The instructor changed from Undecided to Disagree in regard to the item: "The expense of a college education ought to be a private matter and the student and/or his family should meet this cost." Eighty-two percent of the class had disagreed at the beginning, and three percent more moved from indecision to disagreement at the end. In regard to the item: "The profit motive has been responsible
for most of the evils in our economic system" the instructor moved from Undecided to Disagree. The class showed a slight movement toward indecision on this item.

The Survey also provides an indication of which issues involve the greatest amount of uncertainty. For example, 24 percent of the social studies students were undecided about the fairness of the income tax at the beginning, but only six percent were unable to take a stand at the end. On the proposal that additional laws be enacted to limit strikes, however, only three percent were undecided at the beginning, while 22 percent became undecided at the end. In the first example given, the instructor took a strong stand on the issue and the class tended to conform. In the second example, the issue was not discussed in class nor was it included in the assigned reading. Thus, some external factor probably accounted for the change. One item was worded: "The U.S. ought to have public policies to assure full employment, even if one result of these policies is inflation." At the beginning, 30 percent agreed, 38 percent disagreed, and 32 percent were undecided. At the end, 38 percent agreed, 34 percent disagreed, and 28 percent were undecided. This slight shift toward agreement was not accounted for by any position taken by the instructor. He discussed the issue at length, introduced the Philips Curve, and left it to the class to decide which part of the "trade off" to accept. In this case, when left to themselves to make a decision, the class remained almost as uncertain as they had been in the beginning.

In the economics class, students checked Undecided an average of six times on the pre-test and likewise six on the post-test. Indecision had in-
creased on 17 items and decreased on 16, however. In the business class, the students checked Undecided an average of seven times on the pre-test and six on the post-test. Indecision increased on 12 items, and decreased on 18. Of course, it is not necessarily bad if indecision increases, particularly if this is the case in regard to a controversial item which is currently being debated by experts. An increase in the percentage of those checking Undecided could mean that prejudices are being cracked, and that students are at least developing open minds on the subject. In other cases, movement away from indecision could mean that the course has helped the students to clarify their thinking about an issue and to take a firm stand one way or the other. In any event, the Survey provides interesting clues to the instructor in this regard.

Finally, the Survey can be analyzed to ascertain the relative strength of the opinions given. This, of course, is very subjective; but it is interesting to note that the social studies majors checked Strongly Agree or Strongly Disagree an average of 11 times each, while the business education students and the students from the Mid-Western university averaged eight, and the bank employees averaged only seven. This could mean that the social studies people held stronger opinions, or were more certain about their views on these subjects. They were also less inclined to be Undecided (at least on the pre-test) than the other students. Perhaps, as social studies majors, they were more aware of the issues covered in the Survey and had already formulated opinions about many of them. This, of course, is conjectural -- a national sample would be needed before we could declare this to be a characteristic of the social studies teacher trainee.

It can be tentatively concluded that an opinion survey of this type
can have value. Those teaching economics and related subjects should know what their courses might be doing to the opinions of their students. The Survey cannot prove what caused a shift in opinion, but it can show whether or not a shift has occurred, what direction opinion tended to follow, whether a given group became more certain about their opinions (as in cases where the percentage of Strongly Agree and/or Strongly Disagree increases), or whether a class became less certain about an issue. If an instructor attempts to sway opinion, the Survey can give him an indication of his success (or lack of it). Although we did not discuss it in this paper, the Survey can detect inconsistencies in certain areas. For example, the student who agrees with the statement "The expense of a college education ought to be a private matter and the student and/or his family should meet this cost.", should disagree with the statement "The government should bear the burden of all education costs for student from first grade through college."

There are several of these "consistency patterns" in the test, and thus the Survey can be used to see if students are more consistent after the course than before. The Survey can probably help to show the relationship between knowledge of economic principles and opinions on controversial issues. In our experiment, opinions changed most dramatically when the issue had been stressed in class. Obviously, a great deal more research is needed to determine the relationship between factual, objective knowledge of relevant economic concepts and opinions on these issues. As more information is collected about the use of the Survey, and as new experiments using it are conducted, it should develop into a useful tool for economics and business instructors.