

## **APPENDIX C**

### **TREND ANALYSIS**

**GROSSMONT COLLEGE  
TREND STATEMENTS AND THEIR IMPLICATIONS**

**Political and Economic Trend Statement:**

The current Political and Economic events, circumstances, solutions and the opinions addressing same are unprecedented in terms of scope, trust and duration. The potential and actual impact on Grossmont College, its immediate adjacent communities and the State of California have yet to be determined or fully realized. The time intervals during which the *Questions* Grossmont College should ask itself as to the relevance of its Strategic Plan are short- at this time. This is due to the unpredictability of the results of massive Governmental stimulus in addressing the domestic and global economic conditions and the target sector responses.

**Implications for the Community:**

- 1) The American Economy is experiencing severe challenges-recession- reflecting decreased employment, production, sector spending (Housing/consumer and business, exports). Following extensive Monetary Policy efforts, this slowdown has resulted in unprecedented Government spending, taxing policy shifts, business capitalization reductions and the introduction of the American Recovery & Reinvestment Act (ARRA). Stabilization timelines are unknown. Economic regenerative results by sectors are unknown.
- 2) The State of California unemployment statistics are above the National average. How California will benefit from the ARRA, its own 2 year budget and internal recovery efforts are undefined as to programs/projects and unknown as to results at this time.
- 3) Grossmont College's Adjacent Communities/Cities and the County of San Diego have pressing needs so as to continue their primary Missions given their dependence on Sales and Property taxes. Unfunded mandates and critical reductions in local small business sales; major sector spending- military, tourism/entertainment, construction/development, medical/research- remain unknown for the short run and long run.
- 4) Despite Control of the National Government by one political party, it is too early to determine if that remains beyond the next election. Economic performance trends/results need to be established as the ARRA plan goes into effect to see any potential political trends.
- 5) Domestic Taxing policy changes, Congressional involvement and actual impacts remain to be implemented or experienced. The tax change effects on spending/buying, small business/ corporate hiring/personnel retention and philanthropy/ charitable giving levels are unknown and undeterminable.
- 6) With the military troop reductions in Iraq and potential reduction in overall military staffing levels, more returning personnel may avail themselves of the school benefits and seek to enroll in our College. Are there specific courses/certificated programs that will be a focus?
- 7) From the Grossmont College perspective, as the following 12 questions are asked every 4 months (until trends are evident):
  - A) How is the regional Unemployment Rate trending? Locally and within the State?
  - B) What aspects of the ARRA have been placed into action? Results?
  - C) What is the current status of Federal Tax policy change and implementation?
  - D) What is the current rate of inflation? Trend?

- E) What issues is the local Chamber of Commerce reporting?
- F) What is the trend for Local Sales and Property Tax receipts?
- G) Have the assessed property values increased?
- H) Are the adjacent Cities/County balancing their budgets?
- I) Has the State of California adopted its budget on time? Balanced? How so?
- J) What is the budget trend for our College?
- K) What are the actual results of Giving-internal and external sources- to the College?
- L) New question to be added to be asked?

### **Implications for district-wide Workforce Development:**

What key College concerns or anticipated impacts are evident from the answers/analysis process involving the evolving Trends and 12 question *every four months* exercise in # 7 above as to:

- a) The Role/Mission of Grossmont College?
- b) The effect on current and next year's Enrollment?
- c) The effect on Tuition and Fees?
- d) An effect on student class selection and preferences?
- e) An effect on curriculum and certificate relevance?
- f) Any expectation for any increases in faculty/staff retirements?
- g) An effect on attracting/retaining Faculty and Staff?
- h) Any expectations for hiring freezes or other shifts in employee policies.
- i) What effect on Student Services to select student groups?
- j) What effect on faculty/staff training?
- k) What effect on Physical Facilities?
- l) What effect on philanthropy/ Community support?
- m) Any change in *political* climate amongst Faculty and Staff?
- n) What resulting employee Union response or positioning?
- o) What are the GCCCD responses, recommendations and Governing Board Action(s) to date?
- p) What is the Scan reviewing team's current worst fear or concern?
- q) What positives for the college are seen and is the College exploiting them to its advantage?

<b>Education and Competition Trend Statement</b>
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**Over-arching Statement about Education Trends:** The number of students seeking courses and programs for re-training and general learning opportunities that are compatible with and meets their work, family and social obligations is increasing. This trend will continue for the next three to five years.

**Education Trend #1. The number of students needing basic courses, English language skills and employment readiness is increasing. This trend will continue for the next three to five years.**

1. Basic skills emphasis
  - Due to increased levels of immigration, **GC needs to focus on programs that address the needs of students who have little or no formal education** – with the infusion of over 30,000 Chaldean and Kurdish refugees settling in San Diego

County, Grossmont College will need to focus on non-credit and basic skills courses in an effort to increase student success and persistence rates. Many refugees arrive here from war-torn countries and need very basic instruction in language acquisition and survival skills in order to function in this country.

2. VESL Curriculum and Career Technical Programs
  - a. **The increase of immigrant/refugee students and returning students leads to a need for VESL curriculum and career technical programs** – immigrant, refugee and returning students often need to acquire basic workplace skills that will assist them in obtaining entry level jobs and earning a living as they attempt to find their way in a new country and/or a new career. Vocational English as a Second Language Curriculum is a critical need for the population of refugee immigrants. Career technical programs that allow this population of students to move in to an entry level job after only two or three years of English and/or job-skill training would be the most effective assistance
  - b. **There is the need for effective assessment and placement practices that are system-wide** – proper assessment and placement of students must be reflective of students' primary language and cultural skills. Students who are native English speakers and those who are non-native English speakers have differing needs and abilities. English assessments should carefully identify those students who would benefit from an ESL placement
  - c. It is important that Grossmont College **provides skilled interpreters for immigrants and returning students as they attempt to obtain services such as counseling, financial aid, disability services, and admissions assistance.** Without a clear understanding of the services available to these non-native speakers, they may be become discouraged and abandon their educational goals

**Education Trend #2. There is a need for greater articulation and alignment agreements with high schools and 4-year institutions that facilitate a seamless transition as students move from level to level. This trend will continue for the next three to five years.**

**Implications for district-wide Workforce Development:**

As the UC and CSU system raise their entrance requirements in an effort to reduce enrollments, the community colleges are being relied on more and more to **provide basic skills development and lower division coursework** to students hoping to enter the university system.

**Implications for the Community:**

1. Programs such as CalPASS, Tech-Prep, and East County Education Network (ECEN) provide avenues in the effort to develop seamless transitions for students as they move from high schools to community colleges to 4-year institutions (High School to Community College Nov 08, EdSource Inc). It is important to **strengthen K-12 and community linkages.**

- Cal-Pass
- East County Education Network
- GEAR-UP Program
- Career Pathways with GUHSD
- Alignment of standards, curriculum and assessments
- Workforce development

2. Grants from various federal and state agencies **require formulation of community partnerships** with local education agencies as well as private organizations and businesses. Future of K-12 outreach may require this form of partnership.
3. **Alignment of content** is necessary because NCLB has fragmented grade band level standards so bridging to subsequent years becoming increasingly fragmented and inconsistent.
4. **Articulation** will become even more pronounced as state budget cuts cause 4 year universities to cut enrollment thus forcing more students toward community college. Articulation may also impact need for basic skills.
  - a. **Enhance collaboration and partnerships** already in place. **Develop new agreements** to increase student transfer to 4-year institutions of higher education.
  - b. **Streamline requirements** through articulation agreements which facilitate student's ability to achieve university transfer goals.
  - c. **Disburse information and guidance to students through a variety of delivery systems** that involves both student services and instructional faculty initiatives. Identify programs to assist students in **identifying specific and focused goals**.
  - d. Address the need to **re-institute the University Studies Degree**. Students often transfer with units well beyond those needed for lower-division major preparation and general education.

**Education Trend #3. As more Net Generation students with backgrounds in technology explore continued education, the need for a balanced use of technology-enhanced learning opportunities is increasing. This trend will continue for the next three to five years.**

**Implications for the Community:**

1. Distance learning offers convenience for some learners, especially non-traditional students such as deployed troops in Iraq and Afghanistan.
2. Faculty, both online and on ground, will benefit through the development of communication tools available from systems such as Blackboard.
3. Competition from private universities offering associate degrees should not be much of an issue due to the more affordable tuition offered by the community colleges. However it will be important to provide thorough marketing that conveys cost factors. On-line programs and opportunities continue to evolve.

**Implications for district-wide Workforce Development:**

1. Competition for students in our nearby communities, from community colleges throughout the state, will likely grow because of our mutually inexpensive tuition and the "distance" part of the formula. It's difficult to predict a net gain or net loss over the next three to five years.
2. Developing college-wide budgets might be more challenging in the years to come since we will quite possibly be less able to depend on local high school/community

demographics when planning, due to the impact of distance learning programs from community colleges out of our area.

3. The campus must **budget for faculty training and technology upgrades** over the next three to five years.
4. Online cheating by students will be more of an issue as attendance grows in our distance learning sections.

#### **Education Trend #4. Economic slowdowns result in record levels of enrollments.**

##### **Implications for the Community and district-wide Workforce Development:**

1. **Focus on career and occupational programs** for the next three to five years.
2. **Continue to serve special populations including immigrants, veterans and basic skills students.** These students will be the highest need students and will require vast resources. Strategic planning to serve these students will produce better outcomes and services for the inevitability of these students trying to access college.
3. **Continue to anticipate and plan for overflow from universities** due to state budget deficits impacting 4 year universities and their ability to accept students.
4. **Review general education and major requirements.** Ascertain that all courses are relevant to current needs and that students are retained able to earn degrees within-in time factors.

#### **Education Trend #5. More students will be prepared and looking for college programs that align with robust and rigorous high school Programs of Study based on The High School Reform Movement: Focus on Career-Technical Education.**

1. Need for **alignment efforts in math and English** (currently underway with Cal-PASS)
2. **Examine correspondence** between high school level completed and assessment results
3. **Modify assessment methods** to better align with content expectations
4. **Align** efforts with Basic Skills Initiative

## Energy and Transportation Trend Statement

### Energy and Transportation Background

**The demand for energy in California will continue to rise over the next three to five years, along with the cost to consumers.** The federal and state governments have now mandated that utilities supply a portion of their energy from renewable sources, including solar, wind, and geothermal sources. Opportunities exist to develop electricity co-generation capabilities in partnership with local utilities to reduce the cost of electricity. New industries will develop and/or expand to meet the needs of this new market, requiring new training programs.

1. San Diego Gas and Electric (SDG&E) must increase their power purchases from renewable sources to 20% by 2017.
  - a. Partnerships to develop solar electricity generation exist through SDG&E, Chevron, and Honeywell could be researched.
  - b. No capital outlay is required by the college in establishing some of these co-generation models.
  - c. Electricity purchased by the college would be discounted based upon participation in a co-generation partnership.

The cost of electricity and other utilities for Grossmont College exceeds \$1.4 million per year. Co-generation using solar panels on parking structures or parking lots would positively impact the college's cost of utilities over the next ten years.

2. Population growth in California will drive energy demands higher, therefore electricity and other utilities will become more expensive.
  - a. Grant funding may be available for alternate energy development through independent operator utilities (IOU's), collaboratives, and partnerships.
  - b. SB 1250 reauthorized renewable energy incentive programs that could impact transportation, building design, and transmission or distribution of electricity.
  - c. Alternate energy technologies include solar, wind, geothermal, wave and biomass.

The development of alternate energy technologies is made economically feasible through government grants and subsidies that encourage research and development along with the establishment of collaboratives. Such research and development may reduce the cost of utilities to participants.

3. The development of alternate energy technologies will drive creation of new academic curriculum to support emerging industries, addressing new skills and jobs.
  - a. Degrees and certificates that address alternate energy, including solar, geothermal, wind, biofuel, wave power, hydrino power, charged cluster, permanent magnets, and zero point energy will produce high or steady incomes in the near future.

- b. Active education fields of the future will include “conservation engineers” and technologists with expertise in conserving natural resources.

Colleges and universities must develop new academic programs to deal with global climate change and diminishing natural resources. These degree and certificate programs will help our global economy recover as an environmental revolution becomes a reality.

### **Trend Statement 1: Energy Research and Development**

**Opportunities exist for research and development in alternate fuels technology, as well as new forms of electricity production. New industries will develop and/or expand to meet the needs of this new market. This trend will start slowly and persist for the next 10 years.**

#### **Implications for the Community:**

1. Grants and partnerships will facilitate develop of new fuels, motor technologies, and electricity generation technologies.
2. Business and industry will require new categories of engineers, assemblers, installers, and maintenance staff.
3. New industries may need to partner with local colleges and universities.
4. Opportunities exist to develop co-generation of electrical energy at businesses, homes, and schools.

#### **Implications for Grossmont College:**

1. Potential exists for reduction in utility bills resulting from participation with utility companies in efficiency projects and solar co-generation partnerships.
2. Development of alternate fuel technologies and alternate electrical energy solutions will drive the creation of new academic programs.
3. New capital equipment will be needed to support emerging academic and vocational programs.
4. Laboratory space will be designed and designated to serve the needs of new training programs.
5. Internships in alternate fuel technologies and electrical generation / transmission / distribution will need to be contracted.

### **Trend Statement 2: Energy Policy**

**Local, state and federal agencies are using changes in policy and regulations to promote and enforce energy and water conservation methods. These policy changes also mandate the percentage of renewable energy that local utilities must provide to their customers. Public sentiment, support of green energy strategies and an increase in government subsidies will continue to drive these policies.**

#### **Community Implications**

1. Increase in renewable energy percentages within the next three to 5 years will cause the cost of energy for the community to rise. SDG&E will struggle with meeting the mandated renewable energy percentage requirements.
2. Renewable energy requirements will cause an increase in the number of incentives and tax credits available for local businesses and community members to install photovoltaic panels, and other renewable energy strategies.



3. Federal and State governments will increase tax incentives, and provide funding for energy efficiency projects. This investment will lead to increased research, construction and renovation spending which will create employment opportunities within this niche.
4. Increased demand will create local employment opportunities for electricians, trades people, and electrical engineers

### **Impacts on Grossmont College**

1. Grossmont College will be required to implement the mandates from the state and community college system. These changes will increase energy efficiency and lower operating costs but will increase the cost of construction. Grossmont College and the District need to be vigilant as these policies are crafted to monitor impacts and prepare implementation strategies.
2. Cost of electrical power will continue to rise as the cost of implementing the renewable energy policies through incentive programs, rebates, and construction of transmission lines to tap renewable energy sources outside the city is passed on to the utility customer. The college will be forced to reduce power consumption or augment the utility budget thus reducing funding to campus programs and services. Renewable energy projects will be required to be designed and implemented on the college campus.
3. The cost of water will increase as drought conditions continue, which will increase water conservation incentive programs. The College will be forced to reduce water consumption or augment the water utility budget thus reducing funding to campus programs and services. Water conservation projects will be required to be designed and implemented to meet current and future water restrictions.
4. Xeriscape, drought tolerant horticulture classes, and instructional segments blended into botany and biology classes will gain in popularity and demand.
5. Green energy and other alternate energy source engineering and technical classes or thematic threads within courses will be required. Grossmont College facilities, if designed correctly, could be used as part of the educational curriculum, and be a model for the community.

### **Trend Statement 3: Alternate Fuels**

**Alternate fuel technology, development, and implementation will be a growing industry. Research and development of biodiesel, hydrogen fuel cells, and electric vehicle technologies will become an increasing part of automotive and transportation industry. Government subsidies and rising fuel costs will push this technology and its use to the forefront. State legislation requiring tighter emission standards, lowered greenhouse gas emissions, and reduced carbon intensity of passenger vehicle fuels will make California a leader in clean tech investment, and attract private investment in these industries.**

### **Community Implications**

1. State and Federal tax subsidies in conjunction with increased fossil fuel costs will push the research, development and implementation of alternate fuels industry.
2. Multiple technologies are competing for dominance. Community will have a choice of alternatives. Cost of hybrid, electric, and alternative fuels vehicles will decrease as technology improves and market competition increases.
3. Industry will require a workforce trained to research, service and support the alternative fuels industry.

### **Impacts on Grossmont College**

1. In the short term research and development opportunities will increase.
2. Partnerships with four-year institutions such as SDSU that are currently involved in the research and production of these fuels could be forged. Linkages with educational program could be developed to provide career pathways.
3. Programs to meet the increased demand for bio-engineers, electrical engineer and other technical trades will be required.

### **Trend Statement 4: Human Energy**

**America's other energy crisis is excess human energy consumption (obesity) which has reached epidemic proportions (doubled in adults and tripled for children since 1980) irrespective of age, sex, race, ethnicity, socioeconomic status, education level, or geographic region. One of several health indicators, obesity causes a myriad of health problems. The trend of excess human energy will continue to increase over the next 3-5 years, and will continue to have a major impact.**

### **Community Implications:**

1. San Diego County health statistics indicate that East County residents have the highest rate in the county for several chronic diseases (ie, coronary heart disease, diabetes, COPD)
2. Increased cost for treating these conditions – healthcare system, employers, insurers
3. More public health initiatives are beginning to focus (marketing, services, programs) on physical inactivity and poor eating habits which are the causes of obesity.
4. Increased populations of non-English speakers are less likely to be educated about the causes & effects of obesity
5. Employers are investing in health promotion and disease prevention efforts to help lower healthcare costs; employees see worksite wellness programs as a benefit which aids in recruiting efforts
6. Healthcare jobs will continue to grow; medical model is shifting from treatment-based to prevention-based, which will require additional training

### **Impact on Grossmont College:**

1. The demand for obesity prevention and treatment will drive interest in new academic curriculum to support jobs, as well as continuing education for existing disciplines.
  - a. Degrees and certificates that address prevention (ie, Fitness Specialist Certificate; AS Degree), treatment (ie, nursing, OT), and that provide for entry-level jobs
  - b. As the CSU system receives less funding, more lower-division coursework for majors will be funneled to community colleges. Improved communication regarding curriculum issues must occur
  - c. Opportunities for industry partnerships in community-based obesity initiatives will increase
2. Educational institutions are increasingly pressured to take a stronger role in addressing obesity prevention.
  - a. California now has Content Standards in both Physical Education and Health at the K-12 level
  - b. Several CSU's are requiring 1-2 units in physical activity classes for graduation (this trend will increase across the state)

- c. All California credentialed K-12 teachers are required to take a Health Education class – there is and will continue to be a demand for this class
  - d. Increased research documenting the relationship between academic performance and physical fitness will continue, and will pressure educational institutions to provide for and encourage fitness/health skills
3. Worksite wellness programs will continue to grow as more employees (faculty/staff) are interested in benefits that address obesity prevention and treatment.
- a. Increased interest/demand for healthy food options on campus
  - b. Increased demand for physical activity classes/information
  - c. Increased demand for weight management programs
  - d. Data collection on the impact of obesity prevention/treatment will assist in health care cost-containment at the district level

## **Sustainability, Transportation, and Green Technology Trends**

Federal and state governments are mandating the use of green technologies and implementation of sustainable environmental changes in new building design, the retrofit of existing buildings, and reducing the overall carbon footprint of society. Green jobs are emerging as new industries are formed to support these initiatives and will continue as a trend for at least the next 3-5 years.

### **Trend Statement 5: Sustainability and Green Technology**

**Opportunities exist for implementation of green technologies and educational programs, as well as sustainable building design and enhancement. New industries will develop and/or expand to meet the needs of this new market. This trend will persist for at least the next 3-5 years.**

#### **Implications for the Community:**

1. Grants and partnerships will facilitate development of green technologies.
2. Business and industry will require new categories of employees to address sustainability and green industries.
3. New industries may partner with local colleges and universities for research and development.
4. Opportunities exist to develop green communities, businesses, and schools.

#### **Implications for Grossmont College:**

1. Potential exists for reduction in energy consumption, water utilization, and waste production.
2. Development of green industries and environmentally sustainable buildings will drive creation of new academic programs.
3. Internships in green industries and sustainable design will result from partnering with local businesses.

### **Trend Statement 6: Local Transportation**

**Regional growth is anticipated at 32% (approximately 1 million residents) resulting in increased demand in housing (290K), new jobs (500k) primarily in the relatively**

**low-paying services sector, and reliable cost-effective means of transportation. More people will have to commit to interregional commuting (local jobs, yet live in more affordable outlying areas) using modes other than single-driver automobiles as well as alternative vehicles (ie plug-in). This trend will have an increasingly major impact on both the community and the college over the next 3-5 years.**

**Community Implications:**

1. City planning will be driven by smart growth development to ease situations such as increased traffic congestion, the need to live close to work (centralize city resources), and/or live close to effective public transportation systems.
2. Public transportation routes will need to connect farther outlying areas to more central locations.
3. Increased demand for public transportation is hampered by budget cuts and less mass transit subsidies – creative solutions are necessary
4. Employer and City emphasis on alternative modes of public transportation (van-pooling, carpooling, bicycling, bus, ridesharing)
5. Public institutions (ie colleges) are expected to serve as role models in alternative transportation, and resources for workforce training to meet local needs
6. Longer commute times can affect employee productivity, flexibility and morale
7. There may be a decreased sense of community if the only tie to the community is their job

**Impact on Grossmont College:**

1. Increased population would likely lead to a similar increase in our college population – employees and students
  - a. Increased population will require expanded facilities (classroom and lab space) to serve needs
  - b. Satellite campuses to offer classes in outlying areas or in central areas off-campus
  - c. As the transportation gap widens (i.e., fewer bus routes), more students/staff will require more time to get to/from campus which may hinder completion of a semester or reduce overall enrollment (and possibly affect employees with commute issues)
2. Develop solutions to accommodate and encourage alternate forms of transportation
  - a. Possible link to several curricular areas involve increased professional development
  - b. Use of plug-in vehicles will increase with approval of tax-credits
3. Increased demand for skilled workers in relatively low-paying services sector; demand for education/training in these areas
  - a. New certificate programs in alternative transportation technologies
  - b. New faculty/ staff and services would then be required
4. Opportunities for partnering with local industry in alternative transportation technologies (several other community colleges are models)

### **Technology Trend Statement:**

Net Geners or Digital Natives are the up and coming generation of learners who have grown up with technology. We will move with them, from the Digital Age to the Conceptual Age where workers will need to use the right side of their brain or creative side in order to compete in the global economy. Social networking and push/pull information will be enhanced to a greater extent when cell phone use merge into micro-computing technologies. This trend will continue for the next three to five years.

### **College Implications:**

- Incorporating web 2.0 technology into mainstream/distance instruction;
- Real-time learning environments with ability to confer, experiment, and learn with students, scholars, and instructors worldwide in an instant;
- Need to integrate Smart Phone technologies into the classroom as this is an integral tool in people's lives (podcasting);
- Social Networking is both professional and personal and provides an alternate form of communication which colleges need to embrace;
- Media streaming is becoming a mainstream service in commerce and students will be expecting it in education;
- Security assurance for information sent through and from mobile devices;

“Personal web” which represents a collection of technologies used to configure and manage websites to suit individual professional and educational needs (includes social networking, media, etc.