Many dramatic changes in the U.S. labor force are projected to occur around the turn of the century. For the first time, the United States will have an age cohort in the work force with equal representation by sex, that is, 50-50 for men and women aged 16 to 24 in the labor force. It is projected that in the year 2000 there will be 2.6 million fewer 16- to 24-year-olds in the work force than in 1980. Thirty percent of all new workers will be minority group members (a 50 percent increase over 1980). If non-Hispanic white women are added to this group, the figure becomes 65 percent, thus leaving white males to account for only 35 percent of the work force. The trend toward early retirement is expected to continue. It is thus expected that in the year 2000 four out of every five American workers will be in their middle adult years (between 25 and 59). Women will account for about three out of every five workers, with the greatest increases in labor force participation being among women in the category "married with husband present." Minorities will account for two of every five workers. Another important factor is the general aging of the population. In contrast to the past, large numbers of young persons will not be available to fill all of the jobs vacated by older, more skilled workers. (MN)
THE NEW LABOR FORCE
or
WHERE WILL WE ALL BE IN THE YEAR 2000

Seymour L. Wolfbein
DR. SEYMOUR L. WOLFBEIN spent the first 25 years of his working life in the Federal service in Washington, DC, most of it in the U.S. Department of Labor where he rose through the ranks to become Deputy Assistant Secretary of Labor. He also was the first Manpower Administrator under President Kennedy; during this time he developed and headed the system which collects and analyzes employment and unemployment conditions in the USA. For 40 months in a row, Dr. Wolfbein conducted the monthly national press conference on employment and unemployment before the media.

In the mid-1950s, Dr. Wolfbein published two landmark papers in which he predicted the shift in the American economy from goods to service producing sectors, and the emergence of the South and Southwest as the areas of greatest economic development. He twice received the Department's Distinguished Award.

In 1967, Dr. Wolfbein became Dean of the School of Business Administration at Temple University, serving 12 years in that position. During that time the School's faculty increased from 60 to 210, was listed in the top ten in graduate work in economics and introduced curricula in Computer and Information Science and Health Administration.

Dr. Wolfbein has lectured in 33 countries for the U.S. Department of State and the USIA, has been the U.S. Delegate to various international meetings in Geneva, Lisbon, Paris, Athens and Rome, helped establish and was Dean of Temple University's Campus in Japan and was Dean of Faculties at the Salzburg Seminar in American Studies in Salzburg, Austria.

Dr. Wolfbein's doctorate is from Columbia University. The University has awarded him a medal in Economics and an Alumni Award of Honor. He is an elected Fellow of the American Statistical Association and the American Association for the Advancement of Science, and is the author of eight books and over 100 articles in professional and technical journals.

Today Dr. Wolfbein is president of his own management consulting firm, and while he has worked with many of the Fortune 500 companies, he is also concentrating on the relatively smaller and medium size establishments where he thinks a good deal of the action will be until at least the year 2000. Dr. Wolfbein's expertise has made him a popular lecturer, and he appears before a wide variety of educational, management and related meetings both here and abroad.
THE NEW LABOR FORCE
or
WHERE WILL WE ALL BE IN THE YEAR 2000
Seymour L. Wulfheim

All institutions in our society are affected by changes in the nation's demography. People represent producers and consumers, of course, and changes in their numbers as well as in their ages, sex, color, etc., translate themselves into virtually irrevocable impacts on how many and whom we serve as well as the human resources available for serving them.

As a rule, demographic changes evolve at a very slow pace. Many millions of people are involved (in the USA more than 240 million), and even big changes take time to work themselves out in the form of alterations in such relatively durable phenomena as a country's average age, sex ratio and the like.

However, rules are there to be broken, and this indeed has been the case in the U.S. in the post World War II era which has been marked by three forces which, in combination, did accelerate the usual glacial march of demographic events: very large changes in such fundamental life experiences as birth rates/compressed into relatively short periods of time/during which significantly different demographic events took place back to back.

This, indeed, is a very good description of what happened in the USA during the past four decades, and the results have been well nigh sensational. What has made these years just about unique are the changes generated among our educational institutions, from kindergarten to the graduate arena, and the enormous accompanying changes on the economic and social scene which rocked the boat as much in the business stream as anywhere else. Among other things, it has brought women and minority groups to the leading edge of educational and labor force change, as well as redrawing the map of business and employment, generating huge changes in the geography of educational and employment opportunity.

Looking Ahead

In demography the past is truly prologue, providing a strong safety net for those looking ahead in the relatively short term. The reason for this confidence in projecting into the future in this uncertain world is that just about everyone who is going to be in the work force up to the year 2000, for example, already has been born. We know their sex, age and other demographic traits in quite some detail. There are, of course, still some major imponderables like what will happen to the size and composition of the immigration stream or how much higher worker rates are going to go among women, but the direction of change is irreversible and the magnitude of those changes substantially given by what already has transpired.

Building on this foundation we can look ahead, with the materials in Table 1 as the basic statistical stepping stones from the latest government projections.

New Workers

Any assessment of what is in store for us has to begin with the younger part of the population and work force, officially defined as those 16 to 24 years of age. Aside from still being a significant part of the educational population (many of them full time), their prospects outside of school and in the labor force go a long way toward spotlighting what the future holds for the rest of the population in their adult years.
And it is exactly with this group that one of the major stories of the years ahead unfolds, illustrating the demographic dynamics of the post World War II era in just about all of its ramifications.

Thus, the huge population cohort produced by the very high birth rates of the immediate post war years flooded the school systems and just as inexorably inundated the labor force of the 1970s. As a result, the number of new young workers rose 42% during the decade of the 1970s, an historic high for any ten year period of our past.

TABLE 1
The Civilian Labor Force of the USA
By Age, Sex -- 1980-2000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>106,943</td>
<td>124,457</td>
<td>138,775</td>
</tr>
<tr>
<td>Men</td>
<td>61,454</td>
<td>67,909</td>
<td>73,136</td>
</tr>
<tr>
<td>16-24</td>
<td>13,606</td>
<td>11,386</td>
<td>11,506</td>
</tr>
<tr>
<td>25-59</td>
<td>43,149</td>
<td>52,172</td>
<td>57,854</td>
</tr>
<tr>
<td>60+</td>
<td>4,699</td>
<td>4,351</td>
<td>3,736</td>
</tr>
<tr>
<td>Women</td>
<td>45,489</td>
<td>56,458</td>
<td>65,639</td>
</tr>
<tr>
<td>16-24</td>
<td>11,695</td>
<td>10,597</td>
<td>11,125</td>
</tr>
<tr>
<td>25-59</td>
<td>30,842</td>
<td>42,839</td>
<td>51,597</td>
</tr>
<tr>
<td>60+</td>
<td>2,952</td>
<td>3,112</td>
<td>2,917</td>
</tr>
<tr>
<td>White</td>
<td>93,601</td>
<td>106,648</td>
<td>116,701</td>
</tr>
<tr>
<td>16-24</td>
<td>22,082</td>
<td>18,614</td>
<td>18,743</td>
</tr>
<tr>
<td>25-59</td>
<td>64,596</td>
<td>81,341</td>
<td>92,078</td>
</tr>
<tr>
<td>60+</td>
<td>6,923</td>
<td>6,693</td>
<td>5,880</td>
</tr>
<tr>
<td>Black</td>
<td>10,863</td>
<td>13,788</td>
<td>16,334</td>
</tr>
<tr>
<td>16-24</td>
<td>2,693</td>
<td>2,704</td>
<td>2,987</td>
</tr>
<tr>
<td>25-59</td>
<td>7,554</td>
<td>10,495</td>
<td>12,781</td>
</tr>
<tr>
<td>60+</td>
<td>616</td>
<td>589</td>
<td>566</td>
</tr>
<tr>
<td>Other</td>
<td>2,469</td>
<td>4,021</td>
<td>5,740</td>
</tr>
<tr>
<td>16-24</td>
<td>526</td>
<td>665</td>
<td>901</td>
</tr>
<tr>
<td>25-59</td>
<td>1,841</td>
<td>3,175</td>
<td>4,592</td>
</tr>
<tr>
<td>60+</td>
<td>102</td>
<td>181</td>
<td>247</td>
</tr>
<tr>
<td>Hispanic</td>
<td>6,143</td>
<td>9,718</td>
<td>14,086</td>
</tr>
<tr>
<td>16-24</td>
<td>1,780</td>
<td>2,177</td>
<td>2,894</td>
</tr>
<tr>
<td>25-59</td>
<td>4,144</td>
<td>7,231</td>
<td>10,795</td>
</tr>
<tr>
<td>60+</td>
<td>219</td>
<td>310</td>
<td>397</td>
</tr>
</tbody>
</table>

Source: U.S. Bureau of Labor Statistics

Illustrating the back to back reversals in form mentioned earlier, the subsequent precipitous drop brought birth rates to historic lows. For example, the record for the lowest birth rate belonged to 1933 when the trough of the Great Depression was reached. Everything went down that year, except the unemployment rate, and leading the declines was the birth rate for that year. Yet, so sharp was the decline in births after the big surge following World War II that by 1972 the rate actually fell below what it was in 1933 – and
then proceeded to fall even lower and lower in the years that followed. And just as inexorably, we are now reaping the results, and the projected new young labor force for 1980-1990 is down by 13% or 3-1/3 millions.

The fact of the matter is that each succeeding year of this decade is bringing consistently lower numbers of new young workers into the American labor force. The 16-24 year old work force reached its peak at the end of the last decade and already has dropped right on schedule by 2 millions from 1980 to 1986.

In addition to documenting the sharp change between two adjacent decades, these figures also underscore some major changes in the make-up of our new labor force. For example:

Change in 16-24 Year Old Labor Force

<table>
<thead>
<tr>
<th></th>
<th>1970-80</th>
<th>1980-90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>+42%</td>
<td>-13%</td>
</tr>
<tr>
<td>Men</td>
<td>+40</td>
<td>-16</td>
</tr>
<tr>
<td>Women</td>
<td>+44</td>
<td>-9</td>
</tr>
</tbody>
</table>

Note that while both men and women had about the same rate of labor force increase in the 1970s (with a small lead for the women: 44% vs 40%), the story is quite different for the 1980s, with the decline scheduled for the women expected to be well below that for men.

To put it another way, almost three-fourths of the decline in new workers 1980-90 is taking place among the men. Although the decline in birth rates occurred among baby girls as well as baby boys, the worker rate for males is expected to remain about the same. But the rate for females in this age group is continuing to rise, substantially counterbalancing the decline in their numbers. Here again, the record so far (1980-86) is as scheduled, with 70% of the decline in the new younger group taking place among the men.

For the 1990s, the story turns again, with a very small increase of about 0.6 million or 3% for the decade for the 16-24 year old group. This arises from a slight upturn in births in the latter part of the seventies and early eighties as the large cohort of girls born in the immediate post World War II years became women of child-bearing age (the fertility rate, however, has remained very low, falling to its lowest level ever recorded in this century in 1986).

More than four-fifths of this rise in the 16-24 year old work force in the 1990s will be women whose work force participation is expected to continue its upward course. Indeed, by the year 2000, their labor market participation rate is expected to stand at a record 70%.

As a result, we are projected to make history soon after this century's turn, when for the first time we will have an age cohort in the work force with equal representation by sex: fifty-fifty for men and women 16-24 in the labor force.

The year 2000 will still leave us well behind the level of new young workers which prevailed in recent years. There will be 2-2/3 million fewer 16-24 year olds in the work force than in 1980, a drop of a little over 10%-15% off for the men, 5% off for the women.

New workers accounted for just about one out of every four in the American labor force (24%) in 1980 and are projected to make up over one out of every six (16%) in 2000.

New young workers from minority groups will also be bucking the trend. Birth rates have been going down among them, too, but not as fast as for the whites. Nonwhite
births have been running at about 22% of all births in the USA, and this is beginning to show up in current labor force trends and will really be significant in the years ahead.

Thus, all of the decline scheduled for the 16-24 year old group already has and will continue to take place among whites only.

For the current decade, the outlook is for a drop of 3-1/2 million among the whites, but an increase of 100,000 (5%) for Blacks and Others (mostly Asians, predominantly Oriental) and a relatively sharp upturn of 200,000 (12%) for Hispanics (who may be White or Black) - and again this trend has taken place as projected for 1980-86.

By the year 2000, 16-24 year old workers who are White will be way down by 15% from 1980, but up by 11% for Blacks, up 71% for Others. For Hispanics, the increase will amount to 1.1 million new young workers, up 63%.

As a result, 30% of all new workers in 2000 will be in the designated minority groups consisting of Blacks, Others, and Hispanics - a fifty percent increase over the proportions they represented in 1980. If we add non-Hispanic white women to this group, the minority and female proportion of new young workers in 2000 adds up to 65%, leaving 35% for white males.

At least two things stand out as we view the upcoming supply of new hands, new skills, new talents: The numbers are diminishing significantly, and we are going to have to depend more and more on women and minority personnel for whatever supply we do get.

Under the circumstances, and particularly in view of the accelerating advances in technology, the education, training and updating of the diminishing supply is a matter of urgent necessity.

Older Workers

Definitions of "older" vary with legislation, e.g., beginning at age 40 under the Age Discrimination in Employment Act, vary with different organizations, e.g., beginning with age 50 for joining the American Association of Retired Persons, and vary, of course, with the eye of the beholder. Here we describe the course of events for those 60 and over because for every age group in this constellation, labor force participation in terms of numbers and rates has been and is expected to continue to go down even in the face of their increasing population due to increasing longevity.

For example, even for men in their 61st year, the outlook is for a decline of about 7-1/2% in the labor force between 1980 and 2000. For men 65+, the projected decline is 2/3 of a million or 22% during the same period of time, as their worker rates fall 50% from 20% to 10%.

The story is a familiar one when examined by sex. For the 60+ age group, 1980-2000 will see a decline of 20% for the men, only 1% for the women. In other words, just about all of the drop anticipated for this group is going to be among the men.

It also turns out that the decline among the 60+ year olds will be accounted for almost entirely by the Whites, with a small assist from the Blacks. Going against this trend will be the Others and the Hispanics, who together will actually increase the number of their workers 60 years of age and over by a quarter of a million. Hispanics alone are expected to double their proportion of all 60+ workers to 7-1/2% of the total by 2000 over the 1980 figure.

It is possible that the changing legal/legislative environment, particularly with the absence of mandatory retirement for most occupations, coupled with increasing demand for experienced personnel in the face of declining numbers of younger workers may offset the labor market participation rate of this sector of the job market. After all, this is an age group which does include significant numbers of experienced crafts, professional,
supervisory and executive personnel. So far, however, the evidence is to the contrary, as basic retirement patterns continue to generate declining worker rates even at the younger end of the 60+ age cohort.

The Experienced Workforce

It is important to remind ourselves that the labor force as a whole is scheduled to rise by almost 32 millions between 1980 and 2000 in the face of the declines just discussed among those at both ends of the age spectrum. All of that increase, and more, obviously will occur among those in the central age groups 25 to 60. The results will look like this:

<table>
<thead>
<tr>
<th>Age Distribution of Civilian Labor Force</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>16-24</td>
</tr>
<tr>
<td>25-59</td>
</tr>
<tr>
<td>60+</td>
</tr>
</tbody>
</table>

The decline of the younger age group is underscored again, and significant declines also are in store for those 60 and over.

The spotlight therefore shifts to those in their middle adult years (25-59) who will account for about four out of every five American workers as we move to the end of this century. Or? big part of this group is that very large youth cohort of the 1970s who, of course, get older and move into the 25-34 age classification in the 1980s. Indeed, as they wind their way through their work and life cycles, they will produce this kind of bulge well into the next century — evidence again that in demography the past is truly prologue.

Here then is a prime target population and work force for us to consider, and in doing so at least the following seven points might be kept in mind:

**First**, is the sheer enormity of the size of the increase in the number of 25-59 year old workers: a little over 21 million just during the current decade! This is just the increase among this cohort, not its total size - an increase which amounts to more than all people employed during the middle of this decade in 32 of our 50 states. The increase for the period 1980 to 2000 is scheduled to be 35-1/2 million, which means that by the turn of the century the total number of workers 25-59 years of age will exceed everyone who was employed in the USA in 1986.

**Second**, is the continuing dominant role of women in the changes we are tracing among the 25-59 year olds. Male workers will go up by 21% during the 1980s, but women in this cohort are going up by 39% and will account for about 3 out of every 5 of the upturn in this labor force component. For the twenty year span 1980-2000, the increase among the women in this age group (67%) will be just about double the corresponding figure of 34% among the men.

**Third**, are some of the characteristics of these women. Unexpectedly (to most) the biggest rate of increase in labor market participation among women has taken place, and is expected to do so in the future, among those labelled in the statistics as "married women, husband present," i.e., not separated, divorced, widowed, etc. Back in 1950 a little less than 25% of these women were in the work force; in 1960 it was 30%; in 1970 it was 40%; and in 1980 it passed the 50% mark; and 1987 stood at 61%. As a result, 56% of all married couple families have both husband and wife employed. The "typical" American family of not so long ago (husband worker, wife homemaker, with two children) now accounts for 3.7% of all the country's families!
The fabled married male "breadwinner" as the mainstay of the working economy is becoming more legendary than factual. He accounts for only about one-third of all workers, and right behind him in the figures is his wife, who, together with all the rest of the working wives, represents about one-fourth of the American work force. Putting both together makes for another significant fact: Working husbands and working wives account for 6 out of every 10 in the labor force, and the figure is scheduled to rise to 7 out of every 10 by the end of the century.

**Fourth**, and continuing on the women, is the great increase in the proportion of these married women, husband present in the work force who have children, many of them of very young age. In the middle 1950s about one-third of those with children of school age worked; by the mid 1980s, the corresponding figure was 70%. Again, unexpectedly to most, the biggest relative rise in worker rates among this group were those with children of pre-school age, of whom about one-sixth were working in the mid 1950s, and of whom more than one-half (54%) are working now. Even among married women, husband present with children under one year of age, the worker rate is now 52%.

**Fifth**, and still on women, is the recent emerging importance of women living alone or maintaining their own families. Already, more than 20% of the new labor force is represented by these women, many of whom are at the lower rungs of the skill and income ladder.

**Sixth**, is the significant role to be played by minority personnel among those in their middle adult years. As this century winds down, minorities are going to account for more than two out of every five (41%) of the total increase among this cohort, and it is difficult to see how personnel needs in the years to come can be met without significant interaction between them and the education, training and business community.

**Seventh**, is the extraordinary importance attached to these workers, whether they be men or women, White, Black, Hispanic or Asian, for meeting the labor force needs of the country. These needs not only involve the substantive professionals, skills and crafts, but also very importantly, the supervisory and managerial slots as well. The very large numbers included in this group may mean considerable competition for those slots, but the important mitigating circumstance is that the usual run of young people just out with their new education, training and know-how is not going to be there on the one hand, and openings held by the more senior people will increase as the older age cohort diminishes in supply as well.

Which brings us finally to the relevance of the new configuration of the labor force to another economic phenomenon called productivity, a matter of utmost importance to everything from a country's standard of living to its international balance of payments. Our productivity story has not been that good in recent years, years that have witnessed actual declines as well as a slowing of the rate of increase in output per hour in the U.S., which for the past two decades has been dead last in productivity advances in manufacturing when compared to Western Europe and Japan.

All experts agree (itself an unusual phenomenon) that it is the labor force in its demographic setting and its education, training and utilization in the work place that are major contributors, on the upside and downside, to productivity change. So the target is there and so is the challenge.
The Vocational Research Institute is a division of the Philadelphia Jewish Employment and Vocational Service, a non-profit, non-sectarian human service agency founded in 1941. VRI develops and distributes vocational assessment and guidance materials for use in industry, governmental institutions and organizations seeking to maximize the vocational potential of their clients.

**COMPUTER SYSTEMS/SOFTWARE**

- **APTICOM**: The self-timing and self-scoring dedicated microcomputer that assesses aptitudes, interests, and work-related language and math skills and which generates score and vocational recommendations reports tied to the U.S. Department of Labor's job matching system.
- **VRII (Vocational Research Interest Inventory)**: Apple and IBM compatible software that assess and report expressed interest in the U.S. Department of Labor's twelve interest areas.
- **Vocational Report Righter**: Apple compatible software for the creation and printing of vocational assessment reports or employability development plans tied to the U.S. Department of Labor's job matching system.

**PAPER & PENCIL**

- **VRII (Vocational Research Interest Inventory)**
- **IIIIV (Inventario Investigativo de Interés Vocacional)**
  English and Spanish language alternate forms, written at a fourth grade reading level, that assess expressed interest in the U.S. Department of Labor's twelve interest areas.

**PUBLICATIONS**

- **Dictionary of Worker Traits**: A two-volume reference for use in person-job matching and determination of skill transferability, that details worker characteristic requirements of occupations in the U.S. economy.

**WORK SAMPLE SYSTEMS**

- **Vocational Information Evaluation Work Samples (VIEWS)**
  An integrated battery of sixteen work samples that evaluates the vocational potential of mildly, moderately and severely retarded persons.
- **Vocational Interest, Temperament, Aptitude System (VITAS)**
  An integrated battery of twenty-one work samples that evaluates the potential of youth and adults with limited work experience and records of underachievement.

Additional information can be obtained by writing or calling

**Vocational Research Institute**
2100 Arch Street
Philadelphia, PA 19103
1-800-VRI-JEVS