

Young Women's Leadership Charter School of Chicago: Preparing Urban Girls for Careers in Science and Technology

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Background

- Inspired by the Young Women's Leadership School of East Harlem in NY, Chicago women came together in 1998 to create a school to help girls in fields like **math, science, and technology** where they are historically underrepresented.
 - Chicago Board of Education granted charter December 15, 1999.
 - The school opened its doors August 22, 2000 with 150 girls in grades 6 and 9.
 - In 2001, the enrollment doubled to 300 girls in grades 6, 7, 9, and 10.
 - At the end of the third academic year, the school now serves 327 girls in grades 7 – 11.
- Fourth **all-girls public school** in the United States.
- Located on the campus of the **Illinois Institute of Technology**.
- Girls from 30 communities around Chicago attend: one-third from Bronzeville, Bridgeport, and other nearby South Side neighborhoods.
- Chicago residency is required; admission is by lottery.



Students meet the discoverer of Sue the T-Rex

Curriculum

- Math, science, technology, and humanities courses required every year.
- Special curricular features include weekly special topics seminars, hands-on science experience, inquiry-based teaching, and performance-based assessment of student achievement.
- Science course material is issues based and is **endorsed by the National Science Foundation** based on field tests in urban area schools:
 - 7th grade: "Science and life Issues" from the Science Education for Public Understanding Program at UC-Berkeley; highlights science and its uses in the context of social issues.
 - 8th grade: "Constructing Ideas in Physical Science" from San Diego State University; inquiry-based course combining hands-on experience with innovative computer software.
 - 9th grade: "Science and Sustainability" from SEPUP at UC-Berkeley
 - 10th grade: "Chemistry in Community", WH Freeman
 - 11th grade: "Insights in Biology" from the Educational Development Center; develops conceptual understanding through investigations of personally & socially significant issues.
 - 12th grade: "Modelling Physics" from Arizona State University

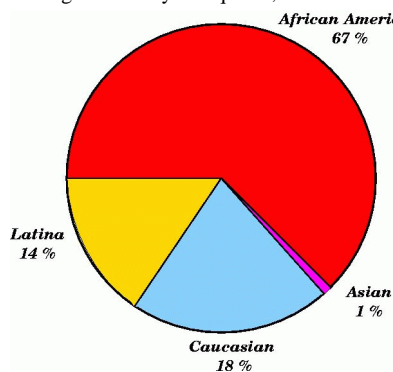
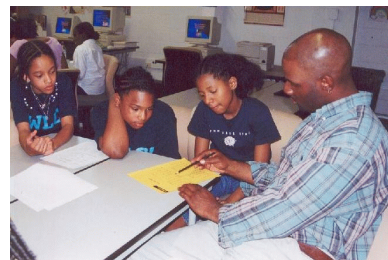


Fig 1: The demographic breakdown of the school.

Mentoring, Internships, and Enrichment Programs

- Middle school students learn commitment to service through monthly projects at nursing homes, day care centers, and food and clothing shelters.
- Ninth graders are **matched with professional Chicago women mentors to advise them through graduation**
- High school students have **required internships**; they work three afternoons each month at sites like **technology companies, law firms, community organizations, and hospitals**. Examples include the Field Museum, the YMCA, U of Chicago Physics Dept, Cook County Hospital, the Art Institute of Chicago, Chicago Historical Society, and Teach for America. Students apply for internships by developing a cover letter and interviewing for positions.
- Summer enrichment programs** are strongly encouraged: 41 students attended ones last year at colleges and universities around the US and Mexico.



Students receive personal attention from teachers

Initial Results

- YWLCs students have taken state tests once, and the results were very positive:
 - In science, 68% of 7th graders met or exceeded state standards.
 - In social studies, 46% of 7th graders met or exceeded state standards.
- On Chicago Public School tests, students who had been at YWLCs for two years increased their scores in all areas:
 - In reading, 7th graders at or above grade level gained from 57% to 62%.
 - In math, scores gained from 32% to 39% at or above grade level.
 - Tenth grade students showed a small gain, from 26% to 27.5% at or above grade level.
- The attrition rate is 10%.
- The attendance rate is 93% – 10 to 15% higher than Chicago public school average



Students on the radio