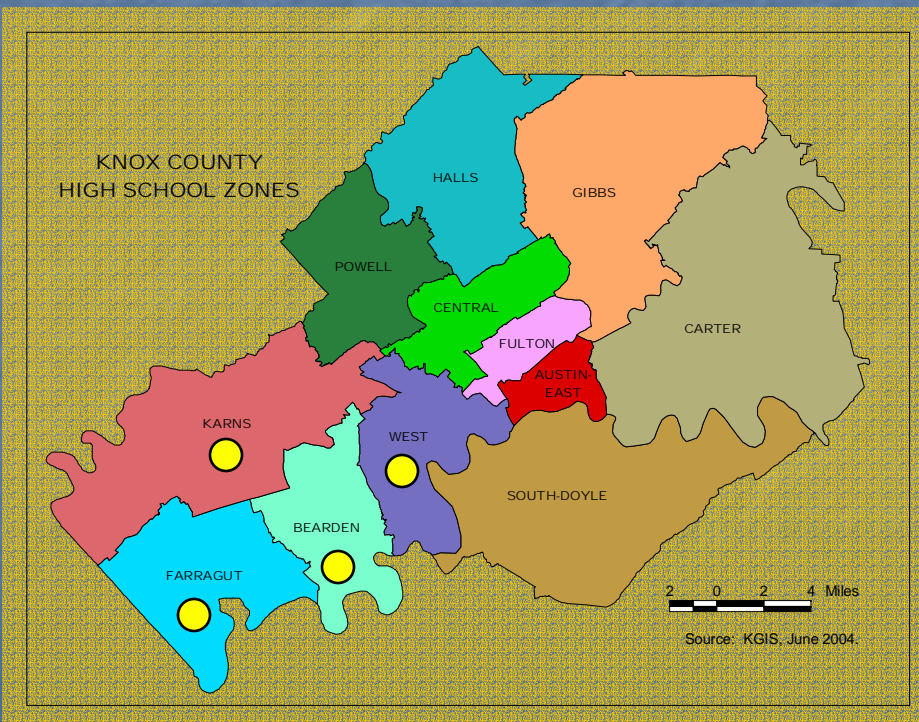


IMPACTS OF LAND DEVELOPMENT AND POPULATION GROWTH ON WEST KNOX COUNTY HIGH SCHOOLS



**SUMMARY
PRESENTATION:**
*A Report To
The County Mayor's
Task Force
On
School Overcrowding*

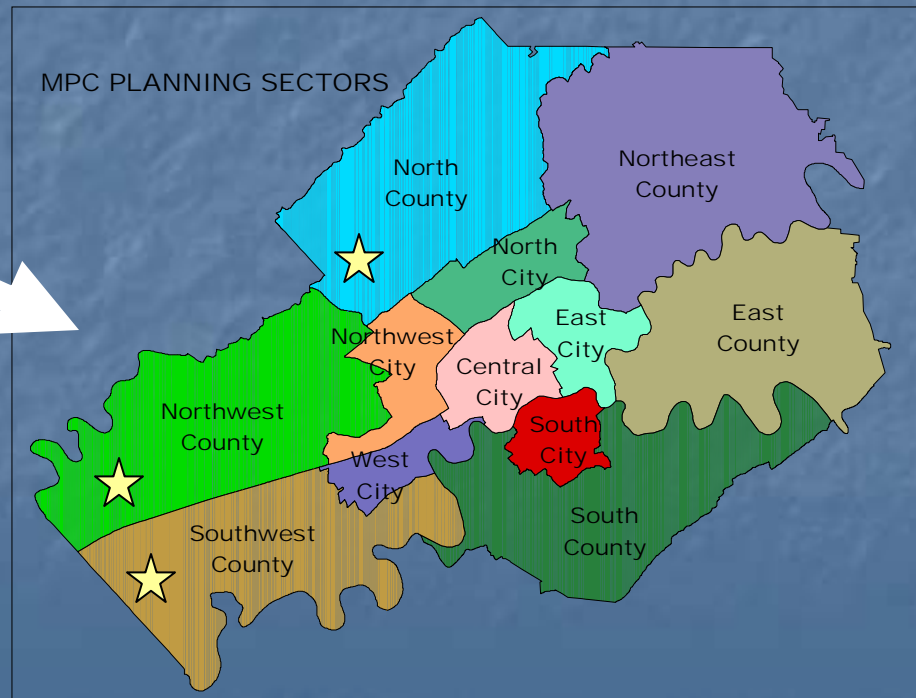
July 2004

Knox County Population Growth

- **1980-1990** – Actual 5 percent increase.
- **1990-2000** – Actual 14 percent increase, adding 46,283 new residents.
- **2000-2010** – Projected 10 percent increase, adding approximately 37,000 new residents.
- **2003** – Estimated Knox County population = 393,000.



Fastest population growth occurred in the Southwest, North, and Northwest County Sectors, combining for more than 85 percent of the countywide increase.



School Age Population Growth

The geographic distribution of school age population growth during the 1990's reflected general population growth:

- Largest school age increases were in the Southwest, Northwest, and North County Sectors, representing 87.6% of the entire county's net growth.
- The Southwest County Sector alone accounted for 46.4% of the county's school age population increase during the 1990s.

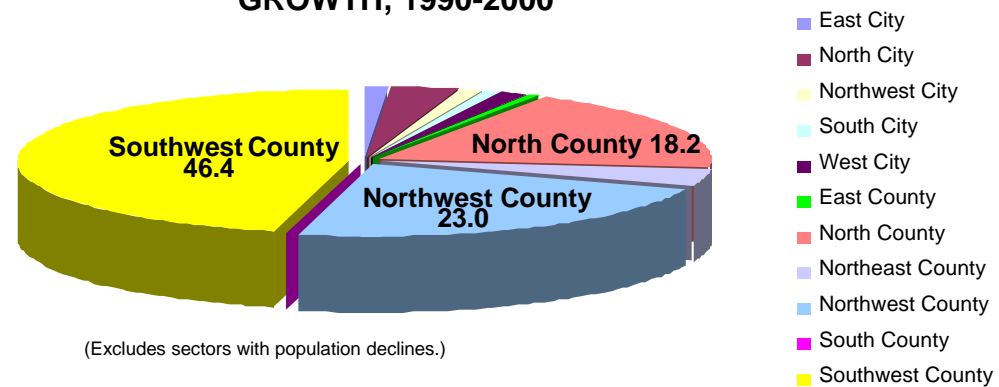
Top 5 School Growth Sectors:

Total Students

| | |
|---------------------|---------|
| 1. Southwest County | + 4,148 |
| 2. Northwest County | + 2,058 |
| 3. North County | + 1,625 |
| 4. Northeast County | + 355 |
| 5. North City | + 288 |
| 6. Northwest City | + 120 |

Knox County Total: +8,299

SHARE (%) OF SCHOOL AGE POPULATION GROWTH, 1990-2000



Growth in Development

To accommodate new residents over the past 10 years, more than 22,000 subdivision lots were approved in Knox County, adding more than 33,000 new single-family and multi-family homes to the area's housing inventory.

- The Southwest County Sector led all others with its one-quarter share of all new subdivision lots, and, when combined with the North and Northwest County Sectors, 65 percent of the inventory was represented. The only other sector with a double-digit share of building lots was the Northeast County.
- Similar to the pattern of subdivision lot generation, the west and north portions of Knox County reported the bulk of building permit activity, holding 60 percent of the permits issued.

| Residential Building Permits, 1994-2003 | | |
|---|---------------|--------------|
| | Permits | Share (%) |
| City of Knoxville | | |
| Central | 1,135 | 3.4 |
| East | 783 | 2.3 |
| North | 2,175 | 6.5 |
| Northwest | 1,718 | 5.1 |
| South | 571 | 1.7 |
| West | 1,533 | 4.6 |
| City Total | 7,915 | 23.6% |
| Knox County | | |
| East | 1,233 | 3.7 |
| ★ North | 5,449 | 16.3 |
| Northeast | 2,925 | 8.7 |
| ★ Northwest | 6,755 | 20.2 |
| South | 1,380 | 4.1 |
| ★ Southwest | 7,837 | 23.4 |
| County Total | 25,579 | 76.4% |
| All Sectors | 33,494 | 100.0 |

Current High School Capacity

| High School | 2003 Students (#) | Total Capacity (#) | Available Capacity (#) | Occupancy Rate (%) |
|-------------|-------------------|--------------------|------------------------|--------------------|
| Austin-East | 744 | 792 | 48 | 93.9 |
| Bearden | 1,879 | 2,280 | 401 | 82.4 |
| Carter | 947 | 1,525 | 578 | 62.1 |
| Central | 1,303 | 1,719 | 416 | 75.8 |
| Farragut | 2,399 | 2,160 | (239) | 111.1 |
| Fulton | 1,037 | 1,375 | 338 | 75.4 |
| Gibbs | 965 | 1,522 | 557 | 63.4 |
| Halls | 1,067 | 2,023 | 956 | 52.7 |
| Karns | 1,505 | 1,536 | 31 | 98.0 |
| Powell | 1,152 | 1,437 | 285 | 80.2 |
| South-Doyle | 1,341 | 2,213 | 872 | 60.6 |
| West | 1,336 | 1,680 | 344 | 79.5 |
| TOTAL | 15,675 | 20,262 | 4,587 | 77.4 |

- Early in the 2003/2004 school year, 2,400 students were enrolled at **Farragut** High School, the largest student body of all 12 area facilities. By contrast, **Austin-East** enrolled about 750 students, roughly one-third the Farragut total. **Bearden** High was the second largest operation, with an enrollment of 1,879 students. **Karns** High School was third in size, and West High ranked fifth.
- Farragut** High School housed 239 students over its facility limit. **Karns** was at capacity, with a leeway of only 31 students, representing 98 percent occupancy. The only other facility nearing its limit was **Austin-East**, just 48 students shy of being full.

High School Enrollment Projections

Projected Difference Between Capacity and Enrollment

Scenario A: Based on New Residential Development Trends

| YEAR | BEARDEN | FARRAGUT | KARNS | WEST | TOTAL |
|------|---------|----------|-------|------|---------|
| 2004 | 364 | (335) | (9) | 323 | 367 |
| 2005 | 327 | (432) | (48) | 303 | 198 |
| 2006 | 290 | (531) | (86) | 282 | 28 |
| 2007 | 254 | (632) | (125) | 261 | (141) |
| 2008 | 218 | (735) | (162) | 240 | (311) |
| 2009 | 183 | (839) | (199) | 220 | (480) |
| 2010 | 147 | (945) | (236) | 199 | (649) |
| 2011 | 112 | (1,052) | (272) | 178 | (819) |
| 2012 | 78 | (1,162) | (307) | 158 | (987) |
| 2013 | 44 | (1,273) | (342) | 137 | (1,156) |

364 – Additional Student Capacity (335) – Students in Excess of Capacity

High School Enrollment Projections

Projected Difference Between Capacity and Enrollment

Scenario B: Based on Lower Grade Enrollments and New Residential Development Trends

| YEAR | BEARDEN | FARRAGUT | KARNS | WEST | TOTAL |
|------|---------|----------|-------|------|---------|
| 2004 | 369 | (279) | (202) | 203 | 92 |
| 2005 | 354 | (268) | (432) | 76 | (270) |
| 2006 | 429 | (225) | (629) | 10 | (415) |
| 2007 | 408 | (156) | (747) | (6) | (501) |
| 2008 | 318 | (174) | (740) | 39 | (558) |
| 2009 | 210 | (192) | (679) | 74 | (588) |
| 2010 | 103 | (251) | (666) | 110 | (704) |
| 2011 | 78 | (338) | (720) | 70 | (910) |
| 2012 | 32 | (415) | (740) | 17 | (1,105) |
| 2013 | (28) | (489) | (762) | (22) | (1,301) |

369 – Additional Student Capacity (279) – Students in Excess of Capacity

Students Per Household

- Students per household data helps to explain the differences between the two student enrollment growth projections.
- Values ranged from a high of 17 students per home attending Farragut to a low of 6 students per 100 homes attending West High.
- Figures indicate that the gap between Farragut and Karns will lessen considerably as middle and elementary school students approach high school age.

| High School | 2003 Households | High School Students per Households | Middle School Students per Household | Elementary Students per Household |
|-------------|-----------------|-------------------------------------|--------------------------------------|-----------------------------------|
| Bearden | 20,775 | 0.090 | 0.059 | 0.140 |
| Farragut | 13,851 | 0.173 | 0.105 | 0.182 |
| Karns | 19,792 | 0.076 | 0.083 | 0.147 |
| West | 22,652 | 0.059 | 0.055 | 0.097 |
| TOTAL | 77,070 | 0.092 | 0.072 | 0.137 |

Projected High School Capacities

- According to 10-year enrollment forecasts:
 - **Bearden High School** is well-suited to accommodate enrollment increases over the next seven years. It will reach critical limits by 2012, and exceed capacity by 2013 if growth continues at its forecasted pace.
 - **Farragut High School's** overcrowding situation will worsen over the next 10 years.
 - **Karns High School** enrollment will exceed the facility's carrying capacity beginning with the 2004/2005 school year and worsen thereafter.
 - According to one growth scenario, **West High School** is equipped to handle enrollment growth for the next 10 years. Excess capacity will shrink over the period, but it will not be exhausted. A second scenario, based on existing enrollment numbers and anticipated housing development, shows several years of tight conditions where enrollment will near capacity and exceed it briefly in 2007 and 2013.

Conclusions

- For the next ten years, Knox County School System high schools have a total capacity capable of accommodating projected high school enrollment if redistributed equally among all twelve facilities. However, by 2013 new development and projected population growth will result in system-wide overcrowding.
- Current system-wide high school capacity is 20,262; high school enrollment in 2003 was 15,675 (77.4%). Projected 2013 high school enrollment is 22,389 students.
- Unless major adjustments are made to most of the county's 12 high school zones, overcrowding in the four west county high schools will not be resolved without new facility construction.

Conclusions

- School zone adjustments among the four west area high schools would provide Farragut High School overcrowding relief for one to three years. Combined student occupancy at **Farragut, Karns, Bearden** and **West High** Schools was at 93% of capacity in 2003, with the ability to add 537 more students.
- Total student enrollment for the four west high schools is projected to exceed 100% capacity between 2005 and 2007.
- By 2013, projected enrollment at the four west county high schools will exceed capacity by 1,156 to 1,301 students.

Conclusions

- If construction of a new high school facility is pursued, the new facility should be sited within either the Southwest or Northwest County sector. The North County sector is the third fastest growing area in Knox County, and although not included in this report, may need to be considered if and when location of a new high school facility is discussed.
- A very sharp disparity is evident when comparing recent and projected growth trends for city and county sectors. Unless the factors that contribute to these trends are understood and addressed, Knox County Schools will continue to face overcrowding in county sectors and underutilized facilities in city sectors. Issues related to disproportionate growth cannot be addressed by Knox County Schools alone.