

Pipeline Newsletter: Vol. 02- Issue 1, Fall 2011

COORDINATOR'S BRIEF

Wow! Summer vacation is almost over. I hope you all had a wonderful break and the opportunity to recharge your batteries for the new school year. Unfortunately, gender equity does not get a summer vacation and efforts to combat gender issues will require your full commitment and energy.

As you plan your school calendar we encourage all schools to incorporate a few gender equity goals. One such goal could be a promise to increase and improve girls' participation in science and math. A second goal could be to introduce a technology plan to improve girls' awareness of technology and the benefits of having technical skills. We also suggest that all schools introduce programs that link learning to real life with a focus on discussing careers and how they affect a student's economic future. You will need help to accomplish these goals and we strongly recommend that you invite parents to coordinate activities or even mentor students.

Your calendar would not be complete without including staff professional development on gender equity. This can help to bring all staff in sync with accomplishing these goals which require a year-long effort.

Welcome back and I wish for all a successful year!



Above: Middle school students participate in Gateway Academy Summer Camp technology field trip. The Camp hosted by H.S. for Construction Trades, Engineering and Architecture, in Queens, NY, provides students with a new awareness of the principles of science, technology, engineering and math in a learning lab environment.



Below: Students observing Water Waste Treatment Plant operations in the town of Windham, NY. July 28,

CHALLENGING GENDER STEREOTYPES

The Absence of Women's Contributions in Technical & Scientific Curricula

We know that society has different concepts and ideas about the female and male genders. Many of these concepts influence the perception of how a person should behave and act. Eventually these concepts become our social ideology and cultural norms and, unfortunately, these include negative gender stereotypes that become difficult to overcome. One pervasive social ideology is that women do not pursue nor are they interested in construction technology, natural science, engineering or technical subjects and careers. Some of this can be attributed to how the curricula of these subjects are presented to girls and women. History and literature curricula often feature female participants, heroines and role models, while their absence is pronounced in technical and scientific curricula. Girls then naturally accept that males should dominate these fields because the curricula ignores or forgets women and their contributions to these areas. Educators can help to challenge the current curricula's social norms by ensuring that their course materials in natural science and technological studies feature the accomplishments and contributions of women. By directly addressing the absence of women in academic materials, schools can help empower and inspire girls to pursue technical electives. Today, that means providing material to compensate for the lack of inclusion of women's accomplishments in textbooks. If technical and scientific textbooks featured women like Limor Fried, girls might be convinced that they too can develop electronic kits and components for public use. Ms. Limor, an electrical engineer, now runs Adafruit Industries, a New York City tech company.

Grade Nine Orientation

The two major goals of your grade nine orientation should be introduction and integration. In your invitation to the orientation remind parents that this event is very important, even suggest that attendance is mandatory. The orientation event is the first step towards making the transition from grade 8 to grade 9 a positive experience for both students and their parents. Do not forget to introduce and describe all your school's programs and areas of study. It is important to note that both the new students and parents may not truly understand the distinction between a CTE high school and a non-CTE high school.

Introducing your school will require the help of both teachers and current students, especially girls in nontraditional CTE programs. Have your teachers lead a discussion describing how both academic and CTE studies compliment each other. Also include remarks about common stereotype traps girls may face when choosing a CTE elective in grade nine. When discussing stereotypes, encourage girls to consider nontraditional options—simply because they open doors to many new careers that can offer financial security.

After introducing your school, start integrating the new students into your school community. Get help from student leaders in Grades 10-12. Ensure that girls in nontraditional electives discuss their experience at the school and have them welcome and challenge new girls to join them in these subject areas. Your girls in nontraditional programs should facilitate and lead student tours of shop classes or expose the new students to a mock schedule where they get to meet vocational teachers and get a visual of the classrooms and the equipment.

Finally, your grade nine orientations should always remind students and parents that grade 10 is not that far behind and they should start thinking about career goals. This discussion may include break-away group presentations focusing on career exploration of individual CTE electives offered at your school.



Work-Based Learning (WBL) Summer Intern
Ny-Aya Fraser, Junior at Westinghouse CTE High School—Major in Graphics Arts

Helping Girls in Grade 8

The U.S. Bureau of Labor Statistics (BLS) indicates that the top seven of the 10 fastest growing occupations are technology and construction related. BLS data also projects that computer and the skilled trades will be the industries with the fastest salary growth rate. Such statistics should entice more people, including women, to seek careers in construction and technology. Yet, despite the projected opportunities, few girls attend schools that offer these subjects and even fewer women are engaged in these occupations. Research tells us that the reason for this is that girls' interest in technology begin to decline around grade seven and eight in middle school. Some of this has been attributed to the perception that technology is for geeks and construction work is dirty. Stereotypes like these push girls away from construction and technology and cause them to avoid high schools that offer these programs.

Middle schools can help reduce this decline in girls' participation and interest by helping girls understand the importance of technology in their lives. A middle school educator can intervene and help in several ways, such as including career workshops in the information sessions about high school choice. The main objective of hosting such an event is to create awareness and educate parents and students about careers.

For instance, instead of focusing or forcing the issue about career choice (because young girls and their parents may think that decision is far in the future), the focus could be on career exposure. Identifying and describing construction and technology careers as well as outlining the current economic trends in these areas can be effective in persuading girls to consider these careers. This strategy could also be supported by having female speakers present or conduct these workshops. To ensure that the information is digested, schools should provide resources and referral information about careers, such as directing families to the US Department of Labor's **Occupational Outlook Handbook** web address or handouts.



Above: Ny-Aya and Sharif participated in science and technology trip as student chaperones to middle school students in Gateway Summer camp.

Right: WBL Intern Sharif Aris, Junior at City Poly CTE High School - Major Civil Engineering and Architecture



Summer Interns - Work Based Learning

This year we welcomed two student interns, Sharif Aris and Ny-Aya Fraser from City Poly and George Westinghouse respectively. We were honored to have both girls and excited to learn that they were pursuing nontraditional CTE electives and only a little disappointed that they had no interest in pursuing legal careers. However, both were eager to learn and understand how the legal profession intersected with their CTE school and women's issues. Our interns taught us many lessons this summer and we hope they learned even more from us.

Both girls expressed that the internship was important to them because it gave them an opportunity to experience a real workplace and learn about office culture. Sharif said that the work-based learning experience was important because it made her feel useful during the summer. She opined that more students should have a summer internship because it could encourage them to complete high school. Both girls also shared that their parents were proud of the fact that they were working and they felt bad for their friends who had not gotten the opportunity to work.

Keeping both girls focused, engaged and having fun was very important to our having a successful internship. We paired each girl with a college mentor who not only helped them with their work or supervised them but also shared tips about the college application process and searching for scholarships. The primary role of the college mentors was to engage them in discussions about their future. As Sharif pointed out, "Now when I get asked what my plans are for the future I can be confident in my response. I can say that in a year I will be graduating high school, in five, I will be graduating college or an apprenticeship, in 10 years I should have my own home, and then in 15 years I will be married and perhaps be a mother and open my own business."

We also gave them the opportunity to speak to other staff about what the work they do at Legal Momentum. Ny-Aya was especially grateful for meetings with our Communications and IT staff because of her interest in graphic communications and software design. Although frustrated that the internet platforms we used are more sophisticated than the programs taught in school, she was excited about learning these new programs throughout her career. The girls declared that the highlight of their internship was the trip they made to the Waste Treatment Plant in Windham, NY. Both were allowed to be chaperones to the middle school students on the trip. As Ny-Aya said, "It was amazing, I did not even know about this type of work and it is so important we take care of our water supply." They were also grateful for the opportunity to be a mentor to the middle school students as it allowed them to discuss their high school experience and express pride about their CTE high schools.

At first glance, Josaine Richards' job as a NYC high school teacher appears to be a traditional role for women. Since 2006, however, Ms. Richards has taught technology education at the H.S. for Construction Trades, Engineering and Architecture in Queens, NY, where she models gender diversity in nontraditional careers for all students. Ms. Richards has taught a variety of technology education classes, including Introduction to Engineering, Architecture, Construction Technology/Management and Computer Arts & Design. She is also a certified Project Lead the Way instructor. Ms. Richards holds a B.S. from CUNY and an M.A. in Technology Teacher Education from Ball State University. Her passion for science and math inspires her students, and she aspires to one day run an all-girls school that focuses on nontraditional career preparation.

THE NEWSLETTER WILL BE ISSUED MONTHLY.

Next issue: October 2011. If you have a gender equity activity/event submit information to bwatson@legalmomentum.org.
Deadline for the next issue: Friday, September 30, 2011.

You might be interested in reading "**Cool Women, Hot Jobs: And How You Can Go for It, Too!**" Though some of the careers highlighted require more than just formal school training, they bring to the table technical options that many girls might not even consider. This is the perfect book for teachers and guidance counselors to have on hand when encouraging girls to think about (and shape) their futures. It is available in the public library and definitely worth a read.

The Pipeline Project is designed to create effective recruitment and retention strategies for girls exploring non-traditional career opportunities; provide technical assistance on compliance with the gender equity requirements of Title IX and the Carl Perkins Act; and develop systemic approaches to gender segregation in CTE schools and career training tracks.

Legal Momentum is dedicated to advancing rights and opportunities for women and girls. Founded in 1970 as the NOW Legal Defense and Education Fund, our work focuses on economic security/justice and freedom from gender-based violence. Legal Momentum has developed nationally-recognized expertise and precedent-setting cases focused on the employment rights of women, as well as programs that challenge discrimination and expand opportunities for women and girls in historically male-dominated fields such as the skilled trades.