



## Minutes City Council Education, Technology & Economic Development Committee December 4, 2007

Minutes of the Council Education, Technology and Economic Development Committee held on December 4, 2007, 2:00 p.m., at the Tempe Historical Museum, 809 E. Southern, Tempe, Arizona.

**Committee Members Present:**

Councilmember Onnie Shekerjian, Chair  
Councilmember Barb Carter

**City Staff Present:**

Jennifer Adams, Dep Pub Wrks Mgr	Loren Maxwell, ITD Proj Mgr
Kathy Berzins, Dep Comm Svcs Mgr	Sheri Partridge, Council Aide
Tom Canasi, Comm Svcs Mgr	Mark Richwine, Parks & Rec Mgr
Rosa Inchausti, Diversity Mgr	Dr. Alex Smith, Tech Dev Spec
Kate Hanley, TCC Exec Dir	Karl Stephens, ADA Accessibility Spec
Shelley Hearn, Comm Rel Mgr	Lynette Stonefeld, TCC Comm in Schools
Ted Hoffman, Deputy IT Mgr	Sheri Wakefield-Saenz, Econ Dev Dir
Jan Hort, City Clerk	

**Guests Present:**

Kelly Alexander, Kyrene School District  
Julie Alvarado, University Public Schools/ASU  
Barbara Blalock, Exec Director, Treasures 4 Teachers  
Matt Bolin, ASU Student Government  
Amanda Burke, ASU, Associate Director of the Office of University Initiatives  
Chris Busch, TD3  
Chris Bustamante, VP, Rio Salado College  
Susan Carlson, AZ Business & Education Coalition  
Debbie Cassano, AZ Academic Scholars  
Brandon Coakley, Williams & Associates  
Sharon Doyle, TUHSD Foundation, TIE Foundation  
Richard Hansen, Maricopa Community Colleges  
Garry Hays, EVIT  
Barbara Khalsa, Rio Salado Community College  
Linda Littell, Director, Communications, TUHSD  
Jerrod Longoria, ASU Student Government  
Kim Marrone, ASU, Educational Policy Specialist, Office of University Initiatives  
Mary Ann Miller, President/CEO, Tempe Chamber of Commerce

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Karen Poole, Maricopa County Community College District  
Karla Phillips, ASU, Director of State Relations  
Stephanie Salazar, ASU  
Dr. David Schauer, Superintendent, Kyrene School District  
Elaine Stover, ASU, Career Services  
Erin Sweeten, Maricopa Community Colleges, CWD  
Dr. Arthur Tate, Superintendent, Tempe Elementary School District

**Chair Shekerjian called the Technology portion of the meeting to order at 2:05 p.m.**

**Technology**

**Agenda Item #1 – Public Appearances**

None.

**Agenda Item #2 – IB Marketing Update**

Sheri Wakefield-Saenz summarized that staff has been working with Tempe High School to develop ways to help grow the IB Program.

- The program was established at Tempe High this past fall. Students enrolled for their classes in October/November of the previous year, and the program is actually occurring this fall at the high school. Students already in the classes and freshmen were selected from the AP courses to be part of the IB program.
- There are 24 students currently enrolled as freshmen, and so far there are 12 new enrollees for next year.
- The 24 students are primarily within the Tempe High School boundaries. The 12 new enrollees are primarily outside of the Tempe High boundaries. That is encouraging so far as community interest.
- Tempe High applied to the IB program for their status as an IB-certified program. It takes two years for certification, so by the time the current freshmen are juniors, the program will be certified.
- The teachers are already certified.
- The program is delivered free of charge to the students.
- Since this is a special program with special curricula, additional funding is necessary and this is where the City can help.

Councilmember Shekerjian clarified that there are two tracks: (1) a student can earn an IB diploma; and (2) a student can take an IB class individually and get a certificate for that particular class. The concept is to attract students from outside the boundaries to Tempe Union High School District, as well as serving those within the district.

Councilmember Carter reiterated that enrollment begins in February, not in the fall.

Ms. Wakefield-Saenz added that the IB program itself, generally, is primarily middle school and diploma/certificate track. It could be in the elementary schools as well.

Councilmember Shekerjian added that the Tempe Elementary School District strategic plan for 2009/2010 lists the start of their IB middle school program with the goal to feed into the Tempe

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High School District IB program. This is where the City can assist. The next step is to brainstorm ideas to draw on community businesses. The IB program can be part of the discussion of education in the community when prospective business owners are considering locating a business in Tempe.

**DIRECTION:** Education in the community should be added to the business program on the website.

**Agenda Item #3 – ASU/AMA Internship Fair Update**

Ms. Wakefield-Saenz summarized that the American Marketing Association (AMA) is a division of the business school at ASU. It is a student group that helps teach the principles of marketing, leadership, outreach to corporations, and exposure to the private sector for placement. AMA approached staff to investigate ways to help the organization. There are many businesses looking for skilled students coming out of the business college. A fair could provide value not only to the AMA membership, but also to the business community. They are targeting the event for this spring prior to graduation. She and Peter Hodgins, Chairman of the AMA student organization, will meet to further develop plans.

Councilmember Shekerjian added that this committee sees its job as being a facilitator for all students in trying to make connections. This is a perfect example. We hear from high school and college students that they are looking for internships, and we would like to be the link with the business community for that purpose.

**DIRECTION:** Staff to report back to the committee in January.

**Agenda Item #4 – Enterprise GIS System**

Loren Maxwell, IT Project Manager, provided an update on the Enterprise GIS System. The City has the TGIS for Engineering with engineering and water utilities mapped out. That system doesn't work well for the remainder of the City, however. This project was created to handle the special needs throughout the City. For any geographic piece of land in the City, everything could be viewed, from the physical (gas and sewer lines), to plat lines, political boundaries, and microwave.

- Operational server was created for all departments to have a work area large enough to handle all the data.
- Out of 17 departments, 14 to 15 departments are affected.
- Data layers include parcels, addresses, street centerlines, water assets and aerial photography.
- Water utilities had pulled all the utility information from EGIS and had been maintaining that on their own, but now that information can be brought in so that everyone can have access.

Councilmember Carter clarified that if every gas and cable line is identified, would this allow staff to get rid of blue stake.

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Mr. Maxwell responded that although we couldn't get rid of blue stake, rather than sending representatives out from Water, IT, and Public Works, only one person could go out with a laptop with all the maps.

Councilmember Shekerjian added that this saves department time and resources.

Mr. Maxwell continued.

- In the past, departments were building their own data layers that included the same information.
- This system will have the ability to extract, transform, and load data from the other systems (Banner, Hansen, Permits Plus, SIRE). Everything has an address and data cubes will allow combining data for faster processing and display.
- The main platform be done in 2008. The first application will be the land use, and will show how it is zoned, where the breakouts are, etc., and will flow right into the General Plan. It will show the number of permits per parcel, types, and planned projects, both internally and externally. It will also provide zoning history.
- Once the platform is developed, there are more than 100 department initiatives for use of this data, such as Front Counter application, neighborhood groups, planning of major City events, blue-lining, AVL and Routable Street Network, economic development and redevelopment, and conveyance network.
- Up to this point, the Water Department has funded this project with \$2M since 1995. The requested E-GIS CIP will be a 4-year program for a total of \$360K to cover the department initiatives.

Dr. Smith added that Economic Development sees no limits to what can be done with this software. What currently takes days to retrieve could be done in a matter of hours.

Councilmember Shekerjian asked if staff has looked at potential cost savings in terms of O&M budget for the future. This is a more efficient way to get more information. She also suggested looking at charging outside entities to use this data for cost recovery. There needs to be some way other departments can contribute some CIP money, as well, if they are going to use it.

Mr. Maxwell clarified that the system will cost \$100K for the first three years, and the fourth year would cost \$60K.

Councilmember Carter added that there currently is interaction between departments.

#### **Agenda Item #5 – Tempe Website Forum Update**

Michelle Gurrieri summarized that two sessions were held in October to gather input. The sessions were composed of Tempe residents, business people and students. Participants were given a scenario and asked to find information on the website without using a "search" option, but rather navigating the website.

The possible website changes suggested by the forum:

- Consistency between link titles and the page titles.
- Change the title "additional links" on each of the four home page menus to something that will draw more attention to that area.

- Some of the sub-menus on department pages need to be differentiated from the rest of the top menu bar.
- Add hover information to the buttons at the bottom of the homepage. The titles were not descriptive enough.
- On the “how do I...” page, make the sub-headings bolder and alphabetize the information under each section.
- Where it makes sense, alphabetize the information under each of the sub-headings.
- Expand the Goggle locator maps to every address on the website. Wherever there is an address to a city facility, there should also a link to a map.
- On individual sign-up pages for email subscriptions, add a link to other subscriptions.

Based on questions asked of participants, some specific page comments were:

- Graffiti should be included under neighborhoods and police as well as home and property.
- Change the page name from “household chemical collection” to “household products collection”, the actual name of the center.
- Add Spring Training directly under Recreation as well as under Diablo Stadium.
- Add a “complaint” option under neighborhoods. There are currently nuisance complaints and aviation noise complaints, but participants would rather see a complaint link for another page with all types of complaints.
- Add Tempe Tool Box under neighborhoods.
- Under Development, all of the development status graphs are outdated. Update page more often.
- On street closures page, list the information by date first.
- Add an ADOT link to the street closures page for freeway closures.

Councilmember Shekerjian asked if the issue of an automatic response for input has been generated.

Dave Kelley responded that the best way is to manually respond to input received, otherwise an automatic response does not verify that the input was actually received.

Councilmember Shekerjian added that it is important that an acknowledgement is sent, whether automatic or manual.

Dave Kelley added that at the bottom of each page there is a “contact email address.” In some cases, that is directed to a person in the department. If that person is out on vacation or leave, the response is sent to that effect, and that is not good. Now there are some generic email addresses which store the input in a folder where several people can monitor it.

Councilmember Shekerjian suggested repeating the sessions periodically.

Ms. Gurrieri added that a webinar (seminar on the web) is a possibility and will be considered in the future.

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**Agenda Item #8 – Future Agenda Items**

- AMA Internship Fair Update
- IB Update

**The Technology Advancement portion of the meeting was adjourned at 2:50 p.m.**

**Chair Shekerjian called the Education portion of the meeting to order at 3:00 p.m.**

**EDUCATION**

**Agenda Item #1 – Public Appearances**

None.

Rosa Inchausti introduced Karl Stephens, ADA Accessibility Specialist, whose function will be to staff the Commission on Disability Concerns and to work on opportunities to make the community more accessible, not just for the disabled, but for everyone.

Karl Stephens summarized his career highlights and urged everyone to use him as a resource for any disability issues.

**Agenda Item #2 – Approval of Minutes for November Meeting**

Councilmember Shekerjian noted that on page 5, in Item #4, the first sentence should be changed to read, "...and the City of Tempe discussed hosting a Career/Education Fair..." She read the following email from Amanda Burke into the record.

For Item #4, at the time of the last meeting, we were still exploring the possibility of hosting the career/education fair at Wells Fargo Arena. The minutes as they currently read reflect that it would be there, so if we could modify that it would be appreciated. ..."

She further noted that Amanda Burke was listed as representing MCC, and it should be ASU, Associate Director of the Office of University Initiatives.

Councilmember Carter also asked that Alex Smith be listed as "Dr. Alex Smith."

Councilmember Carter made a motion to approve the Minutes as corrected. Second by Councilmember Shekerjian. The motion passed.

**Agenda Item #3 – Technology-based Educational Best Practices**

Dr. Alex Smith summarized that technology-based education best practices was discussed during the Technology portion of the meeting in the past, but today it is part of the Education portion. He distributed a study entitled "Into the Eye of the Storm, Assessing the Evidence on

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Science and Engineering Education, Quality and Workforce Demand” by the Urban Institute and Georgetown University and provided a PowerPoint presentation.

Several high-level committees have concluded America’s global science and engineering (S&E) leadership is being threatened, citing decline in supply of high quality students, declining emphasis on math and science education, declining interest among domestic students in S&E careers, and performance on international tests. However, these appear to be anecdotal and not based on statistics. The aforementioned study reveals the following statistics:

- Coursetaking
  - Percent of students who finish a high school degree increased from 83% in 1972 to 87% in 2004.
  - High school students’ exposure to science and math has increased over time.
- International Mathematics and Science Study (TIMSS) revealed:
  - U.S. performs above international average with rank-orders between 5<sup>th</sup> and 12<sup>th</sup>.
  - Rankings fail to indicate statistical significance/extent of differences; no statistical difference between 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> ranked U.S.
  - 4<sup>th</sup> grade science (2003), U.S. ranked 5<sup>th</sup>, but only Singapore and Japan had statistically significantly higher scores.
  - Although U.S. is behind Hungary in 8<sup>th</sup> grade science, Hungary had significant decline in performance, and U.S. had improvement in performance.
  - Little consistency in performance or ranking among leading non-Asian nations.
- Programme for International Student Assessment (PISA)
  - Focuses on real life/applied knowledge of 15-year-olds.
  - Test results were biased by sampling, i.e. Germany excluded special needs students, and with different age/grade structure, delta between one school year corresponds to average of 41 points on mathematics scale.
  - Impact of single-parent homes – U.S. rate is 2-3 times that of the countries with highest scores, with average gap of 18 points.
  - Demographics – percentages of native speakers and immigration policy influences scores.
- S&E Pipeline
  - Continuity in number of college freshmen interested in entering an S&E major has been level (35% in 1983 and 33% in 2004).
  - Slightly less than one-third of American undergraduates finish an S&E degree.
- Are there enough S&E graduates?
  - S&E workforce totals about 4.8M
  - S&E employment of S&E graduates is consistent one-third of S&E graduates
  - Net change in S&E employment ran approximately 150,000 annually.
- Low rate of S&E retention
  - 1-2 years after graduation, 20% of S&E bachelor’s are in school, but not in S&E studies; 45% are working but in non-S&E jobs
  - 1-2 years after graduation, 7% of S&E master’s graduates are enrolled in school but not in S&E studies; 31% are working but in non-S&E employment.
- GPA is not a factor in attrition
- Problems hiring vs. number of qualified candidates
  - Real wages in S&E declined over past two decades, indicators suggest little shortage.
  - Little future in entry-level engineering jobs in many industries.

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- Difficult to fill mid-level and higher-level positions from inexperienced workforce that never had entry-level position.
  - Study Results
    - Data indicate increases in absolute numbers of secondary school graduates and increases in math and science performance levels.
    - Domestic and international trends suggest that U.S. schools show steady improvement in math and science.
    - U.S. is not at any particular disadvantage compared with most nations.
    - Supply of S&E-qualified graduates is large and ranks among best internationally.
    - Number of undergraduates completed S&E studies has grown.
    - S&E occupations make up only 1/20 of all workers.
    - Each year there are more than three times as many S&E four-year college graduates as S&E job openings.
    - There is a need for targeted education policy to focus on populations in lower portion of performance distributions.
    - Understanding why the demand side fails to induce more graduates into S&E workforce.
    - Public and private investment should be balanced between domestic development of S&E workforce supply and global collaboration as longer-term goal.

Dr. Smith added that the authors note that there will be specific needs that aren't accounted for in the data, and their suggestion is to focus on the specific needs. Other reports are saying to push through more volume.

Councilmember Shekerjian stated that this committee will be looking to help create internships and counseling.

#### **Agenda Item #4 – Career/Education Fair Update**

Karen Poole summarized that there will be a Career/Education Expo on November 15, 2008 with a back-up date of November 8<sup>th</sup>. It is scheduled to be held at the Mesa Convention Center. She and Councilmember Shekerjian met with the Principal of Tempe High School to discuss the opportunity for a one-stop career center and a workshop related to career pathways. She will be visiting the Gilbert one-stop career center in January and if anyone is interested in going along, they should let her know or email Sheri Partridge. It is an opportunity to learn about the services they provide.

Councilmember Shekerjian added that she thought this was information the superintendents might want in terms of working with parents. The one-stop centers are incredible in terms of helping with career counseling for adults, as well as high school students. Lynette Stonefeld might want to work with MCC on providing that kind of information. Dr. Art Tate and Dr. David Schauer work with parents, as well. It would be good information for students and parents at other high schools as well.

Councilmember Carter suggested that Linda Littell might also get that information to the night schools and to Compadre as well.

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Ms. Poole added that the workshop will be available on line at MCC's one-stop connection.

Richard Hansen, MCC Center for Workforce Development, summarized that about a year ago Maricopa Community College released a study that focused on the current state of advanced manufacturing, and found that the greater Phoenix area has an opportunity to lose its competitive economic edge if the needs of technicians in advanced manufacturing cannot be fulfilled. Their strategy is a three-tier initiative:

- Tier 1 – getting individuals into jobs available today
- Tier 2 – get into the high schools and talk about careers in advanced manufacturing
- Tier 3 – building a foundation

Erin Sweeten, MCC Center for Workforce Development, summarized the High Tech Workforce Initiative (HTWI).

- They are working with high schools to get people into community college technician-level training for technician careers. At the community college level, the programs for this training are struggling in attracting people to that type of training and career. They are working on curriculum and factory development for the technician program faculty.
- They want to make sure they are up to date and their faculty can go out and work with the companies.
- They also have a recruitment specialist to do outreach in the community and schools.
- They are partnering with high school districts and schools to come to career fairs, classes, and help students make the connection between what they are studying in school and what they could do later in life.
- High Tech University is a program through a partnership with Maricopa Advanced Technology and Education Sector to conduct technology camps for tenth graders.
- In addition, they work with industry. They always try to take someone along who is actually doing the work and can speak about the work environment, opportunities and career path. Staff can come out to career fairs by contacting Richard Hansen.

Councilmember Shekerjian asked if they are doing anything for eighth grade students.

Ms. Sweeten responded that they have only one person dedicated to recruiting for all age groups, so they have to pick and choose.

Councilmember Shekerjian suggested speaking with Dr. Tate or Dr. Schauer about piloting something for eighth graders.

Ms. Sweeten added that for the future, they would like to expand the factory development program so that science and math teachers could come along with them and work with curriculum. They would like to do a marketing campaign aimed at 18 to 25 year-olds to show there are many different things to do in this field. Many companies have ideas of how they would like to reach out to high schools with internships.

#### **Agenda Item #5 – Treasures 4 Teachers**

Barbara Blalock, Executive Director of Treasures 4 Teachers, summarized that this is a non-profit organization that provides materials for teachers to use in their classrooms:

- Teachers spend \$400 to \$500 per year out of their own pockets.

- The organization is trying to protect the environment by providing environmentally-friendly goods.
- Their facility has been outgrown and they need a 10,000 sq. ft. warehouse.
- They need volunteers.
- They need donations of leftover materials from businesses.

Councilmember Shekerjian asked Mary Ann Miller to assist in connecting with businesses to find leftover materials. She wanted to expose the superintendents and district personnel to this resource for their teachers, and to expose business partners to the opportunity to send materials. There might be some crossover with ASU and MCC.

Ms. Blalock added that this is a membership-based organization to make sure all materials go to teachers and it is open to any teacher. Membership is \$50 per year or \$250 for 10 teachers. The cost is \$5 per bag of items. Anyone who works directly with children, such as church Sunday Schools, Boy or Girl Scouts, City enrichment programs, etc., can also join. They are open only by appointment because they are completely volunteer-based.

#### **Agenda Item #6 – Tempe 11 Partnership Possibilities**

Continued to the next meeting.

#### **Agenda Item #7 – Bridges Update**

Tom Canasi summarized that this is a skill-based learning program designed to increase the academic performance of elementary school children. Staff has been working with consultants and all the supervisors for the program toured a lab at the Garcia School. There are still some questions that need to be answered. In January, they will look at a program operating in a classroom. ASU is also doing a research study on one of those for academic performance and staff will follow up on the results. If the program moves forward, it would be scheduled for the fall of 2008, and it would be piloted at one school. Those children's academic performance would be tracked. A lot of progress has been made, and staff will return with another update in January or February.

Councilmember Shekerjian added that Bridges also has a summer program aimed at remediation of cognition.

#### **Agenda Item #8 – Use of Arts Grant**

Tom Canasi summarized that \$50K has been received from the Salt River Pima Maricopa Indian Community to facilitate programming in three areas regarding arts in schools. The program has three different components:

1. "Music Under the Stars" is designed to give students a chance to perform in a public setting. Desert Vista High School Band, Corona del Sol High School Band, Arizona Academy of Performing Arts and the Arizona Wind Symphony will participate. The performance is scheduled for the Arts Park Amphitheater on Friday, April 18, from 7-9 p.m. Each group will perform independently and then all four will come together for a finale performance. The SRP-MIC will be invited to participate and possibly have dancers as well. Details are still being developed.

2. "Youth Wind Ensemble" is designed to encourage middle school children to continue their involvement in music when they transition to high school. High school mentors will meet once a week for six weeks with a middle school student in preparation for a joint concert. Rehearsals are scheduled from 4–6:00 p.m. in the Lakeside Room of the TCA on March 17, 24, 31 and April 7. A dress rehearsal will be held on April 14, with a culminating performance in the main theater on April 16 at 7 p.m. Transportation will be provided for the middle school students.
3. "Building Art Skills" is designed to expose elementary age children to the arts and teach specific skills related to visual arts. A similar project-based program currently exists for fifth and sixth graders and this grant will expand the project to third graders with a focus on skill building for the visual arts. Details will be finalized in the next few months and the program will begin in the fall.

Councilmember Shekerjian added that the City was very fortunate to be invited to apply for the grant and Mr. Canasi's group worked very hard to secure the \$50K.

#### **Agenda Item #9 – Battery Recycling Program Update**

Discussion was continued to the next meeting. Councilmember Shekerjian added that Barbara Khalsa had emailed information on Rio Salado Community College's program using a private company to pick up the batteries.

#### **Agenda Item #10 – Scope of Work Additions**

Shelley Hearn summarized the following additions to the Committee's Scope of Work based on the Mayor's Youth Advisory Commission's recommendations.

- Alcohol prevention program
- Shoplifting and theft awareness
- Internet safety for youth

#### **Agenda Item #11 – Announcements**

Lynette Stonefeld announced that recruitment is being held for the Tempe Youth Showcase which will be held on April 12<sup>th</sup> from 1-3:00 p.m. at the TCA. Applicants must be high school students. She also distributed a Tempe Youth Trends brochure which features demographic factors. Information is also available on their website at [www.tempe.gov/tcc](http://www.tempe.gov/tcc).

Shelley Hearn announced that the January Committee meeting will be moved to January 15<sup>th</sup>. After that, the schedule will return to the first Tuesday of each month.

#### **Agenda Item #12 – Future Agenda Items**

None.

**Meeting adjourned at 4:20 p.m.**

Prepared by: Connie Krosschell  
Reviewed by: Shelley Hearn

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Jan Hort  
City Clerk