Changing Students’ Perceptions of Inequality? Combining Traditional Methods and a Budget Exercise to Facilitate a Sociological Perspective

Lisa Garoutte¹ and Donna Bobbitt-Zeher²

Abstract

Budget exercises are frequently used in introductory and social problems courses to facilitate student understanding of income inequality. But do these exercises actually lead to greater sociological understanding? To explore this issue, the authors studied undergraduate students enrolled in introductory sociology courses during the 2008-2009 academic year. Using a unique pretest-pretest-posttest design, the authors captured student perceptions of issues of socioeconomic inequality at the beginning of the course, after completion of a traditional unit on stratification, and after participation in a budget exercise. The unique study design allows the authors to examine if and how students make gains in understanding inequality sociologically. They also consider other learning objectives, including fostering an appreciation of obstacles to social mobility and increasing general knowledge about inequality. The results suggest that both budget exercises and a traditional pedagogical unit of lecture, reading, and discussion play limited roles in fostering at least short-term sociological understanding as related to these goals.

Keywords

budget, inequality, poverty

Social inequality is a central concern to the study of sociology and is discussed in many, if not most, sociology classrooms. Yet it is also one of the more difficult topics to teach. As is the case in all fields, students come to their sociology classes with a set of preconceived notions and beliefs about the way the world works, which affect the way they understand new material (e.g., Bransford, Brown, and Cocking 2000; Carraher and Schliemann 2002; Shuell 1986, 1990). When asked to examine issues of inequality, students’ beliefs are often politicized, making students more resistant to material that asks them to assess stratification systems critically (Davis 1992; Goldsmith 2006). Accordingly, then, faculty have developed a wide array of activities and pedagogical tools to assist in the teaching of stratification. These include community-based learning (e.g., Folse 2002), simulation exercises and games (e.g., Coghlan and Huggin 2004), and the use of grades as a starting point for discussion (e.g., Brislen and Peoples 2005). Here, we focus on one classroom activity commonly used to

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facilitate discussion about stratification in introductory courses: the budget exercise. While some analysis of the budget exercise has been done (LaBeff and Clark 1986; McCammon 1999), there is little prior research that systematically assesses whether a budget exercise, or even a more traditional teaching unit, is able to help students move toward a more sociological understanding of social class inequality and poverty.

Our research aims to fill this gap. Below, we present the results of our assessment of a curricular unit utilizing both traditional teaching tools of lecture, discussion, and readings and an interactive budget exercise to teach about economic stratification in introductory sociology classes. Our results lead us to be cautiously optimistic that both the traditional curriculum and the budget exercise can play a part in fostering sociological thinking.

ENGAGING STUDENTS ABOUT INEQUALITY

The sociological imagination, a staple concept in introductory sociology courses, encourages us to see the relationship between social structure and individuals in a given place and time (Mills 1959). When examining issues of economic inequality and poverty, then, sociologists consider widespread social issues such as economic shifts, location of jobs, and educational opportunities. Yet we do not ignore the importance of human agency. Teaching about inequality thus presents the challenge of drawing attention to broad structural and cultural forces that shape and constrain individual choices while acknowledging that individuals can and do affect their social world.

Mainstream U.S. society, however, commonly promotes individualistic explanations for social class position, which the literature claims students are likely bring to our classes (Brezina 1996; Brislen and Peoples 2005; Davis 1992; Feagin 1975; Huber and Form 1973; Kluegel and Smith 1986). A sociological approach to class-based stratification, which examines broad structural patterns as an explanation for class distinctions, is thus likely to challenge students’ basic beliefs about inequality. Indeed, Davis (1992) argues that resistance, anger, and resignation are common, albeit unfortunate, student responses to discussions of economic inequality, a sentiment echoed by many teaching in this area (e.g., Brezina 1996; Coghlan and Huggins 2004; Hattery 2003). This can be especially true for students whose backgrounds confer them a degree of privilege (Bohmer and Briggs 1991).

It has also been suggested that traditional pedagogies often used in introductory courses—especially lecture—are not as well suited for moving students toward a new way of thinking (e.g., Halpern and Hakel 2002). The research indicates, for example, that lecture formats, when used alone, do not foster broader understanding among students (Finkle 2000; Halpern and Hakel 2002). While they may be useful for testing how well students recognize concepts, in-depth understanding is less likely to take place in a classroom dominated by lecture (Halpern and Hakel 2002). Goldsmith (2006) posits that this limitation of traditional pedagogies is especially true in classes that deal with inequality because information can be more easily dismissed as teacher opinion.

It seems important, then, that students are asked to engage with course material, especially when the material runs contrary to what students know or think they know. Indeed, identifying and confronting student ideologies may be an important aspect of learning. As educational researchers state,

Students come to the classroom with preconceptions about how the world works. If their initial understanding is not engaged, they may fail to grasp the new concepts and information that are taught, or they may learn them for purposes of a test but revert to their preconceptions outside the classroom. (Bransford et al. 2000:14-15)

Accordingly,

This finding requires that teachers be prepared to draw out their students’ existing understandings and help to shape them into an understanding that reflects the concepts and knowledge in the particular discipline of study. (Donovan, Bransford, and Pelligrino 1999:2)

In a similar vein, the work of cognitive psychologists argues that students’ prior (mis)understandings should be used as a starting point in curricular development (see Greeno 1997; Shuell 1986).
Considering these perspectives, learning may be viewed as multidimensional: Learning involves retention and the ability to transfer knowledge to new situations, but it also involves using the tools of the discipline to question assumptions and gain a broader view of the world. Clearly, an introductory sociology class will have course goals that involve retention and transfer. Yet, the ultimate goal of education, writes Finkle (2000), should be “long lasting learning that forever alters our grasp of the world, deepening it, widening it, generalizing it, sharpening it” (p. 4). While we are doubtful that introductory students will develop a complex sociological way of thinking after just one course, movement toward that is the ultimate objective of most sociology courses (Goldsmith 2006). Accordingly, our pedagogical tools, as well as our evaluations of those tools, should also focus on achieving this aim.

In this analysis, we examine the extent to which students become more sociological in their thinking about social class inequality. While there can be much debate as to the relative weight to assign to cultural, structural, and individualist forces in “sociological thinking,” we draw from Mills’s (1959) sociological imagination and conceptualize it in broad terms of approaches to understanding the social world that recognize larger social forces as shaping individuals while not denying human agency. Given the proliferation of individualism in American ideology, we would expect that when students adopt sociological thinking they will rely less than they had on individualistic explanations to understand social phenomena and rely more than they had on structural explanations. This way of thinking, then, should be more balanced and complex than either dominant individualistic ideologies or their antithesis of structurally deterministic accounts. Additionally, we expect students who are thinking sociologically to understand basic concepts and general knowledge from the discipline. Below, we consider the effectiveness of one frequently used teaching tool—the budget exercise—in bolstering such sociological thinking.

THE BUDGET EXERCISE

Budget exercises are often used to teach about social class. In these exercises, students are typically expected to create a family budget that in some way reflects the distribution of income in the United States. LaBeff and Clark (1986) note that students find the budgeting experience to be eye-opening, and McCallmon (1999) suggests it helps students to better understand the structural elements of the class system. But do these exercises foster sociological thinking, and do students walk away from these activities with greater sociological understanding than they would have achieved through participation in class lectures, discussions, and reading course materials alone? Given our interest in encouraging sociological thinking, a budget exercise seems a particularly compelling activity to test, as the budgeting process allows students to make individual-level decisions for a family within the constraints of broader social systems such as day care, health care, and employment.

Our budget exercise (see Appendix A) begins by asking students to determine the minimum monthly income that a family with two adults and two young children could “live on adequately (i.e., basic, minimal level of subsistence).” We find that students are more receptive of this activity when they are the ones who set the minimum standard rather than giving the students a set dollar amount up front. By engaging in this step of the exercise, students seem more invested in later adjusting the budget for the actual minimum wage. To facilitate creating this budget, students are given a list of items to consider (such as housing, food, and child care). They are also given estimates of monthly expenditures based on national averages and, when possible, adjusted for local costs. Once a “minimum” budget is determined, students are asked to calculate the hourly wage needed based on their preferences and calculations for how many adults should work for pay and whether that work should be full- or part-time. There are a broad range of responses, but hourly incomes ranging from $9 to $15 are fairly common.

We then ask students to reconsider their budgets and adjust them for the then current federal minimum wage of $6.55 per hour, which is almost universally lower than the initial student-calculated wages. After students struggle to adjust their budgets downward, they answer a set of three questions that later forms the basis for large-group discussion. During this discussion, we draw out how students approach the exercise, how the opportunities are structured for this family, possible reasons...
for decisions the family would make, and potential consequences to the family as a result of those decisions. We also connect the income of the hypothetical family to the real-life poverty line and ask students to think about how their original ideas about a “minimal level of subsistence” fit with the poverty line and the level of income this family would have. This discussion clearly connects the minimum wage budget to issues of poverty, as depending on what arrangements students chose for their families, their hypothetical families either would be living below the poverty line (e.g., having one full-time worker and a stay-at-home parent or having one full-time worker and one part-time worker) or would be at 129 percent of the poverty line (i.e., having two full-time workers).

In the activity, students begin with their preconceived notions of what constitutes a minimum standard of living. They then compare these perceptions with the reality of getting by on minimum wage earnings. This type of activity thus requires students to acknowledge, examine, and question their beliefs as they explore the everyday barriers and opportunities for the working poor and their potential for mobility. It is, therefore, the type of activity that should assist students in achieving a new, more sociological perspective on social class inequality more generally and poverty more specifically.

**Expectations**

In line with our previous discussion of fostering sociological thinking, when teaching about social inequality and poverty, we begin with four primary goals for student achievement: (1) increased appreciation of structural explanations of inequality and poverty, (2) decreased reliance on individual-level causes of inequality and poverty, (3) increased appreciation of the obstacles to social mobility and the plight of the poor, and (4) increased factual and conceptual knowledge about social class inequality and poverty. Again, we neither expect nor want students to entirely abandon individualistic viewpoints or to accept structure as the only legitimate cause of inequality. Rather, at the introductory level, our primary concern is that students begin to think of stratification in a more sociological manner, one that considers both individual and social forces.

To consider the effect of the budget exercise specifically, it is necessary also to consider what role the traditional unit plays in the overall course’s learning objectives. Given that we designed the curriculum specifically around the four goals, we expect the traditional unit to further student outcomes related to each of them. In particular, we expect it to be most effective in presenting students with new conceptual and factual information, as much research on traditional pedagogies finds that retention and transfer are key benefits of these techniques (Halpern and Hakel 2002). Given that pedagogies that engage students’ perspectives from the start, and challenge students to question their own assumptions, are thought to be more likely to help students achieve new perspectives (Finkle 2000; Goldsmith 2006; Halpern and Hakel 2002), the budget exercise seems well suited for encouraging less individualistic and more structural thinking about inequality.

Yet we do not expect large leaps in understanding. Past research on teaching about stratification suggests that teaching in this area is especially challenging (e.g., Davis 1992; Goldsmith 2006). Furthermore, there is quite limited time for presenting any one unit in an introductory course, and shifts in worldview take time (Shuell 1986). Thus, while our course goals are substantial, the magnitude of change we expect to capture is modest. Below, we discuss how we assess the ability of the budget exercise to move students toward a more sociological perspective on class-based inequality.

**Data and Method**

Data come from a series of three questionnaires administered to students enrolled in our respective introductory sociology courses during the 2008-2009 academic year. The series of questionnaires use quantitative and a few qualitative questions designed specifically to test aspects related to each of the four course goals. The first questionnaire gauges student agreement with statements about the nature of social class inequality and poverty, the causes of poverty, and their appreciation of the difficulty of overcoming poverty, along with general knowledge questions about poverty and socioeconomic inequality. This survey was administered at the beginning of the course, prior to any exposure to the course material; we refer to this as the first pretest. The second questionnaire—referred to as the second pretest—replicates the first and
addresses student engagement and participation with the course material. It was administered after the traditional unit on social class and poverty (i.e., lectures, readings, and film clip) but prior to the budget exercise. The third and final questionnaire—the posttest—was given after completion of the budget exercise. This survey replicates the second and also asks general questions about student perception of learning.

By having data from these distinct points in time, we are able to isolate in the analyses any changes that happen between the first pretest and the second pretest, which we interpret as the effect of the traditional unit. We also can isolate any changes between the second pretest and the posttest, which we consider to be the specific effect of the budget exercise. Finally, we can examine the change between the first pretest and the posttest, which represents the time from course entry to completion of the entire stratification unit, to analyze the overall effect of the traditional unit and the interactive budget exercise as a whole. Thus, we can empirically test not only progress toward course goals but also what contribution the budget exercise makes toward any observed changes compared to the contributions associated with the traditional curriculum.

**Measures**

We designed the pre- and posttests around the four areas of expected student achievement. In constructing our survey questions, we borrowed from standard survey measures used by stratification scholars to understand how people think about social class and poverty, and we retained their general classification schemes for grouping explanations as structural and individualistic in nature (Feagin 1975; Huber and Form 1973; Kluegel and Smith 1986). We revised measures as appropriate and supplemented with our own questions designed to test aspects of each of the four course goals. The content of the questions was primarily guided by the material we knew we would cover in the traditional unit as well as the substance of the budget activity. Here, we summarize the measures used in the analysis and how they relate to our learning objectives. Note that where we anticipate changes in student scores, as discussed above, we expect these changes to be small in magnitude.

**Increased appreciation of structural explanations of inequality.** To examine students’ understanding of broad issues of economic opportunities, we asked students the degree to which they agreed or disagreed on a scale of 1 to 4 with two statements: “There are plenty of economic opportunities available for people willing to work hard” and “Capitalism relies on unemployment and low-wage workers.” Answer choices were coded strongly agree (1), agree (2), disagree (3), and strongly disagree (4). The first question taps students’ views of the economic structure of opportunities broadly, while the second shows a structural understanding of capitalism as dependent on stratification.

We expect that after completing the traditional unit, which specifically addresses these topics, students will both disagree with the first statement and agree with the second more than they had prior to the unit. We also expect that, to the extent that these measures capture structural thinking about economic opportunities broadly, the budget exercise will have a similar, independent effect, as the budgeting task may make the economic opportunity structure more salient to students. By having students wrestle with how their hypothetical families are constrained by limited economic opportunities even if they have a strong work ethic, and to then consider the potential for these families to change their economic position given their circumstances, it is possible that students will be more open to seeing the structure of economic opportunities as less plentiful than originally envisioned. Although the budget exercise does not explicitly address capitalism as a system requiring stratification and this question is based on the content of the traditional unit, it is possible that, given the aforementioned reasoning, students will begin to think about how the system itself relies on workers like those in the hypothetical family.

To test students’ thinking specifically about poverty, we use three measures in line with Feagin’s (1975) typology that suggest structural thinking about poverty. We asked students the following question: “There are many different beliefs about why poor people are poor. How important do you think each of these reasons are for understanding poverty?” Responses were coded as very important (1), somewhat important (2), and not important (3). We use the following three measures to gauge structural thinking about poverty: lack of unionized
jobs, lack of full-time jobs with benefits, and lack of good-paying jobs in the United States. Each of these suggests a reason for poverty that resides in the structure of employment and is therefore considered a measure of structural thinking.

Given that the traditional unit addresses each of these potential causes of poverty, we expect students to show some movement toward structural thinking, which should be reflected in students agreeing more with each of these statements after completion of the unit than they had initially. The budget exercise itself does not explicitly address these potential reasons for poverty, although in discussion of the activity, we encourage students to consider how patterns discussed in class during the traditional unit related to changes in the workplace (such as the decline of unionized jobs and the rise of contingent jobs) might affect their hypothetical families as they try to rise out of the ranks of the working poor. This discussion, then, might connect the budget exercise to an increased structural understanding of economic opportunities; however, we doubt that the exercise will foster structural thinking about why poverty exists in a meaningful way. Thus, we expect the traditional unit, but not the budget exercise, to foster more sociological thinking about poverty per se on these measures.

**Decreased reliance on individualistic explanations of inequality.** Following a similar approach to the structural measures, we included two broad measures that suggest an individualistic understanding of issues of socioeconomic inequality. We asked if students strongly agreed (coded 1), agreed (2), disagreed (3), or strongly disagreed (4) with two statements: “America is the land of opportunity where everyone who works hard can get ahead” and “Most poor people could get out of poverty if they tried harder.” Both of these measures suggest a general outlook that individuals are bound only by their own efforts, which reflects individualistic thinking. If students decrease their reliance on individualistic explanations of poverty, we should see students disagreeing more with each of these statements than they had previously.

Given that the traditional unit specifically challenges the individualistic perspective tapped in these two broad statements about inequality, we expect the traditional unit to lead students to lessen their existing levels of agreement with each of these statements. Based on our expectations for the budget exercise to engage students with the limits of individualism and our past experiences with the exercise challenging students’ notions of how easy it is to get by on minimum wage, we also expect the exercise to be associated with additional changes in the direction of greater disagreement with these statements.

To capture thinking specifically about poverty, we included three measures suggestive of individualistic thinking about why poverty exists. Again, the measures are based on Feagin’s (1975) work on how Americans understand poverty. We asked students to rate on a scale of 1 to 3, where 1 is very important, 2 is somewhat important, and 3 is not important, each of the following reasons why poverty exists: lack of motivation by the poor, lack of effort by the poor, and lack of skill by the poor. All of these measures suggest causes for poverty per se might be seen in student responses indicating each of these reasons as less important than they had previously thought.

If students rely less on individualistic explanations of poverty, we expect changes to be fostered by the traditional unit that provides discussion of the limits of hard work and individual effort. We also see a limited potential for the budget exercise to affect individualistic thinking on these measures. The budget exercise does not address why the worker or workers in this family are low-income earners, which leaves students to fill in those details with their own thinking, which may rely on explanations of motivation, skill, and effort. Yet, in discussion following the activity, students are challenged to consider the potential for this working poor family to achieve upward mobility, which may lead students to see individualistic explanations as more limited for understanding poverty. Thus, we see the traditional unit as more likely than the budget exercise to foster change on these measures related specifically to poverty, although there is limited reason to expect the budget exercise also to affect individualistic thinking on these measures specific to poverty.

**Increased appreciation of obstacles to social mobility and the plight of the poor.** To capture this, we asked students the degree to which they agreed or disagreed with each of the following two statements: 1) “America is the land of opportunity where everyone who works hard can get ahead” and 2) “Most poor people could get out of poverty if they tried harder.” Both of these measures suggest a reason for poverty that resides in the structure of employment and is therefore considered a measure of structural thinking.

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disagreed with three statements: “It would be easy to get by on minimum wage,” “Getting out of poverty would be difficult,” and “Social services are necessary for poor people to make ends meet.” Each of these measures taps into perceptions about how difficult it would be to maintain or improve socioeconomic position. An increased appreciation would be demonstrated by students being more likely to disagree with the first statement and more likely to agree with the second and third statements than they had originally.

We expect the budget exercise to foster this kind of appreciation as students struggle, perhaps for the first time, with the realities of life for many working poor families. We also expect that the traditional curriculum could have some effect, particularly as the readings and film clip present accounts of working poor individuals and families that might foster a sense of empathy in students who engage the material.

Increased knowledge about social class inequality and poverty. We focus on five measures that tap factual knowledge explicitly covered in the traditional curriculum. We asked students whether they strongly agreed, agreed, disagreed, or strongly disagreed with three statements: “The rich are getting richer while the poor are getting poorer,” “The American middle class is shrinking,” and “Poverty is declining in the United States.” We expect that students who gained factual knowledge from the course will be more likely to agree with the first two statements and to disagree with the third statement than they had previously. We also asked students to answer fill-in-the-blank questions approximating the percentage of Americans living in poverty and the federal poverty line for a family of four. We expect that the percentage of students who correctly approximate each of these numbers increases over the course. Given that the traditional unit directly addresses each of these issues, and the budget exercise does not, we expect the traditional curriculum to foster this kind of change in student scores, while the budget exercise will not.

Because of our interest in assessing the effect of the budget exercise per se, we also asked students an open-ended question on the final posttest: “Thinking about the budget exercise in particular, what did you learn from doing this activity?” This allowed students to define their own learning and to tell us about any gains they made as a result of the activity that we may or may not have tapped with the quantitative questions. We then content coded student responses to this question for emerging themes.

Sample and Analytic Strategy

The data represent seven sections of introductory sociology courses taught over the 2008-2009 academic year in two institutions of higher education. All classes were taught solely by faculty, without separate recitation sections; class sizes ranged from approximately 30 to 50 students. In total, we collected data from 251 students. Because we are interested in the impact of both the traditional unit and the budget exercise on student learning, we limit analysis to those students who completed the baseline questionnaire, participated in the budget exercise, and submitted the posttest (N = 194).

We focus quantitative analysis on the average student scores on the measures related to each of our course goals (shown in the analytic tables as the first three columns) and consider differences in those scores between the three points in times in the data (shown in the last three columns of the analytic tables). That is, we consider the differences in student scores (1) between the beginning of the class and completion of the traditional unit (the independent effect of the traditional unit, shown in column 4 on analytic tables), (2) between completion of the traditional unit and completion of the budget exercise (the independent effect of the budget exercise, shown in column 5), and (3) between the beginning of the course and completion of the budget exercise (the overall effect of the entire unit, shown in column 6). We use paired-sample t-tests to look at these mean differences. Because they capture mean differences for groups with correlated samples (i.e., the same students are studied at multiple points in time), using paired sample t-tests is an appropriate technique for analyzing changes that result from a particular intervention (i.e., the teaching unit, the budget exercise). Significance is defined at p < .05 in all analyses.

To complement the quantitative analysis, we also systematically content coded student responses to the open-ended question, “Thinking about the budget exercise in particular, what did you learn from doing this activity?” Thus, we allowed students to tell us what they took away from the...
exercise, which may or may not align with our course goals. In the findings, we present the results of our quantitative and qualitative analyses in reference to each of the stated objectives for student learning.

**FINDINGS**

We present our findings in relation to each of the four course objectives. Table 1 summarizes student responses to measures related to structural beliefs about inequality and poverty. The top portion focuses on the more general measures related to economic opportunities and systems; the bottom portion focuses on measures related specifically to poverty. As seen in column 1 in the top half of the chart, student responses suggest a moderate level of structural understanding at course entry: Students are between agreeing (a value of 2) and disagreeing (a value of 3) on the measures “There are plenty of economic opportunities available for people willing to work hard” ($M = 2.3$) and “Capitalism relies on unemployment and low-wage workers” ($M = 2.6$). Over the course of the quarter, average scores generally move in the direction of increased structural understanding, although these changes are small in magnitude. At each measurement point, students are significantly less likely to agree that “there are plenty of economic opportunities available for people willing to work hard” (mean increases from 2.3 at course entry to 2.5 after traditional unit to 2.6 after completion of the budget exercise). Consistent with this, students are significantly more likely to agree with the statement that “capitalism relies on unemployment and low-wage workers” at each measurement point. Thus, consistent with our expectations, both the traditional curriculum and the budget exercise seem to independently contribute to small gains in structural understanding on these measures.

We also asked students about the importance they gave to three more specific structural explanations of poverty: lack of unionized jobs, lack of full-time jobs with benefits, and lack of good-paying jobs.

![Table 1. Structural Beliefs about Inequality and Poverty](image)

**Table 1. Structural Beliefs about Inequality and Poverty**

<table>
<thead>
<tr>
<th>Measure</th>
<th>First pretest mean</th>
<th>Second pretest mean</th>
<th>Posttest mean</th>
<th>Change from class entry through traditional unit</th>
<th>Change from traditional unit through budget exercise</th>
<th>Change from class entry through budget exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are plenty of economic opportunities available for people willing to work hard.</td>
<td>2.3</td>
<td>2.5</td>
<td>2.6</td>
<td>Significant</td>
<td>Significant</td>
<td>Significant</td>
</tr>
<tr>
<td>Capitalism relies on unemployment and low-wage workers.</td>
<td>2.6</td>
<td>2.3</td>
<td>2.2</td>
<td>Significant</td>
<td>Significant</td>
<td>Significant</td>
</tr>
</tbody>
</table>

- **Structural understanding of economic opportunities and inequality**
- **Importance of structural explanations of poverty**

*a. Responses are scaled as follows: 1 = strongly agree; 2 = agree; 3 = disagree; 4 = strongly disagree.

b. Responses are scaled as follows: 1 = very important; 2 = somewhat important; 3 = not important.*
Responses to these questions are shown in the bottom portion of Table 1. At the beginning of the course, responses suggest students view these explanations as somewhat important (mean levels range from 1.7-2.2 in column 1). Student responses indicate small yet significant gains in the direction of a more structural understanding of poverty on all three measures after completion of the traditional unit (column 4). There are no statistically significant changes in thinking structurally about poverty per se that result from the budget exercise (column 5). On the whole, then, both the traditional unit and the budget exercise appear to affect structural thinking about economic opportunities in general, and the traditional curriculum seems to be effective at also increasing structural understanding of poverty more specifically. Students appear to leave the course with greater structural understanding on all five measures used (column 6).

In Table 2, we present findings concerning our second goal of decreasing student reliance on individualistic explanations for inequality and poverty. As shown in the first column in the top half of the chart, student responses suggest a moderate level of individualist thinking at course entry: Students are between agreeing (a value of 2) and disagreeing (a value of 3) on the measures “America is the land of opportunity where everyone who works hard can get ahead” ($M = 2.3$) and “Most poor people could get out of poverty if they tried harder” ($M = 2.5$). After completing the traditional unit, students are significantly less likely to agree with both these statements than they had been, although changes are small (0.2) in magnitude. As shown in column 5, the budget exercise appears to foster a small but statistically significant decline in agreement that “most poor people could get out of poverty if they tried harder.” However, there is no significant change in the level of agreement with the statement that “America is the land of opportunity where everyone who works hard can get ahead.” Thus, in line with our expectations, the traditional curriculum appears to foster a small but meaningful reduction in individualistic

<table>
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<tr>
<th>Measure</th>
<th>1</th>
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<th>3</th>
<th>4</th>
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<th>6</th>
</tr>
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<tbody>
<tr>
<td>America is the land of opportunity where everyone who works hard can get ahead.</td>
<td>2.3</td>
<td>2.5</td>
<td>2.5</td>
<td>Significant</td>
<td>Not significant</td>
<td>Significant</td>
</tr>
<tr>
<td>Most poor people could get out of poverty if they tried harder.</td>
<td>2.5</td>
<td>2.7</td>
<td>2.8</td>
<td>Significant</td>
<td>Significant</td>
<td>Significant</td>
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<tr>
<th>Measure</th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of motivation by the poor</td>
<td>1.6</td>
<td>1.7</td>
<td>1.8</td>
<td>Significant</td>
<td>Significant</td>
<td>Significant</td>
</tr>
<tr>
<td>Lack of effort by the poor</td>
<td>1.6</td>
<td>1.7</td>
<td>1.8</td>
<td>Not significant</td>
<td>Significant</td>
<td>Significant</td>
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<tr>
<td>Lack of skill by the poor</td>
<td>1.8</td>
<td>1.7</td>
<td>1.7</td>
<td>Not significant</td>
<td>Not significant</td>
<td>Not significant</td>
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a. Responses are scaled as follows: 1 = strongly agree; 2 = agree; 3 = disagree; 4 = strongly disagree.
b. Responses are scaled as follows: 1 = very important; 2 = somewhat important; 3 = not important.
thinking on these broad measures, while the budget exercise appears to affect thinking about overcoming poverty specifically but not a general view of the American Dream.

Turning to the more specific explanations of poverty per se as shown in the bottom half of Table 2 (column 1), students enter the course suggesting that individual-level explanations of poverty based on motivation, effort, and skill are very important to somewhat important (means range from 1.6 to 1.8 on these measures). Looking across the table, the traditional unit appears to lead to a small but statistically significant decrease in acceptance of motivation as a reason for poverty (mean changes from 1.6 to 1.7) but is not associated with meaningful changes on the other measures capturing an individualistic understanding of poverty. The budget exercise appears to reduce significantly individualistic thinking to a small degree on both the motivation and effort measures (both change from 1.7 after the traditional unit to 1.8 after the budget exercise), but there is no meaningful shift on the skill measure.

Thus, the findings regarding individualism are mixed. The traditional curriculum leads to small but significant changes in individualistic thinking on both broad measures used but on only one of the three more specific poverty-related measures. The budget exercise appears to lessen to a small degree individualistic understanding on one of the two broad measures and two of the three more specific poverty-related ones. Yet, the overall effect of the entire unit is in line with the course goal of decreasing reliance on individualism: When compared to course entry, students leave the course with less acceptance of individual explanations on four of the five measures (column 6).

While we have emphasized changes in structural and individualistic ways of thinking, we also generally agreed that “getting out of poverty would be difficult” \( (M = 1.8) \) and “social services are necessary for poor people to make ends meet” \( (M = 2.2) \). The traditional unit is associated with a significant change in student thinking on one of the three measures: Students express a small but significant decline in how easy they believe it would be to get by on minimum wage following the traditional unit. The budget exercise also is associated with significant change on only one measure: Student response moves in the direction of viewing social services as necessary to making ends meet, although the change is small (mean changes from 2.2 after traditional unit to 2.0 after budget exercise). Overall, students enter the course recognizing barriers to mobility and believing that life on minimum wage would be difficult. They then leave the course with slight changes to those views on two of the three measures used here.

The bottom portion of Table 3 summarizes student responses to general knowledge questions and suggests that students make some gains in knowledge about trends in poverty and socioeconomic inequality, as well as facts such as the percentage of Americans living in poverty. In line with our expectations, students make significant gains on four of the five measures as a result of the traditional curriculum (Table 3, column 4). Somewhat surprisingly, they also make small but significant gains on two of the five measures specifically as a result of participation in the budget exercise (Table 3, column 5). While the budget exercise was not designed to increase student retention of the information gauged, this finding suggests to us that the budget exercise may make the material more relevant, and therefore students may be more likely to remember factual information after completing the activity.

Given our interest in identifying if and how the budget exercise independently fosters student learning, we content coded student responses to the question “Thinking about the budget exercise in particular, what did you learn from doing this activity?” The vast majority of students (71 percent) suggest that they learned about the difficulties of getting by on minimum wage and rising out of the ranks of the working poor. Representative comments in this vein include the following:
That it is VERY hard to get by with a family where two people work hard full time. I never thought it would be so difficult.

Doing the budget exercise was really eye opening. I mean, we found out exactly how hard it was to manage finances at minimum wage. We had to cut back on EVERYTHING. Transportation, quality of living, etc. (Things that are of high importance, at that!)

Such comments, which dominate the responses given, suggest that as a result of the budget exercise, students are seeing the limitations of individualism and beginning to recognize social barriers to mobility. We find these comments to support the expectations that the budget exercise could help foster more sociological thinking in general and appreciation of the obstacles to mobility more specifically.

I learned that being a hard worker and trying your hardest is sometimes not enough to get ahead.

Table 3. Additional Learning Outcomes: Appreciation of Obstacles to Social Mobility and Overcoming Poverty and General Knowledge about Inequality and Poverty

<table>
<thead>
<tr>
<th>Measure</th>
<th>First pretest mean</th>
<th>Second pretest mean</th>
<th>Posttest mean</th>
<th>Change from class entry through traditional unit</th>
<th>Change from traditional unit through budget exercise</th>
<th>Change from class entry through budget exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appreciation of obstacles to social mobility and plight of the poor&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It would be easy to get by on minimum wage.</td>
<td>3.5</td>
<td>3.6</td>
<td>3.6</td>
<td>Significant</td>
<td>Not significant</td>
<td>Significant</td>
</tr>
<tr>
<td>Getting out of poverty would be difficult.</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>Not significant</td>
<td>Not significant</td>
<td>Not significant</td>
</tr>
<tr>
<td>Social services are necessary for poor people to make ends meet.</td>
<td>2.2</td>
<td>2.2</td>
<td>2.0</td>
<td>Not significant</td>
<td>Significant</td>
<td>Significant</td>
</tr>
<tr>
<td>General knowledge about inequality and poverty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The rich are getting richer while the poor are getting poorer.&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.0</td>
<td>1.6</td>
<td>1.6</td>
<td>Significant</td>
<td>Not significant</td>
<td>Significant</td>
</tr>
<tr>
<td>The American middle class is shrinking.&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.3</td>
<td>2.1</td>
<td>2.0</td>
<td>Significant</td>
<td>Significant</td>
<td>Significant</td>
</tr>
<tr>
<td>Poverty is declining in the United States.&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3.3</td>
<td>3.3</td>
<td>3.3</td>
<td>Not significant</td>
<td>Not significant</td>
<td>Not significant</td>
</tr>
<tr>
<td>Percentage of students correctly approximately percentage of Americans in poverty.</td>
<td>16</td>
<td>35</td>
<td>38</td>
<td>Significant</td>
<td>Not significant</td>
<td>Significant</td>
</tr>
<tr>
<td>Percentage of students correctly approximating federal poverty line for family of four.</td>
<td>24</td>
<td>53</td>
<td>61</td>
<td>Significant</td>
<td>Significant</td>
<td>Significant</td>
</tr>
</tbody>
</table>

<sup>a</sup> Responses are scaled as follows: 1 = strongly agree; 2 = agree; 3 = disagree; 4 = strongly disagree.
To a much lesser extent, three other themes emerged in the qualitative responses. Seven percent of students noted the toll surviving on minimum wage would take, especially on emotional, physical, and psychological health. This is illustrated by the following representative quotes:

I also learned that no matter how much we thought we were making it easier for ourselves, it was actually only turning harder. For instance, having parents with different shifts would get rid of daycare but only cause marital problems.

I began to see just how much one would have to cut in order to survive making minimum wage. I cannot imagine that cutting so much can help with a person’s emotional or health status.

Eight percent noted that the exercise helped them gain perspective on the costs of basic necessities, and the same percentage of students also discussed that the exercise helped them gain perspective on their own lives, such as the need to get education for their own success or gratitude for what they have. These themes are demonstrated by the following student comments, which are representative of the data:

I learned that minimum wage is hard, which I realized, but it can be more expensive than I anticipated.

How much it costs to have only average things.

This is just further reinforcement to continue my education.

I learned that I need to start saving now so that I can make it financially in my future. It’s not easy to pay for housing, utilities, food, health care, etc.

I’m going to work really hard in school as well so that I can get a good paying job hopefully.

Overwhelmingly, though, students point to the budget exercise as facilitating a deeper understanding of the plight of low-wage workers and the difficulties in achieving upward mobility.

In supplemental analysis (not shown), we also asked students how much they feel they learned from the unit and its components. Students overwhelmingly agree that they learned some or a lot about the extent and reasons for social inequality and poverty and that they developed a greater appreciation for the obstacles to overcoming poverty. Students report learning from all the techniques, with almost all students saying they learned a lot or some from lecture, discussion, and the budget exercise; however, students are more likely to report learning “a lot” from the budget activity than from the traditional unit. These findings complement the student assessment data presented in Tables 1, 2, and 3, which suggest some student growth across multiple dimensions and provides further support for the contention that the combination of the traditional pedagogical unit with the more hands-on budget exercise may be beneficial to teaching about inequality.

**DISCUSSION**

We began this project wondering what, if anything, students take away from participating in a budget exercise as part of a broader unit on social class inequality. Consistent with our general expectations, our results suggest a modest role for such activities. Indeed, we find that students make small but notable progress in achieving a more sociological understanding of social class inequality, and participation in the budget exercise does seem to help move students toward a more sociological perspective of inequality and poverty in small and limited ways. Engaging in the budget exercise is associated with some small yet statistically significant gains in understanding inequality structurally, although the level of structural understanding does not reach to more specific explanations for why poverty exists. This makes sense given that the design of the budget exercise does not address these reasons for poverty per se. We also see a lessening reliance on an individualistic understanding of inequality on some, but not all, of the measures employed here. A somewhat greater appreciation of the obstacles to social mobility emerges in the qualitative but not the quantitative data. Moreover, student self-assessments suggest that students view the budget exercise as particularly effective at furthering their learning.
Our assessment also reveals that a traditional curriculum plays a meaningful, but again limited, role in increasing students’ knowledge about inequality and poverty as well as affecting students’ understanding of stratification and poverty. In particular, a combination of lecture, discussion, readings, and a short film clip proved useful at fostering small gains in acceptance of structural explanations of inequality and poverty, lessening to a small degree individualistic thinking about inequality in general, and generating general knowledge. This is important because it reinforces the utility of these standard teaching tools.

Overall, then, our findings suggest small but measurable shifts in student thinking consistent with more sociological thinking and in line with our goals for the unit. And both the traditional unit and the budget exercise play a part in those changes. However, in considering these results, it is important to recognize one of the more surprising aspects of the findings: Students enter our classes with less reliance on individualism and more openness to structural explanations than we had initially expected. In particular, student scores on the pretest suggest students generally agree that structural- and individual-level reasons help us understand poverty (see initial student scores on the measures in Tables 1 and 2, column 1), and they recognize challenges to social mobility (Table 3, column 1). Whether this is an artifact of the harsh economic climate at the time of the survey and/or a reflection of the students who inhabit our classes, this counters the assumption that many of us have made that students enter our courses with an individualistic-only understanding of issues of inequality. This suggests that if we are to meet our students at their starting point (Bransford et al. 2000), we may need to rethink students’ initial understanding to better develop our curriculum.

In light of these initial levels, it is not surprising that all of the changes noted here are small in nature and that they do not occur on all of the measures tested. Indeed, many of the first and second pretest scores are arguably consistent with the kind of sociology thinking that we set as a goal for our students. Furthermore, the scales used also may contribute to these findings. In following standardized measures from social stratification scholars, we used 3- and 4-point scales for most measures. This scaling may have contributed to the magnitude of the effects found and affected some of our nonsignificant results, especially the measure of how easy it would be to get by on minimum wage, as students’ pretest scores are already at a very high level. Allowing students more options, for instance having them rate agreement on a scale from 0 to 10, would likely enable us to capture more subtle changes in thinking that may not be captured here. Moreover, it is important to know if such small gains as the ones reported here endure and perhaps further develop as students mature or if students revert to their original ways of thinking as time passes. We hope future work will include long-term measures to see if student gains persist beyond the end of a unit or course.

Shuell (1986) tells us that students do not quickly change their thinking, nor do we think they should, necessarily. Rather, the process of coming to think about the world in new ways (part of how Shuell—and we—conceptualize learning) necessarily occurs slowly over a long period of time. It is not likely to happen in a single course, much less in a single unit of an introductory course. We could only devote a few classes to the unit, and students were not tested or quizzed on any of the material during the period of time under assessment. We do not argue that after a short unit on stratification that includes a budget exercise students leave an introductory sociology class with a refined sociological imagination. Rather, in this assessment, we see small changes in student thinking that are consistent with a more sociological view of inequality. While some might be disappointed in the size of the effects found, considering limitations of the data and how little time students spent on the unit, we find even these small shifts encouraging.

CONCLUSION

We began this project with a modest goal: to assess if an interactional budget exercise as part of a unit on stratification contributes in a meaningful way to furthering our goals for increasing sociological understanding of social inequality in general and poverty more specifically. Bluntly, are such exercises worth the time and resources needed to do them? We conclude that they are, even though changes in students’ responses are small in magnitude and do not reach the level of statistical significance on all indicators. Considering limitations of the measures used and the
totality of the analyses, students leave the course with modest movement toward a greater sociological appreciation of inequality and poverty on 15 of the 18 measures used, and the budget exercise, as well as the traditional curriculum, plays a measurable role in that student growth. While no single exercise, no matter how well crafted, can change the 20-some years of messages about poverty that our students have received, the changes we find provide reason to believe that traditional pedagogical approaches and more interactive activities can affect student learning in modest but measurable ways.

For faculty whose goals for student learning include retention and transfer as well as broader shifts in explanatory schema, there are several lessons from this assessment study. First, our findings support a teaching approach that utilizes multiple teaching strategies. Both the more experiential budget exercise and the more traditional reading, lecture, and discussion unit play independent, albeit limited, roles in student retention of knowledge and in encouraging students to challenge the preconceived notions with which they enter the classroom. Second, our assessment suggests that a more traditional pedagogical approach may help foster shifts in explanatory schema—perhaps more so that we might expect from past research (e.g., Halpern and Hakel 2002). Conversely, an experiential activity might in some small way contribute to student retention of facts. As Bransford et al. (2000:22) observe, “There is no universal best teaching practice.” Indeed, it is through the combination of teaching tools used that we find the level of student growth that we see in this study. This encourages us to constantly consider both our objectives for students and how we can best assist students in meeting them.

Finally, we see these findings in light of Bransford et al.’s (2000:24) call for more formative assessments of students to “permit the teacher to grasp the students’ preconceptions, understand where the students are in the ‘developmental corridor’ from informal to formal thinking, and design instruction accordingly.” Indeed, our findings suggest the need to reevaluate constantly our own assumptions about students’ preconceptions, as our student responses to the initial pretest suggest that they are not as individualistic in thinking as we had assumed. Toward this end, we see this as a challenge to undertake more evaluation exercises like the one here to better understand if and how we are meeting course goals and, going one step further, to provide our colleagues with concrete evaluation of our teaching tools when sharing them in public venues such as Teaching Sociology.

APPENDIX A

Budget Exercise

Part I—Take about 15 minutes to complete this part; then, move on to Part II.

What is the minimum amount of monthly income that you can live on adequately (i.e., a basic, minimal level of subsistence)? To help you determine this minimum amount, use this worksheet to calculate what you think a minimum monthly budget would look like for your household. Your family consists of a married couple with a three-year-old daughter and a one-year-old son. Average figures for basic expenses are included on the back on this page to help you, although you may use your own knowledge of costs in setting the budget. As you work on this, you will have to make decisions about your own biography (like your age, your education, and where you live) and if the parents will be full-time workers, part-time workers, and/or unemployed. Your budget should cover all the family’s basic costs for an average month.

Step 1: Allocate money to each of the following (budget for an average month here):

- Housing (rent or house payment) $__________
- Utilities (i.e., electricity, natural gas, telephone) $__________
- Food $__________
- Transportation & related costs (repairs, insurance, etc.) $__________
- Health insurance and health care $__________
- Clothing and diapers $__________
- Child care $__________
- Entertainment $__________
- Other—optional category; anything else needed $__________

(Add up the budget.) Monthly Income Needed: $__________

Step 2: Determine total annual income needed.
Garoutte and Bobbitt-Zehrer

(Multiply the monthly income needed by 12)

**Annual Income Needed:** $____________

Step 3: Determine minimum hourly wage needed to support this family.

*If you have two full-time workers, divide the annual income needed by 4,160.*

*If you have one full-time and one part-time worker, divide the annual income needed by 3,120.*

*If you have one full-time worker, divide the annual income needed by 2,080.*

*Keep in mind that is the wage you take home, after taxes*

**Hourly Wage Needed:** $____________

Step 4: Turn in this sheet and get Part II.

**Part II—Take about 25 minutes, including answering the questions that follow.**

The federal minimum wage is $6.55 per hour. If the wage you calculated above is higher than that, work together to figure out how to reduce your budget to get by on minimum wage. The following are the income amounts to adjust your budget for, depending on your decisions about employment of the parents:

- A family with two full-time workers earning minimum wage has an annual income of $27,248. Before taxes, their monthly budget would be $2,271.
- A family with one full-time and one part-time worker has an annual income of $20,436. Before taxes, their monthly budget would be $1,703.
- A family with one full-time worker has an annual income of $13,624. Before taxes, their monthly budget would be $1,135.

What will you cut? What creative solutions will you pursue to balance the budget?

Revised monthly budget:

- Housing (rent or house payment) $__________
- Utilities (i.e., electricity, natural gas, telephone) $__________
- Food $__________
- Transportation & related costs (repairs, insurance, etc.) $__________
- Health insurance and health care $__________
- Clothing and diapers $__________
- Child care $__________

Entertainment $__________

Other—optional category; anything else needed $__________

*(Add up the budget.) Monthly Income Needed:* $__________

Questions. Please answer on a separate piece of paper.

1. How does your collective sense of what a minimum wage to get by on should be (from Part I of the exercise) differ from the government-set minimum wage?
2. In trying to revise the budget, what assumptions did you have to make about family, their employment, their day care, etc. in order to cut costs? What creative ways did you find to cut costs?
3. How realistic are the assumptions/cutting methods that you discussed above?

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**APPENDIX B**

**Traditional Pedagogical Unit**

Attempts were made to keep the traditional pedagogical unit as similar as possible between the two instructors. This included using identical readings, power points, lecture outlines, and discussion questions connecting the film clip with the readings and lecture material. For readings, we assigned chapter 1 of Mark Robert Rank’s (2005) *One Nation Underprivileged* and a short excerpt from “Nickel and Dimed” by Barbra Ehrenreich (2003). In class, we viewed a clip from the PBS series *NOW* titled “Income Inequality” (Public Broadcasting Corporation 2007; available at http://www.pbs.org/now/shows/332/). During the lecture and discussion, we discussed a number of topics related to socioeconomic inequality, including the following: conceptual aspects of stratification and social mobility, trends in the distribution of income and wealth, poverty and trends in poverty, trends in work and economy and their relationships with trends in socioeconomic inequality, and how these realities fit with the notion of meritocracy. Through standardizing the curriculum as much as possible, we did our best to ensure that students in all classes...
had access to the same information at the same point in the process.

NOTES

The reviewers for this manuscript were, in alphabetical order, David Jaffee and Brenda Wilhelm.

1. The entire exercise can be completed in a single 80-minute session or in two 50-minute sessions.
2. Students at both schools were exposed to identical course materials (including the lecture content, assigned readings, film clip, and budget exercise) through identical methods.
3. In classes that met three times a week for 50 minutes, the end of the traditional unit ended and the administration of the second pretest occurred a few days (2 to 3 days, depending on the semester) prior to the budget exercise and posttest. For classes that met twice a week for 105 minutes, the budget exercise and posttest were conducted immediately following the conclusion of the traditional unit and second pretest.
4. We consider similarities and differences in student responses across academic settings in other work (Bobbitt-Zeher and Garoutte 2010).
5. Twenty-five students did not provide consent to have their findings included in the study.

REFERENCES


**BIOS**

Lisa Garoutte is an assistant professor of sociology at Loras College. Her teaching and research interests include racial, gender, and class inequality in the United States, both contemporary and historical; social movements; and sociological theory.

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