Bridge Over The River Doon

"Brig o' Doon" Immortalized in Tam o' Shanter
Alloway, Scotland

John Droge
Professor of Art
The cover and table of contents of the first Bridgewater Review in 1982 introduced our readers to the concept of a faculty magazine which highlighted the work of the instructional staff at the college.

The picture of the editor is in no way an accurate representation of reality.
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The year is 1982. In that year Ronald Reagan cut budgets and proposed cutting taxes, Barney Clark got an artificial heart and seven people were killed in the Tylenol scandal; the Marines landed in Beirut and the Equal Rights Amendment went down to defeat. 1982 was also the year that Epcot Center opened and USA Today hit the stands; E.T. was the number one box office smash, John Updike won the Pulitzer Prize for Rabbit is Rich and my beloved Milwaukee Brewers lost to the St. Louis Cardinals in the World Series. 1982 was also the year that the Bridgewater Review was published for the first time.

I am told that ten years publishing a magazine, especially a specialized magazine like the Review, is a feat to be celebrated. In this age when support for higher education is drying up, the commitment of this college to provide the resources so that the faculty can present their work is astounding. Moreover, the willingness of the faculty to contribute to the Review, many times only because a persistent editor keeps making phone calls, is a testament to their dedication and professionalism. There are many ingredients in a successful magazine and Bridgewater seems to have been following the right recipe for the last ten years.

But now ten years later in 1992 a new Bridgewater Review appears on the scene. With this issue the Review enters another era with a different mission and a more clearly defined target readership. The Bridgewater Review will be committed to the goal of lifelong learning in which the magazine serves as one means of keeping our readers in touch with the current research, opinions, grants and community service of those individuals who teach at the college. Through this magazine alumni will be able to see how the faculty are continuing to make Bridgewater a center for educational excellence in Massachusetts.

What makes putting together a new Bridgewater Review an exciting experience is that higher education in the United States and certainly in Massachusetts is changing at such a rapid pace. Faculty members at the college are quickly adapting to the challenges of a global economy, high technology, and career options that were not even thought of ten years ago. Bridgewater remains committed to providing its students with a sound and vigorous liberal arts education, but that education is now being pushed to uncharted frontiers by computerization, telecommunications and classroom and research techniques that require special skills. In the coming issues of the Review, we will be showing you how the Bridgewater faculty are meshing the traditional liberal arts with the demands of a new age.

As the Review goes to press, the world that the Bridgewater student will be entering demands graduates with greater career flexibility, strong critical thinking skills, the capacity to absorb an endless stream of information, and perhaps most of all, the drive to compete in an increasingly competitive world. It is this ever changing world with its demands, its dilemmas and its downturns that the Bridgewater faculty of the 1990s must explain and help students prepare for. The job of an educator in a college like Bridgewater is now more difficult than in 1982, primarily because the college is seen as critical to the economic life of our state and our region. Faculty have become more than just instructors and researchers, they are now also community resources and agents of development as the college evolves into what is termed “interactive” with the world outside the boundaries of Bridgewater.

Developing a magazine like the Bridgewater Review which highlights how the faculty at the college are leading the students and our region into the twenty-first century is a task we undertake with pride and satisfaction. By presenting the work of our faculty, whether a scholarly article or an art exhibit or an educational grant or a joint business-college initiative, the Review is committed to showing its readers that our faculty are not sitting by the sidelines while the world we live in changes, but rather are helping to change that world.
India, a land of remarkable mineral wealth, has provided the world with many of the finest gemstones — sapphires, rubies, moonstones, and diamonds in particular.

India was the world’s primary source of diamonds from the seventh century B.C. until 1728 A.D., when diamonds were discovered in Brazil. During this period, many of the largest and finest gems were found. Both Greek and Roman writers (Pliny, Ptolemy, etc.) refer to Indian diamond sources. The earliest Sanskrit accounts of diamonds occur in the Mahabharata and the Arthasastra, two great Indian epic poems. The first detailed and well-chronicled account of the Indian diamond fields was provided by Jean Baptiste Tavernier (1605 to 1689), a famous French jeweler and traveler who journeyed to India six times between 1631 and 1668. Some of the world’s most famous diamonds have passed through his hands.

All important Indian diamond districts occur along the eastern edge of the Deccan Plateau. They extend from the Penner River (14°N latitude) to the lower tributaries of the Ganges River (25°N latitude). In general, they may be divided into four regions: southern, central, eastern, and northern.

The Southern or Golconda District, Andhra Pradesh State

The most important mines in the Golconda District are along the Penner (Penna), Krishna (Kristna, Kistna), and Godavari (Godivari) rivers, all of which discharge into the Bay of Bengal. The principal localities are Cuddapah, Anantapur, Bellary, Kurnool, Guntur, Mahbubnagar, Kollur, Partial, Golapilly, Eluru (Ellore), and Nandyal (Nandial).

The richest and most famous mines are those at Kollur on the Krishna River in the former State of Golconda. This locality was referred to as Gant Couleur (Persian for Kollur Mine) by Tavernier. He reported that this diamond deposit was discovered in 1560 by an accidental find of a 25-carat stone and was worked by as many as 60,000 people. He also reported that the best stones had a green crust, but "when cut they proved to be white and of very beautiful water." The workings were quite shallow and the diamond-bearing horizon was approximately one foot thick. The Koh-i-nur, Great Mogul, and Hope diamonds are among those reputedly found at Kollur. The workings are exhausted and now completely deserted.

On the north bank of the Krishna River, east of Chintapilly, are the Partial mines. They were active until 1850, and are now abandoned. The Regent or Pitt diamond came from these mines.

Three kimberlite pipes have been discovered in Andhra Pradesh since 1961, but no diamonds have been found.
The Central District, Maharashtra State

Located about 80 miles southeast of Nagpur in the Chanda region are a group of mines known as Wairagarh. The mines are very old and were very rich, but have been abandoned since 1827. Tavernier named this locality the Beiragarh Mines. The diamonds occurred in a reddish or yellowish sandy alluvial soil of unknown origin.

The Eastern District, Orissa State

The diamonds known to the ancients may have come from the Mahanadi River. The so-called diamond river of Ptolemy is considered to be either this river or one of its tributaries, the Ebe. The diamond-producing area on the Mahanadi is along a 28-mile length centered around Sambalpur.

The diamonds occur in a mud containing sand and gravel. Pebbles of beryl, topaz, garnet, carnelian, amethyst, and rock crystal occur with the diamonds. The source of the deposit is the granite and gneiss through which the Mahanadi flows. Gold is recovered from the sand and gravel along with the diamonds. A 210.6-carat crystal, the largest known from this locality, was discovered in 1809 at Hira Khund, an island in the Mahanadi. All workings were abandoned by 1850.

The Northern or Bundikhail District, Madhya Pradesh State

A group of diamond mines, called the Panna mines, are along the northern edge of the Bundikhail Plateau extending from Panna eastward to Rewa and north-eastward in the direction of Allahabad. The deposits are classified as primary (pipes), secondary (conglomerates), and detrital (alluvial river terraces). The detrital gravels occur at thin horizons 19 to 26 feet below the surface. Diamonds have been recovered from pits as deep as 35 feet. In 1962, 1131 carats, including the 35-carat Vijay Diamond, were recovered from a shallow alluvial pit near Panna. A few alluvial deposits, the most important of which is located at Ramkheria, are currently being mined. The National Mineral Corporation took over diamond production in 1960.

There are three known pipes in the Panna area: Mahjigawan, Hinota, and Angore. Only the Mahjigawan, 12 miles southwest of Panna, is currently being worked. The pipe consists of highly serpentinitized rock similar to the kimberlite of South Africa. Good-quality light green crystals exhibiting octahedral and dodecahedral habits are found in the Majhigawan pipe.

Famous Indian Diamonds

All of the famous Indian stones apparently have come from the southern district, for which Golconda seems to have been the principal market. The majority of these were found between the thirteenth and early nineteenth centuries A.D. and have had rather intriguing and mysterious adventures. We shall briefly consider the Dresden Green, Florentine, Great Mogul, Orloff, Koh-i-Nur, Pitt (Regent), and Hope diamonds. After these a list of all other notable Indian diamonds will be given.

The Dresden Green

This diamond is of a very fine, clear apple green and is probably the finest stone of this color. It is flawless and weighs 40.7 carats. It is almond-shaped and is 1.5 inches long X five-sixths inch thick. August the Strong, King of Poland, purchased the stone at the Leipzig Fair in 1743 and it was preserved in the famous Green Vaults of the Royal Palace in Dresden until World War II, when the palace was damaged. It was taken to the castle Kongistein on the Elbe, then confiscated by the Soviet Trophies Organization. It has now been returned to the restored Green Vaults in Dresden.

The Florentine

The Florentine diamond has also been called the Austrian and the Grand Duke of Tuscany. It weighs 137.27 carats and is a beautiful citron yellow, showing excellent fire. The facets are arranged in nine groups radiating from the center. It was reported cut by L. Van Berquen for Charles the Bald, Duke of Burgundy, who lost it on the battlefield of Granson in 1476. It was then picked up by a Swiss soldier who sold it for a florin. It changed hands several times until it came into the possession of the famous Medici family of Tuscany. Tavernier saw this stone among the treasures of Tuscany in 1657. It then became part of the Austrian Crown jewels in Vienna in 1743. After the fall of the Austrian Empire, it was taken by the royal family when they went into exile; since then, the Florentine has disappeared.

The Great Mogul

The Great Mogul is the third largest gem-quality diamond and is probably the largest of all Indian diamonds. It was found between 1630 and 1650 in the Kollur Mine of the Golconda District. It was seen in the Treasury of the Great Mogul, Aurungzebe, by Tavernier in 1665, who described the stone as looking like half an egg with a flawed edge. The diamond was actually named after Aurungzebe's father Shah Jehan, the builder of the Taj Mahal. It may have been set in his famous Peacock Throne which still exists in the Iranian Treasures. The stone came to Iran after the Sack of Delhi in 1739.

The Orloff

The Orloff (Orlov) was found in the earthen seventeenth century in the Kollur mines. It originally weighed 300 carats in the rough, but now weighs 189.62 carats.
cut. It is now in the Russian Diamond Fund, set into the termination of the Imperial Sceptre. It is perfectly pure and clear and has a brilliant luster. In form, it is very similar to the Great Mogul Diamond mentioned above.

It was one of the eyes of the Brahmin temple on the island of Sheringham near Trichinopoly in southern India. It was stolen by a French soldier who sold it to an English sea captain and then found its way to Amsterdam, where in 1774 it was bought by Prince Orloff for the Empress Catherine II of Russia, who had it set into the Russian Imperial Sceptre.

**The Koh-i-Nur**

The Koh-i-Nur has been known since 1304, when it was in the possession of the Rajahs of Malwa. Ultimately, it was obtained in 1739 by Nadir Shah, the Persian conqueror of the Mogul Empire. In 1813, it went to the Rajah of Lahore and later became the property of the British East India Company, which presented it to Queen Victoria in 1850. It was exhibited at the Great Exhibition at Hyde Park in 1851. But because of its lack of brilliance due to the Indian cut, the Queen had it recut in 1852 in England by the Dutch diamond cutter Voorsanger. The work took 38 twelve-hour days. The original Indian cut stone weighed 186.06 carats; after recutting, it now weighs 106.06 carats.

The name Koh-i-Nur came about in two possible ways. When Nadir Shah first saw the stone, he exclaimed “Koh-i-Nur,” Persian for Mountain of Light. Second and least probable, it has been considered to be a corruption of Kollur, to signify where it was found in India.

In 1937, the Koh-i-Nur was set into the Imperial Coronation Crown below “the Black Prince’s Ruby” (a ruby spinel). It is now part of the Crown Jewels preserved in the Tower of London.

**The Pitt (Regent)**

Bauer called the Regent “a large diamond of singular beauty, perhaps the most perfect of all.” It was found in 1701 in the Partial Mine on the Krishna River, near Golconda. The next year, it was bought by Governor Thomas Pitt (grandfather of William Pitt) of Madras. Pitt had the stone cut in London into a cushion-shaped brilliant of 140.5 carats, which was reduced from its original weight of 410 carats. The cutting took two years of work. Several small rose-cut gems from the crystal were sold to Peter the Great of Russia. In 1717, the main stone was sold to the Duke of Orleans for £135,000. The Duke was then Regent of France and so the stone was renamed the Regent.

**The Orloff**

The orloff, drawn natural size.

The stone was later set into the Coronation Crown of Louis XV in 1772. It was stolen 20 years later, along with other French Crown Jewels, but was recovered 15 months later. Napoleon had the diamond set into the hilt of his sword in 1804 during his coronation. After his exile, the Regent was restored to the French Crown Jewels. It was hidden in the plaster behind a fireplace in the Chateau Chambord when Hitler’s armies invaded Paris in 1940. Then, after the war was over, the diamond was returned to Paris and subsequently went on display in the Louvre.

**The Hope**

The legendary Hope diamond, with its “bad luck” reputation, was considered to be a part of the French Blue diamond found in the Kollur Mine, near Golconda. It was purchased in India in 1642 by Tavernier. It then weighed 112.125 carats in the rough and had a fine dark blue (often described as steel blue) color. In 1668, Tavernier sold it to Louis XIV, who had it recut to a triangular shape of 67.125 carats. It was stolen in 1792 during the French Revolution and was never recovered. However, by 1812, a diamond of similar color weighing 44.5 carats appeared in the possession of the London diamond dealer Daniel Eliason. Almost assuredly this stone was part of the Tavernier Blue.
<table>
<thead>
<tr>
<th>NAME</th>
<th>DATE FOUND</th>
<th>COLOR</th>
<th>WEIGHT IN CARATS</th>
<th>SHAPE</th>
<th>CURRENT OWNER</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akbar Shar (Shepherd's Stone)</td>
<td>Before 1739</td>
<td>White</td>
<td>71.70</td>
<td>Drop</td>
<td>Gaekwar of Baroda, 1867</td>
<td>Engraved diamond, originally weighing 116 carats. One of the eyes of the Peacock Throne.</td>
</tr>
<tr>
<td>Darya-i-Nur (Iran) (Sea of Light)</td>
<td>Before 1739</td>
<td>Pink</td>
<td>186</td>
<td>Table cut</td>
<td>Iranian Treasury Tehran.</td>
<td>Possibly the Great Table. Taken during the Persian sack of Delhi in 1739.</td>
</tr>
<tr>
<td>Darya-i-Nur (Dacca)</td>
<td>?</td>
<td>White</td>
<td>150</td>
<td>Cushion</td>
<td>Nawab of Dacca, 1959</td>
<td></td>
</tr>
<tr>
<td>Great Table</td>
<td>Before 1677</td>
<td>Pink</td>
<td>242 3/16</td>
<td>Table cut</td>
<td>?</td>
<td>May be the Darya-i-Nur in Iran.</td>
</tr>
<tr>
<td>Jahangir</td>
<td>Early 17th century</td>
<td>White</td>
<td>83</td>
<td>Pear</td>
<td>C. Patel, India, 1957.</td>
<td>Engraved diamond; was suspended from the beak of the Mogul's Peacock Throne.</td>
</tr>
<tr>
<td>Nassak (Nasik)</td>
<td>?</td>
<td>White</td>
<td>43.38</td>
<td>Emerald</td>
<td>Private owner, 1970.</td>
<td>Originally 90 carats; from the Temple of Shiva at Nassak.</td>
</tr>
<tr>
<td>Nizam</td>
<td>1835</td>
<td>White</td>
<td>277</td>
<td>?</td>
<td>Nizam of Hyderabad.</td>
<td>Originally weighed 440 carats; found at the Kollur Mine.</td>
</tr>
<tr>
<td>Piggott (Pigot)</td>
<td>Before 1775</td>
<td>White</td>
<td>49</td>
<td>Brilliant</td>
<td>?</td>
<td>A lost diamond; was originally given to Lord Pigot, Governor of Madras, by an Indian prince.</td>
</tr>
<tr>
<td>Wittelsbach (The Great Blue)</td>
<td>Before 1722</td>
<td>Blue</td>
<td>35.56</td>
<td>Oval</td>
<td>Private owner, Germany, 1964.</td>
<td>Was part of the bridal treasure of Princess Maria Amelia of Austria when she married into the Bavarian Royal Family of Wittelsbach.</td>
</tr>
</tbody>
</table>
In 1830, Eliason sold the diamond to Henry Philip Hope, and in turn it went to Hope's Nephew Henry Thomas Hope in 1839. The diamond was then called the Hope and it was during this period that the bad reputation of the stone started. Around 1910 it passed into the hands of Cartier's, the famous French jewelers. They sold it to Evalyn Walsh McLean in 1911; the diamond remained among her possessions until 1949, when the late Harry Winston of New York bought it.

Winston presented the Hope to the Smithsonian Institution on November 10, 1958. He did this because he felt that the United States should develop a major national gem collection and that the Hope would provide a nucleus around which to build. It has left the National Museum of Natural History of the Smithsonian only twice. The first time, in 1962, it was put on display with the Regent and Savoy at the "Ten Centuries of French Jewelry Exhibition" at the Louvre. The second time was in 1965 for a special Easter exhibition of gems in South Africa.

The Hope is a slightly irregular cushion-shaped brilliant. It is an apparently flawless Type IIb diamond. It also possesses the unusual characteristic of phosphorescing red following exposure to ultraviolet light of less than 3500 angstroms; however, it does not fluoresce. All other Type IIb diamonds phosphoresce light blue.

On November 13, 1975, for the first time in 65 years, the Hope was removed from its setting and was weighed. It was found to be 45.52 carats. However, before this, its weight was given as 44.5 carats. This discrepancy arises because the modern standardized metric carat is 200 milligrams, whereas the old French carat was approximately 205 milligrams.

Conclusion

These are some of the biggest and brightest of nature's ornaments that we have managed to pull from the earth's crust. Putting them in the same place, even if it is only in our mind's eye, threatens to damage their power. We can catalog the Indian production of gems, just as we can list the thousands of priceless paintings produced by Italian geniuses over the centuries. But the compilation of this list should not diminish the stunning effect of being in the presence of a single stone of such size, beauty and value.
The United States in the 1990s: The Impact of Age & Diversity

By Glenn R. Miller

Introduction

As the United States entered the 1990s, many socio-economic changes were taking place nationwide that will have a long-term impact on American society. An article in The Futurist magazine in the summer of 1990 identified nine forces that were reshaping America (table #1). Two of the nine forces, the graying of America and the American Mosaic will be highlighted in this article, with a particular emphasis on their impacts on the state of Massachusetts.

### TABLE 1. NINE FORCES RESHAPING AMERICA

*by the United Way Strategic Institute*

1. The Maturation of America
2. The Mosaic Society
3. Redefinition of individual & Societal Roles
4. The Information Based Economy
5. Globalization
6. Personal & Environmental Health
7. Economic Restructuring
8. Family & Home Redefined
9. Rebirth of Social Activism


The Graying of America

One of the most evident forces of change in America is the maturation, or "graying," of the nation’s population (figure 1). This is due primarily to the increased life expectancy in the US and the declining birth rate in America. Another major contributing factor is the "Baby Boom" generation, those born in the US between 1946 and 1964. The eighty million Baby Boomers comprise close to one-third of the total US population and 54% of the total labor force. The rather unpleasant metaphor that has been used to describe their impact on American society is like that of "a pig in a python." As a python digests its food whole, a bulge first appears at the head of the python and slowly works its way through the length of the snake.

Similarly, the Baby Boom bulge which first appeared in the late 1940s is working its way through the life cycle. The first impact that Baby Boomers had on society was the tremendous demand for baby products, such as infant formula, diapers, baby furniture, and toys. About a half a decade after their initial impact there was a growing need for elementary school classrooms, soon to be followed by increased demands for classrooms in junior highs and a few years later in senior highs. In the mid-1960s, Baby Boomers made their presence known at American colleges and universities. They triggered the greatest growth period in American higher education. Now that the "Boomers" are approaching middle-age, the median age in the United States reflects their impact. As of the 1990 US Census of Population, the median age in the US was 32.9 years, compared to 33.6 years old for the state of Massachusetts and 34.2 in the Northeast. These are all-time high figures and double the median age as of the first US Census in 1790. Massachusetts ranks in the top ten states in percentage of its population sixty-five or older, with 13 percent being senior citizens. This figure would be even higher if it were not for Massachusetts' extremely large influx of college students.

Most Baby Boomers have married, if they plan to do so, and many of the Baby Boom females have now gone through...
their prime child-bearing ages. The result of this important life phase is the “Baby Boomlet” or the “Echo Effect.” Even though the birth rate in the US continues to decline, millions of babies were born in the past decade due to the sheer size of the Baby Boom female population. Some of the elementary schools that closed a decade or two ago have had to reopen to accommodate this “mini-boom.” In a few years, high schools and colleges will also experience the “Boomlet’s” impact.

Colleges, too, have had to adjust to the aging population. For the first time in US history the number of senior citizens, those greater than sixty-five, outnumber the teenage population. The “traditional” college-age population, ages 18-22, is now quite small. Colleges have targeted older students to fill classroom voids. People who took jobs or started families immediately after high school are now in their thirties and forties and are entering college for the first time. Also, many students who pursued bachelors degrees following high school are returning to college for graduate degrees and additional certifications. It is no longer unusual to observe grandparents and senior citizens in the college classroom, or to have students that are older than the professors.

The workplace must also adjust to accommodate the older population. More flexible work schedules will be needed and retirees might be coaxed into returning to fill voids on a part-time, or even full-time basis. The typical retirement age will likely be extended due to fewer workers entering the workforce. Also, as more jobs are now in the tertiary or service sector of the economy, workers can stay on longer because the “white collar” jobs of the service sector are not as physically taxing as are the “blue collar” jobs which used to dominate the workforce. Given the increased life expectancy mentioned earlier, and with some professions allowing pensions after twenty-five or thirty years of service, it is likely that many workers will now have two careers. The Futurist predicts that many middle-age workers will start their own firms as promotions are limited because of the Baby Boom bulge and the down-scaling of manage-

ment in many firms due to the recent lengthy recession. Another reason for the “glut” among Baby Boom workers is the fact that their generation is the first to have the majority of its women in the paid labor force. Male workers now not only have to contend with competition among themselves, but also with the women of their generation. Fewer than three out of ten women were in the paid labor force in 1950. Today fifty-five percent of all women and two-thirds of the Baby Boom women are in the paid labor force. This fact alone has brought about tremendous changes in American society with its dual career households, more independence among women; and childcare has become one of the critical issues of the workplace.

Marketing has also reflected the impact of the Baby Boomers. Given that both spouses in most Baby Boom marriages work, stores have had to open more days and stay open longer hours. Another major change in retailing over the past two decades is the increased size of stores and shopping centers. Given limited time to shop, people increasingly want more one-stop shopping and utilize more multi-purpose trips. In addition to making retail purchases at many of the super regional shopping malls, one can also dine, conduct banking, workout at a fitness center, take in a movie, visit a medical center, and perhaps even attend a religious service.

Additionally, a rapidly increasing percentage of retail sales are now made through mail-order catalogues, telemarketing, and shopping channels on television. Out-of-store retail sales in 1985 were only fourteen percent of all sales. Some experts predict by 1995 that one-third of all retail sales will occur through the direct marketing avenues just mentioned! Many people no longer have the time to do traditional shopping in stores. Speaking of time constraints, not many inventions have been adopted more quickly or more extensively than the microwave oven. Well over half of all households in the US now have microwave ovens. Fifteen years ago hardly any American household had a microwave. Given today’s work schedules, people can no longer afford to spend hours preparing meals and microwaves have become a necessity.

America’s senior citizens are also affecting society beyond their impacts on the labor force mentioned earlier. Currently senior citizens comprise one-eighth of the US population. Many can expect to live well into their eighties and nineties. The majority of today’s senior citizens are relatively wealthy compared to this segment of the population in the past. They have sizeable incomes from several financial sources. Social security accounts for 40% of their income. Three-quarters of them own their own home. Many have ample savings and about half have some kind of private or public pension on top of social security. Tensions have mounted in some areas with large elderly populations over the different needs of the various generations within society. In Massachusetts, many Proposition 2½ overrides fail when older voters, many on fixed incomes, come to the polls in large numbers to vote against increases in a town’s educational budget. Younger couples with school-age children often want these educational budget overrides to pass. Young adults are finding themselves “fighting” their parents’ generation. It is ironic then, that some Baby Boomers are responsible for tri-generational households. Not only must they care for their children, but their parents too. This is putting a tremendous strain on the budgets of many Baby Boomers.

One of the biggest concerns in the United States, especially among the elderly, is the skyrocketing cost of health care. As life expectancy increased, so has the rate of many chronic diseases. Although the heart disease death rate is on the decline, it is still, by far, the leading cause of death in the US. Cancer, the second leading cause of death in the US, is on the rise. Chronic diseases account for the majority of deaths in the US and will likely increase as well. Chronic diseases often require extensive treatments and can be extremely expensive to treat. As the population of senior citizens in the United States grows there is greater need for more medical clinics, hospitals, and convalescent homes.

While health problems exist for some, a
large number of affluent senior citizens retire to the “Sunbelt” or other amenity region, such as Cape Cod or the coast of Maine, to enjoy their senior years in an attractive environment. Retirement migration increases local spending and broadens the tax base of communities receiving the elderly. By stimulating the economies of the areas where they move, the elderly are paying their way as far as needed services are concerned. Although some communities worry about the costs of medical and social needs of the elderly, the largest share of medical costs are paid by federal programs. The taxes generated by senior citizen spending essentially offsets other public costs. Florida, the nation’s leading retirement state, is the big winner. The “Sunshine State” was expected to receive a net gain of five billion dollars from retirees moving there between 1985 and 1990. Arizona was second with a projected net gain of just over one billion dollars. Eight of the other ten states expected to see net gains of $100 million or more were Sunbelt states. But when you have some states that are net revenue gainers with the influx of elderly, you must also have others that are net losers as the affluent elderly depart. New York state was expected to lose almost three billion dollars due to elderly outmigration and Illinois was projected to lose 1.2 billion dollars. The thirteen states with the greatest predicted losses were in the “Rustbelt,” i.e., the Northeast and Midwest sections of the United States. Massachusetts was expected to experience the seventh greatest loss in elderly revenue.

One of the big concerns looking to the future is what will American society be like in the years following 2010 when the first Baby Boomers reach the benchmark retirement age of sixty-five. They will have smaller populations to support them than do the current senior citizens. Fewer people will be paying into Social Security and more people than ever before will be drawing from it. Will uncontrolled health care costs continue to sap the nation’s economy? According to Carol De Vita, co-author of report recently issued by the Population Reference Bureau, “The Baby Boomers are going to put quite a squeeze on our social institutions” and there will be a “tug of war” between meeting the needs of the old Boomers and the needs of younger working Americans. Bob Greene, the renown Chicago columnist, was not quite as diplomatic as was De Vita. He wrote that “younger Americans will be looking upon the old Boomers as non-productive leeches who are screwing up the quality of life just by staying alive.” Stay tuned!

The American Mosaic

The second obvious trend, both nationwide and locally, is the increasing ethnic diversity. America has long been considered a “melting pot,” but in the past the “pot” was largely a mixture of white ethnic groups. Today, as reflected by the 1990 Census, the “pot” is receiving large numbers of people of color, mostly Hispanics, Asians, and blacks. Incidentally, the term preferred by the author to describe the increasing ethnic diversity is that American society is more like a “tossed salad” or “mosaic,” rather than a “melting pot.” The “melting pot” term seems to imply a loss of individual identity of those being “melted” into the pot’s conglomeration. This does not happen in American society. Whereas, the terms “tossed salad” and “mosaic” imply the retention of the uniqueness of the contributing elements that make up the composite whole. This is more reflective of the American cultural landscape.

The Hispanic population in the US grew by more than one-third in the 1980s and now accounts for 8 percent of the nation’s total population. Hispanic population growth is five times the rest of the nation’s
growth, and more than half of all Hispanics live in California and Texas. It is predicted that between 1985 and the year 2000 the American Hispanic population will increase 56 percent. Twelve and one-half percent of the total US population will be Hispanic as the US enters the twenty-first century. Massachusetts ranks twelfth overall in Hispanic population. The Asian population in the US is expected to jump a whopping 76 percent between 1985 and 2000, with the East Coast and West Coast receiving the majority of Asians. Close to four percent of the total population will then be Asian. Black population is expected to rise nine percent in the same time interval and account for 13.3 percent of the total US population. Massachusetts ranks in the top half of all states in terms of number of black residents.

Most of the population growth in the past decade, in both Massachusetts and the nation, is through immigration, and not by the rate of natural increase (births minus deaths). The recent immigrants to America are not only noted for their difference in skin pigmentation, but also their differences in language. For many recent immigrants, English is, at best, their second language. There is a growing movement in the US to establish English as the official language of individual states, as well as the country as a whole. So far, seventeen states have passed state constitutional amendments designating English as their official language. Fourteen of these states passed these amendments in the 1980s. Some of the states with the largest Hispanic populations have passed these language amendments, including California, Colorado, Florida, and Arizona. Massachusetts, in the near future, is not likely to pass an amendment designating English as its official language, although the issue has been presented to the state legislature.

Even though several states enacted laws designating English as their official language, minorities gained in political influence in the 1980s. Several major cities elected black mayors for the first time. Among those cities that elected black mayors in the 1980s are New York, Los Angeles, Chicago, Philadelphia, Detroit, and Atlanta. Recently, Virginia elected its first black governor.

It should be noted, too, that women gained in political influence in the 1980s, adding to the mosaic of our society. The 1980s saw females elected as mayors of Houston and San Francisco, and the Democratic Party's candidate for Vice President in the 1984 election was female. At the state level, the Democratic candidate for Lieutenant Governor of Massachusetts in 1990 was female. At the local level, a female was elected as one of the Plymouth County Commissioners and the towns of Bridgewater and Raynham elected their first ever female "selectmen." It was the decade of the 1980s that also saw Bridgewater State College appoint its first female president in its 150 year history. The 1990s will most likely show an acceleration of this trend as reflected by the highlighting of female candidates at the 1992 National Democratic Convention.

Another major change in American society that added to its diversity is the changing household structure. While it is common to think of "household" and "family" as identical, statistically they are different. Households can include unrelated individuals, while a family consists of groups of individuals related by blood, marriage, or adoption. The days where most households were like "June and Ward Cleaver" are behind us. Today, "traditional" households, married couples with children, account for only 26 percent of the nation's 93.3 million households. This is 5 percent less than in 1980, and 15 percent less than in 1970. If the 26 percent figure seems low, remember that families with children under 18 years of age represent only part of the family life cycle. The statistics reflect all families and households, including those of single people, older couples whose children have left home, etc. The high divorce rate in the US is a contributing factor to the growing number of households, along with the fact that people are marrying later in life or not marrying at all. In 1990 only 73 percent of all children lived in two-parent households, compared to 87 percent who did in 1970. While the numbers of households has risen sharply, the average household size in the United States has sharply declined from 3.37 persons in 1950 to 2.6 in 1990. This reflects the increase of DINKS (Double Income, No Kids), adults both old and young living alone, and single-parent, as well as other types of households.

One-fourth of the babies born in 1990 were born to single women. In the late 1980s, three-quarters of first births among black women occurred out of wedlock, compared to almost one-third of Hispanic first births and one-fifth of white first births. Of the 9.7 million single-parent households in the United States, only 1.4 million are headed by single fathers.

Summary

Demographic trends affect American society like tidal waves, and people in government, business, education, and social services who ignore these trends do so at their own peril. Broad trends, like the progress of the Baby Boomers through the life cycle, changes in household structure, regional changes in population distribution, and the changing globalization of society, have impacts which cannot be ignored. Even though the United States Census Bureau takes its official enumeration every ten years on the first day of April, do not be "fooled" by the impacts of the census results.

Glenn R. Miller, Ph.D.
Professor of Geography
For a number of years, the College has had a "Non-Western General Education Requirement," and, in response to that requirement, I have developed and taught two courses—Philosophies of India and Philosophies of China and Japan. I have never been to India, China, or Japan; probably never will visit those countries; and cannot speak or read Sanskrit, Chinese, Japanese. While I have taken courses in Indian thought from an internationally recognized Indian scholar and keep up with the literature in major journals and the like, I have no plans to contribute to the scholarship of Asian studies. So, how can I possibly justify teaching these courses? Isn't this lack of specialization just what is wrong with college education, where standards are lost in a smorgasbord of offerings?

What gives this question its sting is that I believe and so readily grant that one should not teach a philosophy course unless one is creatively involved in research in key areas of that course. I don't believe that it is enough that one be merely "intrigued" by a subject in order to teach it. For teaching philosophy is not so much a matter of imparting information as it is engaging in a quest—a quest to understand, and so actively do research in, some important areas of human life. And so if I myself am not engaged in that quest, if I am simply reporting on the quests and research of others, that Confucius said this and Sankara that, then all I am doing is being a tourist. And what I am then teaching is a history of crazy ideas, a visit to odd and strange places, which one leaves with a shower and a guffaw. Clearly, the "subtext" of any such course, what remains unstated but deeply instilled, is that these other ideas and cultures are not fundamental and thus to be engaged, but are superficial and thus to be looked at as at best "weird" and at worst boring.

To be a tourist in philosophy is to be justifiably damned. The non-apocryphal story goes that the American philosopher Ernest Nagel, while visiting in England, knocked on the door of Wittgenstein, one of the few great philosophers of the century, aiming to participate for an evening in the Great Man's "at-home." Wittgenstein opened the door to Nagel, heard his request, and then slammed the door shut, uttering as he did so, "No tourists": no dilettantes, no visitors, no gawkers, no "Gee whiz, will'ya look at that getup!" And I believe, deeply, that this attitude is right. For to teach philosophy is to do philosophy. It is not to visit but to build. So, what right do I have to teach these courses? Am I not a tourist in the area?

To escape the charge of tourism I need, first, to distinguish between doing research in the ideas of a culture and doing research in philosophy. On the one hand, researching a culture's ideas involves doing such things as (i) delving into the etymology of a term—e.g., that "karma" designates an action, a performance; (ii) tracing the development of an idea—e.g., that the idea of karma began as a magic-minded ritual, either to keep the cosmos in order or to advance one's own interests, and gradually evolved to the notion of liberating oneself from fear and hate; (iii) interconnecting such ideas with other ideas, e.g., that to liberate oneself is to free oneself from the attachment to one's desires which in turn chain one to the circle of births and rebirths, samsara; (iv) inter-connecting this set of ideas with the practices of a culture, e.g., that the ideas nested in karma are seen as justifying the class and caste system in Indian culture—that each self is born into a situation which it deserves because of its actions in former lives; and so on. On the other hand, doing research in philosophy involves asking whether or not the ideas of a thinker or culture are true or justifiable. One asks: Is it the case that we live a life that is best seen in terms of karma, samsara, and reincarnation? Is it the case that the situation in which we find ourselves—as poor or wealthy, sick or healthy—should be seen in terms of the fruits of past actions, even past actions in other lives? Is it the case that we should seek to liberate ourselves from fear and hate by detaching ourselves from our commitments and desires? And so on.

So, what I teach and do research in as a philosopher is the theory of justification—to look at reason-giving and to determine the "logic" of giving reasons. To do this it is not necessary to become an expert in a culture's ideas. It is enough to rely on the experts to come up with a reasonable interpretation of how reasoning works in that culture and then to carry on the discussion by asking whether these reasons are defensible. Accordingly, one of the foremost interpreters of Aristotle is the thirteenth century thinker, Thomas Aquinas, who knew no Greek and even less of Greek culture and saw Aristotle through the eyes of the Muslim Averroes. But what Aquinas did know was that the questions, reasons, and theories found in Aristotle's works reflected perennial concerns of human life. And he also knew that these questions, reasons, and theories could best be understood by engaging them in critical discussion.

To review, I started out by asking how I could legitimately teach an area like Asian thought. And in trying to answer that question, I have raised another and more difficult question: How is it that we can evaluate the ideas—like karma and reincarnation and samsara—of another culture? They are so alien! One reply that at least some are inclined to give to this question is that we should dismiss Indian thought and its like just because they are so alien to our own way of thinking. This is the way of militant monism, the view that there is one true view, and that we have it. And so in response to other cultures we adopt the way of the missionary who comes to convert the heathen.

While it would be quick and thus tempting to say that another perspective is
alien and so false, militant monism fails on at least three counts. First, to dismiss another point of view just because it is alien, strange weird, or absurd, is logically defective: it is inherently circular. For all such dismissals do is say that this is not our view. But as we well know, it hardly follows that because something is different, even very different, from our own view, that it is false. Second, these hasty dismissals of other perspectives are heuristically defective: they prevent progress in knowledge. For all the views which we hold and cherish today—whether religious, scientific, or political—are views which once were judged alien. In the world of ideas all ideas are immigrants. Finally, these hasty dismissals are morally defective: they express a profound disrespect of other persons. For one essential way that we take other persons seriously is to grant that what they say may be true. Hence to dismiss another point of view just because it is different is to say, right at the start, that those who espouse this point of view are not worthy of respect.

Moved by this rejection of militant monism, many proceed to insist that no one should judge the views of another culture. We have our views. They have theirs. And it is part of showing them respect that we do not try to foist our "intrinsically better" ideas on them. Rather, much as an explorer comes to marvel at the works and ways of another land, we should learn to appreciate the internal logic of these other views and leave it at that. This is the way of cultural relativism, the view that truth is internal to a given culture because the criteria of truth, the standards by which we appraise a given claim or set of claims, arise out of the needs and interests of the culture. Hence, the relativist would conclude, any criticism of one culture by another of necessity must be circular: it must assume what it wants to show. For to criticize is to appeal to standards—to show that certain standards have not been met. But when we criticize one culture by appealing to the standards of our own culture, all we are doing is stating what we knew all along, that the standards of our culture differ from the standards of those other cultures we are "criticizing."

There is much to be said for this sort of cultural relativism. Above all, it practices a praiseworthy cosmopolitan urbanity in its celebration of human variegation—crucial to a world growing increasingly smaller and more interconnected. Moreover, its understanding of reasoning—that we reason from a perspective, that this perspective reflects a culture—is a crucial insight into human inquiry. Still, cultural relativism fares no better than does militant monism.

First, like militant monism, cultural relativism is logically defective: it is self-refuting. For its central claim that standards are relative to a culture is itself intended to be a non-relative or absolute claim about standards. Thus, relativism is a non-relative (and so self-refuting) claim. Second, like militant monism, cultural relativism is heuristically defective: it, too, obstructs the advance of knowledge. For if truth is what a given culture decides, then there is no motivation for the dominant classes of the culture to find out "the truth." They already have it. So, for instance, they will not worry about whether their social practices are justified. The fact that the practices are theirs, by the reasoning of cultural relativism, automatically justifies them. Any further questioning would only disrupt social stability. Finally, like militant monism, cultural relativism is morally defective: it does not entail a cosmopolitan urbanity. For all cultural relativism states is a theory of justification—that one's standards are internal to one's culture. This theory discourages a live-and-let-live attitude, particularly in cultures' whose standards are closed and even hostile to the ideas of other cultures. In fact, cultural relativism in general entails cultural intolerance; consider, for example, Nazism, all fundamentalisms, Maoism, all nationalisms. Most of the world's people live under one or another of these ideologies and are, then, by culture intolerant. Further, even supposing we did live in a culture that is cosmopolitan, by the lights of cultural relativism we could adopt no adequate stance to confront the deeply entrenched intolerance, racism, sexism, and genocide of other cultures. Cosmopolitan relativists can say that they do not share such beliefs but they have no reason to condemn them. So Munich is repeated.

In sum, relativism is a form of tourism. It looks at a perspective and, commendably, tries to understand the perspective on its own terms, but them, condemnable, leaves it at that. It takes its admirable refusal to follow militant monism and condemn whatever is different to mean that nothing, even great evils, should be condemned. In doing so relativism ironically proves to be as condescending in its own way as militant monism. For relativism fails to see that to respect other perspectives and persons is not simply to understand them but to engage them in critical dialogue, where dialogue grants that there may be something both to teach and to learn. Indeed, to take other persons and cultures seriously is to grant with relativism that they have their own integrity and strengths—and thus may have much to teach us; and with monism that we have our own integrity and strengths—and thus may have something to teach them.

In considering other cultures, in short, what we have first and foremost to rely on is the guide of the full-blooded conversation as found in cooperative inquiry. This guide itself is a gift from many traditions: a gift of ancient democratic Greece—especially of Pericles, Socrates, Plato, and Aristotle—and of the European Renaissance—especially of Bacon, Galileo, Locke, and Newton. As such it is part of "our" culture, "our" overall perspective, and so, of course, can and should be challenged. But one way it can't be challenged is by inquiring whether it, inquiring conversation, is a proper practice. For to challenge it in that sense is not to
challenge it at all but to assume it. Nor can it be challenged by forcibly stamping it out—as found in some evangelical and imperialistic monisms. While this no doubt poses a threat to the practice of inquiring conversation, it does not challenge its rationality. Nor again can it be challenged by the relativistic claim that no practice is objectively better than any other. For this claim is self-refuting; it is the absolutistic claim that no claim is absolutistic. Rather, the practice of inquiring conversation can be challenged only by determining whether or not it provides the most complete and coherent set of ideals for living a human life. Is there another guide, another practical source of ideals, which offers as much as the practice of inquiring conversation does about living a good life?

It is in this way, for instance, that I argued for the superiority of the practice of the inquiring conversation over both militant monism and cultural relativism. The practice of the inquiring conversation suggests what is important in militant monism, that there are real wrongs to fight, and what is important in cultural relativism, that there are many good ways to live a life, without falling into the traps of militant monism’s imperialism or of cultural relativism’s spinelessness. In this way the ideals supportive of the practice of inquiring conversation can be seen as more inclusive and coherent than those supportive of the practices of militant monism and cultural relativism. Further, we can see that the ideals suggested by the inquiring conversation surpass by embracing the ideal of tolerance. For the ideal of tolerance not only is condescending—suggesting that the superior view will deign to allow the inferior to exist—but also is morally spineless, seeming to call for tolerance of the intolerant. Instead of tolerance the practice of the inquiring conversation calls for the celebration of the ideals that emerge out of cooperative inquiry. This pluralistic celebration recognizes that these ideals will often have different emphases and so will compete with each other, but that we need all of them to express ways of life that cannot be exhaustively presented by any one set of ideals.

Our ideals, in other words, are not initially obvious in the way we live. Rather, like electrons and other intellectual constructs, they are only potentially present in our lives. They lie implicit in our everyday practices and so have to be drawn out and made actual by our articulating them, as we use them to help us make more sense of what is best in our lives. Thus, for instance, we may and do challenge whether a particular account of the inquiring conversation is the most complete and coherent one available, or whether inquiring conversation is itself an incomplete practice that needs to be embraced by some practice that gives rise to more inclusive ideals. Ideals are thus both discoveries and inventions: discoveries, in that not any concept will suffice to make sense of the best of life; but inventions, in that many concepts will suffice to make sense of a good life.

One image that helps to unfold the practice of the inquiring conversation is the well-known Indian story of the blind persons who met an elephant. One felt the elephant’s side and said that the elephant was a wall; another felt the elephant’s tusk and declared that the elephant was a spear; another the elephant’s underbelly and judged that the elephant was a roof; and another the elephant’s legs and concluded that the elephant was a grove of trees. The story concludes that each was right in what each specifically said and was wrong only in claiming to have the whole truth. In doing so the story teaches the paradox that while truth can be arrived at through the specific language that we ourselves speak. For it is only by speaking a language, seeing the elephant this way rather than that, that we have something clear to criticize, discuss, surpass. As Francis Bacon remarked, the truth is more likely to emerge from a clearly presented claim, however wrong, than from a vague and obscure notion, however well intended.

In summary, it is a central task of the College to help students to work through the paradox of the blind persons and the elephant—that truth depends on many languages but can at first only be approached through one’s own. By trusting their languages and practices without peremptorily dismissing the languages and practices of others, they can come to learn that they need other languages to escape their culture’s limitations and simplistic recipes of life and to gain some semblance of the whole truth. Moreover, by being raised out of their culture’s narrow perspective into a more encompassing world-wide view, they can attain a more deeply embedded commitment to their culture’s truths. For they thereby come to see, with a confident appreciation that can only be based on honest inquiry, what the truths of their culture are. They have learned to reject both the easy answers of the “How To” book of the culture and the despair that so often follows when the given recipes have failed. Such thinkers at once energize a culture, invigorating it with new ideals and possibilities, and also undermine the unexamined and studied simplicities of that culture’s life. Hence they are often regarded as a mixed blessing by the more entrenched powers of the culture. Yet they alone remain open to and aware of the ambiguities of life and of the complexities of issues, and at the same time shrewdly hopeful of the possibilities of cooperative inquiry over time to address these challenges. Such, then, is a central aim of the General Education Requirements, especially as exemplified by the Non-Western requirement, and it makes me glad to be a part of it—engaging students in research in the theories of justification found in non-Western works.
At a time when college faculty are being criticized for concentrating their research efforts on narrow fields of specialization, Philip Silvia of the History Department is moving in the opposite direction—his field of study is an entire city and its rich historical legacy. Phil is the recognized professional historian of Fall River, Massachusetts, a city with a proud heritage as the premier U.S. textile center of the late nineteenth and early twentieth centuries.

In his twenty-four years at Bridgewater, Phil has done extensive research on Fall River culminating in the publication of two volumes entitled Victorian Vistas, which utilize newspaper stories and other written materials to paint an intimate picture of a city and a people. Victorian Vistas is an example of what has come to be called popular history in which historians concentrate their research on ordinary people, their work, their culture, their leisure time and their personal relationships. Volume Three of Victorian Vistas, which will be published this November, completes Phil's study of his hometown, covering the period from 1901 to 1911 when Fall River celebrated its Cotton Centennial Year.

In many ways it was natural for Phil to become Fall River's historian. Like many residents of the city, Phil was a descendant of Portuguese immigrants who came to Southeastern Massachusetts looking for employment and a new life. Phil takes pride in his ancestors, including his grandfather Frank M. Silvia who was the first Portuguese-American judge in the United States. Building on this ethnic pride and strong attachment to his birthplace, Phil graduated from Providence College and eventually received his Ph.D. from Fordham University in New York City where he studied under Professor Humbert Nelli, a noted immigration history scholar, who encouraged him to concentrate on ethnic history as it related to Fall River. Phil's doctoral dissertation was entitled The Spindle City and was his first scholarly effort at exploring the development of Fall River.

Since the writing of the dissertation, Phil has delved more deeply into the relationship of urban life, immigration and the industrial revolution. Phil became fascinated with the immigrants' impact on Fall River's development. In Phil's view, Fall River was a "starter" city where new waves of immigrants added their hard work, ingenuity and unique culture to form a vibrant urban center that at one time was the envy of the industrial world. Unfortunately, shortly after World War I, Fall River entered a period of steep economic decline as the mills went South and the city was unable to recover its days of glory. There were periods of short revival, but today Fall River is an example of a city desperately in need of a new "start."

Despite the fact that Fall River has fallen on hard times, Phil Silvia continues his love affair with his birthplace. He speaks regularly to many groups in town, is active in the Fall River Historical Society, and teaches courses to educators on Fall River history and the impact of immigration on Southeastern Massachusetts. Phil feels it is his professional obligation to work with the residents of Fall River and inform them of the past wonders and current possibilities of their city. One of Phil's proudest accomplishments was his involvement, as historical consultant, with a thirty minute educational film called "The Fabric of Fall River" that is shown at the Fall River Heritage Park. The movie is designed to introduce visitors to Fall River to the history of this important textile city.

For this broad range of activity in support of the working men and women of Fall River, Phil received the Dean Richard M. Fontenera Memorial Award from the Arnold Dubin Labor Education Center at the University of Massachusetts at Dartmouth.

As a true son of Fall River, Phil has expanded his commitment to the city by being an active member of the board of trustees for St. Anne's Hospital. St. Anne's is one of two hospitals in Fall River and an important medical and economic resource. Phil has worked on numerous committees of the board and recently was involved in important negotiations to develop a new affiliation for the hospital which will help it to better fulfill its healthcare mission. Phil has been most impressed with the community service work of the hospital, particularly by the religious sisters that manage and work there. The Dominican Sisters of the Presentation came to Fall River in 1906 and ministered to the workers of the textile mills. In the 1990s the Sisters are now continuing their work with the growing Hispanic community of Fall River.

If research and hospital service are not enough to keep him busy, Phil has also worked with the Preservation Society of Fall River and as a member of the city's Historical Commission to protect many of the Victorian homes and the aging mill buildings from destruction. The beautiful homes of the mill owners and the mills themselves are the heart and soul of Fall River and the setting for much of Phil's research on the connection between the industrial revolution and the men and women who clothed the world for much of the nineteenth century.

Also, as part of his recent workload, Phil chaired a scholarly panel which convened this summer to discuss Fall River's most celebrated event, the Lizzie Borden murder controversy. Not surprisingly, Phil has his own theory on the Borden murders and is more than willing to go into great detail about the Borden family and the so-called "murder of the century." Like any good historian, Phil is a fine story teller. Bridgewater has many special faculty members, but Phil Silvia stands out as one who has taken his research off campus and into the community where he lives. Phil's work on Fall River is an important contribution to the understanding of the region where Bridgewater is situated. Many students who have grown up in this region enroll in Phil's class in immigration history or textile history to find out about their heritage. When they enter the class they experience one of the finest lecturers on campus who not only knows his material but has lived it all his life.
Scenes from England and Ireland

Lone Meg and her Sisters
Lake District, England

Saint Kevin's Church
Cir. 6th c.
Glendalough, County Wicklow, Ireland
Corbeled stone roof and a belfry in the shape of a miniature round tower
A graduate of the University of Notre Dame, Professor Droege earned a B.S. in Geology, a M.A. in Art History, an M.A.T. in teaching, and a M.F.A. in Printmaking. He has studied color photography at Harvard University under Marie Cosindas, and landscape photography with Elliot Porter. His favorite subject is mountain photography which he has studied both in this country and in Wales, U.K. under Philip Evans, a Welchman, who is one of Britain’s leading landscape photographers.

I do not think of the camera as “capturing” the land, the tree, the rock. I think of it as rather “liberating” my experience for other people. I have taken many photographs that give me great pleasure, but my favorites are those which make people want to go out and see for themselves what I have seen.
I don't understand what the huge flap is about multicultural education. As far as I can understand, multiculturalism is merely an effort to include in our course materials information about a range of people and experiences. So why did Dinesh D'Sousa warn in his book *Illiberal Education* that multiculturalism was already undermining the foundations of Western Culture and would, if unchecked, lead to the abandonment of our greatest cultural expressions? There is no room for William Shakespeare if we also study Langston Hughes? And why have some communities attempted to ban languages other than American (Lowell), or teachers with foreign accents from their schools (Westfield)?

This Spring I attended a conference on multiculturalism sponsored by the National Education Association. I was eager to hear not only what was being taught around the country, but also where all the sensitivity came from. There was a good deal of preaching, of course. In this case, the overwhelming sentiment was that multicultural education is desperately needed. Despite his absence from the meetings, Mister D’Sousa took it on the chin more than a few times. But despite all that I learned, the cause of such sensitivity to multiculturalism was only marginally raised, then quickly dropped.

I would like to suggest a possible explanation for these strong feelings about multiculturalism which developed out of discussions begun at that conference. I have since realized why the issue seemed at once so familiar, and so confusing. It comes from my teaching of statistics. (For those of you who are about to stop reading because I have used the “S” word, please give me a few more sentences. I promise it will work out fine.)

Almost always the study of statistics, at least in the sociology department, begins with a discussion of distributions. Information about people, which is what we deal with, can be presented in ways that make sense or don't. For example, imagine see-
ing a page on which the yearly incomes of 15,000 men and women were printed in no particular order. You would have to start digging through the data somehow to make it coherent. But how? Now imagine that the same income figures were printed on two separate sheets of paper, one for women and one for men. If, in addition, each list of incomes were arranged from lowest to highest, the data could not help but make more sense. Voila! Distributions.

Statistical procedures allow us to make sense of data, to arrange it in ways that reveal its characteristics. Once this beginning idea is understood, it is a short step to understanding that distributions have two underlying sorts of characteristics, central tendency and variability. Central tendency is simply the extent to which the data points (usually numbers, but not always) have something in common. What, for example, is the most commonly appearing income in a list of incomes? This is a measure of central tendency called the mode. Another, more broadly used measure of central tendency (the mean) is the arithmetic average. Add all the scores and divide by the number of scores. You have been doing this with your grades since you were a child. Once you have calculated a measure of central tendency you know something about the nature of the distribution, but really only half the story, as it turns out.

The other major characteristic of distributions is variability, or the extent to which the data points differ from one another. Measures like the range (the span between the highest and lowest number) and the mean deviation (the average difference of all the numbers in a list from the center of that list) are indicators of the variability of a distribution.

For those of you who are wondering if I have lost my way from the topic, it is here that the fundamental usefulness of multiculturalism becomes apparent to me. Knowing what central tendency and variability are, it seems clear to me that we have limited our educational focus to the measures of central tendency and short-changed variability. The great works of Western cultures, what critics call the "canon", or the accumulated production of eminent, dead white men, is like the mode or the mean. By studying them we do learn who we are, but only in part. We discover what sorts of things are characteristic of the most powerful and influential producers of ideas in America and the West. But what is missing is the work of people who differ from the mode. It would be like presenting the mean of the distribution without attention to its variability. So what? Well, let me illustrate the danger of doing so.

Take two countries with the same average income of $50,000 per year. Sounds pretty good, doesn't it. You could live happily in either place. However, here are the lists of the incomes of the seven citizens of each country. (Small countries.)

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The average incomes of the two countries are the same, but the variabilities are wildly different. If I weren't the one rich person in Differentia, I wouldn't want to take the chance of living there. Making do with information about central tendency without information about variability can be a big mistake. And the mistake gets worse the more differences there are in a country. Perhaps in relatively homogeneous countries like Japan, where an ancient isolation of the islands from other cultures has led the Japanese to develop few differences from one another, multiculturalism is less needed. However, in the United States, which was built on a series of immigrant populations, and continues to diversify, ignorance of differences may be suicidal. And once one takes a global view, increasingly made necessary by the changing nature of the way business is done today, failure to account for variability is double dangerous, even for the Japanese who have become serious students of the cultures of those with whom they wish to do business.

So, with apologies to those who would do a great deal to avoid statistics, I remain confused about the failure of some people to see the value, the need, to increase the multicultural content of our education at all levels. Perhaps our general affinity for measures of central tendency is as simple as the appeal of the familiar. We know in sociology that it is comforting to be in the company of those perceived to be the same as oneself. However, in a diversifying country and world, we do so at our peril.

William C. Levin
Professor of Sociology and Associate Editor of the Review
Carpooling, one of the best-known suburban chores, is also one of the least gratifying. On rare occasions, however, the driver may be compensated for her labors by having the opportunity to observe the inner lives of children in ways that wouldn’t otherwise be possible. Direct attempts to engage the average 13 year old boy in serious conversation usually elicit monosyllables, grunts and ultimately, dismissal couched in the form of a question like “Do you mind if I listen to the radio?” But if the driver remains quiet, her presence is soon forgotten, and like the proverbial fly on the wall, she is in a unique position to gain direct access to the adolescent mind.

I’ve been chauffeuring boys to and from soccer practice for several years now, and for the most part the conversations are fairly predictable. Silent and unobtrusive at the wheel, I have overheard numerous discussions of past games, analyses of the performances of individual players (“you played really awesome against Medway”) and projections of future success or failure (“we’re gonna get our butts kicked on Saturday”). One day, however, surprisingly, the talk turned to religion. “Are you Jewish or Christian?” one of the boys asked. “Christian,” replied his teammate somewhat tentatively, then added, “though perhaps not really - I’ve only been in church twice, both times for funerals.” He continued, with increasing confidence: “I’m not an atheist though - I’m the other one, the one that doesn’t know.” At this point, the other boys chimed in with energetic declarations that they too were not atheists, although they couldn’t think of the word for “the other one.” Breaking my customary silence, I supplied the missing term: agnostic.

Agnostic, which comes from the Greek “a,” meaning “not” and “gignoskein,” “to know,” is one of the few words whose origin we can trace to a particular individual in a particular time and place. It was coined by Thomas Henry Huxley at a party held one evening in 1869. Huxley was a biologist and an enthusiastic advocate of Darwin’s theory of evolution, who became an active participant in the Victorian debate over science and religion. Huxley carefully distinguished agnosticism from atheism, the belief that God does not exist. In an essay entitled “Agnosticism and Christianity,” he argued that “it is wrong for a man to say that he is certain of the objective truth of any proposition unless he can produce evidence which logically justifies that certainty.” Huxley implies that he would be willing to believe in the proposition that God exists if there were evidence to support such a belief, but, lacking such evidence, he must suspend judgment.

New words often make their way into general usage because they fill what linguists refer to as a “semantic space,” a category or area of experience for which there was, up to that time, no name. The terms “skeptic” and “freethinker” were well known in the late nineteenth century, but neither of these conveys the specific kind of religious doubt which “agnostic” denotes, a doubt which has its origin in the belief that theological questions lie beyond the limits of human knowledge. “Agnostic” filled for the Victorians, and apparently continues to fill for us, an important semantic space.

But do such questions really occupy the minds of the boys in the soccer carpool? On the surface at least, theirs is a thoroughly secular world, a world of athletic competition, of Lethal Weapon II, Nintendo, Beverly Hills 90210, Guns ‘n’ Roses, cars with fast acceleration and the Sports Illustrated swimsuit issue. Yet psychologists explain that beneath the surface, 13 year olds are thinking about larger issues and actively questioning traditional beliefs. In Piaget’s stage theory of development, adolescence marks the beginning of dramatic shifts in cognitive capability; the adolescent engages in philosophic speculations about such sub-
jects as truth, goodness and reality. Investigating the spiritual lives of children, psychiatrist Robert Coles discovered that even children with little religious background who rarely or never went to church or synagogue speculate about whether God exists, and if so in what form.

Why did the carpool philosophers unanimously reject atheism? Perhaps "atheism" has some negative connotations—a hint of dogmatism and an association with immorality stemming from the idea that someone who doesn’t believe in God has no reason to behave in an ethical way. Or perhaps the young carpoolers have secretly asked God to help them score a crucial goal or shoot a winning basket. Perhaps they have even made deals with God, as did a friend of mine who, as a young teen-ager, defied her parents by secretly wearing lipstick and eyeshadow. One night, during a thunderstorm which terrified her, she promised God that she would abandon make-up forever if He would make the thunder stop.

Agnosticism conveniently leaves open the possibility of appealing for divine help without compromising one’s beliefs. In his memoir Growing Up, Russell Baker recalls that as a boy he had no faith in prayer, yet he prayed fervently before an important scholarship examination: "Dear God, help me with this test." How many agnostic airplane passengers, suddenly jolted by what the pilot soothingly describes as "a little bit of turbulence," have whispered "Please, God, don’t let this airplane crash”? As the saying goes, there are no atheists in the foxholes.

The soccer players in the back seat of my car are engaged in boisterous, often exasperating rebellion against adult authority while busily establishing an authority of their own. They know everything; adults are "out of it" and "totally clueless." Yet religious belief remains the one area of acknowledged uncertainty in these adolescent lives, the area in which it’s O.K. to be "the one that doesn’t know."

Barbara Apstein
Professor of English and
Associate Editor of the Review
Pauline Harrington is one of those faculty members who, according to the old saying, wears a number of academic hats. Polly is a member of the Political Science Department and its internship coordinator. She is also one of the faculty advisors in the Academic Advising Center and the pre-law school advisor for the college. Wearing all these academic hats and balancing these responsibilities can be a distinct burden, but Polly handles her numerous duties with great ease and efficiency.

As intern coordinator, Polly supervises a number of Political Science majors each semester. Her job is to work with students to find the right intern opportunity and then follow the students through their experience, offering advice and ensuring that the workload is adequate to meet the college’s standards. Over the years Polly has placed hundreds of students in intern positions from the Massachusetts State House to the Plymouth County District Attorney’s Office to international organizations such as the World Affairs Council. Polly was most pleased recently to supervise the internship relationship developed with Massachusetts Representative Joseph Moakley in which the college supports a political science major for one semester as an aide in the Congressman’s Washington office. Many of the students that participate in the internship program eventually find employment with the agency or organization they are assigned to, while others gain valuable knowledge about how the public sector really works. Through Polly’s administration of the internship program, Bridgewater has developed good working relations with local, state, and national officials that has further strengthened the college’s reputation as a center of educational excellence.

Because of Polly’s fine advising skills she was encouraged to become involved as a faculty advisor in the college’s Haughey Academic Advising Center. Named after its founder, the late Ed Haughey, the Advising Center is charged with assisting all incoming freshmen in making the transition from high school to the college environment and with the advising of upperclass undeclared students. As a faculty advisor, Polly handles a caseload of some one hundred and fifty freshmen who come to her for advice on course selection, tutoring, grade problems, and a whole host of adjustment concerns from how to manage time to getting along with a roommate to writing a term paper. Polly is in many respects what political scientists like to call an ombudsman, a person who solves problems in a large organization and responds to the needs of the clientele.

In her job as faculty advisor, Polly increasingly is finding out that pressures from outside the college are having an impact on students and student life. The home situation, job demands, the lack of money, and other personal issues many times affect the performance of the student. As a result, Polly has become more than an academic advisor; she is also a good listener who must be attuned to the concerns of the student of the 1990s. Because of the off campus demands of many Bridgewater students, Polly often finds herself seeking out students who are too busy, too overwhelmed or too troubled...
to seek advice from someone who can assist them with dealing with the pressures of college life. Polly’s major concern is that some students fall through the cracks and do not receive the kind of counseling that they deserve.

Serving as a faculty advisor takes a good deal of Polly’s time (as much as twenty hours a week), but it is a job that is filled with personal satisfaction. To talk to students and help them get adjusted to Bridgewater or lead them toward support service that will lighten their load is most rewarding. Most students at Bridgewater give the Advising Center high marks for easing their transition into the college and serving as a place where they can get answers about the problems of adjusting to life on a large campus.

As if all this work beyond teaching political science courses is not enough, Polly agreed a few years ago to assume the responsibility of serving as the college’s pre-law advisor. Polly is well suited to this task since she received her law degree from Suffolk University Law School in 1985 and is a practicing attorney. In her capacity as pre-law advisor, Polly works with the staff from the Career Planning and Placement office, faculty members from the Writing Center and Charles Robinson of the Reading Lab to help develop programs that will better prepare students interested in pursuing a career in the law. This pre-law team approach has been most successful in answering student questions about law school selection, law school entrance exams, proper academic preparation and, of course, the opportunities for future graduates of law school.

In her role as law school advisor, Polly sees over twenty-five students a year. Polly has developed a mini-library of brochures from law schools and regularly attends meetings of the northeast Association of Pre-Law Advisors. With her expertise, Polly has been able to help students make the most beneficial choices with respect to their law career. Polly states quite openly that seeking admission into the law schools in the Boston metropolitan area is quite difficult and in many cases foolhardy since the competition is so intense. Polly regularly recommends students seek admission to law schools in the midwest and west where the opportunities are abundant. As she readily points out, many Bridgewater students have been accepted at prestigious law schools outside of Massachusetts and report back that their experience has been outstanding.

Polly has great plans for the future of pre-law at Bridgewater State College. She is currently working with faculty colleagues to enhance writing skills and in helping students prepare for the arduous LSAT entrance exams. She is encouraged by the success that Bridgewater students have attained at getting into law schools, in graduating from those schools and in passing the bar exam. Her advice to incoming students interested in the law — get a good liberal arts education with many challenging courses, enroll in a major that you are interested in, and develop your writing and reasoning skills. Polly cannot guarantee acceptance into a law program, but if her track record is any indication, Bridgewater students should have no difficulty in pursuing a law career.

With this hectic schedule, Polly still finds time to tend to her cattle at the farm she owns in Duxbury. As a gentlewoman farmer and cattle rancher, Polly sees the work with her animals as a unique way of relaxing from the teaching and advising pace of the college. In many ways Polly is following in the footsteps of some of the early political leaders and lawyers in the United States — she blends an interest in the law and a respect for the value of public service with a love of the land. With such a combination the students at Bridgewater are well served.
Much has been written in the past few years about the science gap in American education. International testing consistently places students from the United States at the bottom of the rankings behind our major economic competitors, Japan and Germany and even behind less developed countries such as South Korea. The problems associated with science education in the United States have served as a kind of wake up call to many teachers and administrators who are determined to reinvigorate interest and support for the study of science.

At the forefront of this process of reinvigoration is Bridgewater’s George Weygand. George, who is chair of the Physics Department, recently received a $50,000 grant from the National Science Teaching Association (NSTA) to bring to the campus the most outstanding science teachers in the country. Working with the Association of Presidential Awardees in Science Education, George was able to have Bridgewater chosen as one of four sites nationally to host the science teachers. During this summer institute, the science teachers worked with a select group of thirty educators chosen by the NSTA and developed new ideas, strategies and programs to advance science education. George served as the coordinator of the program and ensured that the institute reached its goal of alerting science educators to the latest advances in the field.

Hosting summer science institutes is nothing new to George. Over the years George has coordinated ten National Science Foundation institutes which have brought over 600 science educators to Bridgewater. These institutes have been normally scheduled during the summer months with regular meetings on Saturdays during the school year. George works closely with members of the education faculty such as Professor Jack Jones who is responsible for teacher education in the sciences. George is also currently working with Earth Science colleague Bob Boutilier to secure a National Science Foundation Award to continue their mission of enhancing the teaching of science at the elementary and secondary level. Both George and Bob feel that the areas of Earth Science and Physics are the science areas that exhibit the greatest weakness in our schools and thus require more teacher preparation. With the approval of the grant, George and Bob will offer a three year program of science education and continue the commitment of the college to strengthen the capabilities of the teachers in the region.

In talking to George Weygand about science education it becomes very clear that he is totally committed to, “making science enjoyable.” George feels that if teachers do not enjoy science, then how can they motivate their students. At the same time, George is dismayed over the lack of resources that have been put into science education by our school systems and the noticeable “greying” of the classroom science teachers as younger educators have been unable to contribute their talents and energy in cash strapped schools.

Despite the problems in science education, George is not without hope. He recently co-chaired the National Science Teachers Convention in Boston and was impressed by the turnout and the commitment of the classroom teachers to strengthen curricula and press for more resources. Moreover, George is encouraged by the caliber of the science student that he sees coming out of our schools. At the number of science fairs that he attends, George is convinced that there has been no drop-off in talent or commitment by young scientists.

The encouraging signs of a revival of science education in the United States only make George work harder. George is now in his thirty-fourth year at Bridgewater State College. After receiving his Ph.D. from Harvard, George joined the faculty in 1958 and has been involved in science education ever since. For his years of dedicated service, George was recently inducted into the prestigious Massachusetts Hall of Fame for science educators. As Physics Department chair he has seen the value of good science education since many Bridgewater graduates have gone on to pursue advanced degrees at MIT, Harvard and Caltech. With the continued flow of grant money coming into Bridgewater through the efforts of George Weygand and the building of the Old Colony Center for Technical Applications, it is a safe assumption that the college will be hosting summer institutes and teaching training programs for years to come. George says openly that he is invigorated by the challenge of advancing science education. With someone like George Weygand on their side, the science educators and the science students should begin to close the gap with the Japanese and the Germans very soon.
This is the first in a continuing series of reports on the J. Joseph Moakley Center for Technological Applications, focusing on the involvement of Bridgewater faculty members. In this case, the faculty member is Wilmon Chipman of the Chemistry Department. He has been involved in helping to plan for the educational design of the Center. After hearing Dr. Chipman on the subject, I think it best to start with a feeling for the scale of the project.

If you have ever been involved in the building of a home you know how involved it can be. What will the design be? How many rooms will there be, how large, for what purposes and how will they be arranged? You get the idea. Now, because the Moakley Center is a ten million dollar project, just multiply the complexity of planning this project by a factor of about 50. In this report we will focus on only one aspect of the center.

One of the critical parts of the Moakley Center will be the four electronic classrooms. In its simplest form, an electronic classroom is a room with some sort of projection system connected to one or more computers. There are two types of projection systems available now. One is the projection television, like the ones used in large halls or sports bars. These can be used in classes as huge computer displays of what the instructor is doing on his or her computer. The liquid crystal display (LCD) panel projector also allows a teacher to work at a normal computer and project what is on the computer's screen. However, in this case the image from the computer display is projected onto the usual screen at the front of the room. The critical equipment here is the liquid crystal display panel, a flat glass box about one foot square which plugs into the computer and repeats the computer screen display. When light is shined up through the panel and onto the film screen, the display is easily seen even in a large auditorium. With either technology only one computer is needed for the instructor.
If it is not immediately obvious to you what value this might have for a teacher, especially one who teaches organic chemistry as Dr. Chipman does, consider the following problems. I once tried to describe to a visitor from Buenos Aires, how a Slinky works. She had never seen one and what was so easy for me to visualize was impossible to convey to her. My drawings on placemats were laughable. (Before you begin laughing, try it.) And for those who have no idea what Slinky is, imagine explaining to someone how to set a digital watch, or operate a video game joystick or get anywhere on a windsurfer. Nothing beats "hands-on" teaching in such cases. However, teachers of organic chemistry face just such a barrier with an added twist. Molecules are too small to see. The three-dimensional models of molecules constructed of Lego-style parts are fragile and cumbersome to construct. And two-dimensional pictures, such as the one reproduced here, even when in color, do not permit the student to see the molecule from enough angles to understand its structure. A Slinky, after all, is certainly not like its two-dimensional drawing. But computers allow even the most complex structures to be depicted in color and, with the more powerful and sophisticated machines and programs, to be rotated through 360 degrees, as if the molecule were a physical object. The level of understanding from such a depiction is many times greater than traditional teaching devices have permitted.

Dr. Chipman reports that he and other members of a committee have been studying what sorts of electronic classrooms would be best for the Moakley Center. Visits to other colleges and universities such as Brown University, Colby College, Boston College, Northeastern University and Middlebury College seem to have revealed five types of such classrooms. Here they are in roughly increasing order of power, control of information and cost.

1) The "minimalist" model employs one advanced Macintosh and one advanced IBM (MS-DOS) type micro-computer. By using computers of both types a high percent of the software (including the most advanced graphics programs for study and teaching a range of subjects) would be available for use in the minimalist classroom. Among the limits of this least expensive model, is that the capacity of these machines preclude the use of more complex software, such as might be used in the teaching of organic chemistry. Also, the computers are not linked together, so centralized control or information sharing are not possible.

2) The "industrial" model uses a single mini-computer, which has a great deal more power than a micro, to connect and control a network of other equipment. Such equipment may include a mix of micro-computers, terminals (which are simply display screens running off the mini-computer) and work stations, (very compact, large capacity computers). The advantage of this model is its flexibility. The mini-computer can drive and interconnect a range of equipment.

3) Roughly equal to the "industrial" model in cost and power is the "standard" model. It is essentially the minimalist model with approximately 15 micro-computers linked together in a network. This model is called "standard" because it is currently the most widely employed in college and university settings.

4) The "maximalist" model adds to the "standard" model the centralized control of screens for all the equipment in the room. So, the instructor may, for example, see how a given student is progressing on a problem, and can even make suggestions and corrections or alter the assumptions of the problem in the middle of a work session. The capacity of the instructor to orchestrate the class in this way (some would say spy), has raised the issue of privacy. One college visited by the committee rejected the maximalist electronic classroom because of this capacity, while another adopted it for the very same centralized control.

5) Lastly, the "work station" model uses approximately 15 workstations linked together in a network. This extremely powerful, high end, design allows for maximum analytic power and flexibility. It is also the most costly. But it is the model of the future.

The selection of the best model of electronic classroom for our needs and for the projected uses of the Moakley Center will have long term consequences. We will report in a later issue on this decision, and on other facets of the Center's development and use.
Research and teaching are to a great extent solitary activities. Even researchers working in groups spend many hours alone, performing experiments, recording and analyzing data or examining documents and reading specialized journals. Teaching, too, although in obvious ways a very public activity, also has its solitary side; each classroom session may require many hours of preparation: keeping abreast of new developments in one’s field of study, designing a syllabus, planning classroom lectures and discussions, composing essay and project assignments, writing examinations.

College faculty experience another kind of isolation on a campus like Bridgewater’s, where academic buildings are widely separated and some departments are literally on “the other side of the tracks.” Humanities and Political Science faculty offices are in Tillinghast Hall and their classrooms in Boyden and Harrington; across campus (and the tracks), Math and Behavioral Science faculty spend their working days at the Burrill Avenue Academic Complex. College committees and occasional social gatherings provide only scattered opportunities for faculty from opposite sides of the campus to meet and learn what students are doing in one another’s classes.

Another kind of isolation comes from the “information gap.” Engaged as they are in reading about current work in their own fields, it’s difficult for faculty members to keep up with research on teaching in general and on new applications of computer technology to teaching.

Bridgewater’s Center for the Advancement of Research and Teaching (CART), established last year by John Bardo, Vice President for Academic Affairs, was designed as a way of addressing these problems. Co-directed by Uma Shama of the Math and Computer Science Department and Karen Stonely of Management and Aviation Science and located on the second floor of the Maxwell Library, CART provides a centralized location for resource materials on teaching and education technology. The Center subscribes to periodicals like the Chronicle of Higher Education and The Muse, published by the Professional and Organizational Development Network, and purchases books and videotapes on teaching and classroom research. CART has also begun to assemble a variety of up-to-date computer hardware and software, including two Leading Edge PC’s, an IBM RS/6000 workstation, a Hewlett-Packard text/graphics scanner, and a Toshiba CD ROM player, as well as WordPerfect word-processing and Harvard Graphics software.

The best way for faculty to learn whether or not this technology can enhance their teaching and research, Directors Shama and Stonely emphasize, is by experimenting with it. The text/graphics scanner, for example, has already proven useful to several faculty members. In one instance, an author produced a manuscript using the word processing program Wordstar, while a co-author wishes to edit it using a different program, WordPerfect. In the past, in order to create a file in WordPerfect, the co-author
would have had to re-type the entire manuscript. Using the scanner, however, she was able to transfer her collaborator's typewritten text directly onto her own disk, thereby eliminating the tedious process of re-typing. In addition to text, the scanner can also copy photographs or illustrations from a page onto a disk, and users can adapt these pictures to suit their needs — enlarging, zooming in, adjusting photographic exposure or making other kinds of changes.

The IBM RS/6000 work station (a work station is a very powerful PC) has also been put to use by, among others, Prof. Will Chipman of Chemical Sciences. Using a program called MOPAC, Prof. Chipman is able to create models of certain molecules and to calculate the location of electrons within these molecules. The advanced graphics capability of the RS/6000 makes three dimensional color modelling possible, so that Prof. Chipman can read the bond angles of his models, rotate them in space and gain insight into the ways in which these molecules react with other molecules. Seeing the spatial relationships of atoms and electrons allows an understanding of intramolecular structure that would be difficult to attain otherwise. Before the invention of powerful computers like the RS/1000, molecular modelling at the subatomic level was not feasible because of the enormous amounts of data and the complexity of the atomic interrelations involved. The RS/6000 not only works rapidly but also stores data while it is working so that it can use this data again.

CART co-ordinators Shama and Stonely have already arranged several programs designed to introduce faculty to the Center and to encourage them to share ideas about teaching. Orchard Computers and IBM have presented workshops at the College. Shama and Stonely's most ambitious effort so far was the CART Sampler Day, thoughtfully scheduled on May 14 — a day after the deadline for submission of final spring semester grades but before the beginning of summer vacation — and attended by about 60 faculty.

CART Sampler Day included six workshops on Technology Applications and four on Faculty Development, running concurrently. Some of the technology sessions were designed for computer novices, while others appealed to aficionados. Information Services' Robert Plouffe and Erik Sironen conducted sessions on WordPerfect, the Hewlett-Packard scanner and Internet, a system which connects academic computers around the world. Madhu Rao of Earth Sciences and Geography demonstrated Geographic Information Systems (GIS), which uses CD-ROM technology, and IBM representative Steve Hansel displayed his company's Advanced Academic System for custom designing one's own software. The Faculty Development sessions began with a multidisciplinary discussion of fieldwork and internships by Ruth Hannon, Psychology; Robert Boutilier, Geology; Rebecca Leavitt, Social work and Curtiss Hoffman, Public Archeology. Professors Stonely, Shama and Gail Price of Math conducted a workshop on the case method approach to faculty development; Vernon Domingo of Earth Sciences and Geography demonstrated classroom use of Simulation Activities and Susan Holton, who is currently Assistant to the President, conducted a session on chairing a department.

In addition to Professors Shama and Stonely, CART is directed by a Steering Board, consisting of a small group of faculty and administrators, and an Advisory Board, a larger group which includes representatives from all divisions on campus. In a relatively short time (CART originated in January, 1992), the Center has established its identity on campus as a valuable resource for faculty development and the interchange of ideas.
Herman Melville wrote in a letter to his cousin Catherine Lansing that “whoever is not in possession of leisure can hardly be said to possess independence. They talk of the dignity of work. Bosh. True work is the necessity of poor humanity’s earthly condition. The dignity is in leisure. Besides, 99 hundredths of all the work done in the world is either foolish and unnecessary, or harmful and wicked.” Juliet Schor’s The Overworked American, documents how contemporary Americans are working longer hours than ever and, in the process, supports Melville’s contention that too much work results in a loss of independence. Schor offers three broad explanations for the rise of overwork: the “incentive structures” within capitalism are biased toward longer working hours; the rising standards and expectations of domestic life, while making domestic life easier, have expanded the hours devoted to cleaning, food preparation, and child-rearing; and the consumer cycle of earn and spend has required long work hours to support America’s material way of life. Together, Schor argues, these tendencies result in Americans working nearly an extra month per year more than their western European counterparts.

Schor describes how, during the eighteenth- and nineteenth-centuries, industrialism’s preoccupation that time is money led to fixed wages and piece rate pay and allowed employers to reduce hourly costs by requiring longer hours. As unions demanded higher pay for longer hours and as government regulated how many hours employees could be allowed to work, employers introduced technology to control the pace of work—increase productivity—and developed the concept of “employment rent”—as Schor terms it—where the workers so value their jobs that longer hours will be preferred to any risk of losing employment. Employers will increase the rent by relying on overtime
rather than hiring new workers. Unions, in negotiating generous benefits for their members, have compelled employers in increasing the employment rent. The employment rent produces a more disciplined work force, kept in line by fear of losing their valuable jobs.

Essentially Schor tells us that many overworked Americans—and she is not talking about the unemployed or underemployed but the overemployed professional, white collar management, and skilled workers—have lost any sense of autonomy over their jobs; these workers feel they must submit to the demand of longer hours in order to meet the expectations of their employers and of their own vision of successful American life. To illustrate that conditions were not always thus, Schor compares contemporary workers to medieval workers, claiming she must look that far back in time to find conditions where workers possessed considerable autonomy over their work. The feudal worker’s obligation to the manor was precisely delineated. Many civic and religious holidays interrupted the work cycle. Medieval workers had less desire to acquire material possessions. For me, Schor’s use of medieval conditions as a benchmark is the least successful part of her argument, based as it is on a nostalgia for a simpler (i.e. more autonomous) age. The argument also rests on a confusion between feudal and pre-capitalist workers. One ought not, for instance, have too many idealized notions about working conditions in the trecento florentine wool industry.

Schor is more convincing when she describes how trade unions, which had originally crusaded for the shorter work week and workplace reform, began after WWII to focus on health, retirement, and other costly benefits. Jobs have become so costly that employers are unwilling to engage new employees. Government has compounded the problem. Statutes mandating overtime as an incentive to hiring new workers have had the unintended consequence of enhancing the employment rent on existing jobs; workmen’s compensation has made hiring expensive. As international competition intensified during the 70s and 80s, employers cut costs and benefits; workers saw their earnings decline in real terms to mid-60s’ levels, forcing them to work longer hours to maintain a standard of living.

Schor’s second explanation for increased work hours, the rising standards and expectations of domestic life, may be treated more briefly. The nineteenth-century revolution in home technologies—washing machines, refrigerators, etc.—steadily brought into the home work that had often been performed elsewhere. The more widespread and sophisticated these improvements became, the higher rose standards of cleanliness and food preparation. Where washing had been done once a week, washers and dryers allowed it to be done daily. Where varied and unusual meals were once found only in restaurants, now they were expected at home. These improvements required time, mostly women’s time, and as such have come to represent an enormous unpaid aggregate of labor. As more women have moved into the paid labor force, with no compensatory diminution in the quantity of unpaid domestic labor to be performed, the resulting overwork has produced tremendous social stress.

Schor is at her most eloquent when she indict[s American society’s slavish adherence to a cycle of work and spend. In any choice between more pay or more leisure, Americans will almost always choose additional income. Starting in the 1920s, the capitalist marketplace began to replace its emphasis on production with a stress on consumption by fostering what Schor calls a “psychology of abundance.” Growth in productivity, rather than being the result of investment, became the result of consumption. Material well-being demands continual shopping. To meet their ever increasing levels of demand, workers had to spend more and more time at their jobs. Schor documents, using constant 1982 dollars, that between 1947 and 1990 consumption per person in America has risen nearly $7000. This increase in material well-being has not produced any concomitant increase in psychological well-being.

Schor’s prescription for escaping the tyranny of overwork is essentially to exchange increased productivity for leisure time rather than increased income. She’s aware that such a choice exists only for those whose income permits the choice. Therefore, to avoid creating divisions between the leisured and the unleisured, which would complement the existing division between rich and poor, employed and unemployed, Schor recommends government intervention to mandate four week paid vacations, increased use of flex time, more equitable part-time employment opportunities, paid parental leaves, and opportunities to exchange increased productivity for time off. Schor makes clear what a decade of Reagan and Bush free market economics should have taught us that government in many instances is the only counterbalance to the aggressive marketplace.

Certainly no Marxist, Schor is nonetheless convinced that Americans have made themselves wage slaves different only in kind from the Birmingham mill workers described over a century ago by Marx and Engels. America needs social reform in the form of rejuvenated unions and enlightened government policy. Why do employers insist on overtime for already overworked employees rather than hire new workers? Because expensive fringe benefits, most especially health insurance, make overtime cheaper. Why do employers resist any guarantee of full employment? Because full employment shifts workplace power to employees giving them a more powerful voice in the workplace. Enlightened social policy, something America is short on these days, manifested through government action provides the means for Americans to achieve enough leisure to pursue happiness. Schor’s book is, in the end, more morality than sociology. She would agree with Ecclesiastes that “the wisdom of a learned man cometh by opportunity of leisure: and he that hath little business shall become wise.”

Charles Angell
Chairman of the
Department of English
Although racial discrimination has existed in housing markets in the United States, its effects have been extremely difficult to measure. Fair housing audits found direct evidence of racial discrimination in the Boston housing market in both 1981 and 1984. They noted that housing agents gave blacks less information than whites regarding the availability of housing units. But while audits offer clear and undeniable evidence of discrimination, attempts to measure its effect on housing prices have produced mixed and contradictory results. Anthony Cicerone, Chair of the Economics Department, has developed a new approach which incorporates previous research and extends those models by using new, better data to measure and analyze any racial housing price differentials which may have existed in the Boston housing market in 1974, 1977, 1981 and 1985. Cicerone’s study also considers the supply and demand for housing and analyzes how racial price differentials have changed over time, given changes in supply and demand. Preliminary results indicate that Blacks receive a discount for housing prices relative to whites, which has increased in magnitude from 1974-1985. This discount reflects the high degree of racial segregation in the Boston housing market, where Blacks are restricted to certain neighborhoods containing inferior and less expensive housing, and also reflects other market factors such as demographic changes, income and housing supply.
Marcia Kay Anderson, Director of the Athletic Training Program has just completed a study which describes the experiences of the first women to enter the male-dominated profession of athletic training. Women in athletic training generally represent a silent minority and little is known about their early experiences, the barriers presented to them, and their strategies of resistance.

Thirteen Caucasian women were interviewed by Professor Anderson. The participants were identified in the 1989 National Athletic Trainers Association (NATA) Membership Directory as being certified as athletic trainers between January 1, 1970 and December 31, 1974. Their ages ranged from 38 to 56.

The study attempted to show that women athletic trainers were oppressed, and as a result developed strategies to survive in that oppressive environment. Findings from Professor Anderson’s study showed that because athletic training is a male domain, women were excluded from access to programs, facilities, equipment, budgets, high risk sports, and supervision readily accessible to men. Anderson also found that other professionals (e.g. coaches, administrators, male athletic trainers) did not understand the role of women athletic trainers and failed to support them. Women trainers were expected to have a heavier workload and faced problems such as the old boys’ network and homophobia. The female trainers often used significant others as the main coping strategy to survive in the oppressive environment.

In Professor Anderson’s study, feminism and oppression theory were used to discuss the participants’ experiences. The participants’ descriptions revealed the prevalence of sexism and homophobia within physical education and athletic environments. This oppression kept them silent, isolated, fearful, and powerless. Consequently, the participants in this study did not share an identity as a subordinate or oppressed group. As Professor Anderson concludes, educating ourselves about sexism and homophobia, and developing a collective identity as women to initiate an environment conductive to developing mentoring relationships and supportive networks is a critical next step in changing the conditions of oppression within the athletic environment.
PREVIEW

FACULTY ARTICLES

Donna Vinson
on
“Agent of Absolutism:
Printing and Politics in Early Modern Europe”

Joseph Huber
on
“A Historic Accomplishment:
The First Blind Person to Hike the Appalachian Trail”

Judith Stanton
on
“Nathaniel Allen: Bridgewater Activist”

FACULTY PROFILES

Gail Price and the New SCI-MA Connection Program
Craig Cowles and Business Training at Bridgewater State College
Edward Hart and Nutrition Analysis and Evaluation