

## GMAT Argument Writing Samples

1. Citing facts drawn from the color-film processing industry that indicate a downward trend in the costs of film processing over a 24-year period, the author argues that Olympic Foods will likewise be able to minimize costs and thus maximize profits in the future. In support of this conclusion the author cites the general principle that "as organizations learn how to do things better, they become more efficient." This principle, coupled with the fact that Olympic Foods has had 25 years of experience in the food processing industry leads to the author's rosy prediction. This argument is unconvincing because it suffers from two critical flaws.

First, the author's forecast of minimal costs and maximum profits rests on the gratuitous assumption that Olympic Foods' "long experience" has taught it how to do things better. There is, however, no guarantee that this is the case. Nor does the author cite any evidence to support this assumption. Just as likely, Olympic Foods has learned nothing from its 25 years in the food-processing business. Lacking this assumption, the expectation of increased efficiency is entirely unfounded.

Second, it is highly doubtful that the facts drawn from the color-film processing industry are applicable to the food processing industry. Differences between the two industries clearly outweigh the similarities, thus making the analogy highly less than valid. For example, problems of spoilage, contamination, and timely transportation all affect the food industry but are virtually absent in the film-processing industry.

Problems such as these might present insurmountable obstacles that prevent lowering food-processing costs in the future.

As it stands the author's argument is not compelling. To strengthen the conclusion that Olympic Foods will enjoy minimal costs and maximum profits in the future, the author would have to provide evidence that the company has learned how to do things better as a result of its 25 years of experience. Supporting examples drawn from industries more similar to the food-processing industry would further substantiate the author's view.

2. In this argument the author concludes that the Apogee Company should close down field offices and conduct all its operations from a single, centralized location because the company had been more profitable in the past when all its operations were in one location. For a couple of reasons, this argument is not very convincing.

First, the author assumes that centralization would improve profitability by cutting costs and streamlining supervision of employees. This assumption is never supported with any data or projections. Moreover, the assumption fails to take into account cost increases and inefficiency that could result from centralization. For instance, company representatives would have to travel to do business in areas formerly served by a field office, creating travel costs and loss of critical time. In short, this assumption must be supported with a thorough cost-benefit analysis of centralization versus other possible cost-cutting and/or profit-enhancing strategies.

Second, the only reason offered by the author is the claim that Apogee was more profitable when it had operated from a single, centralized location. But is centralization the only difference relevant to greater past profitability? It is entirely possible that management has become lax regarding any number of factors that can affect the bottom

line such as inferior products, careless product pricing, inefficient production, poor employee expense account monitoring, ineffective advertising, sloppy buying policies and other wasteful spending. Unless the author can rule out other factors relevant to diminishing profits, this argument commits the fallacy of assuming that just because one event (decreasing profits) follows another (decentralization), the second event has been caused by the first.

In conclusion, this is a weak argument. To strengthen the conclusion that Apogee should close field offices and centralize. This author must provide a thorough cost-benefit analysis of available alternatives and rule out factors other than decentralization that might be affecting current profits negatively.

3. In this argument the author concludes that the city should allocate some of its arts funding to public television. The conclusion is based on two facts: (1) attendance at the city's art museum has increased proportionally with the increases in visual-arts program viewing on public television, and (2) public television is being threatened by severe cuts in corporate funding. While this argument is somewhat convincing, a few concerns need to be addressed.

To begin with, the argument depends on the assumption that increased exposure to the visual arts on television, mainly public television, has caused a similar increase in local art-museum attendance. However, just because increased art-museum attendance can be statistically correlated with similar increases in television viewing of visual-arts programs, this does not necessarily mean that the increased television viewing of arts is the cause of the rise in museum attendance.

Moreover, perhaps there are other factors relevant to increased interest in the local art museum; for instance, maybe a new director had procured more interesting, exciting acquisitions and exhibits during the period when museum attendance increased, in addition, the author could be overlooking a common cause of both increases. It is possible that some larger social or cultural phenomenon is responsible for greater public interest in both television arts programming and municipal art museums.

To be fair, however, we must recognize that the author's assumption is a special case of a more general one that television viewing affects people's attitudes and behavior. Common sense and observation tells me that this is indeed the case. After all, advertisers spend billions of dollars on television ad time because they trust this assumption as well.

In conclusion, I am somewhat persuaded by this author's line of reasoning. The argument would be strengthened if the author were to consider and rule out other significant factors that might have caused the increase in visits to the local art museum.

4. In response to a coincidence between falling revenues and delays in manufacturing, the report recommends replacing the manager of the purchasing department. The grounds for this action are twofold. First, the delays are traced to poor planning in purchasing metals. Second, the purchasing manager's lack of knowledge of the properties of metals is thought to be the cause of the poor planning. It is further recommended that the position of the purchasing manager be filled by a scientist from the research division and that the current purchasing manager be reassigned to the sales

department. In support of this latter recommendation, the report states that the current purchasing manager's background in general business, psychology, and sociology equip him for this new assignment. The recommendations advanced in the report are questionable for two reasons.

To begin with, the report fails to establish a causal connection between the falling revenues of the company and the delays in manufacturing. The mere fact that falling revenues coincide with delays in manufacturing is insufficient to conclude that the delays caused the decline in revenue. Without compelling evidence to support the causal connection between these two events, the report's recommendations are not worthy of consideration.

Second, a central assumption of the report is that knowledge of the properties of metals is necessary for planning in purchasing metals. No evidence is stated in the report to support this crucial assumption. Moreover, it is not obvious that such knowledge would be required to perform this task. Since planning is essentially a logistical function, it is doubtful that in-depth knowledge of the properties of metals would be helpful in accomplishing this task.

In conclusion, this is a weak argument. To strengthen the recommendation that the manager of the purchasing department be replaced, the author would have to demonstrate that the falling revenues were a result of the delays in manufacturing. Additionally, the author would have to show that knowledge of the properties of metals is a prerequisite for planning in purchasing metals.

5. A newspaper publisher is recommending that the price of its paper, The Mercury, be reduced below the price of a competing newspaper, The Bugle. This recommendation responds to a severe decline in circulation of The Mercury during the 5-year period following the introduction of The Bugle. The publisher's line of reasoning is that lowering the price of The Mercury will increase its readership, thereby increasing profits because a wider readership attracts more advertisers. This line of reasoning is problematic in two critical respects.

While it is clear that increased circulation would make the paper more attractive to potential advertisers, it is not obvious that lowering the subscription price is the most effective way to gain new readers. The publisher assumes that price is the only factor that caused the decline in readership. But no evidence is given to support this claim.

Moreover, given that The Mercury was the established local paper, it is unlikely that such a mass exodus of its readers would be explained by subscription price alone.

There are many other factors that might account for a decline in The Mercury's popularity. For instance, readers might be displeased with the extent and accuracy of its news reporting, or the balance of local to other news coverage. Moreover, it is possible The Mercury has recently changed editors, giving the paper a locally unpopular political perspective. Or perhaps readers are unhappy with the paper's format, the timeliness of its feature articles, its comics or advice columns, the extent and accuracy of its local event calendar, or its rate of errors.

In conclusion, this argument is weak because it depends on an oversimplified assumption about the causal connection between the price of the paper and its popularity. To strengthen the argument, the author must identify and explore relevant

factors beyond cost before concluding that lowering subscription prices will increase circulation and, thereby, increase advertising revenues.

6. In this argument corporations are urged to consider the city of Helios when seeking a new location or new business opportunities. To support this recommendation, the author points out that Helios is the industrial center of the region, providing most of the region's manufacturing jobs and enjoying a lower-than-average unemployment rate. Moreover, it is argued, efforts are currently underway to expand the economic base of the city by attracting companies that focus on research and development of innovative technologies. This argument is problematic for two reasons.

To begin with, it is questionable whether the available labor pool in Helios could support all types of corporations. Given that Helios has attracted mainly industrial and manufacturing companies in the past, it is unlikely that the local pool of prospective employees would be suitable for corporations of other types. For example, the needs of research and development companies would not be met by a labor force trained in manufacturing skills. For this reason, it's unlikely that Helios will be successful in its attempt to attract companies that focus on research and development of innovative technologies.

Another problem with the available work force is its size. Due to the lower than average unemployment rate in Helios, corporations that require large numbers of workers would not find Helios attractive. The fact that few persons are out of work suggests that new corporations will have to either attract new workers to Helios or pay the existing workers higher wages in order to lure them away from their current jobs. Neither of these alternatives seems enticing to companies seeking to relocate.

In conclusion, the author has not succeeded in providing compelling reasons for selecting Helios as the site for a company wishing to relocate. In fact, the reasons offered function better as reasons for not relocating to Helios. Nor has the author provided compelling reasons for companies seeking new business opportunities to choose Helios.

7. In this argument the author concludes that people trying to lose weight are better off consuming sugar than the artificial sweetener aspartame. To support this conclusion the author argues that aspartame can cause weight gain by triggering food cravings, whereas sugar actually enhances the body's ability to burn fat. Neither of these reasons provides sufficient support for the conclusion.

The first reason that aspartame encourages food cravings is supported by research findings that high levels of aspartame deplete the brain chemical responsible for registering a sense of being sated, or full. But the author's generalization based on this research is unreliable. The research was based on a sample in which large amounts of aspartame were administered; however, the author applies the research findings to a target population that includes all aspartame users, many of whom would probably not consume high levels of the artificial sweetener.

The second reason that sugar enhances the body's ability to burn fat is based on the studies in which experimental groups, whose members consumed sugar after at least 45 minutes of continuous exercise, showed increased rates of fat burning. The author's general claim, however, applies to all dieters who use sugar instead of aspartame, not

just to those who use sugar after long periods of exercise. Once again, the author's generalization is unreliable because it is based on a sample that clearly does not represent all dieters.

To conclude, each of the studies cited by the author bases its findings on evidence that does not represent dieters in general; for this reason, neither premise of this argument is a reliable generalization. Consequently, I am not convinced that dieters are better off consuming sugar instead of aspartame.

8. Based upon a survey among workers that indicates a high level of interest in the topics of corporate restructuring and redesign of benefits programs, the author concludes that workers are not apathetic about management issues. Specifically, it is argued that since 79 percent of the 1200 workers who responded to survey expressed interest in these topics, the notion that workers are apathetic about management issues is incorrect. The reasoning in this argument is problematic in several respects. First, the statistics cited in the editorial may be misleading because the total number of workers employed by the corporation is not specified. For example, if the corporation employs 2000 workers, the fact that 79 percent of the nearly 1200 respondents showed interest in these topics provides strong support for the conclusion. On the other hand, if the corporation employs 200,000 workers, the conclusion is much weaker.

Another problem with the argument is that the respondents' views are not necessarily representative of the views of the work force in general. For example, because the survey has to do with apathy, it makes sense that only less apathetic workers would respond to it, thereby distorting the overall picture of apathy among the work force. Without knowing how the survey was conducted, it is impossible to assess whether or not this is the case.

A third problem with the argument is that it makes a hasty generalization about the types of issues workers are interested in. It accords with common sense that workers would be interested in corporate restructuring and redesign of benefits programs, since these issues affect workers very directly. However, it is unfair to assume that workers would be similarly interested in other management issues ones that do not affect them or affect them less directly.

In conclusion, this argument is not convincing as it stands. To strengthen it, the author would have to show that the respondents account for a significant and representative portion of all workers. Additionally, the author must provide evidence of workers' interest other management topics not just those that affect workers directly.

9. On average, middle-aged consumers devote 39% of their retail expenditure to department store products and services, while for younger consumers the average is only 25%. Since the number of middle-aged people will increase dramatically within the next decade, department stores can expect retail sales to increase significantly during that period. Furthermore, to take advantage of the trend, these stores should begin to replace some of those products intended to attract the younger consumer with products intended to attract the middle-aged consumer.

Sample Essay 1:

The argument that department retail sales will increase in the next 10 years and thus department stores should begin to replace products to attract middle-aged consumers is not entirely logically convincing, since it omits certain crucial assumptions

First of all, the argument ignores the absolute amount of retail expenditure of middle-aged and younger consumers devoted to department store products and services. Although younger consumers spend a smaller percentage of their retail expenditure to department store products than do the middle-aged consumers, they might actually spend more in terms of the absolute amount.

Even if middle-aged consumers are spending more than younger ones in department stores, the argument ignores the possibility that the trend may change within the next decade. Younger consumers might prefer to shop in department stores than in other types of stores, and middle-aged consumers might turn to other types of stores, too. This will lead to a higher expenditure of younger consumers in department stores than that of middle-aged consumers.

Besides, the argument never addresses the population difference between middle-aged consumers and younger ones. Suppose there are more younger consumers than the middle-aged ones now, the total population base of younger consumers will be bigger than that of the middle-aged ones if both of them grow at the same rate in the next decade. Thus there will be a bigger younger consumer base.

Based on the reasons I listed above, the argument is not completely sound. The evidence in support of the conclusion does little to prove the conclusion since it does not address the assumptions I have already raised. Ultimately, the argument might have been more convincing by making it clear that the absolute population of middle-aged consumers are higher than that of the younger consumers and the number will continue to grow in the next decade, and that the middle-aged consumers will continue to spend more money in department stores than younger consumers do in the next decade.

Sample Essay 2:

The argument that retailers should replace some of the products intended to attract the younger consumers with products intended to attract the middle-aged consumers is not entirely logically convincing, since it ignores certain crucial assumptions.

First, the argument omits the assumption that the business volumes of both the middle-aged consumers and the younger consumers are the same. If the business volume of the middle-aged consumers' 39% is smaller than that of the younger consumers' 25%, the retail sales will not increase during the next decade.

Second, even if the business volumes of both the middle-aged consumers and the younger consumers were the same in the last decade, the increase of the middle-aged people in the next decade is not same as the increase of the retail expenditure, for the retail trade depends more on such factors as the economic circumstances, people's consuming desire.

Finally, the argument never assumes the increase of the younger consumers within the next decade. If the younger consumer increase at the same rate and spend the same amount of money on the goods and services of department stores, the retailers should never ignore them.

Thus the argument is not completely sound. The evidence in support of the



conclusion that the growing number of middle-aged people within the next decade does little to prove the conclusion-that department stores should begin to replace some of their products to attract the middle-aged consumers-since it does not address the assumptions I have already raised. Ultimately, the argument might have been strengthened by making it clear that the business volumes of both types of consumers are the same and comparable, that the increase of a certain type of consumers are correlated with the increase of the retail sales, and that the growth rate of the younger consumers are the same as that of the middle-aged consumers.

### Sample Essay 3:

Based on an expected increase in the number of middle-aged people during the next decade, the author predicts that retail sales at department stores will increase significantly over the next ten years. To bolster this prediction, the author cites statistics showing that middle-aged people devote a much higher percentage of their retail expenditure to department-store services and products than younger consumers do. Since the number of middle-aged consumers is on the rise and since they spend more than younger people on department-store goods and services, the author further recommends that department stores begin to adjust their inventories to capitalize on this trend. Specifically, it is recommended that department stores increase their inventory of products aimed at middle-aged consumers and decrease their inventory, of products aimed at younger consumers. This argument is problematic for two reasons.

First, an increase in the number of middle-aged people does not necessarily portend an overall increase in department-store sales. It does so only on the assumption that other population groups will remain relatively constant. For example, if the expected increase in the number of middle-aged people is offset by an equally significant decrease in the number of younger people, there will be little or no net gain in sales.

Second, in recommending that department stores replace products intended to attract younger consumers with products more suitable to middle-aged consumers, the author assumes that the number of younger consumers will not also increase. Since a sizable increase in the population of younger consumers could conceivably offset the difference in the retail expenditure patterns of younger and middle-aged consumers, it would be unwise to make the recommended inventory adjustment tacking evidence to support this assumption.

In conclusion, this argument is unacceptable. To strengthen the argument the author would have to provide evidence that the population of younger consumers will remain relatively constant over the next decade.

10. The conclusion in this argument is that the state legislature need not consider the views of protesting students. To support this conclusion, the author points out that only 200 of the 12,000 students traveled to the state capitol to voice their concerns about proposed cuts in college programs. Since the remaining students did not take part in this protest, the author concludes they are not interested in this issue. The reasoning in this argument is flawed for two reasons.

First, the author assumes that because only one-tenth of the students took part in the protest, these students' views are unrepresentative of the entire student body. This assumption is unwarranted. If it turns out, for example, that the protesting students were randomly selected from the entire student body, their views would reflect the views of

the entire college. Without information regarding the way in which the protesting students were selected, it is presumptuous to conclude that their opinions fail to reflect the opinions of their colleagues.

Second, the author cites the fact that the remaining 12,000 students stayed on campus or left for winter break as evidence that they are not concerned about their education. One obvious rejoinder to this line of reasoning is that the students who did not participate did so when they that their concerns would be expressed by the protesting students. In any case, the author has failed to demonstrate a logical connection between the students' alleged lack of concern and the fact that they either stayed on campus or left for winter break. Without this connection, the conclusion reached by the author that the remaining 12,000 students are not concerned about their education is unacceptable.

As it stands, the argument is not well reasoned. To make it logically acceptable, the author would have to demonstrate that the protesting students had some characteristic in common that biases their views, thereby nullifying their protest as representative of the entire college.

11. The recommendation endorsed in this argument is that residents of San Perdito vote current mayor Montoya out of office, and re-elect former mayor Varro. The reasons cited are that during Montoya's four years in office the population has decreased while unemployment has increased, whereas during Varro's term unemployment declined while the population grew. This argument involves the sort of gross oversimplification and emotional appeal typical of political rhetoric; for this reason it is unconvincing. First of all, the author assumes that the Montoya administration caused the unemployment in San Perdito as well as its population loss. The line of reasoning is that because Montoya was elected before the rise in unemployment and the decline in population, the former event caused the latter. But this is fallacious reasoning unless other possible causal explanations have been considered and ruled out. For example, perhaps a statewide or nationwide recession is the cause of these events. Or perhaps the current economic downturn is part of a larger picture of economic cycles and trends, and has nothing to do with who happens to be mayor. Yet another possibility is that Varro enjoyed a period of economic stability and Varro's own administration set the stage for the unemployment and the decline in population the city is now experiencing under Montoya.

Secondly, job availability and the economic health of one's community are issues that affect people emotionally. The argument at hand might have been intentionally oversimplified for the specific purpose of angering citizens of San Perdito, and thereby turning them against the incumbent mayor. Arguments that bypass relevant, complex reasoning in favor of stirring up emotions do nothing to establish their conclusions; they are also unfair to the parties involved.

In conclusion, I would not cast my vote for Varro on the basis of this weak argument. The author must provide support for the assumption that Mayor Montoya has caused San Perdito's poor economy. Moreover, such support would have to involve examining and eliminating other possible causal factors. Only with more convincing evidence could this argument become more than just an emotional appeal.



12. The conclusion of this argument is that advertising the reduced price of selected items in the Daily Gazette will result in increased sales overall. To support it, the author cites an informal poll conducted by sales clerks when customers purchased advertised items. Each time one or more of the advertised items was sold, the clerks asked whether the customer had read the ad. It turned out that two-thirds of 200 shoppers questioned said that they had read the ad. In addition, of those who reported reading the ad, more than half spent over \$100 in the store. This argument is unconvincing for two reasons. To begin with, the author's line of reasoning is that the advertisement was the cause of the purchase of the sale items. However, while the poll establishes a link between reading the ad and purchasing sale items, and also indicates a correlation, though less significantly, between reading the ad and buying non-sale items, it does not establish a general causal relationship between these events. To establish this relationship, other factors that could bring about this result must be ruled out and eliminated. For example, if the four days during which the poll was conducted preceded Thanksgiving and the advertised items were traditionally associated with this holiday, then the results of the poll would be extremely biased and unreliable.

Moreover, the author assumes that the poll indicates that advertising certain sale items will cause a general increase in sales. But the poll does not even address the issue of increased overall sales; it informs us mainly that, of the people who purchased sale items, more had read the ad than not. A much clearer indicator of the ad's effectiveness would be a comparison of overall sales on days the ad ran with overall sales on otherwise similar days when the ad did not run.

In sum, this argument is defective mainly because the poll does not support the conclusion that sales in general will increase when reduced-price products are advertised in the Daily Gazette. To strengthen the argument, the author must, at the very least, provide comparisons of overall sales reports as described above.

13. In an attempt to sell radio advertising time, this ad claims that radio advertising will make businesses more profitable. The evidence cited is a ten percent increase in business at the Cumquat Cafe has experienced in the year during which it advertised on the local radio station. This argument is unconvincing because two questionable assumptions must be made for the stated evidence to support the author's conclusion. The first assumption is that radio advertising alone has caused the increase in business at the Cumquat Cafe. This assumption is questionable because it overlooks a number of other factors that might have contributed to the Cumquat's success. For example, the Cumquat might have changed owners or chefs; it might have launched a coupon ad campaign in the local print media; or it might have changed or updated the menu. Yet another possibility is that a local competitor went out of business. These are just a few of the factors that could help explain the Cumquat's growth. Because the author fails to eliminate these possibilities, the assumption in question need not be accepted.

Even if it is granted that radio advertising is responsible for the Cumquat's success, another assumption must be made before we can conclude that radio advertising will result in increased profits for businesses in general. We must also assume that what is true of the Cumquat will likewise be true of most other businesses.

But there are all kinds of important differences between cafes and other businesses that could affect how radio audiences react to their advertising. We cannot safely assume that because a small restaurant has benefited from radio advertising, that any and all local businesses will similarly benefit.

In conclusion, it would be imprudent for a business to invest in radio advertising solely on the basis of the evidence presented. To strengthen the conclusion, it must be established that radio advertising was the principal cause of increased business at the Cumquat. Once this is shown, it must be determined that the business in question is sufficiently like the Cumquat, and so can expect similar returns from investment in radio ad time.

14. Two years ago Nova High School began to use interactive computer instruction in three academic subjects. The school dropout rate declined immediately and last year's graduates have reported some impressive achievements in college. In future budgets the school board should use a greater portion of the available funds to buy more computers, and the schools in the district should adopt interactive computer instruction throughout the curriculum.

Sample Essay 1:

The argument that the school board should buy more computers and adopt interactive computer instruction is not entirely logically convincing, since it ignores certain crucial assumptions.

First, the argument assumes that the decline of school dropout and the achievements of last year's graduates' results from the adoption of interactive computer instruction. However, there are several reasons why this might not be true. For example, achievements could have been made in other subjects than the ones with interactive computer instruction. Or last years' graduates might not have been given the interactive computer instruction. Or the decline of the rate of dropout could be attributed to stricter discipline applied last year.

Second, even supposing the Nova High School's decline of the dropout and last year's graduates' achievements benefit directly from the usage of interactive computer instruction, the success of the instruction in one school may not ensure the success in other schools. If it does not suit other schools, the instruction will not work.

Finally, even if the decline of the rate of dropout and the achievements of the last year's graduates' are the direct results of the interactive computer instruction, we still do not know whether the school can afford to apply the instruction on all the subjects or to all the students. If the school does not have sufficient fund and has to cut budgets on other projects such as the library, the quality of the school's education will also compromise.

Thus, the argument is not completely sound. The evidence in support of the conclusion that the dropout rate declined and last year's graduates made impressive achievements does little to prove the conclusion-that other schools should use a greater portion of their funds to apply the instruction-since it does not address the assumptions I have already raised. Ultimately, the argument might have been strengthened by making it clear that the decline of the dropout rate and the achievements of the graduates are the direct results of interactive computer instruction, that the instruction is also applicable to

other schools in the district, and that the instruction is affordable to all the schools in the district.

Sample Essay 2:

The editorial recommends that the school board of Nova High spend a greater portion of available funds on the purchase of additional computers and adopt interactive computer instruction throughout the curriculum. Two reasons are offered in support of this recommendation. First, the introduction of interactive computer instruction in three academic subjects was immediately followed by a decline in the school dropout rate. Second, last year's graduates experienced impressive achievements in college. This argument is unconvincing for two reasons.

To begin with, this argument is a classic instance of "after this, therefore because of this" reasoning. The mere fact that the introduction of interactive computer instruction preceded the impressive performance of recent graduates and the decline in the dropout rate is insufficient to conclude that it was the cause of these events. Many other factors could bring about these same results. For example, the school may have implemented counseling and training programs that better meet the needs of students who might otherwise leave school to take jobs. In addition, the school may have introduced programs to better prepare students for college. Secondly, the author assumes that the impressive achievements of last year's graduates bear some relation to the introduction of interactive computer instruction at Nova High. However, no evidence is offered to support this assumption. Lacking evidence that links the achievements of the recent graduates to the interactive instruction, it is presumptuous to suggest that the computer instruction was in some way responsible for the students' impressive performance.

In conclusion, the recommendation that Nova High spend a greater portion of available funds on the purchase of additional computers and adopt interactive computer instruction throughout the curriculum is ill-founded. To strengthen this recommendation the author would have to demonstrate that the decline in the dropout rate and the impressive performance of recent graduates came about as a result of the use of computer-interactive instruction. All that has been shown so far is a correlation between these events.

15. This political advertisement recommends re-electing governor Adams because he has a proven leadership role in improving the state's economy. In support of this reason the author cites these statistics: in the past year, most state workers' wages have gone up; 5,000 new jobs have been created; and six corporations have located in the state. Another reason offered for re-electing Adams is a recent poll, which indicates that most respondents believe the state economy would continue to improve if he were re-elected. Finally, the author claims that rival Zebulon would harm the state's economy because he disagrees with Adams' fiscal policies. This argument is fraught with vague, oversimplified and unwarranted claims.

To begin with, the statistics are intended to support the main claim that the state is economically better off with Adams as governor. But these statistics are vague and oversimplified, and thus may distort the state's overall economic picture. For example, state workers' pay raises may have been minuscule and may not have kept up with cost of living or with pay for state workers in other states. Moreover, the 5,000 new jobs may

have been too few to bring state unemployment rates down significantly; at the same time, many jobs may have been lost. Finally, the poll indicates that six new corporations located in the state, but fails to indicate if any left.

Next, the poll cited by the author is described in the vaguest possible terms. The ad does not indicate who conducted the poll, who responded, or how the poll was conducted. Until these questions are answered, the survey results are worthless as evidence for public opinion about Adams or his economic policies.

Finally, while we have only vague and possibly distorted evidence that the state is better off with Adams, we have absolutely no evidence that it would be worse off with Zebulon. Given that the state economy is good at the moment, none of the author's reasons establishes that Adams is the cause of this. And neither do they establish that the state wouldn't be even better off with someone else in office.

In conclusion, this argument is weak. To strengthen the argument, the author must provide additional information about the adequacy of state workers' pay raises, the effect of the 5,000 jobs on the state's employment picture, the overall growth of corporations in the state, and other features of the state economy. Also, the author must support the claims that Adams' actions have caused any economic improvement and that in the future Adams will impart more economic benefit than would Zebulon.

16. Demographic trends that indicate an increase in the number of college-aged people over the next ten years lead the author to predict an improved job market for all people seeking college-level teaching positions in their academic disciplines. Moreover, the author argues that since Waymarsh University students with advanced degrees had an especially difficult time finding teaching jobs in the past, these trends portend better times ahead for Waymarsh graduates. This argument is problematic in three important respects.

First, the author assumes that an increase in the number of college-aged people over the next decade will necessarily result in an increase in the number of people who attend college during this period. While this is a reasonable assumption, it is by no means a certainty. For example, a world war or economic depression in the next decade would certainly nullify this expectation.

Second, even if we grant the preceding assumption, we must also consider the additional assumption that increased university enrollments will lead to an increase in teaching positions in all fields. However, it might turn out that some teaching specialties are in greater demand than others in the future, resulting in a disproportionate number of teaching positions available in various fields. Consequently, persons trained in some fields might find it more difficult, if not impossible, to find teaching jobs in the future.

Finally, little can be foretold regarding the employability of Waymarsh graduates in the future based on the information provided in the argument. Lacking information about the reasons why Waymarsh graduates had an especially difficult time finding teaching jobs, it is difficult to assess their prospects for the future. It is probable, however, that since Waymarsh has had an especially hard time placing graduates in the past, the mere fact that more jobs are available will not, by itself, ensure that Waymarsh graduates will have an easier time finding teaching jobs during the next decade.

In conclusion, this argument is unconvincing. To strengthen the argument, the author must provide evidence that the only major trend in the next decade will be an

increase in the number of people reaching college age. Regarding the future prospects for Waymarsh graduates, the author must provide evidence that there were no idiosyncratic reasons that prevented them from finding jobs in the past.

17. This ad recommends non-prescription Acid-Ease over non-prescription Pepticaid for relief of excess stomach acid. The only reason offered is that doctors have written 76 million more prescriptions for the full-strength prescription form of Acid-Ease than for full-strength Pepticaid. While this reason is relevant, and provides some grounds for preferring Acid-Ease over Pepticaid, it is insufficient as it stands because it depends on three unwarranted assumptions.

The first assumption is that the prescription form of Acid-Ease is more popular among doctors. But this might not be the case, even though doctors have written 76 million more prescriptions for Acid-Ease. Acid-Ease may have been available for several more years than Pepticaid; and in the years when both products were available, Pepticaid might have actually been prescribed more often than Acid-Ease.

The second assumption is that doctors prefer the prescription form of Acid-Ease for the reason that it is in fact more effective at relieving excess stomach acid. However, doctors may have preferred Acid-Ease for reasons other than its effectiveness. Perhaps Acid-Ease is produced by a larger, more familiar drug company or by one that distributes more free samples. For that matter, the medical community may have simply been mistaken in thinking that Acid-Ease was more effective. In short, the number of prescriptions by itself is not conclusive as to whether one product is actually better than another.

The third assumption is that the milder non-prescription forms of Acid-Ease and Pepticaid will be analogous to the full-strength prescription forms of each. But this might not be the case. Suppose for the moment that the greater effectiveness of prescription Acid-Ease has been established; even so, the non-prescription form might not measure up to non-prescription Pepticaid. This fact must be established independently.

In conclusion, this ad does not provide enough support for its recommending non-prescription Acid-Ease over non-prescription Pepticaid. To strengthen its argument, the promoter of Acid-Ease would have to show that (1) the comparison between the number of prescriptions is based on the same time period; (2) its effectiveness is the main reason more doctors have prescribed it, and (3) the comparative effectiveness of the two non-prescription forms is analogous to that of the prescription forms.

18. In this argument, the head of a government department concludes that the department does not need to strengthen either its ethics regulations or its enforcement mechanisms in order to encourage ethical behavior by companies with which it does business. The first reason given is that businesses have agreed to follow the department's existing code of ethics. The second reason is that the existing code is relevant to the current business environment. This argument is unacceptable for several reasons.

The sole support for the claim that stronger enforcement mechanisms are unnecessary comes from the assumption that companies will simply keep their promises

to follow the existing code. But, since the department head clearly refers to rules violations by these same businesses within the past year, his faith in their word is obviously misplaced. Moreover, it is commonly understood that effective rules carry with them methods of enforcement and penalties for violations.

To show that a strengthened code is unnecessary, the department head claims that the existing code of ethics is relevant. In partial clarification of the vague term "relevant," we are told that the existing code was approved in direct response to violations occurring in the past year. If the full significance of being relevant is that the code responds to last year's violations, then the department head must assume that those violations will be representative of all the kinds of ethics problems that concern the department. This is unlikely; in addition, thinking so produces an oddly short-sighted idea of relevance.

Such a narrow conception of the relevance of an ethics code points up its weakness. The strength of an ethics code lies in its capacity to cover many different instances of the general kinds of behavior thought to be unethical to cover not only last year's specific violations, but those of previous years and years to come. Yet this author explicitly rejects a comprehensive code, preferring the existing code because it is "relevant" and "not in abstract anticipation of potential violations."

In sum, this argument is naive, vague and poorly reasoned. The department head has not given careful thought to the connection between rules and their enforcement, to what makes an ethics code relevant, or to how comprehensiveness strengthens a code.

In the final analysis, he adopts a backwards view that a history of violations should determine rules of ethics, rather than the other way around.

19. Recent social changes in the country of Spiessa lead the author to predict a continued surge in growth of that country's restaurant industry. Rising personal incomes, additional leisure time, an increase in single-person households, and greater interest in gourmet food are cited as the main reasons for this optimistic outlook. All of these factors are indeed relevant to growth in the restaurant industry; so the prediction appears reasonable on its face. However, three questionable assumptions operative in this argument bear close examination.

The first dubious assumption is that the supply of restaurants in Spiessa will continue to grow at the same rate as in the recent past. However, even in the most favorable conditions and the best of economic times there are just so many restaurants that a given population can accommodate and sustain. It is possible that the demand for restaurants has already been met by the unprecedented growth of the past decade, in which case the recent social changes will have little impact on the growth of the restaurant industry.

A second assumption is that the economic and social circumstances cited by the author will actually result in more people eating out at restaurants. This assumption is unwarranted, however. For example, increased leisure time may just as likely result in more people spending more time cooking gourmet meals in their own homes. Also, single people may actually be more likely than married people to eat at home than to go out for meals. Finally, people may choose to spend their additional income in other ways: on expensive cars, travel, or larger homes.

A third poor assumption is that, even assuming people in Spiessa will choose to



spend more time and money eating out, no extrinsic factors will stifle this demand. This assumption is unwarranted. Any number of extrinsic factors—as such as a downturn in the general economy or significant layoffs at Spiessa's largest businesses—may stall the current restaurant surge. Moreover, the argument fails to specify the "social changes" that have led to the current economic boom. If it turns out these changes are politically driven, then the surge may very well reverse if political power changes hands. In conclusion, this argument unfairly assumes a predictable future course for both supply and demand. To strengthen the argument, the author must at the very least show that demand for new restaurants has not yet been exhausted, that Spiessa can accommodate new restaurants well into the future, and that the people of Spiessa actually want to eat out more.

20. Laboratory studies show that Saluda Natural Spring Water contains several of the minerals necessary for good health and that it is completely free of bacteria. Residents of Saluda, the small town where the water is bottled, are hospitalized less frequently than the national average. Even though Saluda Natural Spring Water may seem expensive, drinking it instead of tap water is a wise investment in good health

Sample Essay 1:

The argument that drinking Saluda Natural Spring Water instead of tap water is a wise investment in good health is not entirely logically convincing, since it lacks certain supporting factors.

Firstly, the argument assumes that Saluda Natural Spring Water is the major reason why residents of Saluda are less frequently hospitalized than the national average. However, there is little evidence that this water is the only difference between this place and the rest of the country. And the reason why people in other places are more hospitalized are numerous and varied. There are so many other factors that would bring people in other places to hospitals, such as accidents, food contamination, illnesses, etc. Secondly, the argument also assumes that the minerals in Saluda Natural Spring Water are the key minerals for the good health of the residents of Saluda. However, this may not be true. We need not only minerals to keep good health but also various vitamins. Besides, our body needs more minerals than those contained in Saluda Natural Spring Water.

Finally, even if the Saluda water is the major reason why the residents of Saluda are less hospitalized, the argument still omits the fact that there is more than one way to keep drinking water free from bacteria. For instance, the most common practice is to boil water up to 100 degree Celsius and keep it at that degree for more than 5 minutes. Therefore drinking Saluda water to keep good health is not the only alternative.

Thus, the argument is not completely sound. The evidence in support of the conclusion that the Saluda residents are less hospitalized does little to prove the conclusion—that drinking Saluda Natural Spring Water is a wise investment in good health—since it omits the assumptions I have just raised. The argument might have been strengthened by making it plain that Saluda Natural Spring Water is the major reason why the residents of Saluda are less hospitalized, that the water contains all the major minerals essential for the human body, and that there is no other way to keep water from bacteria.

Sample Essay 2:

In this argument the author concludes that drinking Saluda Natural Spring Water (SNSW) is preferable to drinking tap water. Three reasons are offered in support of this conclusion: SNSW contains several of the minerals necessary for good health, it is completely free of bacteria, and residents of Saluda—the town where it is bottled—are hospitalized less frequently than the national average. This argument is unconvincing because it relies on a variety of dubious assumptions.

The first questionable assumption underlying this argument is that tap water does not contain the minerals in question and is not completely free of bacteria. This assumption is not supported in the argument. If tap water is found to contain the same minerals and to be free of bacteria, the author's conclusion is substantially undermined. A second assumption of the argument is that the water residents of Saluda drink is the same as SNSW. Lacking evidence to the contrary, it is possible that Saluda is not the source of the bottled water but is merely the place where SNSW is bottled. No evidence is offered in the argument to dispute this possibility.

Finally, it is assumed without argument that the reason residents are hospitalized less frequently than the national average is that they drink SNSW. Again, no evidence is offered to support this assumption. Perhaps the residents are hospitalized less frequently because they are younger than the national average, because they are all vegetarians, or because they exercise daily. That is, there might be other reasons than the one cited to account for this disparity.

In conclusion, this is an unconvincing argument. To strengthen the conclusion that SNSW is more healthful than tap water, the author must provide evidence that tap water contains harmful bacteria not found in SNSW. Moreover, the author must demonstrate that the residents of Saluda regularly drink the same water as SNSW and that this is why they are hospitalized less frequently than the national average.

21. The conclusion of this editorial is that the government should lower property taxes for railroad companies. The first reason given is that railroads spend billions per year maintaining and upgrading their facilities. The second reason is that shipping goods by rail is cost-effective and environmentally sound. This argument is unconvincing for several reasons.

First of all, the argument depends upon a misleading comparison between railroad and truck company expenditures. Although trucking companies do not pay property tax on roads they use, they do pay such taxes on the yards, warehouses and maintenance facilities they own. And while trucking companies pay only a portion of road maintenance costs, this is because they are not sole users of public roads. Railroad companies shoulder the entire burden of maintenance and taxes on their own facilities and tracks; but they distribute these costs to other users through usage fees.

In addition, the author assumes that property taxes should be structured to provide incentives for cost-effective and environmentally beneficial business practices. This assumption is questionable because property taxes are normally structured to reflect the value of property. Moreover, the author seems to think that cost-effectiveness and environmental soundness are equally relevant to the question of tax relief. However, these are separate considerations. The environmental soundness of a practice might be relevant in determining tax structuring, but society does not compensate a business for

its cost-efficiency.

Splitting the issues of cost-efficiency and environmental impact highlights an ambiguity in the claim that railway shipping is more appropriate. On the one hand, it may be appropriate, or prudent, for me to ship furniture by rail because it is cost-effective; on the other hand, it might be appropriate, or socially correct, to encourage more railway shipping because it is environmentally sound. The argument thus trades on an equivocation between social correctness on the one hand, and personal or business prudence on the other.

In sum, this argument is a confusion of weak comparisons, mixed issues and equivocal claims. I would not accept the conclusion without first determining: (1) the factors relevant to tax structure, (2) whether specific tax benefits should accrue to property as well as to income and capital gains taxes, (3) whether railway shipping really does provide greater social benefits, and (4) whether it is correct to motivate more railway shipping on this basis.

22. The conclusion in this argument is that increased vigilance by drug enforcement authorities has resulted in an increase in the illegal use of cocaine. The author reaches this conclusion on the grounds that drug traffickers have responded to increased enforcement efforts by switching from bulkier and riskier drugs to cocaine. Presumably, the author's reasoning is that the increased enforcement efforts inadvertently brought about an increase in the supply of cocaine which, in turn, brought about the observed increase in the illegal use of cocaine. This line of reasoning is problematic in two important respects.

In the first place, the author has engaged in "after this, therefore because of this" reasoning. The only reason offered for believing that the increased vigilance caused the increase in cocaine use is the fact that the former preceded the latter. No additional evidence linking the two events is offered in the argument, thus leaving open the possibility that the two events are not causally related but merely correlated. This in turn leaves open the possibility that factors other than the one cited are responsible for the increase in cocaine use.

In the second place, the author assumes that an increase in the supply of cocaine is sufficient to bring about an increase in its use. While this is a tempting assumption, it is a problematic one. The presumption required to substantiate this view is that drug users are not particular about which drugs they use, so that if marijuana and heroin are not available, they will switch to whatever drug is available?acocaine in this case. The assumption does not seem reasonable on its face. Marijuana, heroin, and cocaine are not alike in their effects on users; nor are they alike in the manner in which they are ingested or in their addictive properties. The view that drug users' choice of drugs is simply a function of supply overlooks these important differences.

In conclusion, the author has failed to establish a causal link between increased enforcement efforts and the observed increase in illegal cocaine use. While the enforcement activities may have been a contributing factor, to show a clear causal connection the author must examine and rule out various other factors.

23. This speaker draws the conclusion that there is no need to substantially increase funding for Einstein High School. To support this conclusion, the speaker claims that

Einstein has improved its educational efficiency over the past 20 years, even though funding levels have remained relatively constant. His evidence is that two-thirds of Einstein's graduates now go on to college, whereas 20 years ago only half of its students did so. This argument suffers from several critical problems.

To begin with, we must establish the meaning of the vague concept "educational efficiency." If the term is synonymous with the rate of graduation to college, then the statistics cited would strongly support the argument. But, normally we are interested in something more than just the numbers of students who go on to college from a high school; we also want to know how well the school has prepared students for a successful college experience—that is, whether the school has provided a good secondary education. Thus, for the speaker the term "educational efficiency" must essentially carry the same meaning as "educational quality."

Given this clarification, one of the speaker's assumptions is that the rate of graduation to college has increased because Einstein is doing a better job of educating its students. However, the fact that more Einstein graduates now go on to college might simply reflect a general trend. And the general trend might have less to do with improved secondary education than with the reality that a college degree is now the standard of entry into most desirable jobs.

But even if the quality of education at Einstein had improved, would this be a compelling reason to deny Einstein additional funding? I don't think so. It is possible that the school has managed to deliver better education in spite of meager funding. Teachers may be dipping into their own pockets for supplies and other resources necessary for doing their job well. Perhaps the quality of education at Einstein would improve even more with additional financial support.

In sum, this argument does not establish the conclusion that additional funding for Einstein is unnecessary. To do so, the speaker would have to provide evidence that the quality of education at Einstein has improved. This could be done by examining student assessment scores or by tracking students through their college careers to see how many successfully graduate and find jobs. In addition, the speaker would also have to show that Einstein is doing a good job with adequate financial support, and not merely in spite of insufficient funding.

24. The customer-service division of Mammon Savings and Loan recommends that the best way for the bank to attract new customers and differentiate itself from its competitors is to improve its service to customers—specifically, by reducing waiting time in teller lines, opening for business 30 minutes earlier, and closing an hour later. These improvements, it is argued, will give the bank the edge over its competitors and make it appear more customer-friendly. For the most part this recommendation is well-reasoned; a few concerns must be addressed, however.

First, the author assumes that Mammon's competitors are similar to Mammon in all respects other than the ones listed. In fact, Mammon's competitors may be more conveniently located to customers, or offer other services or products on more attractive terms than Mammon. If so, Mammon may not gain the edge it seeks merely by enhancing certain services.

Secondly, the author assumes that the proposed improvements will sufficiently distinguish Mammon from its competitors. This is not necessarily the case. Mammon's

competitors may already offer, or may plan to offer, essentially the same customer-service features as those Mammon proposes for itself. If so, Mammon may not gain the edge it seeks merely by enhancing these services.

Thirdly, the author assumes that Mammon can offer these improved services without sacrificing any other current features that attract customers, in fact, Mammon may have to cut back other services or offer accounts on less attractive terms, all to compensate for the additional costs associated with the proposed improvements. By rendering its other features less attractive to customers, Mammon may not attain the competitive edge it seeks.

In conclusion, Mammon's plan for attracting new customers and differentiating itself from its competitors is only modestly convincing. While improvements in customer service generally tend to enhance competitiveness, it is questionable whether the specific improvements advocated in the recommendation are broad enough to be effective.

25. The author concludes that City L has good schools, affordable housing, friendly people, flourishing arts and a safe environment. To support this claim the author cites an annual survey that ranks cities according to quality of life. Two years ago City L was listed 14th in this survey. As it stands this argument is unconvincing.

First, the author fails to indicate what individual characteristics of cities were used as criteria for the ranking. To the extent that the criteria used in the survey were the same as the features listed by the author in the conclusion, the conclusion would be warranted. On the other hand, if the survey employed entirely different criteria—for example, outdoor recreational opportunities or educational achievement levels of adult residents—then the author's conclusion would be wholly unwarranted.

Secondly, the author provides no indication of how each characteristic was weighted in the ranking. For example, City L may have far and away the most flourishing arts scene among the cities surveyed, but it may have poor schools, unfriendly people, and an unsafe environment. The extent to which the survey accurately reflects City L's overall quality of life in this case would depend largely on the relative weight placed on the arts as a factor affecting quality of life.

Thirdly, the author fails to indicate how many cities were included in the survey.

The more cities included in the survey, the stronger the argument—and vice versa. For example, if 2,000 cities were surveyed, then City L would rank in the top one percent in terms of quality of life. On the other hand, if only 14 cities were surveyed then City L would rank last.

Finally, the author's conclusion depends on the questionable assumption that the conditions listed by the author have remained unchanged in City L since the survey was conducted two years ago. Admittedly, had ten years elapsed the argument would be even weaker. Yet two years is sufficient time for a significant change in the overall economy, the city's fiscal policies, its financial condition, or its political climate. Any of these factors can affect the quality of schools, the extent to which art is flourishing, or the cost of housing.

In conclusion, the author does not adequately support the conclusion. To strengthen the argument, the author must show that the criteria used in the survey were the same as the features listed in the conclusion and were weighted in a way that does

not distort the picture in City L. To better assess the argument, we would also need more information about the cities included in the survey, as well as what changes in City L have occurred during the past two years.

26. The following appeared in a memorandum from a member of a financial management and consulting firm.

"We have learned from an employee of Windfall, Ltd., that its accounting department, by checking about ten percent of the last month's purchasing invoices for errors and inconsistencies, saved the company some \$10,000 in overpayments. In order to help our clients increase their net gains, we should advise each of them to institute a policy of checking all purchasing invoices for errors. Such a recommendation could also help us get the Windfall account by demonstrating to Windfall the rigorousness of our methods."

Sample Essay 1:

The argument that checking all purchasing invoices for errors will not only increase the net gains of the clients but also help the firm get the Windfall account is not entirely logically convincing, since it ignores certain crucial assumptions.

First, the argument assumes that instituting a policy of checking all purchasing invoices can help find out the errors and inconsistencies. There are a number of reasons why this might not be true. For example, the people who check the accounts will probably make mistakes as anyone else, intentionally or unconsciously. If they do, checking purchasing invoices will not help avoid errors and inconsistencies. Second, even if the checking can help avoid errors and inconsistencies, it will not necessarily save money for the company, for it is also likely that the accounting department makes no mistakes. If they have no errors, how can the checking save money for the company.

Finally, even supposing the checking does save money for the company, the argument ignores the fact that the checking itself costs the company money. If the cost is more than the gains from the errors, the company will lose money.

Thus, the argument is not completely sound. The evidence in support of the conclusion that the checking of last month's invoices has saved the company \$10,000 does little prove the conclusion-that checking all purchasing invoices for errors will increase the net gains of the clients but also help the firm get the Windfall account-since it does not address the assumptions I have already raised. Ultimately, the argument might have been strengthened by making it plain that checking all invoices will surely help find out errors, that all the invoices are bound to contain errors, and that the checking itself will not cost much.

Sample Essay 2:

In this argument a member of a financial management and consulting firm reasons that since Windfall Ltd. increased its net gains by checking 10 percent of its purchasing invoices for errors, it would be a good idea to advise the firm's clients to institute a policy of checking all purchasing invoices for errors. Two potential benefits are foreseen from this recommendation: it could help the firm's clients increase their net gains, and it could help the firm land the Windfall account. The member's argument is



unconvincing for a couple of reasons.

The main problem with the argument is that the conclusion is based upon insufficient evidence. The fact that some of Windfall's purchasing invoices contained errors might simply be attributable to the sloppy accounting practices of Windfall's suppliers. Thus, rather than indicating a general problem, the invoice errors might simply be indicative of a problem that is specific to Windfall Ltd. In other words, the evidence drawn from Windfall's experience is insufficient to support the conclusion that all purchasing invoices are subject to similar errors.

Secondly, the evidence offered in the argument suggests only that companies purchasing from the same suppliers that Windfall purchases from are likely to experience similar problems. If the firm's clients do not purchase from Windfall's suppliers, checking for errors might turn out to be a monumental waste of time.

In conclusion, the author's argument fails to provide good grounds for instituting the policy of routinely checking purchasing invoices for errors. To strengthen the conclusion the author would have to provide evidence that this is a widespread problem. Specifically, what is required are additional instances of purchasing invoices containing errors that are drawn from various companies.

27. Based upon a correlation between increases in movie violence and crime rates in cities, the author argues that to combat crime in cities we must either censor movies that contain violence or prohibit people who are under 21 years of age from viewing them. The author further argues that because legislators failed to pass a bill calling for these alternatives, they are not concerned with the problem of crime in our cities. The author's reasoning is unconvincing, since it suffers from two critical problems.

To begin with, the author's solution to the problem rests on the claim that portrayals of violence in movies are the cause of crime in the cities. However, the evidence offered is insufficient to support this claim. A mere positive correlation between movie violence and city crime rates does not necessarily prove a causal relationship, in addition, all other prospective causes of city crime such as poverty or unemployment must be ruled out. As it stands, the author's solution to the problem is based upon an oversimplified analysis of the issue.

Another problem with the argument is that the author's solution assumes that only persons under 21 years of age are adversely affected by movie violence. Ultimately, this means that the author is committed to the view that, for the most part, the perpetrators of crime in cities are juveniles under 21. Lacking evidence to support this view, the author's solution cannot be taken seriously.

In conclusion, the best explanation of the failure of the bill calling for the actions proposed in this argument is that most legislators were capable of recognizing the simplistic analysis of the problem upon which these actions are based. Rather than providing a demonstration of a lack of concern about this issue, the legislators' votes reveal an understanding of the complexities of this problem and an unwillingness to accept simple solutions.

28. The author concludes that the local transit company must either reduce fares for the shuttle buses that transport people to then- subway stations or increase parking fees

at the stations. The reasons offered to support this conclusion are that commuter use of the subway train is exceeding the transit company's expectations, while commuter use of the shuttle buses is below projected volume. This argument is unconvincing because the author oversimplifies the problem and its solutions in a number of ways.

To begin with, by concluding that the transit company must either reduce shuttle fares or increase parking fees, the author assumes that these are the only available solutions to the problem of limited shuttle use. However, it is possible that other factors—such as inconvenient shuttle routing and/or scheduling, safety concerns, or an increase in carpools—contribute to the problem. If so, adjusting fares or parking fees would might not solve the problem.

In addition, the author assumes that reducing shuttle fees and increasing parking fees are mutually exclusive alternatives. However, the author provides no reason for imposing an either/or choice. Adjusting both shuttle fares and parking fees might produce better results. Moreover, if the author is wrong in the assumption that parking fees and shuttle fees are the only possible causes of the problem, then the most effective solution might include a complex of policy changes—for example, in shuttle fares, parking fees, rerouting, and rescheduling.

In conclusion, this argument is weak because the author oversimplifies both the problem and its possible solutions. To strengthen the argument the author must examine all factors that might account for the shuttle's unpopularity. Additionally, the author should consider all possible solutions to determine which combination would bring about the greatest increase in shuttle use.

29. This speaker argues that farmers who invested in organic farming equipment should resume synthetic farming because it is financially unwise to continue organic farming. The speaker cites studies showing that farmers who switched to organic farming last year had lower crop yields. Based on these studies, the speaker concludes that the relatively inexpensive investment in organic farming equipment cannot justify continuing to farm organically. The speaker also claims that continuing to farm organically is financially unwise because it is motivated by environmental, not economic, concerns. The argument suffers from three problems.

One problem with this reasoning involves the vague comparative claim that farmers who switched to organic farming last year had lower crop yields. We are not informed whether the survey compared last year's organic crop yields with yields from previous years or with those from synthetic farms. Moreover, the author provides no evidence about how the survey was conducted. Lacking more information about the survey, we cannot accept the speaker's conclusion.

Secondly, the speaker assumes that the low crop yields for first-time organic farmers last year are representative of crop yields for organic farmers overall. However, more experienced organic farmers might have had much better crop yields last year. Also, the first-time organic farmers might improve their own crop yields in future years. Moreover, last year's yield may have been unusually low due to poor weather or other factors, and thus not indicative of future yields.

Finally, in asserting that organic farming is financially unwise because it is motivated by environmental instead of economic concerns, the speaker unfairly assumes that a practice cannot be both environmentally and economically beneficial. It is

possible that, in the long run, practices that help protect the environment will also result in greater economic benefits. For instance, organic farming methods may better protect soil from depletion of the elements that contribute to healthy crops, providing an economic benefit in the long run.

In conclusion, the speaker's argument is poorly supported and is short-sighted. To better evaluate the argument, we would need more information about the how the survey was conducted, especially about the comparison the survey makes. To strengthen the argument, the speaker must present evidence that last years' crop yields from first-time organic farmers are representative of yields among organic farms in general. The author must also provide evidence that environmentally sound practices cannot be economically beneficial as well.

30. In this argument prudent investors are advised to stop investing in hotels and invest instead in hospitals and nursing homes. The author cites two related trends?aan aging population and a decline in hotel occupancy?as grounds for this advice. To illustrate these trends, the author refers to another region of the country, where 20 percent of the population is over 65 years old and where occupancy rates in resort hotels have declined significantly during the past six months. This argument is unconvincing in a couple of important respects.

In the first place, the author provides no evidence to support the claim that the population as a whole is aging and that the hotel occupancy rate in general is declining. The example cited, while suggestive of these trends, is insufficient to warrant their truth because there is no reason to believe that data drawn from this unnamed region is representative of the entire country. For example, if the region from which the data was gathered was Florida, it would clearly be unrepresentative. The reason for this is obvious. Florida is populated by a disproportionate number of retired people over 65 years old and is a very popular vacation destination during the winter months. Moreover, resort hotel occupancy in Florida typically declines significantly during the summer months.

In the second place, the author has provided no evidence to support the claim that the decline in hotel occupancy is related to the aging of the population. The author appears to believe that the decrease in occupancy rates at resort hotels is somehow caused by the increase in the number of people over age 65. However, the example cited by the author establishes only that these two trends are correlated; it does not establish that the decline in hotel occupancy is due to an increase in the number of people over the age of 65.

In conclusion, the author's investment advice is not based on sound reasoning. To strengthen the conclusion, the author must show that the trends were not restricted to a particular region of the country. The author must also show that the cause of the decline in hotel occupancy is the increase in the number of people over 65.

31. In this argument a consulting firm recommends the transfer of investments from Cola Loca to Early Bird Coffee because, during the next 20 years, coffee demand will increase while cola demand will decrease. This prediction is based on the expectation that the number of older adults will significantly increase over the next 20 years,

together with statistics, reportedly stable for the past 40 years, indicating that coffee consumption increases with age while cola consumption declines with increasing age. For three reasons, this financial advice may not be sound.

First, the argument assumes that relative supply conditions will remain unchanged over the next twenty years. However, the supply and cost of cola and coffee beans, as well as other costs of doing business as a producer of coffee or cola, may fluctuate greatly over a long time period. These factors may affect comparative prices of coffee and cola, which in turn may affect comparative demand and the value of investments in coffee and cola companies. Without considering other factors that contribute to the value of a coffee or cola company, the firm cannot justify its recommendation. Secondly, the argument fails to account for the timing of the increase in coffee consumption. Perhaps the population will age dramatically during the next five years, then remain relatively flat over the following 15 years. Or perhaps most of the increase in average age will occur toward the end of the 20-year period. An investor has more opportunity to profit over the short and long term in the first scenario than in the second, assuming the investor can switch investments along the way. If the second scenario reflects the facts, the firm's recommendation would be ill-founded.

Finally, the firm unjustifiably relies on the studies that correlate coffee and cola consumption with age. The firm does not provide evidence to confirm the reliability of the studies. Moreover, while the phrase "studies suggest" may appear to lend credibility to these claims, the phrase is vague enough to actually render the claims worthless, in the absence of any information about them.

In conclusion, the firm should not transfer investments from Cola Loca to Early Bird Coffee on the basis of this argument. To better evaluate the recommendation, we would need more information about the study upon which it relies. We would also need more detailed projections of population trends during the next 20 years.

32. In this argument the author concludes that West Cambria can increase revenues and provide better care to accident victims by disbanding the volunteer ambulance service and hiring a commercial one. The author reasons that this change would yield additional revenues because service fees could be imposed for ambulance use. The author also reasons that the city would provide better service to accident victims because a commercial service would respond more quickly to accidents than a volunteer service would. The author's argument is flawed in two respects.

To begin with, the author's plan for raising revenue for West Cambria is questionable. Unless the service fees are considerable or the accident rate is extremely high, it is unlikely that significant revenues will be raised by charging a fee for ambulance use. Consequently, revenue generation is not a good reason to disband the volunteer service and hire a commercial service.

Next, the author's belief that better patient care would be provided by a commercial ambulance service than by a volunteer service is based on insufficient evidence. The fact that the commercial service in East Cambria has a lower average response time than the volunteer service in West Cambria is insufficient evidence for the claim that this will be the case for all commercial services. Moreover, the author's recommendation depends upon the assumption that response time to an accident is the only factor that influences patient care. Other pertinent factors?asuch as ambulance-

crew proficiency and training, and emergency equipment?are not considered. In conclusion, this argument is unconvincing. To strengthen the argument the author would have to show that substantial revenue for the town could be raised by charging service fees for ambulance use. Additionally, the author would have to provide more evidence to support the claim that commercial ambulance services provide better patient care than volunteer services.

33. The author of Perks Company's business plan recommends that funds currently spent on the employee benefits package be redirected to either upgrade plant machinery or build an additional plant. The author reasons that offering employees a generous package of benefits and incentives year after year is no longer cost-effective given current high unemployment rates, and that Perks can attract and keep good employees without such benefits and incentives. While this argument has some merit, its line of reasoning requires close examination.

To begin with, the author relies on the reasoning that it is unnecessary to pay relatively high wages during periods of high unemployment because the market will supply many good employees at lower rates of pay. While this reasoning may be sound in a general sense, the particular industry that Perks is involved in may not be representative of unemployment levels generally. It is possible that relatively few unemployed people have the type of qualifications that match job openings at Perks, if this is the case, the claim that it is easier now to attract good employees at lower wages is ill-founded.

Secondly, the argument relies on the assumption that the cost-effectiveness of a wage policy is determined solely by whatever wages a market can currently bear. This assumption overlooks the peripheral costs of reducing or eliminating benefits. For example, employee morale is likely to decline if Perks eliminates benefits; as a result, some employees could become less productive, and others might quit. Even if Perks can readily replace those employees, training costs and lower productivity associated with high turnover may outweigh any advantages of redirecting funds to plant construction. Moreover, because the recommended reduction in benefits is intended to fund the retrofitting of an entire plant or the building of a new one, the reduction would presumably be a sizable one; consequently, the turnover costs associated with the reduction might be very high indeed.

In conclusion, this argument is not convincing, since it unfairly assumes that a broad employment statistic applies to one specific industry, and since it ignores the disadvantages of implementing the plan. Accordingly, I would suspend judgment about the recommendation until the author shows that unemployment in Parks' industry is high and until the author produces a thorough cost-benefit analysis of the proposed plan.

34. In this argument the author concludes that the Easy Credit Company would gain several advantages over its competitors by donating a portion of its profits to a well-known environmental organization in exchange for the use of the organization's logo on their credit card. The author reaches this conclusion on the basis of a recent poll that shows widespread public concern about environmental issues. Among the advantages of this policy, the author foresees an increase in credit card use by existing customers, the

ability to charge higher interest rates, and the ability to attract new customers. While the author's argument has some merit, it suffers from two critical problems.

To begin with, the author assumes that the environmental organization whose logo is sought is concerned with the same environmental issues about which the poll shows widespread concern. However, the author provides no evidence that this is the case. It is possible that very few credit-card users are concerned about the issues that are the organization's areas of concern; if so, then it is unlikely that the organization's logo would attract much business for the Easy Credit Company.

Next, the author assumes that the public's concern about environmental issues will result in its taking steps to do something about the problem. In this case, to use the Easy Credit Company credit card. This assumption is unsupported and runs contrary to experience. Also, it is more reasonable to assume that people who are concerned about a particular cause will choose a more direct means of expressing their concern.

In conclusion, the author's argument is unconvincing as it stands. To strengthen the argument, the author must show a positive link between the environmental issues about which the public has expressed concern and the issues with which this particular environmental organization is concerned. In addition, the author must provide evidence to support the assumption that concern about a problem will cause people to do something about the problem.

35. The financial-planning office at Fern Valley University concludes that it is necessary to initiate a fund-raising campaign among alumni that will enable the university to expand the range of subjects it offers and increase the size of its library facilities. Its argument is based on a five-year decline in enrollments and admission applications together with the claim that students cite poor teaching and inadequate library resources as their chief sources of dissatisfaction with Fern Valley. The conclusion of the financial-planning office is not strongly supported by the reasons given.

To begin with, this argument depends on the assumption that providing a greater range of subjects and a larger library will alleviate the students' chief sources of dissatisfaction. However, the students have not complained about inadequate course offerings or about the size of the library; their complaint is that the existing courses are poorly taught and that library resources are inadequate. Offering more kinds of classes does not improve teaching quality, and increasing a library's size does nothing to enhance its holdings, or resources. Accordingly, the recommendation does not bear directly on the problem as stated.

Secondly, the proposal unfairly assumes that the recent enrollment and application decline was caused by poor teaching and inadequate library resources. It is equally possible that all colleges, regardless of teaching quality and library resources, have experienced similar declines. These declines may have been due to unrelated factors, such as unfavorable economic conditions, or an increase in high-paying computer jobs not requiring a college education.

Thirdly, the author provides no support for the claim that students are dissatisfied with the teaching and library resources at Fern Valley. It is possible that the claim is based on hearsay or on scant anecdotal evidence. Without more information about the basis of the claim, we cannot be sure that the financial-planning office is addressing the



real problems.

In conclusion, the advice of the financial planning office is not well supported. To strengthen the argument, the planning office must provide evidence that students are dissatisfied with the range of subjects and with the library's size, and that this dissatisfaction is the cause of the recent decline in enrollment and the number of admission applications. To better assess the argument as it stands, we would need to know whether the students' attitudes were measured in a reliable, scientific manner.

36. This newsletter article claims that Professor Taylor's foreign-language program at Jones University is a model of foreign language instruction. This conclusion is based on a study in which foreign language tests were given to students at 25 other universities. The study shows that first-year language students at Jones speak more fluently after just 10 to 20 weeks in the program than do 90 percent of foreign-language majors at other colleges at graduation. Despite these impressive statistics, I am unconvinced by this argument for two reasons.

To begin with, the assumption here is that students from Professor Taylor's program have learned more than foreign language students at other universities. However, we are not given enough information about the study to be sure that this comparison is reliable. For example, the article does not tell us whether the foreign language students at Jones were given the tests; it only reports that the tests in question were "given to students at 25 other colleges." If Jones students were not tested, then no basis exists for comparing them to students at the other universities. In addition, the article does not indicate whether students at all the universities, including Jones, were given the same tests. If not, then again no basis exists for the comparison. Furthermore, we cannot tell from this article whether the universities in the study, or their students, are comparable in other ways. For instance, Jones might be a prestigious university that draws its students from the top echelon of high school graduates, while the other universities are lower-ranked schools with more lenient admission requirements. In this event, the study wouldn't tell us much about Professor Taylor's program, for the proficiency of his students might be a function of their superior talent and intelligence.

In conclusion, the statistics cited in the article offer little support for the claim about Taylor's program. To strengthen the argument, the author must show that the universities in the study, including Jones, were comparable in other ways, that their foreign language students were tested identically, and that Taylor's program was the only important difference between students tested at Jones and those tested at the other universities.

37. The author rejects the claim that the loud engine noise of American-made Motorcycle X appeals to the manufacturer's customers and explains why they are not attracted to quieter, foreign-made imitations. The author's rejection is based on two reasons. First, the author points out that foreign cars tend to be quieter than similar American-made cars, yet they sell just as well. Secondly, the author claims that ads for Motorcycle X do not emphasize its engine noise; instead, the ads highlight its durability and sleek lines, and employ voice-overs of rock music rather than engine roar. In my

view, these reasons do not establish that the quieter engines of the foreign imitations fail to account for their lack of appeal.

To begin with, the first reason rests on the assumption that what automobile customers find appealing is analogous to what motorcycle customers find appealing.

This assumption is weak, since although there are points of comparison between automobiles and motorcycles, there are many dissimilarities as well. For example, headroom, smooth ride, and quiet engines are usually desirable qualities in a car. However, headroom is not a consideration for motorcycle customers; and many motorcycle riders specifically want an exciting, challenging ride, not a smooth one. The same may be true of engine noise; it is possible that motorcyclists like what loud engine noise adds to the experience of motorcycle riding.

The author's second reason is also problematic. Although the engine noise of Motorcycle X is not explicitly touted in advertisements, it does not necessarily follow that engine noise is not an important selling feature. Because Motorcycle X has been manufactured in the U.S. for over 70 years, its reputation for engine noise is probably already well known and need not be advertised. Moreover, the advertisers might use rock music on Motorcycle X ad soundtracks for the specific purpose of suggesting, or even simulating, its loud engine noise.

In conclusion, this author has not provided convincing reasons for rejecting the claim that quieter engines make foreign-made motorcycles less popular. The author's analogy involving foreign car sales is weak, and the claim about Motorcycle X advertisements misses the purpose of including rock music in the ads.

38. The author of this article argues that, to reverse declining revenues from campus housing rentals, campus housing officials should decrease the number of available housing units and reduce rent prices on the units. The author's line of reasoning is that fewer available units will limit supply while lower rents will increase demand, thereby improving overall occupancy rates, and that the resulting increase in occupancy rates will, in turn, boost revenues for the campus. This reasoning is unconvincing for several reasons.

To begin with, the author assumes that boosting occupancy rates will improve revenues. All other factors remaining unchanged, this would be the case. However, the author proposes reducing both the supply of units and their rental prices. Both of these actions would tend to reduce revenues. The author provides no evidence that the revenue-enhancing effect of a higher occupancy rate will exceed the revenue-decreasing effect of reduced supply and price. Without such evidence, the argument is unconvincing.

Secondly, the author assumes that lowering rents will lead to higher revenues by increasing demand. However, it is possible that demand would decrease, depending on the extent of the rent reduction as well as other factors—as such as overall enrollment and the supply and relative cost of off-campus housing. Moreover, even if demand increases by lowering rents, revenues will not necessarily increase as a result. Other factors, such as maintenance and other costs of providing campus housing units and the reduced supply of rental units might contribute to a net decrease in revenue.

Thirdly, in asserting that lowering rental rates will increase demand, the author assumes that current rental rates are causing low demand. However, low demand for

student housing could be a function of other factors. For instance, the student housing units may be old and poorly maintained. Perhaps students find the campus housing rules oppressive, and therefore prefer to live off-campus; or perhaps enrollments are down generally, affecting campus housing occupancy.

In conclusion, the author of this editorial has not argued effectively for a decrease in the number of available campus housing units and a reduction in rental rates for those units. To strengthen the argument, the author must show that a rent reduction will actually increase demand, and that the revenue-enhancing effect of greater demand will outweigh the revenue-reducing effect of a smaller supply and of lower rental rates.

39. The conclusion in this Avia Airlines memorandum is that a review of the airline's baggage-handling procedures will not further its goal of maintaining or increasing the number of Avia passengers. The author's line of reasoning is that the great majority of Avia passengers are happy with baggage handling at the airline because only one percent of passengers who traveled on Avia last year filed a complaint about Avia's procedures. This argument is problematic in two important respects.

First, the argument turns on the assumption that the 99 percent of Avia passengers who did not complain were happy with the airline's baggage-handling procedures. However, the author provides no evidence to support this assumption. The fact that, on the average, 9 out of 1000 passengers took the time and effort to formally complain indicates nothing about the experiences or attitudes of the remaining 991. It is possible that many passengers were displeased but too busy to formally complain, while others had no opinion at all. Lacking more complete information about passengers' attitudes, we cannot assume that the great majority of passengers who did not complain were happy.

Secondly, in the absence of information about the number of passengers per flight and about the complaint records of competing airlines, the statistics presented in the memorandum might distort the seriousness of the problem. Given that most modern aircraft carry as many as 300 to 500 passengers, it is possible that Avia received as many as 4 or 5 complaints per flight. The author unfairly trivializes this record. Moreover, the author fails to compare Avia's record with those of its competitors. It is possible that a particular competitor received virtually no baggage-handling complaints last year. If so, Avia's one percent complaint rate might be significant enough to motivate customers to switch to another airline.

In conclusion, the author has failed to demonstrate that a review of the baggage-handling procedures at Avia Airlines is not needed to maintain or increase the number of Avia's passengers. To strengthen the argument, the author must at the very least provide affirmative evidence that most Avia passengers last year were indeed happy with baggage-handling procedures. To better evaluate the argument, we would need more information about the numbers of Avia passengers per flight last year and about the baggage-handling records of Avia's competitors.

40. The author of this article argues that the country of Sacchar can best solve its current trade deficit problem by lowering the price of its main export, sugar. The line of reasoning is that this action would make Sacchar more competitive with other sugar-

exporting countries, thereby increasing sales of Sacchar's sugar abroad and, in turn, substantially reducing the trade-deficit. This line of reasoning is unconvincing for a couple of reasons.

In the first place, this argument is based on an oversimplified analysis of the trade deficit problem Sacchar currently faces. A trade-deficit occurs when a country spends more on imports than it earns from exports. The author's argument relies on the assumption that earnings from imports will remain constant. However, the author provides no evidence that substantiates this assumption. It is possible that revenues from imports will increase dramatically in the near future; if so, the course of action proposed by the author might be unnecessary to solve Sacchar's trade deficit problem. Conversely, it is possible that revenues from imports are likely to decrease dramatically in the near future. To the extent that this is the case, lowering sugar prices may have a negligible countervailing effect, depending on the demand for Sacchar's sugar.

In the second place, increasing sales by lowering the price of sugar will not yield an increase in income unless the increase in sales is sufficient to overcome the loss in income due to the lower price. This raises three questions the author fails to address. First, will a price decrease in fact stimulate demand? Second, is demand sufficient to meet the increase in supply? Third, can Sacchar increase the sugar production sufficiently to overcome the deficit? In the absence of answers to these questions, we cannot assess the author's proposal.

In conclusion, the author provides an incomplete analysis of the problem and, as a result, provides a questionable solution. To better evaluate the proposal, we would need to know how revenues from imports are likely to change in the future. To strengthen the argument, the author must provide evidence that demand is sufficient to meet the proposed increase in supply, and that Sacchar has sufficient resources to accommodate the increase.

41. The author of this article warns that stronger laws are needed to protect new kinds of home security systems from being copied and sold by imitators in order to prevent an eventual loss of manufacturing jobs within the industry. This conclusion is based on the following chain of reasoning: With the protection of stronger laws, manufacturers will naturally invest in the development of new home security products and production technologies, whereas without such protection, manufacturers will cut back on investment. If manufacturers cut back on investment, then a decline in product quality and marketability, as well as in production efficiency, will result. This, in turn, will cause the predicted loss of industry jobs. This line of reasoning is unconvincing for several reasons.

To begin with, the author assumes that existing copyright, patent and trade secret laws are inadequate to protect home security system design. But the author never explains why these laws don't offer sufficient protection, nor does he offer any evidence to show that this is the case.

Secondly, the argument depends on the twin assumptions that stronger legal protection will encourage manufacturers to invest in home security-system production, while the absence of strong legal protection will have the opposite effect. The author fails to provide any evidence or reasons for accepting these assumptions about cause-and-effect connections between the law and what happens in the marketplace.

Moreover, both of these assumptions can be challenged. It is possible that stronger protections would not greatly affect industry investment or jobs overall, but would instead help to determine which companies invested heavily and, therefore, provided the jobs. For instance, a less-restricted market might foster investment and competition among smaller companies, whereas stronger legal protections might encourage market domination by fewer, larger companies.

In conclusion, I do not find this argument compelling. The author must provide evidence that home security system designs are not being adequately protected by current patent, copyright or trade secret laws. The author must also provide an argument for the assumptions that stronger laws will create more industry jobs overall, while the absence of stronger laws will result in fewer industry jobs.

42. The author concludes that a postage-stamp price increase is needed to reduce the deterioration of the postal service. The author reasons that raising the price of stamps will accomplish this goal because it will generate more revenue, thereby eliminating the strain on the system. The author further reasons that a price increase will also reduce the volume of mail, thereby improving the morale of postal workers. The reasoning in this argument is problematic in three respects.

The main problem with the argument is the author's mistaken assumption that eliminating strain on the system and improving employee morale are mutually achievable by way of an increase in stamp prices. A price increase will generate more revenue only if the volume of mail remains constant or increases. But, if the volume of mail increases or remains constant, worker morale will not be improved. On the other hand, if the price increase reduces the volume of mail, revenues may decrease, and the strain on the system will not be eliminated. Consequently, eliminating the strain on the system and improving the morale of the workers cannot both be achieved by simply raising the price of postage stamps.

Secondly, the author's conclusion that the proposed price increase is necessary to reduce deterioration of the postal service relies on the assumption that no other action would achieve the same result. However, the author provides no evidence to substantiate this assumption. It is possible, for example, that careful cost-cutting measures that do not decrease worker morale might achieve the same goal. It is also possible that other revenue-enhancing measures that do not undermine employee morale are available.

Thirdly, the author unfairly assumes that reducing mail volume and increasing revenues will improve employee morale. This is not necessarily the case. It is possible that employee morale is materially improved only by other means, and that additional revenues will not be used in ways that improve morale. It is also possible that a decrease in mail volume will result in a reduction of the size of the labor force, regardless of revenues, which in turn might undermine morale.

In conclusion, the author's proposed solution to the problem of the deterioration of the postal service will not work. Raising postage-stamp prices cannot bring about both of the outcomes the author identifies as being necessary to solve the problem. Before we can accept the argument, the author must modify the proposal accordingly and must provide more information about the relationship between employee morale and mail volume.

43. In this argument the author concludes that university hospitals provide no better care than private or community hospitals. The author bases this conclusion on the following claims about university hospitals: the ones in this region employ 15 percent fewer doctors; they have a 20 percent lower success rate in treating patients; they pay their staffs less money; they make less profit than community hospitals; and they utilize doctors who divide their time between teaching, research and treating patients. This argument is unconvincing for several reasons.

The most egregious reasoning error in the argument is the author's use of evidence pertaining to university hospitals in this region as the basis for a generalization about all university hospitals. The underlying assumption operative in this inference is that university hospitals in this region are representative of all university hospitals. No evidence is offered to support this gratuitous assumption.

Secondly, the only relevant reason offered in support of the claim that the quality of care is lower in university hospitals than it is at other hospitals is the fact that university hospitals have a lower success rate in treating patients. But this reason is not sufficient to reach the conclusion in question unless it can be shown that the patients treated in both types of hospitals suffered from similar types of maladies. For example, if university hospitals routinely treat patients suffering from rare diseases whereas other hospitals treat only those who suffer from known diseases and illnesses, the difference in success rates would not be indicative of the quality of care received.

Finally, the author assumes that the number of doctors a hospital employs, its success rate in treating patients, the amount it pays its staff, and the profits it earns are all reliable indicators of the quality of care it delivers. No evidence is offered to support this assumption nor is it obvious that any of these factors is linked to the quality of care delivered to patients. Moreover, the fact that doctors in university hospitals divide their time among many tasks fails to demonstrate that they do a poorer job of treating patients than doctors at other kinds of hospitals. In fact, it is highly likely that they do a better job because they are more knowledgeable than other doctors due to their teaching and research.

In conclusion, the author's argument is unconvincing. To strengthen the argument the author would have to demonstrate that university hospitals in this region are representative of all university hospitals, as well as establishing a causal link between the various factors cited and the quality of care delivered to patients.

44. The management of the Megamart grocery store concludes that adding new departments and services is the surest way to increase profits over the next couple of years. They are led to this conclusion because of a 20 percent increase in total sales, realized after the addition of a pharmacy section to the grocery store. On the basis of this experience, they concluded that the convenience of one-stop shopping was the main concern of their customers. The management's argument is faulty in several respects. In the first place, the management assumes that the increase in total sales was due to the addition of the pharmacy section. However, the only evidence offered to support this conclusion is the fact that the addition of the pharmacy preceded the increase in sales. But the mere fact that the pharmacy section was added before the increase occurred is insufficient grounds to conclude that it was responsible for the increase.



Many other factors could bring about this same result. Lacking a detailed analysis of the source of the sales increase, it would be sheer folly to attribute the increase to the addition of the pharmacy section.

In the second place, even if it were the case that the increase in total sales was due to the addition of the pharmacy section, this fact alone is insufficient to support the claim that adding additional departments will increase sales even further. It is quite possible that the addition of the pharmacy section increased sales simply because there was no other pharmacy in the vicinity. The additional proposed departments and services, on the other hand, might be well represented in the area and their addition might have no impact whatsoever on the profits of the store. In other words, there may be relevant differences between the pharmacy section and the additional proposed sections that preclude them from having a similar effect on the sales of the store.

In conclusion, the management's argument is not well-reasoned. To strengthen the conclusion, the management must provide additional evidence linking the addition of the pharmacy section to the increase in total sales. It must also show that there are no exceptional reasons for the sales increase due to the pharmacy section that would not apply to the other proposed additions.

45. In this argument the author concludes that paying Robin Good several million dollars to star in the movie "3003" is the most likely way for the movie's producers to maximize their profits. The author's line of reasoning is that because Robin has been paid similar amounts of money to work in other films that were financially successful, it is likely that "3003" will also be financially successful if Robin stars in it. This argument is unconvincing in two important respects.

The main problem with this argument involves the author's assumption that the financial success of the other films was due entirely to Robin Good's participation. If this were the case, it would certainly make good sense to pay Robin handsomely to star in "3003." However, the author offers no evidence to support this contention.

Moreover, there are many factors that could account for the financial success of the movies in which Robin previously appeared, other than the mere fact that Robin appeared in them. For example, their financial success might have been due to the photography, the plot of the story, the director, or any combination of these. Lacking a more detailed analysis of the reasons for the success of these other movies, it is folly to presume that their financial success was entirely due to Robin's participation.

In conclusion, this is a weak argument. To strengthen the conclusion that hiring Robin is the best way for the producers of "3003" to maximize their profits, the author would have to provide evidence that the financial success of the movies Robin previously worked in resulted solely from the fact that Robin starred in them.

46. In this argument the directors of a security- and safety-consulting service conclude that the use of photo identification badges should be recommended to all of their clients as a means to prevent employee theft. Their conclusion is based on a study revealing that ten of their previous clients who use photo identification badges have had no incidents of employee theft over the past six-year period. The directors' recommendation is problematic in several respects.

In the first place, the directors' argument is based on the assumption that the reason for the Jack of employee theft in the ten companies was the fact that their employees wear photo identification badges. However, the evidence revealed in their research establishes only a positive correlation between the lack of theft and the requirement to wear badges; it does not establish a causal connection between them. Other factors, such as the use of surveillance cameras or spot checks of employees' briefcases and purses could be responsible for lack of employee theft within the ten companies analyzed.

In the second place, the directors assume that employee theft is a problem that is common among their clients and about which their clients are equally concerned. However, for some of their clients this might not be a problem at all. For example, companies that sell services are much less likely to be concerned about employee theft than those who sell products. Moreover, those that sell small products would be more concerned about theft than those that sell large products. Consequently, even if wearing badges reduces employee theft, it might not be necessary for all of the firm's clients to follow this practice.

In conclusion, the director's recommendation is not well supported. To strengthen the conclusion they must establish a causal relation between the wearing of identification badges and the absence of employee theft. They also must establish that the firm's clients are sufficiently similar to all profit from this practice.

47. In this argument the author concludes that Cumquat Cafe was correct in its decision to move to a new location. In support of this assessment the author points out that while the Cafe has been in business for two years at its new location, three businesses have failed at its previous location. The author's line of reasoning is that the cause of the failure of the three businesses is the fact that they all occupied the same location. This argument is problematic in two important respects.

In the first place, no evidence has been offered to support the assumption that the reason the three businesses failed was their location. While location is an important contributing factor to a business' success or failure, it is not the only such factor. Many other reasons?apoor business practices, lack of advertising, or poor customer service?acould just as likely account for their lack of success. Lacking a detailed analysis of the reasons these businesses failed, it would be foolish to attribute their failure to their location.

In the second place, while location may have been a factor which contributed to the failure of these businesses, the reason may not have been the location itself but rather the suitability of the business to the location. For example, a pet-grooming shop or a tanning salon located in a downtown metropolitan business district is unlikely to succeed simply because this type of business is obviously unsuitable to the location. On the other hand, a bank in the same location might be extremely successful simply because of its suitability to the location.

In conclusion, the author's argument is unconvincing. To strengthen the conclusion, the author would have to evaluate other possible causes of the failure of the three businesses, then in each case eliminate all possible causes except location.

48. Based upon the profitability of the Croesus Company and the fact that it was recently converted from public to private ownership, the author concludes that private ownership is better for businesses than public ownership. I find this argument unconvincing in two respects.

In the first place, the evidence the author provides is insufficient to support the conclusion drawn from it. One example is rarely sufficient to establish a general conclusion. Unless it can be shown that Croesus Company is representative of all companies that have converted from public to private ownership, the conclusion that all companies would be more profitable under private ownership is completely unwarranted. In fact, in the face of such limited evidence it is fallacious to draw any conclusion at all.

In the second place, the author assumes that the reason for Croesus' profitability was its conversion from public to private ownership. This assumption, however, is not supported in the argument. In the absence of evidence to support this assumption many other explanations for Croesus Company's profitability are possible. For example, its success may be due to the fact that Croesus has few competitors or because the product or service it provides is unique, or because it has an exceptionally skilled management team.

In conclusion, this argument is unconvincing. To strengthen the conclusion, additional examples of successful companies that converted from public to private ownership are required. Additionally, the author would have to show that the reason for the success of these companies was the fact that they were privately owned.

49. This editorial begins with the impressive statistic that five-million trees could be saved every year if the morning edition of the nation's largest newspaper were collected and rendered into pulp that the newspaper could reuse. But then the author goes on to conclude that this kind of recycling is unnecessary because the newspaper maintains its own forests to ensure an uninterrupted supply of paper. This argument is seriously flawed by two unwarranted assumptions.

The first assumption is that the only reason to recycle the newspaper is to ensure a continuous supply of paper. The author reasons that since this need is currently met by the forests that the newspaper maintains, recycling is unnecessary. This reasoning is extremely shortsighted. Not only does the author fail to see the ecological advantages of preserving the trees, he also fails to see the obvious economic advantages of doing this. Moreover, using recycled paper is the best way to ensure a continuous paper supply because, unlike the forest, paper is a reusable resource.

The second assumption is that only the newspaper would have an interest in the pulp processed from its recycled morning edition. This is probably not the case, however, given the enormous market for recycled paper for books, packaging, other newspapers, and so on. Moreover, there is no direct connection between the newspaper that is recycled and those companies that find uses for the products of recycling.

Accordingly, contrary to the author's assumption, there may be a great interest, indeed a need, for pulp from recycling the newspaper in question.

In conclusion, the author's claim that recycling the newspaper is unnecessary is

ill-founded. To strengthen the argument the author would have to show that there are no other compelling reasons to recycle the newspaper besides the one cited in the editorial.

50. The new manager of the rock group Zapped believes that name recognition is the key to attaining financial success for the group. To increase name recognition the manager recommends that Zapped diversify its commercial enterprises. The grounds for this recommendation is an analogy with Zonked, a much better-known rock group that plays the same kind of music as Zapped. According to the manager, the main reason Zonked is better known than Zapped is that Zonked participates in several promotional enterprises in addition to concerts and albums. The manager's recommendation is questionable for two reasons.

In the first place, the author assumes that the only relevant difference between Zapped and Zonked is that Zonked has greater name recognition than Zapped. If this were the case, the manager's recommendation would be apt. However, the fact that the two rock groups play the same kind of music leaves open the question of whether their performance of this music is comparable. If Zonked's performance is sufficiently better than Zapped's, this could go a long way toward explaining why Zonked is much better known.

In the second place, the author assumes that name recognition is all that is required for financial success. While name recognition is an important element in determining the success or failure of any enterprise, it is hardly the only element required. Other factors are equally important. In the case of rock bands, factors such as musical talent, showmanship, and repertoire play a significant role in determining the financial success of the group. If Zonked is superior to Zapped in these areas, this difference could account for Zonked's financial success.

In conclusion, the manager's argument is unconvincing. To strengthen the argument the author would have to show that Zapped and Zonked are alike in all relevant ways except name recognition.

51. The author of an article about lifestyle trends concludes that, in general, people are not as concerned as they were a decade ago with regulating their intake of red meat and fatty cheeses. As evidence, the author cites the fact that a wide selection of high-fat cheeses is now available at a long-established grocery store, Heart's Delight, which specializes in organic fruits and vegetables and whole grains. The author further points out that the owners of the vegetarian restaurant next door, Good Earth Cafe, now make only a modest living while the owners of the new House of Beef across the street are millionaires. This argument is unconvincing.

To begin with, the argument relies on the assumption that the dietary habits and attitudes of customers at these three businesses will reflect those of people generally. But the three businesses, all located in the same area of a single community, just might serve a clientele whose diets differ greatly from the diets of people in other areas of the community, or in other communities. The generalization that the author draws from this biased sample cannot be considered reliable.

In addition, trends at these three businesses do not necessarily reflect the dietary habits and attitudes of their customers in the way the author claims. For example, we are

not informed about how well the high-fat cheeses at Heart's Delight are selling relative to low-fat and nonfat alternatives. Similarly, it is possible that at House of Beef menu items other than red meat—as such as chicken, fish, or salad bar—are just as popular as red meat among the restaurant's patrons.

Finally, the author assumes that the financial conditions of the owners of the two restaurants were caused by a general lack of concern with regulating red meat and fatty-cheese intake. However, it is equally possible that the lackluster financial success of Good Earth was caused by mismanagement or increasing overhead costs. Furthermore, it is possible that House of Beef is generating little business, but its owners were already millionaires before they opened this restaurant or are making their money in other concurrent business endeavors.

In conclusion, the author's evidence is too weak to support any conclusion about general dietary trends. Before we can accept the conclusion, the author must provide evidence from a representative sample of food-service businesses, and must clearly show that sales of red meat and fatty cheeses are increasing relative to sales of low-fat alternatives. The author must also provide evidence that the financial conditions of the owners of the two restaurants were actually caused by a general waning concern with regulating fat intake.

52. In this editorial the author rebukes Oak City for allowing the construction of a new downtown shopping mall. Citing a number of problems that have occurred since the building of the mall, the author concludes that the residents of Oak City have not benefited from the mall and that Oak City exercised poor judgment in allowing the mall to be built. Among the problems cited by the author are the closure of local businesses, lack of parking in the downtown area, and increased trash and litter in a city park near the mall. Moreover, the author argues that profits derived from sales are not benefiting Oak City because the owner of the mall lives in another city. The author's argument is problematic in several respects.

In the first place, the author assumes that addition of the new mall is the cause of the various problems cited. The only evidence offered to support this claim is that the construction of the mall occurred before these problems manifested themselves.

However, this evidence is insufficient to establish the claim in question. A chronological relationship is only one of the indicators of a causal relationship between two events.

In the second place, the author has focused only on negative effects the mall has had on the city. A more detailed analysis of the situation might reveal that the positive benefits for the city far outweigh the problems on which the author focuses. For example, new jobs might have been created for the residents of Oak City, and tax revenues might have been increased for the city. Lacking a more comprehensive analysis of the impact of the mall on Oak City, it is presumptuous on the part of the author to conclude that Oak City's decision to allow the mall to be built was incorrect.

In conclusion, the author's argument is unconvincing. To strengthen the argument the author would have to demonstrate that the construction of the mall caused the various problems mentioned. The author would also have to show that the negative effects of the project outweighed the positive effects.

53. An editorial in a weekly news magazine warns that we must quickly increase funding for education in order to remain economically competitive in the world marketplace. The line of reasoning is that the nation will soon face a shortage of engineers because engineers have come from universities, and that our university-age population is shrinking. Moreover, decreasing enrollments in high schools clearly show that this drop in university-age students will continue throughout the decade. The author's argument is not convincing because it is based on several questionable assumptions.

First, the author assumes that because our university-age population is shrinking, university enrollments will likewise shrink. But even if the number of university-age students is dropping, it is possible that a greater proportion of those students will enter universities. If this percentage were sufficiently large, university enrollments could remain relatively stable. Moreover, even if overall university enrollments did drop, we must further assume that the number of engineering students would likewise drop. However, decreases in overall enrollments do not necessarily result in proportional enrollment decreases in each field of study. If demand for engineers were high, then a larger percentage of university students might study to become engineers, in which case engineering enrollments could increase or remain constant, while those in other major fields of study would drop disproportionately.

An additional assumption is that economic success in the world marketplace depends on the number of engineers produced by our universities. This assumption is simplistic. Professionals in other fields—as such as agriculture, banking, and business—may contribute equally to our global success. The author does not explain why the predicted shortage of engineers is more critical than shortages in other fields that might result from shrinking university enrollments. Nor does the author demonstrate that providing more funds for education will correct the predicted shortage of engineers. Even if all of the previous assumptions are accepted, no connection between increased funding and the desired enrollment increase has been established.

In conclusion, the author has failed to make a convincing case for increased funding for education. Before we accept the conclusion, the author must provide evidence that we face a critical shortage of engineers, and that increased funding will have direct bearing on correcting this shortage. As it stands, both these claims rest on unwarranted assumptions.

54. In this editorial the author argues for the imposition of strict pricing regulations in order to prevent citrus growers from continued inflation of prices of citrus fruit. The need for such regulation is supported by the author's contention that citrus growers have been unnecessarily raising prices of citrus fruit in the past. The evidence for this allegation is the fact that the price of lemons has increased from 15 cents per pound to over a dollar per pound during the preceding 11-year period, even though weather conditions have been favorable to citrus production in all but one of those years. This argument is flawed in two important respects.

First and foremost, the author assumes that the only factor that influences the price of citrus fruit is the weather. Other factors—as such as monetary inflation, increased distribution and labor costs, or alterations in supply and demand conditions—are



ignored as possible sources for the increase. The charge that citrus growers have unnecessarily raised prices can be sustained only if these and other possible factors can be completely ruled out as contributing to the price increases. Since the author fails to address these factors, the recommendation calling for strict pricing regulations can be dismissed out-of-hand as frivolous.

Second, the author assumes that the only way to combat increased prices is through government intervention. In a free-enterprise system many other means of affecting the pricing of goods are available. For example, boycotting a product and thereby influencing supply and demand conditions of the commodity is an effective means of influencing the price of the product. In a free market economy the government should consider regulating prices only when all other means to rectify the problem have been exhausted.

In conclusion, the author's argument is unconvincing. To strengthen the argument the author would have to show that the only factor influencing the price increases is the growers' desire for increased profits.

55. This company memorandum recommends that Excelsior conduct a temporary sales promotion for its new brand of coffee that includes offering free samples, price reductions, and discount coupons. This recommendation is based on the fact that Superior, the leading coffee company, used just such a promotion to introduce the newest brand in its line of coffees. This argument is unconvincing because it relies on three questionable assumptions.

First of all, the argument rests on the assumption that a promotional strategy that works for one company will work for another. However, Excelsior and Superior may not be sufficiently similar to warrant this assumption. Promotional techniques that work for a leader with established name recognition for its brand of coffees may be ineffective for a company with no similar name recognition new to the brand coffee market. Accordingly, Excelsior might be better advised to employ some other strategy, such as a media advertising plan, to first attain broad name recognition.

The argument also depends on the assumption that Excelsior can afford a promotional plan similar to Superior's. However, free samples, price reductions, and discounts all reduce profits and may actually result in temporary losses. While a leading company with other profitable products in the same line can absorb a temporary loss, for a fledgling competitor this strategy might be very risky and may even result in business failure.

Finally, the argument relies on the assumption that Superior's promotional campaign for its newest coffee was successful. However, the memo provides no evidence that this was the case. It is possible that the promotion was entirely ineffective, and that Superior remains the leader in its field despite this small failure. If so, Excelsior may be ill-advised to follow Superior's promotional strategy.

In conclusion, the two companies are too dissimilar to justify the recommendation that Excelsior model its promotional strategy on Superior's. To strengthen the argument, the author of the memo must establish that Excelsior has sufficient operating capital to launch the recommended sales campaign, and that this strategy would be more effective than another strategy, such as using extensive media advertising.

56. Because Healthy Heart fitness centers experienced no significant increase in member usage as a result of building a new indoor pool, the author cautions other health club managers against installing new features as a means of increasing member usage, instead, they are advised to lower membership fees. This argument is flawed in two critical respects.

First, the conclusion that installing new features at fitness centers will not increase member usage is based on too small a sample to be reliable. The only evidence offered in support of this conclusion is the fact that Healthy Heart fitness center did not experience an increase. Unless it can be shown that Healthy Heart is typical of all fitness centers, the fact that it experienced no increase in member usage is not grounds for concluding that all fitness centers will experience similar results.

Second, the author fails to consider other possible reasons why building an indoor pool failed to increase Healthy Heart's member usage. Perhaps Healthy Heart's members are primarily interested in body-building rather than cardiovascular exercise, or perhaps they prefer racquetball; or perhaps they just don't like swimming. Reasons such as these would help to explain why the addition of a new indoor pool failed to increase member usage. The author's failure to investigate or even consider other possible explanations for Healthy Heart's poor results renders the conclusion based upon them highly suspect.

In conclusion, the author's argument is not convincing. To strengthen the argument it would be necessary to show that Healthy Heart fitness center is typical of all fitness centers. Additionally, the author would have to show that other possible reasons for the lack of increase in member usage could be eliminated.

57. The conclusion of this argument is that technological innovation as well as the evolution of architectural styles and design will be minimized in the future. The author's line of reasoning is that the imposition of strict safety codes on public buildings inhibits the evolution of architectural styles and design, because they discourage technological innovation within the building industry. Furthermore, the strictness of the codes governing public buildings discourages technological innovation because the surest way for architects and builders to pass the codes is to construct buildings that use the same materials and methods that are currently allowed. This argument is unconvincing for two reasons.

In the first place, the author's conclusion goes beyond the evidence presented. The evidence cited pertains only to the construction of public buildings, yet the author draws a conclusion about the building industry as a whole. Technological innovation and architectural experimentation in style and design in the construction of private buildings is not precluded by the reasons cited. Consequently, in the absence of evidence that similar problems beset the construction of privately owned buildings, the author's conclusion is not warranted.

In the second place, it is not evident that the strict safety codes governing public buildings will have the effects predicted by the author. Architectural styles and design are not dictated solely by the materials or the methods employed in construction. Consequently, it is premature to conclude that little evolution in style and design will occur because the materials and methods will likely remain the same. Moreover,

technological innovation is not restricted to the use of new materials and methods. Significant technological innovation can be achieved by applying existing methods to new situations and by finding new uses for familiar materials. In conclusion, the author has failed to make the case for the claim that technological innovation as well as the evolution of architectural styles and design will be minimized in the future. To strengthen the argument the author would have to show that similar safety code restrictions impede the evolution of the design and the innovation of new technologies in the construction of private buildings. Additionally, the author must show that materials and methods are the prime determinants of architectural style and design.

58. In an advertising experiment, Big Board, Inc. displayed the name and picture of a little-known athlete on several of its local billboards over a 3-month period. Because the experiment increased recognition of the athlete's name, Big Boards now argues that local companies will increase their sales if they advertise their products on Big Board's billboards. This argument is unconvincing for two important reasons.

The main problem with this argument is that the advertising experiment with the athlete shows only that name recognition can be increased by billboard advertising; it does not show that product sales can be increased by this form of advertising. Name recognition, while admittedly an important aspect of a product's selling potential, is not the only reason merchandise sells. Affordability, quality, and desirability are equally, if not more, important features a product must possess in order to sell. To suggest, as Big Board's campaign does, that name recognition alone is sufficient to increase sales is simply ludicrous.

Another problem with the argument is that while the first survey, in which only five percent of 15,000 randomly-selected residents could name the athlete, seems reliable, the results of the second survey are questionable on two grounds. First, the argument provides no information regarding how many residents were polled in the second survey or how they were selected. Secondly, the argument does not indicate the total number of respondents to the second survey. In the absence of this information about the second survey, it is impossible to determine the significance of its results.

In conclusion, Big Board's argument is not convincing. To strengthen the argument, Big Board must provide additional information regarding the manner in which the second survey was conducted. It must also provide additional evidence that an increase in name recognition will result in an increase in sales.

59. The author contends that it makes good sense to reduce funding for mining regulation, because regulatory problems with over-mining and pollution will be solved when scientists learn how to create large amounts of copper from other chemical elements. One reason the author gives for this conclusion is that the problem of over-mining will be quickly eliminated when the amount of potentially available copper is no longer limited by the quantity of actual copper deposits. Another reason given is that pollution problems created by production of synthetic copper substitutes will be eliminated when manufacturers no longer depend on substitutes. This argument is weak because the conclusion goes beyond the scope of the premises and because the

argument relies on questionable assumptions.

To begin with, the wording of the conclusion suggests that funding for mining regulation generally should be reduced, yet the premises are about copper mining only. There are many mined resources other than copper; advances in copper synthesis technology will in all likelihood have no bearing on whether regulation of other kinds of mining should be changed.

Furthermore, the argument depends on the assumption that copper mining will slow down once copper can be chemically synthesized. However, the author provides no evidence to substantiate this assumption. Moreover, it is entirely possible that copper mining will remain less expensive than copper synthesis. If so, there will be no incentives, outside of regulatory ones, to slow down copper mining. In a word, the problem of over-mining will remain.

Finally, the argument relies on the assumption that synthesizing copper will not create the same kind of pollution problems as those resulting from the synthesis of copper substitutes. However, the author provides no evidence to substantiate this assumption. Without such evidence, we cannot accept the premise that pollution problems will be eliminated by switching from producing copper substitutes to producing copper itself.

In conclusion, I am not convinced on the basis of this argument that the time has come to cut funding for the regulation of mining in general, or even for the regulation of copper mining in particular. To strengthen the argument, the author must restrict the scope of the conclusion to copper mining rather than to mining in general. The author must also provide support for the two assumptions underlying the argument.

60. This editorial argues that, since career advancement for scientists typically require: 60 to 80 hours of work per week, affordable all-day child care must be made available to scientists of both genders if they are to advance in their fields. Moreover, the editorial urges that requirements for career advancement be made more flexible to insure that pre-school children can spend a significant amount of time each day with a parent. This argument is problematic in two crucial respects.

The major problem with the view expressed in the article is that inconsistent recommendations are endorsed in the argument. On the one hand, scientists are urged to put their children in all-day child-care facilities in order to advance their careers. On the other hand, they are encouraged to spend a significant amount of time each day with their children. Obviously, scientists cannot be expected to adhere to both of these recommendations.

Another problem is that the recommendations are based on the assumption that e or at least most. scientists have young or preschool-age children. But the editorial provides no evidence to support this assumption, nor is this assumption very likely to be true. Since, childless scientists or scientists whose children are old enough t: take care of themselves will have no need for the services advocated in this article it is doubtful that these recommendations will receive much widespread support.

In conclusion, this argument is unconvincing. To strengthen it, the author must show that most scientists have preschool children and consequently are in need c the recommended services. Additionally, the author must address and resolve the apparent conflict between the recommendations.

61. A director of Beta Company suggests that Beta can improve its competitive position by hiring a significant number of former Alpha Company employees who have recently retired or been laid off. The director's reasoning is that because Alpha manufactures some products similar to Beta's, former Alpha employees would be experienced and need little training, could provide valuable information about Alpha's successful methods, and would be particularly motivated to compete against Alpha. The director's argument is problematic in several respects.

First of all, the argument presupposes that Alpha's methods are successful. This is not necessarily the case. To the contrary, the fact that Alpha has laid off 15 percent of its employees in every division and at every level suggests that Alpha's methods may have been unsuccessful and that downsizing was necessary for the company to minimize financial losses.

Secondly, the director assumes that the former Alpha employees hired by Beta will be well-trained and valuable. During a typical lay-off, however, the best and most experienced employees are typically the last to be laid off. By following the director's advice, Beta would probably be hiring Alpha's least efficient and least experienced employees—that is, those who would be least valuable to Beta.

Thirdly, the author assumes that Alpha and Beta are sufficiently similar so that former Alpha employees could provide special value for Beta. However, we are informed only that Beta manufactures "some products similar to Alpha's." It is possible that former Alpha employees have experience with only a small segment of Beta's product line, and thus have little inside information of any value to Beta.

Finally, the claim that former Alpha employees would be motivated to compete against Alpha is partially unwarranted. While many of those who were laid off may be so motivated, those who retired early from Alpha probably departed on good terms with Alpha, and would in any event be unmotivated to reenter the work force.

In conclusion, the argument fails to provide key facts needed to assess it. To better evaluate the director's suggestion, we would need more information about why Alpha reduced its work force, what type of workers left Alpha and under what circumstances, and how similar Alpha's range of products is to Beta's.

62. In this argument the author concludes that the new community fitness center should be equipped with the state-of-the-art exercise machines featured in Powerflex magazine. In support of this recommendation two reasons are offered: (1) Powerflex contains pictures of bodybuilders using such machines, and (2) Powerflex is a popular magazine, as evidenced by the fact that it frequently sells out at the local newsstand. This argument is questionable on two counts.

First, a major implication of the argument is that the bodybuilders pictured using the machines in Powerflex magazine reached their state of fitness as a result of using these machines. The only evidence offered to support this contention, however, is the pictures in the magazine. It is possible that the bodybuilders pictured use different equipment for their workouts and are merely posing with the machines for advertising purposes.

Second, the author assumes that machines that are suitable for bodybuilding will also be suitable to help maximize the fitness levels of the town's residents. This

assumption is highly questionable. Machines designed to increase muscle development are significantly different from those designed to increase cardiovascular fitness. Consequently, it is unlikely that the machines pictured in the magazine will be of much use to help maximize the fitness levels of the town's residents.

In conclusion, this argument is unconvincing. To strengthen the argument the author would have to show that the bodybuilders pictured using the exercise machines actually used the machines to reach their level of muscle development. Additionally, the author would have to show that the machines were suitable for increasing the fitness levels of the persons using them.

63. According to this newspaper article, the Cumquat Cafe made a mistake by relocating one year ago. The author supports this claim by pointing out that Cumquat is doing about the same volume of business as before it moved, while RoboWrench plumbing supply outlet, which took over Cumquat's old location, is apparently "doing better" because its owners plan to open a new outlet in a nearby city. This argument suffers from several critical flaws.

To begin with, the two businesses are too dissimilar for meaningful comparison. Cumquat's old location may simply have been better suited to hardware, plumbing, and home improvement businesses than to cafes and restaurants. The article's claim that Cumquat made a mistake in moving fails to take this possibility into account.

Secondly, the article's claim that RoboWrench is "doing better" since it took over Cumquat's old location is too vague to be meaningful. The author fails to provide a second term of this comparison. We are not informed whether RoboWrench is doing better than before it moved, better than other plumbing stores, or better than Cumquat. This uninformative comparison is worthless as evidence from which to judge the wisdom of Cumquat's decision to relocate.

Thirdly, the claim that RoboWrench is doing better is unwarranted by the evidence. The mere fact that RoboWrench plans to open a new store in a nearby city does not by itself establish that business is good. It is possible that the purpose of this plan is to compensate for lackluster business at the current location. Or perhaps the RoboWrench owners are simply exercising poor business judgment.

Finally, the claim that Cumquat made a mistake in moving may be too hasty, since the conclusion is based on only one year's business at the new location. Moreover, given the time it ordinarily takes for a business to develop a new customer base in a new location, the fact that Cumquat's volume of business is about the same as before it moved tends to show that the move was a good decision, not a mistake.

In conclusion, the claim that Cumquat's move was a mistake is ill-founded, since it is based on both poor and incomplete comparisons as well as on a premature conclusion. To better assess the argument, we need to know what the author is comparing RoboWrench's performance to; we also need more information about the extent of RoboWrench's success at this location and why its owners are opening a new store.

64. The Director of Human Resources concludes that most employees at Company X feel that the improvement most needed at the company has been satisfactorily addressed.



Two reasons are offered in support of this conclusion. First, a survey of employees showed that the issue respondents were most concerned about was employee-management communication. Second, the company has since instituted regular voluntary sessions for employees and management designed to improve communication. The director's argument is questionable for two reasons.

To begin with, the validity of the survey is doubtful. Lacking information about the number of employees surveyed and the number of respondents, it is impossible to assess the validity of the results. For example, if 200 employees were surveyed but only two responded, the conclusion that most of the employees ranked employee-management communication as the most pressing issue would be highly suspect. Because the argument offers no evidence that would rule out interpretations such as this, the survey results are insufficient to support the author's conclusion.

Furthermore, even if the survey accurately ranks certain issues according to level of employee concern, the highest-ranked issue in the survey might not be the issue about which employees are most concerned. Why? The improvement most needed from the point of view of the employees might not have appeared as one of the choices on the survey. For example, if the list of improvements presented on the survey was created by management rather than by the employees, then the issues of greatest concern to the employees might not be included on the list. Lacking information about how the survey was prepared, it is impossible to assess its reliability. Consequently, any conclusion based on it is highly questionable.

In conclusion, the director's conclusion is not well-founded. To strengthen the argument, additional information regarding the way in which the employee survey was prepared and conducted is required.

65. In this memorandum, the vice president of Road Food suggests that the company motivate its advertising agency to perform better by basing the agency's pay on the Road Food's profits. In support of this suggestion, the vice president points out that although Road Food initially thought the ad agency was following company recommendations, competitor-Street Eats earned higher profits last year. The vice president also notes that Street Eats has fewer restaurants than Road Food, and that Road Food spent nearly as much money on advertising as Street Eats did. This argument is unconvincing, since it relies on dubious assumptions and comparisons. First, the vice president assumes that the ad campaign caused the low profits. However, the vice president ignores many other factors that contribute to profitability. In particular, the fact that Road Food has been spending less advertising money per restaurant than Street Eats suggests that its unwillingness to spend more may be the main reason for disappointing profits.

Second, the author implies that the ad agency failed to implement Road Food's guidelines, and that this failure was the reason for disappointing profits. However, it is equally possible that the ad agency faithfully followed all suggestions from Road Food, and that those suggestions were the cause of the disappointing profits. In this respect, the author unfairly shifts blame from Road Food to the ad agency.

Third, the author's comparison between Road Food and Street Eats is less relevant than a comparison between Road Food's own profits prior to its latest ad campaign and

its profits during this campaign. Comparing its own profits during these time periods would more accurately reflect the ad agency's effectiveness than comparing profits of two different companies.

Finally, the author assumes that the ad agency will be more motivated if its fee is based on Road Food profits. However, the author does not support this claim. In fact, given that Road Food's profits have been lower than expected, it is just as likely that the ad agency would be less motivated by the suggested fee structure than by some other fee structure.

In conclusion, the argument is unconvincing as it stands. To strengthen it, the vice president must provide evidence that the ad campaign caused last year's disappointing profits, and must examine and rule out other factors that may have contributed to disappointing profits.

66. In this argument the makers of Cerebus dog food recommend their reduced-calorie product as the best way for dog owners to help their obese dogs lose weight. Their reasoning in support of this recommendation is simple. To begin with, they point out that the best way to treat obesity in humans is by a reduced-calorie diet that is high in fiber and carbohydrates but low in fat. Second, they indicate that reduced-  
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68. major impediment to the use of solar-powered products is the cost of solar energy and that, given a choice, consumers would prefer products powered by solar energy over those powered by energy derived from coal or oil. On the face of it, this assumption seems acceptable; but it may be that there are other factors besides cost that make solar energy less desirable than other forms of energy.

In conclusion, this argument is convincing. To strengthen the argument additional evidence indicating consumer preference for solar-powered products over products powered by conventional forms of energy would be desirable.

69. The company's marketing department recommends discontinuing a deluxe air filter and concentrating advertising efforts on an economy filter, which requires replacement more often than the deluxe model. This recommendation is based on reports showing that sales of economy filters, and company profits, have dropped significantly since the company began manufacturing and marketing the deluxe filter six months ago. The marketing department's argument is specious in three important respects.

First, the marketing department assumes that if the company discontinues the new deluxe air filter, customers will resume buying its economy filter. This assumption may not be correct. Customers who prefer the deluxe model may do so because it requires replacement less often. Thus, instead of buying the company's economy filters again, these customers may just as likely turn to a competitor for a product similar to the deluxe model. In this event, the result would be lower profits.

Secondly, the marketing department fails to recognize alternative strategies that might enhance profits more than discontinuing the deluxe filter would. It is possible that lowering the price of the economy model, raising the price of the deluxe model, or both,

may actually maximize profits. A lower-priced economy filter might lure customers from competing products and retain current customers. At the same time, buyers of the deluxe model may place a premium value on its convenience and may be willing to pay an even higher price for the filter.

Thirdly, the marketing department unfairly assumes that the availability of its deluxe filter is the cause of decreasing profits. It is equally possible that other factors, such as increased competition or supply prices, or decreased demand for these kinds of filters generally, are responsible for the decrease in profits. If so, discontinuing the deluxe filter may not serve to maximize, or even enhance, the company's profits. In conclusion, the department's argument for discontinuing the deluxe filter is weak because the department has not considered the possible adverse consequences of doing so, or the alternatives to doing so. Moreover, the department has failed to establish a clear causal connection between the availability of the deluxe filter and decreasing profits. To strengthen its argument, the department must consider and rule out pricing adjustments as a better strategy to maximize profits, and must provide better evidence that the deluxe filter is the cause of the decrease in profits.

70. The president of the company that produces Glabrous Shampoo argues against removing the ingredient HR2 from the shampoo even though a scientific study claims that prolonged use of HR2 can contribute to hair loss. Three reasons are cited as the basis for this decision. First, it is argued that since the scientific study involved only 500 subjects, it can be disregarded. Second, none of Glabrous' customers have complained of problems during the past year. And, finally, Glabrous' competitors use more HR2 per bottle than Glabrous. The president's decision is problematic in several respects.

To begin with, the fact that the scientific study on HR2 involved only 500 subjects is insufficient grounds to dismiss the results of that study. If the subjects for the study were randomly chosen and represent a diverse cross section of the population of shampoo users, the results will be reliable regardless of the number of participants. Next, the scientific study determined that prolonged use could contribute to hair loss. While "prolonged use" was not defined in the memorandum, the fact that none of Glabrous' customers have complained of problems during the past year is not a reliable reason to believe that problems will not arise in the future.

Finally, the fact that Glabrous' competitors use more HR2 in their products than Glabrous uses is irrelevant to the question of whether Glabrous should remove HR2 from its product. Moreover, rather than providing a reason for not removing the compound, this fact serves better as a reason for doing so. By removing HR2 from its product Glabrous could gain an edge over its competitors.

In conclusion, the reasoning in this argument is not convincing. To strengthen the argument the author would have to show that the study was biased or was based on too small a sample to yield reliable results.

71. The author of this editorial concludes that the guidelines for training pilots and maintaining equipment in the medical-helicopter industry are ineffective, even though they are far more stringent than those in other airline industries. To support this conclusion, the author cites statistics showing that the rate of medical-helicopter accidents is much higher than the rate of accidents for non-medical helicopters or

commercial airliners. This argument is problematic in three critical respects. The first problem with the argument is that it rests on the unstated assumption that accidents involving medical helicopters have been due to inadequate pilot training or equipment maintenance. However, the author fails to acknowledge and rule out other possible causes of such accidents. In fact, common sense tells us that medical-helicopter accidents are most likely to result from the exigent circumstances and dangerous flying and landing conditions which typify medical emergencies where helicopters are required to gain access to victims.

A second, and related, problem is that the author unfairly compares the accident rate of medical helicopters with the accident rate for non-emergency aircraft. Medical helicopters are almost invariably deployed during emergencies to dangerous flying locales, whereas other types of aircraft are not. Consequently, medical-helicopter accidents will in all likelihood occur far more frequently than other aircraft accidents, regardless of pilot training or equipment maintenance.

A third problem with the argument is that the statistical evidence upon which it relies is too vague to be informative. The statistics concerning aircraft accidents may have been based on all types of accidents, whether minor or major. The statistics would be more meaningful if we knew that the accidents to which they refer were all of comparable severity. For all we know, the rate of casualty-causing accidents for medical helicopters is actually lower than for other aircraft. Additionally, we are not told the time period of the survey. An old survey or one that covered only a brief time period would be poor evidence in support of the author's claim.

In conclusion, the author's evidence does little to support the conclusion. To be persuasive, the author must at the very least acknowledge and rule out other possible causes of accidents that are unique to the medical-helicopter industry, in any event, a more effective argument would be based on a statistical comparison of accident rates under differing sets of training and maintenance guidelines within the medical-helicopter industry, not among different aircraft industries.

72. Based upon sales reports over a three-month period that indicate an increase in profits for stores that sell products for the home and a decrease in profits for clothing stores, the business manager of a department store concludes that consumers are choosing to purchase home furnishings rather than clothing. On the basis of this conclusion, the manager recommends a reduction in the size of the clothing department and an increase in the size of the home-furnishings department. This recommendation is problematic in two critical respects.

In the first place the author's conclusion that consumers are choosing to buy products for their homes instead of clothing is based upon too small a sample. Data gathered from a three-month period is insufficient to establish the conclusion drawn from it. It is quite possible that the three-month period chosen is idiosyncratic and not representative of entire year's sales. If so, reducing the size of the clothing departments and enlarging the home-furnishings departments may be a costly mistake.

In the second place, the data collected during the three month period may be biased. The fact that the data reflects sales in local stores is cause for concern. It is possible that the sales trend in a particular location is not representative of sales in other regions. For example, sales of clothing in Florida during the winter months are likely to be quite different from sales of clothing in Alaska during the same period.

In conclusion, this argument is not persuasive as it stands. A more convincing argument must provide additional sales data, collected at different periods of the year and at different locations, that substantiates the trend in question.

73. The author of this editorial asserts that trespassing, vandalism, and theft associated with stealing fruit from farms is a trivial problem and, as a result, enacting laws to protect farm- and land-owners from these crimes is a waste of lawmakers' time. In support of this claim, the author points out only that the nation's cities are plagued by far more serious problems of violence and crime. To the extent that this author has provided any argument at all, it is a poor one,

First of all, the author unfairly assumes that if lawmakers are taking rural crime issues seriously, then they cannot be taking urban crime issues seriously. The author is presenting a false dilemma by imposing an either-or choice between two courses of action that need not be mutually exclusive. It is equally possible that legislators can address both areas of concern concurrently.

Secondly, the argument relies on the assumption that the legislators in question have the opportunity to address urban crime problems. However, we are not told whether this legislature's jurisdiction encompasses both rural and urban areas. If it encompasses only rural areas, then the author's implicit conclusion that the legislators in this region should instead be addressing urban crime problems would be completely undermined.

Finally, the author unfairly trivializes the severity of rural crime by simply comparing it with urban crime. While trespassing, vandalism, and fruit-stealing may seem minor peccadilloes, especially compared to violent urban crimes, these rural crimes might nevertheless result in serious financial damage to farm owners, depending on the frequency and extent of the violations. The author fails to provide evidence for the claim that these rural crimes are trivial. Instead, the author attempts to call attention to a more dramatic but potentially irrelevant problem.

In conclusion, the argument is weak. It potentially distorts the alternatives available to legislators in the region, as well as deflecting attention from the problem at hand. To better evaluate it, we would need more information about the geographical scope of this legislature's jurisdiction and about the extent of the fruit-stealing problem in the region.

74. In this argument the author predicts a nationwide labor shortage in the near future. The basis for this prediction is an increasing demand for highly skilled workers, especially in technical and professional fields, coupled with a slow-growing labor force and a government proposal to cut funds for aid to education. At first glance, the author's argument appears to be somewhat convincing; but further reflection reveals that it is based on some dubious assumptions.

In the first place the author assumes that the present labor force is immobile and that the demand "for highly skilled workers will have to be met by workers who are entering the labor market for the first time. Recent American history, however, shows that this assumption is entirely unfounded. At the beginning of the Industrial Revolution most Americans were farm workers, but by the end of that revolution most had become

factory workers. Thus, even though the labor pool remained relatively constant during this period, the number of farm workers decreased and the number of factory workers increased. This example clearly demonstrates the mobility of the labor force.

In the second place, the author assumes that the government proposal to cut funds for aid to education will have a significant negative impact on the ability to train workers in technical and professional fields. The fact is, however, that the percentage of students who rely on government aid for their education is relatively small, so the effect of such cuts would be negligible.

In conclusion, this argument is unconvincing. To strengthen the argument the author would have to show that the present work force was relatively static and that the proposed cuts in educational aid would have a deleterious effect on the numbers of high skilled workers available to enter the work force in the future.

75. The author of this government agency memorandum argues that the government should not spend any money this year fixing the bridge that crosses the Styx River, given the limited resources available for building and repair of roads and bridges. The author reasons that this bridge is less important than others because it is located near a city with a weakening economy, and because the city's small population is unlikely to contribute enough tax revenue to justify fixing their bridge. This argument is unconvincing for four reasons.

First of all, the author unfairly assumes that the importance of a bridge is determined solely by the economic condition of nearby cities. This assumption overlooks other criteria for determining a bridge's importance, such as the number of commuters using the bridge, the role of the bridge in local emergencies and disasters, and the impact that bridge closure would have on the economies of nearby cities. Without accounting for these other potential factors, the author fails to provide a convincing argument that the Styx River Bridge is unimportant.

Secondly, the author fails to provide any evidence that other bridges are more important than the Styx River Bridge. Without such evidence, we cannot accept the author's conclusion that no government funds should be directed toward maintaining the Styx River Bridge.

Thirdly, the fact that the nearby city has a weakening economy does not prove that the city will not contribute significantly to tax revenues. Perhaps tax revenues are based on property taxes, which are not related directly to economic conditions. If so, and if property values and taxes are high in this nearby city, then the city would contribute significantly to tax revenues, and the bridge would be important to maintain those property values and the revenues they generate.

Finally, the author assumes that a city should receive government services commensurate with the tax dollars it contributes. Substantiating this assumption requires examining the proper duty of government. However, the author provides no such examination. Accordingly, this assumption is simply an unproven claim.

In conclusion, this editorial fails to substantiate its claim that the Styx River Bridge is not important enough for the government to spend tax dollars to maintain and repair it. To strengthen the argument, the author must account for other factors that also determine a bridge's importance, and must compare the importance of this bridge relative to other bridges.



76. In this argument the author reasons that a sequel to a popular movie will be profitable because the original movie was profitable and because books based on the characters of the movie are consistently bestsellers. This argument is unconvincing for several reasons.

In the first place, a great deal of empirical evidence shows that sequels are often not as profitable as the original movie. For example, none of the "Superman" movie sequels even approached the success of the original movie. Accordingly, the mere fact that the first movie was successful does not guarantee that movies based upon it will also be profitable.

In the second place, a movie's financial success is a function of many elements in addition to well-liked characters. Admittedly, the fact that the books based on the characters of the original film are bestsellers bodes well for the movie's commercial prospects. However, unless the original cast and production team are involved in making the sequel, there is a good chance it will not be financially successful.

Finally, another important element in creating a successful movie is the script. The transformation of a popular book into a popular movie script is a difficult process. Examples of best-selling books that were not made into successful movies are commonplace. Obviously, the success of the sequel that Vista is planning will depend in great part on the screenwriter's ability to capture the elements of the story that make the books popular. Since the difficulties inherent in this process make it hard to predict whether the result will be a success or a failure, the conclusion that the sequel will be profitable is presumptuous.

In conclusion this is an unconvincing argument. To strengthen the argument, it would be necessary to provide assurances that the original cast and production team will be involved in the project and that the script will capture and develop the particular elements responsible for the books' popularity.

77. The conclusion of this letter is that consumers are not truly benefiting from advances in agricultural technology. The author concedes that, on the average, consumers are spending a decreasing proportion of their income on food. But the author contends that this would happen without advances in agricultural technology. The author reasons that demand for food does not rise in proportion with real income, so as real income rises, consumers will spend a decreasing portion of their income on food. This argument turns on a number of dubious assumptions.

First of all, while asserting that real incomes are rising, the author provides no evidence to support this assertion; moreover, it might be false. Even if salaries and wages go up, this fact may not indicate that real income has increased proportionally. Real income takes into account any effect inflation might have on the relative value of the dollar. It is possible that, when salaries and wages are adjusted for inflation, what appear to be increases in real income are actually decreases.

In addition, the author assumes that increases in real income explain why, on the average, consumers are now spending a decreasing proportion of their income on food. But no evidence is provided to show that this explanation is correct. Moreover, the author fails to consider and rule out other factors that might account for proportional decreases in spending on food.

Finally, the entire argument turns on the assumption that benefits to consumers from advances in agricultural technology are all economic ones?aspecifically, ones reflected in food prices. The author ignores other likely benefits of agricultural technology that affect food prices only indirectly or not at all. Such likely benefits include increased quality of food as it reaches the market and greater availability of basic food items. Moreover, the author cannot adequately assess the benefits of agricultural technology solely on the basis of current food prices because those prices are a function of more than just the technology that brings the food to market. In conclusion, this letter has provided little support for the claim that consumers are not really benefiting from advances in agricultural technology. A stronger argument would account for the benefits of technology other than the current price of food, and would account for other factors that affect food prices. To better evaluate the argument, we would need more information about whether real incomes are actually rising and whether this alone explains why consumers now spend a proportionately smaller amount of income on food.

78. In this editorial the author argues that improvements to existing city services as well as new services should be paid for by developers rather than by taxpayers. In support of this opinion the author points out that developers can make large profits from building projects and that these projects increase the demand for city services and raise the city's expenses, I disagree with the author's opinion for two reasons. First, the fact that developers stand to make profits from their projects is not a good reason to require them to pay more than their fair share of the costs of services. In fact, to require them to do this in order to win approval of their projects is tantamount to robbery. City officials would find it difficult to justify a policy that endorsed this practice. Moreover, the adoption of such a practice would discourage the development of new buildings in the city. Second, the increase in demand for city services as well as the increase in the city's expenses will be most likely offset by the tax revenues these projects generate. Consequently, unless the author can demonstrate that the city will incur expenses that are not covered by the increased revenues from these projects, the author's concern about these issues is unfounded. In conclusion, I find the author's reasoning on this issue unconvincing. To strengthen the argument the author would have to show that the city would be harmed financially by approving new building projects.

79. This newspaper editorial concludes that our city should build a plant for burning trash in order to avoid the serious health threats associated with many landfills. The author adds that an incinerator could offer economic benefits as well, since incinerators can be adapted to generate small amounts of electricity for other uses, and since ash residue from some kinds of trash can be used as a soil conditioner. Even if these claims are true, the author's argument is unconvincing in three important respects. To begin with, the author fails to consider health threats posed by incinerating trash. It is possible, for example, that respiratory problems resulting from the air pollution caused by burning trash might be so extensive that they would outweigh the

health risks associated with landfills. If so, the author's conclusion that switching to incineration would be more salutary for public health would be seriously undermined. Secondly, the author assumes that discontinuing landfill operations would abate the health threats they now pose. However, this is not necessarily the case. It is possible that irreversible environmental damage to subterranean water supplies, for example, has already occurred. In this event, changing from landfills to incinerators might not avoid or abate serious public health problems.

Thirdly, the author's implicit claim that incinerators are economically advantageous to landfills is poorly supported. Only two small economic benefits of incineration are mentioned, while the costs associated with either burning trash or switching refuse disposal systems are ignored. In all likelihood, such costs would be significant, and may very well outweigh the economic benefits.

In conclusion, the author's argument provides inadequate justification for switching from one disposal system to the other. As it stands, the argument takes into account only a limited number of benefits from the change, while addressing none of its costs. To better evaluate the argument, we must first examine all the health risks posed by each refuse disposal system and conduct a thorough cost-benefit analysis of each system, taking account of the cost of the new system, the cost of the changeover itself, and the expected costs to the community of health problems resulting from each system.

80. In this editorial, the author argues that it makes financial sense for employers to make the workplace safer, in support of this claim the author reasons that since wages paid to employees should increase as the risk of physical injury increases, the converse should be true as well. Hence, by decreasing the risk of injury, employers could decrease the wages paid to workers and thereby save money. This argument is unconvincing for two reasons.

To begin with the author assumes that because companies would agree that as risk of injury increases wages should also increase, they would also agree that as risk decreases wages should also decrease accordingly. This is tantamount to the assumption that risk of injury is the primary factor that determines workers' wages. It is obvious that few employers, and even fewer employees, would agree that this is the case. To adopt this position one would have to disregard education, experience, and skill as equally important factors in determining the wages paid to workers.

Secondly, the author's reasoning suggests that the only benefit of a safer workplace is the savings employers could realize from lower wages. This is obviously not true. The costs associated with accidents on the job could far outweigh any savings that could be realized by paying workers lower wages.

In conclusion, the author's argument is unconvincing. Risk of injury is an important factor to consider in determining the wages paid to workers but is not the only such factor. Furthermore, there are far better reasons for employers to make the workplace safe than the one presented by the author.

81. This company memorandum suggests that, in lieu of adopting an official code of ethics, the company should conduct a publicity campaign that stresses the importance of promoting certain societal interests. The reason for the suggestion is that an official

code of ethics might harm the company in the public eye because a competing company received unfavorable publicity for violating its own ethics code. This argument is unconvincing, since it depends on several unwarranted assumptions as well as arguing against its own conclusion.

First of all, the author unfairly assumes that the two companies are sufficiently similar to ensure the same consequences of adopting an ethics code for this company as for its competitor. The competitor may have adopted an entirely different code from the one this company might adopt?perhaps with unrealistic standards not embraced by any other companies. Perhaps the competitor's violation was extremely egregious, amounting to an aberration among businesses of its type; or perhaps one notorious executive is solely responsible for the competitor's violation. Any of these scenarios, if true, would show that the two companies are dissimilar in ways relevant to the likelihood that this company will experience similar violations and similar publicity if it adopts any ethics code.

Secondly, the author unfairly assumes that the competitor was damaged by its code violation and the resulting publicity more than it would have been had it not violated its code. Just as likely, however, the violation was necessary to ensure a certain level of profitability or to protect other important interests. Without knowing the extent and nature of the damage resulting from the bad publicity or the reason for the violation, we cannot accept the author's conclusion.

Thirdly, the author's proposal is inconsistent with the author's conclusion about the consequences of adopting an ethics code. The author suggests that, instead of adopting an ethics code, this company should stress "the importance of protecting the environment and assisting charitable organizations." This proposal is tantamount to adopting an ethics code. In this sense, the author suggests going against his own advice that the company should not adopt such a code.

in conclusion, differences between this company and its competitor may undermine the author's conclusion that this company should not adopt an ethics code.

To better evaluate the argument, we need more information about the nature of the competitor's ethics code and about the nature and extent of the violation. To strengthen the argument, the author must accord his advice with his conclusion that the company should not adopt an ethics code.

82. In this editorial the author asserts that opinion polls are little better than random guesses to predicting outcomes of presidential elections. The author's basis for this assertion is that opinion polls measure only the preferences of voters at the time of the poll and that many voters change their preferences several time before voting?asome remaining undecided until the moment they cast their vote. The author's reasoning is unconvincing in two critical respects.

First of alt the predictions based on random guessing are such that the greater the number of candidates, the less likely the prediction will be correct. The reason for this is obvious: random guessing requires that no outside information be allowed to influence the guess. Predictions based on opinion polls, on the other hand, will differ considerably from those based on random guesses simply because outside information will influence the result. For example, in a four-person race, random guessing would yield the correct prediction 25 percent of the time, whereas the percentage of correct predictions based

on opinion polls would be much higher. The reason for this disparity is simple. Opinion polls enable us to narrow the choices. That is, opinion polls serve to reduce the number of viable candidates in the voter's mind and thereby increase the likelihood that the prediction based on them will be correct.

In addition, while it is true that many voters change their minds several times before voting, and that some remain undecided until entering the voting booth, this is not true of everyone. Moreover, people who do change their minds frequently or wait until the last moment to decide have typically narrowed their choice to a few candidates. In conclusion, the author is mistaken in believing that random guessing would be as reliable as opinion polls in predicting the outcomes of presidential elections.

83. This editorial asserts that West Cambria should not change its highway speed limits because such changes adversely affect driver alertness and are therefore dangerous. To support this claim, the editorial cites statistics indicating that whenever East Cambria changed its speed limits, an average of 3 percent more automobile accidents occurred during the week after the change than during the week preceding it, even when the speed limit was lowered. As it stands, this argument suffers from three critical flaws.

First, it is unlikely that the brief one-week periods under comparison are representative of longer time periods. A difference of only 3 percent during one particular week can easily be accounted for by other factors, such as heavy holiday traffic or bad weather, or by problems with reporting or sampling. Had the editorial indicated that several speed-limit changes in East Cambria contributed to the statistic, the argument would be more convincing; but for all we know, the statistic is based on only one such change. In any event, a one-week period is too brief to be representative because it is likely that accidents will occur more frequently immediately following the change, while people adjust to the new limit, than over the longer term when drivers have become accustomed to the change.

Secondly, the editorial fails to acknowledge possible differences in the types of accidents occurring before and after the change. It is possible that the accidents during the week before the change all involved fatalities, while those during the week after the change were minor fender-benders. If so, even though 3 percent more accidents occurred after the change, the author's argument that changing the speed limit increases danger for drivers would be seriously weakened.

Thirdly, the editorial fails to take into account possible differences between East and West Cambria that are relevant to how drivers react to speed-limit changes. Factors such as the condition of roads, average age and typical driving habits of residents, and weather patterns, would probably affect how well or how quickly drivers adapt to speed-limit changes. Thus, changing speed limits in East Cambria might be more dangerous than changing them in West Cambria.

In conclusion, the statistical evidence cited to support the argument is insignificant and probably unrepresentative. To better evaluate the argument, we need to know how many speed-limit changes contributed to the statistic and when the speed-limit changes were made. Finally, to strengthen the argument the author should show that East and West Cambria would be similarly affected by speed-limit changes.

84. The vice president of Nostrum argues that implementing an increase in health and retirement benefits for employees is not a good idea at this time. His main line of reasoning is that an increase in benefits is both financially unjustified and unnecessary: a financially unjustified because last year's profits were lower than the preceding year's, and unnecessary because Nostrum's chief competitor offers lower benefits to its employees and because a recent Nostrum employee survey indicates that two-thirds of the respondents viewed the current benefits package favorably. While the argument has some merit, it is not completely convincing.

Admittedly the vice president's reasoning linking employee benefits with company profits seems reasonable on its face. Companies that are not profitable are ill-advised to take on additional costs such as increased employee benefits. However, the fact that Nostrum's profits last year were lower than the preceding year does not imply that Nostrum is experiencing financial difficulties that preclude it from increasing employee benefits at this time. Perhaps the previous year's profits were extremely large; whereas last year's profits, albeit lower, were sufficient to fund an increase in the benefits package without threatening the company's bottom line.

Also, the fact that Nostrum's chief competitor provides lower benefits to its employees is not a good reason for Nostrum to deny an increase to its employees. Employee loyalty is an important asset to any company, and providing good pay and good benefits are among the best ways to acquire it. Nostrum would be well advised to assure that its employees have little reason to seek employment elsewhere, and especially from its chief competitor.

Finally, one can infer from the survey's results that a full one-third of the respondents may have viewed the current benefits package unfavorably. If so, such widespread satisfaction would weaken the vice president's argument. Lacking more specific information about how these other employees responded, it is impossible to assess the reliability of the survey's results or to make an informed recommendation.

In conclusion the vice president's argument against implementing a benefits increase is unconvincing. To strengthen the argument, he must provide evidence that the increase in benefits would have a negative impact on the company's overall profitability. Additionally, he must provide more information about the manner in which the survey was conducted before we can determine the degree of employee satisfaction of the current benefits.

85. This article concludes that businesses using commercial television to promote their products will achieve the greatest advertising success by sponsoring only highly-rated programs: preferably, programs resembling the highly-rated non-commercial programs on public channels. Supporting this claim is a recent study indicating that many programs judged by viewers to be high in quality appeared on noncommercial networks, and that the most popular shows on commercial television are typically sponsored by the best-selling products. This argument is weak because it depends on three questionable assumptions.

The first of these assumptions is that non-commercial public television programs judged by viewers to be high in quality are also popular. However, the study cited by the author concerns viewer attitudes about the "high quality" of programs on



noncommercial public television, not about their popularity. A program might rate highly as to quality but not in terms of popularity. Thus, the author unfairly assumes that highly-rated public television programs are necessarily widely viewed, or popular. The argument also assumes that programs resembling popular non-commercial programs will also be popular on commercial television. However, the audiences for the two types of programs differ significantly in their tastes. For example, a symphony series may be popular on public television but not as a prime-time network show, because public-television viewers tend to be more interested than commercial-television viewers in the arts and higher culture. Thus, a popular program in one venue may be decidedly unpopular in the other.

A third assumption is that products become best-sellers as a result of their being advertised on popular programs. While this may be true in some cases, it is equally possible that only companies with products that are already best-sellers can afford the higher ad rates that popular shows demand. Accordingly, a lesser-known product from a company on a smaller budget might be better off running repeated but less expensive ads on less popular shows than by running just one or two costly ads on a top-rated show.

In conclusion, the results of the cited study do not support the author's conclusion. To better evaluate the argument, we need to know the intended meaning of the phrase "highly-rated." To strengthen the argument, the author must limit his conclusion by acknowledging that popularity in public television might not translate to popularity in commercial television, and that the best advertising strategy for companies with best-selling products may not be feasible for other businesses.

86. In this argument the author reasons that the failure of Company B portends a similar fate for Company A. The grounds for this prediction are similarities that exist between the two companies. The line of reasoning is that since both companies produce video-game hardware and software and both enjoy a large share of the market for these products, the failure of one is a reliable predictor of the failure of the other. This argument is unconvincing.

The major problem with the argument is that the stated similarities between Company A and B are insufficient to support the conclusion that Company A will suffer a fate similar to Company B's. In fact, the similarities stated are irrelevant to that conclusion. Company B did not fail because of its market share or because of the general type of product it produced; it failed because children became bored with its particular line of products. Consequently, the mere fact that Company A holds a large share of the video-game hardware and software market does not support the claim that Company A will also fail.

An additional problem with the argument is that there might be relevant differences between Company A and Company B, which further undermine the conclusion. For example, Company A's line of products may differ from Company B's in that children do not become bored with them. Another possible difference is that Company B's share of the market may have been entirely domestic whereas Company A has a large share of the international market.

In conclusion this is a weak argument. To strengthen the conclusion the author

would have to show that there are sufficient relevant similarities between Company A and Company B as well as no relevant differences between them.

87. The author concludes that photographers who work in color hold a competitive advantage over those who work in black-and-white. To support this conclusion, the author claims that the greater realism of color accounts for its predominant use in magazines and portraits. The author also points out that newspapers now use color photographs, and that there are more types of color film than black-and-white film available today. This argument is problematic in several important respects.

First, the argument unfairly assumes that working in color is necessary in order to gain an advantage. The author identifies only two areas where color predominates. It is possible that the overall demand for black-and-white photography remains high. Moreover, the author provides no evidence that the realism of color photography is the reason for its predominance. The predominant use of color may be due to other factors such as consumer preferences or relative costs of film which might change at any time.

Second, the argument unfairly assumes that a photographer must make an either/or choice between the two types of photography. This assumption presents a false dilemma, since the two media are not necessarily mutually exclusive alternatives.

Common sense tells us that a photographer can succeed by working in both media.

Third, the fact that more kinds of color film are available than black-and-white film accomplishes little to support the argument. The difference in number might be insignificant, and the distinctions among the types of color film might be negligible. In fact, by implying that more choices in film type affords a photographer a competitive advantage, the author actually undermines his larger argument that working solely in color is the best way to succeed in the field of photography.

Finally, the argument ignores other factors such as initiative, creativity, technical skills, and business judgment that may be more important than choice of medium in determining success in photography. A poorly skilled photographer may actually be disadvantaged by working in color insofar as color work requires greater skill, and insofar as color photographers face keener competition for assignments.

In conclusion, this argument oversimplifies the conditions for gaining an advantage in the field of photography. To better evaluate the argument, we need more precise information as to how large a portion of all photography work today is accounted for by color work. To strengthen the argument, the author must convince us that a photographer must choose one medium or the other rather than working in both.

88. The conclusion of this argument is that 15-year-olds should be eligible to obtain a driver's license. The author employs two lines of reasoning to reach this conclusion. In the first the author reasons that since older drivers can retain their driving privileges by simply renewing their licenses, 15-year-olds should be eligible to obtain a license. In the second, the author reasons that 15-year-olds are physically more capable than older drivers of performing the various skills associated with driving a vehicle and thus should be eligible to get a license. This argument is unconvincing for a couple of reasons.

In the first place, the author assumes that there are no relevant differences between 15-year-olds and older drivers that would justify treating them differently. This assumption is dearly mistaken. The major difference between the two groups, and the major reason 15-year-olds are denied driving privileges, is their relative lack of emotional maturity and social responsibility. This difference is sufficient to justify the policy of allowing older drivers to renew their driving privileges while at the same time denying these privileges to 15-year-olds.

In the second place, even if it is granted that fifteen year olds possess better night vision, reflexes, hand-eye coordination, and are less disoriented in unfamiliar surroundings than older drivers, these abilities do not qualify them to obtain a driver's license. The author assumes that physical capabilities are the only attributes necessary to operate a motor vehicle. But this assumption is clearly mistaken. In addition to these abilities, drivers must be able to exercise good judgment in all types of driving situations and conditions and must be cognizant of the consequences of their decisions and actions when driving. It is because 15-year-olds typically lack these latter abilities that they are denied driving privileges.

In sum, the author's argument fails to take into consideration important differences between older drivers and 15-year-olds that justify denying driving privileges to the younger group while at the same time allowing older drivers to retain their privileges by simply renewing their license.

89. This advertisement for "How to Write a Screenplay..." concludes that a writer is more likely to be successful by writing original screenplays than by writing books. The ad's reasoning is based on two claims: (1) the average film tends to be more profitable than even best-selling books, and (2) film producers are more likely to make movies based on original screenplays than on books because in recent years the films that have sold the most tickets have usually been based on original screenplays. I find the ad unconvincing, on three grounds.

First, the mere fact that ticket sales in recent years for screenplay-based movies have exceeded those for book-based movies is insufficient evidence to conclude that writing screenplays now provides greater financial opportunity for writers. Ticket-sale statistics from only a few recent years are not necessarily a good indicator of future trends. It is possible that fees paid by movie studios for screenplays might decrease in the future relative to those for book rights. Moreover, the argument is based on number of ticket sales, not on movie-studio profits or writer's fees. It is possible that studio profits and writer fees have actually been greater recently for book-based movies than for those based on original screenplays.

Another problem with the ad is that it assumes a writer must make an either-or choice from the outset between writing books and writing screenplays. The argument fails to rule out the possibility that a writer engage in both types of writing as well as other types. In fact, a writer may be more successful by doing so. Writing in various genres might improve one's effectiveness in each of them. Also, writing a book may be an effective first step to producing a screenplay. In any event, the ad provides no justification for the mutually exclusive choice it imposes on the writer.

A third problem with the ad is its ambiguous use of the word "successful." The argument simply equates success with movie ticket sales. However, many writers may

define writing success in other terms, such as intellectual or artistic fulfillment. The ad's advice that writing screenplays is the best way to achieve writing success ignores other definitions of success.

In conclusion, this quick pitch for a book is based on simplistic assumptions about ticket sales and writer fees, and on an overly narrow definition of success in writing. To better evaluate this argument, at the very least we would need to know the number of years the cited statistic was based on, and the extent to which ticket sales reflect movie studio profits and writer fees.