

are currently located in these zones. About 25 percent of the residential wedge is within the sewer envelope. (This land is classified as residential in the table of zoned land by zoning category.)

D. Future Residential Growth

1. Development Capacity

* The total capacity of residentially zoned and planned land ranges from 440,000 to 480,000 housing units. In general, the low figure represents the capacity of the land if it were developed at its current base zoning density. The high presumes extensive use of floating zones such as planned development and other higher density zoning options.

* If growth were to continue at the 1980s pace, Montgomery County would near the build-out of its zoned capacity for housing within 20 years. As the household forecast section shows, the pace is expected to be slower in the next decades.

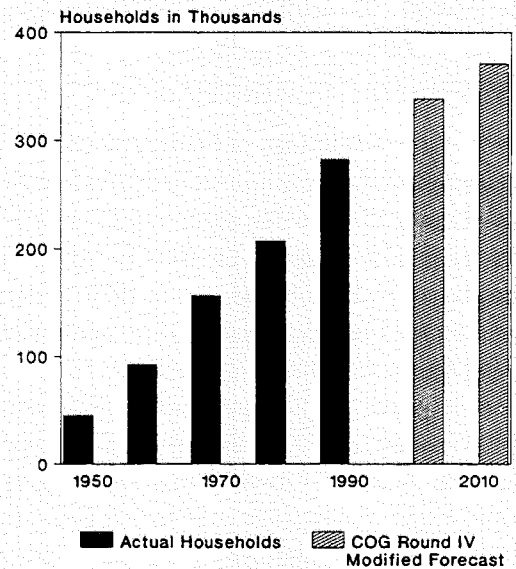
* Of the total zoned capacity, between 146,000 and 183,000 units remain to be built. About 296,000 housing units already exist. In September 1991, the pipeline of approved development contained 33,200 units, 23 percent of the total low remaining zoning capacity.

* Eight percent of the total residential development capacity is located in the County's ten current Metrorail station sector plan areas. This percentage would increase if planned transit-oriented development in the I-270 corridor, such as that in Germantown and the Shady Grove Study Area, were included. (The increase in the percentage of capacity associated with planned transit-oriented development will be available at the Planning Board worksession.)

2. Household Forecast

* Household growth is expected to continue, but at a slower pace between 1990 and 2000 than Montgomery County experienced in the 1980s. The Planning Department's Round IV

Montgomery County Experiences
Steady Long-Term Growth in Households



Source: Montgomery County Planning Dept. and U.S. Bureau of the Census

Modified Intermediate Forecast predicts that the County will see the construction of 56,000 new housing units by 2000 compared to 70,000 in the previous decade. The forecast expects the total number of households to reach 371,000 by 2010. (Planning Department forecasts are consistent with Council of Governments' forecasts and are expressed in terms of households rather than housing units. The number of housing units tends to be slightly higher than the number of households).

III. EMPLOYMENT LAND USE

The amount of land used for employment has grown more rapidly than expected by the 1969 General Plan. Employment land use has also been more intensive than envisioned and oriented toward office and service uses rather than the anticipated industrial and manufacturing uses.

A. Quantity

* The number of jobs located in Montgomery County has more than doubled since 1970. Montgomery County Planning Department data shows that total at-place employment in Montgomery County grew from 182,000 in 1970 to 455,000 in 1990, an increase of 150 percent.

* The percentage of Montgomery County residents working in the County has increased. Nearly 60 percent of Montgomery County's employed residents worked in the County in 1987, compared to about 54 percent in 1970. Although the General Plan expected employment growth along the corridors and in the urban ring, the radial pattern of the Plan implied that the central city, Washington, D.C., would remain the primary job location. The change in the geographic distribution of residents' jobs makes this less and less true. Most of the County's jobs are located as expected in centers along the corridor or within the urban/suburban ring.

* Montgomery County's share of regional employment increased as Washington, D.C.'s share continued to shrink. Between 1970 and 1989, the County's share of regional employment grew from 15 to 18 percent. During this period Washington, D.C.'s share of regional employment fell from 43 percent to 28 percent. According to the U.S. Bureau of Economic Analysis, Montgomery County's growth of 113 percent exceeded the region's 78 percent, but was smaller than Fairfax County's growth of 270 percent.

B. Future Growth in Employment

1. Development Capacity

* The total full development job capacity of employment-related zoned and planned land in Montgomery County ranges from 1,080,000 jobs to 1,340,000 jobs. Existing buildings account for about 40 percent of total capacity. Of the total capacity, space for 620,000 to 880,000 jobs remains to be built. In September 1991, the pipeline of approved development contained 125,000 jobs.

* If growth were to continue at the average annual rate of the years between 1970 and 1990, Montgomery County would have enough zoned capacity for jobs well beyond 2040, based on the low estimate of capacity. Growth is expected to be slower in the next decades, however.

* About 17 percent of the total employment related development capacity is located in the County's ten Metrorail station sector plan areas. This percentage would increase if planned transit-oriented development in the I-270 corridor, such as that planned for the Shady Grove area, were included. (The increase in the percentage of capacity associated with planned transit-oriented development will be available at the Planning Board worksession.)

2. Employment Forecast

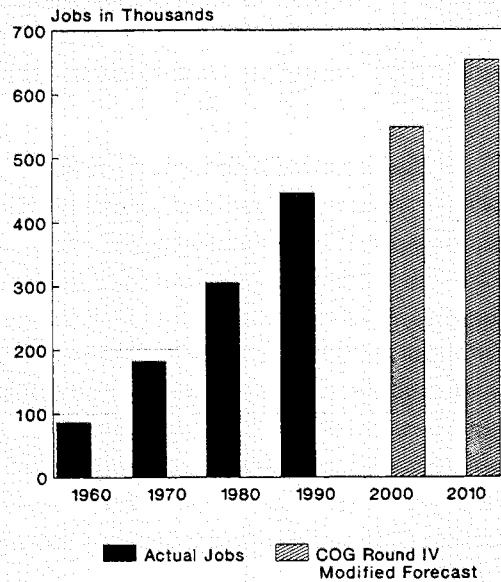
* Continued employment growth is expected in the coming decades, but at a slower rate than that of the past 20 years. Montgomery County is expected to add about 200,000 jobs over the next 20 years, boosting total employment to 650,000 by 2010.

C. Employment Types

* Contrary to the General Plan's expectations, there has been greater growth in office employment and space than in industrial employment and space. New office space accounted for 60 percent of total square footage of non-residential completions between 1979 and 1989, adding almost 28 million square feet during the decade, while industrial space accounted for only 20 percent of completions. In addition, industrial space has been used predominantly for research and development or warehousing, rather than manufacturing as the General Plan envisioned.

* Private employers in Montgomery County are predominantly small, with only 19 companies employing more than 1,000 people. The top three employers in Montgomery County, IBM, Marriott Corporation and the Chesapeake and Potomac Telephone Company, are dispersed

Montgomery County's Employment Growth Is Projected to Slow After 1990



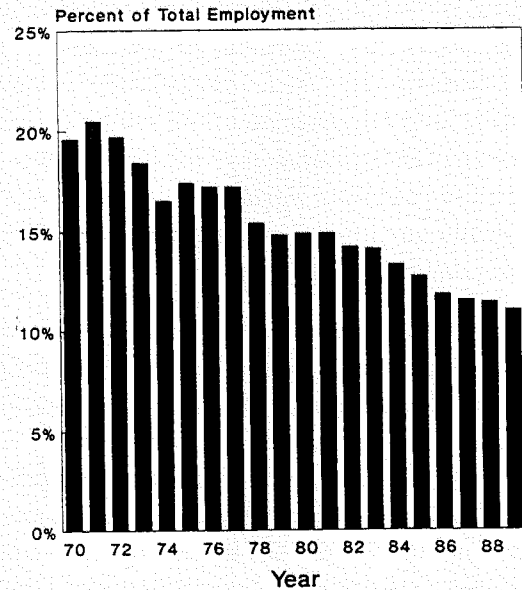
Source: Montgomery County Planning Dept.

geographically, but are located primarily in the urban/suburban ring.

* Many of Montgomery County's major private employers have been located in the County since before 1970. Companies that have employed over 2,000 people in the County since 1970 include Vitro Corporation and GEICO in the urban/suburban ring and the IBM Corporation in both the ring and the I-270 corridor. Other major employers that have located major facilities in the I-270 corridor since before 1970 include Fairchild Industries, Bechtel, NUS Corporation, National Geographic Society and Watkins-Johnson Company. The Chesapeake and Potomac Telephone Company, located within the urban/suburban ring, has provided continuous employment in Montgomery County since before the General Plan's adoption. Consistent with the General Plan, no major private employment centers are located in wedge areas.

* As the County's employment base diversifies, the federal share of employment continues to shrink. In 1970, almost one of every five employees in Montgomery County worked for the federal government. By 1990, even though federal employment had grown by over 30 percent to 42,000 employees, only one of every ten employees in Montgomery County worked for the federal government. The County is home to several of the federal government's largest campuses, including the National Institutes of Health, the Food and Drug Administration, the National Naval Medical Center, the Department of Energy and the National Institute of Standards and Technology. In 1970, 18 federal agencies existed in the County. In 1990, this number had increased by only 1 to 19 agencies.

Federal Share of Total Employment Has Declined Gradually for Two Decades



Source: Montgomery County Planning Dept.

* Contrary to the expectations of the General Plan, Montgomery County's fastest growing employment sector since 1970 has been the service sector rather than manufacturing. The Gen-

eral Plan envisioned significant growth in manufacturing. However, between 1970 and 1990 manufacturing declined from 5 percent to 4.4 percent as a share of total at-place employment. The service sector unexpectedly represented more than one-third of total at-place employment in the County, up from 21 percent in 1970. The retail sector followed with over 16 percent of at-place employment.

* **The character and intensity of use at employment centers have changed.** Prior to 1970, headquarters of large County employers such as Vitro Corporation, National Geographic, and GEICO were typically located in low-rise buildings in large park-like settings. After 1970, additional gross floor area was added to many existing employment centers and new ones were developed. This additional density more closely follows the wedges and corridors concept as envisioned in the General Plan. Office buildings have become more site intensive, thereby requiring less land per employee. Two federal agencies, the National Oceanographic and Atmospheric Administration and the Nuclear Regulatory Commission, have built tall office buildings within walking distance of major transit stations. The multi-story buildings at Rock Spring Park are another example of more intense office development in the urban/suburban ring.

* **An estimated 17.5 million square feet of retail space is located in 217 shopping centers across Montgomery County, an increase of almost 6 million square feet since 1970.** Based on data gathered from the 1990 Kalis's Shopping Center Leasing Directory, five urban/suburban ring and I-270 corridor locations - Silver Spring, Bethesda, Rockville, Germantown and Gaithersburg - account for more than 80 percent of the growth in retail space. The Gaithersburg area alone accounts for almost half of all new shopping center space since 1970.

* **The size of shopping centers and their anchor stores has changed during the last 20 to 25 years.** Between 1970 and 1990, the size of a proto-

typical grocery store almost tripled from under 20,000 square feet to nearly 60,000 square feet. As a result, grocery chains now prefer to locate in relatively large neighborhood shopping centers, ideally containing 100,000 square feet of space or more. This suggests that the development of small neighborhood shopping centers with standard grocery stores may be unlikely in the near future.

* **Regional mall space has grown since 1970.** Two new regional malls have been completed since 1970 in the urban/suburban ring and the I-270 corridor, White Flint Mall in North Bethesda and Lake Forest Mall in Gaithersburg. Major additions to the County's other two regional malls, Montgomery Mall and Wheaton Plaza, also have been made since 1970, and Wheaton Plaza has been enclosed. Every regional mall except Lake Forest Mall now has structured parking facilities, allowing the land to be used more intensively.

IV. RELATIONSHIP OF HOUSING TO EMPLOYMENT

* **In 1990, the County-wide ratio of existing jobs to existing housing units was approximately 1.5 to 1.** This is in line with the General Plan's land use objective of having a balanced relationship between residential growth and economic activities. Since Montgomery County households have an average of about 1.5 workers, a jobs/housing ratio of between 1.4 and 1.6 is reasonably balanced.

* **The potential future County-wide ratio of jobs to housing, based on the development capacity of all currently zoned and planned acreage for these uses, could range from 2.4 to 2.8 jobs per housing unit.** This zoned ratio of jobs to housing does not appear to be consistent with the General Plan's objective to "obtain a balanced relationship between residential growth and economic opportunities" although the Plan did not specify an exact ratio.