



**DELAWARE ECONOMIC TRENDS:  
EQUITY IMPLICATIONS**

Prepared for  
United Way of Delaware, Inc.

**Dr. John E. Stapleford  
Mary Joan McDuffie**

Bureau of Economic & Business Research  
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This report was prepared by the Bureau of Economic & Business Research, University of Delaware for the United Way of Delaware, Inc. The report is to provide technical assistance to the United Way in the formulation of their goals and policies. As a technical report, the following reflects solely the research and opinions of the Bureau.

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## **INTRODUCTION**

The purpose of this technical report is to provide a Delaware socio-economic profile which will assist United Way of Delaware in their assessment of critical future community needs. The report consists of two sections. In Section I an overview of the major past and future trends in Delaware's economy is presented. Section II profiles the economic condition of various types of Delaware households.

The report draws upon a wide range of secondary data sources and, ultimately, the report can be interfaced with the primary data being collected by United Way through surveys of households, key informants and service providers. Sources of data are identified throughout the report, and where necessary differences among data sources and the relative strengths and weaknesses of the data are noted.

## **SECTION I - DELAWARE ECONOMIC TRENDS**

Section I begins with an examination of the major past trends and current conditions in Delaware's economy and concludes with a discussion of the expected future trends and conditions. While the positive aspects of economic growth are noted, considerable attention is given to those areas where the economy falls short. This is not meant to denigrate the many benefits which have resulted from the strong economic growth of recent years, rather it focuses the report on those economic weaknesses which may generate the need for services from United Way member agencies.

### **Extraordinary Growth**

Over the past four decades, through both recessions and expansions, Delaware's economy averaged 5.5 thousand net new jobs each year (Table 1) for a compound annual employment growth rate of 2.7%. Since 1982, however, net new job growth climbed to an average of 12.5 thousand per year; an amount two and a half times the historical average, generating an annual growth rate of 4.1%. This included an addition of 17.5 thousand jobs in 1987, 13.5 thousand in 1988 and an expected 9.2 thousand for 1989.

Recent extraordinary job growth is the result of a variety of factors. First, the nation has been enjoying the longest economic expansion since WWII and Delaware, together with most of the Northeast, was well-positioned to take advantage of the expansion. Older, less competitive manufacturing plants had been closed as a result of the 1973-75 recession; a pool of well-educated labor was in place; there was easy access to major metropolitan consumer markets; and a long-standing service industry base existed.

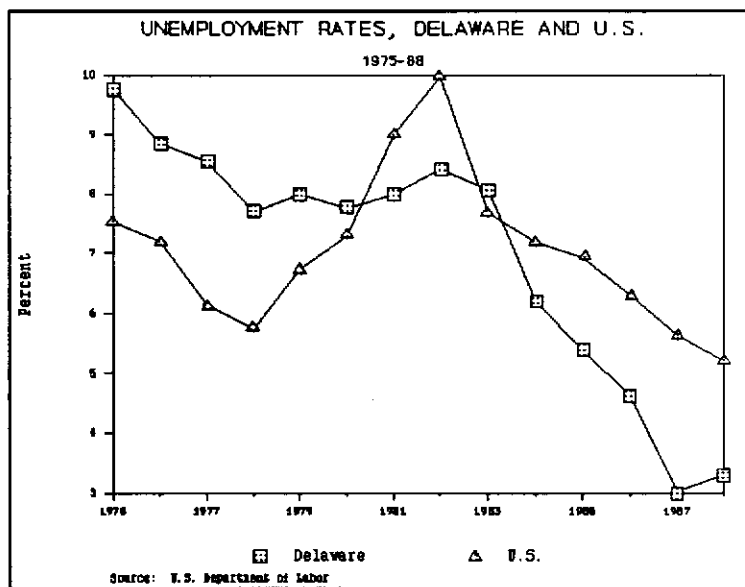
**TABLE 1**

Second, since the late 1970's Delaware has adopted sound and stable fiscal policies and, with a growing tax base, has been able to reduce both business and personal tax rates. Third, the passage of state legislation providing a favorable environment for bank holding companies brought thousands of credit card jobs to Delaware. Fourth, significant investments to modernize plant and equipment were made in such production facilities as General Motors and Chrysler. Finally, lower petroleum prices have been a boost to Delaware's chemical industry and to energy users throughout the state.

ANNUAL CHANGE IN DELAWARE TOTAL EMPLOYMENT		
	AVERAGE CHANGE PER YEAR	
	HISTORICAL	
	TOTAL	PERCENT
1947-1988	5.4	2.7%
1975-1988	9.1	2.9%
1982-1988	12.3	4.3%
1982-1983	6.9	2.7%
1983-1984	13.9	5.2%
1984-1985	13.4	4.8%
1985-1986	9.8	3.3%
1986-1987	17.5	5.6%
1987-1988	13.5	4.2%
1988-1989	9.2	2.6%

Source: Bureau of Economic & Business Research  
University of Delaware, 1988

The extraordinary growth in employment has generated a variety of notable economic benefits. Prior to the mid-1970's Delaware's unemployment rate was consistently below the national rate. During the 1973-75 recession Delaware nonagricultural employment declined by more than 16,000 jobs and Delaware's unemployment rate rose above the national rate by more than two percentage points (Figure 1).<sup>1</sup> After staying well above the nation through the late 1970's, Delaware's unemployment rate since 1981 has fallen well below the nation. For 1989 Delaware's unemployment rate was 3.5% compared to a national rate of 5.3%.

**FIGURE 1**

The benefits of the stronger labor market have not been confined to any single group of citizens. Compared to the

nation, Delaware's unemployment rates are lower for all segments of the labor force (including whites, blacks and hispanics; men, women and teenagers) and labor force participation rates are higher. In addition, the duration of unemployment spells is lower and the proportion of persons unemployed due to layoffs and dismissals is lower. The unemployment rate for persons entering the labor market is lower (they are more readily finding employment) and the proportion of persons voluntarily leaving one job to search for better positions is higher (a condition typically found in expanding labor markets).

**TABLE 2**

EMPLOYMENT STATUS IN DELAWARE, 1960-88

	Work Full-time	Work Part-time for Economic Reasons	Work Part-time for Noneconomic Reasons
1960	86.5%	4.5%	9.0%
1970	83.6%	3.1%	13.3%
1980	81.6%	4.5%	13.9%
1988	84.3%	2.1%	13.6 %

Source: U.S. Dept. of Labor, Bureau of Labor Statistics

The proportion of persons working 29 hours or less per week is lower in Delaware than in the nation and in states with slower employment growth. Moreover, as shown in Table 2, the proportion of employed Delawareans working part-time for economic reasons (i.e., they were unable to find full-time jobs) has declined since 1980 and the proportion working part-time voluntarily has risen. The decline in persons working part-time for economic

reasons has been greatest for teenagers, followed by women. The decline among men has been negligible.

**TABLE 3**

SOURCES OF PERSONAL INCOME: U.S. & DELAWARE

	U.S.		DELAWARE	
	1969	1987	1969	1987
Earnings	77.4%	68.6%	77.6%	70.6%
Dividends, Interest, Rent	13.3%	16.8%	15.8%	18.9%
Transfer Payments	9.3%	14.6%	6.6%	12.5%
TOTAL	100.0%	100.0%	100.0%	100.0%

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis

Across the nation earnings have been declining as a source of personal income (Table 3), while dividends, interest and rent, and, transfer payments have increased. While the same trend has been occurring in Delaware, because of our strong labor market, the decline in the importance of earnings has been less in Delaware than in the nation. The strong economy also is evidenced

when trends in real (inflation-adjusted) per capita personal income for Delaware's counties are examined (Figure 2). Real per capita income in all Delaware's counties declined during the 1973-75 recession, remained essentially unchanged through 1982, and has increased rather rapidly through the current recovery.

Aside from improved aggregate measures of performance, Delaware's economic expansion has generated positive equity effects as well. The number of food stamp recipients, for

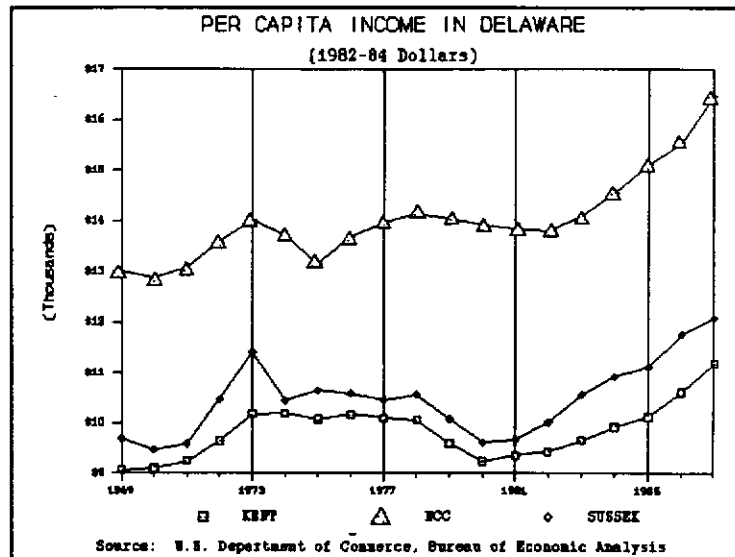


FIGURE 2

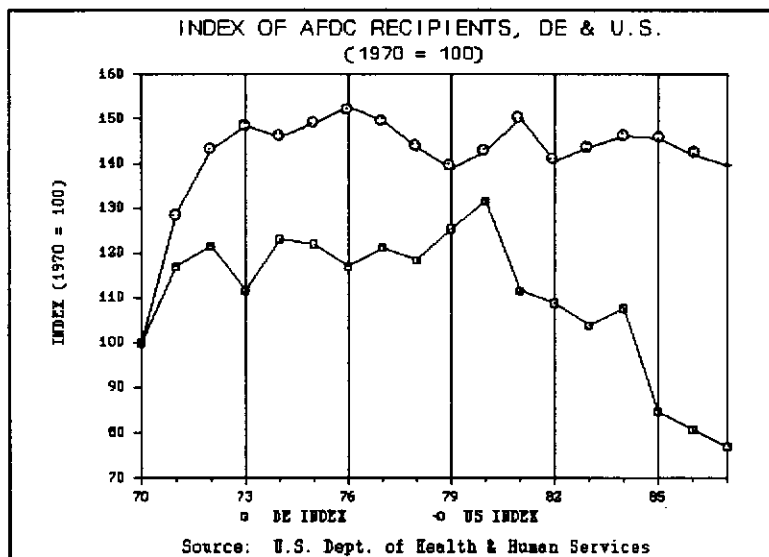


FIGURE 3

example, has fallen steadily since 1981. If the number of AFDC recipients is indexed to 1970 (Figure 3) a steady decline since 1980 is seen, with the 1987 level being 25% below the 1970 base year and more than 50% below the peak load in 1980. Over this same time period the index of AFDC recipients nationally has been essentially unchanged.

Less tangible, but of great importance, are the secondary effects stemming from

the in-migration of financial institutions. First, Delaware's economic base has been broadened (diversified). Second, the arrival of new firms and new residents has enhanced the competitive atmosphere in Delaware, bringing new innovations and challenging ideas to the private, public and nonprofit sectors.

## The Labor Market

The simple microeconomic framework views labor markets as an interaction of demand and supply, an interaction which ultimately determines the wages per worker in an industry. Having briefly examined the demand conditions in Delaware's labor market during recent years in the previous section, we shall now look at the trend in average wages and complete the picture by considering the factors impacting upon labor supply.

Whether measured by employment, total wages or output, since the 1981-82 recession labor demand in Delaware has been increasing at an extraordinarily high rate.

An increase in demand for labor in any industry is driven by two basic factors: increases in the demand for the product the labor generates and/or increases in the productivity of the labor. In the case of regions or states net in-migration of firms may increase the demand for labor even when the overall demand for the output of those firms in national and international markets is not increasing.

Certainly, with the in-migration of bank holding companies the demand for credit card industry employees has been increasing significantly in Delaware. At the same time, throughout the nation, consumer use of bank credit cards has increased tremendously. The percent of families with at least one bank credit card account has risen from 16% in 1970 to 55% in 1986. Bank revolving credit has gone from \$17.5 million in 1977 to \$117.1 million in 1988.<sup>2</sup>

New Delaware firms, through their purchases of goods and services from other Delaware firms and from the local spending by their employees, create output demand in existing Delaware industries. For example, growth in the financial services industry in Delaware has led to increases in the prices of construction output (e.g., the sales value of new single family homes has been increasing at more than twice the rate of inflation since 1983) which has caused an increase in the demand for construction labor. This compounds or "multiplies" the initial demand for labor.

With increasing demand for labor one would naturally expect to find that real (inflation adjusted) wages in Delaware would on average be rising as well. As shown in Figure 4, however, this has clearly not been the case. **Real wages in Delaware have been declining.** From \$19,983 (1982-84 dollars) in 1977 the average real wage in Delaware declined steadily, hitting bottom in 1985 at \$17,790....a drop of almost 11%.<sup>3</sup> Since 1985 the average real Delaware wage has risen modestly to \$18,573 in 1988...still 7% below the 1977 peak.

The downward trend in the real wages during a period of rapidly rising demand appears contrary to normal expectations. The explanation lies in the changing supply of labor. For if the supply of labor in Delaware was increasing even faster than the demand for labor since 1982 than real wages would decrease. As examination of the Delaware economy reveals, there are seven major factors which have impacted the supply of labor in Delaware during the 1980's (see Chart 1) and have led to a decline in real average wages.

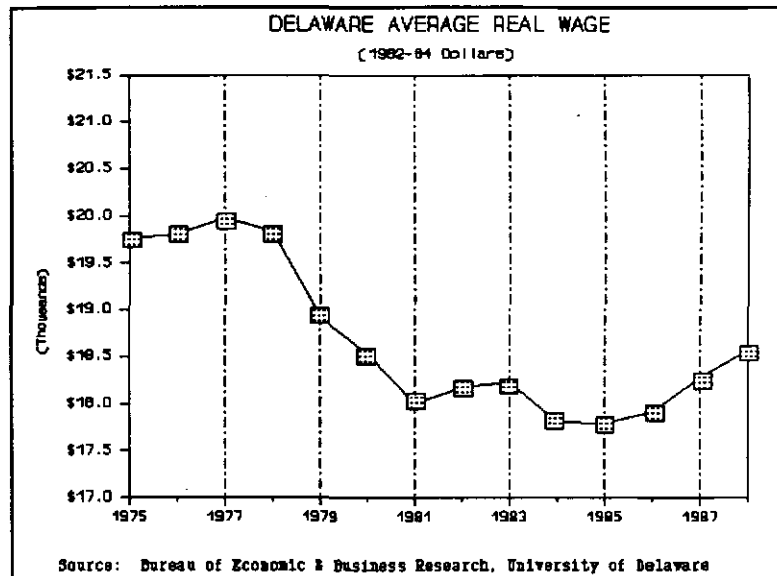


FIGURE 4

The first factor impacting the supply of labor was the large pool of unemployed workers created by the 1980 and 1981-82 recessions. As shown in Table 4, in 1982 the Delaware unemployment rate was a high 8.5% while the construction unemployment rate was a phenomenal 21.0%. Unemployment among

skilled precision, production and craft employees, including skilled construction trades persons, was 8.0%. By 1988 the total Delaware unemployment rate had dropped to 3.2% (well below the nation). The construction unemployment rate was down to 5.4%.

The impact of this pool of unemployed labor on labor supply in various industry was not insignificant. For example, based upon the number of construction workers unemployed in 1982, approximately half of the net new jobs in construction between

#### WHY HAVE REAL WAGES DECREASED DESPITE RISING DEMAND FOR LABOR?

- ⊗ High Unemployment Rates 1980-82
- ⊗ Increasing Supply of Entry Level Labor Through 1985
- ⊗ Net In-Migration
- ⊗ Rapidly Rising Labor Force Participation Rates
- ⊗ Shift From Union to Nonunion
- ⊗ Low Growth in Labor Productivity
- ⊗ Structural Change Among Industries

Source: Bureau of Economic & Business Research

CHART 1

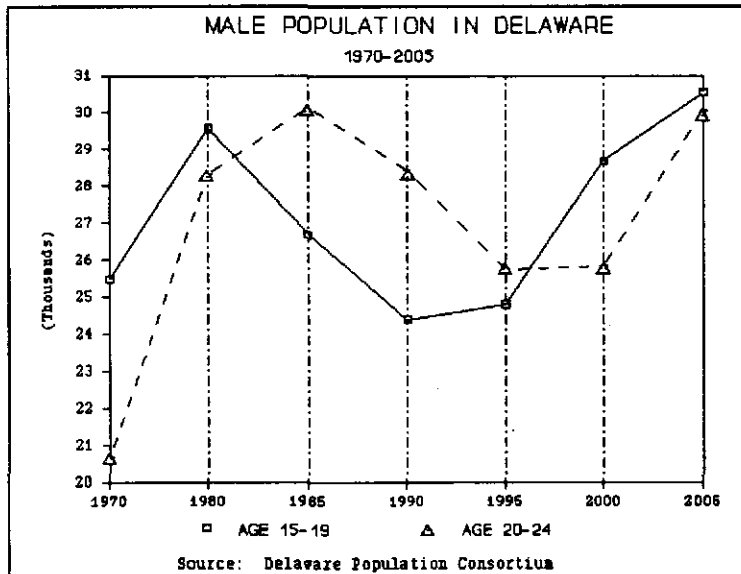
**TABLE 4**

**UNEMPLOYMENT RATES FOR DELAWARE**

1982 and 1988 were filled by the pool of unemployed being absorbed back into the active workforce. (Note that this does not take into account those construction workers who in 1982 may have either left the labor force completely or taken part-time jobs in other industries while waiting for construction employment demand to rebound.) By 1988 the unemployment rate for skilled craft persons was down to 1.9%, a clear sign of a tight labor market.

		Occupations			
		Total	Construction	Precision, Production, Craft & Repair	Handlers, Equip. Cleaners, Helpers & Laborers
1982	8.5%	21.0%	8.0%	22.2%	
1987	3.2%	6.8%	3.2%	5.0%	
1988	3.2%	5.4%	1.9%	6.9%	

Source: U.S. Department of Labor  
Bureau of Labor Statistics



**FIGURE 5**

The next factor which helped to increase the supply of labor during the first half of the 1980's was solely demographic. The quantity of entry labor (men and women ages 20 to 24) peaked as the final surge of the "baby-boomers" hit the labor market. The pattern for males is shown in Figure 5 and, while not shown, the pattern for females is similar. Between 1985 and 1995 the number of males in the entry level age cohort will decline by 4,400 or 14.6% and

the number of females will decline almost 5,200 or 16.9%. These entry level cohorts will not begin to rebound until after the year 2000 as the new "mini-baby boomers" begin to leave high school and college.

A third factor which has helped the supply of labor to increase in recent years is net in-migration to Delaware. The three major components of population change are births, deaths and net migration, where net migration is simply the number of persons moving into a state minus the number of persons moving out during a given time period. Generally, net migration between states is driven by positive labor market conditions in the state of destination. Following the loss of over 16,000 jobs and rising unemployment rates during the 1973-75 recession Delaware experienced net out-migration for the first time in three decades (Table 5).

Net out-migration continued during the recessions of the early 1980's. As the state's economy started to recover, however, net in-migration began once again. Net in-migration grew from 2,468 in 1982-83 to an estimated 8,000 for 1987-88.

Based upon national research these net in-migrants tend to be younger persons, both single and married, with relatively few children per household (compared to current residents). The demographic composition of these in-migrants gives an even stronger boost to the Delaware supply of labor than the simple absolute numbers might indicate. While the rate of net in-migration is expected to moderate as the state's economy slows, real housing prices continue to rise, and infrastructure congestion grows, the immediate impact has most certainly been to increase the resident supply of labor.

A fourth factor which has played a major role in the rising supply of labor in Delaware is changing civilian labor force participation rates. The civilian labor force participation rate is simply the ratio of the civilian labor force to the civilian noninstitutional population for persons age 16 and over. The civilian labor force comprises all civilians classified as employed or unemployed (actively looking for work).

Since the early 1980's the labor force participation rates (lfprs) for all the major segments of Delaware's noninstitutional population (men, women and teenagers) have risen significantly

**TABLE 5**

DELAWARE NET MIGRATION, 1975-88

Year	Absolute Net Migration
1975-80	(9,500)
1980-81	(1,973)
1981-82	(913)
1982-83	2,468
1983-84	3,597
1984-85	7,233
1985-86	6,779
1986-87	6,863
1987-88	8,000

Source: U.S. Bureau of the Census

above their national counterparts. Both in Delaware and the nation the lfprs for males began a slow decline in the late 1970's (Figure 6). Following 1983, however, while the national rate continued its slow descent, the Delaware rate actually increased. As of 1988 the Delaware male lfpr stood at 78.1% compared to the national rate of 76.2%.

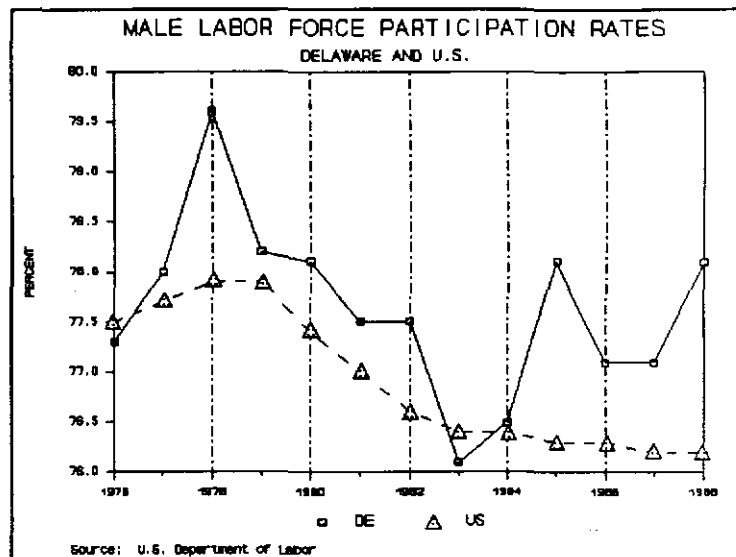


FIGURE 6

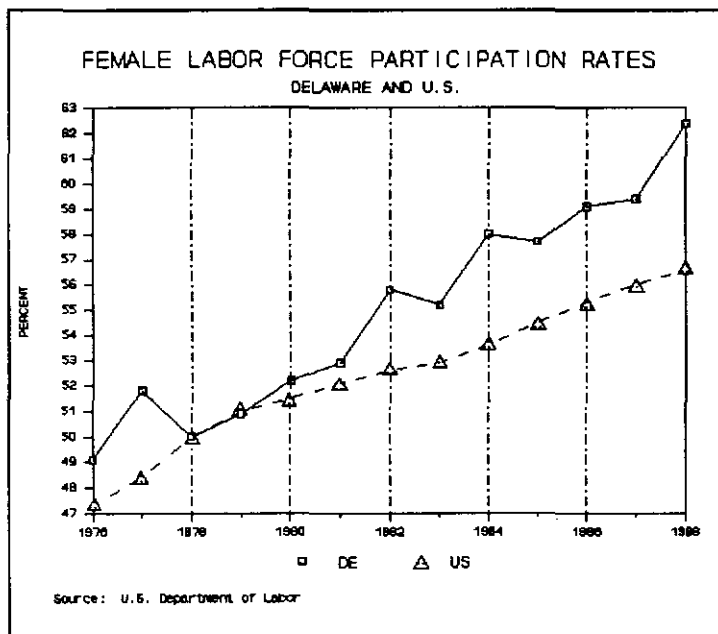


FIGURE 7

Unlike the males, the female lfprs in Delaware and the nation have been rising since 1950, particularly accelerating beginning in 1970. Although the Delaware rate in 1981 (52.9%) was quite similar to the national rate (52.1%), the booming service economy in Delaware drew women into the labor force in extraordinary numbers (Figure 7). As a result, in 1988 the female lfpr in Delaware was almost 6 percentage points above the national rate (62.4% vs. 56.6%). Delaware's 1988 female lfpr has thereby

surpassed the female lfpr that the nation is not projected to reach until the year 2000.

Similar to males, teenage (persons age 16 to 19) lfprs declined from the late 1970's through 1983. As the recovery of the 1980's proceeded the teenage lfpr in both the nation and Delaware began to rise (Figure 8). As was true for both men and women, the rise in the Delaware rate was extraordinary relative to the nation. In 1981 the teenage lfpr in Delaware and the nation were quite similar (55.9% vs. 55.4%). By 1988, however,

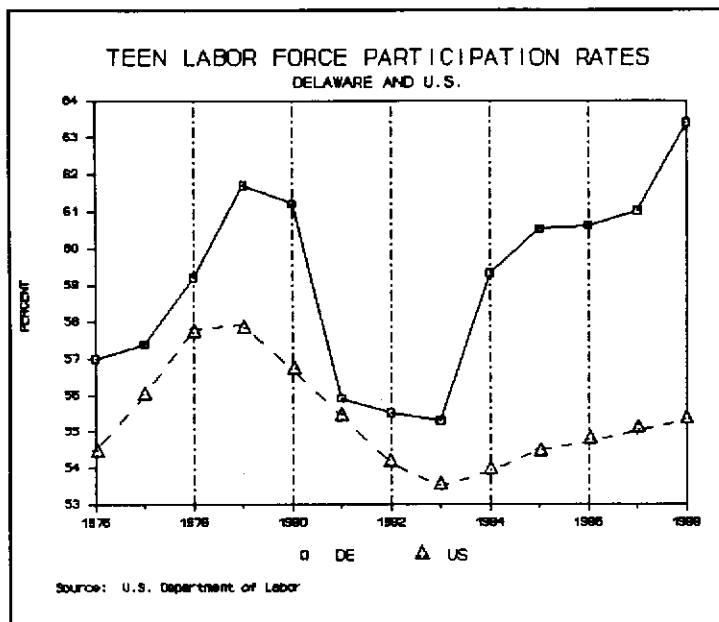


FIGURE 8

the Delaware rate was more than 8 percentage points above the nation (63.4% vs. 55.3%). While impacting most upon the part-time job market in the services, this tremendous increase in the teenage labor force participation did help to somewhat offset the decline in the number of persons moving into the labor market entry years and is a readily available workforce for tourist industries and construction during the peak summer months.

average wages in Delaware has been the shift away from unions. For example, while no absolutely hard data is available, it is generally acknowledged that over the past decade the construction contracts in Delaware have shifted from being approximately 70% union to approximately 70% open shop. The lower hourly rates, the relatively low entry requirements (i.e., no four year apprenticeships) and the workrule flexibility of nonunion labor have led to lower labor costs and average wages. It should be noted, however, the superior training does generally increase the productivity of skilled union craft persons, helping to offset higher wage costs and restrictive work rules.<sup>4</sup>

Over the last 40 years manufacturing's labor productivity (measured as output per hours worked) has increased significantly faster than service-sector productivity.<sup>5</sup> Between 1948 and 1986, manufacturing productivity increased at an average annual rate of 2.8%, while service productivity increased at a rate of only 0.9%. Manufacturing's major advantage over most service industries is its ability to substitute capital (equipment and facilities with new technology imbedded) for labor, thereby increasing output per employee and, usually, compensation per employee. While new equipment can be used to increase productivity in some service industries (e.g., the use of CAT scanners in hospital testing; the use of microcomputers by accountants), substitutability is often nonexistent (e.g., the number of persons required to play a string quartet) or limited in the long run.

One relatively crude measure of productivity by industry for Delaware can be constructed from Federal data. Data on real (inflation-adjusted) output in Delaware from 1969 through 1986 as compiled by the U.S. Department of Commerce, Bureau of Economic Analysis, was divided by the employment series maintained by the same agency. Over the 17 years manufacturing output per employee has increased 2.8% per year while output per employee in retailing has decreased 0.2% per year and in services has decreased 0.4% per year. Regardless of the reasons for this declining productivity in retailing and services, less output per worker is a strong incentive for employers to permit real wages to decline.

A final factor impacting on real average wages in Delaware is the changing industry mix. Over the past two decades (1969-87 data in Table 6) there has been a sustained structural shift in Delaware's economy from goods production (e.g., manufacturing, agriculture) to services (e.g., retail trade, finance, business services). This shift is most notable in employment where manufacturing's share of total employment has declined almost 10% and agriculture's share has been halved (from 3.1% to 1.5%).

Four important points should be recognized with regard to this structural shift. First, the shift does not represent deindustrialization. As Table 6 indicates, manufacturing's loss in employment share has been accompanied by an increase in manufacturing's share of Delaware's Gross State Product (total output in the state) from 29.4% to 30.3%.

The increase in output per employee in manufacturing has allowed manufacturing wages to remain high while employment has declined. Manufacturing's share of total wages and proprietors income declined only 7% over the past two decades. Meanwhile, retail trade's share of employment rose while its share of total wages declined and the increase in the share of employment accounted for by services and FIRE (finance, insurance and real estate) exceeded the increase in their respective shares of total wages and proprietors income.

Second, the shift to services has not diminished the importance of manufacturing to Delaware's economy. Including the multiplier impacts of forward and backward linkages and in-state spending by employees, the chemical, auto production and food processing industries in Delaware still account for over 50% of the state's total wage bill.

TABLE 6

EMPLOYMENT, EARNINGS & GROSS STATE PRODUCT SHARES  
DELAWARE, 1969-1987

	EMPLOYMENT		WAGES & PROP. INCOME		GSP	
	1969	1987	1969	1987	1969	1987
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Farm	3.1	1.5	2.7	1.7	2.2	2.4
Nonfarm	96.9	98.5	97.3	98.3	97.8	97.6
Private	78.8	83.9	84.1	85.1	85.9	87.6
Ag. Serv., For., Fish. and other	0.5	0.6	0.4	0.3	0.3	0.3
Mining	0.0	0.0	0.2	0.1	0.0	0.0
Construction	5.9	7.0	7.9	8.8	9.5	4.8
Manufacturing	28.2	18.8	39.3	32.1	29.4	30.3
Nondurable Goods	19.2	13.6	30.2	24.1	20.8	22.0
Durable Goods	9.0	5.2	9.2	8.0	8.6	8.3
Transportation & Public Util.	4.7	4.2	5.1	5.3	8.0	7.6
Wholesale Trade	2.8	3.1	3.5	3.9	3.9	6.3
Retail Trade	15.7	16.9	10.4	8.9	8.9	8.7
Finance, Insurance & Real Est.	4.3	9.2	4.9	7.3	15.6	16.7
Services	16.6	24.0	12.5	18.4	10.4	13.0
Government & Gov. Enterprises	18.1	14.6	13.1	13.2	11.8	10.0
Federal, Civilian	2.0	1.5	2.2	1.9	2.0	1.4
Military	5.7	2.5	2.6	1.5	2.7	1.4
State & Local	10.4	10.5	8.4	9.8	7.2	7.1

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis &  
Bureau of the Census; Bureau of Economic & Business Research,  
University of Delaware

Third, the shift to services will continue both in Delaware and across the nation. Just as new technology allowed workers to shift from agriculture to manufacturing with no loss in agricultural output, the same is occurring between manufacturing and services. As Table 7 shows, this structural shift is even occurring within manufacturing in Delaware. From 1967 to 1982 the number of production employees in Delaware manufacturing decreased by more than 18% while the number of administrative/auxiliary (e.g., accountants, researchers) increased almost 20% and the nonproduction employees assigned to production facilities increased almost 3%. So, as of 1982, administrative and nonproduction workers accounted for 53% of all Delaware's manufacturing jobs and 68% of manufacturing's payroll.

The clock cannot be turned back and the structural shift to services is an unchangeable fact. In deciding upon how to

allocate their scarce resources, government and nonprofit organizations have to deal with the reality of the shift to services and the accompanying positive and negative impacts this has upon the economic well-being of individuals and communities.

Fourth, the structural shift to services has had an impact on the earnings distribution. Over the past decade (Table 8) only 8.2% of Delaware's net new nonagricultural jobs were in goods producing sectors (i.e., construction and manufacturing). Among the non-goods producing sectors three industries accounted for almost 80% of the net new employment: services, FIRE and retail trade.

**TABLE 7**

**DELAWARE MANUFACTURING, 1967-82**

	Employment		% Change	% of Total	
	1967	1982	1967-82	1967	1982
Administrative	20.1	24.1	19.9%	28.4%	35.5%
Production	38.8	31.7	-18.3%	54.9%	46.7%
Nonproduction	11.8	12.1	2.5%	16.7%	17.8%
Total	70.7	67.9	-4.0%	100.0%	100.0%

	Payroll (Millions)		% Change	% of Total	
	1967	1982	1967-82	1967	1982
Administrative	\$250	\$869	248.1%	42.4%	49.9%
Production	\$228	\$557	144.2%	38.8%	32.0%
Nonproduction	\$111	\$317	186.3%	18.8%	18.2%
Total	\$589	\$1743	196.2%	100.0%	100.0%

Source: U.S. Dept. of Commerce, Census of Manufacturers

**TABLE 8**

**DELAWARE  
NONAGRICULTURAL EMPLOYMENT, 1978-88**

	1978	1988	Net	% Chng	% of Net
TOTAL	244.6	329.8	85.2	36.3	100.0
Construction	15.1	21.7	6.6	43.7	7.7
Manufacturing	70.4	70.8	.4	.6	.5
TCPV	10.5	12.9	2.4	22.8	2.8
Wholesale	9.7	12.6	2.9	29.9	3.4
Retail	43.9	60.8	16.9	38.5	19.8
FIRE	11.2	29.0	17.8	158.9	20.9
Services	40.0	72.5	32.5	81.2	38.1
Government	41.6	46.3	4.7	11.3	5.5

Source: Extracted from ES-202 employment data of the DE Dept. of Labor, Bureau of Economic & Business Research, 1989.

Unfortunately, the average wage per employee in the sectors in which the net new jobs are concentrated are not high paying (Figure 9). In services, where 38% of the net new jobs were generated, the 1988 wage was only 79% of the average wage per employee throughout the state. FIRE accounted for almost 21% of the net new jobs over the decade and by 1988, despite annual increases almost twice the annual rate of inflation since 1982, the average wage was

only 2% above the state average. Finally, retailing accounted for almost 20% of the net new jobs over the decade and in 1988

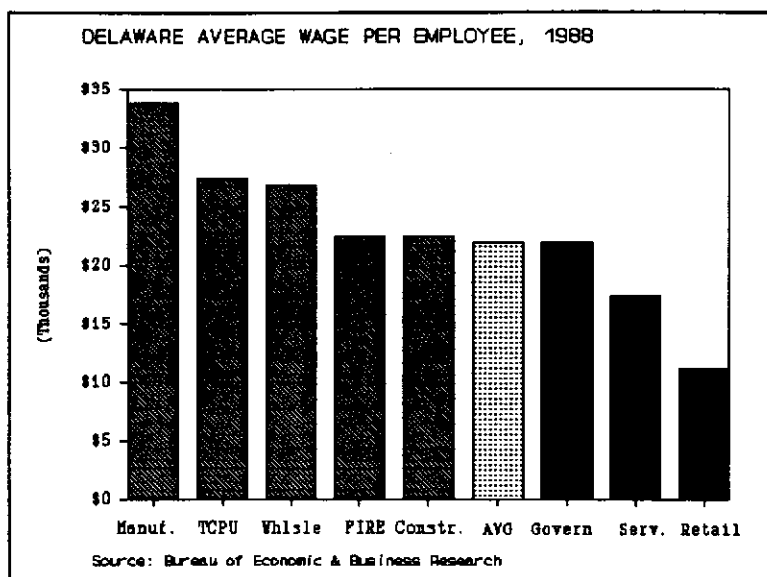


FIGURE 9

the real average retail wage in Delaware was 51% of the state average wage. Meanwhile, the average manufacturing wage was 154% of the state average.

After reviewing the seven factors impacting the supply of labor in Delaware over the past decade it is clear that the supply of labor has been increasing as demand was increasing. Together with the changing industry structure, the result has been a decline in

real average wages. The critical question at this point is whether this declining real wage has led to a more bifurcated (unequal) earnings distribution, and, if so, how does this impact upon the economic condition of Delaware's families?

### Adverse Economic Impacts

While there are high paying jobs in services (e.g., lawyers, accountants, engineers and dental hygienists), most service sector jobs are low paying and many are part-time. From 1981 through 1987 (Table 9) almost 44% of the jobs created in Delaware paid under \$5,600 (in 1984 dollars) and another 24% of the jobs paid between \$5,600 and \$16,900. In other words, during the economic recovery 65 out of every 100 jobs generated paid less than \$6.00 per hour. Most jobs paying less than \$6.00 per hour, and most part-time jobs, do not include any benefits (especially medical insurance). This is a significant economic loss to

TABLE 9

Absolute Change in the Number of Jobs  
by Income,  
1981.3 - 1987.3  
Delaware (1984 Dollars)

	Absolute Change	Percent of Total
Under \$5,600	39,212	43.5%
\$5.6 - \$16,900	21,461	23.6%
\$16.9 - \$28,200	15,266	16.9%
\$28.2 - \$39,400	7,871	8.7%
\$39.4 - \$50,700	1,255	1.4%
\$50,700 +	5,030	5.6%
TOTAL	90,095	100.0%

Source: Bureau of Economic & Business Research, University of DE

employees as benefits currently average 37% of wages in the U.S.

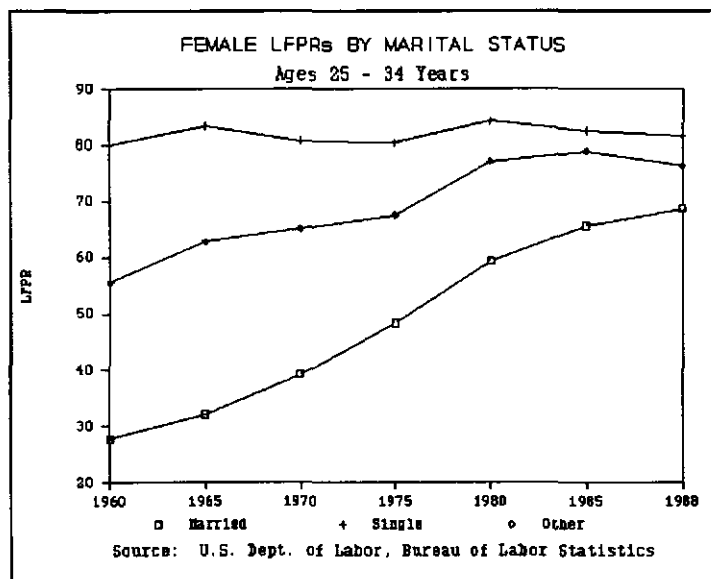
Many of the jobs shown in Table 9 may be positions held by secondary wage earners in a family (e.g., a spouse or teenager working part-time), temporary, summer jobs, or, may be a second part-time job held by a family's primary wage earner. So, it is reasonable to question whether the proliferation of lower paying jobs has resulted in growing inequity within the family income distribution. Both

national and Delaware data indicate that income inequality among families is on the rise.<sup>6</sup>

**TABLE 10**

AVERAGE AFTER-TAX FAMILY INCOME United States (1987 Dollars)				
Income Group	1977 Avg. Inc.	1988 Avg. Inc.	% Chg	\$ Chg
First	\$ 3,528	\$ 3,157	-10.5%	\$ -371
Second	7,084	6,990	-1.3	-94
Third	10,740	10,614	-1.2	-126
Fourth	14,323	14,266	-0.4	-57
Fifth	18,043	18,076	0.2	33
Sixth	22,009	22,259	1.1	250
Seventh	26,240	27,039	3.0	798
Eighth	31,568	33,282	5.4	1,714
Ninth	39,236	42,323	7.9	3,087
Tenth	70,459	89,783	27.4	19,324
Top 5%	90,755	124,551	37.3	33,895
Top 1%	174,498	303,900	74.2	129,402
ALL GROUPS	24,184	26,494	9.6	2,310

Source: U.S. Congressional Budget Office



**FIGURE 10**

Over the past 30 years almost 80 percent of the rise in the female labor force participation rate has come from the entry of married women (Figure 10). While real (1977 dollars) average

National data from the U.S. Congressional Budget Office (Table 10) shows that between 1977 and 1988 the real average after-tax income of the bottom four deciles in the national family income distribution has declined, ranging from a decline of 10.5% for the lowest decile to a decline of 0.4% for the fourth decile. Simultaneously, the average after-tax income of the middle class deciles has remained approximately constant. This has been achieved primarily by putting more family members into the labor force, most particularly more females.

weekly earnings rose from \$165 in 1960 to only \$169 in 1988, the labor force participation rate for married females with children under the age of six rose from 18.6% to 57.1%. The long run impacts on child development, on marital stability and on community quality from this female skill and time shift are not yet well measured.

Meanwhile, the average real after-tax income of the top two deciles of the national family income distribution rose 7.9% and 27.4%, respectively. Those families in the top 5% of the income distribution experienced an average 37.3% gain in real after-tax income while the top 1% of the income distribution enjoyed a 74.2% gain.

The skewed wage distribution also evidences itself in the income distribution of Delaware's families (Table 11). After rising during the 1960's, the share of total income accruing to the families in the bottom two-fifths of the state's income distribution has fallen steadily and in 1986 hit its lowest level since WWII (4.0% and 10.2% of total family income, respectively).

**TABLE 11**

SHARES OF TOTAL FAMILY INCOME  
DELAWARE, 1959-86

Family Income Group	1959	1969	1979	1986
Bottom Quintile	4.9%	5.9%	5.1%	4.0%
Second Quintile	10.8%	12.7%	11.9%	10.2%
Third Quintile	14.9%	19.9%	17.3%	17.1%
Fourth Quintile	20.0%	23.7%	24.5%	25.2%
Top Quintile	49.4%	37.8%	41.2%	43.5%
Total	100.0%	100.0%	100.0%	100.0%

Source: U.S. Department of Commerce, Bureau of the Census; Bureau of Economic and Business Research

Meanwhile, the share accruing to the top two-fifths has been rising steadily; with the top quintile enjoying 43.5% of Delaware's total family income in 1986 and the next highest quintile holding a 25.2% share.

Another equity measure, the individual poverty rate, also reflects the predominance of relatively low wage service jobs. As seen in Table 12, despite the longest economic recovery since WWII the individual poverty rates in the nation and Delaware have remained markedly high.<sup>7</sup> The national poverty rate in 1979 was 12.4%, rose approximately 1.5 percentage points in 1985 and fell only slightly to 13.6% in 1986. Concurrently, the Delaware 1979 poverty rate was 11.9%, and decreased only slightly in 1985 and 1986 (11.3% and 10.7%, respectively). The 1985 and 1986 Delaware

poverty rates are from an aggregation of three year annual household samples. So, given the resulting sampling precisions, the change in the rates between the two years cannot be classified as statistically significant. Regardless, while Delaware has done better than the nation, the persistence of double digit poverty is troubling.

**TABLE 12**

PERCENTAGE OF PERSONS IN POVERTY

	1969	1975	1979	1985	1986
Delaware	10.9	8.2	11.9	11.3	10.7
Maryland	10.1	7.7	9.8	8.5	
New Jersey	8.1	8.1	9.5	9.5	
Pennsylvania	10.6	9.7	10.5	12.4	
Virginia	15.5	10.5	11.8	10.6	
United States	13.7	11.4	12.4	14.0	13.6

Source: U.S. Dept. of Commerce, Bureau of the Census; U.S. Dept. of Labor, Bureau of Labor Statistics; Bureau of Economic & Business Research

To fully appreciate its implications it helps to give some concrete referent to the individual poverty rate. The 1986 poverty level for a family of three persons was \$8,737 and \$11,203 for a family of four persons (Chart 2). In 1986 the median income for all families in the nation was \$29,458 and mean income was \$35,204.<sup>8</sup> Adjusting for family size, the 1986 poverty level for a family of three was 32% of the median and 34% of the mean family income during that year. The 1986 poverty level for a family of four was 31% of the median and 26% of the mean family income during that year. In other words, in order to qualify as poor in 1986 a family of four had to have income below \$11,203 while the average income on which a family of four lived was \$43,868.

It almost goes without saying that for those persons who are "near poor" (living between 100 and 150% of the poverty level) the economic quality of life is not high and making ends meet is difficult. For 1986 a family of four at 149% of the poverty level would have an income of \$16,693, equal to 38% of the average income for a family of four. In Delaware during 1986 when 10.7% of all residents lived in poverty, an additional 9.9% lived between poverty and 150% of the poverty level. So, in 1986 more than 1 out of every 5 Delawareans lived in poverty or near poverty.

When examining annual poverty rate data it is also helpful to understand how the issue of duration is handled. The U.S. Department of Commerce, using survey data, will classify an individual as poor based upon the total income (excluding in-kind public benefits such as food stamps) of their household or family during the previous year and upon household size. Under this classification system an individual may actually be in poverty

## U.S. Poverty Levels

1986

1 Person (under 65)	\$ 5,701
Family - 2	\$ 7,372
Family - 3	\$ 8,737
Family - 4	\$11,203
Family - 9 or more	\$22,497

Source: U.S. Department of Commerce, Bureau of the Census, 1989

### CHART 2

any where from one to twelve months depending upon the monthly flow of income. In fact, research has shown that of those individuals classified as poor based upon annual income approximately one-half are poor for all twelve months of the year. At the other extreme, during the average year over 26% of all individuals are poor for at least one month. So, while only about half of the poor persons in Delaware are in poverty throughout every month of the year, there is a much larger group that transitions in and out of poverty intermittently throughout any year.

As mentioned previously, the strong economic recovery in Delaware has benefited workers through lower unemployment rates and fewer persons having to work part-time involuntarily. At the same time, the mix of jobs created has caused some measures of labor distress to remain high. Table 13 shows three measures of labor distress for Delaware, the nation, and states within the Delaware region. The three measures are defined as follows:

Discouraged workers - looked for work in the previous year but did not work because they could not find a job.

Mismatched workers - employed persons whose educational levels are one or more standard deviations above the average education and whose reported earnings are below the mean for the same occupation/industry combination.

Working poor - persons employed full-time whose earnings fall below the individual poverty level.

**TABLE 13**

INCIDENCE OF LABOR DISTRESS, 1986  
(% of Civilian Labor Force)

	Civilian Labor Force	Working Poor	Mismatched	Discouraged
Delaware	325	12.6 %	3.4 %	0.6 %
United States	117834	11.6 %	3.0 %	0.9 %
Maryland	2358	9.4 %	3.1 %	0.6 %
New Jersey	3892	8.8 %	3.1 %	0.8 %
Pennsylvania	5634	10.5 %	2.3 %	1.5 %
Virginia	2895	13.6 %	2.2 %	0.7 %

Source: M.J. Yetley, "The Economic Cost of Unemployment and Underemployment," U.S. Dept. of Agriculture, ERS Report #89-17.

While the number of discouraged workers as proportion of the civilian labor force is lower in Delaware than in the nation and most surrounding states, the proportion of mismatched employees and of working poor is higher. This result is not surprising given the skewed earnings distribution of the jobs being added to Delaware's economy over the recovery.

Finally, among the adverse impacts from the structural shift to services is an increasingly tenuous relationship between employers and employees. The service economy is, at present, predominantly populated by smaller business establishments. (In 1986 the average number of employees in Delaware manufacturing establishments was 99, compared to 12 in retail trade and 13 in services.) Over the past 20 years the proportion of total Delaware employment in establishments with 500 employees or more has dropped by almost 12% (Table 14). Seven out of every ten of these jobs shifted into establishments with less than 100 employees. Note that the survival rates of smaller firms relatively low (Table 15). In addition, given lower wages and

TABLE 14

SHARES OF TOTAL ESTABLISHMENTS & TOTAL  
EMPLOYMENT BY FIRM SIZE CLASS  
IN DELAWARE

Employment Size Class	Total Establishments		Total Employment	
	1966	1986	1966	1986
1-9	73.7%	75.3%	13.2%	14.3%
10-19	14.5	11.8	9.3	10.2
20-49	7.6	7.9	12.9	15.1
50-99	2.0	2.8	8.0	12.2
100-249	1.4	1.5	12.2	14.5
250-499	0.4	0.4	6.7	7.9
500+	0.4	0.3	37.7	25.8

Source: U.S. Department of Commerce. "County Business Patterns"

more limited benefits, there is higher employee turnover and far less likelihood of clearly structured employee rights and personnel procedures than is found in larger firms. Smaller firm size and high employee turnover also makes investments by employers in on-the-job training less likely, and, raises the costs of unionization (thereby reducing the likelihood of unionization).

TABLE 15

DELAWARE  
Five Year Survival Rates\*  
Firms With Less than 50 employees

	Absolute Starts				% Survived			
	nine or less	10- 19	20- 49	TTL	nine or less	10- 19	20- 49	TTL
Ag/Fox/Fish	43	3	0	46	46%	100%	-	50%
Construction	387	18	4	409	44%	50%	50%	48%
Manufacturing	36	3	4	43	36%	100%	50%	42%
TCPV	84	5	2	91	37%	40%	100%	38%
Wholesale	183	4	2	189	49%	100%	100%	51%
Retail	474	46	20	540	48%	61%	40%	48%
FIRE	190	8	3	201	64%	62%	0%	63%
Services	653	17	11	681	46%	59%	55%	46%
Total	2050	104	46	2200	48%	61%	49%	48%

\* Firms that started in 1983:3-1984:2.

Source: Bureau of Economic & Business Research,  
University of Delaware, 1989.

## Expected Future Economic Trends

A variety of alternative employment forecasts for Delaware exist. The results of the forecasts are shown in Table 16 expressed in terms of average number of jobs per year for total non-agricultural employment. Over the past four decades with its many business cycles Delaware has average 5.5 thousand net new jobs per year. Since 1982 the average has jumped to 12.0 thousand and since 1983 the annual average has been almost 13.0 thousand. Long term forecasts by the U.S. Department of Commerce's Bureau of Economic Analysis, Delmarva Power and Light Company, Delaware Population Consortium, and the Delaware Department of Labor all show average annual total employment rising between 5.8 to 6.7 thousand jobs per annum. This would appear to be a relatively reasonable range given the historical average and the rapid growth over the past seven years.

When broken out by industry the projection of employment from the Delaware Department of Labor indicates that the structural shift away from goods-producing sectors is expected to continue (Table 17). Of the net new jobs expected between 1987 and the year 2000 nearly 82% continues to be concentrated in three sectors: services (47%), retail trade (20%) and FIRE (16%). In other words, the future will be more of

**TABLE 16**

### ALTERNATIVE EMPLOYMENT FORECASTS AVERAGE CHANGE PER YEAR

	HISTORICAL TOTAL EMPLOYMENT			
	BEA	DELMARVA	CONSORTIUM	DELAWARE DEPT. OF LABOR
1947-1988			5.5	
1975-1989			8.1	
1982-1989			12.0	
1989-1995	6.0	6.5	6.7	--
1989-2000	--	6.2	5.8	6.5

Source: U.S. Dept. of Labor; DELMARVA: DE Population Consortium;  
DE Dept. of Labor; Bureau of Economic & Business Research, University of DE  
1989

**TABLE 17**

### Distribution of Net New Employment Delaware, 1987-2000

Agriculture	0.0%
Construction	4.2%
Manufacturing	
Durables	0.9%
Nondurables	6.4%
TCPU	2.4%
Wholesale	2.5%
Retail	19.7%
FIRE	15.5% (Banking 9.8%)
Services	46.5%
Government	1.9%
	100.0%

Source: DE Department of Labor, 1989

the same with new jobs concentrated in sectors where earnings are generally lower and benefits are spotty.

The Delaware Department of Labor takes its forecasts one step further, converting projections of employment by industry into projections of employment by occupation. The 26 occupations expected to have the highest absolute number of average annual openings in Delaware over the next 13 years are found in Table 18. The two sources of openings are growth in employment by industry (converted into occupational openings) and separations from the labor force by occupation, where separations are permanent retirement of workers.

**TABLE 18**

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TOP 26 OCCUPATIONS BY ANNUAL OPENINGS  
DELAWARE, 1987 - 2000

Salespersons, Retail	1166	Truck Drivers/Heavy	222
Janitors/Cleaners	885	Food Preparation	203
General Mgrs/Exec.	685	Clerical Supervisors	199
Gen. Office Clerks	636	All Other Teachers	191
General Secretaries	440	Nursing Aides/Orderlies	189
All Other Managers	412	Maids/Housekeeping	183
Guards/Watch Guards	367	Gardeners/Grd.Keepers	176
Helpers, Laborers	357	Receptionists	170
Cashiers	325	Maintenance Repairers	170
Meat, Poultry Cutters	307	Carpenters	160
Waiters/Waitresses	306	Accountants/Auditors	157
Registered Nurses	289	Supervisors, Sales	155
Bookkeepers/Clerks	251	Child Care Workers	148

Source: Delaware Dept. of Labor, 1989

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The data indicate that almost two-thirds of the occupations with the greatest number of annual openings will be for positions where earnings are low and few opportunities for career advancement exist - For example, janitors/cleaners, watch guards, laborers, cashiers, poultry cutters and waiters/waitresses. While there are alternative occupations with strong career paths they are relatively limited and generally require education beyond the high school level. For example, it is projected that for every opening in Delaware for a paralegal there will be 47 openings for retail clerks and for every opening for a computer programmer there will be 24 openings for janitors.

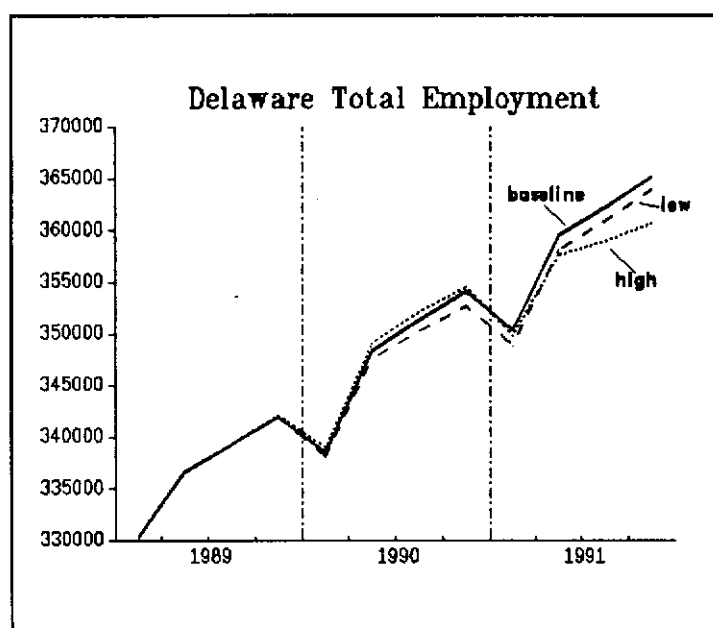


FIGURE 11

jobs, for an employment growth rate of 3.3% per annum. This is well above the annual Delaware average over the past four decades of 5.5 thousand jobs and 2.7% per annum. It is, however, below the 12.5 thousand jobs and 4.1% annual growth rate experienced since 1982. These numbers reflect the continued and considerable slowing of the nation's economy, and the expectation for even slower future growth.

As shown in Figure 11, Delaware's employment growth remains relatively impervious to projected recessions in 1990 or 1991. The low national scenario shows a net gain of 10.1 thousand jobs during 1990 as real Gross National Product (GNP) declines 1.5% and 1.4% during the first and second quarters. Employment then

In addition to the long-term forecasts reviewed above, the Bureau of Economic and Business Research generates short-term projections from its Delaware quarterly econometric model. Using three alternative national scenarios (a baseline, a high growth and a low growth path generated by the Wharton Econometric Forecasting Group (WEFA)) the current Bureau projections extend through the fourth quarter of 1991. Over the next two years (beginning in the fourth quarter of 1989) the baseline projection shows a yearly average increase of 11.1 thousand

increases 10.8 thousand during 1991. The high national scenario, on the other hand, has employment increasing 11.5 thousand in 1990, but by only 8.1 thousand in 1991. The high scenario recession is considerably more severe as real GNP is expected to decline 2.4%, 3.3% and 1.2% during the first three quarters of 1991. In other words, even with a national recession in 1990 (the low projection), total employment growth in Delaware over the next two years will drop to only 77% of its annual average since 1982, and with a recession in 1991 (the high projection) it will drop to only 72% of its recent average.

In part this continued growth in employment is explained by the quality of jobs. As shown by the relatively low projected short-term changes in Delaware real personal income (Figure 12), much of the employment may be part-time or in lower wage, service-industry positions. Having increased \$424 million (5.0%) per year since the 1981-82 recession, real personal income is projected to increase \$274 million (2.7%) in the baseline scenario, \$254 million (2.5%) in the low scenario and \$153 million (1.5%) per annum in the high scenario.

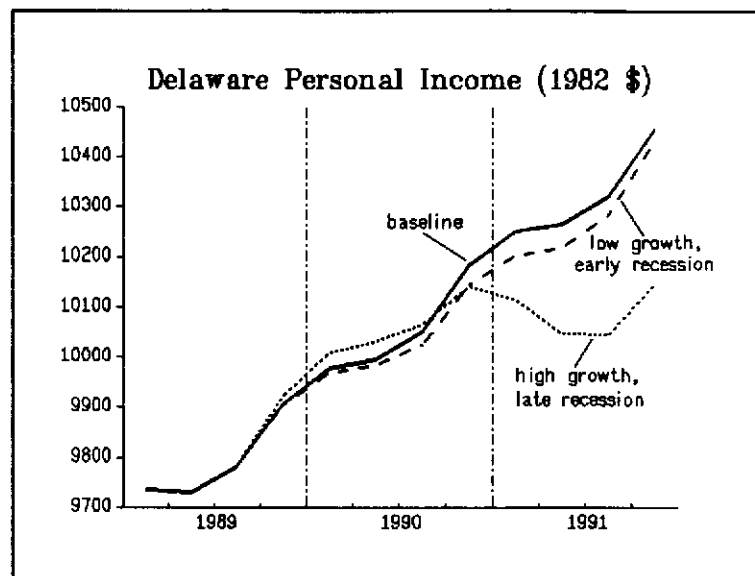


FIGURE 12

Whether in the long-term or the short-term it appears that future increases in employment demand in Delaware will be only modest compared to the most recent seven years. So, if real wages are to continue the upturn of the past few years, the stimulus will have to come primarily from the supply side of the labor market.

On the supply side of Delaware's labor market the major factors which had been causing supply to increase are and will be moderating. Unemployment rates are down to rock bottom with almost no residual pool of labor upon which to draw. The supply of entry labor will be decreasing through at least 1995 and will be stable through at least the year 2000. Net in-migration is expected to continue but at a much more moderate pace given

rising relative housing prices, lack of rental units at the lower end of the market, increasing congestion and other elements which always result from a period of sustained high growth. Delaware's labor force participation rates for males, females and teens are already so high above their national counterparts that it appears unlikely many more persons might be drawn into the labor force. The shift from union to open shops appears to have hit an equilibrium and there are some signs of white collar unionization in Delaware (e.g., the unionization of the reporters at the News Journal Company in late 1989). **In other words, the next decade will be a "sellers" labor market and real wages should continue to rise.**

The return to a "sellers" labor market (as opposed to a management or "buyers" labor market) will be accompanied, in Delaware and across the U.S., by other labor market changes including:<sup>10</sup>

- a more diversified labor force (proportionately fewer white males, more females, more nonwhites and more immigrants);
- more flexible working conditions, especially with regard to women (who continue to have a stronger commitment to family responsibilities than do men);
- more females in traditionally male occupations and industries;
- a continued decline in the male-female earnings gap;
- an increase in the scope of benefits (e.g., employer supported day care; portable pensions);
- a growing presence of unions in the traditionally nonunion service sectors.

The average age of the labor force will rise as the "baby-boom" moves into the 30 to 45 year age cohorts and the "baby-bust" moves into their late teens and early twenties. While this will tend to make the labor force more experienced and stable, the baby-boomers may also become increasingly less adaptable---less willing to relocate, retrain and change occupations. (The decline in geographic mobility will be especially high for two-career families...a major baby-boom phenomena.) As the baby-boomers hit their peak life cycle earnings it is expected that savings will rise. And, to the extent that charitable donations rise with family income, this should give a boost to nonprofit

funding raising. Simultaneously, the baby-bust should give an added boost to entry level wages.

Rising real wages will reduce profits. Employers can respond in a number of ways. First, employers could continue to use more contingent labor (i.e., temporary workers, part-timers and subcontractors). The advantages of contingent labor to management are lower wages, lower benefit costs and increased flexibility to change the size of the work force as market conditions change and perhaps the opportunity to hire seasoned, trained individuals. The major disadvantage to management is that it is hard to increase work force productivity and quality when the work force continually turns over. Contingent laborers have little commitment to contracting firms, which is not surprising since they have little job security, few opportunities for career advancement, poor benefits and few opportunities to increase their human capital.<sup>11</sup>

Second, employers could relocate lower skilled jobs to other labor markets (e.g., nonmetropolitan areas; less developed countries) where wages are lower. Advancements in communications infrastructure and technology make the decentralization of what have been traditionally metropolitan service sectors increasingly feasible.

Third, employers could try to increase labor productivity through the introduction of new technology and through increasing employee human capital. The employer's expected return on investment will be shaped by a number of factors, including the perceived impact on individual productivity, the likelihood that the returns on investment will be retained within the firm in the long-run, and, the direct and indirect costs of employee training (the indirect cost being primarily foregone production time).

Because of their labor intensive production functions, rising real wages will place nonprofit organizations, such as United Way's member agencies, under chronic economic pressure. The continued policies of low average wages and substantial use of part-time employees may bring temporary relief to these organizations, but it is a poor long term policy. First, to date these nonprofit organizations have been able to retain quality employees at below average wages with limited benefits packages by hiring secondary wage earners, who have been predominantly females. As more industries recognize the high value per dollar of wages available from female employees, and with increased education and labor market experience, women are able to command increasingly better wages. Second, part-time employees have much higher turnover rates than full-time employees, and turnover means loss of human capital and momentum for an organization. In

other words, the days when nonprofit social services agencies will be able to maintain quality output on a limited budget through the use of female and part-time employees are all but over.

**A final major question is whether this future economy and labor market will help to alleviate many of the existing economic hardships in Delaware? For example, will the stronger "sellers" labor market benefit persons at the bottom of Delaware's income distribution? The occupations of the future will require more education (Table 19) and in the service-dominated economy education is the major determinant of earnings.**

The wage gain in the service sectors for each additional year of education is double the return in manufacturing.

As will be discussed in Section II, the majority of Delaware's poor and near poor are not well educated. Will employers be willing and able to fund training programs for persons who never completed high school or completed high school but still lack strong basic reading and math skills? for persons who may have a history of substance abuse? for persons without reliable transportation or day care? for persons who may have criminal records?

To the extent that female-headed families are disproportionately represented at the bottom of the income distribution, will the more "female favorable" (e.g., the entry of women into traditionally male occupations and industries) labor market affect the economic condition of these lower income families? To the extent that having to put two earners or more into the labor market in order to maintain their family standard of living may have put stress on marital stability and child development, will rising wages allow families more flexibility and relief? Will rising real wages, combined with the baby-bust, help increase housing affordability and reduce homelessness?

The objective of Section II of this report is to clearly profile the socioeconomic condition of various household types in

**TABLE 19**

**OCCUPATIONS OF THE FUTURE WILL REQUIRE MORE EDUCATION**

	Current Jobs	New Jobs
TOTAL	100 %	100 %
8 Years or Less	6 %	4 %
1-3 Years of High School	12 %	10 %
4 Years of High School	40 %	35 %
1-3 Years of College	20 %	22 %
4 Years of College or More	22 %	30 %
Median Years of School	12.8	13.8

Source: Bureau of Labor Statistics, Hudson Institute, 1987

Delaware in order to determine who may and may not benefit from the expected future economy in the state.

Before moving to Section II, because of its importance to social service agencies, a brief discussion of the expected impacts of a national recession is presented.

### **A Recession**

Certainly, the most valuable information to have about a recession is when it might start. This is, unfortunately, the most difficult information to accurately produce. Regardless of when the next recession may strike, however, through applied research we can anticipate which individuals and industries may be most at risk.

Based upon national and Delaware experience, black workers and teenagers bear a disproportionate share of the decline in employment during recessions.<sup>12</sup> **Recessions also have a disproportionate impact on the poor and widen the distribution of income. As the unemployment rate rises during a recession the relative income losses experienced by the working heads of poor families are about three times as great as the losses experienced by middle-income families.** Adult female employment, as a result of industrial and occupational mix, is generally less affected by recessions than male employment. This may be changing, however, as more females enter traditionally male-dominated industries and occupations.

Durable goods industry employment (e.g., furniture, appliances, automobiles) is consistently the most recession sensitive among all industries. This stems from the fact that durable goods are generally higher price items and in the short run replacement of many durable goods can be delayed (e.g., the old car can be kept running for another year). New construction, both residential and commercial, is also highly sensitive to the business cycle.

The employment decline in these goods-producing sectors results in job losses in related retail and service sectors. Recession sensitive retail sectors, both in the nation and Delaware, include automobile dealerships, furniture stores and home appliances. Trucking employment slows as shipments decline. Paper industry sales lag as the demand for boxes and other containers slow. The decline in new construction affects employment in real estate, hardware/building materials stores, gravel and sand operations, and primary metals (e.g., steel). Countercyclical industries where employment actually increases during recessions include health care, food stores, restaurants,

communications and government.

Overall, the proportionate shift of employment from goods-production to the production of services has tended to make recessions shorter and the employment effects less severe both in the nation and in Delaware. There have been eight recessions since WWII. The average national employment decline in goods-producing industries during the first four recessions was 7.2% and during the most recent four recessions was 7.9% (Table 20). Service industry employment, by contrast, declined only 1.0% during the first four recessions and actually increased 1.0% on average during the most recent four recessions. As a consequence, the respective average decline in total nonfarm employment during recessions has been cut in half, dropping from 3.2% to 1.6%.

Using seasonally adjusted monthly employment data we can compare the severity of the most recent recessions in Delaware to the nation (Table 21). (Note that these data will not coincide with the official recession dates established by the National Bureau of Economic Research which uses GNP as its primary measurement.) In all three recessions the percentage peak-to-trough decline in Delaware employment exceeded that of the nation. However, even though the duration of the 1973-75 recession in Delaware was twice that of the nation (20 months vs. 10 months), the duration of the 1970 recession in Delaware was only half that of the nation and the duration of the 1980-82 recession was less than one-third that of the nation.

Figures 13 and 14 clearly demonstrate the improved performance of Delaware employment over the past two recessions. During the 1973-75 recession Delaware employment peaked with the nation. By early 1976 national employment had recovered to its previous peak. Delaware employment recovery, however, lagged well behind the nation, not returning to its previous peak until

**TABLE 20**

**% CHANGE IN EMPLOYMENT DURING RECESSIONS**

Recession	Total Nonfarm	Goods-Producing	Government	Service Industries
11/48-10/49	-4.1	- 8.7	+2.0	-1.6
7/53-5/54	-2.9	- 7.0	+1.7	-0.4
8/57-4/58	-3.8	- 7.8	+1.7	-2.1
4/60-2/61	-1.8	- 5.1	+1.2	-0.1
12/69-11/70	-0.8	- 5.9	+2.9	+1.4
11/73-3/75	-1.6	-10.6	+5.3	+1.7
1/80-7/80	-1.0	- 4.7	+1.1	+0.3
7/81-11/82	-2.9	-10.5	-1.1	+0.4
Average Change				
First 4 Recessions	-3.2	- 7.2	+1.6	-1.0
Next 4 Recessions	-1.6	- 7.9	+2.0	+1.0

\* Seasonally adjusted U.S. employment

Source: C.H. Moore, "The Service Industries and the Business Cycle," Business Economics, Vol. XIII, No. 2, p. 13.

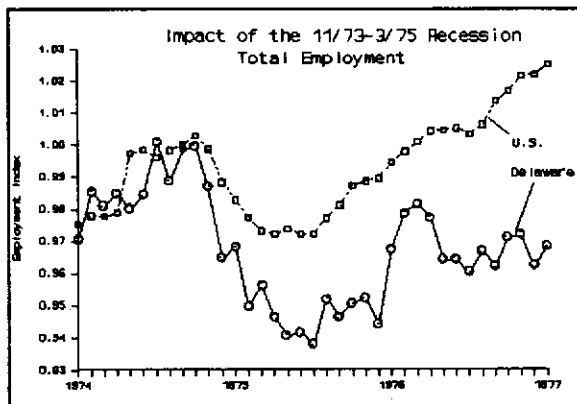
late in 1977.  
In stark  
contrast,  
Delaware came  
out of the  
1980-82  
recessions  
before the  
nation and  
maintained a  
higher growth  
path following  
the recessions.

**TABLE 21**

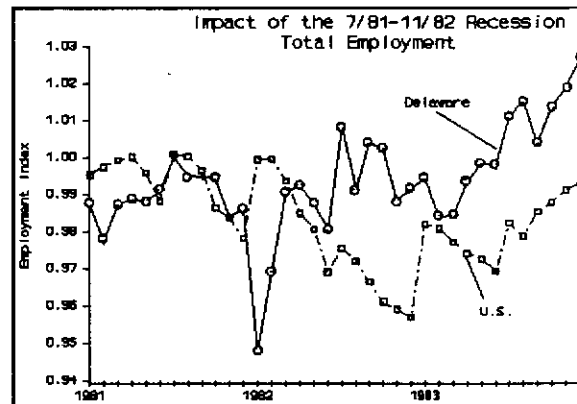
**IMPACT OF RECESSION ON EMPLOYMENT, U.S. & DELAWARE**

<u>PEAKS</u>		<u>TROUGHS</u>		ABS. CHG.	% CHG.	DURATION
DATE	EMPLOY.	DATE	EMPLOY.			
UNITED STATES						
May 1970	71170	November 1970	70106	1064	1.5%	8
October 1974	78853	July 1975	76444	2409	3.1%	10
April 1980	91269	December 1982	87845	3424	3.8%	20
DELAWARE						
July 1970	212	November 1970	203	8	4.1%	4
November 1973	239	July 1975	223	16	7.4%	20
July 1981	261	January 1982	247	14	5.5%	6

Source: Bureau of Economic & Business Research, University of DE



**FIGURE 13**



**FIGURE 14**

A number of factors have contributed to the growing insensitivity of Delaware employment to the national business cycle. First, in recent years Delaware has been shifting more rapidly into the services than has the nation. Since 1980 the compound annual growth rate in services employment nationally has been 2.6% as compared to a 4.2% growth rate in Delaware. As shown in Figures 15 and 16, this high growth has moved Delaware's service employment from lagging behind the nation during a recession to paralleling the nation.

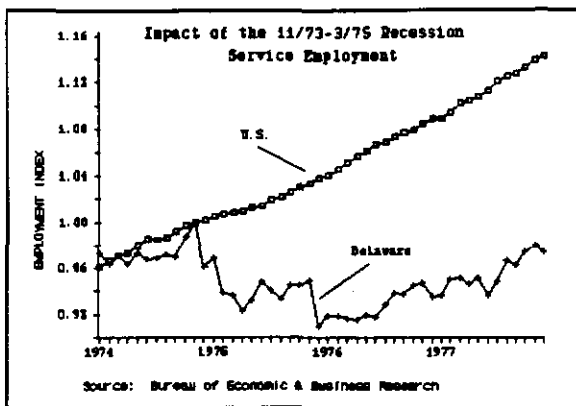


FIGURE 15

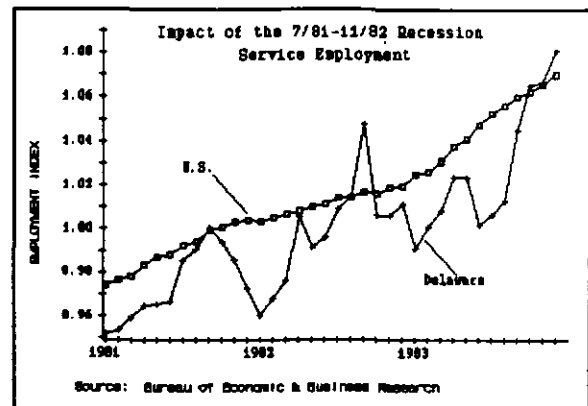


FIGURE 16

Second, the state's shift into services has been accelerated by the passage of the state legislation favorable to bank holding companies. Following the 1973-75 recession employment in Delaware's finance, insurance and real estate industry (FIRE) continued stagnant while industry employment grew steadily in the nation (Figure 17). Following the 1980-82 recessions, however, FIRE employment in Delaware exploded while the industry grew very modestly across the nation (Figure 18).

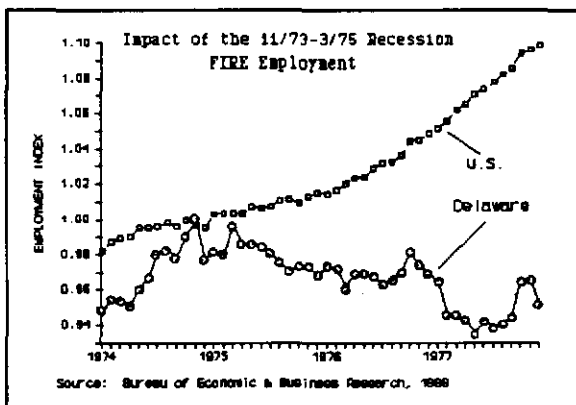


FIGURE 17

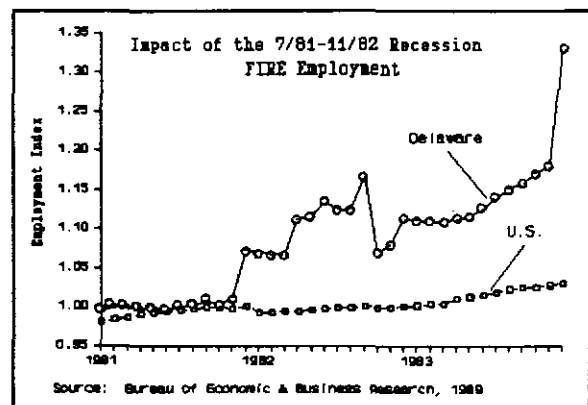


FIGURE 18

Third, the 1973-75 recession permanently closed many Delaware manufacturing facilities where the technology had matured and costs were noncompetitive. This has been followed by significant investments to modernize plant and equipment in such remaining production facilities as the General Motors and Chrysler plants, and, the growth of the relatively cyclically insensitive poultry processing industry in southern Delaware. Consequently, Delaware manufacturing employment has continued to generally follow the national manufacturing employment business cycle (Figures 19 and 20).

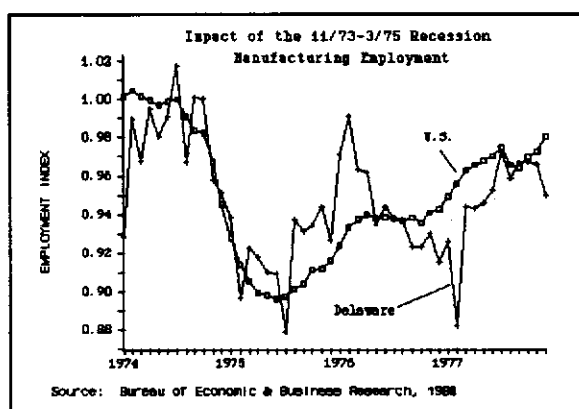


FIGURE 19

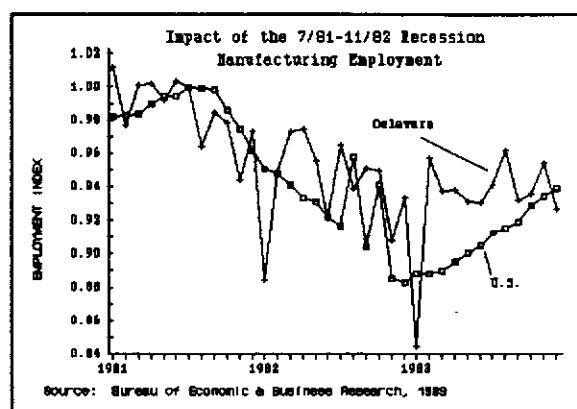


FIGURE 20

Fourth, the milder 1980-82 recessions in Delaware and the subsequent accelerated employment growth led to net in-migration of both persons and business firms. This significantly stimulated Delaware's construction industry (Figures 21 and 22). During the 1973-75 recession Delaware construction employment declined with the nation but recovered more slowly. In stark contrast, beginning in early 1982 Delaware construction employment increased while national construction employment continued to decline.

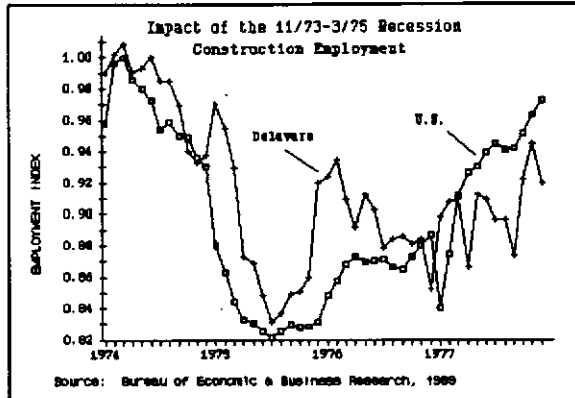


FIGURE 21

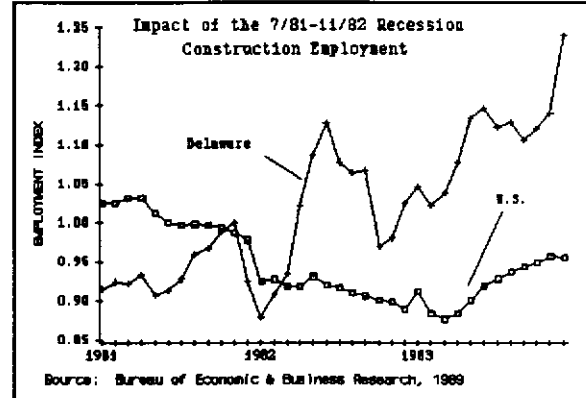


FIGURE 22

As discussed in the previously, the growing insensitivity of Delaware employment to a possible recession in 1990 and/or 1991 is expected to be accompanied by significant declines in the growth rate of real Delaware personal income. So, despite the good news regarding employment change, the expected slowdown in personal income growth is relatively bad news for United Way and its member agencies. As personal income lags there should be a simultaneous increase in the demand for social services and decrease in the funds contributed to United Way and social service organizations. Moreover, unlike previous recessions, the size of the current Federal debt may preclude the Federal government from increasing transfer payments and in-kind transfers in order to reduce economic hardship among the disadvantaged.

## SECTION II

While social services may be delivered to individuals, the economic well-being of most individuals is determined by the sharing of income, assets and resources within households and families. Section II begins with a brief discussion of the Delaware poor. This is followed by a discussion of the major determinants of family income and poverty. The economic condition of various types of Delaware households is then profiled, with special attention given to children and the elderly.

### Who Is Poor?

Because United Way member agencies provide services to the poor and nonpoor, the analysis in Section II presents data on households and families across the economic spectrum.<sup>13</sup> Poor and near poor households are an important focus, however, since their lack of ability to pay makes them especially dependent upon the services provided by nonprofit organizations.

A simple starting point is to examine the composition of the poverty population and the incidence of poverty among various subgroups in Delaware (Table 22). Almost half the poor and near poor in Delaware are adults (persons age 18 to 64) with 63% of them being women. Over 39 out of every 100 poor persons and 35 out of every 100 of the near poor are children.

The elderly account for 13 out of every 100 poor and 16 out of every 100 near poor persons. Compared to the overall poverty rate of 10.7% in 1986, the incidence of poverty is considerably higher for children (18% of all Delaware's children are poor), higher for the elderly (13%) and lower for adults (9%). The trend over the past quarter

TABLE 22

#### CHARACTERISTICS OF THE POOR AND NONPOOR\* DELAWARE, 1986

	PERCENTAGE DISTRIBUTION			POVERTY RATE
	POOR	NEAR- POOR	NON- POOR	
AGE				
Elderly (Age 65 and over)	12.9	15.8	10.8	13 %
Adult (Age 18-64)	47.9	49.0	66.9	9 %
Children (Under 18 years)	39.2	35.2	22.3	18 %
RACE/ETHNICITY				
White	65.3	67.9	87.7	7 %
Black	31.7	30.1	10.8	18 %
Other	3.0	2.0	1.6	21 %
HOUSEHOLD TYPE				
Married Couple Family	23.0	34.4	76.2	4 %
Female-Headed Family	51.8	40.3	8.1	31 %
Male-Headed Family	2.7	3.7	3.7	10 %
Individuals Living Alone	7.6	5.8	8.0	15 %
Individuals W/Non-Relatives	14.9	15.8	3.9	18 %

\*Poor is defined as below the poverty rate. Near-poor is defined as 149% of the poverty rate and below.

Source: Bureau of Economic & Business Research, University of DE, 1989

century has been a steady decline in the elderly poverty rate, while the adult poverty rate since the mid-1960's has been relatively stable and the children's poverty rate, after falling during the early 1960's, has been rising steadily.

Whites comprise approximately two-thirds of the poor and near poor and blacks are slightly less than one-third. These proportions have been relatively stable over time. The incidence of poverty is, however, much higher for blacks (18%) than for whites (7%).

Finally, the majority of poor (52%) live in female-headed families while 23% of the poor live in married couple families and almost 23% live in non-family households (15% in households composed of non-relatives and 8% living alone). Although the poverty rate for female-headed families has been relatively stable over the last two decades, the proportion of the poor living in female-headed families has been rising. Compared to the poor population in Delaware, the proportion of the near poor living in female-headed families is lower (40%) and the proportion in married couple families is higher (34%).

While these statistics tell us who is poor (and near poor), they do not tell us why. Certainly, the indexing of social security to inflation, together with improved private pension plans, the availability of Medicaid (an in-kind transfer payment which is not used in the calculation of the poverty rate) and the growth in retirees' real estate equity (as a result of Federal government mortgage insurance, personal income tax write-offs for owner occupied dwellings and the creation of secondary mortgage markets) are responsible for the substantial decline in the elderly poverty rate over time. For nonelderly households we must dig a bit deeper into the sources of their income.

### **An Analysis Framework**

As shown in Table 23, the major difference among poor and nonpoor families in the United States is the proportion of income derived from earnings and derived from assets in the form of dividends and interest.<sup>14</sup> For nonpoor male-headed families over 93% of the income comes from earnings compared to 63% of the income of poor male-headed families. Similarly, nearly 80% of the income of nonpoor female-headed families is from earnings compared to 26% for poor female-headed families.

A key to understanding the economic differences among various families and nonfamily households, therefore, is to understand the determinants of earnings. Might it be that many poor (and near poor) families and nonfamily households could earn their way out of poverty if they only tried and/or were given the right training and supportive services? A simple framework which

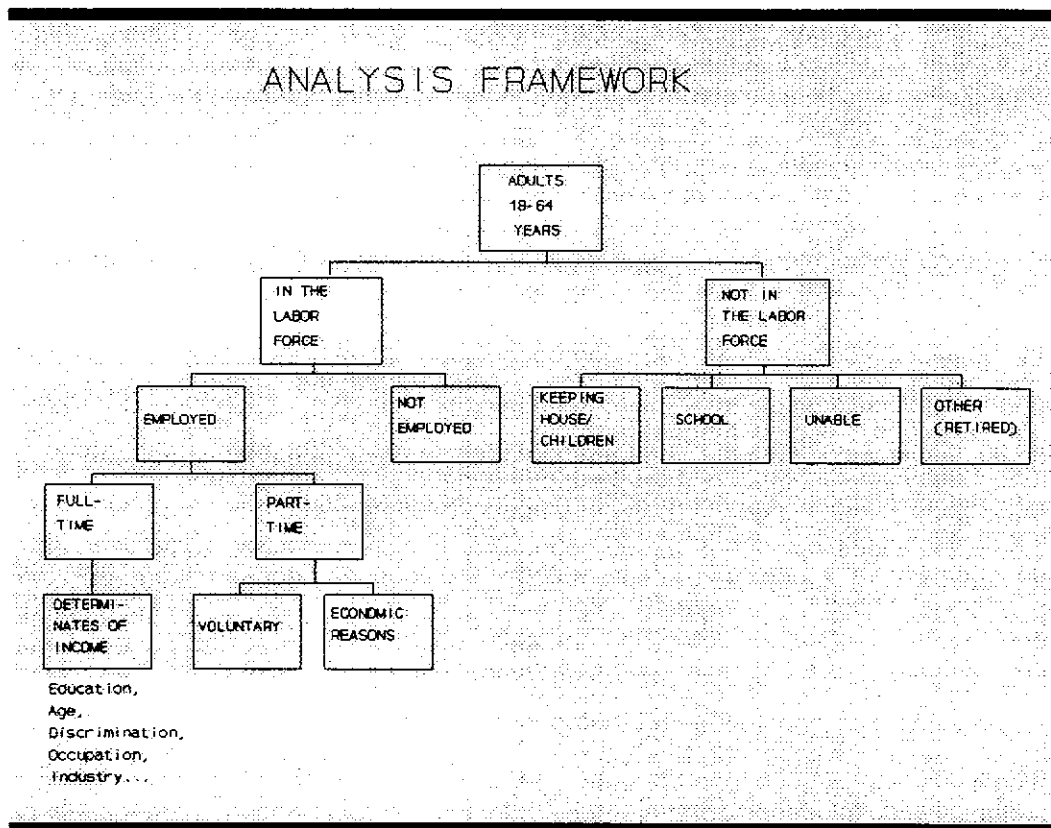
helps one understand the variance among households in their earnings is shown in Chart 3. This framework forms the basis for our subsequent examination of the economic condition of Delaware households.

**TABLE 23**

PERCENT OF INCOME BY SOURCE  
FOR FAMILIES IN THE U.S.  
1988

INCOME SOURCE	MALE-HEADED FAMILIES		FEMALE-HEADED FAMILIES	
	Poor	Non-Poor	Poor	Non-Poor
Earnings	62.7%	93.2%	25.7%	79.7%
Interest & Dividends	0.9	3.2	0.4	3.7
Child Support, Alimony	1.6	0.6	5.7	6.9
Pensions	0.5	0.9	0.4	1.0
Social Security	6.9	0.8	6.2	4.8
Unemployment, Disability				
Veterans Benefits	4.1	1.0	1.4	1.0
Welfare				
Cash Benefits	13.6	0.2	35.8	2.2
Food Stamps	8.1	0.1	16.5	0.3
Housing Assistance	1.6	0.0	8.1	0.4
TOTAL	100.0	100.0	100.0	100.0

Source: Committee on Ways and Means, U.S. House of Rep..  
Background Material on Programs Within the Jurisdiction of the  
Committee on Ways and Means, Washington, D.C.; GPO, 1988



**CHART 3**

The framework begins by classifying those household members who are age 18 through 64 as participating or not participating in the labor force. For those adults not participating the question is why? As a society, we neither require or expect certain persons to seek paid employment. These persons include the elderly, the infirmed, sick and disabled (physically and/or emotionally). Students are also included as it is assumed that their delayed labor force participation will be offset through increased future productivity. Finally, persons who are caring for young children have been included (the original intent, according to Congress, of the AFDC program was to allow women to provide full-time care to their children who were less than six years of age). Of the poor households in the U.S. in 1984, 53% were headed by persons who would not be expected to participate in the labor force (20% of the heads were elderly; 13% were women with children under age 6; 12% were disabled; and 8% were students).<sup>15</sup>

For those adults participating in the labor force a proportion will be unemployed. Persons are considered unemployed by the Federal government when they have made specific efforts to find a job during the most recent four weeks. There are a variety of reasons for unemployment, including: a) persons whose employment ended involuntarily or persons on layoff; b) persons who quit or otherwise voluntarily terminated their employment; c) persons reentering the labor force; d) new entrants to the labor force. In addition, the duration of unemployment may vary considerably among individuals and over the business cycle. During a given year at least one-half of all poor families in the nation experience a loss of earnings from unemployment and the duration of their unemployment is typically above average (regardless of the business cycle).

For those adults who are employed a proportion choose to be employed only part-time (persons working between 1 and 34 hours per week). Other persons are employed part-time for economic reasons; in other words, they would like to work full-time but have not been able to secure full-time employment.

For those adults who are working full-time we find considerable variation in their earnings. This variation is due to such factors as differences among individuals in their level of education, age, labor market experience (including seniority), health, family background and preferences with regard to leisure and income; differences in compensation among occupations and industries; and discrimination. Discrimination may occur in the labor market or prior to labor market entry where it impacts on factors related to productivity (e.g., access to quality education).

We will now use this framework to examine the economic condition of: 1) Delaware families; and 2) Delaware nonfamily households.

### Delaware Families

Table 24 shows the distribution of Delaware households by living arrangement. A household comprises all persons who occupy a "housing unit," that is, a house, an apartment or other group of rooms, or a single room that constitutes "separate living quarters." All persons not living in households are classified as living in group quarters (e.g., juvenile facilities, college

**TABLE 24**

HOUSEHOLDS IN DELAWARE - 1987			
	ALL (N=237,120)	UNDER 65 (N=188,748)	65 AND OVER (N=48,372)
TOTAL	100.0%	100.0%	100.0%
Family Household	71.9%	77.0%	52.2%
Non-Family Household	28.1%	23.0%	47.8%
Family Household	100.0%	100.0%	100.0%
Married Couple	76.2%	75.3%	86.3%
Female-Headed	19.2%	20.2%	9.1%
Male-Headed	4.6%	4.6%	4.5%
Non-Family Household	100.0%	100.0%	100.0%
Living Alone	82.6%	76.1%	94.8%
Male	36.5%	46.8%	21.1%
Female	63.5%	53.2%	78.9%
Living w/non-relatives	17.4%	23.9%	5.2%
Male	74.4%	75.6%	64.0%
Female	25.6%	24.4%	36.0%

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

dormitories, rooming houses, nursing homes). Families are a subset of households and refer to a group of two or more persons related by birth, marriage or adoption and residing together in a household. "Unrelated individuals" are persons who are not living with any relatives.

Almost 72% of all Delaware's households are families with the remaining 28% classified as

nonfamilies. The majority of the families (76%) are married couples (Note that the head of household is that person in whose name the home is owned or rented. If the home is owned or rented jointly by a married couple, either the husband or wife may be listed as the head.), followed in frequency by single female-headed families (19%) and a relatively small proportion of single male-headed families (5%). These proportions are driven by the nonelderly families. Among elderly families the proportion of married couple families rises (to 86%) while the proportion of single female-headed families falls (to 9%).

Of the non-family households almost 83% are males and females living alone, with the females outnumbering the males.

The dominance of the females is especially pronounced for elderly households where 79 out of every 100 persons living alone are female.

Because the average number of persons in family households (3.5) exceeds the average number of persons in nonfamily households (1.5), the proportion of Delawareans living in families (86%) exceeds the proportion of households classified as families (72%). Nine percent of Delawareans live alone and 5% live in households with nonrelatives (Table 25).

Based upon a total 1987 estimated population of 647,150 persons, 435 thousand Delawareans (67%) live in married couple families, 98 thousand (15%) live in female-headed families and 25 thousand (4%) live in male-headed families. Fifty-eight thousand Delawareans (9%) live alone while 29 thousand (5%) live with unrelated individuals.

**TABLE 25**

INDIVIDUALS IN DELAWARE - 1987

	TOTAL (N=647,150)	UNDER 65 YEARS (N=573,750)	65 AND OVER (N=73,400)
All Individuals	100.0 %	100.0 %	100.0 %
Living in Families	86.2 %	88.8 %	67.1 %
Married Families	67.2 %	68.3 %	59.2 %
Male-Headed Families	3.9 %	4.1 %	2.7 %
Female-Headed Families	15.1 %	16.4 %	5.1 %
Individuals Living Alone	9.0 %	6.1 %	30.5 %
Individuals Living with			
Unrelated Others	4.5 %	4.8 %	2.4 %
Individuals/Group Quarters	< 1 %	< 1 %	< 1 %

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

Of the 73 thousand persons age 65 and over in the state, a majority (67%) live in families, while almost one third (30%) live alone and 2% live with nonrelatives. Of the elderly in families 43 thousand (59%) live in married couple families, 5.5 thousand (7%) in female-headed families and 2 thousand (3%) in male-headed families.

Recognizing that the vast majority of Delaware's residents live in families, we will now focus on the economic condition of Delaware's families. Table 26 presents Delaware data on median family income and poverty. There are a number of very interesting observations which can be gleaned from this data.

**TABLE 26**

Delaware Median Family Income & Poverty Rate  
1986\*  
By Race and Family Type

FAMILY TYPE	ALL			WHITE			BLACK		
	%	MEDIAN INCOME	POV. RATE	%	MEDIAN INCOME	POV. RATE	%	MEDIAN INCOME	POV. RATE
All	100%	30,600	9%	100%	32,238	7%	100%	20,327	18%
Married Couple**	76	34,729	4	81	35,345	3	51	30,218	4
Male-Headed	5	22,610	10	5	22,607	9	3	9,200	29
Female-Headed	19	12,600	31	15	15,000	29	47	11,236	33

\*Pooled sample from 1986-1988 gives income data for approx. 1986.

\*\*90% of all married families are headed by males.

Source: Estimates based on the Current Population Survey Data from  
1986-1988, Bureau of Economic & Business Research,  
University of Delaware, 1989

**1. The economic condition of married couple families exceeds that of male-headed families, which in turn exceeds that of female-headed families.** The median income of male-headed families is 65% of the median for married couple families and the median income for female-headed families is only 36% of the married couple median. The poverty rate for male-headed families is two and one-half times the poverty rate for married couple families (10% vs. 4%) and the female-headed family poverty rate is almost eight times greater (31% vs. 4%). While 15% of Delaware's residents live in female-headed families, 52% of Delaware's poor persons live in female-headed families. Conversely, 67% of Delaware's residents and only 23% of Delaware's poor persons live in married couple families.

**2. A significant income gap exists between white and black families in Delaware.** Black family median income is 63% of white family median income. The median income of black married couple families is 86% of the median income for similar white families, 41% for male-headed families and 75% for female-headed families. The black family poverty rate is two and a half times the white poverty rate. While there is little difference between the races in the poverty rates for married couples and female-headed families, the rate for the black male-headed families is more than three times the white rate.

3. A major proportion of the difference between the black and white family median income and poverty rates is due to family structure. Currently, 51% of all black families are married couples compared to 81% of all white families, and, 47% of all black families are female-headed compared to only 15% of all white families. If the black family structure is made similar to the white family structure, the black family median income increases from \$20,327 to \$26,622 and the black family poverty rate declines from 18% to 9.6%. If families headed by persons age 65 and older are excluded (Table 27), the married couple poverty rate for blacks falls below that for whites (1% vs. 3%) and applying the white family structure to blacks results in a median family income of \$27,671 and a poverty rate of 7.8%.

**TABLE 27**

Delaware Median Family Income & Poverty Rate  
1986\*  
By Race and Family Type  
(Families With Heads Under 65 Years Old)

FAMILY TYPE	ALL			WHITE			BLACK		
	%	MEDIAN INCOME	POV. RATE	%	MEDIAN INCOME	POV. RATE	%	MEDIAN INCOME	POV. RATE
All	100%	32,338	9%	100%	34,400	7%	100%	24,000	19%
Married Couple	75	36,867	3	80	37,380	3	50	32,022	1
Male-Headed	5	22,980	6	5	24,361	4	3	9,200	29
Female-Headed	20	12,707	35	15	15,026	32	47	10,623	37

\*Pooled sample from 1986-1988 gives data for approx. 1986.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research. University of Delaware. 1989

As discussed in Section I, those persons living in near poverty (between 100% and 150% of the poverty level) face very difficult economic circumstances. For nonelderly families Table 28 supplements the poverty rates with rates for near poverty. The relatively strong economic position of married couple families is maintained as 9% of these families live below 150% of the poverty level compared to 23% of the male-headed families and 52% of the female-headed families. While the poverty rate did not vary significantly between white and black female-headed families (32% vs. 37%), 12% of the white families are near poor compared to 29%

of the black families. In other words, 45% of the white female-headed families live below 150% of the poverty level compared to 66% of the black female-headed families. Tables 29 and 30 are provided for the purpose of giving United Way Agencies an estimate of the absolute numbers (both households and individuals) in Delaware that are impacted.

**TABLE 28**

Delaware Family Poverty Status  
(Families with Heads Under 65 Years Old)  
1986\*

INCOME LEVEL	ALL	MARRIED COUPLE	SINGLE MALE- HEADED FAMILY	SINGLE FEMALE- HEADED FAMILY	SINGLE WHITE FEMALE- HEADED FAMILY	SINGLE BLACK FEMALE- HEADED FAMILY
BELOW POVERTY	9 %	3 %	6 %	35 %	32 %	37 %
100-124%	4	3	7	10	6	20
125-149%	4	3	9	7	6	9
150% AND ABOVE	82	91	77	48	55	34

\*Pooled sample from 1986-1988 gives income data for approx. 1986.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989

**TABLE 29**

Delaware Family Poverty Status  
(Families with Heads Under 65 Years Old)  
1986\*

ABSOLUTE NUMBERS\*\*

INCOME LEVEL	ALL	MARRIED COUPLE	SINGLE MALE- HEADED FAMILY	SINGLE FEMALE- HEADED FAMILY	SINGLE WHITE FEMALE- HEADED FAMILY	SINGLE BLACK FEMALE- HEADED FAMILY
BELOW POVERTY	13.4	3.2	0.4	10.1	6.2	3.6
100-124%	6.3	3.2	0.5	2.9	1.1	1.9
125-149%	5.8	3.2	0.6	2.0	1.2	0.9
150% AND ABOVE	116.7	97.5	5.0	13.8	10.5	3.3
TOTAL	142.3	107.2	6.5	28.8	19.1	9.6

\*Pooled sample from 1986-1988 gives income data for approx. 1986.

\*\* In thousands Total Population estimate for DE from DE Pop. Consortium.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989

**TABLE 30**

Delaware Poverty Status  
Individuals Under 65 Years Old Living in Families  
1986\*  
ABSOLUTE NUMBERS\*\*

INCOME LEVEL	ALL INDIV.	MARRIED COUPLE	SINGLE MALE-HEADED FAMILY	SINGLE FEMALE-HEADED FAMILY	SINGLE WHITE FEMALE-HEADED FAMILY	SINGLE BLACK FEMALE-HEADED FAMILY
BELOW POVERTY	56.1	14.2	3.1	38.9	21.6	17.1
100-124%	22.5	11.9	1.0	9.8	3.6	6.4
125-149%	20.5	12.7	2.0	5.8	3.3	2.6
150% AND ABOVE	401.0	346.1	16.9	38.1	28.9	9.1
TOTAL	500.6	385.0	23.0	92.6	57.4	36.4

\*Pooled sample from 1986-1988 gives income data for approx. 1986.

\*\* In thousands. Total population estimate for DE from DE Pop. Consortium.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989

### Female-Headed Families

As best we can, given available data, we will now use the analysis framework presented earlier to attempt to understand the reasons for the generally impoverished condition of female-headed families in Delaware. Because earnings are relatively insignificant as an income source for elderly families, the analysis will focus upon nonelderly families.

A simple, yet important, initial observation with respect to the differences in earnings between families is the number of persons working. In Delaware the average number of earners per family is 2.0 for married-couple families, 1.5 for single male-headed families and 1.3 for single female headed families (Table 31). Twenty percent of all married couple families have 3 or more earners compared to less than 6% of all single female-headed families.

**TABLE 31**

NUMBER OF EARNERS BY FAMILY  
UNDER 65 YEARS OLD  
DELAWARE - 1987\*

EARNERS	All Families	Married Families	Single Female Heads	Single Male Heads
0	4.3 %	2.6 %	11.3 %	**
1	29.3	19.8	56.3	59.1 %
2	49.4	56.8	26.9	32.5
3	13.4	16.6	3.6	5.6
4 or more	3.6	3.3	1.9	2.8

\*Pooled sample from three years gives the rate for approx. 1987.

\*\*Sample size is too small to calculate percentage.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

As shown in Figure 23, average 1986 household income in Delaware increases by over \$14 thousand (61%) with the addition of a second earner, another \$12 thousand (30%) with a third earner, and \$14 thousand (28%) more with a fourth earner.

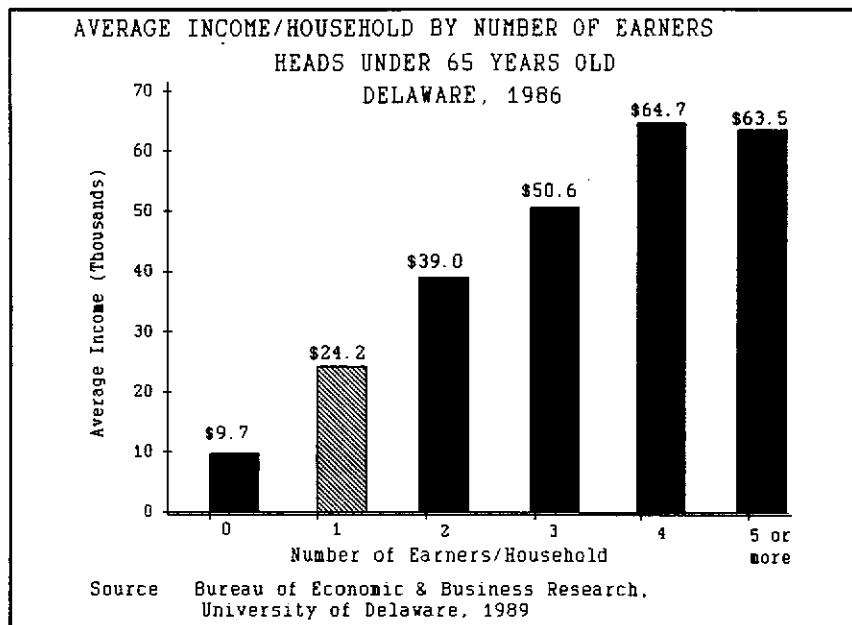


FIGURE 23

TABLE 32

OTHER SOURCES OF INCOME  
DELAWARE - 1986\*

TYPE	UNDER 65 YEARS OLD		
	Married Families	Single Female Heads	Single Male Heads
FOOD STAMPS	1 %	18 %	6 %
ENERGY ASSISTANCE	1	14	0
PUBLIC HOUSING	< 1	11	6
RENT SUBSIDY	< 1	< 1	6
PUBLIC ASSISTANCE	< 1	15	3
SOCIAL SECURITY	10	11	26
VETERANS/UNEMP/DISABILITY	12	12	7
ALIMONY/CHILD SUPPORT	14	33	20
INTEREST	74	41	48
RETIREMENT	9	2	8
DIVIDENDS, RENTAL	29	12	27

\*Pooled sample from three years gives income data for approx. 1986.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

Another observation to be made about family structure is differences in other sources of income (Table 32). Single female-headed families rely much more on public support than married couple families and even single male-headed families. For example, 18% of single female-headed families receive foodstamps vs. 1% of married families and 6% of male-headed families. The greater proportion of female-headed families receiving public support is not surprising given the higher poverty rates for these families. But, aside from the number of earners per family, how does a labor market performance help to explain the economic condition of single female-headed families?

First, the proportion of single female family heads who are not in the labor force (24%) is not significantly different than the proportion of male family heads not participating (26%) (Table 33). Among the single female householders the proportion of black nonparticipants (19%) is below the proportion of whites (25%). The primary reasons given by the male family heads for not participating in the labor force are retirement (70%), unable (a person is classified as unable to work because of long-term physical or mental illness, lasting six months or longer) (18%), attending school (8%) and keeping house (5%) (Table 34). This differs considerably from the distribution of the reasons given by the single female heads which includes keeping house (59%), unable (26%), attending school (9%) and retired (6%). Of those females who cite housekeeping as their reason for nonparticipation, 59% have children under the age of 18 and 28% have children under the age of 6.

The unemployment rate for the single female householders who are in the labor force is almost two and a half times greater than the unemployment rate for male householders (7.6% vs. 3.1%). Black female householders are particularly disadvantaged with an unemployment rate of 17.3% compared to the white female rate of 2.4%.

**TABLE 33**

DELAWARE FAMILY-HEADS EMPLOYMENT STATUS  
(UNDER 65 YEARS OLD)  
1987\*

	All Family Heads	All Male Family Heads	Single Female Family Heads	White Single Female Family Heads	Black Single Female Family Heads
Not in Labor Force	16.8 %	26.1 %	23.5 %	24.7 %	19.1 %
In Labor Force	83.2	74.0	76.4	75.3	80.8
Unemployed	3.2	2.3	5.8	1.8	13.9
P/T	.8	.4	2.1	.6	5.1
F/T	2.4	1.9	3.7	1.2	8.8
Employed	80.0	71.7	70.6	73.5	66.9
F/T	73.6	67.6	60.3	62.1	58.2
P/T-Economic**	3.4	2.1	4.1	3.2	6.0
P/T	3.0	2.0	6.2	8.2	2.7

\*Pooled sample from three years gives the rate for approx. 1987.

\*\*P/T-Economic: Working P/T due to slack time at work or unable to find P/T job.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

**TABLE 34**

DELAWARE FAMILY-HEADS: NOT IN THE LABOR FORCE  
UNDER 65 YEARS OLD  
1987\*

Reason	All Family Heads	All Male Family Heads	Single Female Family Heads	White Single Female Family Heads	Black Single Female Family Heads
Keeping House	36.9 %	4.9 %	59.2 %	64.6 %	56.1 %
Children < 18yrs	57.9	n/c	59.3	53.2	76.8
Children < 6 yrs	35.0	n/c	28.0	27.3	30.8
At School	8.9	7.6	9.3	6.9	9.0
Unable	16.7	18.1	25.5	24.1	23.8
Other (Retired)	37.5	69.5	6.0	4.4	11.0

n/c: sample too small to calculate percentage.

\*Pooled sample from three years gives the rate for approx. 1987.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

**TABLE 35**

DELAWARE FAMILY-HEADS: EMPLOYED PART-TIME\*  
UNDER 65 YEARS OLD  
1987\*\*

Reason	All Family Heads	All Male Family Heads	Single Female Family Heads
P/T-Economic	100.0 %	100.0 %	100.0 %
Could only find P/T	58.4	50.5	82.5
Slack	36.9	40.5	17.5
Other	4.8	9.0	0.0
P/T	100.0 %	100.0 %	100.0 %
Too Busy	52.9	29.5	63.2
Didn't want F/T	40.8	30.4	36.8
F/T work less than 35 hours	6.3	40.1	0.0
Other	0.0	0.0	0.0

\*Due to the small sample size at this level, comparisons on race can not be made. Readers should be aware that data at this level has a large conf.interv.

\*\*Pooled sample from three years gives the rate for approx. 1987.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

For those single female householders who are employed 85% work full-time, 6% work part-time for economic reasons (i.e., they could not obtain full-time work) and 9% work part-time voluntarily. This contrasts with 94% of the employed male householders working full-time and only 3% working part-time for economic reasons. More black single female householders are forced to work

part-time for economic reasons (9%) than their white female counterparts (4%). Half the males working part-time for economic reasons are doing so because they could only find part-time employment, while 41% are merely experiencing a slack time in their normally full-time job (Table 35). Among single female householders working part-time for economic reasons, however, 83% can only find part-time work while 17% are going through a slack period in their full-time position.

So far, the data have shown that although single female-headed families are far more likely to live in poverty and near poverty than married couple and male-headed families, the labor force participation rates of the female householders are similar to those of male householders. Not surprisingly, the major reason given by female householders for not participating in the labor force is household responsibilities. The unemployment rate for female householders is high relative to male householders, and is especially high for black female householders. Compared to male householders, proportionately fewer female householders work full-time (which means lower earnings and lower total family income) and proportionately more work part-time because a full-time position could not be found.

We now turn our attention to those nonelderly female householders who are working full-time and will examine some of the determinants of their earnings. In Delaware during 1986 the earnings of single female family heads working full-time averaged \$14,346; the average earnings of male family heads working full-

time were \$27,035. What factors account for this 47% earnings gap between the males and females?

**TABLE 36**

AVERAGE EARNINGS BY EDUCATION  
EMPLOYED FULL-TIME  
DELAWARE - 1986\*

	%	EARNINGS	% OF COLLEGE
8th Grade or Less	1.5 %	\$11,835	35 %
Some H.S.	10.1	15,703	47 %
H.S. Graduate	39.9	20,904	63 %
Some College	35.2	27,362	82 %
College & Above	13.3	33,435	100 %

\*Pooled sample from three years gives the income data for approx. 1986.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

As mentioned previously, education is one of the most important determinants of an individual's earnings. Table 36 shows the percentage distribution of full-time employed Delawareans and their average earnings by level of formal education. The distribution by education is a "bell-shaped" curve. Approximately 12% of those persons employed full-time have less than a high school degree and 13% have a college degree or an advanced degree, while 40% are high school graduates and 35% have some college training.

**TABLE 37**

EDUCATION LEVEL AND EMPLOYMENT  
UNDER 65 YEARS OLD  
DELAWARE - 1987\*

Education Level	All Employed Males	All Single Female Family Heads	Other Employed Females
8th Grade or Less	2.6 %	3.6 %	1.6 %
Some H.S.	14.2	16.7	12.1
H.S. Graduate	38.5	44.7	45.0
Some College	31.8	28.5	30.2
College & Above	12.9	6.6	11.1

\*Pooled sample from three years gives the rate for approx. 1987.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

Annual earnings increase directly with the level of formal education, and the increases can be substantial. On average a high school graduate (in 1986) earns \$5 to \$9 thousand more per annum than persons not completing high school. Persons completing some college earn \$6.5 thousand more per annum than high school graduates and persons completing college earn \$12.5 thousand more per annum than high school graduates.

In Table 37 the percentage distributions by level of formal education are shown for all (full-time and part-time) employed males, single female family heads and other employed females. Generally, the single female householders have less formal education than the other two groups. Over 20% of the single female householders lack a high school degree and less than 7% have completed college as compared to 17% and 13% for the males,

and, 14% and 11% for other employed females. Although not shown in Table 37, among poor single female householders 29% of the white and 42% of the blacks lack a high school degree, and 4% of the whites and none of the blacks have a college degree. This lower level of education, particularly at the college level and above, places single female householders at a disadvantage in the labor market and makes it more difficult for their families to escape from poverty and near poverty.

Even when controlling for education and annual work effort (Table 38), an earnings gap exists between single female family heads and male family heads. As mentioned previously, the average annual earnings of single female householders working full-time is 53% of the average earnings of male householders. This earnings gap is greatest for persons without a high school degree and is relatively stable thereafter. Although the gap is greater on average for black female householders (49%) than for whites (55%), beyond the high school level the black females out earn the white females.

**TABLE 38**

AVERAGE EARNINGS BY EDUCATION  
EMPLOYED F/T HEADS OF FAMILY  
UNDER 65 YEARS OLD  
DELVARE - 1986\*

Education Level	All Male Family Heads	All Single Female Family Heads	White Single Female Family Heads	Black Single Female Family Heads
8th Grade or Less	\$11,573	**	**	**
Some H. S.	18,783	\$ 6,830	\$10,073	\$ 4,281
H. S. Graduate	23,090	14,153	15,309	11,966
Some College	30,627	15,666	13,958	20,805
College & Above	36,391	22,033	21,657	24,500
Total-Average	27,035	14,346	14,982	13,330
Total-Median	25,000	13,000	13,500	13,000

\*Pooled sample from three years gives income data for approx. 1986.  
\*\* Sample size too small to calculate earnings.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

Analysis of Delaware employment by industry reveals differences in average earnings between industry classifications and between male and female employment distribution. During 1986 the average earnings of Delawareans working full-time throughout all industries was \$24,618 (Table 39). The variation in average earnings by industry ranges from retail trade paying 71% of the state average to manufacturing paying 122% of the state average. The range is broad, but is considerably less than the range in average wages by industry (by place of work) in Delaware presented in Section I (where retailing was 51% of the state average and manufacturing was 154%). The primary reason for this difference is the inclusion of part-time workers in the earnings distribution of Section I. This difference also evidences itself in the distribution of jobs by industry. For example, while 22% of all Delaware jobs (full- and part-time) are in manufacturing, 31% of all full-time jobs held by Delawareans are in manufacturing. Conversely, 19% of all Delaware jobs are in

retail trade, but only 11% of all full-time jobs held by state residents are in retail trade.

The distributions of employed (full- and part-time) males and single female family heads by industry differ considerably (Table 40). More female householders are found in services and FIRE, fewer females are found in manufacturing and considerably fewer females are found in TCPU, wholesaling and construction. Compared to their white counterparts, black single female householders are more likely to be employed in services and manufacturing, and much less likely to be employed in retailing and FIRE.

**TABLE 39**

AVERAGE EARNINGS BY INDUSTRY  
FULL-TIME WORKER  
DELAWARE - 1986\*

	%	EARNINGS	% OF AVERAGE
Construction	10.1 %	\$20,139	82 %
Manufacturing	31.4	30,099	122 %
TCPU	8.4	25,951	105 %
Wholesale	2.7	28,340	115 %
Retail	11.4	17,458	71 %
FIRE	6.9	27,130	110 %
Services	22.1	20,985	86 %
Public Admin.	7.0	24,112	98 %
Average	100.0	24,618	100 %

\*Pooled sample from three years gives income data for approx. 1986.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

**TABLE 40**

INDUSTRY DISTRIBUTION  
OF EMPLOYED (F/T & P/T)  
UNDER 65 YEARS OLD  
DELAWARE - 1987\*

	Males	All Single Female Family Heads	All Other Females	White Single Female Family Heads	Black Single Female Family Heads
Construction	13 %	1 %	2 %	2 %	**
Manufacturing	29	23	15	16	36 %
TCPU	8	3	3	5	3
Wholesale	4	1	1	2	**
Retail	15	15	22	18	8
FIRE	5	12	8	16	6
Services	20	38	46	34	45
Public Admin.	6	7	4	8	4

\*Pooled sample from three years gives the rate for approx. 1987.

\*\*Sample size is too small to calculate percentage.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

Taken as a percentage of the average earnings of full-time employed males, the average earnings of full-time employed single female family heads range from 39%-40% in manufacturing and wholesaling to 96% in TCPU (Table 41). Even in those sectors which are female dominated, services and FIRE, single female householders earn considerably less than males (61% and 50%, respectively). Obviously, the tasks or occupations to which women are assigned within industries have an impact on their level of annual earnings.

**TABLE 41**

AVERAGE EARNINGS BY INDUSTRY  
FULL-TIME EMPLOYED  
UNDER 65 YEARS OLD  
DELAWARE - 1986\*

	Male Heads	Single Female Family Heads	White Single Female Family Heads	Black Single Female Family Heads
Construction	\$20,018	**	**	**
Manufacturing	33,209	\$12,793	\$17,648	\$ 8,877
TCPU	26,028	25,084	25,084	**
Wholesale	29,955	12,000	12,000	**
Retail	19,499	10,357	10,357	**
FIRE	35,847	17,851	19,600	9,888
Services	24,913	15,254	14,073	17,476
Public Admin.	26,336	16,163	15,802	17,375

\*Pooled sample from three years gives income data for approx. 1986.

\*\* Sample size too small to calculate earnings.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

**TABLE 42**

AVERAGE EARNINGS BY OCCUPATION  
EMPLOYED FULL-TIME  
DELAWARE - 1986\*

	%	EARNINGS	% OF PROFESS.
Professional/Managerial/ Technical	32.9 %	\$25,919	100 %
Sales	10.3	16,215	63 %
Admin. Support	18.1	16,056	62 %
Service	11.2	12,154	47 %
Blue Collar	27.6	19,935	77 %

\* Pooled sample from three years gives income data for approx. 1986

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

positions, positions in service occupations pay 53% less, positions in sales and administrative support pay 37% less and blue collar positions pay 23% less. Nearly one-third of all Delaware's full-time employed residents work in professional, managerial and technical occupations, one-fourth in blue collar occupations, one-fifth in administrative support and one-tenth each in sales and service positions.

TABLE 43

Table 43 demonstrates the often sizeable differences in the occupational distributions of men and women.

Relative to men, single female family heads are under represented in blue collar occupations and professional, managerial and technical occupations. The female householders are significantly over represented in administrative support and over represented in services.

OCCUPATIONAL DISTRIBUTION OF EMPLOYED (F/T & P/T) UNDER 65 YEARS OLD DELAWARE - 1986*					
	Males	All Single Female Family Heads	All Other Females	White Single Female Family Heads	Black Single Female Family Heads
Profess./Mgr/ Technical	30 %	21 %	31 %	22 %	19 %
Sales	10	11	16	18	**
Admin. Support	7	32	31	36	26
Service	12	15	15	11	21
Blue Collar	40	20	7	13	34

\*Pooled sample from three years gives income data for approx. 1986.  
\*\* Sample size too small to calculate percentage.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

Two additional comments are in order.

First, these very aggregate occupational groupings mask some additional male-female disparities which could impact on average earnings. For example, in blue collar occupations in Delaware men account for 91% of the positions in precision production, craft and repairs and 92% of the positions in transportation and material moving, while females are concentrated in the operation of assembly line machines.<sup>16</sup> In professional, managerial and technical occupations women are under represented (relative to their share of the labor market) in executive, managerial and technical positions. Second, over the past 15 years women have made inroads into those occupations which have been traditionally male dominated. Given the rapid entry of women into traditionally male dominated education and training programs and the high proportion of females in the labor market entrants over the next decade (Section I), these changes in the occupational distribution will continue.

The earnings gap between full-time employed males and single female family heads by occupation is found in Table 44. The gap is remarkably stable across the occupations, with female earnings as a percent of male earnings ranging from 52% in blue collar occupations to 60% in sales. The pattern between white and black single female family heads parallels the pattern by level of education; the average earnings of full-time employed black female heads is greater than the white females in those occupations requiring post secondary education and otherwise is lower.

**TABLE 44**

AVERAGE EARNINGS BY OCCUPATION  
FULL-TIME EMPLOYED  
UNDER 65 YEARS OLD  
DELAWARE - 1986\*

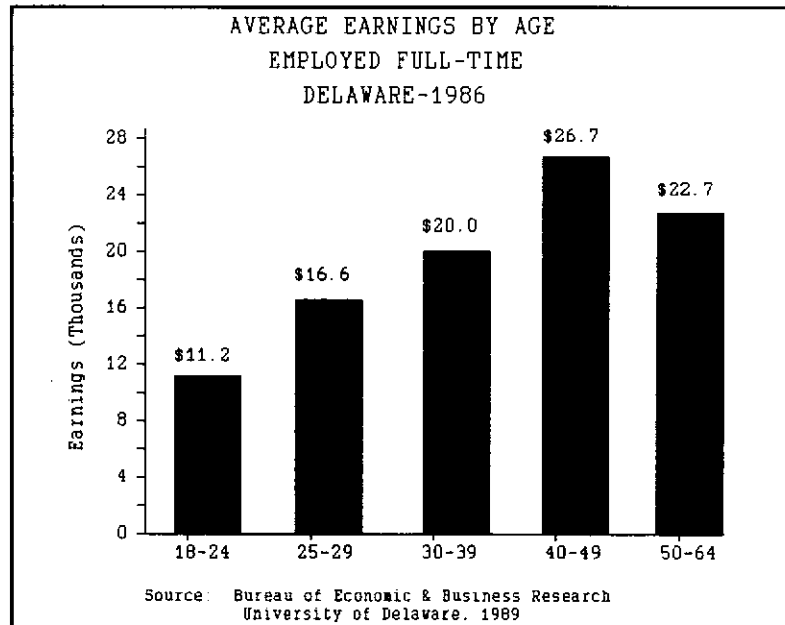
	Male Heads	Single Female Family Heads	White Single Female Family Heads	Black Single Female Family Heads
Profess./Mgr/				
Technical	\$34,237	\$19,773	\$18,210	\$23,218
Sales	24,638	14,677	14,677	**
Admin. Support	24,254	13,978	14,196	13,452
Service	18,077	9,868	9,303	11,459
Blue Collar	23,644	12,199	18,552	7,932

\*Pooled sample from three years gives income data for approx. 1986.

\*\* Sample size too small to calculate earnings.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

Over the course of their life cycle an individual's real (inflation adjusted) earnings tend to rise steadily, peak some time between the ages of 45 and 54, and decline slowly thereafter (Figure 24). The major explanations of this pattern include increasing human capital which raises an individual's productivity and increasing seniority which provides an individual with opportunities to move into higher paying jobs that are limited in supply. Single female family heads are generally younger than male family heads (Table 45). Twelve percent of the female heads are age 18 to 24 years compared to only 5% of the male heads. Not surprisingly, the average age of single female family heads (38 years) is below the average age of male heads (41 years).

**FIGURE 24**

Differences in age could help explain the female-male earnings gap.

However, when comparing all full-time employed female householders with all full-time male heads by age groups, except during the labor market entry ages of 18 to 24, the female average earnings are consistently lower than the males (Table 46). In addition, the average earnings of single female

householders employed full-time is 62% below

the male average during the highest child bearing years (age 25 to 29 years); years where children would be quite young and require a great deal of care. The gap closes to 39% in the 40 to 49 year age bracket and increases slightly to 44% during the ages of 50 to 64 years.

**TABLE 45**

AGE DISTRIBUTION  
HEADS OF FAMILY  
UNDER 65 YEARS OLD  
DELAWARE - 1987\*

	Male Heads	Single Female Family Heads	White Single Female Family Heads	Black Single Female Family Heads
18-24 years	5 %	12 %	13 %	9 %
25-29	13	16	10	27
30-39	32	32	33	30
40-49	23	19	19	19
50-64	28	21	24	15

\*Pooled sample from three years gives the rate for approx. 1987.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

**TABLE 46**

AVERAGE EARNINGS BY AGE  
FULL-TIME EMPLOYED  
UNDER 65 YEARS OLD  
DELAWARE - 1986\*

	Male Heads	Single Female Family Heads	White Single Female Family Heads	Black Single Female Family Heads
18-24 years	\$10,642	\$12,987	\$12,624	\$13,693
25-29	21,537	8,203	10,596	5,052
30-39	25,944	13,716	13,126	15,511
40-49	34,042	20,796	23,828	15,102
50-64	26,882	15,119	13,988	18,461

\*Pooled sample from three years gives income data for approx. 1986.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

To recap, we started with the fact that in Delaware there was a 47% shortfall between the average earnings of single female family heads working full-time and male heads working full-time. We found that when controlling separately for differences in education, industry, occupation, and age this earnings gap persisted. The next logical step would be to control for all these factors simultaneously and then see if an earnings gap still existed. While such econometric analysis is beyond the scope of this report it has been conducted extensively in the research literature.

Following is a summary of the general findings of econometric research on the sex differential in earnings.<sup>17</sup>

1. The greater the number of variables used to control for differences in productivity related factors (e.g., age, education), the smaller the productivity-adjusted wage gap relative to the unadjusted gap.
2. Even when extensive lists of control variables are used, most studies do find some residual wage gap that they attribute to discrimination. When the gap is close to zero that usually results from the inclusion of control variables whose values themselves may reflect discrimination (e.g., access to certain types of education).
3. Factors originating from outside the labor market (e.g., differences in household responsibilities, type of education, career interruptions) are an important source of the overall earnings gap.
4. Differences in the occupational distribution of males and females account for a substantial portion of the overall earnings gap. Yet pay differences for the same narrowly defined occupation within the same establishment do not account for much of the gap.
5. The productivity-adjusted earnings gap tends to be smaller in the public than the private sector. In the private sector, the discriminatory gap tends to be smaller when product markets are competitive.
6. The gap is widest between married men and married women suggesting that household responsibilities may have an important effect.
7. Differences in labor market experience, and the continuity of that experience, including seniority, account for a substantial portion of the earnings gap.

8. Both the male-female earnings gap and the extent of occupational segregation appear to be declining during the 1970's and 1980's, especially when changes in the skills and attributes of the workers are accounted for.

So, after adjusting for factors related to productivity a female-male earnings gap still exists. Part of this gap is a result of direct discrimination in the labor market. Part of the gap is a result of indirect discrimination prior to labor market entry (e.g., women being encouraged to enter programs which educate them for traditionally female-dominated occupations such as nursing). Over the past two decades, and with the female dominated "sellers" labor market of the future, these sources of discrimination appear to be waning. One major element, however, remains.

Whether a result of socialization and/or the biological process of childbearing and/or a generally more nurturing nature, women have a much greater concern for and commitment to the welfare of their children and families. As shown in Table 47, over the past 26 years the total hours women devote on average each year to paid production, production of household services and childcare has risen while the total hours devoted by men has declined.<sup>18</sup> The hours women put into paid production has increased by 425 (75%) as the hours put in by men has declined by 150 (8%). The hours women put into housework has declined, but still remains at a high level of 1,222 hours compared to the 545 hours put in by men. Similarly, hours devoted by women to childcare have declined to 197 per annum, meanwhile the hours devoted to childcare by men has declined to 58.

**TABLE 47**

AVERAGE ANNUAL HOURS OF WORK

		PAID	HOUSEWORK	CHILDCARE	TOTAL
WOMEN	1960	572	1,423	266	2,261
	1986	997	1,222	197	2,416
MEN	1960	1,875	542	76	2,493
	1986	1,725	545	58	2,328
WOMEN/ MEN	1960	.30	2.62	3.52	.91
	1986	.58	2.24	3.40	1.04

Source: Victor R. Fuchs, 1988.

The conflict between career and family appears to be much greater for women than for men. The costs to women with respect to their labor market earnings are substantial. First, many women leave the labor market during pregnancy, at childbirth, or when their children are young. This creates a discontinuous work history which may result in a lower lifetime earnings path. Second, even when women are in the labor force, commitment to children and household responsibilities may result in tradeoffs such as lower earnings in exchange for jobs with shorter or more flexible hours, a location closer to home, limited travel and so forth. Third, time and energy devoted to household production makes it difficult to put in the time and energy necessary to sustain a high profile career path.

The bottom line is that even should all direct and indirect labor market discrimination be eliminated, the commitment of women to household responsibilities will continue to generate a female-male earnings gap. This exacerbates the dilemma of single female family heads. They are faced with the responsibility of fulfilling two roles: a nurturing/child-rearing role and a provider role.<sup>19</sup> Given the generally lower earnings of females and the lack of benefits in most part-time jobs, in order to achieve economic self-sufficiency the single female householder must work full-time, and even then, may not escape from near poverty. And full-time employment may have long term negative effects on the emotional health of children (and the mother).<sup>20</sup> As economist David Ellwood notes, even if children are of school age..."there is still no one to help when a child is sick, no one to take the child to the dentist, and no one to help with the day-to-day crises." It appears unrealistic to expect single female householders to fulfill both the nurturing and provider roles satisfactorily without some support from society.

In the majority of cases substantial support will only have to be relatively short-term. Using longitudinal data, the research literature shows that 50 to 60% of all continuous AFDC spells last only 1 to 2 years while only 12 to 17% last 8 years or longer. (The same is true with respect to poverty spells among the nonelderly population. About 45% of poverty spells end within 1 year and 70% are over within three years. Only 13% last longer than 8 years.)<sup>21</sup> At the same time, the population of single female-headed families shows few signs of receding.

Female-headed families have increased in Delaware from 8.7% of all families and 9% of all households in 1970 to 19% of all families and 14% of all households in 1987. The major forces behind this trend have been increases in divorce and separation, and increases in births out of wedlock. Nationally, research shows that 45% of all AFDC spells are precipitated by divorce and separation and 30% are precipitated by an out of wedlock birth.<sup>22</sup> In 1930, 0.9% of all adult females in Delaware were divorced or separated; that proportion has risen to 12.6% by 1986.

Simultaneously, the ratio of marriages per divorces in Delaware fell from 5.3 marriages per divorce in 1930 to 1.8 marriages per divorce 1986.<sup>23</sup> Although the national divorce rate declined between 1980 and 1987 (approximately 10%), there is disagreement among the research as to whether this decline signifies "the return of family stability". Regardless, the rates and divorce and separation continue to remain at a very high level.<sup>24</sup>

The fraction of children born to unmarried women in the U.S. has risen from approximately 4% of all births in 1950 to 23% of all births in 1986. By race, births to unmarried women in 1986 as a percent of all births were 16% for white females and 61% for black females. Of the over 828 thousand out of wedlock births in 1986, 53% were to white women and 43% were to black women. By age, over the past 25 years the birth rate for unmarried women increased more rapidly among the younger age cohorts. For unmarried women age 15 to 19 the birth rate rose 46% between 1970 and 1986, while it rose 29% for women age 20-24, 14% for women age 25-29 and decreased 1% for women age 30-34.<sup>25</sup>

In Delaware during the period 1984 through 1988 (Figure 25) 26% of all births were to single mothers, including 14% of all births to whites and 67% of all births to blacks. (The percentages during 1978-82 were 24%, 11% and 66%, respectively.) The proportion of births to single women among whites falls rapidly with age, from 53% for women under age 20 to 5% for women age 30 and older. The decline is much less significant among blacks where 91% of the births to women under age 20 are out of wedlock, 72% for ages 20-24, 49% for ages 25-29 and 38% for black women age 30 and older. Of the 2,806 births to single mothers in Delaware in 1988, 43% (1,210) were to whites and 57% (1,588) were to blacks. These proportions, the trends in these proportions and the economic and social implications of these proportions are astounding and plain overwhelming. More than one out of every four births in Delaware are now to single mothers, with two out of every three black births being to single mothers.

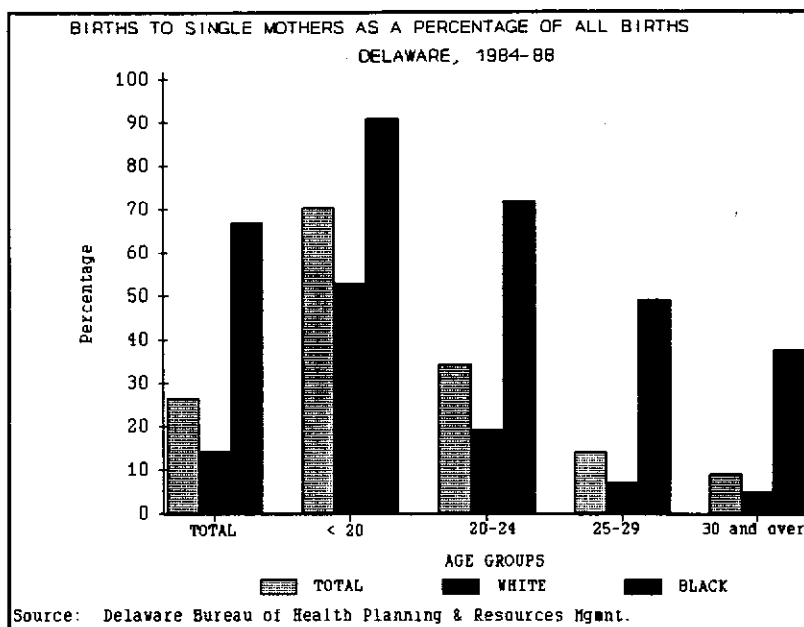


FIGURE 25

TABLE 48

SINGLE FEMALE FAMILY HEADS  
MARITAL STATUS, 1987

	UNDER				BELOW POVERTY	
	ALL	65	WHITE	BLACK	WHITE	BLACK
Marr., spouse absent	3.4 %	3.9 %	5.3 %	n/c	15.0 %	n/c
Widowed	21.3	15.6	25.6	12.8 %	1.9	n/c
Divorced	36.4	38.4	40.5	27.2	33.6	10.8 %
Separated	15.9	18.0	15.8	16.8	30.8	30.7
Never Married	23.0	24.2	12.8	43.2	18.7	58.5

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

Of Delaware's nonelderly single female family heads 56% are divorced or separated, 16% are widowed and 24% have never married (Table 48) . This distribution varies significantly by race. Among whites 56% are divorced or separated, 26% are widowed and 13% have never married. Among blacks 44% are divorced or separated, 13% are widowed and 43% have never been married. Of the female family heads in Delaware who are in poverty 19% of the whites and 59% of the blacks have never married.

Whether through divorce, separation or abandonment, when marital disruption occurs the economic condition of women with children usually deteriorates. Less than 1 out of every 5 divorced and separated women are awarded alimony or maintenance payments, and only 70% subsequently receive those payments.<sup>26</sup>

Similarly, child support is not always awarded, and when it is awarded the amounts seem inadequate and only two-thirds or less of those women awarded support actually receive the payments (Table 49). Black women are not only less likely to be ever married than white women, if the marriage ends in divorce or separation black women are far less likely to be awarded and to receive child support. Marital disruption significantly increases the incidence of poverty and near poverty for the white

female family head and almost guarantees poverty and near poverty for families headed by black females. One study using longitudinal data found that over a seven year period following divorce the economic position of men improved by 17% while the position of women declined by 29%.<sup>27</sup>

Never-married female householders are generally in even greater economic distress than divorced and separated female householders.<sup>28</sup> Nationally, only 53% of never-married mothers have a high school diploma compared to 77% of divorced mothers. While 63% of all divorced mothers work full-time, only 29% of never-married mothers do. In 1983, 76% of divorced women had child support awards (the average amount actually received equaled \$1,901 annually) compared with only 18% of never-married mothers (average equaled \$860). Children of never-married mothers are three times more likely to be on welfare than are children of divorced mothers. Almost 40% of the women who have never been married when they begin to receive AFDC will have total welfare time of 10 or more years, while less than 15% of divorced mothers have such long welfare spells. Divorced mothers and their children suffer less severe poverty for shorter periods than do never-married mothers.

**TABLE 49**

CHILD SUPPORT BY RACE, 1983

	Number (Millions)	Awarded Support	Received Support	Mean Annual Support
WHITE	5.1	71 %	43 %	\$1,861
HISPANIC	0.5	44 %	24 %	\$1,318
BLACK	1.9	29 %	14 %	\$1,294

Source: Rogers, p. 43

In summary, we have seen that single female-headed families are generally at an economic disadvantage. Single female-headed families have the highest poverty rate among all household types in Delaware and, while they contain only 15% of all Delawareans, they account for 52% of all Delaware's poor residents. This economic distress results in large measure from low family earnings. A simple, yet important, source of low earnings is the limited number of persons a single female-headed family can put into the labor market. In the face of declining real wages married couple families in Delaware have managed to keep their real family income from falling by placing an average of two earners per family into the labor market. Female-headed families, with an average of 1.3 earners, have seen their real family income decline over the past decade.

Low earnings in single female-headed families are not a result of lack of effort. The labor force participation rates of Delaware's female householders are similar to those of male householders. Unfortunately, the unemployment rate for those female householders in the labor force is high relative to male householders, and the proportion of the females having to work part-time because a full-time position could not be found is higher than the proportion of male householders.

For those Delaware single female householders working full-time their average annual earnings are only 53% of the average annual earnings of male family heads working full-time. While controlling separately for differences in education, industry, occupation, and age provides some explanation for this earnings gap, a sizeable gap still persists. The research literature indicates that part of this gap is a result of direct and indirect labor market discrimination. Of greater consequence for the future is the continued substantial contribution of females to the production of household services.

Unfortunately, because a market value is not assigned, we as a society tend to undervalue household services. Household services are a critical component of the quality of life and the emotional and physical well being of children, adults and the elderly. On average females put more than 1,400 hours annually into the production of household services. Over the past 25 years as the hours women put into paid production have increased 74%, the hours they put into household services have declined only 14%. Their commitment to family results in lower lifetime earnings as a result of discontinuous work histories and tradeoffs between earnings (and career) and time put into household services.

When combined, the average man and women are working over 2,700 hours per annum and putting over 2,000 hours into the production of household services. A single female family head is faced with fulfilling both these responsibilities (i.e., the

economic provider and the nurturer). If she works full-time, less time and energy is available for the household and the children might suffer. If she works full-time and does not reduce her production of household services, it is very likely she will eventually suffer physical and emotional stress.

Unfortunately, the majority of single female family heads are in this distressed economic condition and need help from social service agencies for relatively short spells lasting one to four years. The most common path out of poverty and near poverty is similar to the most common path into poverty -- change in family structure. Over three quarters of the single female family heads in Delaware are divorced, separated, widowed or abandoned. The majority will escape poverty and near poverty through remarriage or children leaving home. This pattern is more prevalent among white than among black female householders. While current divorce rates are not expected to increase, neither are they expected to decrease. So, the need for short-term social services for single female-headed families should remain relatively stable.

The population of never married female householders, on the other hand, is one-quarter of all single female householders (43% of all single black female householders) and is growing rapidly. Compared to other single female householders, the social service needs of the never married female householders and their children are substantially greater and more chronic. These never married mothers are less likely to have a high school degree, less likely to be in the labor market, less likely to marry, more likely to endure severe poverty, more dependent upon public transfer payments, and, according to research, substantially more likely to receive public transfer payments for 10 years or more. To help these mothers and their children transition to economic self-sufficiency will require a much greater social investment than is required to provide a short-term social service safety-net for the current majority of single female-headed families.

### **Married Couple Families**

While single female-headed families contain a disproportionate share of Delaware's poor, 23% of the state's poor (14.2 thousand residents) and 34% of the near poor (24.6 thousand residents) live in married couple families. Applying the analysis framework presented earlier, we will now examine factors which may account for differences in total earnings between married family heads and their spouses and the heads and spouses of poor married families. For the same reasons stated earlier, only nonelderly married families will be examined. In addition, in order to achieve reasonable sample sizes and include

a conservative portion of the working poor, the poor are defined as those families whose income is less than 125% of the poverty level.

Economist David Ellwood argues that the three basic causes of poverty among two-parent families are: disability/retirement, unemployment, and low wages.<sup>29</sup> The Delaware data supports his argument.

The proportion of the heads of nonelderly poor married couple Delaware families not in the labor market (44%) is significantly higher than the proportion of the heads of all married couple families (16%) (Table 50).

**TABLE 50**

DELAWARE MARRIED HEADS EMPLOYMENT STATUS  
UNDER 65 YEARS OLD  
1987\*

	All Family Heads	All Married Family Heads	Poor** Married Family Heads	White Poor Married Family Heads	Black Poor Married Family Heads
Not in Labor Force	16.6 %	15.6 %	43.5 %	38.8 %	61.9 %
In Labor Force	83.3	84.5	56.4	61.1	38.1
Unemployed	3.3	2.4	8.0	3.8	n/c
P/T	7	.2	n/c	n/c	n/c
F/T	2.6	2.2	8.0	3.8	n/c
Employed	80.0	82.1	48.4	57.3	38.1
P/T	73.4	76.8	34.4	40.8	38.1
P/T-Economic***	3.3	3.0	6.8	8.0	n/c
P/T	3.3	2.3	7.2	8.5	n/c

\*Pooled sample from three years gives the rate for approx. 1987.

\*\*Poor is defined as 125% of the poverty level or less.

\*\*\*P/T-Economic: Working P/T due to slack time at work or unable to find P/T job.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research. University of Delaware, 1989.

Among the poor married couple families the proportion of black nonparticipants (62%) is considerably greater than the proportion of whites (39%). The reasons given by married family heads for not participating in the labor force (Table 51) are retirement (54%), keeping house (27%), disability (10%) and attending school (9%). The poor heads, on the other hand, cite keeping house most frequently (39%), followed by retirement

(34%), disability (19%) and school attendance (9%). So, 23% of the nonelderly heads of Delaware's poor married couple families are either retired (15%) or disabled (8%), compared to 10% of all married couple heads (with 8% retired and only 2% disabled).

The unemployment rate of the poor family heads (8%) is more than three times greater than the unemployment rate of the heads of all married families (2.4%). For those 48% of the poor heads who are employed, 71% are employed full-time, 14% work part-time for economic reasons, and 15% work part-time by choice. Among the 82% of all the heads of married families 94% work full-time and only 4% work part-time for economic reasons.

Compared to single parent families, married couple families can more readily supplement their earnings by placing another adult in the labor market. Although not quite as extreme, the

**TABLE 51**

DELAWARE MARRIED HEADS: NOT IN THE LABOR FORCE  
UNDER 65 YEARS OLD  
1987\*

Reason	All Family Heads	Married Family Heads	Poor** Married Family Heads	White Poor Married Family Heads	Black Poor Married Family Heads
Keeping House	36.9 %	26.7 %	38.9 %	31.2 %	67.1 %
Children < 18yrs	57.9	56.4	65.9	55.1	n/c
Children < 6 yrs	35.0	42.8	32.3	55.1	n/c
At School	8.9	8.9	8.6	11.8	n/c
Unable	16.7	10.3	18.7	10.7	32.9
Other (Retired)	37.5	54.1	33.8	46.3	n/c

n/c: sample too small to calculate percentage.

\*Pooled sample from three years gives the rate for approx. 1987.

\*\*Poor is defined as 125% of the poverty level or less.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

**TABLE 52**

DELAWARE MARRIED SPOUSES EMPLOYMENT STATUS  
UNDER 65 YEARS OLD  
1987\*

	All Married Family Spouses	Poor** Married Family Spouses	White Poor Married Family Spouses	Black Poor Married Family Spouses
Not in Labor Force	28.8 %	48.2 %	46.7 %	58.5 %
In Labor Force	71.2	51.8	53.3	41.5
Unemployed	2.0	3.5	4.0	n/c
P/T	n/c	n/c	n/c	n/c
F/T	2.0	3.5	4.0	n/c
Employed	69.2	48.3	49.3	41.5
F/T	50.4	34.3	33.3	41.5
P/T-Economic***	2.8	3.2	3.7	n/c
P/T	16.0	10.8	12.3	n/c

\*Pooled sample from three years gives the rate for approx. 1987.

\*\*Poor is defined as 125% of the poverty level or less.

\*\*\*P/T-Economic: Working P/T due to slack time at work or unable to find F/T job.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

labor force characteristics of the spouses in poor, relative to nonpoor married couple families, follow the same pattern as their respective householders. The proportion of spouses from poor married couple families who are not in the labor force (48%) is well above the proportion for all married couple spouses (29%) (Table 52). For both sets of spouses housekeeping is the primary reason for not participating in the labor force (Table 53). Among poor spouses, however, 11% are unable to participate because of disabilities as compared to only 1% of all spouses. The unemployment rate for poor spouses is slightly higher than the rate for all spouses (3.5% vs. 2%) and slightly more poor spouses are employed part-time for economic reasons.

On average, the annual earnings of the heads of poor married couple families are only 22% of the annual

earnings of all heads of married couples (\$5,736 vs. \$26,537 in 1986), and, the annual earnings of poor spouses are only 42% of the annual earning of all spouses (\$7,213 vs. \$17,276 in 1986). As previously, we now turn our attention to some of the factors which produce these differences in the levels of earnings among heads and spouses. These factors include education, industry, occupation, age and discrimination.

Heads and spouses in Delaware's poor married couple families have far less formal education than do all heads and spouses in

married couple families (Table 54). Among the poor heads 58% have less than a high school degree compared with 11% of all heads; less than 1% of the poor heads have a college education or better compared to 14% of all heads. The proportions for the spouses are similar with 52% vs. 10% and less than 1% vs. 12%, respectively. At every level of education for which reliable data is available the average earnings of poor heads and poor spouses working full-time are well below the average earnings for all heads and spouses (Table 55). These earnings differentials when education is controlled for indicate that other factors must be having an impact.

**TABLE 53**

DELAWARE MARRIED SPOUSES: NOT IN THE LABOR FORCE  
UNDER 65 YEARS OLD  
1987\*

Reason	Married Family Spouses	Poor** Married Family Spouses	White	Black
			Poor Married Family Spouses	Poor Married Family Spouses
Keeping House	86.6 %	78.7 %	92.8 %	n/c
Children < 18yrs	48.0	55.3	36.7	n/c
Children < 6 yrs	37.0	29.7	19.7	n/c
At School	3.6	n/c	n/c	n/c
Unable	1.4	11.4	7.2	34.8 %
Other (Retired)	8.3	9.9	n/c	65.2

n/c: sample too small to calculate percentage.

\*Pooled sample from three years gives the rate for approx. 1987.

\*\*Poor is defined as 125% of the poverty level or less.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

**TABLE 54**

EDUCATION LEVEL AND EMPLOYMENT  
MARRIED COUPLE FAMILIES  
UNDER 65 YEARS OLD  
DELAWARE - 1987\*

Education Level	Employed Heads of Married Couple Families	All Poor** Heads of Married Couple Families	Employed Spouses of Married Couple Families	All Poor Spouses of Married Couple Families
8th Grade or Less	2.4 %	28.6 %	1.7 %	17.2 %
Some H.S.	8.6	28.9	7.8	35.1
H.S. Graduate	39.5	26.3	47.2	38.1
Some College	35.2	16.3	31.3	9.7
College & Above	14.4	n/c	12.0	n/c

\*Pooled sample from three years gives the rate for approx. 1987.

\*\*Poor is defined as 125% of the poverty level or less.

Note: Sample not large enough to do race comparison.

Source: Estimates based on the Current Population Survey Data from  
1986-1988. Bureau of Economic & Business Research.  
University of Delaware. 1989.

**TABLE 55**

AVERAGE EARNINGS BY EDUCATION  
EMPLOYED F/T MARRIED COUPLE FAMILIES  
UNDER 65 YEARS OLD  
DELAWARE - 1986\*

Education Level	Heads Married Couple Families	Poor** Heads Married Couple Families	Spouses Married Couple Families	Poor Spouses Married Couple Families
8th Grade or Less	\$11,835	n/c	\$11,404	\$ 8,313
Some H.S.	19,240	\$ 6,180	11,273	7,790
H.S. Graduate	22,525	7,206	15,085	7,008
Some College	29,602	n/c	19,253	5,828
College & Above	36,086	n/c	24,312	n/c
Total-Average	26,537	5,736	17,276	7,213
Total-Median	25,000	6,000	16,000	8,313

\*Pooled sample from three years gives income data for approx. 1986.

\*\*Poor is defined as 125% of the poverty level or less.

Note: Sample too small to make comparisons on race.

Source: Estimates based on the Current Population Survey Data from  
1986-1988. Bureau of Economic & Business Research.  
University of Delaware. 1989.

An analysis of employment by industry shows a pattern similar to education. Poor heads of married couple families and their spouses, compared to all heads and spouses, are more highly concentrated in lower paying industries (Table 56) and within industries experience considerably lower annual average earnings, even when working full-time (Table 57). For example, 29% of the poor heads are employed in retailing compared to 12% of all

heads, and only 18% are employed in manufacturing compared to 34% of all heads. Although 31% of the poor heads are employed in construction compared to 11% of all heads, the average earnings of the poor heads working full-time in the industry are only 46% of the average earnings of all heads working full-time in construction (\$9,926 vs. \$21,562).

**TABLE 56**

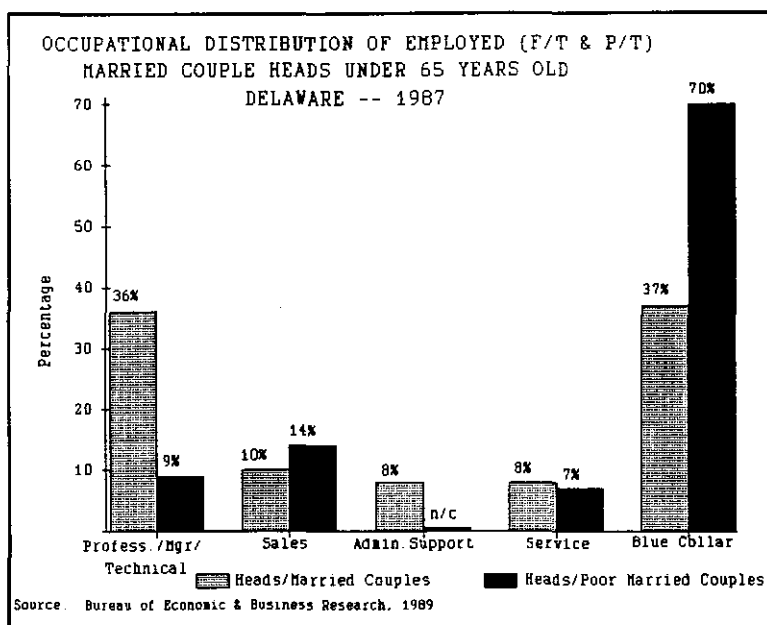
INDUSTRY DISTRIBUTION OF EMPLOYED (F/T & P/T) MARRIED COUPLE FAMILIES UNDER 65 YEARS OLD - DELAWARE, 1987*				
	Heads Married Couple Families	Poor** Heads Married Couple Families	Spouses Married Couple Families	Poor Spouses Married Couple Families
Construction	11 %	31 %	3 %	n/c
Manufacturing	34	18	23	n/c
TCPU	9	8	5	10 %
Wholesale	3	6	2	8
Retail	12	29	16	40
FIRE	5	n/c	7	12
Services	20	8	40	30
Public Admin.	6	n/c	5	n/c

\*Pooled sample from three years gives the rate for approx. 1987.  
 \*\*Pooled sample from three years gives the rate for approx. 1987.  
 \*\*Poor is defined as 125% of the poverty level or less.  
 Note: Comparison can not be made on race due to small sample size.  
 Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

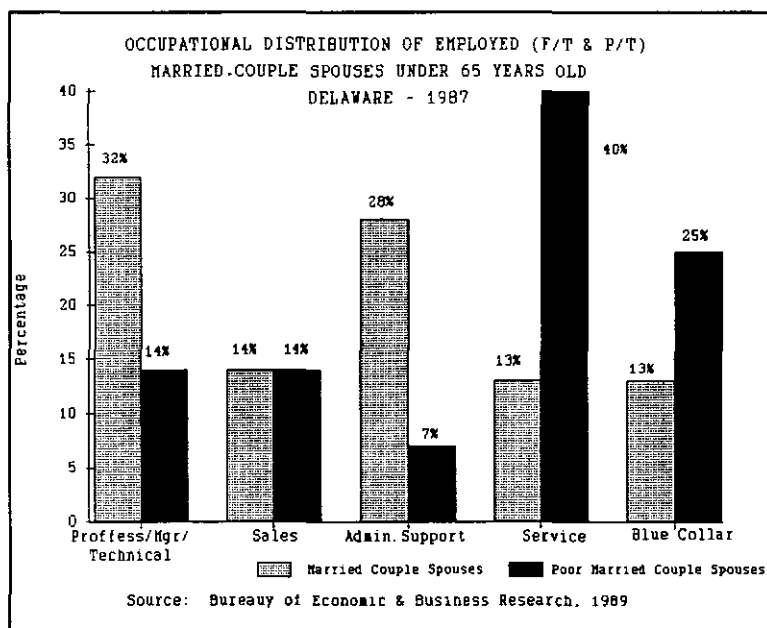
**TABLE 57**

AVERAGE EARNINGS BY INDUSTRY FULL-TIME EMPLOYED MARRIED COUPLE FAMILIES UNDER 65 YEARS OLD - DELAWARE, 1986				
	Heads Married Couple Families	Poor** Heads Married Couple Families	Spouses Married Couple Families	Poor Spouses Married Couple Families
Construction	\$21,562	\$ 9,926	\$19,000	n/c
Manufacturing	33,218	n/c	21,789	n/c
TCPU	26,517	n/c	18,125	\$ 8,313
Wholesale	29,763	n/c	13,443	n/c
Retail	18,629	8,728	8,645	5,062
FIRE	32,968	n/c	17,312	8,920
Services	22,560	n/c	17,626	8,963
Public Admin.	26,630	n/c	21,026	n/c

\*Pooled sample from three years gives income data for approx. 1986.  
 \*\*Pooled sample from three years gives income data for approx. 1986.  
 \*\*Poor is defined as 125% of the poverty level or less.  
 Note: Comparisons can not be made on race due to the small sample size.  
 Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.



**FIGURE 26**



**FIGURE 27**

These differences in earnings within industries are primarily a function of the occupations to which poor heads and their spouses are confined as a result of their generally low levels of formal education. Only 9% of the poor heads of married couple families are in professional, technical and managerial occupations compared to 36% of all heads (Figure 26). Conversely, 70% of the poor heads are in blue collar occupations compared to 37% of all heads. Fourteen percent of the poor spouses are in professional occupations compared to 32% of all spouses (Figure 27). And, within the blue collar classification poor heads are mainly working in unskilled or semi-skilled positions. This is evidenced by differences in earnings; the average annual earnings of poor heads working full-time in blue collar occupations are only one-third the average annual earnings of all heads (Table 58).

Not surprisingly, relative to all married couple heads, a higher proportion of poor married couple heads are in the lowest periods of their life cycle earnings: the labor market entry years (ages 18-24) and the years approaching retirement (ages 50-64) (Table 59). The same is true for the spouses (Table 60).

**TABLE 58**

AVERAGE EARNINGS BY OCCUPATION  
FULL-TIME EMPLOYED  
MARRIED COUPLE FAMILIES  
UNDER 65 YEARS OLD - DELAWARE, 1986\*

	Heads Married Couple Families	Poor** Heads Married Couple Families	Spouses Married Couple Families	Poor Spouses Married Couple Families
Profess./Mgr/ Technical	\$33,503	n/c	\$21,951	\$11,000
Sales	23,651	n/c	11,279	n/c
Admin. Support	22,444	n/c	15,900	n/c
Service	16,621	n/c	10,966	6,809
Blue Collar	24,123	\$ 8,542	19,182	9,190

\*Pooled sample from three years gives income data for approx. 1986.

\*\*Poor is defined as 125% of the poverty level or less.

Note: Due to small sample size, comparison can not be made on race.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

**TABLE 59**

AGE DISTRIBUTION  
HEADS OF MARRIED COUPLE FAMILIES  
UNDER 65 YEARS OLD  
DELAWARE - 1987\*

	Heads Married Couple Families	Poor** Heads Married Couple Families	White Poor Heads Married Couple Families	Black Poor Heads Married Couple Families
18-24 years	5 %	11 %	13 %	n/c
25-29	12	6	7	n/c
30-39	32	27	26	38
40-49	23	18	13	41
50-64	27	38	40	20

\*Pooled sample from three years gives the rate for approx. 1987.

\*\*Poor is defined as 125% of the poverty level or less.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

When the average earnings for those persons employed full-time are examined (Table 61) an interesting pattern emerges. During the labor market entry ages the earnings of the poor heads is just 25% less than the average earnings of all the heads; this drops quickly to a 75% gap for the next two age cohorts (ages 25-29 and 30-39). After age 39 a statistically insignificant proportion of poor heads work full-time. These are the poor heads who were reported to be disabled or retired (Table 51). In other words, the poor heads of family are not working full-time during the standard peak years in life cycle earnings. The attempt to offset this loss to the family is shown in the earnings distribution for poor spouses. Prior to age 30 an insignificant proportion of poor spouses work full-

time, and from age 30 through age 64 a significant portion of the poor spouses work full-time. As before, their earnings fall well below the earnings of all spouses. These low earnings may be a result of both low levels of formal education and lack of significant prior labor market experience.

**TABLE 60**

AGE DISTRIBUTION  
SPOUSES OF MARRIED COUPLE FAMILIES  
UNDER 65 YEARS OLD  
DELAWARE - 1987\*

	Spouses Married Couple Families	Poor** Spouses Married Couple Families	White Poor Spouses Married Couple Families	Black Poor Spouses Married Couple Families
18-24 years	9 %	11 %	13 %	n/c
25-29	13	7	8	n/c
30-39	33	26	25	38
40-49	21	15	11	42
50-64	24	40	43	20

\*Pooled sample from three years gives the rate for approx. 1987.

\*\*Poor is defined as 125% of the poverty level or less.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

**TABLE 61**

AVERAGE EARNINGS BY AGE  
FULL-TIME EMPLOYED  
MARRIED COUPLE FAMILIES  
UNDER 65 YEARS OLD - DELAWARE, 1986\*

	Heads Married Couple Families	Poor Heads Married Couple Families	Spouses Married Couple Families	Poor Spouses Married Couple Families
18-24 years	\$11,000	\$ 8,119	\$14,459	n/c
25-29	21,105	5,371	16,008	n/c
30-39	25,555	5,948	16,772	\$ 7,764
40-49	33,078	n/c	18,744	8,963
50-64	26,021	n/c	19,102	5,969

\*Pooled sample from three years gives income data for approx. 1986.

\*\*Poor is defined as 125% of the poverty level or less.

Note: Comparison on race can not be made due to sample size.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

Sources of income other than earnings for married couple families are found in Table 62. Not surprisingly, the percentage of nonelderly poor married families receiving government cash and in-kind transfers such as food stamps, energy assistance, public

housing, and rent subsidies far exceeds the percentage of all married families receiving such transfers. A slightly greater proportion of nonelderly poor married families receive income from social security and veterans/unemployment compensation/disability programs, and, the poor married families receive proportionately less in alimony/child support, interest, dividends, rents and retirement pay.

**TABLE 62**

OTHER SOURCES OF INCOME MARRIED COUPLE FAMILIES UNDER 65 YEARS OLD DELAWARE - 1986*		
TYPE	Married Families	Poor** Married Families
FOOD STAMPS	1 %	14 %
ENERGY ASSISTANCE	1	17
PUBLIC HOUSING	< 1	9
RENT SUBSIDY	< 1	4
PUBLIC ASSISTANCE	< 1	3
SOCIAL SECURITY	10	16
VETERANS/UNEMP/DISABILITY	12	15
ALIMONY/CHILD SUPPORT	14	11
INTEREST	74	35
RETIREMENT	9	3
DIVIDENDS, RENTAL	29	7

\*Pooled sample from three years gives income data for approx. 1986.

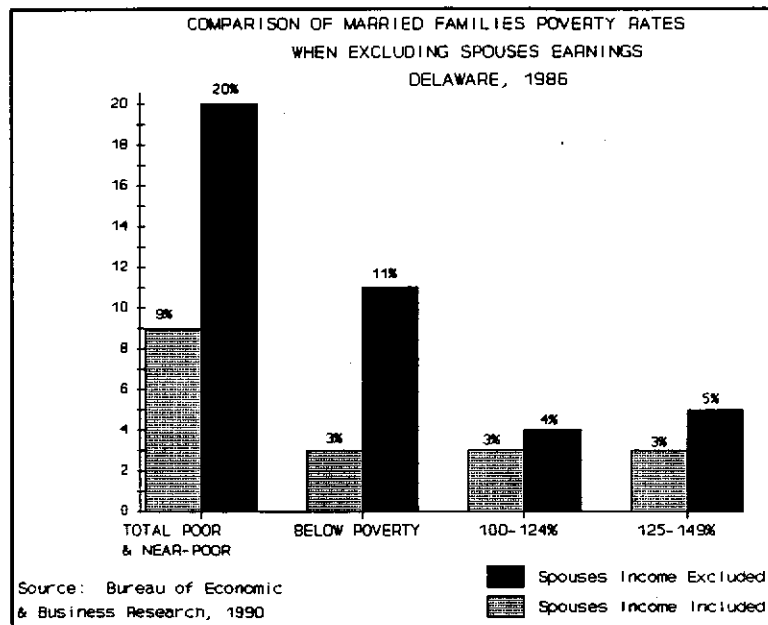
\*\*Poor is defined as 125% of the poverty level or less.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

As stated in the previous discussion about single female-headed families, one advantage that married couple families have in the present economy is the ability to send more than one earner into the labor force. Indeed, more than two thirds of Delaware married families have done just that. As will be evidenced more fully in the sub-section on children, national data shows that the two parent dual earner family is the only family structure that has seen a significant increase in median family income over the past decade (see Figure 29, page 88).<sup>30</sup> In 1987 the real (inflation adjusted) income of the "traditional" two parent family, i.e., one parent in the labor force and one parent in home maintenance, is at the same level as in 1974.

How important are two earnings streams to the economic condition of the married couple family? Figure 28 shows dramatically that the extra wages are often critical. Without .

the spouse's earnings, an additional 12 thousand Delaware families would fall below 150% of the poverty level. The poverty rate for Delaware married couple families would more than triple, rising from 3% to 11%. The proportion of Delaware married couple families with income below 150% of the poverty level would rise from 9% to 20%, and, the median income for married couple families would decrease 27% (\$40,605 to \$29,821). Of the Delaware married couple families with income presently above 150% of the poverty level (e.g., the non-poor), 16% would become poor or near-poor without the spouse's income. Since the majority of these spouses are female (90%), they are now needed to participate in the labor force and simultaneously continue to bear the main load for production of household services.



**FIGURE 28**

In summary, the three basic causes of poverty among married couple families in Delaware are disability/retirement, unemployment and low earnings. The proportion of the heads of poor married couple families not in the labor force is almost triple the proportion for all married couple householders. More than half of the poor householders not in the labor force cite the reasons as disability and retirement. Among those householders who are in the labor force, the unemployment rate of the poor family heads is more than three times the rate for all the married family heads. Fourteen percent of the poor family heads work part-time because they can not find full-time employment compared to only 4% of all the family heads. The same general patterns found among the family heads also exist among the spouses; thus, spouses cannot reasonably be looked upon as a fruitful avenue for reducing the economic distress of the poor married couple families.

The average annual earnings of the poor married couple heads who are working full-time are barely more than one-fifth of the average annual earnings of all the full-time employed married couple heads. The major factor generating these extremely low earnings is lack of formal education. Most notably, more than half of the poor heads have less than a high school degree

compared to approximately one tenth of all the married family heads. Limited education is then partially responsible for the greater concentration of the poor heads in lower paying industries and lower paying occupations. The greater concentration of poor heads in the labor market entry and exit age cohorts adds to this earnings disparity. Once again, the pattern found among the family heads is also found when comparing the poor spouses to all married family spouses.

From a social services standpoint it appears that the greatest benefits to poor married families would come from programs for the disabled; job placement services to identify full-time positions in industries and occupations with a career path; and, especially, adult education programs. With the wage premium placed upon education in the services economy, adults in poor married couple families will be increasingly disadvantaged unless they raise their level of formal education.

The need for more than one wage earner to maintain family income above poverty or near poverty has been shown to be critical for a sizeable proportion of Delaware's married couple families. With the economic necessity for working and the main responsibility for the household services, married females thus face some of the same physical and emotional stresses that single female head of families do. These stresses may also impact the health of the marriage relationships and the stability of the children. Unfortunately, research on these impacts, be they negative or positive, is not yet available.

Certainly, many non-poor married families would benefit from social services such as day care, latch key care, marriage counseling and family counseling. Fees based upon a sliding scale would recognize their varying abilities to pay for such services.

### **Family Structure and Economic Hardship**

From the information presented it is apparent that a change in family structure can reduce (divorce, separation, out of wedlock birth) or increase (remarriage) the economic well-being of the persons in a family. In order to think clearly about policies and programs, however, United Way and its member agencies should recognize that causation also flows in the opposite direction---that is, changes in economic conditions can cause changes in family structure.

Research indicates that poverty and economic distress are associated with and often precede family dissolution, child neglect and illegitimacy. One longitudinal research project found that over a seven year period families in which the husband

was not encountering employment problems, which owned their own home and which had significant savings were more likely to have not broken up. According to another study, children of unemployed fathers are three times as likely to be abused as children of employed fathers.<sup>31</sup>

One of the clearest examples of this reverse causation is with respect to the astounding rise and level of black births to unmarried females. The increase is not due to a rise in birth rates since the birth rate for unmarried black females has actually declined over the past 25 years. Recent research indicates that the increase is due primarily to a shortage of young "marriageable" black males.<sup>32</sup> This shortage is associated with high death rates, high rates of incarceration and, most important, joblessness.

Data on single black and white males ages 18 to 30 in Delaware are presented in Table 63. The data excludes those males who are deceased or incarcerated. (Young black males have higher death rates and incarceration rates than young white males.) The labor force participation rates for the single black and white males are similar (84%). However, only 50% of the blacks are employed full-time compared to 67% of the whites, and, the black unemployment rate is three times the white unemployment rate (10% vs. 3%). The black males' average income is just two-thirds of the white males' and the black males have less formal education.

So, as shown in the next to the last row of Table 63, for every 100 single black males in Delaware there are 118 black females, compared to 68 white females for every 100 single white males. Even more importantly, **for every 100 single Delaware black males employed full-time there are 236 black females, compared to 102 white females for every 100 single white males employed full-time.**

Young black males have struggled in the service economy. According to the William T. Grant Foundation, over the past 13 years the inflation-adjusted average annual earnings of black males age 20 to 24 (who are not attending school) has declined 46%.<sup>33</sup> A number of factors have contributed to this decline including: the spatial mismatch between the supply of new jobs and low income urban neighborhoods; potential earnings from criminal activities (especially drug related); poor educational systems; continued discrimination; and dysfunctional families. In addition, the labor force participation rate of married white women began to climb at an accelerated pace beginning in the early 1970's. Research indicates that these women became the major competitors for the jobs which typically had gone to young black males (i.e., lower paying service positions and unskilled blue collar manufacturing jobs).<sup>34</sup>

**TABLE 63**

SINGLE MALES  
18-30 YEARS OLD  
1987

	BLACK MALES	WHITE MALES
EMPLOYMENT STATUS		
NOT IN LABOR FORCE	16 %	16 %
EMPLOYED F/T	50 %	67 %
EMPLOYED P/T-ECONOMIC	13 %	3 %
EMPLOYED P/T	11 %	11 %
UNEMPLOYED P/T	10 %	3 %
AVERAGE INCOME	\$ 7,907	\$11,581
AVERAGE INCOME FOR P/T EMPLOYED	\$ 9,489	\$14,504
EDUCATION LEVEL		
8TH OR LESS	n/c	4 %
SOME H.S.	33 %	17 %
H.S.	54 %	30 %
SOME COLLEGE	13 %	38 %
COLLEGE & ABOVE	n/c	11 %
MARITAL STATUS		
DIVORCED	3 %	6 %
NEVER MARRIED	97 %	94 %
Female/Males	1.18	0.68
Female/FT Empl. Males	2.36	1.02

Source: Estimates based on the Current Population Survey data from  
1986-1988. Bureau of Economic & Business Research,  
University of Delaware, 1989

### Nonfamily Households

Having examined the economic condition of single female headed and married couple families, it is now time to turn our attention to nonfamily households. Of the households in Delaware 28% are nonfamilies (Table 64), with 23% being individuals living alone and 5% consisting of persons living in households with nonrelatives. (The nonfamily population, of course, includes no children.) Because the average number of persons in family households exceeds the average in nonfamily households, the proportion of Delawareans living in nonfamily households (14%) falls well below the proportion of households classified as nonfamily (28%). So, 9% of all Delawareans are living alone and 5% are living with unrelated individuals.

Nonfamily households tend to be poorer than the average Delaware household. Compared to the 14% of all Delaware residents living in nonfamily households, 23% of Delaware's poor and 22% of Delaware's near poor live in nonfamily households. While the state's 1986 poverty rate is 10.7%, the nonfamily-poverty is 17.0%. This includes a 15.5% poverty rate among individuals living alone and an 17.8% poverty rate for individuals living with nonrelatives.

**TABLE 64**

NONFAMILY HOUSEHOLDS AND INDIVIDUALS AS A PERCENT  
OF DELAWARE HOUSEHOLDS AND INDIVIDUALS, 1987

	TOTAL DE		TOTAL < 65		TOTAL >= 65	
	% HH	% INDIV.	HH	INDIV.	HH	INDIV.
Nonfamily	28.1 %	13.5 %	23.0 %	10.9 %	47.8 %	32.9 %
Individuals Living Alone	23.2 %	9.0 %	17.5 %	6.1 %	45.3 %	30.5 %
Individuals Living W/Others	4.9 %	4.5 %	5.5 %	4.8 %	2.5 %	2.4 %

Source: Bureau of Economic & Business Research,  
University of Delaware, 1990

In order to make the discussion of the economic condition of nonfamily households less cumbersome two steps are taken. First, the nonelderly and the elderly are examined separately. Second, the data for persons living alone and for persons living with unrelated individuals are combined. For the elderly this combination is of little consequence as 95% of the nonelderly nonfamily households and 93% of the elderly living in nonfamily households are residing alone. On the other hand, among the nonelderly 76% of the nonfamily households and 56% of the individuals living in nonfamily households are residing alone. Nevertheless, in order to facilitate discussion and achieve sufficient sample sizes the data for the two types of nonelderly nonfamily households had to be combined.

First we shall examine the economic condition of nonelderly individuals living in nonfamily households. Of the approximately 87 thousand persons living in Delaware nonfamily households 61 thousand, or 72%, are nonelderly. Among these nonelderly unrelated individuals the 1986 poverty rate is 13.7%, with another 12.5% living in near poverty. So, approximately one out of every four, or 16 thousand, of these nonelderly unrelated individuals are in poverty or near poverty.

There are some notable differences in marital status between poor and nonpoor unrelated individuals by sex (Table 65). Compared to all males living as unrelated individuals, the poor males are somewhat more likely to have never been married and thus less likely to be divorced or separated. Conversely, compared to all females, poor females are significantly less

**TABLE 65**

likely to have never been married (30% vs. 49%) and significantly more likely to have been widowed, divorced or separated (63% vs. 49%). The most striking differences are between the sexes where 71% of the poor males are never married in contrast to only 30% of the poor females.

Simultaneously, only 23% of the poor males are widowed, divorced or separated compared to 63% of the poor females.

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DELAWARE UNRELATED INDIVIDUALS

18-64 YEARS

MARITAL STATUS

1987

	ALL	ALL POOR	MALES	POOR MALES	FEMALES	POOR FEMALES
Married, spouse absent	4.3 %	6.7 %	5.6 %	6.3 %	2.6 %	7.2 %
Widowed	8.0	11.3	2.3	n/c	15.3	22.5
Divorced	24.3	26.1	22.9	20.1	26.1	32.1
Separated	6.2	5.6	5.2	2.8	7.6	8.3
Never Married	57.3	50.3	64.1	70.8	48.5	30.0

Poor is defined as 124% of the poverty level or less.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research. University of Delaware, 1989.

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As previously discussed, the major responsibility for household services has a negative impact on the earning potential of females. It is not surprising, therefore, to find that less than a third of the poor female individuals have never been married. Because of the impact of time put into the production of household services upon career and employment choices, females who have previously been married are more likely to be on a lower life cycle earnings path.

The impact of the marital status on poor individual males (more than two thirds unmarried) is less clear. Research indicates that married males tend to live a longer life and have higher earning potentials than single males, perhaps because married males have to put less time into the production of household services. As we examine labor market performance, however, by age and educational level, it is clear that the variable of marital status alone does not explain the economic status of either poor male and poor female unrelated individuals.

As before, we turn now to labor market performance. The proportion of nonelderly unrelated individuals who are not in the labor force (13%) is relatively low (Table 66), ranging from 8% among the males to 20% among the females. The lack of labor market participation seems directly related to poverty as 40% of the poor unrelated individuals are not in the labor force, with nonparticipation ranging from 34% for poor males to 46% among poor females. The reasons given for nonparticipation do not differ appreciably between the poor and nonpoor, except that the poor are more likely to cite disability and less likely to cite

**TABLE 66**

retirement than all unrelated individuals (Table 67). Overall, males are much more likely to cite retirement than are females (70% vs. 38%) and school (17% vs. 8%), and less likely to cite housekeeping (0% vs. 36%).

DELAWARE UNRELATED INDIVIDUALS  
18-64 YEARS  
EMPLOYMENT STATUS  
1987

	ALL	ALL POOR	MALES	POOR MALES	FEMALES	POOR FEMALES
Not in Labor Force	13.4 %	40.3 %	8.2 %	34.1 %	20.2 %	46.4 %
In Labor Force	86.5	59.8	91.7	65.9	78.8	53.6
Unemployed	2.2	8.0	2.6	8.4	1.7	7.5
Employed	84.3	51.8	89.1	57.5	78.1	46.1
F/T	74.5	36.9	79.6	38.2	67.9	35.7
P/T-Economic*	1.8	5.1	2.0	3.1	1.6	7.0
P/T	8.0	9.8	7.5	16.2	8.6	3.4

Poor is defined as 124% of the poverty level or less.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research. University of Delaware, 1989.

Of those unrelated individuals in the labor market their unemployment rate is

extremely low (2.2%), as is the proportion working part-time because they couldn't find a full-time position (only 1.8%).

**TABLE 67**

DELAWARE UNRELATED INDIVIDUALS  
18-64 YEARS  
NOT IN THE LABOR FORCE  
1987

	ALL	ALL POOR	MALES	POOR MALES	FEMALES	POOR FEMALES
Housekeeping	24.1 %	23.6 %	n/c	n/c	36.0 %	40.9 %
School	10.7	13.1	16.9 %	21.9 %	7.6	6.7
Unable	16.9	24.2	12.8	16.5	18.9	29.8
Other (Retired)	48.3	39.1	70.3	61.6	37.6	22.6

Poor is defined as 124% of the poverty level or less.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research. University of Delaware, 1989.

In contrast to all family heads, a higher proportion of these unrelated adults work part-time voluntarily (8% vs. 3%). The poor in the labor force have an unemployment rate over three and one-half times greater than all unrelated individuals (8.0% vs. 2.2%), and higher proportions of the poor are working part-time for economic reasons and voluntarily. Poor females appear to have a harder time

finding full-time employment in lieu of part-time employment, while poor males are twice as likely as all males to voluntarily work part-time.

The 1986 earnings of nonelderly unrelated individuals working full-time averaged \$18,159. Male earnings averaged \$19,525 (compared to an average of \$27,035 for married male family heads) and female earnings averaged \$16,082 (compared to \$14,346 for single female family heads).

The high average earnings relative to single female family heads may be attributed, in part, to educational attainment. Fifteen percent of unrelated females and 20% of the single female family heads have less than a high school degree, and 16% of the unrelated females have a college education or better in contrast to only 7% of the single female family heads (Table 68). Compared to all unrelated individuals, poor

**TABLE 68**

DELAWARE UNRELATED INDIVIDUALS  
18-64 YEARS  
EDUCATION LEVEL  
1987

	ALL	ALL POOR	MALES	POOR MALES	FEMALES	POOR FEMALES
8th Grade or Less	3.6 %	9.0 %	3.7 %	6.0 %	3.4 %	12.0 %
Some H.S.	12.7	26.9	13.8	30.3	11.3	23.4
H.S. Graduate	36.2	30.9	35.2	25.8	37.4	36.0
Some College	32.0	26.3	31.8	27.4	32.2	25.1
College & Above	15.6	6.9	15.5	10.4	15.7	3.5

Poor is defined as 124% of the poverty level or less.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

unrelated individuals are less likely to have completed high school (36% vs. 16%) and are less likely to have completed college (7% vs. 16%). The pattern was essentially the same among the sexes, although only 4% of the poor females have a college education or more.

As previously, annual average earnings for persons employed full-time increase directly with the level of formal education (Table 69). The rate of increase for unrelated individuals, however, is considerably less than found among all Delawareans employed full-time. Among all Delawareans the 1986 average annual earnings of \$33,435 for those with a college education or more is 282% of the earnings of those persons completing less than ninth grade. Among unrelated individuals the 1986 average annual earnings of \$22,914 for those with a college education or more is only 167% of the earnings of those persons completing less than ninth grade.

**TABLE 69**

DELAWARE UNRELATED INDIVIDUALS  
18-64 YEARS  
AVERAGE EARNINGS BY EDUCATION FOR F/T EMPLOYED  
1986\*

	ALL	MALES	FEMALES
8th Grade or Less	\$13,730	\$13,730	n/c
Some H.S.	14,338	15,508	\$10,020
H.S. Graduate	16,149	18,734	12,252
Some College	19,021	19,702	18,188
College & Above	22,914	24,596	20,692
Average	\$18,159	\$19,525	\$16,082
Median	16,000	17,000	15,000

\*Pooled sample for three years gives income data for approx. 1986.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research. University of Delaware. 1989.

Controlling for educational attainment, the earnings gap between males and females working full-time is less for unrelated individuals than for male and single female householders, and among unrelated individuals the gap decreases with increased education. For example, the annual earnings of unrelated females with a high school education are 65% of the earnings of similar males and this climbs to 84% at the college level. The earnings of single female heads with a high school education, on the other hand, are 61% of the male heads and this proportion remains unchanged for those with a college education.

Analysis of employment by industry shows that nonelderly unrelated individuals, both males and females, are proportionately more concentrated in lower paying industries (e.g., services, retail trade and FIRE) than their counterpart male and single female householders (Table 70). This pattern continues when comparing the employment distributions of all unrelated individuals and poor unrelated individuals. For example, 18% of all employed unrelated individuals work in retail trade compared to 47% of the poor, and, 22% work in manufacturing compared to only 12% of the poor. As previously, females are more concentrated in lower paying industries than males, and with the exception of manufacturing, this level of concentration intensifies among the poor males and females.

**TABLE 70**

DELAWARE UNRELATED INDIVIDUALS  
18-64 YEARS  
DISTRIBUTION BY INDUSTRY - F/T & P/T EMPLOYED  
1987

	ALL	ALL POOR	MALES	POOR MALES	FEMALES	POOR FEMALES
Construction	7.5 %	8.4 %	12.1 %	16.1 %	0.9 %	n/c
Manufacturing	21.8	12.2	24.8	7.1	17.4	18.0 %
TCPU	4.6	3.9	7.2	7.3	0.9	n/c
Wholesale	3.8	n/c	5.9	n/c	0.9	n/c
Retail	17.8	46.7	17.4	48.6	18.3	44.5
FIRE	11.9	4.3	8.6	n/c	16.7	9.1
Services	26.7	20.3	17.7	13.2	39.7	28.3
Public Admin.	5.9	4.1	6.4	7.7	5.1	n/c

Poor is defined as 124% of the poverty level or less.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware. 1989.

Within industries the average earnings of nonelderly unrelated individuals working full-time fall below the average earnings of all Delawareans working full-time (Table 71). The short-fall is the greatest in retail and FIRE where the average earnings of unrelated individuals are 67% of the average earnings of their counterparts, followed by services (80%) and manufacturing (82%). These industries account for almost 8 out of every 10 jobs held by unrelated individuals. The short-fall is smallest in the more regulated sectors of TCPU (87%) and government (95%). Unfortunately, only 1 out of every 10 jobs held by unrelated individuals fall into these sectors.

**TABLE 71**

DELAWARE UNRELATED INDIVIDUALS  
18-64 YEARS  
AVERAGE EARNINGS BY INDUSTRY FOR F/T EMPLOYED  
1986\*

	ALL	MALE	FEMALE
Construction	\$14,519	\$14,871	n/c
Manufacturing	24,703	27,372	\$18,717
TCPU	22,532	23,626	n/c
Wholesale	21,228	22,638	n/c
Retail	11,679	12,834	10,139
FIRE	18,010	17,453	18,010
Services	16,802	17,063	16,646
Public Admin.	22,843	22,020	n/c

\*Pooled sample for three years gives income data for approx. 1986.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware. 1989.

The lower average earnings of unrelated individuals relative to all Delawareans does not appear to be primarily a function of occupation. Among the very aggregate occupational groupings we have been using there is little difference between the

distributions for  
unrelated  
individuals and  
for all employed  
Delawareans  
(Table 72).  
Sizeable  
differences do  
exist, however,  
between the  
occupational  
distributions for  
all unrelated  
individuals and  
poor unrelated  
individuals.

Fifty-nine  
percent of the  
poor are found in  
the generally  
lower paying

services and sales occupations compared to 27% of all unrelated individuals. At the other end of the pay scale, only 12% of the poor are in professional/managerial/technical occupations and 12% in blue collar occupations compared to 33% and 23% of the nonpoor, respectively. These occupational patterns are most prevalent among the poor unrelated females among whom 73% are found in service and sales occupations.

**TABLE 72**

DELAWARE UNRELATED INDIVIDUALS  
18-64 YEARS  
DISTRIBUTION BY OCCUPATION - F/T & P/T EMPLOYED  
1987

	ALL	POOR	MALE	POOR MALE	FEMALE	POOR FEMALE
Profess./Mgr./						
Technical	32.9 %	11.6 %	33.2 %	13.6 %	32.4 %	9.3 %
Sales	10.7 %	26.0 %	12.1 %	33.8 %	8.6 %	17.3 %
Admin. Support	17.7 %	12.3 %	6.2 %	7.3 %	34.1 %	18.0 %
Service	16.0 %	32.7 %	16.2 %	22.1 %	15.8 %	55.4 %
Blue Collar	22.8 %	12.3 %	32.3 %	23.2 %	9.2 %	N/C

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

**TABLE 73**

DELAWARE UNRELATED INDIVIDUALS  
18-64 YEARS  
AVERAGE EARNINGS BY OCCUPATION FOR F/T EMPLOYED  
1986\*

	ALL	MALE	FEMALE
Profess./Mgr./			
Technical	\$23,022	\$24,573	\$20,625
Sales	12,603	12,871	11,803
Admin. Support	15,567	17,953	14,906
Service	12,977	14,652	10,596
Blue Collar	20,916	21,524	18,174

\*Pooled sample from three years gives income data for approx. 1986.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989

Not unsurprisingly, given the occupational patterns for the poor, the average annual earnings by occupation of unrelated individuals working full-time are lowest in sales (\$12,603) and services (\$12,977), and, highest in professional/managerial/technical occupations (\$23,022) and blue collar jobs (\$20,916) (Table 73). When compared to the average earnings of all Delawareans working full-time the

average earnings of the unrelated individuals tend to be generally similar. The earnings of the unrelated individuals range from 78% of the average for all persons in sales to 107% of all persons in service occupations. Relative to male family heads, the average annual earnings of unrelated males range from 48% less in sales positions to only 9% less in blue collar positions. The only occupation for which the annual earnings of unrelated females fall below the earnings of single female family heads is in sales. The greatest differential is found in blue collar occupations where unrelated females earn almost 50% more than single female householders.

As found previously, the earnings gap between unrelated males and females working full-time (18%) is considerably smaller than the gap between male householders and single female householders working full time (47%). The gap between the unrelated males and females ranges from 28% in service occupations to only 8% in sales occupations.

**TABLE 74**

DELAWARE UNRELATED INDIVIDUALS						
18-64 YEARS						
AGE DISTRIBUTION						
1987						
	ALL	POOR	MALE	POOR MALE	FEMALE	POOR FEMALE
18-24	22.8 %	36.0 %	22.8 %	37.8 %	22.7 %	34.3 %
25-29	20.3 %	19.4 %	25.4 %	30.7 %	13.6 %	8.2 %
30-39	23.9 %	10.6 %	28.3 %	11.0 %	18.3 %	10.2 %
40-49	12.5 %	10.3 %	12.7 %	6.2 %	12.4 %	14.4 %
50-64	20.5 %	23.6 %	10.8 %	14.3 %	33.0 %	32.9 %

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

The relationships found when examining the previous factors which impact of annual earnings (e.g., education, industry and occupation) begin to make more sense when the age distributions of unrelated males are examined (Table 74). Even though the unrelated males have more education on average and a similar

occupational distribution, compared to male family heads the unrelated males are considerably younger. Almost half the unrelated males are age 18 to 29, the labor market entry and early career years, in contrast to only 18% of the male householders. Conversely, 51% of the male householders are between the ages of 40 and 64 compared to 23% of the unrelated males.

For unrelated females, who tend to earn more than single female householders, 36% are age 18 to 29 compared to 28% of the single female householder, and, 45% are age 40 to 64 compared to

40% of the single female householders. The higher educational achievement of the unrelated females together with a more continuous work history (a higher proportion of the unrelated females are never married and almost none had children) are major factors behind their higher level of average annual earnings.

Among the unrelated individuals poverty also seems to be influenced by the age distribution. Almost 69% of the poor males are under age 30 (vs. 48% of all unrelated males) and 14% are age 50 to 64 (vs. 11%). For the females, 43% of the poor are under age 30 (vs. 36%) and 33% (vs. 33%) are age 50 to 64.

While the average annual earnings of young unrelated males exceed the earnings of young male family heads, beyond age 24 the earnings of the unrelated males stay persistently below those of the male family heads (Table 75). As mentioned previously, this is a result frequently documented in the research literature. The life time earnings and the life expectancy of married males exceeds that of unmarried males. This is partly due to the benefits of the household services provided to married males by their spouses. As already noted, however, the variable of education also appears to have a big impact in the differences between these two groups.

**TABLE 75**

DELAWARE UNRELATED INDIVIDUALS  
18-64 YEARS  
AVERAGE EARNINGS BY AGE  
FOR F/T EMPLOYED, 1986\*

	ALL	MALE	FEMALE
18-24 years	\$12,296	\$14,016	\$10,022
25-29	16,768	15,489	19,681
30-39	19,646	20,236	18,522
40-49	24,154	30,523	11,400
50-64	21,274	24,670	19,551

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

The average annual earnings of young single female householders exceed those of unrelated females. Beyond age 24, however, the unrelated females earn more on average than do the single female householders. In the absence of children (and husbands during some period of time) the unrelated females do not have to put as much time and energy into the production of household services as do the single female householders, and, can put more time and energy into their careers.

When sources of income other than earnings are examined, nonelderly unrelated individuals tend to resemble married families rather than single male and female headed families (Table 76). Most notably, compared to the single male and female

TABLE 76

OTHER SOURCES OF INCOME  
DELAWARE - 1986\*

TYPE	UNDER 65 YEARS OLD			
	Married Families	Single Female Heads	Single Male Heads	Unrelated Indiv.
FOOD STAMPS	1 %	18 %	6 %	2 %
ENERGY ASSISTANCE	1	14	0	2
PUBLIC HOUSING	< 1	11	6	2
RENT SUBSIDY	< 1	< 1	6	1
PUBLIC ASSISTANCE	< 1	15	3	< 1
SOCIAL SECURITY	10	11	26	7
VETERANS/UNEMP/DISABILITY	12	12	7	8
ALIMONY/CHILD SUPPORT	14	33	20	13
INTEREST	74	41	48	49
RETIREMENT	9	2	8	5
DIVIDENDS, RENTAL	29	12	27	15

\*Pooled sample from three years gives income data for approx. 1986.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

headed families a much smaller proportion of unrelated individuals receive income from various government transfer programs. Because of their generally younger age distribution, unrelated individuals are less likely than married couple families to receive income in the form of interest, dividends, rent and retirement pay.

In summary, lower levels of labor force participation and educational attainment

and a younger age distribution help to explain the difference in income levels between the poor and non-poor unrelated individuals. Marital status also differentiates poor and non-poor unrelated female individuals; more than two thirds of the poor females have been married vs. one half of all unrelated female individuals. This lends support to the hypothesis that the responsibility of household services negatively impacts females' lifetime earning potential.

In the comparison of unrelated individuals with heads of households, the variables of education and age again have an important influence. Unrelated individual males tend to be younger and less educated than male family householders and have a correspondingly lower level of earnings and higher level of poverty. Conversely, unrelated female individuals generally have higher levels of education and, even though this group is younger, have higher levels of earnings than single female family householders.

From a social services standpoint, therefore, it appears that the provision of adult education programs would benefit both poor male and poor female unrelated individuals to help them compete in the labor force. In addition, many of the poor unrelated females might benefit from short-term counseling and support services in order to deal with the stress of their change in family structure.

## Delaware's Children

Using the information already presented on the varying economic condition among Delaware families, attention will now be given to a very important component of those families -- Delaware's children. Of Delaware's 647 thousand residents in 1987, almost 171 thousand, or one out of every 4, are children (persons less than 18 years of age). Three-quarters of these children (129 thousand) are white and one-quarter is nonwhite (42 thousand), the overwhelming majority of whom are black. Similarly, in 1988, 75% of all the children born in Delaware were white, 24% were black and 1% were nonwhite and nonblack. By comparison, 83% of the adults in Delaware are white and 17% nonwhite. Given these differences, the proportion of Delaware's adults who are nonwhite will continue to increase in the decade ahead.

By family type, 70% of Delaware's children live in married couple families, 27% in single female-headed families and the remaining 3% in single male-headed families (Table 77). The majority of white children (77%) reside in married families, with 20% living in single female-headed families. The majority of black children (56%), on the other hand, reside in female-headed families and 43% live in married couple families.

**TABLE 77**

### Delaware Children & Family Composition

1987\*

Family	Total	White	Black
Married Couple	70.0 %	77.0 %	42.6 %
Male-Headed Family	3.0	3.4	1.8
Female-Headed Family	27.0	19.5	55.7

Note: According to Women in Delaware, A Documented Profile, the trend of female-headed families has more than doubled since 1970.

\* Pooled sample from 1986-1988 gives data for approximately 1987.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research, University of Delaware, 1989.

Four out of every 10 poor Delawareans are children. Among the state's children 18% live in poverty and another 12% live in near poverty (Table 78). These proportions vary by race, as 14% of the state's white children and 35% of its black children are poor. Almost 11% of the white children live in near poverty compared to almost 18% of the black children. Thus, overall, one out of every four white children in Delaware and one out of every two black children live in poverty or near poverty.

**TABLE 78**

Delaware Children & Family Poverty  
1986\*

Income Level	Total	Total White	Total Black
Below Poverty	18.3 %	13.8 %	34.6 %
100-124%	6.4	4.7	13.3
125-149%	5.5	5.9	4.3
150% and over	69.9	75.6	47.8

\* Pooled sample from 1986-88 gives income data for approx. 1986.

Source: Estimates based on the Current Population Survey  
Data from 1986-1988, Bureau of Economic & Business Research,  
University of Delaware, 1989.

From our previous analysis we learned that female-headed families are, on average, more economically distressed than married couple families. The consequences of this for children are partially evidenced in Table 79. While 70% of Delaware's children live in married couple families, only 14% of Delaware's poor children reside such families. Conversely, while 27% of Delaware's children live in female-headed families, 82% of Delaware's poor children reside in female-headed families. To add to a previous statement, 15% of Delaware's residents live in female-headed families, and 52% of Delaware's poor and 82% of Delaware's poor children live in female-headed families. This means, among other things, that social services directed toward female-headed families will simultaneously impact more than half of Delaware's poor and fourth-fifths of Delaware's poor children.

**TABLE 79**

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Delaware Poor Children & Family Composition  
1986\*

Family	Total	White	Black
Married Couple	13.8 %	19.0 %	4.4 %
Male-Headed Family	4.4	5.6	2.8
Female-Headed Family	81.9	75.4	92.8

\* Pooled sample from 1986-88 gives income data for approx. 1986.

Source: Estimates based on the Current Population Survey  
Data from 1986-1988. Bureau of Economic & Business Research.  
University of Delaware, 1989.

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The distribution of poor children by family type does vary by race. Among whites 75% of the poor children are in single female-headed families and 19% are in married couple families. Among blacks the proportions are 93% and 4%, respectively. Obviously, social services targeted toward single female-headed families will potentially have an even greater impact on poor black children than on all poor children.

The poverty and near poverty rates for Delaware children by family type are found in Table 80. For the children living in married couple families the poverty rate is less than 4%, with another 9% living in near poverty. These rates do not vary in any significant way among whites and blacks. The poverty rate for the children living in single female-headed families, however, is 55%, with 17% of the children experiencing near poverty. Although the children's poverty rates are not significantly different between white and black female-headed families (53% vs. 58%), 13% of the white children live in near poverty compared to 24% of the black children. Consequently, of the children living in single female-headed Delaware families, seven out of every ten white children and eight out of every ten black children are living in poverty or near poverty.

Obviously, the economic condition of children in single-parent families is substantially below that of children in

married couple families. And, for a variety of reasons outlined in Section I, the income differential among family types has been increasing over the past decade (Figure 29). Nationally, between 1974 and 1987 the real (inflation-adjusted) median income of traditional and two earner married couple families has been rising (1% to 8%), as the real median incomes of single female-headed families and single male-headed families have been falling (19% and 12%, respectively).

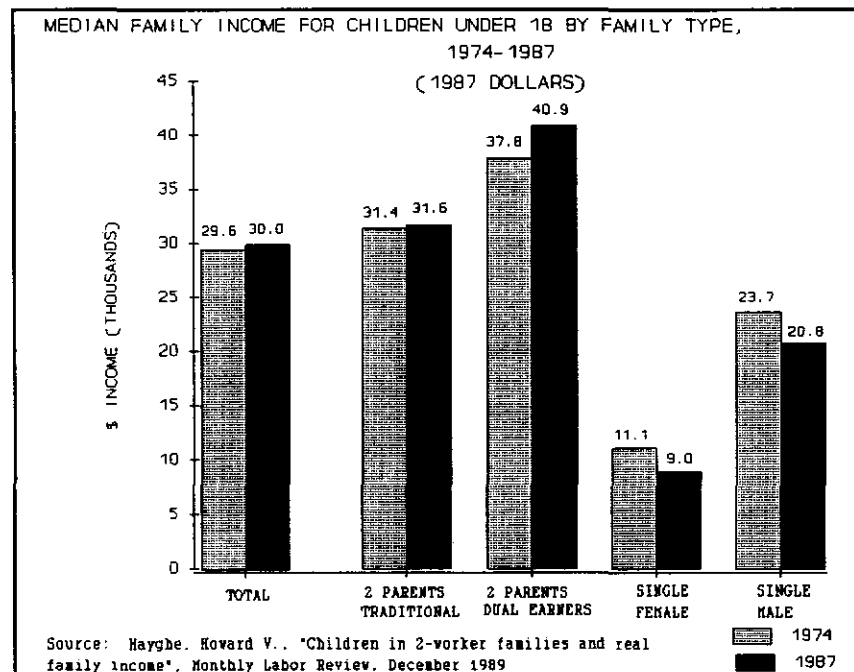
**TABLE 80**

Delaware Children & Family Poverty  
1986\*

Income Level	Living in Female-Headed Families			Living in Married Couple Families		
	Total	White	Black	Total	White	Black
Below Poverty	55.4 %	53.2 %	57.6 %	3.6 %	3.4 %	3.6 %
100-124%	10.7	7.2	15.9	4.7	4.3	8.4
125-149%	6.3	5.5	7.7	4.6	5.4	n/c
150% and over	27.5	34.1	18.7	86.1	87.0	88.0

\* Pooled sample from 1986-88 gives income data for approx. 1986.

Source: Estimates based on the Current Population Survey  
Data from 1986-1988, Bureau of Economic & Business Research,  
University of Delaware, 1989.



**FIGURE 29**

Children in families where income is low and/or declining may not be receiving adequate nutrition, shelter, clothing, or health care. To the degree that family income affects educational and skill-training opportunities, children in lower income families may be at a disadvantage as adults in the service-based labor market of the future.

As shown in Tables 81 and 82, this economic condition is compounded by the fact that lower income families have more children on average than higher income families. While the data in the tables is for Delaware, this pattern is found in research around the world. As family income increases, parents tend to have fewer children for a variety of reasons, including: a) a desire to increase the quality of life per child; b) less dependence by the parents upon children for current and future economic security; c) an increase in the probability that each child will survive to adulthood; and, d) an increase in the opportunity cost (e.g., lost wages) of staying at home to raise children as the educational attainment of the parents increases. **The perverse result for social service agencies is that as the family's need for children services increases, the ability of the family to pay for services decreases.**

**TABLE 81**

AVERAGE NUMBER OF CHILDREN - DELAWARE  
BY POVERTY STATUS\*  
1986

# OF CHILDREN	BELOW POVERTY	100 - 124 %	125 - 149 %	150 % AND OVER
None	12.8 %	6.5 %	16.6 %	29.9 %
One	34.1	34.0	41.1	32.3
Two	21.5	38.2	18.5	28.7
Three	12.6	17.8	20.0	7.6
Four or more	18.8	3.5	3.8	1.5
Average	1.9	1.8	1.5	1.2

\* Does not include families with head-of-household >= 65 years old.

Source: Estimates based on the Current Population Survey Data from 1986-1988, Bureau of Economic & Business Research, University of Delaware, 1989.

**TABLE 82**

AVERAGE NUMBER OF CHILDREN - DELAWARE  
BY FAMILY PER CAPITA INCOME\*  
1986

# OF CHILDREN	<= \$5,000	\$5,001-\$8,750	\$ 8,751-\$12,500	\$12,501-\$17,500	OVER \$17,500
None	8.1 %	13.6 %	16.8 %	35.7 %	58.8 %
One	32.8	33.6	34.8	39.1	24.4
Two	31.4	36.4	37.0	20.5	15.3
Three	15.9	14.5	9.2	4.0	1.5
Four or more	11.8	1.9	2.3	0.7	0.0
Average	1.9	1.6	1.5	.9	.6

\* Does not include families with head-of-household >= 65 years old.  
Each income group represents 20% of total families.

Source: Estimates based on the Current Population Survey Data from 1986-1988. Bureau of Economic & Business Research.  
University of Delaware. 1989.

The impacts associated with economic distress are, unfortunately, just one set of the impacts upon children associated with changes in family structure and single parent families. While comprehensive and conclusive data is not yet in hand, existing research indicates that many children in single parent families may have emotional and behavioral problems which could require social service intervention and/or limit their future productivity. Children in families headed by a single female have higher arrest rates, more disciplinary problems in school and a greater tendency to smoke and run away from home than do peers who live with both natural parents--no matter what their income, race or ethnicity. Children from divorced homes are also absent from school more frequently, are more likely to repeat a grade and to be placed in remedial reading classes.<sup>35</sup> Divorce can so disturb youngsters that they may become psychologically unable to live happy lives as adults.<sup>36</sup> Initial research identifies three major areas of problems for some children of divorce.

1. Low self-esteem, tending toward depression, anxiety, and maladjustment. Younger children particularly blame themselves for their parents' separation. The feelings of guilt, blame, and helplessness foster low self-esteem. In addition, children of divorce often feel rejected.

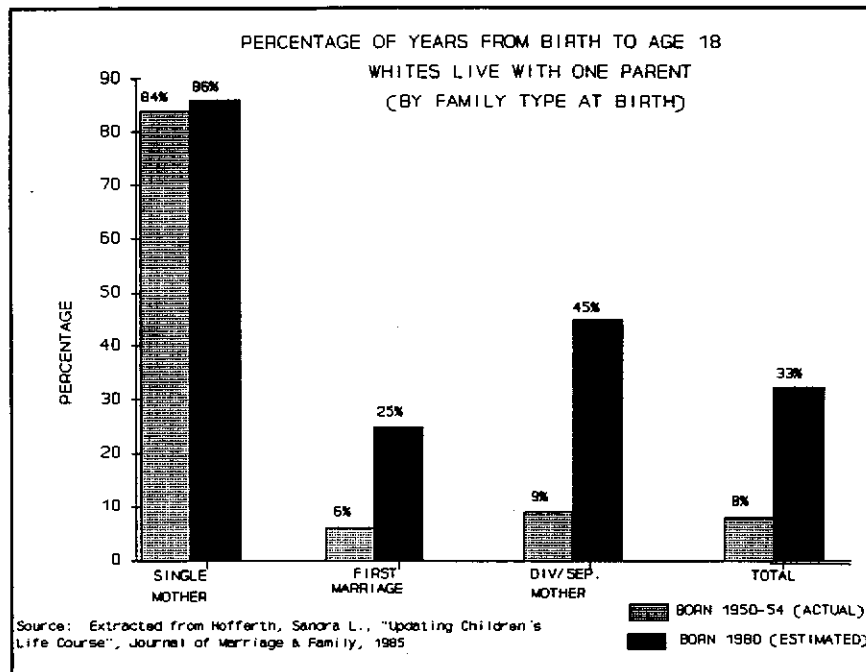
2. Difficulty in establishing lasting intimate relationships. Many children of divorce fear commitment, having seen a parent betrayed by a spouse who seemed loving and committed. Children of divorce may also manifest insecure sexual identities. Boys miss role models for masculinity. Girls need an attentive father to help them feel valued as women. Teenage girls who seldom see their fathers may seek male affirmation elsewhere.

3. Underachievement. Economic hardship, emotional upheaval, frequent relocations, and lack of a parent at home to encourage hard work sometimes add up to lowered success in school.

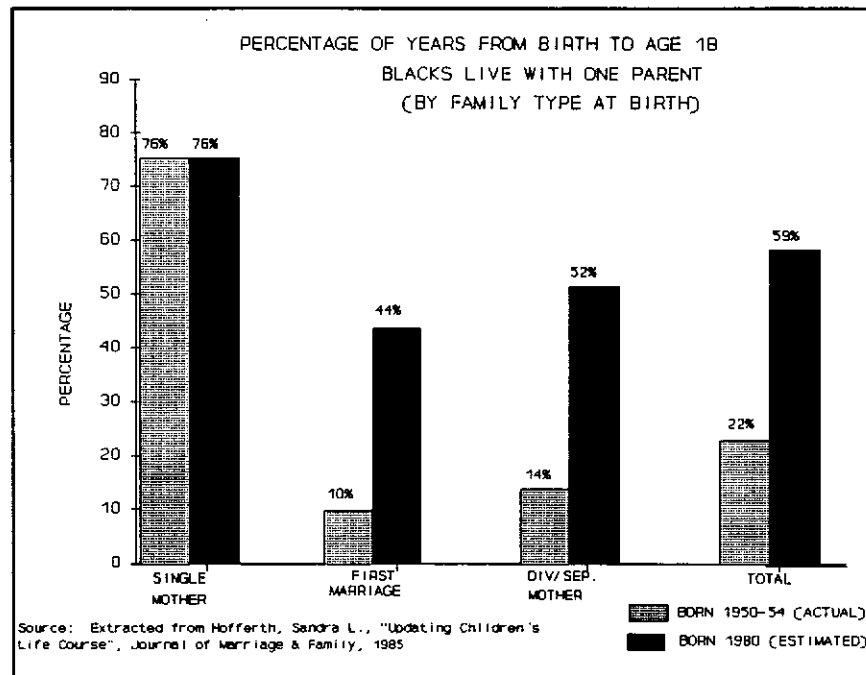
These problems may be exacerbated when the mother is an unwed teenage high school dropout.

Finally, when considering the issue of single parent families it should be recognized that cross sectional data for any given point in time understates the extent to which the impacts have touched children's lives. Based upon analysis of longitudinal data research estimates that of the children born in 1980 a total of 70% of the white children and 94% of the black children can expect to spend some time in a single parent family. Of children born in 1980 to two natural parents, both in their first marriage, by age 18, 64% of the white children and 89% of the black children will live with a single parent at least for a short period of time. Between birth and age 18 the average white child will spend one-third of their time and the average black child three-fifths of their time with a single parent (Figures 30 and 31).

White children born in 1980 to never-married mothers are expected to spend 86% of their childhood with one parent; among blacks the figure is 76%. White children born into first-marriage families are expected to spend 25% of their childhood with one parent; the comparable figure is 44% for black children. Figures 30 and 31 also emphasize how the family living structure of children has changed since the 1950's. The most notable change is that the expectancy of living a portion of their childhood with one parent has more than tripled for both white and black children born in first-marriage families.



**FIGURE 30**



**FIGURE 31**

## **Elderly Households**

Following is an analysis of an important segment of Delaware's residents, the elderly. In order to facilitate this analysis, and with nothing pejorative intended, all persons age 65 and older are classified as elderly. Because earnings are a proportionately smaller component of household income and because the elderly face many constraints with respect to maintaining, much less increasing, their work-related earnings, the analysis framework applied to single female-headed and married couple families, and nonelderly individual households is not sufficient. The analysis begins, therefore, with a summary of national trends and research on the economic status of the elderly. This establishes the framework for the subsequent economic profile of Delaware's elderly.

Across the nation the economic status of the elderly has improved dramatically over the past three to four decades. The major factors producing this positive trend include:

- increases in social security benefits in excess of inflation;
- the enactment of Medicare and Medicaid;
- the institution of the SSI program;
- the offering of food stamps to the poor of all ages;
- the automatic indexing to inflation of social security benefits, SSI benefits and food stamps;
- the spread of private pension programs throughout various industries;
- the increase in the supply of public (subsidized) housing for the elderly;
- the increase in homeownership and home equity fostered by Federal personal income tax deductions (i.e., for property taxes and mortgage interest payments), Federal insurance for housing and lending institution deposits, and mortgage revenue bonds;
- property tax relief laws for elderly homeowners legislated in all the states.

As a result of these changes the elderly poverty rate in the U.S. has fallen from 35.2% in 1959 to 12.4% in 1986. Moreover,

when adjusted for in-kind benefits including food stamps, housing assistance (public housing and Section 8) and medical care the elderly poverty rate drops to below 4.0%.<sup>37</sup>

The money income of elderly families tends to be lower than that of young families. According to researchers, however, this gap narrows and almost disappears when family income is adjusted for such factors as: differences in family size; in-kind income; possession of consumer durable goods; mortgage-free housing; lower tax rates and special tax provisions; and the fact that some elderly persons reside in families headed by nonelderly persons.<sup>38</sup>

**The improved economic condition of the elderly is reflected in the trends in elderly labor force participation and life expectancy.** The labor force participation rate for men age 65 and over has fallen from 46% in 1950 to 16% today, and a projected 10% by the year 2000. Similarly, the labor force participation rate for elderly women has fallen from 10% in 1950 to 7% today, and a projected 5% by the year 2000. Naturally, as a consequence, earnings have declined steadily as a proportional source of income for the elderly, while social security has increased significantly, dividends/interest have increased, pensions have increased modestly and SSI/public assistance has remained constant.

Life expectancy at birth has increased from 65.5 years for males and 71.1 years for females in 1950 to 71.3 years and 78.3 years, respectively, in 1986. The life expectancy at age 60 for white males has risen from 15.8 years in 1950 to 18.2 years in 1986 and for white females has risen from 18.6 years to 22.6 years. Similarly, the life expectancy at age 60 for black males has risen from 14.9 years in 1950 to 16.1 years in 1986 and for black females has risen from 17.0 years to 20.3 years.

The many improvements in the economic status (and health) of the elderly are widespread and noteworthy. **There still remains, however, a segment of the elderly who are desperately and chronically poor.** Research indicates that many, if not most, of the elderly poor were always in or on the margin of poverty. One Congressional review of poverty among older women concluded that: "The low-income and poor elderly did not, in their younger years, have the kind of work and income history that would permit accumulation of savings, pensions, and large social security benefits."<sup>39</sup>

Tables 83 and 84 help to underscore the differences between the poor and nonpoor elderly households. As seen in Table 83 only 4% of the poor elderly families derive income from earnings compared to 18% of the nonpoor families. The chronically poor are much more likely to have health problems and substantially more likely to be forced into retirement. Not surprisingly,

among the elderly poor families just 6% receive pension income compared to 46% of the nonpoor elderly families. With little surplus income over time, less than 31% of poor elderly families receive interest and dividend income in contrast to almost 79% of the nonpoor families.

These same patterns are reflected in the percentage distribution of annual income for poor and nonpoor elderly families (Table 84). For the nonpoor families 11% of their average annual

**TABLE 83**

INCOME SOURCES OF ELDERLY FAMILIES

INCOME SOURCE	PERCENT OF FAMILIES RECEIVING	
	POOR	NONPOOR
Earnings	3.9	17.9
Interest, dividends	30.6	78.9
Child support, alimony	2.7	2.5
Pensions	5.9	45.9
Social Security	86.9	96.9
Unemployment, disability or veterans benefits	4.4	5.8
WELFARE		
Cash welfare benefits	25.5	3.2
Food stamps	22.2	1.4
Housing assistance	18.2	5.8

Source: Schiller, p. 80

**TABLE 84**

PERCENT & AMOUNT OF INCOME FROM VARIOUS SOURCES,  
ELDERLY FAMILIES

INCOME SOURCE	PERCENT OF TOTAL INCOME & AVERAGE AMOUNT			
	POOR		NONPOOR	
Earnings	1.2	\$ 46	10.7	\$1,399
Interest, dividends	3.7	144	30.3	3,964
Child support, alimony	0.5	22	0.6	78
Pensions	2.1	82	16.3	2,125
Social Security	71.0	2,769	40.5	5,280
Unemployment, disability or veterans benefits	1.3	49	1.0	130
WELFARE				
Cash welfare benefits	10.7	416	0.4	52
Food stamps	1.9	74	0.0	0
Housing assistance	7.5	293	0.5	65
		\$3,895		\$13,093

Source: Schiller, p. 80

income is from earnings, 30% is interest and dividends, and 16% is from pensions. For the poor families 1% of their average annual income is from earnings, 4% is interest and dividends, and 2% is from pensions. The poor are very dependent upon government transfer programs as 71% of their annual income is from social security and 20% is from welfare programs. The nonpoor receive 41% of their annual income from social security and less than 1% from welfare programs.

Finally, sex and household structure are decidedly skewed when it comes to the elderly poor. Over 70% of the elderly poor in the nation are women, most of whom are living alone. And, while the economic status of married couple elderly families does not decline substantially with age, the highest risk of becoming poor is for persons who have become widowed. In other words, as

is true among the nonelderly, the most destitute among the elderly poor are females who are either single family heads or living alone.

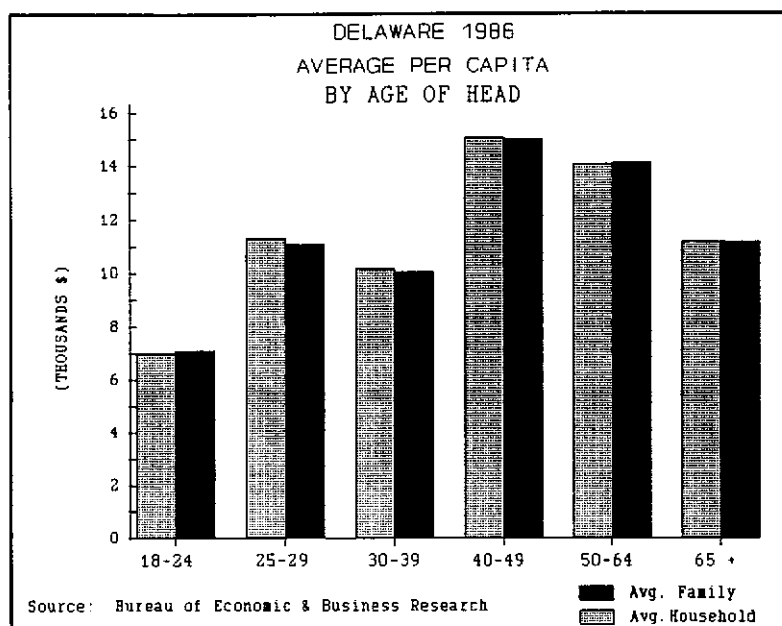
We will now turn to Delaware data and see if the trends across the nation are also evidenced in Delaware.

Of the 73 thousand elderly persons in Delaware a majority (67%) live in families, while almost one third (30%) live alone and a minority (2%) live with nonrelatives (Table 25). Among the elderly living in families 5.3 thousand (7% of all elderly Delawareans) are residing in families where the householder is nonelderly. Eighty-three percent of these individuals are women. Because the economic status of these individuals is intertwined with the economic status of the family with whom they reside, they are excluded from our analysis. Also excluded from the analysis are the elderly living in nursing homes and other group quarters.

With these adjustments the remaining 67 thousand Delaware elderly are split into elderly headed families (65%) and into nonfamilies (35%). Of the 65% of the elderly in families the majority (59%) live in married couple families, with 4% of the remainder living in single female-headed families and 2% living in single male-headed families. Of the 35% in nonfamily households 33% live alone and 2% live with unrelated individuals. The majority (approximately 80%) of the elderly living in nonfamily households are females. To improve the sampling precision for the data presented, these 67 thousand elderly are simply classified as living in either families or in nonfamily households.

Although, as throughout the nation, the elderly poverty rate in Delaware has been declining, 13% of Delaware elderly were poor in 1986 and an additional 17% of Delaware elderly are living in near poverty. In total, 30% of Delaware's elderly live in poverty or near poverty. (This compares to 9% for nonelderly married couple families, 26% for unrelated individuals, 30% for Delaware's children, and, 52% for single female-headed families.)

Also similar to the nation, when measured by average income per household member Delaware's elderly fare reasonably well (Figure 32). With a 1986 average of \$11.2 thousand per household member Delaware's elderly are in better than or comparable condition to Delaware households headed by persons age 18 through 39. The elderly have average income per capita which ranges from 75% to 80% of that of Delaware's households whose heads are near the peak of their life cycle earnings. In addition, 83% of Delaware's elderly are home owners, many of whom may have either fully serviced their mortgages or may have mortgages with relatively low interest rates.



**FIGURE 32**

Delaware's nonpoor elderly receive pension income compared to just 4% of the poor elderly. This is most likely a result of either a history of poor paying jobs with no significant pension benefits and/or the loss (through death, divorce or separation) of a spouse with pension benefits. Again, with little surplus income during their younger years, only 42% of the poor elderly receive interest income and 15% receive income from dividends and rent, in contrast to 80% and 42% of the nonpoor elderly, respectively.

**TABLE 85**

ELDERLY - SOURCES OF INCOME  
DELAWARE, 1986

	ALL	POOR	NON-POOR
Earnings	9.3 %	2.9 %	11.0 %
Foodstamps	3.1	13.7	< 1
Energy Assistance	1.9	7.9	< 1
Public Housing	4.0	8.2	2.9
Rent Subsidy	< 1	1.6	0.0
Public Assistance	0.0	0.0	0.0
Social Security	93.1	96.0	92.4
Veterans/Unemp/Disability	4.6	3.2	4.4
Alimony/Child Support	4.1	5.4	3.8
Interest	72.4	42.2	80.1
Retirement	48.3	4.3	59.4
Dividends/Rentals	36.5	14.7	42.0

Source: Bureau of Economic & Business Research, 1989

A number of interrelated factors, including household structure, age, and health, help to determine the economic status of Delaware's elderly. As shown in Table 86, the poverty rate varies by household type, being substantially higher for those elderly

Delawareans living in non-family households. The 1986 poverty rate is 7% for Delaware's elderly families and jumps to 35% for elderly in non-family households. While 15% of the elderly in families are living in near poverty, 21% of the elderly in non-family households are living in near poverty. Thus, 22% of Delaware's elderly residing in families and 46% of Delaware's elderly residing in non-family households are in poverty or near poverty.

**TABLE 86**

ELDERLY LIVING SITUATION AND INCOME LEVEL

DELAWARE, 1986

	ALL	BELOW POVERTY	100-124%	125-149%	150% AND ABOVE
FAMILY	64.6 %	7.3 %	6.5 %	8.0 %	78.1 %
NON-FAMILY	35.4 %	24.6 %	7.0 %	14.1 %	54.3 %

Source: Bureau of Economic & Business Research.  
University of Delaware, 1989

**TABLE 87**

ELDERLY - SOURCES OF INCOME  
DELAWARE, 1986

	ALL	FAMILY	NON-FAMILY
Earnings	9.3 %	10.4 %	7.4 %
Foodstamps	3.1	< 1	7.3
Energy Assistance	1.9	< 1	4.5
Public Housing	4.0	1.8	8.0
Rent Subsidy	< 1	0.0	< 1
Public Assistance	0.0	0.0	0.0
Social Security	93.1	93.8	91.8
Veterans/Unemp/Disability	4.6	6.1	1.7
Alimony/Child Support	4.1	4.4	3.7
Interest	72.4	73.9	69.8
Retirement	48.3	53.0	39.6
Dividends/Rentals	36.5	40.0	30.0

Source: Bureau of Economic & Business Research, 1989

Not surprisingly, given the differences in their poverty and near poverty rates, the distributions of the sources of income for elderly family and nonfamily households (Table 87) parallel the differences between the elderly nonpoor and poor (Table 85). Of course, while the patterns are the same, the differences are not quite as severe (e.g., 53% of elderly family households receive pension income compared to 40% of the nonfamily households).

Because of differences in male and female life expectancies, the age of an elderly Delaware resident is positively related to the probability of that individual living in a nonfamily household (Table 88). Among Delaware elderly 65 to 74 years of age 28% live in nonfamily households. This proportion increases to 45% for persons age 75 to 84 and increases again to 63% for persons age 85 and older. Widowhood means losses or reductions in certain streams of income (e.g., social security, pensions) and losses of household and personal services which may have to

be replaced by purchasing the services from the private or nonprofit sectors.

**TABLE 88**

Aside from household structure, age is directly related to the probability of an elderly Delawarean being poor (Table 89). The relationship, however, is not as strong as one might expect. The poverty rate rises from 10% for Delawareans ages 65 to 74, to 15% during ages 75 to 84, and to a high of 34% for those age 85 and older. The percentages of elderly in near poverty by age are 16%, 21% and 12%, respectively.

DELAWARE ELDERLY AGE DISTRIBUTION  
1987

AGE	TOTAL	FAMILY	NON-FAMILY	TOTAL
65-74	66.2 %	71.8 %	28.2 %	100.0 %
75-84	25.1 %	55.0 %	45.0 %	100.0 %
85 and over	8.7 %	36.8 %	63.2 %	100.0 %
	100.0 %			

Source: Bureau of Economic & Business Research,  
University of Delaware, 1989

**TABLE 89**

ELDERLY AGE DISTRIBUTION AND INCOME LEVEL  
DELAWARE, 1986

AGE	ALL	BELOW POVERTY	100-124%	125-149%	150% AND ABOVE
65-74	66.2 %	10.0 %	5.8 %	10.4 %	73.8 %
75-84	25.1 %	15.2 %	10.1 %	10.5 %	64.1 %
85+	8.7 %	34.4 %	3.6 %	7.7 %	54.4 %

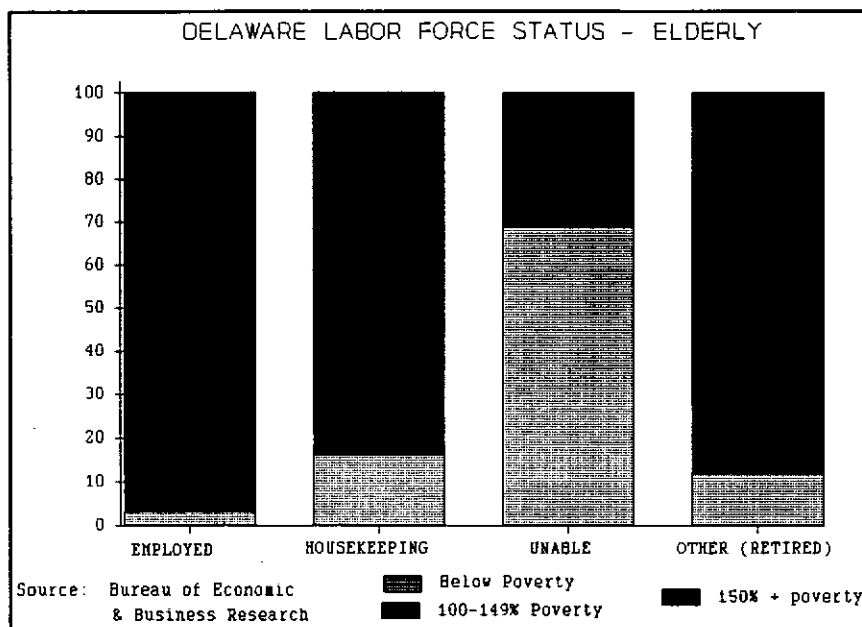
Source: Bureau of Economic & Business Research,  
University of Delaware, 1989

The direct relationship between age and poverty status is, in part, a function of earnings and labor force participation. Approximately 9% of all Delaware's elderly participate in the labor force. The average age of the working elderly Delawarean is 68.9 years and the average 1986 earnings are \$7

thousand. As might be expected, the elderly's labor force participation rate declines with age. From 18% to 20% during ages 65 and 66 the elderly's labor force participation rate drops quickly to around 4% by age 70 and approaches zero beyond age 75. Of those elderly who are employed 90% are age 65 to 74 and almost 10% are age 75 to 84.

Finally, as might be expected, health and age in combination have a significant impact on the economic status of elderly persons. Among Delaware's elderly the poverty rate is 3% for persons who are employed, 12% for persons who are retired, 16% for persons who are keeping house and a whopping 69% for persons who are disabled (physically unable to work) (Figure 33). The

percentage of Delaware elderly who are disabled rises from 31% among those age 65 to 74 to 40% among those age 75 to 84. And, it should be re-emphasized that these proportions exclude the elderly who are institutionalized.



**FIGURE 33**

In summary, the economic condition of the elderly has improved dramatically over the past four decades and this improvement is reflected in earlier retirements and increased life expectancies. Although the economic status of elderly households has improved, however, there still remains a segment of elderly individuals who are desperately and chronically poor and a relatively large proportion of elderly who hover just above the poverty line. Moreover, the overall improved economic condition of all elderly has, in large measure, resulted from significant increases in public transfers, including: social security, SSI, and food stamps, all indexed to inflation; medicare and medicaid; and personal income tax subsidies that have substantially increased homeownership. Any reduction in these transfers will, most certainly, cause the elderly to move economically backward. At the same time, it should be recognized that political resistance to further broadening of transfers to the elderly may be building.

Unlike married and single female family households, the relief for the chronically poor elderly does not lie in the labor market through increased earnings; job training and educational programs are not the answer to raising the elderly out of poverty. Age and health alone work against elderly persons

trying to remain active in the labor force. Some employers, wary of potential health insurance and disability costs, may shy away from hiring the elderly. This is compounded by the fact that many of the poor elderly are persons who have been chronically poor throughout their younger years. Frequently accompanying the chronic poverty in their younger years are weak work histories and health problems.

Once again, the importance of the relationship between family structure and economic status is evidenced. The poor elderly are composed mostly of females who do not receive adequate pensions and social security benefits due to work histories interrupted by responsibilities for production of household services and due to loss of spousal benefits from divorce and/or death of the spouse. The increased labor force participation of women in the under 65 age group may reduce elderly female poverty in the future. It must be kept in mind, however, that many women work part-time (and therefore do not qualify for pension benefits) and on average over their careers women still exit the labor force far more frequently than men. In addition, as discussed previously, while the number of hours put into household services by women has been falling over the past 25 years, the decrease is not substantial; women still on average produce 70% of all household services. Moreover, it is estimated that 80% to 90% of elderly Americans are cared for by family members, and<sup>40</sup> that 75% of these family care givers are nonelderly females.

**Footnotes  
Section I**

1. In order to track the Delaware business cycle relative to the national business cycle the Bureau used monthly employment data from the U.S. Department of Labor, Bureau of Labor Statistics' publication **Employment and Earnings**. The monthly employment files were converted into seasonally adjusted moving average monthly employment. The subsequent peaks and troughs from these adjusted data files were used to determine the changes in employment over the business cycle.

It should be noted that the peak months and trough months from this methodology differ from the "official" business cycle peaks and troughs established by the National Bureau of Economic Research (NBER). NBER uses real GNP and other measures to establish the national business cycle. Unfortunately, comparable monthly data is not available at the state level.

2. The Credit Research Center, **Household Credit Data Book, 1989**, Krannart Graduate School of Management, Purdue University, West Lafayette, Indiana; pp. 22 and 34.

3. Throughout the report the adjustment of nominal (current) dollars to real (inflation-adjusted) dollars was performed using the U.S. All Urban Consumers CPI (consumer price index) produced by the U.S. Department of Labor's Bureau of Labor Statistics.

4. Steven Allen, "Union Work Rules and Efficiency in the Building Trades," National Bureau of Economic Research Working Paper No. 1733, Washington, D.C., 1989.

5. John W. Kendrick, "Service Sector Productivity," in **Business Economics**, Vol. XXII, No. 2, April, 1987; pp. 18 - 24.

6. Inequality in this case means that the shares of total family income accruing to those families at the bottom of the income distribution are decreasing while the shares accruing to families in the upper end of the income distribution are increasing.

7. The basis for the 1986 Delaware poverty rate is the U.S. Bureau of the Census' Current Population Survey (CPS). In order to create a larger (and more stable) sample, three years of Delaware March CPS data were combined: 1986, 1987 and 1988. Duplicate interviews were eliminated: all of the households interviewed in 1987 were included, as were that half of the households interviewed in 1986 but not interviewed in 1987 or 1988, and, that half of the

households interviewed in 1988, but not interviewed in 1986 or 1987. This methodology for pooling state level CPS data (as well as the 1985 poverty rates in Table 5) is found in the U.S. Department of Labor, Bureau of Labor Statistics' **Monthly Labor Review**, July, 1989, pp. 21 - 26, in Robert D. Plotnick's article, "How Much Poverty is Reduced By State Income Transfers?"

This methodology generated a Delaware sample of 2,811 individuals, 1,211 families, and, 1,109 households (note that a number of families were doubling and tripling up in the same housing unit, which accounts for the number of households being lower than the number of families). CPS weights were divided in half in order to adjust for the doubling of the sample size (for more information on the CPS weights and methodology see **Current Population Survey, March 1988 Technical Documentation** and **Current Population Survey, March 1987 Technical Documentation**, U.S. Department of Commerce, Bureau of the Census).

This CPS data file was used extensively by the Bureau in the production of this report, particularly in Section II. While it would be more comforting to have "census" data, the only census data available for Delaware is considerably out of date (1980). Nevertheless, for cost reasons most research is based upon sample data and not population data, and, researchers are used to working with statistics and not parameters. Around each statistic from a given sample size a confidence interval can be calculated. For example, given our CPS sample size and the population of Delaware in 1986, the 95% confidence boundary around the 1986 poverty rate of 10.7% is + or - 1.1%; in other words, the 95% confidence boundaries range from 9.6% to 11.8%. Because disaggregated sample data increases confidence boundaries, we have attempted in both Sections I and II of this report to disaggregate data as little as is possible, and, to treat the relative differences among statistics for disaggregated populations as more credible than the exact absolute differences (most particularly in Section II).

8. See the **Statistical Abstract of the United States, 1989**, U.S. Department of Commerce, Bureau of the Census, Section 14.

9. Isabel V. Sawhill, "Poverty in the U.S.: Why Is It So Persistent?," **Journal of Economic Literature**, Vol. XXVI, September, 1988, pp. 1073 - 1119.

10. For an comprehensive discussion of future labor market conditions see the U.S. Department of Labor, Bureau of Labor Statistic's report **Workforce 2000: Work and Workers for the 21st Century**, 1989 (The Hudson Institute).

11. See Richard S. Belous, **The Contingent Economy: The Growth of the Temporary, Part-time and Subcontracted Workforce**, the National Planning Association, Washington, D.C., 1989.

12. Norman Bowers, "Have Employment Patterns in Recessions Changed?" **Monthly Labor Review**, U.S. Department of Labor, Bureau of Labor Statistics, February, 1981, pp. 15 - 28.

**FOOTNOTES**  
**Section II**

13. See footnote 7 in Section I for a complete discussion of the sample constructed to provide the data for the analysis in Section II.

14. Table 23 is found in Bradley R. Schiller, **The Economics of Poverty and Discrimination**, 5th edition, Prentice-Hall, Inc., Englewood, NJ, 1989. Schiller's book was of great assistance in providing structure to the analysis of poverty found in Section II of this report.

15. Sheldon Danziger and Peter Gottschalk, "Work, Poverty and the Working Poor: A Multifaceted Problem," **Monthly Labor Review**, U.S. Department of Labor, Bureau of Labor Statistics, September, 1986, pp. 17-21.

16. H.R. Stewart, M.E. Cannon and B.D. Frank, "Women In Delaware: A Documented Profile," the College of Human Resources, University of Delaware, December, 1988, p. 39.

17. Morley Gunderson, "Male-Female Wage Differentials and Policy Responses," **Journal of Economic Literature**, Vol. XXVII, March, 1989, pp. 46-72.

18. Victor R. Fuchs, **Women's Quest for Economic Equality**, Harvard University Press, Cambridge, MA, 1988, p. 78.

19. David T. Ellwood, **Poor Support: Poverty in the American Family**, Basic Books, Inc., NY:NY, 1988, Chapter 5.

20. United States Commission on Civil Rights, "A Growing Crisis: Disadvantaged Women and Their Children," Clearing House Publication, Washington, D.C., May, 1983, p. 52.

21. Mary Jo Bane and David Ellwood, "Slipping Into and Out of Poverty," **Journal of Human Resources**, Winter, 1986, 21(1), pp. 1-23.

22. Op. cit., Bane and Ellwood.

23. Op. cit., Stewart, Cannon and Frank.

24. Teresa Castro Martin and Larry L. Bumpass, "Recent Trends in Marital Disruption," **Demography**, Vol. 26, No. 1, February, 1989, pp. 37-51.

25. The U.S. Department of Commerce, Bureau of the Census, **Statistical Abstract of the United States, 1989**, Section 2.

26. Op. cit., United States Commission on Civil Rights, p. 12.
27. Ibid, United States Commission on Civil Rights, p. 12.
28. Harrell R. Rodgers, Jr., **Poor Women, Poor Families: The Economic Plight of America's Female-Headed Households**, M.E. Sharpe, Inc., Amonk, NY, 1986.
29. Op. cit., David Ellwood, p. 96.
30. Howard V. Hayghe, "Children in 2-Worker Families and Real Family Income," **Monthly Labor Review**, U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C., December, 1989, pp. 48-52.
31. Op. cit., Schiller, p. 50.
32. William Julius Wilson and Katherine M. Neckerman, "Poverty and Family Structure: The Widening Gap Between Evidence and Public Policy Issues," in **Fighting Poverty: What Works and What Doesn't**, ed. by Sheldon Danziger and Daniel Weinberg, Harvard University Press, Cambridge, MA, 1986, pp. 232-259.
33. The William T. Grant Foundation Commission on Work, Family and Citizenship, "The Forgotten Half: Pathways to Success for America's Youth and Young Families," Final Report, Washington, D.C., November, 1988, p. 27.
34. George J. Borjas, "The Demographic Determinants of The Demand for Black Labor," in **The Black Youth Employment Crisis**, ed. Richard B. Freeman and Harry J. Holzer, University of Chicago Press, Chicago, IL, 1986, pp. 191-231.
35. For example, see Lenore J. Weitzman, **The Divorce Revolution**, Free Press, New York, NY, 1985.
36. Wallerstein, Judith S. **Second Chances: Men, Women & Children A Decade After Divorce**. NY: Tichnor and Fields, 1989.
37. Timothy M. Smeeding, "Alternative Methods for Valuing Selected In-Kind Transfer Benefits and Measuring Their Effect on Poverty." Technical Paper 50, U.S. Department of Commerce, Bureau of the Census, Washington, D.C., 1982.
38. James H. Schulz, **The Economics of Aging**, 4th Edition, Auburn House Publishing Company, Dover, MA, 1988.
39. Op. cit., Schiller, p. 80.

40. See Tish Sommers and Laurie Shields. **Women Take Care: The Consequences of Caregiving in Today's Society**, Gainesville, Florida: Triad Publishing, 1987.

